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EDITOR'S LETTER

Dear Readers,

Welcome to the fourth issue of Rare & Unique Vehicles. We are celebrating our first anniversary. What started out as a one-man show last September has now turned into a chorus: we now have an Editorial Board, comprising David Cooper, our new Associate Editor, as well as Tony Paalman and yours truly. Our aim continues to be a very different magazine, filled with scholarly and serious articles on the unusual and astounding cars and vehicles that have been built over the last 140+ years.

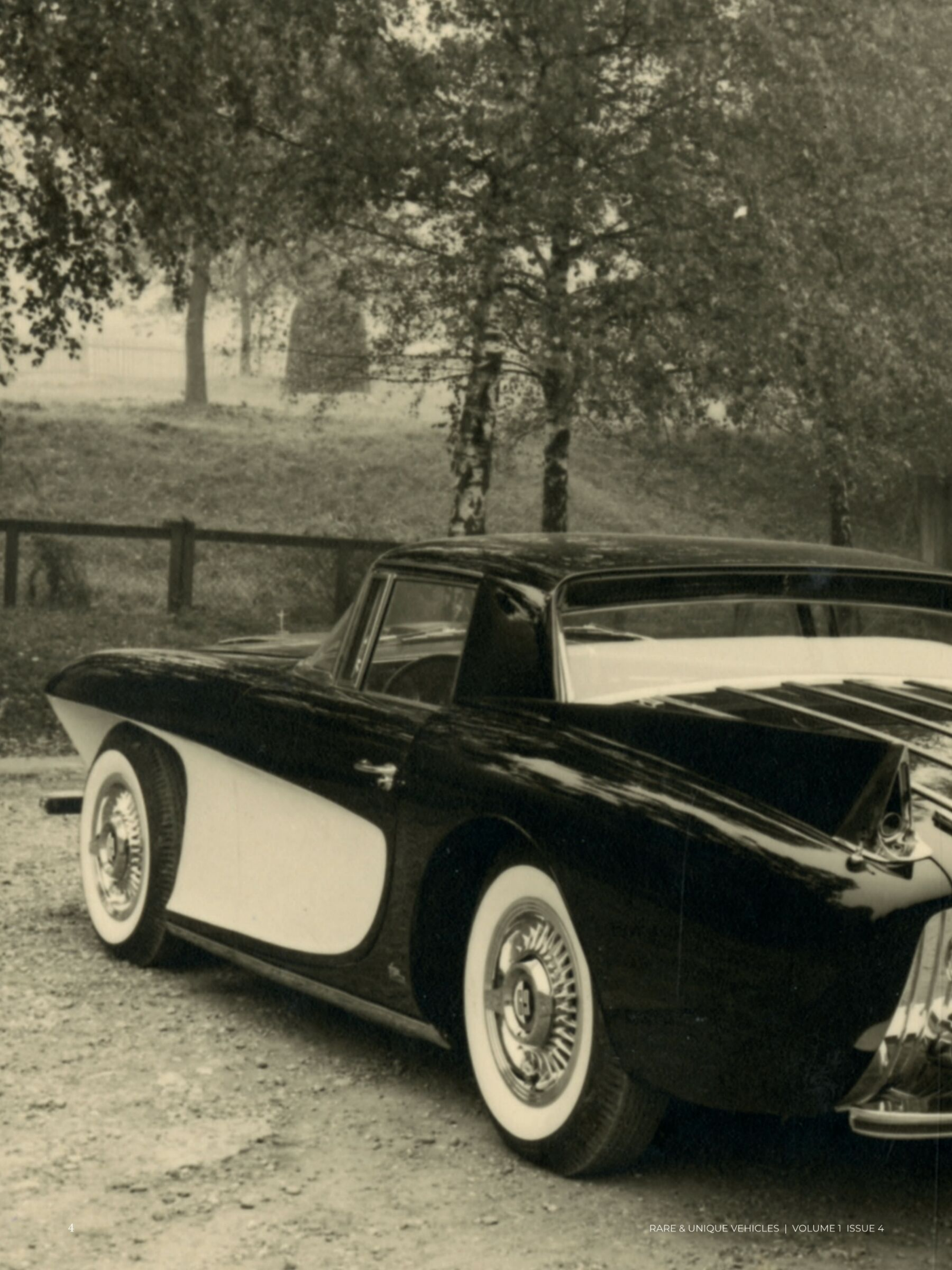
Compiling an issue on postwar custom coachbuilders and custom cars was something I envisioned from the start. We present an overview and interpretation on how different companies and individuals creatively rebodied existing vehicles and offered brand new takes on a given chassis. While the word "kustom" has a narrower meaning, it embodies the spirit of the cars, trucks, and motorcycles shown in the central section of this issue. Whether it is a plastic-bodied Škoda, a transformed Bentley Mk VI, or a Fiat 1100 with an elegant Vignale body, the underlying notion is the same: fulfilling one's creative desire while giving their customers a unique design.

We introduced a new column in this issue. Collectors' Corner features interesting and relevant vehicles from our supporters' collections. Sometimes these vehicles will be related to the theme of the issue, while in other cases they will complement our main subject. A case in point is the 1901 Panhard-Levassor with an electromagnetic gearbox featured in this issue. You will also see prewar offerings in the Spin the Globe section.

Based on the amazing feedback we have received, we are on the right path. However, to maintain the magazine we need your help! Rare & Unique Vehicles is not sold at shops or newsstands. We are primarily supported by your subscriptions. While we have a few advertisers, unlike other car magazines we limit commercial ads to give you the most content we can. Beginning with issue Number 5 the cover price of the magazine will be modestly increased to €12.90. Yearly subscription rates will be increased to €43.90. This is necessary to maintain the financial stability of the magazine. Our subscription page can be found on page 7.

Please spread the word: recommend our magazine to your friends and associates. Together we can continue to grow! Thank you for your support.

Dr Pál Négyesi
EDITOR AND PUBLISHER



ROADMAP

IMPRESSUM

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NEW MODELS

ELECTROGENIC CITROËN DS

Electrogenic, a British specialist that transforms classics into electric cars, has introduced its latest creation: a 1971 Citroën DS which features a Hyper9 brushless electric motor in place of its original petrol engine. The resulting 120 horsepower and 235 Nm of instant torque are delivered to the front wheels through the car's existing manual gearbox. Range is claimed to be 140 miles (around 220 km).

FERRARI TESTA ROSSA J

Ferrari, in cooperation with The Little Car Company, is now offering a 75 percent replica of the 1957 250 Testa Rossa, powered by an electric engine. Its design is based on original drawings. While the Ferrari Testa Rossa J is designed to be driven by anyone over 14 years of age, it is not homologated for road use. A limited run of just 299 vehicles will be built.

SOLETTA BY AUTOCULT

Soletta, the innovative Swiss minicar which was featured in Rare & Unique Vehicles No. 3, is now available as a 1:43 scale model from German specialist AutoCult. As usual, only 333 units will be offered.

EMIL BOJDA'S SÚĽOV IS COMPLETED

Emil Bojda, who contemplated building a people's motorcycle and car in Czechoslovakia before World War II broke out, got one step closer to realizing his dream in 1947 when he set up a factory in Hrabová. However, due to the political changes, he was only able to finish a prototype of his motorcycle before his company was nationalized. His small car never got beyond the drawing board – until now. A group of enthusiasts recently built a 1:1 model of the car, which is now being exhibited at the Transport Museum Rajecké Teplice in Slovakia.

RADFORD TYPE 62-2

Jenson Button–backed Radford revealed a Lotus Type 62-inspired sports car during the Pebble Beach Concours d'Elegance in August. As the name suggests, the new sports car is inspired by the Lotus Type 62 race car of the 1960s. The project is fully endorsed by Lotus. Just 62 examples of the Radford sports car will be built, using donor chassis from the Lotus Evora. Buyers will be able to choose between a Classic version or the spicier Gold Leaf. Both versions come with the Evora's familiar 3.5-liter supercharged V-6, with the Classic version rated at 430 hp and the Gold Leaf somewhere around 500 hp.

LEGENDE AUTOMOBILES TURBO 3

Legende Automobiles, a Los Angeles-based automotive company, built a bespoke, handmade carbon-fiber copy of the iconic Renault 5 Turbo 2. Called the Turbo 3, it is based on an original Renault 5, which is modified to receive a new and modern powertrain of undisclosed origin.

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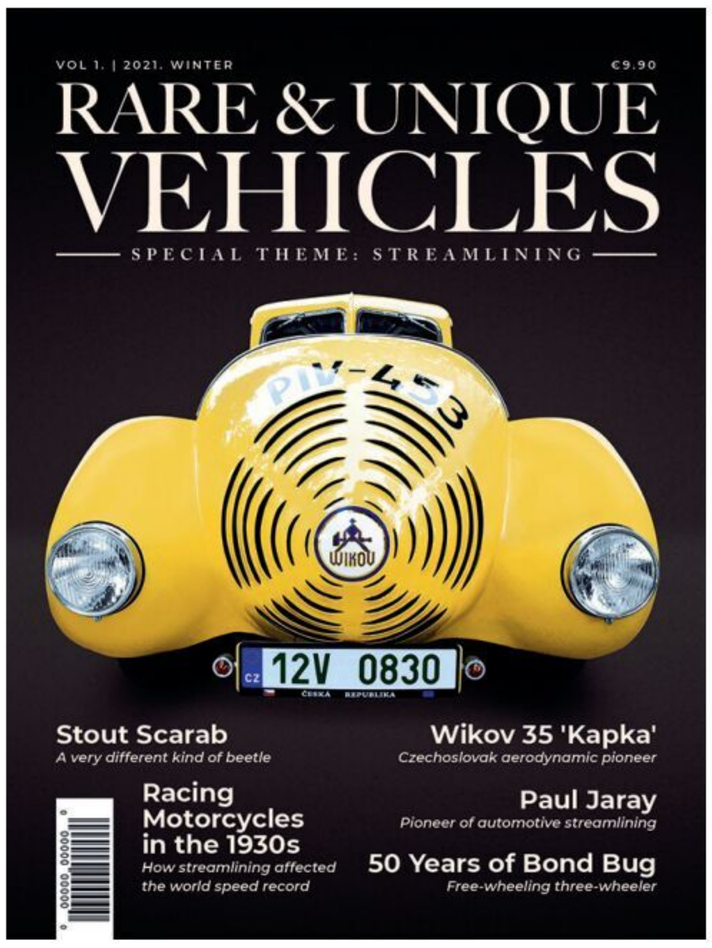
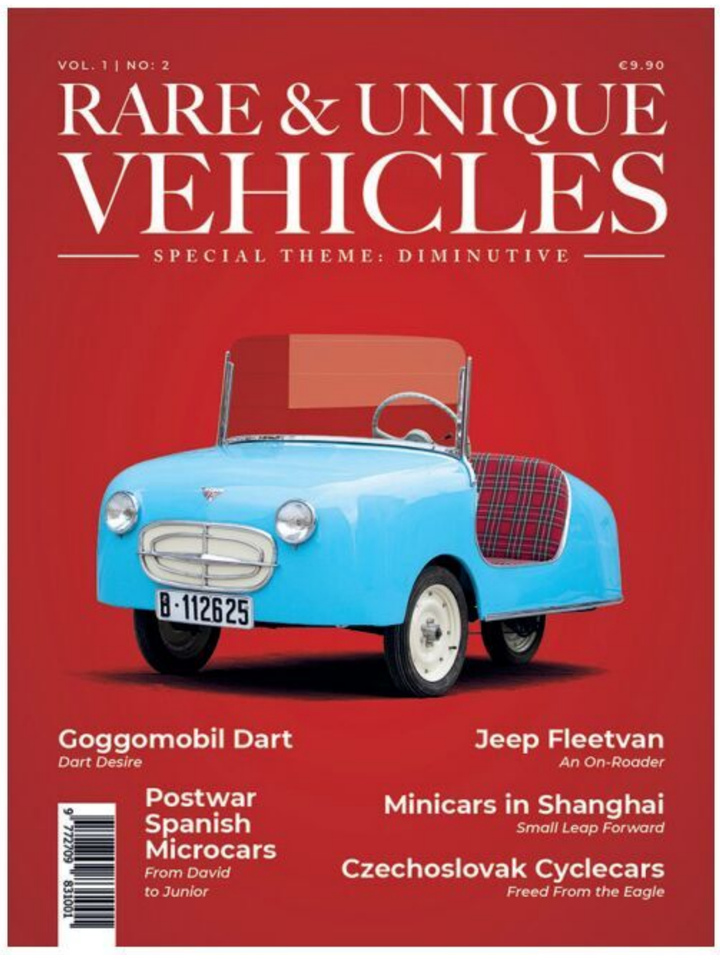
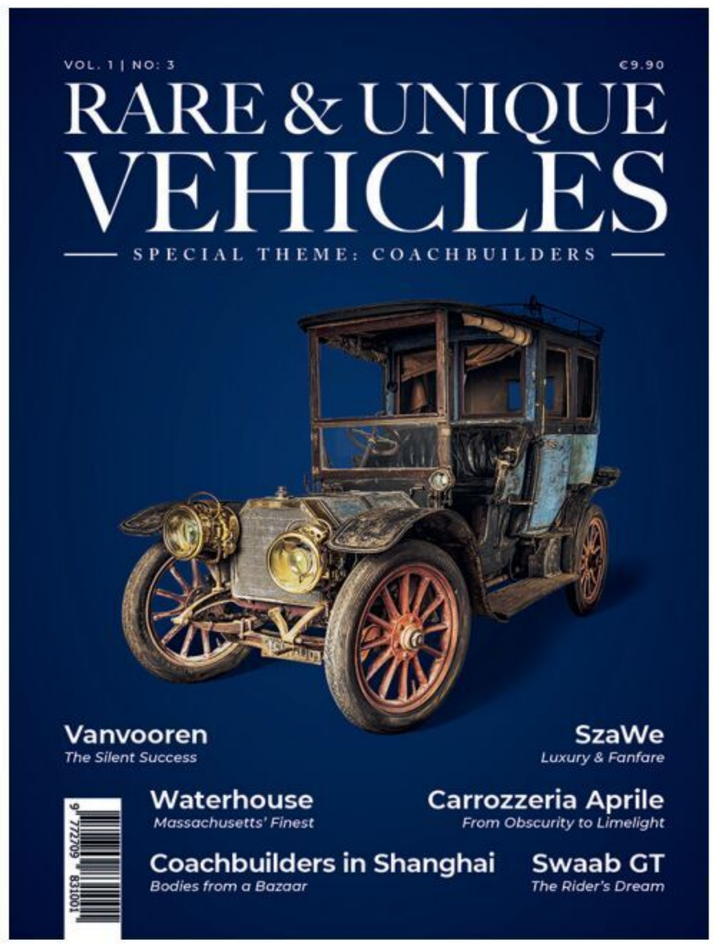
Rare & Unique Vehicles is dedicated to quality, well researched articles from internationally renowned authors and historians. We made a choice to have few ads to allow us to provide the maximum content in each issue. We therefore rely upon your subscriptions to maintain the financial stability of the magazine.







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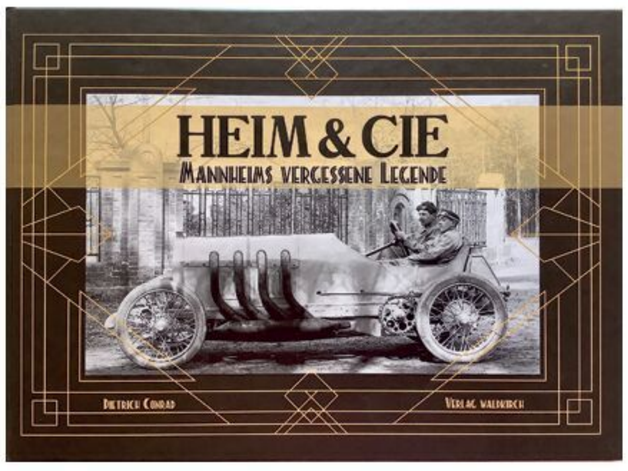
Thank you

BOOK REVIEWS BY FREDERIK E. SCHERER

Heim & Cie
A motoring life

The city of Mannheim, in the southwest of Germany, may not be a Motor City in the purest sense. But it is the place where Carl Benz founded his engine works and put his petrol-powered tricycle on wheels. Franz Heim was a 14-year-old boy when he became an apprentice at the Benz factory in 1896, but in contrast to a certain August Horch, who left Benz in 1899 to become a manufacturer in his own right, Heim's career remains largely overlooked: after becoming

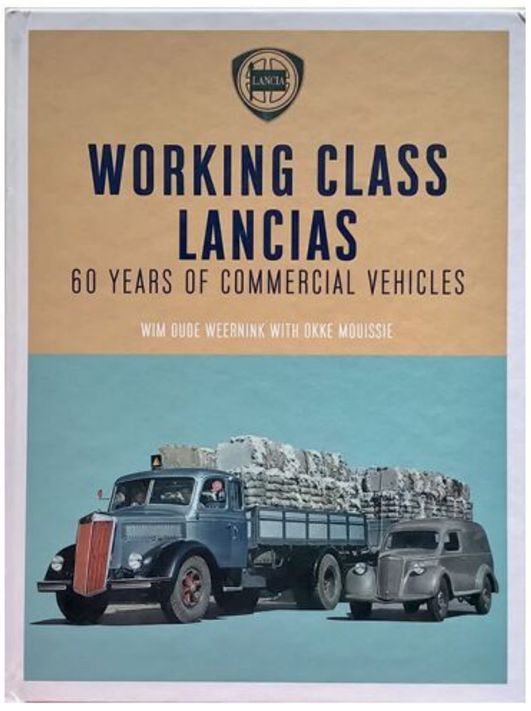


an accomplished race driver for Benz, he founded *Heim & Cie Badische Automobilfabrik* in 1921. The company was to build luxury cars, but filed for bankruptcy in 1926. Unfortunately, not a single car survives to this day. Dietrich Conrad attempts to fill the gap in the automotive history of his hometown, giving Franz Heim the credit he deserves. He surely has done, aided by the Heim family, an impressive job researching and documenting the different aspects of his outstanding motoring life and the history of the factory, but the book irritates the reader with oddly designed photo collages and an overall lack (or unawareness?) of editorial standards.

Dietrich Conrad: Heim & Cie. Mannheims vergessene Legende
Waldkirch KG, 128 pages, 234 images, in German.
ISBN: 9783864761409

Working Class Lancias
Pretty, heavy engineering

Wim Oude Weernink is the author of the well-known book "La Lancia," published some 30 years ago. After having studied the Appia and then the Fulvia/Flavia line in recent years, his latest book covers Lancia's lesser-known commercial vehicle branch. Did you know that Lancia was pioneering the five-cylinder diesel engine already in 1937? Or that the "Beta" name was introduced on a truck in 1950? Fancy engineering certainly qualifies as "quintessentially Lancia," and it is



impressive to see how this philosophy successfully combined with the heavy-duty requirements of trucks and buses – not to mention their beauty! The author provides production figures in the chapters and basic technical specs in the appendix, but he can't help but dry out the text with more detailed technical information, as is often the case in books about heavy machinery. This is nothing to worry about though, because the next eye-opener is never far away, be it in the text, or among the numerous pictures that are beautifully laid out in this well-printed and overall nicely produced book!

Wim Oude Weernink, Okke Mouissie: Working Class Lancias. 60 Years of Commercial Vehicles
Draaiboomken, 120 pages, ca. 280 images, in English, 45 Euros from www.historicar.be
ISBN: 9789080649651

BMW/EMW 340
The undesired BMW

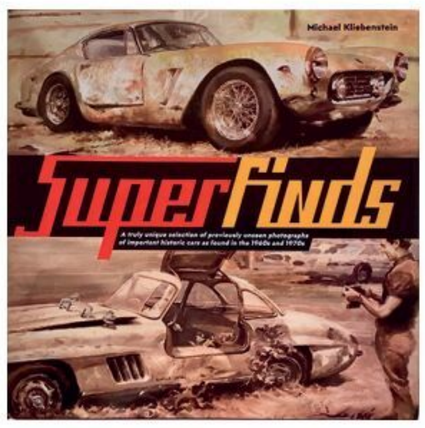
The Second World War was over. BMW had lost its car branch: Based in Eisenach, it was now located in the Soviet occupation zone. Marshall Georgi Shukow ordered the production of the BMW 321 to be resumed already in 1945, incorporating the factory into the Soviet Stock Corporation "Awtowelo." In 1949, the new BMW 340 was presented, and like many authors before him, Matthias Doht considers the car to be

the "first newly developed car" in postwar Germany – although, in reality, it was merely a derivative of the prewar BMW 326. Doht is the curator of the museum *Automobile Welt Eisenach*. His book was published on the occasion of an exhibition dedicated to the 340 and gives a good résumé, illustrated mainly with historic images. It treats not only the car's development history, but also the judicial debate surrounding it, leading to the change of name "EMW," *Eisenacher Motorenwerk*, in 1952. The text would have benefited from more rigorous proofreading, and unfortunately, it lacks references: Once again, the definitive book on the subject has yet to be written.

Matthias Doht: BMW/EMW 340. Die erste Nachkriegskonstruktion aus Eisenach
Ideenteufel, 80 pages, 120 images, in German from www.79oktan.de; ISBN: 9783982087603

Superfinds
Scenes from a dusty past

Believe it or not: Back in the 1960s and 1970s, you could find once-famous and valuable cars in obscure backyards or garages. Ferrari 250 GT, Maserati A6G, Alfa Romeo 6C, Bugatti Atalante (you name it!), but also chassis, engines, bits and pieces – never mind the derelict state: Corrado Cupellini tracked them all down, always documenting his "Superfinds" with a Minolta. Some 4000 pictures piled up over the years,

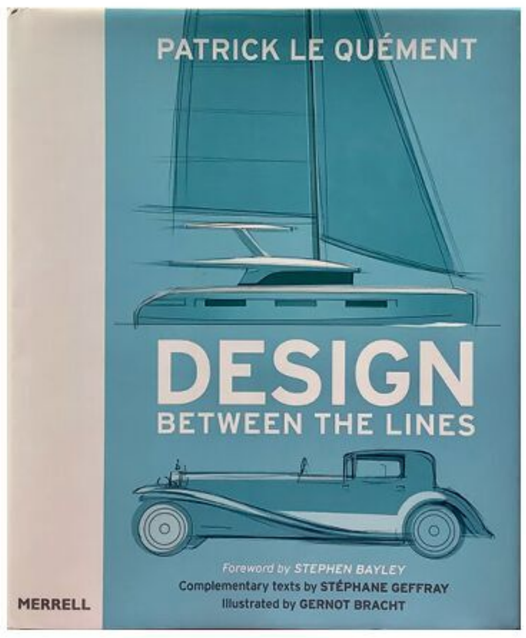


900 of which have been selected by Michael Kliebenstein to fill this heavy volume. He claims to have "kept the captions short to let the photos speak for themselves," which is true: In most cases, there is barely more information than the make and the type of car – most likely because the rest is unknown. On the other hand, he recognizes the historical importance of the photos, inviting experts to use the images as research material. However, there seems to be no organizing principle other than dividing the book into three sections (The Cars, Engines, Cockpits). There is no index whatsoever, making this nostalgia-driven book mainly a companion to a solid coffee-table.

Michael Kliebenstein: Superfinds
Porter Press International, 420 pages, over 900 images,English from www.porterpress.co.uk
ISBN: 9781907085895

Design. Between the lines
What needs to be said

"An independent observer once calculated that I had been responsible for some sixty million vehicles during my active career as an automotive designer, and this I feel makes me a legitimate commentator," writes Patrick Le Quément in the introduction to his book that must not be mistaken for a simple autobiography. Consisting of fifty essays he calls "perspectives," Le Quément sheds light on people, design principles, cars, concepts

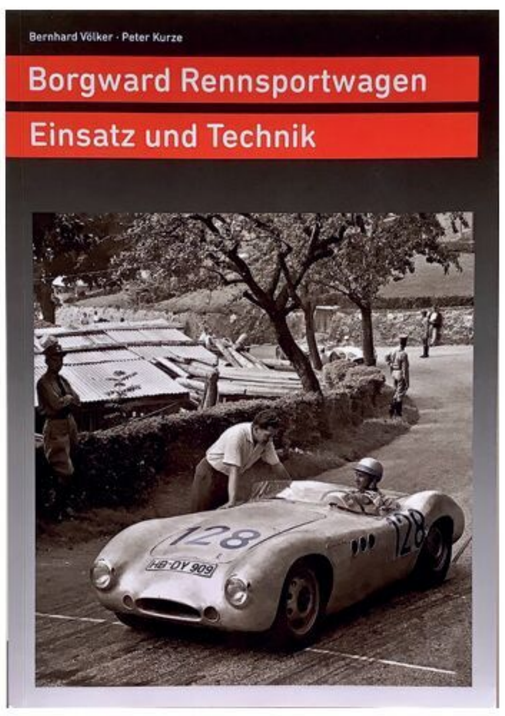


or details etc., reflecting the world of car design against the background of his own experience. It is funny how the author answers the "big" questions surrounding car design without even asking them. The essays can be read selectively, and there is an index and even a list of books he suggests for further reading. Interestingly, the illustrations are by Gernot Bracht; there are none of Le Quément's own drawings in the book. It certainly is a subjective account, and controversy seems to be the salt in this soup. But if you like books about car design, read this one. And if you don't, read it anyway!

Patrick Le Quément: Design. Between the lines
Merrell, 223 pages, 100 images, in English, ca. 40 Euros
ISBN: 9781858946764

Borgward Rennsportwagen
Forgotten heroes from Bremen

60 years ago, the Borgward group went out of business. Nevertheless, the company's history remains a constant issue, also thanks to automotive historian Peter Kurze, who has dedicated his small publishing business to his favorite brand. His latest book on Borgward's race cars between 1950 and 1959 is based on an earlier publication by ex-Borgward engineer Heinrich Völker from 2004. New information made it necessary to bring out a new



edition – or rather create a new book based on the old one, bearing two parts. In the first, Bernhard Völker (unrelated to Heinrich) gives an entertaining account of the races that Borgward competed in, taking also the rivals into account (mostly named Porsche, of course). In the second part, Kurze analyzes the construction of the cars. It is just as appealing: while the pictures are outstanding throughout the book, Kurze has produced graphics to clarify particular technical features, so almost anybody will understand them – a great idea which we would like to see more often in automotive books!

Bernhard Völker, Peter Kurze: Borgward Rennsportwagen. Einsatz und Technik
Verlag Peter Kurze, 120 pages, 208 images, in German from www.edition-b6.de
ISBN: 9783927485174

Small and Sporty
GUTBROD BY WENDLER

THE ERHARD WENDLER COACHBUILDING COMPANY FROM REUTLINGEN, GERMANY, WAS A WELL-KNOWN NAME WHEN IT REOPENED ITS DOORS AFTER WORLD WAR II. ALTHOUGH IT HAD ESTABLISHED A REPUTATION FOR FLAMBOYANT AND ELEGANT HIGH-CLASS CARS, IT WAS THE LESS PRESTIGIOUS ASSIGNMENTS FROM SMALLER BRANDS THAT KEPT WENDLER ALIVE IN THE 1950S. AMONG THEM: AN ARRAY OF SPORTS VERSIONS OF THE GUTBROD SUPERIOR, SAYS **TOBIAS BALDUS**.

SPORTY GUTBRODS

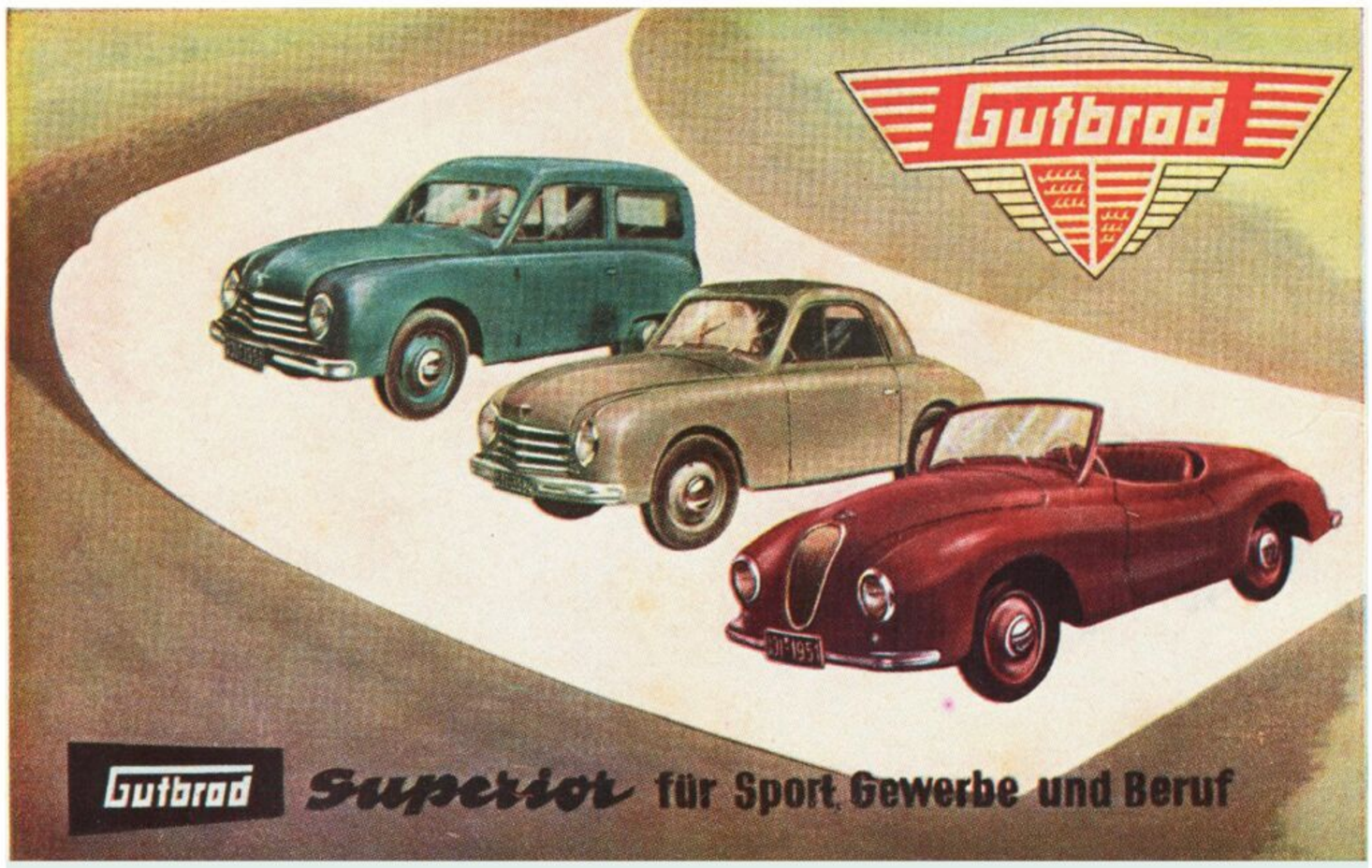
"Fifty years ago, there was still an aura of 'miracle' surrounding the automobile. Today it is a trivial matter," declared German Federal President Theodor Heuss at possibly the most inconvenient time and place: the opening speech of the 1951 International Motor Show (IAA), held in Frankfurt for the first time. Ten days later, an impressive 570,000 visitors had proved Heuss wrong. By his own admission, he was not a motoring enthusiast by any means and in fact couldn't even drive a car. For most of the people who had come to Frankfurt, though, the motorcar was not a "trivial matter" but probably one of their biggest dreams, the next step to a better, more enjoyable life, and a symbol of a brighter future.

Opposing "triviality" was the business of coachbuilders like Erhard Wendler of Reutlingen. The company traced its heritage back to 1840, developing a reputation in the 1920s for high-quality and stylish cars, and, in the 1930s, for streamlined concept cars the firm realized for Wunibald Kamm, BMW, and others. (You can see some of these in the first issue of Rare & Unique Vehicles.)

After the Second World War, Wendler was one of the first companies to return to the field. The first years after the war saw mainly repairs, and these often had to be carried out using scarce materials due to the fact that the workshops had been pillaged. Only very few conversions were made at this time.

One of the first companies to commission Wendler after the war was Gutbrod Motorenbau from Plochingen. Earlier than most of its competitors, Gutbrod had managed to develop a reasonably priced car, which was desperately needed at the time. The work had begun under the direction of chief engineer Hans Scherenberg in 1949, following a few key parameters including a two-seater layout, a central tube frame, a water-cooled engine combined with the gearbox in one driving unit, and front-wheel drive. Another employee, Friedrich van Winsen, was given the task to construct the chassis. In November, after a development period of only three months, the new 5593-cc two-cylinder, two-stroke engine was ready to be tested. At around the same time, a number of bodies made by Hennefarth arrived in Plochingen, and soon the first prototypes were tested in the area around the main factory. As progress was satisfactory, an assembly plant in the city of Calw was acquired. In December it was decided that the new car would be named Superior.

Although the company's goal was to be able to sell the car for only 3000 DM, it soon became evident that this was not going to be possible. The primary objective during the very



An advertising postcard from 1951 showing the three different versions of the Superior (Peter Dipold).

KUSTOM

The Gutbrod Sportkabriolett Sportkabriolet, 1950 (Tobias Baldus).

The experimental roadster developed by Van Winsen in 1951 (Tobias Baldus).

short developmental period (from May to December 1949) had always been quality and not necessarily economies. Therefore the Gutbrod Superior could not become a real people's car, but was now intended to be sold to doctors, lawyers, or businessmen who would use their car for work. The customers were people who probably couldn't afford the products from Wolfsburg, Rüsselsheim, Köln, and Bremen or just preferred to buy something more economical. As motoring journalist Ernst Hornickel put it in April 1951, it was "the little car for the lady whose husband is driving a big Mercedes." In this spirit, it wasn't surprising that an elegant cabriolet version, which was supposed to spruce up the image of Gutbrod but also to explore additional market opportunities, was soon being considered.

THE GUTBROD SUPERIOR SPORTKABRIOLETT (1950)

Erhard Wendler was commissioned for the job and given free rein regarding the styling. Soon the highly experienced Helmut Schwandner came up with drafts of a sleek pontoon convertible body.

Schwandner by then was a legendary figure at Wendler, as he had strongly influenced Wendler in becoming an automobile coachbuilder. After World War I, Wendler's management, well aware of the hard times to come, had begun considering how to refocus their production capabilities. Automobiles had been the aim for all progressive people for some years. Coaches, on the other hand, seemed somewhat antiquated at the start of the "Golden Twenties," which, in Germany, soon developed into the turmoil of the inflation period.

It was at this moment that young Helmut Schwandner (still in his early 20s) approached Wendler to build the body for a cyclecar he had designed. Schwandner was an apprentice in a bank at the time, but his main interests were technology, engines, and vehicles, and he had an impressive gift for drawing. Adolf Wendler, then the head of the company, was quick to recognize the talent of the young hobby designer and saw in his skills the key to the future activity of the Wendler company. Schwandner was offered a post

to produce designs for automobile bodies on a full-time basis. He accepted, and as a result of Wendler's and his own contacts in business circles, the first orders quickly rolled in. As Schwandner later recounted, he had attended a course in technical drawing, and his brother occasionally sent him automobile brochures from the USA. That was it. At that time, Wendler had a staff of only about eight employees. Thirty years and another world war later, Schwandner was drafting the plans for a little Gutbrod cabriolet, probably thinking back to the cyclecar days when he started out in the business.

His drawings for the cabriolet Superior were then converted in 1:1 views by draftsman Wilhelm Benz. After that, the aluminum body was fabricated in typical Wendler fashion by 30 employees around a framework that was a combination of wood and tubular steel. A Securit windscreen and Securit crank-operated door windows were mounted, and the usual imitation leather upholstery fitted. Unfortunately the car weighed 40 to 50 kilograms more than the normal Superior and wasn't as sporty as it looked.

The Superior Sport Roadster debuted at the Frankfurt Show, 1951 (Tobias Baldus).

In March 1950, the Superior Sportkabriolett was shown to the public in Frankfurt. Gutbrod drew very big crowds at its exhibition stand. But the Wendler cabriolet was priced at 5900 DM. For comparison, the Volkswagen Beetle cost 4400 DM, and even the export version for 5150 DM was cheaper. Therefore, unsurprisingly, the car pitched as a "sensation for the motorist" remained a one-off.

THE GUTBROD SUPERIOR SPORT ROADSTER (1951–1952)

After Gutbrod Superior production had gotten off to a promising start, with exactly 560 cars being produced in 1950, Wendler was commissioned by Walter Gutbrod a second time to build a sporty cabriolet version. The result was brought to the 34th Automobiel en Rijwiel Salon in Brussels in January 1951. Helmut

Count von der Schulenburg at Austrian Alpine Rallye in 1952. His navigator is trying to keep the balance of the car (Technisches Museum Wien)´.

Two of the five remaining Superior Sport Roadsters. The car on the right is gracing these pages in restored form (Peter Dipold).

Since 2020 the "Schulenburg car" shines again in its old splendor (Peter Dipold).

Schwandner had again been responsible for the elegantly curved design. As before, the bodywork consisted of a wood and tubular steel construction with aluminum planking. This time the car had detachable cellulose acetate side curtains, instead of the crank-operated door windows.

Although not everyone from the Gutbrod company was convinced about the styling of the Superior Sport Roadster – some called it the "pregnant duck" – the car was officially included in the sales program and shown at a number of fairs. One of them was the Frankfurt International Motor Show, as mentioned above. In the runup to the event, Gutbrod Motorenbau revealed a well-kept secret: On the 29th and 30th of March 1951, a select 37 motoring journalists were told that the little company had solved the problems of the fuel injection system for two-stroke engines and that the introduction to the series was only a matter of how long the Bosch company would need to deliver the components. The news made massive waves and helped Gutbrod underline its status as an innovative and quality-oriented manufacturer.

Nonetheless, it couldn't be denied that the Superior Sport Roadster wasn't really living up to its name. The car was far better-looking than it would actually perform with its 600-cc, 20-hp engine and a weight of 705 kilograms — especially when considering the whopping price of 7800 DM, which wasn't even enough to buy the car. During the Korean War, raw materials were scarce, and it was very difficult to obtain the needed steel sheetmetal. Therefore a so-called Materialzuschlag (surcharge for material) of 295 DM was added to the list price. In the end, the little Gutbrod cost as much as a Borgward Hansa 1500. This explains why many of the people who actually ordered a Superior Sport Roadster came from aristocratic families.

All buyers received a totally handcrafted car, each of which differed in many aspects from the other Superior Sport Roadsters. There were differences in the body dimensions, the location of the fuel tank, and which chassis was used (some were fitted with Fiat 500 Topolino chassis instead of the Gutbrod ones). Also, every color request was met. In total it seems about 10 cars were built between January 1951 and September 1952. Reportedly, some were sold to South America.

THE VAN WINSEN ROADSTER (1951)

In early 1951, a third cabriolet version of the Gutbrod Superior was made by Wendler. This time, it was Friedrich van Winsen and not Helmut Schwandner who was responsible for the styling. The larger front of the car now bore a resemblance to the standard Gutbrod Superior. Some assume that the car was fitted with the new fuel-injected engine that was part of its introduction in March 1951. Whether this is true or not remains unclear. Only one car of this version was built. It remained in the Gutbrod family and was driven for many years by Wolfgang Gutbrod (the brother of Walter), who had helped to improve the company's image with a lot of racing successes at the wheel of the Superior.

Of the three different sports cabriolet versions bodied by Wendler, only five cars of the Superior Sport Roadster seem to have survived. Of course, rumors abound of a sixth extant car.

SPORTY GUTBRODS

The elegant lines of the Superior Sport Roadster were not liked by all. Some of the Gutbrod employees called it the "pregnant duck" (Peter Dipold).

The car seen on these pages belongs to Gutbrod afficionado Peter Dipold, who owns two of the five remaining Superior Sport Roadsters, or as he likes to put it with a wink: 20% of the overall production. It is Chassis-No. 65890 and was bought by Count von der Schulenburg in December 1951, presumably as a Christmas present for his wife, Inge, who had a doctorate in medicine. As a place of residence just "Schloss" (palace) was noted in the vehicle registration document. The next year, it was the count himself though, who attended some rallies with the Superior Roadster, including the Austrian Alpine Rallye. After three years, the aristocratic family sold the car in 1954. For the next two decades No. 65890 was owned by a handful of people, once changing hands for not more than two crates of beer in 1968. In 2006 it eventually ended up with Peter Dipold who then restored it for the best part of 11 years. In September 2020 it was shown to the public for the first time at the Classic Gala in Schwetzingen and was awarded third best car of the concours and first place in the 1950s section.

Sources:

- Ralf J.F. Kieselbach: Tailormade Bodywork by Wendler of Reutlingen, Germany, 1923 – 1963, Kohlhammer Verlag, Stuttgart 1982.
- Otfried Jaus: Neben den Grossen – Handwerklicher und kleinindustrieller Fahrzeugbau in Württemberg, Peter Kaiser (Hrsg.), Stuttgart 1994.
- www.standard-gutbrod.de (09.11.2020)
- Documents from the archives of Peter Dipold and the author.

KUSTOM

PIONEER PLASTIC

"Landbound Pegasus"

THE BRIEF, FASCINATING SAGA OF THE MAVERICK SPORTSTER AS TOLD BY **KEN GROSS**

At the Pebble Beach Concours d'Elegance in August 2012, early morning "Dawn Patrol" show goers were startled when an enormous bottle green two-seater swept out of the fog and rolled majestically onto the lawn. A low rumble from its big V-8 and twin plumes of smoke from the burbling exhausts punctuated its presence. Bystanders turned to one another asking, "What's thaaaaaaaattt?"

Most people had never seen anything like it.

H. STERLING "SMOKE" GLADWIN JR.

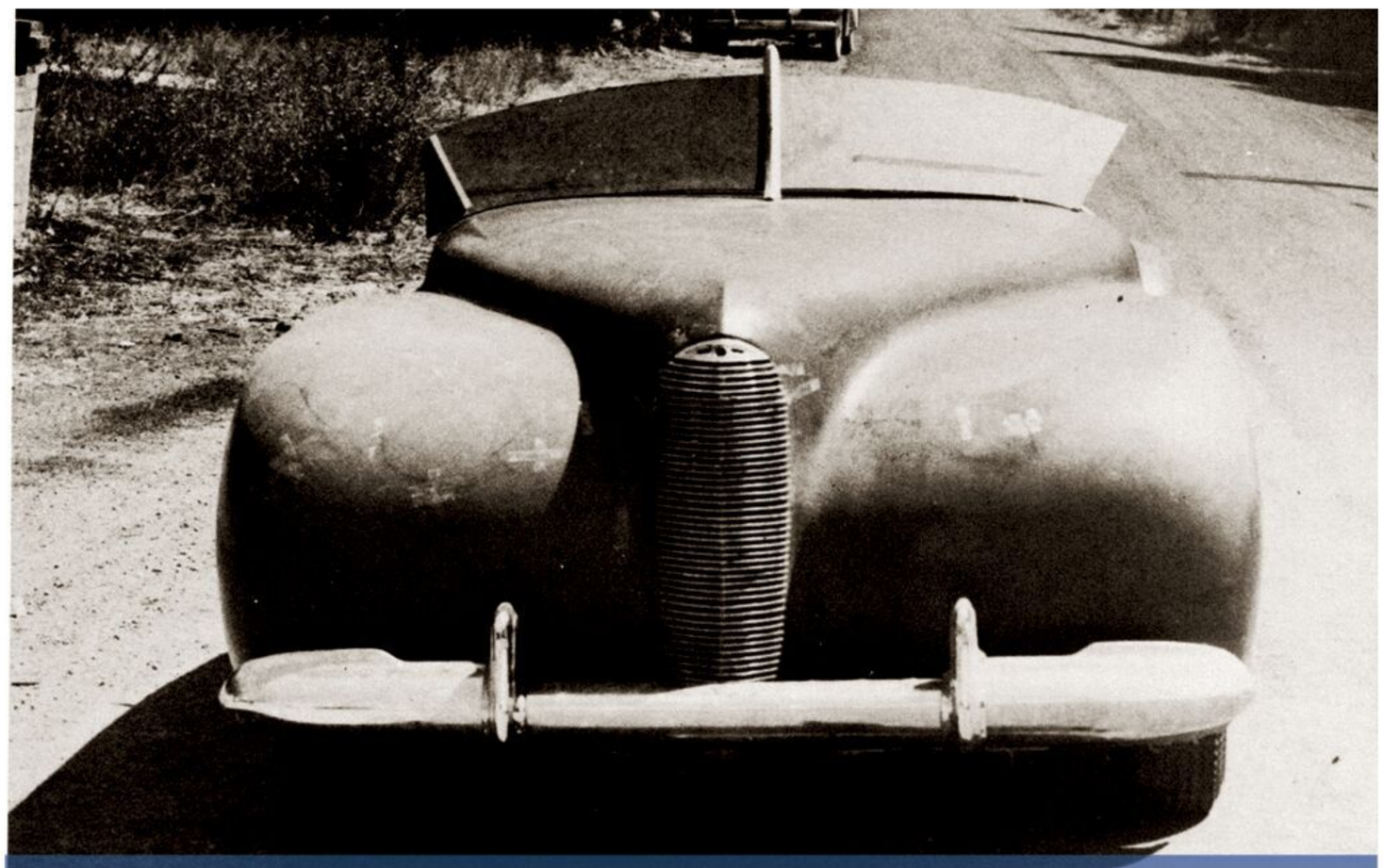
Promoted as the "world's largest fiberglass-bodied car" at the time, the imposing 1952 Maverick Sportster was designed by H. Sterling "Smoke" Gladwin Jr. of Mountain View, California. Gladwin was a retired aeronautical engineer who'd worked for 11 years at Boeing, six years at NASA, and 10 more at Lockheed. He was reportedly a hot rodder before World War II.

After the war, "My dad was fascinated with fiberglass. He made a fiberglass basketball backstop with a Mylar surface, but he was unable to produce it commercially. He was a renaissance guy who was very interested in audio and hi-fi," Bruce Gladwin, Sterling's son, said.

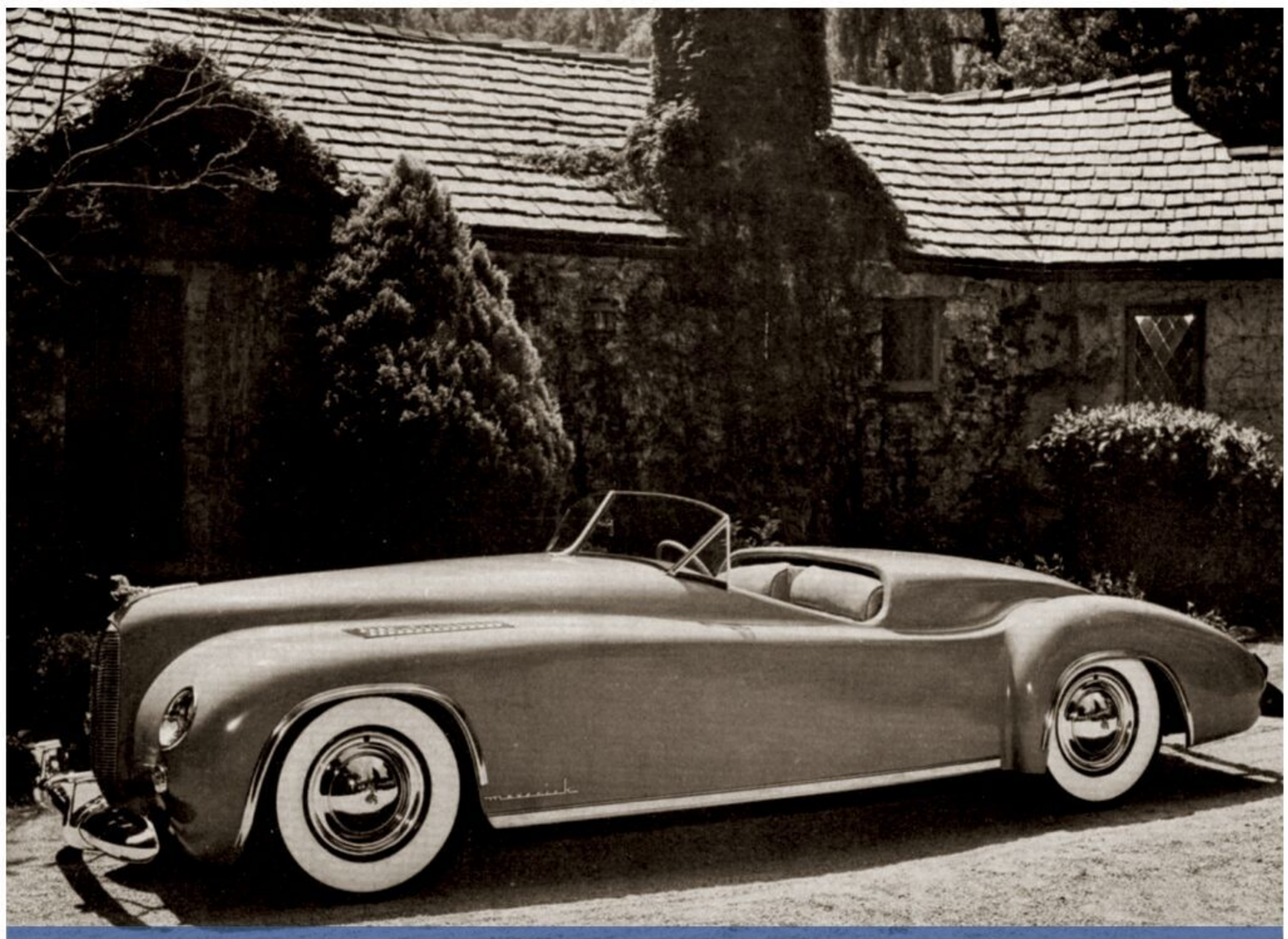
Initially, Gladwin didn't plan to go into series production. He built the first roadster for himself, claiming to have spent 1189 man-hours in its construction. Sterling Gladwin wasn't the only builder of fiberglass-bodied cars. Beginning in the early '50s, fiberglass was the hot new do-it-yourself material for back-yard car builders all over the United States, who were home-building custom body molds and creating their own sporty cars.

BIRTH OF THE SPORTSTER

The first Maverick Sportster was built on a 1940 LaSalle chassis with a flathead Cadillac V-8 and a Borg-Warner AS6-R11 overdrive that had been modified to fit. Its imposing vertical grille was fabricated from a pair of prewar LaSalle units. A veritable potpourri of period production car parts were used, which included La Salle bumpers front and rear, La Salle taillights, fender louvers from a Cadillac Fleetwood, '50 Lincoln headlights and '51 Lincoln lower-body trim, '41 Buick fender guards, and a '49 Chevy license plate frame. The split windshield was a custom-built item. To lower the car, the chassis was modified with reversed steering knuckles in front, along with what Gladwin's later literature called "reset springs," and de-arched rear springs. The fuel tank came from a '51 Studebaker and was fitted with a Stewart-Warner electric fuel pump. Oriflow shock absorbers were fitted in both corners for a pleasant boulevard ride.



The front of the prototype with LaSalle grille, fenders, and hood.



"The Maverick gives an impression of power that can't be denied," said Motor Trend in its coverage.

Some people relax when they retire. "Smoke" apparently had a different idea. After friends and neighbors admired his flashy new convertible, he decided to launch his own car company. He called it, not surprisingly, Maverick Motors. The Maverick Sportster was billed as "an all-Western long-range commuter for Western highways." A fiberglass hard top was optional. For the second example and beyond, the "production" engine was to be a 210-bhp, 331-cubic-inch OHV Cadillac V-8. Flattered by the attention his car received, Sterling Gladwin

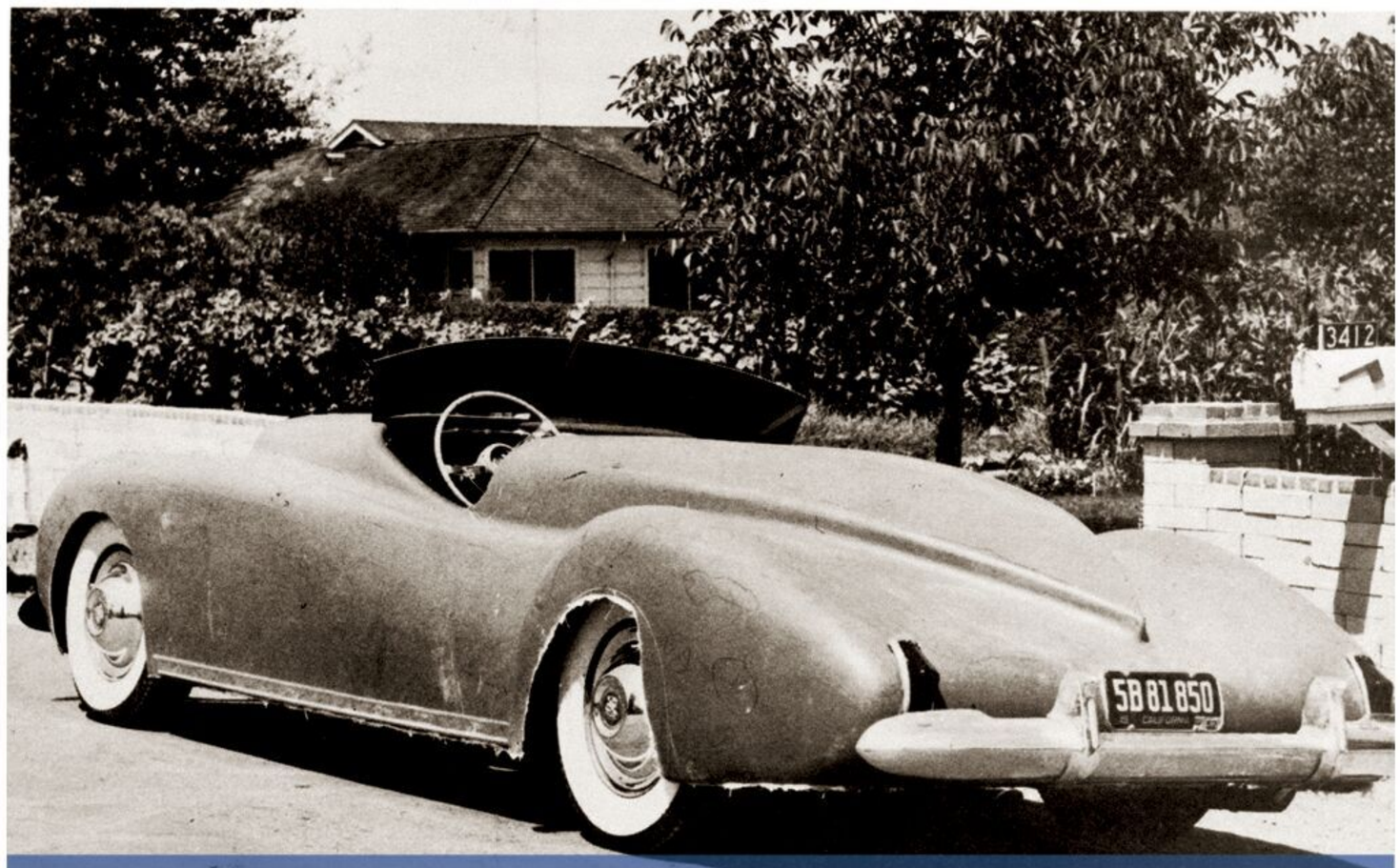
undoubtedly thought there was a market for a custom American two-seater.

For a man who'd never even designed a car, but who certainly possessed some engineering skills, Gladwin's first effort was impressive. He called it a "Landbound Pegasus."

The Maverick's bold fiberglass body featured fade-away fenders and a tapered boat-shaped tail. From a distance, it resembled a Jaguar XK-120 on steroids. For the production car, Gladwin used a modified 1953 Cadillac chassis with a 126-inch wheelbase. The body reportedly weighed 210 pounds (some sources say 220 to 240 pounds), which was comparatively heavy. But with a total weight of 3100 pounds, the big Caddy engine and a floor-shift-equipped Dual Range Hydra-Matic, the massive roadster would scoot along nicely. And with 1 horsepower for every 12 pounds, Gladwin claimed "a power-to-weight ratio that would be the envy of a military airplane."

Sterling Gladwin wasn't too concerned about practicality. His first roadster was initially built without any doors, a hood (!), or even a decklid. Two unboltable louvered panels were used to access the engine. Promotion for the car promised that the body could be completely removed in just six minutes. When it was first built, the body reportedly had a hinge on the back, so it could be lifted up for access to the engine, like the front of a (drag racing) Funny Car. Subsequent examples were equipped with functioning hoods, at least one opening door, and varied taillight treatments.

A few years ago, Geoff Hacker, a fiberglass devotee and tireless researcher, and I spoke to Robert "Tom" Gaross, a nephew of Sterling Gladwin's. Gaross said Gladwin had purposely decided not to build cars with driver's-side doors because "He didn't want anyone to exit his car streetside and be put in harm's way by oncoming traffic." Forcing the car's occupants to exit on the passenger side was meant to be a safety consideration.



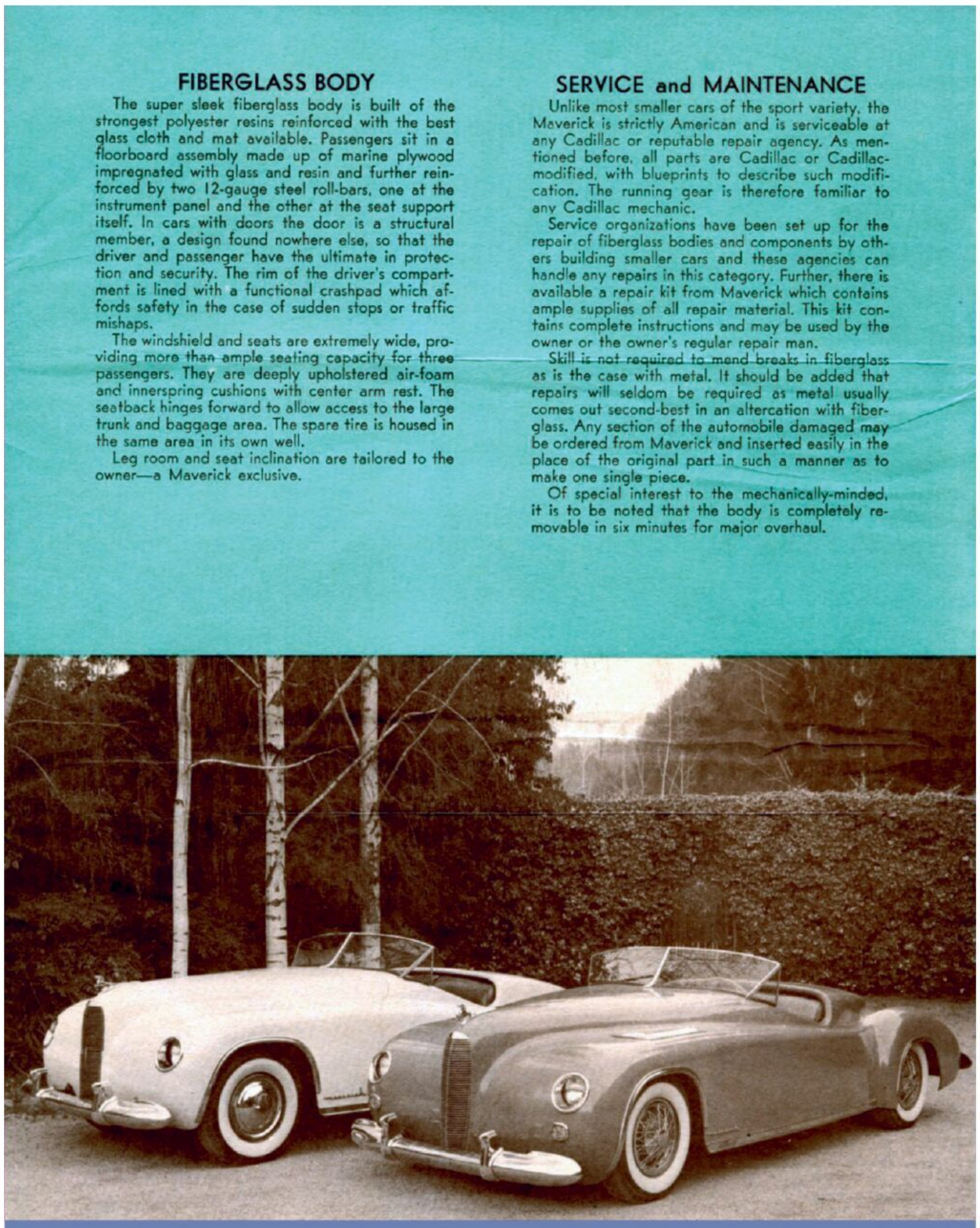
An Auburn boattail rear section was incorporated into the prototype's fiberglass body.

A row of Maverick Sportster roadsters in various stages of completion (Roth Collection).

MAVERICK IN THE NEWS

Billing it as "California's own luxury sports car," the promotional materials exhorted customers to "Put your own brand on a Maverick!" Quoted in the 1954 Motor Trend book "Plastic Cars," Gladwin told author Robert Lee Behme, "The Maverick is a sort of motherless sports car – the car is not actually a sports car as it is much larger." There was a bit of Western influence: the hood ornament was a prancing horse, and the hubcap motif depicted a cowboy on a bucking bronco.

Homer D. Fey, the auto editor of the Oakland Tribune, wrote a piece about the Maverick. The one-piece, all-fiberglass Maverick roadster bodies were produced in Oakland by a company known as Industrial Plastics Service. The "Astro-lite"



FIBERGLASS BODY

The super sleek fiberglass body is built of the strongest polyester resins reinforced with the best glass cloth and mat available. Passengers sit in a floorboard assembly made up of marine plywood impregnated with glass and resin and further reinforced by two 12-gauge steel roll-bars, one at the instrument panel and the other at the seat support itself. In cars with doors the door is a structural member, a design found nowhere else, so that the driver and passenger have the ultimate in protection and security. The rim of the driver's compartment is lined with a functional crashpad which affords safety in the case of sudden stops or traffic mishaps.

The windshield and seats are extremely wide, providing more than ample seating capacity for three passengers. They are deeply upholstered air-foam and innerspring cushions with center arm rest. The seatback hinges forward to allow access to the large trunk and baggage area. The spare tire is housed in the same area in its own well.

Leg room and seat inclination are tailored to the owner—a Maverick exclusive.

SERVICE and MAINTENANCE

Unlike most smaller cars of the sport variety, the Maverick is strictly American and is serviceable at any Cadillac or reputable repair agency. As mentioned before, all parts are Cadillac or Cadillac-modified, with blueprints to describe such modification. The running gear is therefore familiar to any Cadillac mechanic.

Service organizations have been set up for the repair of fiberglass bodies and components by others building smaller cars and these agencies can handle any repairs in this category. Further, there is available a repair kit from Maverick which contains ample supplies of all repair material. This kit contains complete instructions and may be used by the owner or the owner's regular repair man.

Skill is not required to mend breaks in fiberglass as is the case with metal. It should be added that repairs will seldom be required as metal usually comes out second-best in an altercation with fiberglass. Any section of the automobile damaged may be ordered from Maverick and inserted easily in the place of the original part in such a manner as to make one single piece.

Of special interest to the mechanically-minded, it is to be noted that the body is completely removable in six minutes for major overhaul.

"Being entirely of American manufacture, the Maverick presents no problem in maintenance" higlighted the brochure.

The Maverick stood out from the typical American cars of the 1950s.

liquid plastic body material was supplied by the Owens-Corning Fiberglass Corp. "especially for Maverick Motors." Fey's article noted that the body, which was designed for any chassis with a wheelbase from 123 to 125 inches, was a whopping 16 feet long and fully six feet wide.

Passengers were ensconced in what the company called "a floorboard assembly made up of marine plywood, and the body was reinforced with two 12-gauge steel roll bars – one under the instrument panel, the other under the seat support." Pricing was quoted as $3850 FOB Los Altos, CA. For comparison, a Series 62 Cadillac convertible was $4110 in 1953. Thinking optimistically, Gladwin offered a completed car priced for overseas buyers at $4200. Delivery was promised in 60 to 90 days. It's not known if any of the cars were sold outside this country, and total production figures are vague. Geoff Hacker, who co-owns this featured Maverick, owns a copy of a photo that shows five cars in various stages of completion, presumably at Gladwin's backyard "factory."

With all credit to Sterling Gladwin, who was just one of many backyard builders in the early '50s, the task of building a complex prototype, refining and testing it, arranging for components, then building and marketing the car nationally, was a herculean effort. The car's unusual design meant some criticism could be expected. Gladwin needed national publicity, so it stood to reason that when Motor Trend called to do an article, he'd have accepted enthusiastically. Unfortunately, the ensuing publicity may not have helped much.

Pete Molson, then MT's managing editor, wrote a less than flattering one-page article on the Maverick which appeared in the October 1953 issue. "Impressive is the word," he wrote, "for the long boat-tailed monster known as the Maverick. Presumably, the name refers to an independent individual rather than the dictionary's first listing, 'an unmarked

For many years Fred Roth owned the sole restored Maverick (Roy Query).

calf.' " Molson acknowledged that the Maverick's "awkward features, by and large, are scheduled for discontinuance in production models."

Molson's offhanded styling analysis of the Maverick pretty much damned the car with faint praise: "However distinguished certain components on the car may be," he noted wryly, "they seem to take on a sort of Irish stew effect when they are all used at once. The Maverick's La Salle grille is beautiful; so are its Lincoln lights. Together they detract from its sweeping lines." Most observers may not have agreed with Molson's criticism, but it couldn't have made Gladwin happy.

THE END

It's believed that seven actual cars and an unknown number of Maverick boattail body shells were built from 1952 through 1968, at which time the company folded.

Special Interest Autos magazine spoke with Sterling Gladwin in 1971, pointing out that his vehicle manufacturer's license ended in 1968, just before he might have sold the Maverick name to Ford Motor Company. SIA noted that Buick had "paid six figures for the name Centurion." But Gladwin was reportedly "not bitter." Declaring that "Ford has adopted 'my' name and there's not a lot I can do with it," he quipped, "I am sorry it should be on the nose of such a tin can."

Summing up his brief foray into auto production, "Smoke" Gladwin told SIA, "It was a labor of love and very gratifying. We went on in other fiberglass fields, like building all-plastic trailers, radar dishes, and antenna switching gear shrouds for the Voice of America. These were more lucrative but not half as much fun." In a letter to the unidentified SIA writer, a wistful "Smoke" Gladwin pleaded, "treat my baby nicely – this is probably the last publicity she'll get."

THE MAVERICK AS A COLLECTORS' CAR

The late Fred Roth (he passed away in 2015) wasn't looking for a Maverick. But he was probably fated to find one. Eventually he managed to obtain the prototype – the original Maverick. "I got the car home," said Fred, "and didn't do too much for a couple of years. It had had a poor restoration. It took a lot of work to get it straight. I had to add some fiberglass. The surface was so rough I had to use 36-grit sandpaper and a board file in many places. Mechanically, the engine and transmission were okay. We redid the brakes and did some electrical work.

"Gladwin built my car in 1952," Roth explained, "and then in 1954 when he decided to build a business, he completely rebuilt it. I restored it as it was rebuilt with the overhead-valve Cadillac Eldorado V-8. He changed the steering wheel from a La Salle banjo and column shift to a more modern wheel with a floor shift. It was very complete except for the taillights. Someone had removed the gravel shields. I had to make those. Luckily, it still had the rare hood ornament."

Resplendent in deep green metallic paint, Roth's restoration debuted at the Amelia Island concours in 2007 and appeared at Pebble Beach five years later. Fred enjoyed the attention the roadster received. "People are usually bowled over when they see this car. At Pebble Beach, four women came up and said, "Sir, this

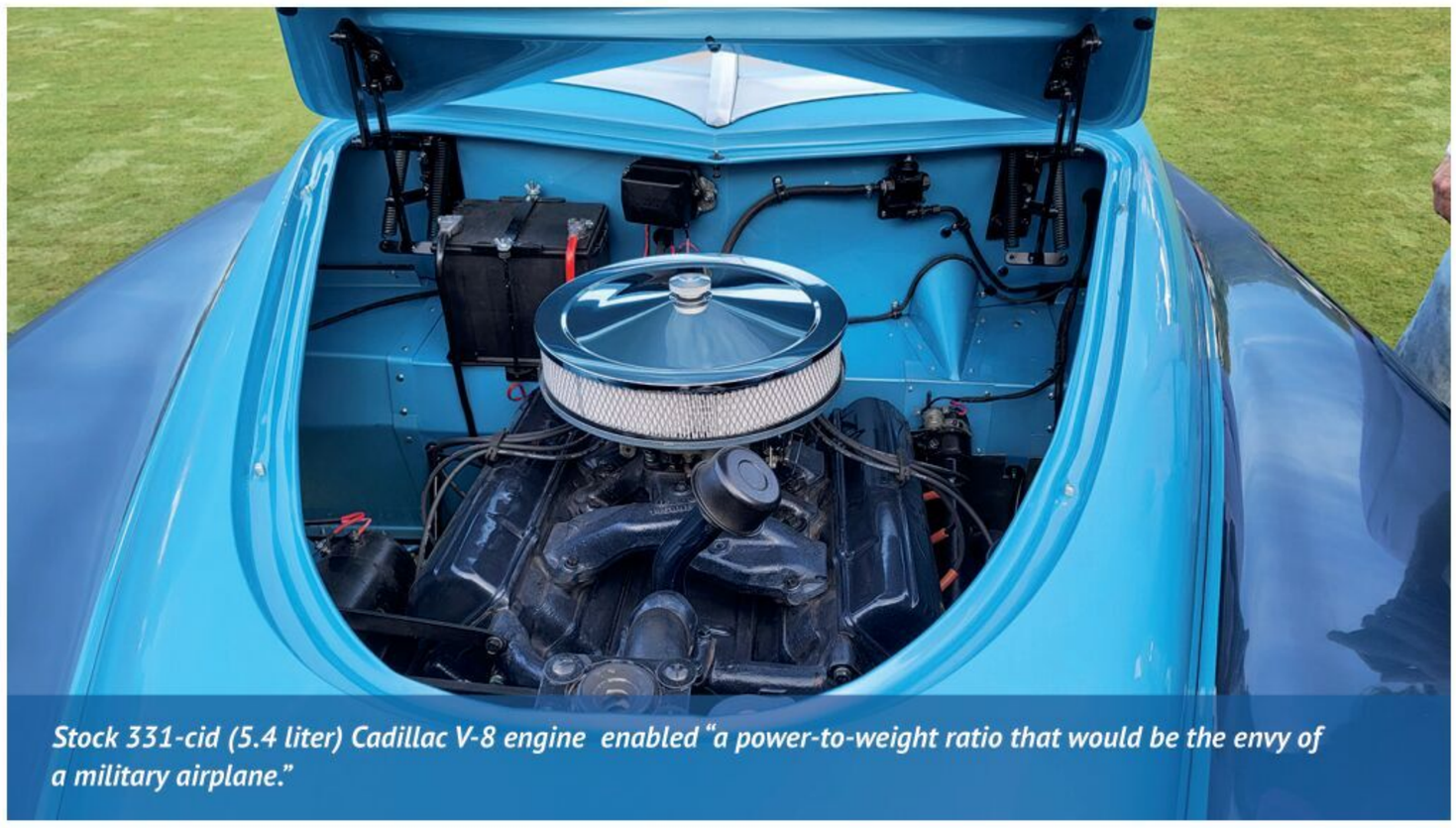
is my favorite car in the entire show." No less an authority than Barry Meguiar enthused, "This is a perfect example of a Pebble Beach car."

Although he's no longer with us, Fred Roth deserves a great deal of credit for the fact that his bottle-green car and the Chandler/Hacker two-tone blue roadster have survived. When Roth told Geoff Hacker that he believed at least one Maverick had survived, that was all Hacker needed. He's found dozens of long-lost cars.

In 2012, Hacker was called by a friend who was a fiberglass expert – a man who'd built Grantham Stardust cars when he was growing up and who worked in the fiberglass industry. One of his friends had just picked up a Maverick Sportster that was located in Wisconsin. It was a car Geoff had long been looking for, while working with Bob Curtis, who Hacker said owns the largest collection of fiberglass cars in the United States. The Maverick in Wisconsin was a completed car. It initially came from Washington State, but at one time, its then owner ran into financial problems. So he literally stole the body from a shop where it was being restored and left all the other parts behind. Research shows this car had once been owned by Sterling Gladwin. It may even have been the last car built. It was passed along to Gladwin's nephew, Robert "Tom" Garross, who said he "couldn't afford to restore it," and then it went through several other owners before Geoff Hacker located it and began its restoration in a partnership with Tom Chandler of Elkader, Iowa.

"I knew Geoff had some unfinished projects," Chandler said, "and I knew that money would help him. Geoff had seen my Glasspar at a Chicago area show, and he was impressed with it. I called Geoff and said, 'If you liked what I did with the Glasspar, how about if you supply the project, a derelict car, and I'll supply the time, the effort, and the shop. We'll split the costs. We'll make it as nice as we can, and we'll see if we can find two guys with deep pockets.' "

As Sterling Gladwin labeled the car "Landbound Pegaus" it is no wonder the hood ornament depicts a pegasus.



Stock 331-cid (5.4 liter) Cadillac V-8 engine enabled "a power-to-weight ratio that would be the envy of a military airplane."

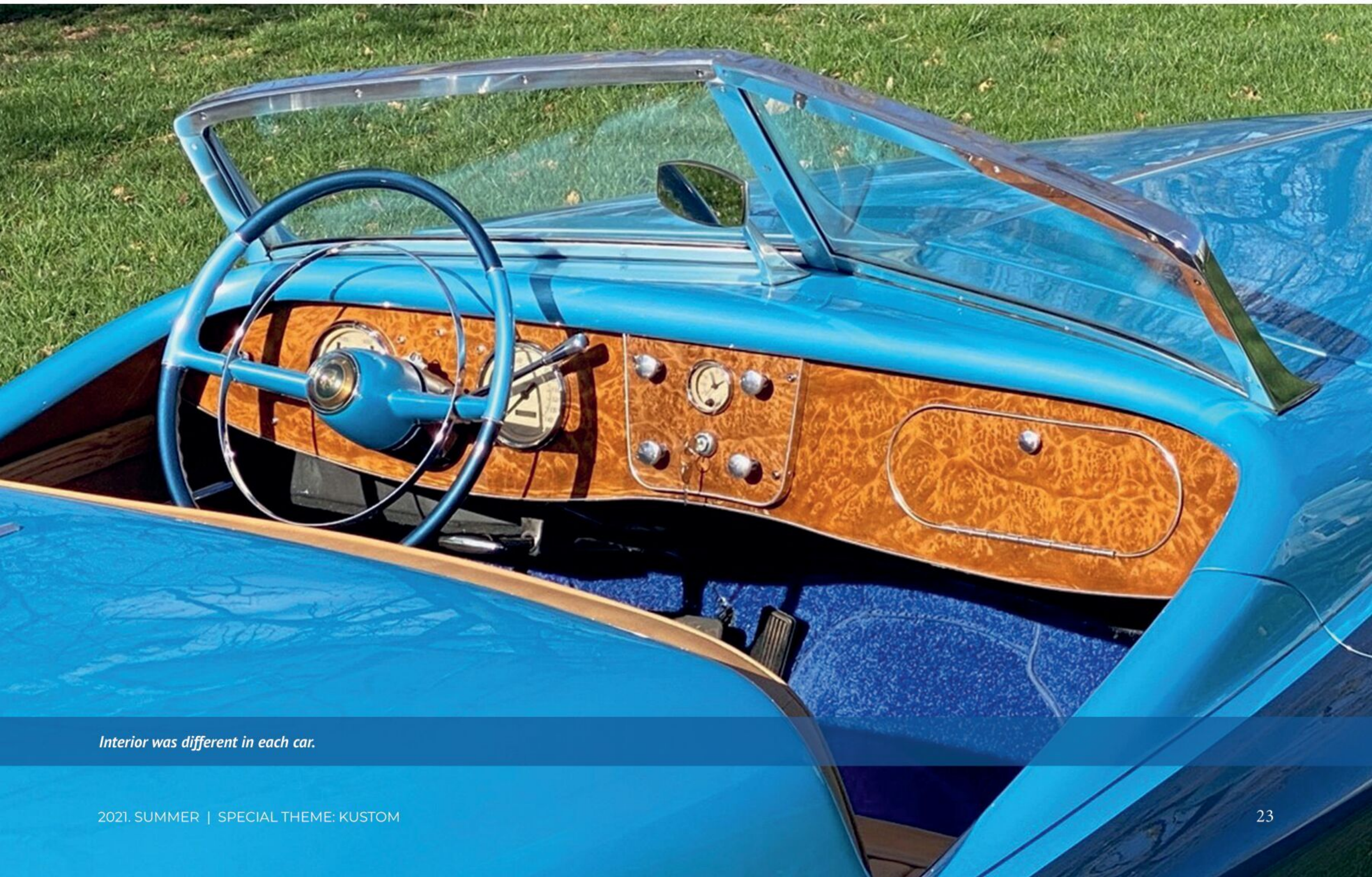
Recently restored Maverick Sportster debuted at the 2021 Amelia Concours d'Elegance, where it won an award.

Adding to the challenge, Tom Chandler had never even seen a Maverick. He preferred light, sporty European-style cars. But when Hacker trailered the derelict but still handsome Maverick body to Iowa, Chandler became convinced. The pair planned to restore the car, show it in several events, and then shop it around. A retired schoolteacher, Tom Chandler did the restoration. "I love to restore cars," he said. "I'm not a street-rod man, but I have a hobby shop where I do my work, and I have close friends who've retired and love to work with me. We do it for the love of it."

This second Maverick project took seven years, but that's because Chandler was working on other projects at the same time. He says he likes to work on several things at once. "I had never seen a color photo of a Maverick," he said, "so the color was my choice. It might have originally been white, but I thought that was dull. Sterling Gladwin advertised that he'd finish a car any way the customer wanted. So I took that seriously," Chandler continued. "I made sure I did it in the spirit of Sterling Gladwin and his love for 1930s styles, with kind of an art-deco look, and I picked materials he could have had in the mid-1950s, working in a low-tech garage. But I thought there were a few things I could improve. For example, I was not going to put a bumper across that gorgeous La Salle grille, so we did the corner bumpers, like a '37 Cadillac. And I wasn't happy with the original windshield design – our windshield was inspired by one on an Auburn. We fabricated a new one, then handcrafted it here to get it to fit."

At Amelia Island earlier this year, the freshly restored, two-tone blue Maverick was very well received. It won the Spirit of Buddy Palumbo Award, which is given to "an owner who personally did much of the restoration of his own car." Chandler said many people at Amelia Island asked what the car was, and still more of them commented that they loved the two-tone color scheme. "It was surprising how many ladies saw the Cadillac emblem and said, 'Oh, this is a Cadillac.' " That connection interested people who thought it was a special Cadillac. And it is. Both the matching 331-cubic-inch V-8 and the chassis are pure '53 Cad Series 62. Chandler and his crew moved the V-8 engine back about a foot to accommodate the Maverick roadster body. The rear axle was initially too wide, so they narrowed it while retaining all the key Cadillac parts, the brakes, and the shortened driveline.

Looking back, the late Fred Roth was a hero where these cars are concerned. He restored many hand-built fiberglass cars; he wrote about them, showed them, and through his efforts many people discovered them. Geoff Hacker says Roth told him that one of his objectives with his restorations was to restore the car "a little above and beyond the way they were originally built . . . to help the original designers achieve what they were looking for." To accomplish this today, Hacker has assembled a team of design experts that includes designer Raffi Minasian, illustrator Dan Palatnik, and now Tom Chandler. And stop the presses: Geoff has located a third surviving Maverick, which is unrestored, and it's presently in Florida.



Interior was different in each car.

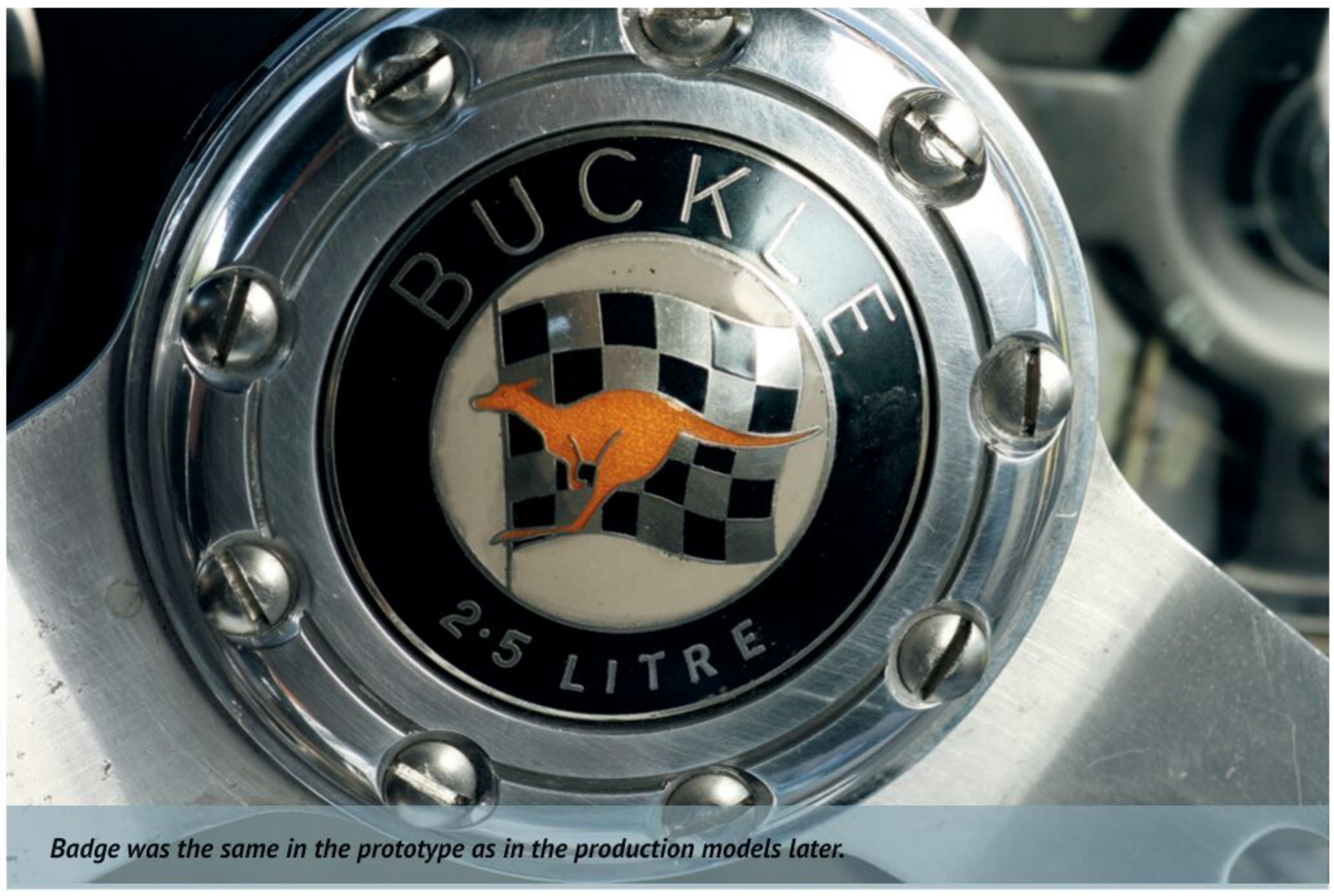
EXPERIMENTS DOWN UNDER

BUCKLE 2.5 COUPÉ, 1955

THE GOGGOMOBIL DART, BILL BUCKLE'S BEST-KNOWN CREATION HAS ALREADY GRACED THE PAGES OF RARE & UNIQUE VEHICLE. NOW WE TAKE A LOOK AT THE GREAT AUSTRALIAN DESIGNER'S FIRST PROTOTYPE WITH THE ASSISTANCE OF **THOMAS WIRTH** AND **HUBERT KRANZ**. PHOTOGRAPHS: **ULI JOOSS**.

The Buckle family's automotive roots go back to 1927 when William G. Buckle set up Buckle Motors Pty Ltd in Sydney to sell Talbot and Triumph to a local market. Later Armstrong-Siddeley and DeSoto were added.

Bill Buckle joined the family business in 1945: „My Dad died when I was 19, and it was decided that I should join Buckle Motors to learn the car business. .. . In 1949, the Company got the opportunity to take on the Citroen franchise… I raced one [Traction Avant] and competed in hill climbs and trials at all the major circuits and rally events, with considerable success. … About this time, the travel bug bit, and I decided to go to Europe to get some experience at the Citroen Factory in Slough, outside of London, and at a service centre in Central London. I was lucky enough to have a new home delivery Citroen Big Fifteen at my disposal and over the



Badge was the same in the prototype as in the production models later.

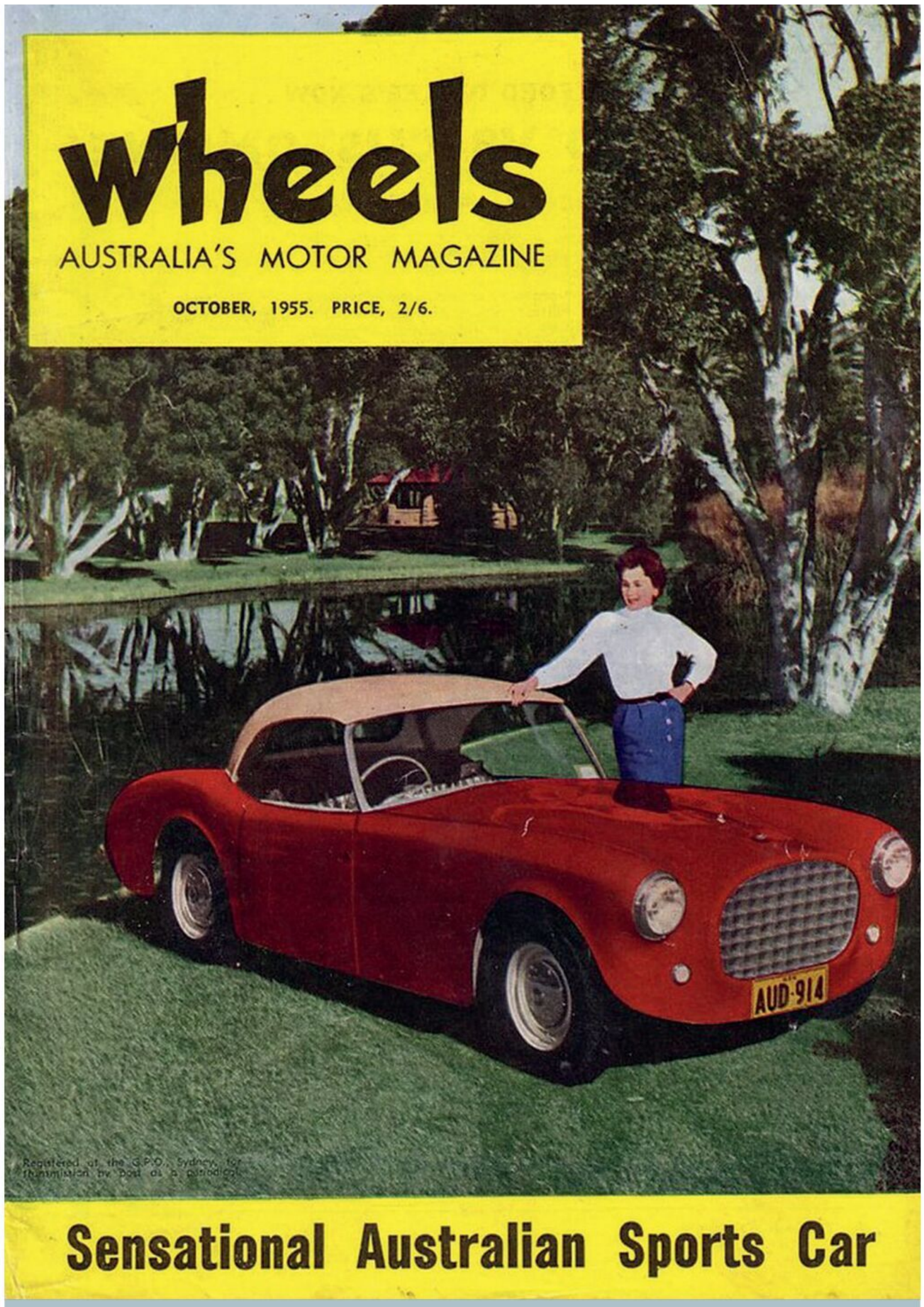
eighteen months, followed the Grand Prix events around Europe with drivers such as Moss, Hawthorn, Collins, etc, and participated in rallies in the UK. … In 1953, a Melbourne friend phoned to ask if I would come back to Australia to co-drive a Light Fifteen in the first Redex round Australia trial, an offer too good to refuse.

While in Europe, I had seen some fibreglass bodied sports cars, (mostly one off) and influenced by some very pretty Ferrari, Maserati, etc. sports cars and the English AC Ace and Austin Healeys, I convinced the board of Buckle Motors that we should build a prototype fibreglass sports car using locally available components".

BUCKLE 2.5 COUPE

This first car was completed in 1955. It was warmly received by the press and public alike. They agreed it was a car worth waiting for. Modern Motor featured the following report:

„A sleek plastic-bodied two-seater is going into production in Sydney early next year. Based mainly on Ford Zephyr mechanical components, it is the brainchild of Bill Buckle and Jack Anderson. A prototype of the still unnamed car drew big crowds at the Sydney Motor Show… The prototype has reached 90 mph (around 140 km/h) with a standard Zephyr engine; extra tuning and modifications will allow much higher speeds. The body is of fiberglass sheets and rovings bonded under heat with polyester resin. It was cast in plaster moulds and together with detachable hardtop weighs only 1 cwt (50 kg). Car's total weight is 17 cwt (860 kg). The plastic is extremely solid, and is shaped so as to strengthen vital sections. Smooth-surfaced, it allows an excellent duco finish. Engine, transmission, rear axle, rear springs, front stub axles, brakes, and steering are Zephyr, while the wheels are Consul. Front suspension is by transverse leaf, and hydraulic dampers are fitted all round.



At its debut Wheels magazine featured the car on its cover in a striking red hue - but the car was blue!

Big radiator was featured on the prototype only.

Hardtop was removable.

Dashboard design was updated in production models.

Seats had to be rebuilt.

The box-section chassis has tubular cross-members and a tubular brace that curves up over the dash. Instead of the Zephyr's steering-column gearshift, a floor lever is provided. The hardtop can be removed in three minutes, and the windscreen also comes off for racing"

According to Mike McCarthy's book, „Great Australian Sports Cars and Specials" it took another two years for Buckle to develop and refine the design in the light of lessons learned. Between 1957-1958 Buckle built 20 Coupé models, all powered by Ford Zephyr engines.

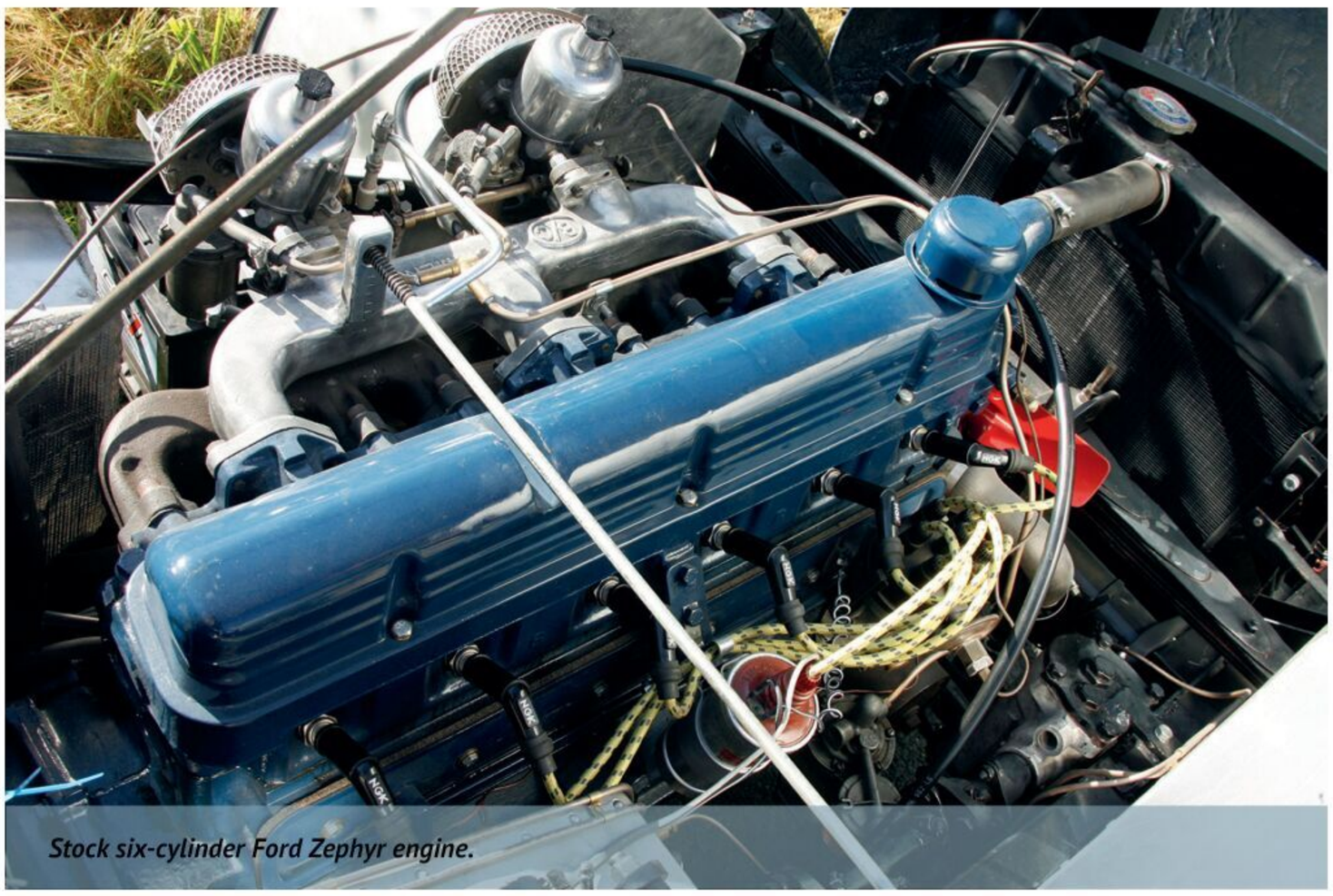
The prototype was sold by Bill Buckle in 1958 to Ray Lackie, who painted it red and installed a four-speed Peugeot gearbox, replacing the three-speed Ford unit. In this configuration the car was raced until the 1970s. By that time it was owned by another Aussie, Vic Adams.

In 1975 it was sold again to Noel Hill, who eventually restored the car and brought it to the United Kingdom.

HUBERT KRANZ AND THE BUCKLE 2.5

In 2004 Hubert Kranz, a German vegetable wholesale trader was browsing the Internet, looking for a 1950s sports car. By chance he found an ad in England, showing a sports car with an unusually large grill. It was a Buckle, built in 1955. Kranz never heard of the car before.

„It appealed to me immediately," he says: „An exciting car, a one-off, but with uncomplicated technology". He immediately drove to England and struck a deal with Noel Hill. While the Buckle had been refurbished in the 1980s, it spent the last 15 years under a tarpaulin in the front yard when Hill lost interest. „The car stank terribly," says Hubert Kranz. Inside, carpets and seats were rotting. The paint was partially peeling off and the floor area had rusted away.



Stock six-cylinder Ford Zephyr engine.

Even the air filters were made in Australia.

Top speed was about 185 km/h.

Kranz brought the car home, dismantled it and started the slow and meticulous process of restoration. The ladder frame was stripped and rebuilt.

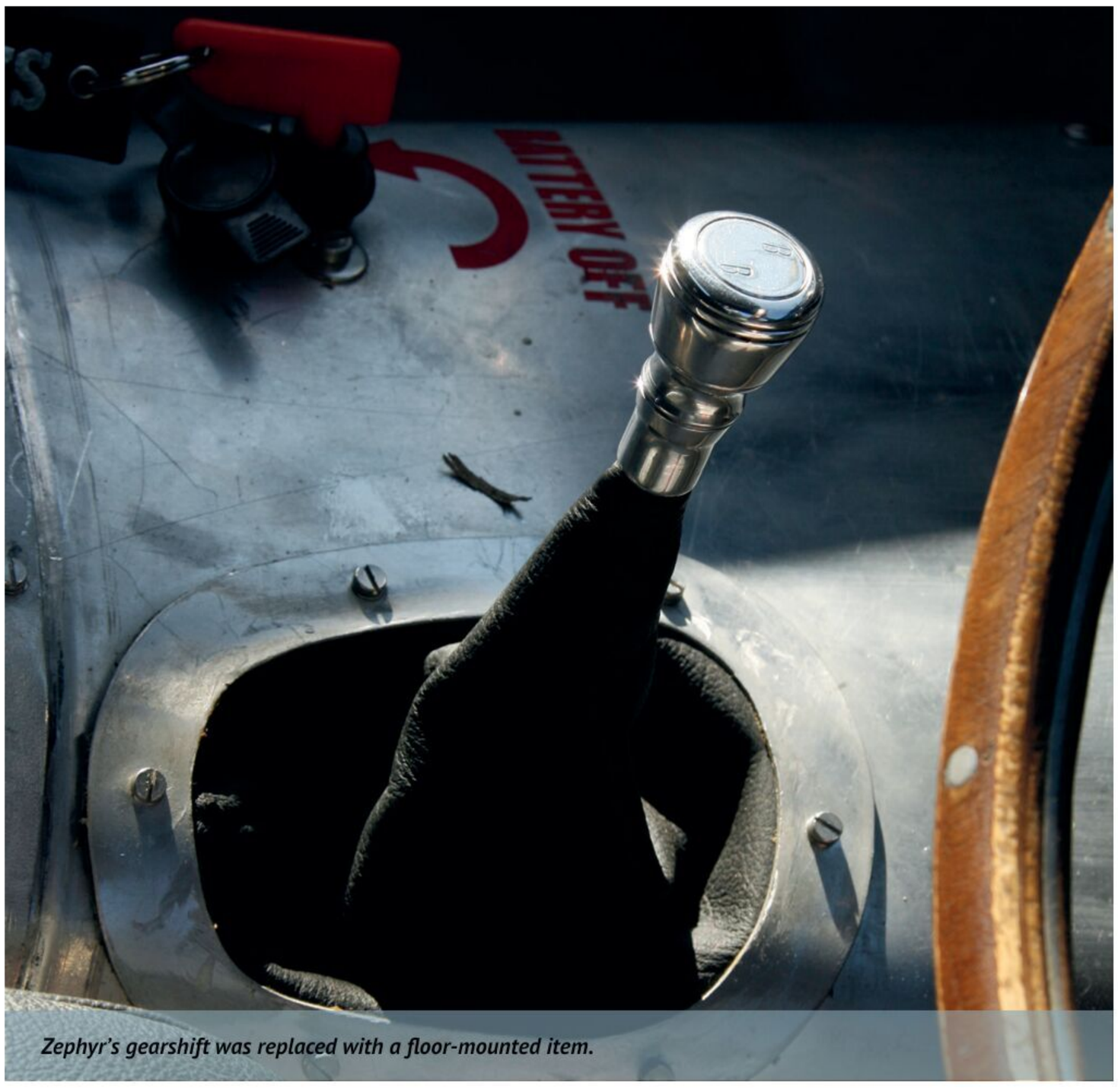
Hubert Kranz also made the plastic parts shine. He consciously chose a very gentle process that was suitable for the old plastic. The blasting material consisted of walnut shells, among other things. During the work, the company doing the work complained about the bubbles and craters in the plastic, which irritated the man with the blasting gun. But that is how a prototype was built. Another sign was the thickness of the material - the laminated plastic was up to 14 millimeters thick in some places, in others steel plates were embedded to stiffen the structure. “We knew so little about plastic back then“, explained Bill Buckle later.

When it come to repaint the car, Kranz found a remnant of the original blue hue near the filler cap and realised that a 1963 Volkswagen blue was „a 98 percent match“. Working with a standard color paint has lots of advantages, e.g. there are fewer headaches if the car is scratched.

Hubert Kranz had the rusted metal sheets on the floor replaced. At the same time, he widened the footwells:

This is how Bill Buckle’s automotive ventures started.

Bill Buckle stands proudly with two of his machines in the town of Bathurst. (Photo: Buckle Coupe Owner’s Register)



Zephyr's gearshift was replaced with a floor-mounted item.

„I could hardly use the pedals before," says Kranz, who also deviated from the original in terms of material: originally there was a wooden floor used, which covered with steel sheets, Hubert Kranz substituted it with aluminium—with the blessing from Bill Buckle himself.

The large-format grill, which gives the Buckle such a characteristic appearance, was also laborious to restore. Bill Buckle had once laminated the grille into the plastic. Fortunately, it survived the decades without accidents or vandalism, and so it was just hard work for the painter.

There was little to do on the sturdy six-cylinder, 2.5-liter Ford engine. This was also true of the aforementioned Peugeot four-speed gearbox.

The suspension, also from Ford, received completely new bushings. Hubert Kranz also refurbished the brakes. After some research, he even came across suitable replacement parts for the wheels. He realised that Volvo offers such wheels in the right shape and bolt circle.

Today Kranz operates a classic car restoration workshop in the German town of Straelen, which specialises in British cars.

Hubert Kranz is now working with British cars, but he also enjoys his exotic Australian sportscar.

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INNOVATION BEHIND THE IRON CURTAIN

Skoda 440 Polytex Roadster

MOTORING LIFE BEHIND THE IRON CURTAIN WAS MOSTLY ABOUT TRABANTS, ZHIGULIS, WARTBURGS, AND SUCH. BUT THE INNOVATIVE SPIRIT WAS BURNING BRIGHT, LEADING TO SURPRISING RESULTS. ONE OF THESE WAS A ONE-OFF GRP-BODIED SPORTS CAR BUILT IN CZECHOSLOVAKIA IN 1956. **DR PÁL NÉGYESI** REPORTS. PHOTOS BY **ONDREJ KROUTIL** AND **THE CABRIO GALLERY**

NO FUTURE

Škoda in the 1950s

In the early 1950s, the motoring landscape behind the Iron Curtain was pretty dire. In East Germany, prewar DKWs were built badged as IFA, while the Soviet factories largely catered to the needs of the state. Škoda in Czechoslovakia was the only company that produced family cars in bigger series. In 1953, development started on a brand-new model, which became the 1000 MB a decade later. Because of delays in its gestation, Škoda was ordered by the Communist Party to offer a stopgap solution. This became the 440 family, the model name referring to the four-cylinder 40-hp engine. The car was based on the Tudor with a front-engine/rear-drive layout and a relatively modern-looking body. The 440 sedan was soon joined by the more powerful 445 and the 450 roadster.

The 440 and its slightly updated version, the Octavia, were the staple Czechoslovakian cars of the 1950s and 1960s. They did not look especially bad, and the 450 (later Felicia) convertible was considered a dream car of the region. Škoda was able to export these cars to Western countries, earning much-needed hard currency.

Karosa and Diblik

The one-off car that graces these pages was designed by Otakar Diblik, an architect from the Brno University of Technology. At the time, he was working at the Karosa factory in Vysoke Myto. Up until 1948 the company was known as Sodomka, and it was one of the leading coachbuilders in the region.

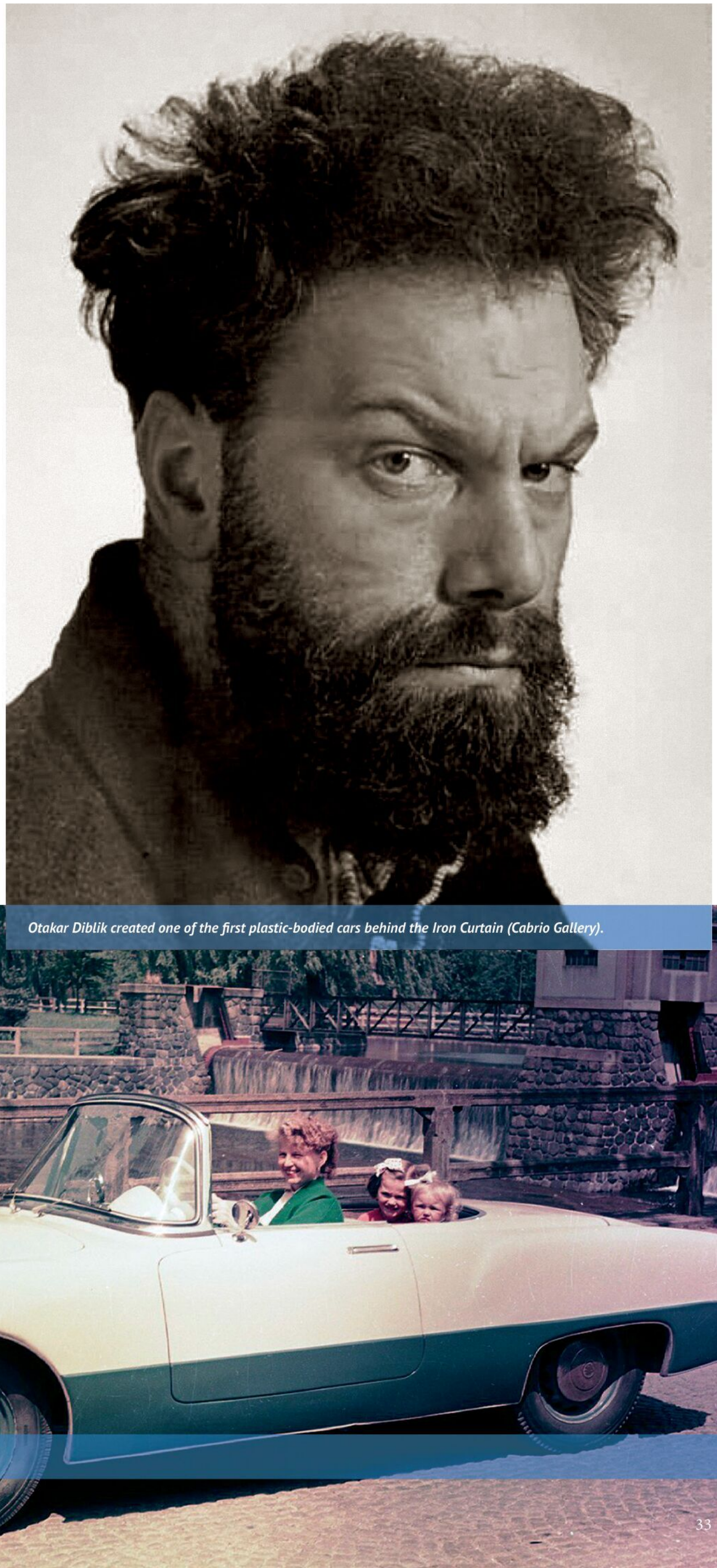
The Škoda 440 was intended to be a stopgap model but remained in production for a decade (Fortepan).

When the company was nationalized, it was renamed Karosa. The company was tasked to build coaches and truck bodies. However, echoes of the coachbuilding era still lingered in the workshop, and from time to time something unique emerged.

A Plastic Body

The body of the roadster was manufactured in a plant specializing in fiberglass laminate technology: Kovona Karviná, located in Karviná, North Moravia, near Ostrava. Kovona Karviná started the production of fiberglass laminates in 1953 and was one of the first companies in this field in Eastern and Central Europe. At the beginning, it focused on special products for military applications (e.g., additional tanks for jet planes) and high-strength helmets for motorcyclists and miners. The body of the roadster was completed in 1956.

Once molded, the 56-kg bodyshell was transported back to Vysoke Myto, where Josef Nalezenec, a young engineer, led the team that assembled the car. It was built on the chassis of a Škoda 440 but used some parts from the bigger 1200 as well.



Otakar Diblik created one of the first plastic-bodied cars behind the Iron Curtain (Cabrio Gallery).

In its original form the car had no top.

The Škoda 440 Polytex Roadster caused quite a shock at its 1956 unveiling (Tobias Baldus).

The original shape of the 440 has been radically altered.

A few changes are worth mentioning. For example, the front axle was equipped with torsion bars. The dashboard was redesigned, the rear bench was discarded, and in its place was a padded luggage rack. The ivory-colored body contrasted with the blue substructure. The interior was made of gray-blue synthetic leather, and the roadster featured an ivory-colored steering wheel. The hardtop was made of plexiglass. Soon the disadvantages of this roof became apparent. It was not strong enough and had a strong greenhouse effect on sunny days. The car did not even have a conventional convertible roof.

Unsuccessful First Appearance

The first public presentation of this prototype took place in Mlada Boleslav in the summer of 1956, and it didn't go according to plan at all. The factory driver had a puncture during a race where the prototype appeared and its front section was badly damaged. The quick repair on site with plastic was later presented in advertising as an advantage.

NO FUTURE

The top was made from plexiglass.

During further test drives, the ultralight original plexiglass roof flew away.

In September 1956, the Skoda Roadster was one of the most admired exhibits at the industrial fair in Brno. According to the official presentation: “It is a prototype with which the properties of the new Polytex plastic are to be tested.”

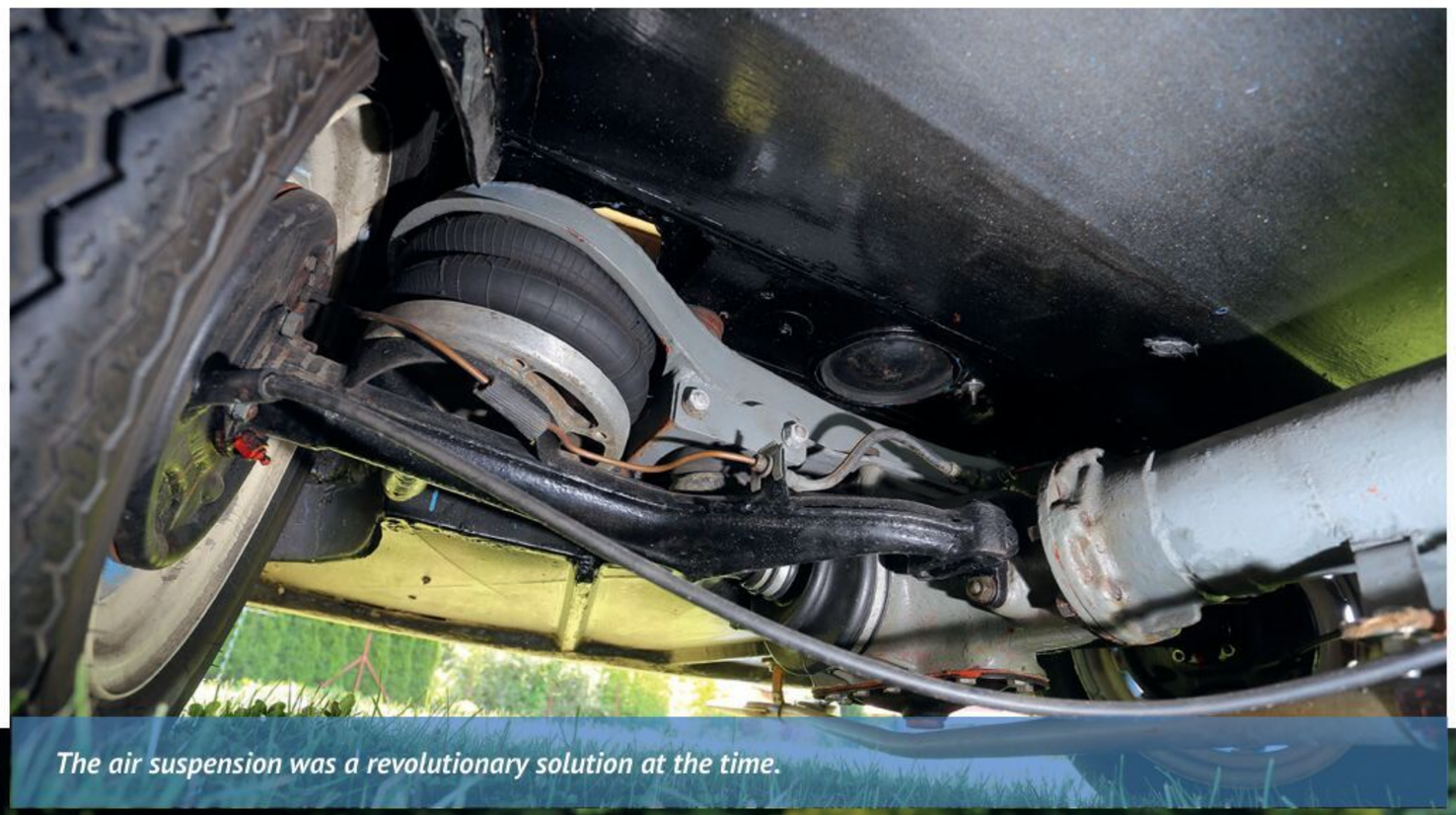
Later Life

Around 1958, the plexiglass roof was finally discarded, and a windscreen from a Škoda 450 was installed. From then on, there was no roof at all, and the car was shown as a pure roadster. Chances for a small series quickly evaporated.

It soon became apparent that the body was not stiff enough. It had to be reinforced with metal pieces, but these added weight, which became an issue. The 1089-cc engine had a maximum power of 40 horsepower, which enabled a maximum speed of 120 km/h. Even that moderate speed put a considerable strain on the Polytex body.

The car participated at some local rally events.

The elegance of the four-seater interior is timeless.



The air suspension was a revolutionary solution at the time.

By the end of the 1950s, the project was abandoned. Technical problems, difficulties with plastic, and politically motivated intrigues all led to the demise of the car. After its "active time" at auto shows and exhibitions, the one-off deteriorated and was abandoned in one of the unused buildings within Karosa.

The Car Is Rescued

In the 1960s, Josef Naleznec bought the car and improved it to his taste. That meant American-looking tailfins, Ford Cortina taillights, and a radiator grille from a Tatra 603. But soon he lost interest and sold the car to his son-in-law in Pardubice, where the car lingered for decades.

In 1998 the car, a shadow of its former self, was sold to one Frantisek Hrbacek from Javornik.

Although the car was in very poor mechanical condition, the body

The paint is still original.

NO FUTURE

Cabrio Gallery now has a children's version of the car!

showed that the Polytex material was actually quite tough.The Karosa Company Museum in Vysoke Myto provided the new owner with complete documentation, including contemporary photos. Hrbacek was able to produce true-to-scale plaster casts. With the help of these casts, the body could be resurrected in its original form piece by piece. Since the original plexiglass roof could no longer be found and, moreover, had proven to be an impractical solution, a roof from a Škoda Felicia was installed.

Hrbacek did not finish the project and sold the car "as is" to the Cabrio Gallery in Dobřenice. The restoration was then completed with refurbished mechanical parts and a folding roof, but still retaining the original paint and interior. Today the Roadster stands among other rare and important Škoda cars.

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SIDEBAR

In 2018 AutoCult came up with a 1:43 scale model of the car. Interestingly it shows the modified version with the closed roof. 333 pieces were produced.

CABRIO GALLERY

French dressing

Citroën H Coccinelle III Le Bastard

IN THE 1950S A FRENCH CITROËN DEALER DESIGNED THE ULTIMATE MOTORHOME AND CHOSE A COACHBUILDER RENOWNED FOR ITS DRAMATIC ADVERTISING TRUCKS TO BUILD IT. **JAN-HENRIK MUCHE** HAS THE STORY. PHOTOS BY **SPIEKER FOTOGRAFIE**

PS Speicher, in the German town of Einbeck, has one of the biggest automotive collections in Europe. In one of its depots sits a fully functional, interesting-looking camper. The adjoining information sheet tells us it is called the La Coccinelle III, which was built by a French coachbuilder named Le Bastard.

But to trace back the story of this vehicle we should not go to Rouen, home to Le Bastard, but to Sainte-Adresse, a suburb of Le Havre. It was here in the early 1950s that Georges Leroy sat down at 38 Avenue Désiré Dehors, with a view of the water and the sky over the English Channel, to draft plans for the ultimate motorhome, a luxury room on wheels. We know this because later on he was so proud of his work that he had an engraved sign put up next to the massive entrance door. It identifies him as the designer of the May Bug.

Leroy was a Citroën dealer, so opting for a Citroën H van with a payload of 1200 kilograms was

Headroom has been increased.

an easy choice. By the time Le Bastard finished the commissioned bodywork for what was to become the Coccinelle III in March 1957, the corrugated iron hut with the nez de cochon (pig's nose), a hallmark feature of Citroën light commercial vehicles, was unrecognizable. The rough boxy shape of the original gave way to soft corners, and the free-standing headlights were integrated into the friendly-looking front. Entry is via the driver's seat, as the sliding door on the other side can only be opened from the inside – a feature that would become tedious during everyday camping.

In the front row there is lots of light, as a round skylight lets in brightness. From here you can also climb to the roof which serves as a sundeck once a railing is attached. The bathroom has running water and – typically French – a seat washbasin and a bidet, and the stove in the kitchen opposite has an extractor hood by a chimney. There

There is no trace of a Coccinelle I or II...

There is a two-meter extension at the back which houses the camper compartment.

There is a bidet hidden under the sinks.

A well-equipped kitchen is helpful during long tours.

are countless apartments across France that have fewer creature comforts than the luxury camper from Le Havre.

When Georges Leroy went on a long journey, a list attached to the dashboard reminded him of what needed to be checked beforehand: top up with water, close the hood, turn off the gas – it seems he thought of everything.

The cozy camper compartment is located in the almost two-meter-long extension, the line of which swings gently and elegantly as if the wind and tides had shaped the rear over the years. At the end of the day, do the foam on the waves and the colors of the Côte d'Azur inspire the soft, creamy three-tone paintwork in white over pastel and tourmaline green? We can only guess.

But we know that a down-to-earth and unspectacular

commercial vehicle lurks under all this extravagance. The car key is used only to unlock the driver's door, which is hinged at the back. Instead of the original semicircular speedometer, a finer central instrument from the Citroën Traction Avant is installed; the four-spoke steering wheel could have come from a Grand Prix racing car from those years. Getting underway requires a little practice: close the ignition circuit with button C (Contact), pull button S (starter) with choke function, and press button D (Démarreur) to start. A short breath and the four-cylinder mounted in the middle under the dashboard comes grumpily into life.

A little farther behind, at the height of the driver's rear, a long gearstick protrudes upward directly from the gearbox. A slightly newer engine with 45 horsepower was retrofitted at some point, but it remained with the three-speed transmission. The Citroën camper takes off without much effort. With a length of around six meters and a fat bottom, it takes the curves from far outside.

If you look at the glass lamps, the perfectly fitting furniture and fine handles in Art Deco style, and the tailor-made rain gutters over the portholes from the shipbuilding industry, you don't need a lot of imagination to suspect that a fortune was spent on Monsieur Leroy's dream home. The large, hinged rear window lets in air and light and serves as an emergency exit; if necessary, the open bathroom door separates the cockpit and living area. Crystal chandeliers and a shot-glass cabinet hang in the foyer; nothing is missing.

The name of the car, Coccinelle III, conjures up images of other campers with the same name. However there is no record of any such activity by Le Bastard. It is just another mystery surrounding the dream home of Georges Leroy.

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The rear compartment can act both as a living room and as a bedroom.

A streamlined Latil coach from 1936 (Fondation Berliet).

The story of Astra margarine goes back to 1912. This Tour de France promotional vehicle was penned by Philippe Charbonneaux in 1954 and built by Le Bastard on a Delahaye chassis (Fondation Berliet).

THE STORY OF LE BASTARD

Although Le Bastard became famous during the 1950s and 1960s, the origins of the company go back to the 1880s, when Gabriel Le Bastard set up a workshop to produce carts and horse-drawn carriages in Rouen. By the time his son Gaston took over the reins in the 1910s, Le Bastard was increasingly focused on automotive bodywork. After the First World War, the company turned its attention to advertising vehicles. It became one of the leading specialists in this field, procuring international orders.

The Second World War and the German occupation put an end to the company's coachbuilding activities. Work resumed in 1946, when the company was led by Edmond Le Bastard, son of Gaston. The workforce dropped from 120 to 80 and then gradually to 60. Specialists including saddlers, panel beaters, carpenters, and wheelwrights were representatives of a bygone era.

In changing times, there was one particular attribute that saved the company: its ability to offer technical and stylistic solutions for the

study, creation, and production of advertising vehicles ordered by firms wishing to participate in popular events that attracted many visitors. Cycle races and fairs where branded vehicles could be driven were known to offer plenty of publicity opportunities, and everyone wanted to appear in their best attire. This was all before TV advertising hype began.

Le Bastard was recognized with numerous prizes awarded at the Nice advertising vehicle competitions, at the Paris advertising vehicle show, and at the Rouen fair. No wonder customers flocked to the company's workshop to have their "advertisements" produced there. Well-known designers such as as Géo Ham and Philippe Charbonneaux were on board with their talent.

Another promotional vehicle for Tour de France which was designed by Charbonneaux for Le Bastard. This dramatic looking body sits on a Panhard chassis (Serge Bellu).

By the end of the 1960s, the era of advertising trucks came to an end. Le Bastard ceased its activities in 1979. Edmond Le Bastard died in 2009, aged 94.

A Renault minivan was used as the basis for the Avia Motor Oil traveling showroom in 1958 (Bonhams).

“A BATMOBILE IN A TUXEDO“

The GAYLORD-ZEPPELIN

NOT AN AIRSHIP

THE GERMAN CITY OF FRIEDRICHSHAFEN IS NICKNAMED THE ZEPPELIN CITY BECAUSE COUNT FERDINAND ZEPPELIN MADE HIS PIONEERING LIGHTER-THAN-AIR AIRSHIPS THERE. FOR A FEW YEARS NOW, VISITORS TO THE ZEPPELIN MUSEUM HAVE BEEN GREETED BY A FLAMBOYANT AMERICAN SHOW CAR KNOWN AS THE GAYLORD-ZEPPELIN. ITS STORY IS JUST AS FASCINATING AS THE CAR ITSELF.

(Photo: Zeppelin GmbH).

"Some day I hope to build the world's finest motorcar," the great automotive stylist Alex Tremulis recalled in his first meeting with James (Jim) Gaylord, as recounted in Automobile Quarterly in 1974. During the 1970s and 1980s other magazines, such as Special Interest Autos, also covered the dream car of Jim and his brother, Ed Gaylord. These articles offer a nice introduction, but there's much more to learn. In 2017, Zeppelin GmbH acquired the car, along with a second chassis. The company provided these to the Zeppelin Museum as a "permanent loan." The acquisition included over 50 boxes of documentation. Researching the contemporary correspondence revealed some interesting tidbits about the automotive efforts of the Gaylord brothers.

THE GAYLORDS

The car's story started with hairpins. In the early 20th century, Solomon Goldberg, a traveling salesman, came up with the idea of the Hump Hair Pin, a fastener with a "hump" devised to hold women's hair in place. Over the decades his business developed, and he became known as the Hair Pin King. Goldberg died in 1940 and his widow, Ruth, revitalized the company after World War II. Ruth promptly changed the name from Hump Hair Pin to Gaylord Products Inc. "There is no clear indication as to what inspired the name change, but Ruth Goldberg clearly loved the ring of it—so much so that she changed her own surname to match it. Even after re-marrying a year later, to a New York industrialist named Jack Weaver, she carried on as Ruth K. Gaylord, and—stranger still—convinced her four adult children to become Gaylords, as well," according to an account of the company's history.

Two of these four children, Jim and Edward, are the centerpiece of this story. They had grown up in Chicago surrounded by luxury cars such as Pierce-Arrows, Packards, and Cadillacs. It was Jim who wanted more. Alex Tremulis recalled that he first met with Jim Gaylord in 1949 when the young automotive enthusiast stated his desire to build his own car. Jim returned with a more concrete idea five years later. By that time Tremulis was working exclusively for Ford and could not accept outside commissions. So Tremulis recommended his friend Brooks Stevens.

BROOKS STEVENS

Brooks Stevens (1911-1995) was an influential industrial designer. His oeuvre included everything from kitchen appliances to corporate logos. Stevens is responsible for the front-loading washing machine and the wide-mouth peanut butter jar, among other things. He designed many motor vehicles including cars, motorcycles, motorhomes, tractor-trailer cabs, railroad engines, and rail cars.

By the mid-1950s, Stevens was a household name in America, but he wanted to expand into Europe. He hired a French public relations specialist by the name of Guy Storr. It was Storr who suggested that a show car at the prestigious Paris Auto Show would be the way to go. In the spring of 1954, Stevens procured a Cadillac Series 60 Special chassis and began thinking up new ideas. His designs were turned to metal by the Spohn coachbuilding company in Ravensburg, Germany. The end result, called Die Valkyrie, debuted at the 1954 Paris Auto Show. It did not yield the consultation contracts Stevens was hoping for, but it did provide

The surviving car and extra chassis are now in the Zeppelin Museum in Friedrichshafen.

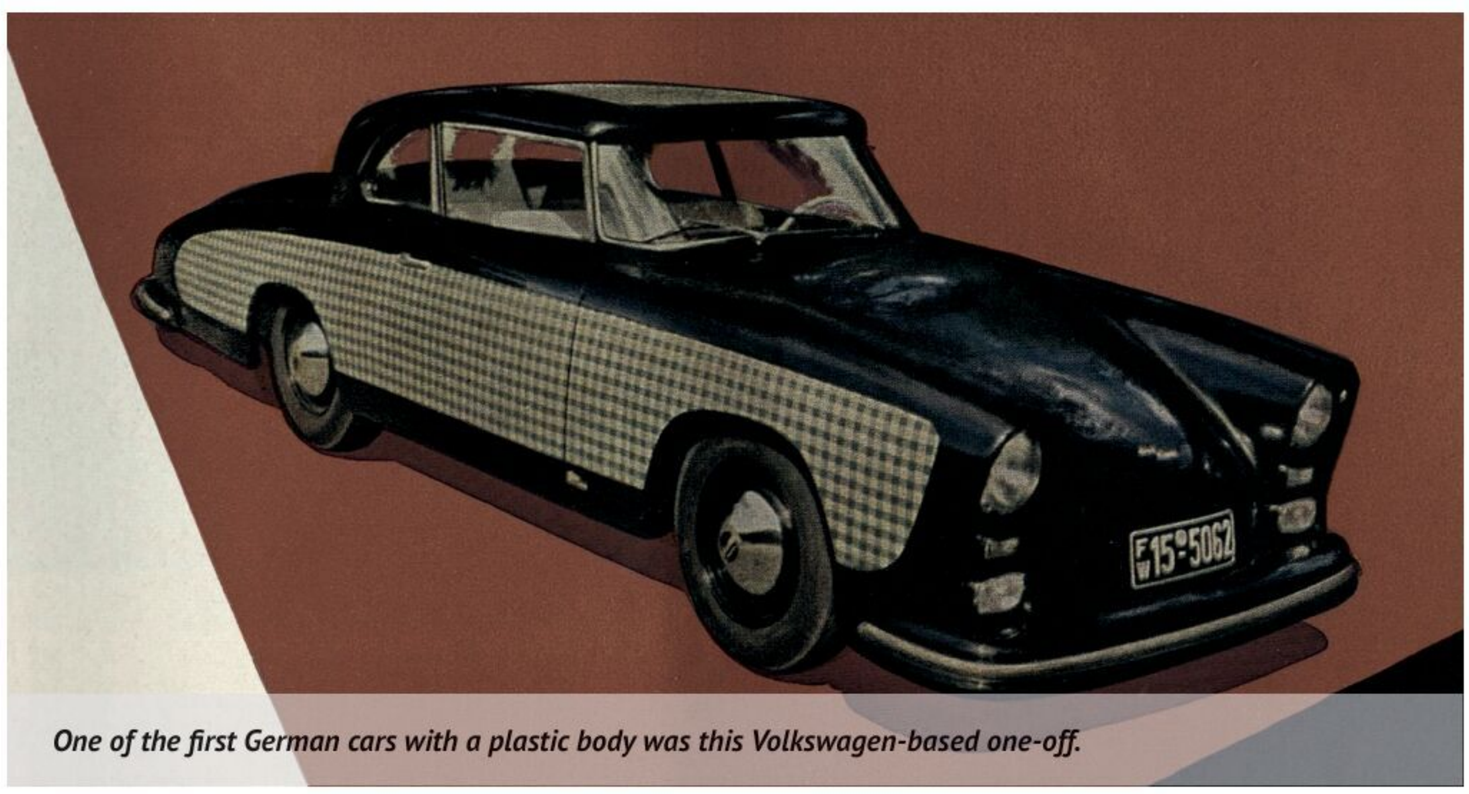
Brooks Stevens established a cooperation with Spohn by entrusting them with the Die Valkyrie show car. (Source: Hyman Ltd)

the template for his next automotive project, Jim Gaylord's dream car.

HERMANN SPOHN

Hermann Spohn, together with engineer Josef Eiwanger, set up their coachbuilding company in Ravensburg in 1921. In the 1920s and 1930s, Maybach was the best-known client of Spohn, although Benz, Mercedes, NAG, and Bugatti cars also received Spohn bodies. In 1922 Spohn built one of the first streamlined cars, based on a Ley chassis following Járay aerodynamic principles.

After World War II, Josef Eiwanger, Jr., entered the family business. In addition to repair work and a contract from newly founded Veritas, the company was kept afloat by commissions from GIs who wanted new bodies for their cars. The younger Eiwanger was just as daring as his father – in 1954 he built a plastic-bodied car on a Volkswagen chassis that was one of the first German GRP-bodied cars. However, by the time the Gaylords arrived, Spohn was on the ropes, producing parabolic antennas and loudspeakers, among other things, to avoid going out of



One of the first German cars with a plastic body was this Volkswagen-based one-off.

Spohn supplied bodies for Veritas and even rebodied a Veritas for a client! This car is now being restored. (Source: Hyman Ltd)

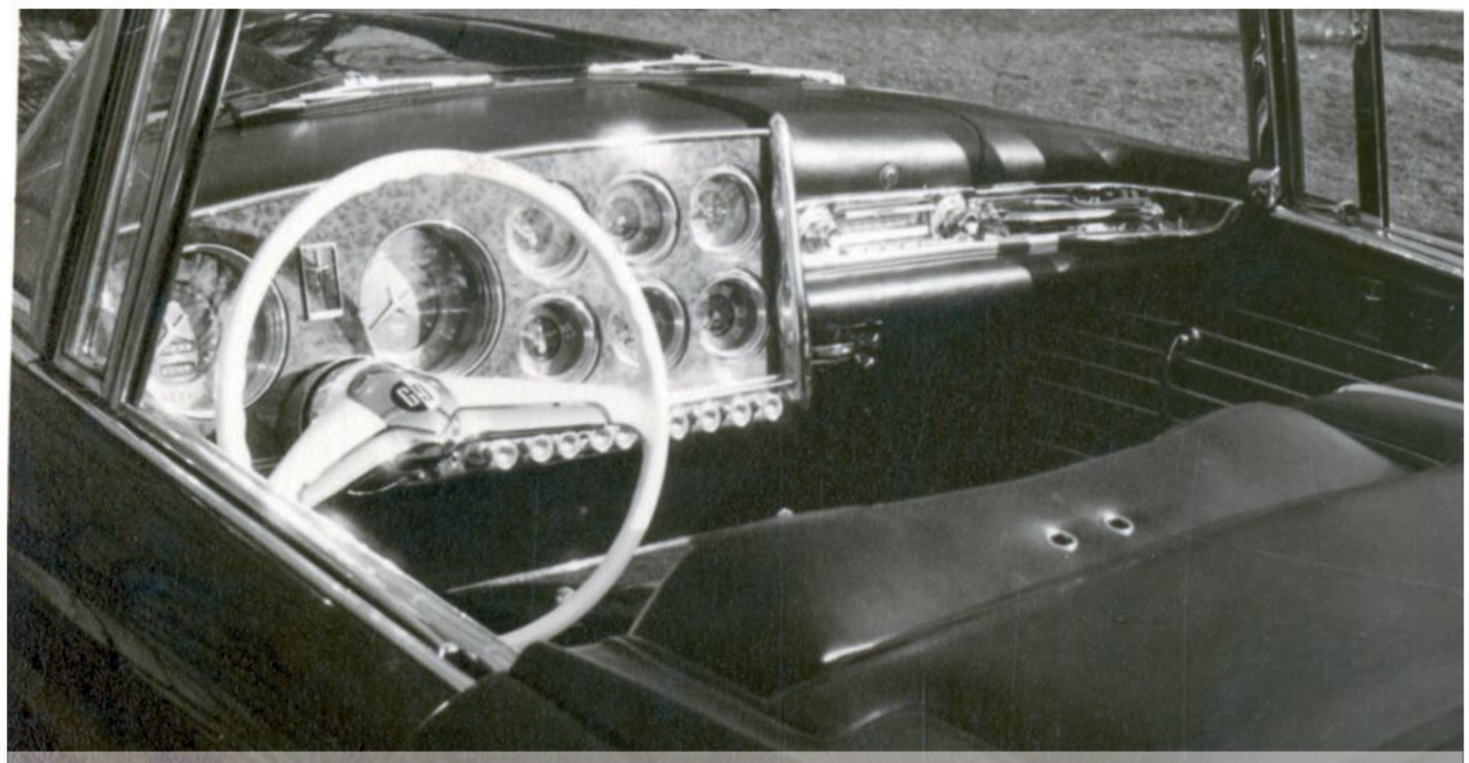
The original Gaylord Gladiator featuring P100 hedlights (Jürgen Waffenbach/Zeppelin Museum).

business. The heroic fight lasted until 1957, when liquidators were called in.

THE GAYLORD GLADIATOR

Toward the end of 1954 Jim Gaylord paid a series of visits to Brooks Stevens Associates near Milwaukee, Wisconsin. His idea was to produce a car that would surpass Cadillac, Lincoln, Rolls-Royce, and Mercedes. His target price was $10,000. The only other car in America at that price point was the Lincoln Continental Mark II. Development time was short, though, as Stevens intended to hold the car's debut at the next Paris Auto Show, in October 1955. From a quarter-scale model, the Gaylord car went straight into prototype form. The task of building the car was entrusted to the Spohn company, as Stevens had a pleasant experience with them.

Jim and Ed Gaylord wanted the design to recall both contemporary American trends, as shown in the tailfins and the contrasting side panels flung out rearward from the front wheels, and prewar British and German styling, interpreted with a neoclassic twist in one of the most striking front ends ever designed. A tall, deeply old-school wire mesh grille was flanked by huge Lucas P-100 headlights, the same as were



The original layout of the dashboard with needles shaped like swords (Jürgen Waffenbach/Zeppelin Museum).

The running chassis being tested (Source: Jürgen Waffenbach/Zeppelin Museum).

fitted to the old classics that Jim and Ed loved so much.

The technical features of the Gladiator were way ahead of their time. The spare wheel, for example, was hidden in a compartment beneath the trunk and could be slid out and onto the roadway in moments, without the unfortunate gentleman getting dirt on his clothes. The real highlight was the roof, though: an electrically retracting hard top, which raised and lowered with a single button and a single motor. Ford's Skyliner of the late 1950s, which arrived two years after the prototype Gladiator, needed seven motors. According to Tremulis, who quoted both Brooks and Jim Gaylord, it was Joseph Eiwanger who came up with the clever idea of a chain-drive system: "He was such a dedicated guy that he would never tell you something was hard or he really didn't know what he'd do the next day because he was facing a problem never solved before. He would just go ahead and do it."

Underneath the daring exterior was a sporting car boasting a semi-backbone step-down frame with a space-frame center section made of chrome-molybdneum tubing. The frame was coated internally with rust inhibitor, and then all the tubes and channels were sealed to make interior corrosion through condensation nearly impossible – in the best Rolls-Royce–like tradition. Front suspension used coil springs and a live axle, while leaf springs were used at the rear with leather covers for protection. The car was powered by a Cadillac V-8 coupled with a GM four-speed Hydra-matic transmission, modified so that when the accelerator pedal was floored in Drive, the transmission didn't shift until peak revs were reached in each gear.

According to Tremulis, the Gaylord possessed an excellent ride, generous wheel travel, and taut handling – qualities achieved due largely to all the thought given to each suspension component and its mounting points.

The Paris Gladiator show car featured a gladiator's sword in a rectilinear form as a hood ornament. It received rave reviews from the press, and orders came rolling in from the likes of Emperor Bao-Dai of Vietnam; Farouk I, the former King of Egypt; Grace Kelly, the Princess of Monaco; and film noir legend Dick Powell. The cost of the Gladiator ballooned from the intended $10,000 to $17,500 (around U.S. $200,000 or EUR 170,000 today), making it one of the most expensive cars of its day. It was significantly more expensive than a contemporary Rolls-Royce Silver Cloud.

FIF STEPS IN

The next step was to prepare for small-scale series production. But instead, a lawsuit was brought by Jim Gaylord against Spohn. What happened is a matter of interpretation. Jim Gaylord later claimed the car was too heavy and that is why he refused to pay for the work. However, some letters suggest that his

A group of FIF personnel with the finished Gaylord-Zeppelin. (Source: Karl Diesch/Zeppelin Museum)

The interior was lavishly equipped. (Source: Karl Diesch/Zeppelin Museum)

communication style may have also played a part in the animosity.

By the spring of 1956, Spohn was out of the picture and Fahrzeug-Instandsetzung (FIF), which was soon bought by Luftschiffbau Zeppelin, was in. Luftschiffbau Zeppelin was no stranger to coachbuilding, either: in the 1920s they clothed several cars, trucks, and coaches in aluminum. Among these, the most noteworthy was the forward-looking SHW car by Schwäbische Hüttenwerke in 1925. FIF was set up after World War II as a repair workshop, which occasionally dabbled in coachbuilding as well. FIF became a member of the Zeppelin Group in 1960.

At the initial meetings in spring 1956, the Gaylords offered lucrative contracts: in addition to producing 10 cars within a year, FIF was offered the opportunity to produce prototypes for Brooks Stevens as well, including a Jeep-based minibus and a small military vehicle, similar in style to the Porsche 597.

THE GAYLORD-ZEPPELIN

The original Gaylord prototype was dismantled, and work got underway on a new model. A German engineer, Hermann Steinbach, was brought in as a liaison between Gaylord and FIF. Problems soon surfaced. One day, Josef Eiwanger from Spohn appeared at the FIF gates and brought with him the partly built prototype, claiming the Gaylords had not paid him fully – and this may have also contributed to the lawsuit. Later the issue was resolved.

At one point Mr. Miller, head of FIF, told Jim Gaylord that he had to lay off 170 people and the future looked grim. The months dragged on. The final deadline of December 15, 1956, passed and not a single prototype was completed. At the same time, costs skyrocketed: "The costs certainly seem extremely high, in fact higher than that which we pay here in America with wage scales four times in excess of that in Germany," Jim Gaylord said in one letter, in which he also talked about how he wished to name the car "Gaylord-Zeppelin" as the name Zeppelin "stands in the highest place of honor and integrity."

By the summer of 1957, it became apparent that FIF was in no financial shape to finish the car. Final assembly was transferred to the Ottenbacher coachbuilding company in Biberach. This second car and a show chassis were the final products of the failed Gaylord automotive venture. Jim Gaylord sued FIF to the amount of DM 230,000 (roughly EUR 550,000 in today's money), and the suit dragged on until 1961. Eventually Jim had to be hospitalized with exhaustion, which marked the end of the Gaylord automotive business.

THE FATE OF THE CAR

The second car featured updated styling by Brooks Stevens. The large P-100 headlights were out and more fashionable dual headlights adorned the front. Underneath a 6.0-liter Cadillac V-8 roared. Features included:

- 4-speed automatic transmission with drive controlled "manual" selector (Gaylord Anti-Creep System)
- Rigid chrome-moly tubular three-dimensional chassis frame, isolated in rubber from the body
- Rubber isolated/insulated balanced driveshaft
- Variable recirculating-ball power steering
- Controlled gear selector (from dash)
- Light alloy aluminum wheels, 15"x6" rims
- Tri Bank AM/FM radio with an automatic antenna
- Air-conditioning supplied with fresh air heating, demisting, defrosting, and ventilating system including adjustable "Flow-Thru" ventilation compounded with refrigerated air conditioning
- Power windows
- Tinted safety windshield and tempered glass side and rear windows
- Automatically "sequencing" power retractable hard top and deck lid (with "valet" feature)
- Contoured 10-way adjustable bucket seats (eight ways powered)
- Six illuminated, interior compartments, of which two are "cubbies" for men's tobacco and ladies' cosmetics
- Naturally grained and figured hardwood from Siam
- Fully adjustable door armrests
- Two padded leather adjustable sun visors with built-in vanity mirrors

- Electric clock and rallye/elapsed time recorder on console
- Inside/outside temperature dial with "freezing" indicator on lamp

And more...

According to Richard Langworth, the car behaved like "no 4000-pound automobile should. Within two to three miles, you're imagining yourself behind the wheel of a 2000-pound sports car – and a sophisticated one at that. Acceleration is smooth and braking seems adequate. The exhaust note is unique. Cornering, though, is what really blows the mind. This car's behavior is totally unaffected by road surface or camber, is predictably neutral as far as one dares to put it with old tires and a flaky wheel cylinder."

In 1959, the Gaylord-Zeppelin and the show chassis were placed in the Early American Museum in Silver Springs, Florida. This car museum closed its doors in 1983. By the late 1980s, the car was back in the possession of Jim Gaylord, who had it restored and sent it to numerous concours events. The Gaylord won its class at the 1992 Pebble Beach Concours d'Elegance. When Jim Gaylord died, the car and chassis eventually ended up with a collector in Arizona. He called the Zeppelin Museum in 2015 saying that as someone who was born in Germany he felt it was his duty to give the car back to the country where it was born. A settlement was reached and Zeppelin GmbH chipped in. Around this time the car was restored again, and one of the workshop managers called the car "a Batmobile in a tuxedo."

Today the car and chassis stand next to a Spohn-bodied Maybach Zeppelin in the museum, illustrating the automobile building capabilities of Zeppelin. Thanks for the assistance of both the Zeppelin Museum and Zeppelin GmbH on their assistance on compiling this story!

Sources

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The car was last refurbished in the mid-2010s. (Source: Zeppelin GmbH).

Thanks to its 6.0-liter Caddy V-8 engine the Gaylord-Zeppelin behaved like "no 1.8-ton car should." (Source: Zeppelin GmbH)

A Safer Sports Car

Automodello® FITCH PHOENIX

AN ELEGANTLY CRAFTED, THOROUGHLY ENGINEERED SPORTS CAR, THE FITCH PHOENIX SURELY WOULD HAVE SPAWNED AN ENTHUSIASTIC FOLLOWING—HAD IT NOT BEEN UNDERMINED BY WASHINGTON BUREAUCRACY AND DETROIT TIMIDITY.

SAFE AND MINIATURE

(Photo: Bonhams).

Automodello® released this model as a Founders Edition in 2010.

The Phoenix was to be the safest Corvair racer out there.

JOHN FITCH

John Fitch (1917-2012) led a life that would astonish a scriptwriter. He was a blue-water sailor, a fighter pilot, a test pilot, a professional racing driver, a team manager, race course director, prolific inventor, highway safety expert, automaker, entrepreneur, and dreamer. His stepfather was an executive with the old Stutz car company so Fitch witnessed auto racing at an early age, attending the Indianapolis 500 race in the passenger seat of a Stutz Bearcat at the Brickyard. In 1939 he traveled to Europe and saw the last race at Brooklands just days before Chamberlain's declaration of World War II.

His racing career started after the war. Boosting his early reputation as a driver was his victory in the Grand Prix of Argentina, driving an Allard rebuilt from a wreck. For 18 years during the 1950s and '60s, Fitch had a racing career that included driving for Mercedes-Benz and the Briggs Cunningham team, with major wins in the Grand Prix of Argentina, the Mille Miglia, the Tourist Trophy, and Sebring. Fitch also drove six times in the Le Mans 24-hour race, finishing as high as third. He was the first racing team manager for Corvette in 1956 and 1957, and he was the first general manager of the Lime Rock race course.

During the latter part of his racing career he entered the field of highway safety by designing, developing, and successfully testing the Fitch Barrier, a sand-filled plastic-barrel crash cushion that is still in use today on highways. Additionally, he made substantial contributions to advances in motorsports safety.

FITCH PHOENIX

In the early and mid-1960s, with the introduction of the Chevrolet Corvair, Fitch created two special cars. One was the Fitch Sprint based on the production Corvair, the other the Fitch Phoenix. The Sprint, as its name suggests, was an upgraded Corvair, which was marketed in various stages of tune. The powertrain, suspension, and steering were modified to turn the car into a grand touring machine.

On the other hand, the Phoenix was Fitch's concept of what a luxury grand touring machine ought to be. The body styling was the result of a three-year collaboration between Fitch and his good friend Coby Whitmore, an illustrator. Previously they worked together on a special racing car for Le Mans in 1952.

In order to build the car, Fitch turned to Costruzione Automobili Intermeccanica in Turin, which was established by a Hungarian-born engineer named Frank Reisner. Intermeccanica shortened the Corvair chassis and cherry-picked the Sprint package for chassis and engine tweaks. Following John's emphasis on safety, the fiberglass body incorporated a crush zone, the rear actually had two bumpers, and the targa top disguised an operational roll bar. The result weighed 1950 pounds (885 kg), dramatically less than the Corvair.

Abercombie & Fitch introduced "America's First Rear-Engine Sports Car" at its Madison Avenue store in the summer of 1966 with a retail price of $8700. Orders poured in. Unfortunately, 1966 was also the year Congress passed the Highway Safety Act, legislating the establishment of a Highway Safety Bureau to set safety standards for automobiles. While Fitch felt that the Phoenix would withstand governmental scrutiny, he felt there was too much red tape involved, so he canceled production and refunded every deposit.

He kept and enthusiastically drove the lone prototype until his passing in 2012 at age 95.

The car was auctioned by Bonhams in 2014, but it remained in Greenwich. Its buyer said at the time: "I loved John, I love Lime Rock, I really feel the Phoenix belongs in Connecticut. I'm very happy for not just me, but everyone who understands what this is about."

The company earned John Fitch's approval.

THE SCALE MODEL

Automodello® has established a tradition of celebrating the entrepreneurship of men like John Fitch and the rare and exceptional machines their innovation brings to the automotive landscape. The Fitch Phoenix deserved the praise it garnered at its introduction and the admiration it inspires even today. It was a perfect candidate to join Automodello's line of precision-crafted 1:43-scale replicas. Automodello® has also earned John Fitch's enthusiastic approval, and his signature appears on each certificate of authenticity. Learn more about this exclusive scale model at https://www.automodello.com/1966-Fitch-Phoenix-s/169.htm

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It is not a PORSCHE, but...

THANKS TO AN AUSTRIAN LAWYER, AN EAST GERMAN PORSCHE LOOKALIKE WAS SAVED AND ITS STORY SHARED WITH THE WORLD. **DR. PÁL NÉGYESI** MET WITH DR. ALEXANDER FRITZ AND HIS LINDNER PORSCHE. PHOTOGRAPHS BY **MÁTÉ BOÉR**.

THE OWNER

Dr. Alexander Fritz was hit by the classic-car bug early on – pun intended. It was the Herbie movie series about a very special Volkswagen Beetle that piqued his interest, and soon he was roaming the woods around Vienna, scouting prewar cars. His love for old vehicles was sustained, and as a teenager he first worked on Puch scooters before he got his first Beetle. "The law degree was also mastered with black fingernails in 2002," according to his biography. Meeting at his garage, his passion is evident. You can see a Meister three-wheeler, a little-known Austrian machine, rubbing shoulders with an immaculately restored Colani GT, an early work of famed industrial designer Luigi Colani. Fritz is also the proud owner of a Kohlruss-bodied Volkswagen, another one-off built by a coachbuilding school in the German city of Kaiserslautern.

But today we are here to look at his most famous possession, the Lindner coupé. This East German homage to the Porsche 356 has been the subject of an official press release by Porsche, described in great detail in a hardcover book, and last year shipped to the Forum of Contemporary History in Leipzig to be part of an exhibition on life in the German Democratic Republic. "They asked me to take out the engine to lift the car up to the fourth floor," says Fritz.

THE BACKGROUND

So why is the Lindner coupé, also known as the Porscheli, relevant? We need to go back to 1945 for the explanation. Right after World War II, automobiles were challenging to come by in Germany. Most of the car factories lay in ruins. Matters were not helped by the fact that Germany was divided into four zones: British, American, French, and Soviet-controlled territories. But there was still a great need for individual transportation; therefore, a lot of mongrels came into existence. Called

Knut and Falk Reimann during a trip.

Arno Lindner is standing proudly next to the coupe.

The body was made from leftover truck bonnets.

KUSTOM

The proportions are a bit off, because the Lindner is a four-seater.

Eigenbau, the German term for a one-off vehicle, these cars used parts from military vehicles, discarded old cars, even tractors and motorcycles. By the time the Soviet zone became the German Democratic Republic in 1949, West Germany had started on its path to recovery and economic growth. The British recovered the Volkswagen plant, and many other factories also launched operations.

The same cannot be said for the eastern part of Germany. Although the newly created country inherited a lot of prewar automobile plants, passenger-car production was not a priority for the ruling Communist Party. While Auto Motor und Sport in West Germany featured the new Mercedes Silver Arrow racing car and the VW Beetle Cabrio on its covers in 1954, Deutsche Strassenverkehr, the sole East German car magazine, proudly displayed the latest Ikarus bus from Hungary.

Yet, although the automotive landscape was dire, East Germans still had a passion for cars. Building Eigenbau cars was no longer about having a device to take you places. It was more about fulfilling a dream. Using prewar BMW, Dixi, and leftover VW Kübelwagen chassis, dozens of special cars came into existence. One could inevitably draw a comparison with American custom cars, though these two categories came to be for totally different reasons.

THE CAR

In this genre, the Lindner coupé became one of the dream cars that did not remain a one-off.

Knut and Falk Reimann, who were born in 1932 in Dresden into a well-to-do-family, conceived the Lindner coupé. During World War II, the family moved to Bad Schandau. It was here that the twins started fiddling with vehicles after the war. Early on the siblings proved their technical talent. They found a BMW motorcycle from the war, which they disassembled and rebuilt. Eventually, they added a sidecar as well. After graduation, they enhanced their craftsmanship by studying locksmithing. In their spare time, they repaired a Fiat Topolino.

In the early 1950s, the twins enrolled at the Vehicle Technology Institute within the Technical College of Dresden. This is where a part of the Mercedes-Benz Museum collection ended up during the Second World War, which was then handed over to the newly founded Verkehrsmuseum Dresden (Dresden Museum of Transport).

The Reimanns loved to travel, and as the border between West and East Berlin was not closed until 1952, they frequently made trips to the western part of the city, where they marveled at the cars on the street – including a couple of early Porsche 356 sports cars. The Volkswagen-based sports car of Ferry Porsche was the ultimate dream for many on both sides of the Iron Curtain.

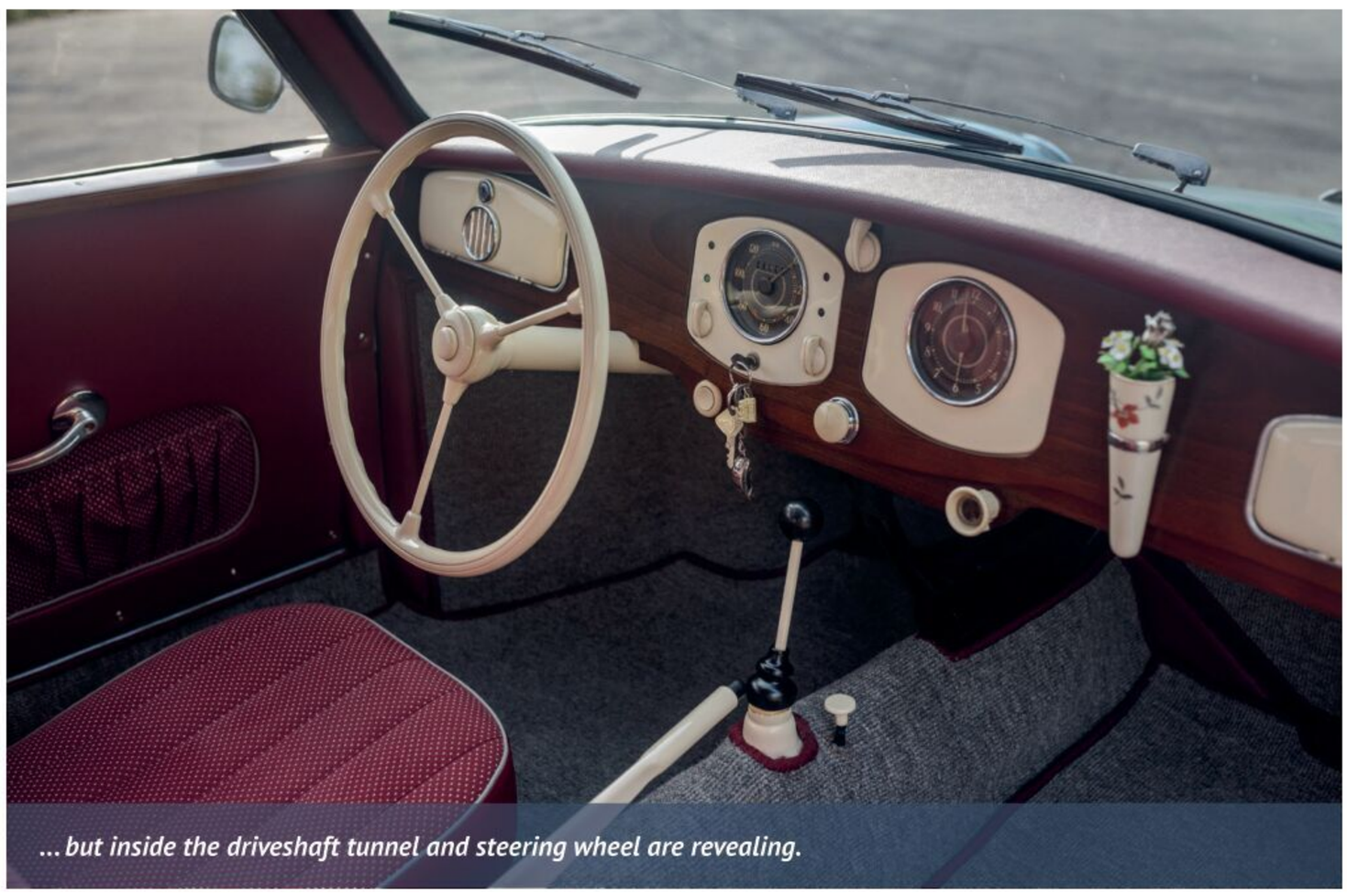
Having been acquainted with the necessary technical knowledge, the Reimanns set out to build their own Porsche. Though Knut and Falk did not have access to an actual vehicle,

Outside the Kübelwagen-origin is well hidden...

they sketched out a shape based on photos. In and around Dresden, there were scores of military vehicles left by the retreating soldiers. Also, in the outskirts of Berlin, it was possible to find military equipment. The Reimanns utilized their BMW sidecar to gather components. A Volkswagen Kübelwagen floorpan, powertrain, and rear axle and a Schwimmwagen front axle formed the basis of the car. The Kübelwagen chassis was lengthened by 30 cm to enable a four-seater configuration. The whole suspension was reconfigured to make the car lower. Welding work was carried out at a nearby railway depot.

In the meantime, the Reimann family moved to a new home that had a garage. This is where the twins set up their workshop with pictures of Western cars and women in chic clothing adorning the walls.

Using their training, they dismantled, refurbished, and repainted every component. One morning the chassis was taken out for a spin, using beer crates as seats. What started as a fun drive took a severe turn when the local police gave chase; the contraption was clearly unregistered. In true James Dean style, Knut put the pedal to the metal and rushed back to the garage. As his car was much lighter than the pursuing police car, the twins were able to shut the door and thus avoided prosecution.



...but inside the driveshaft tunnel and steering wheel are revealing.

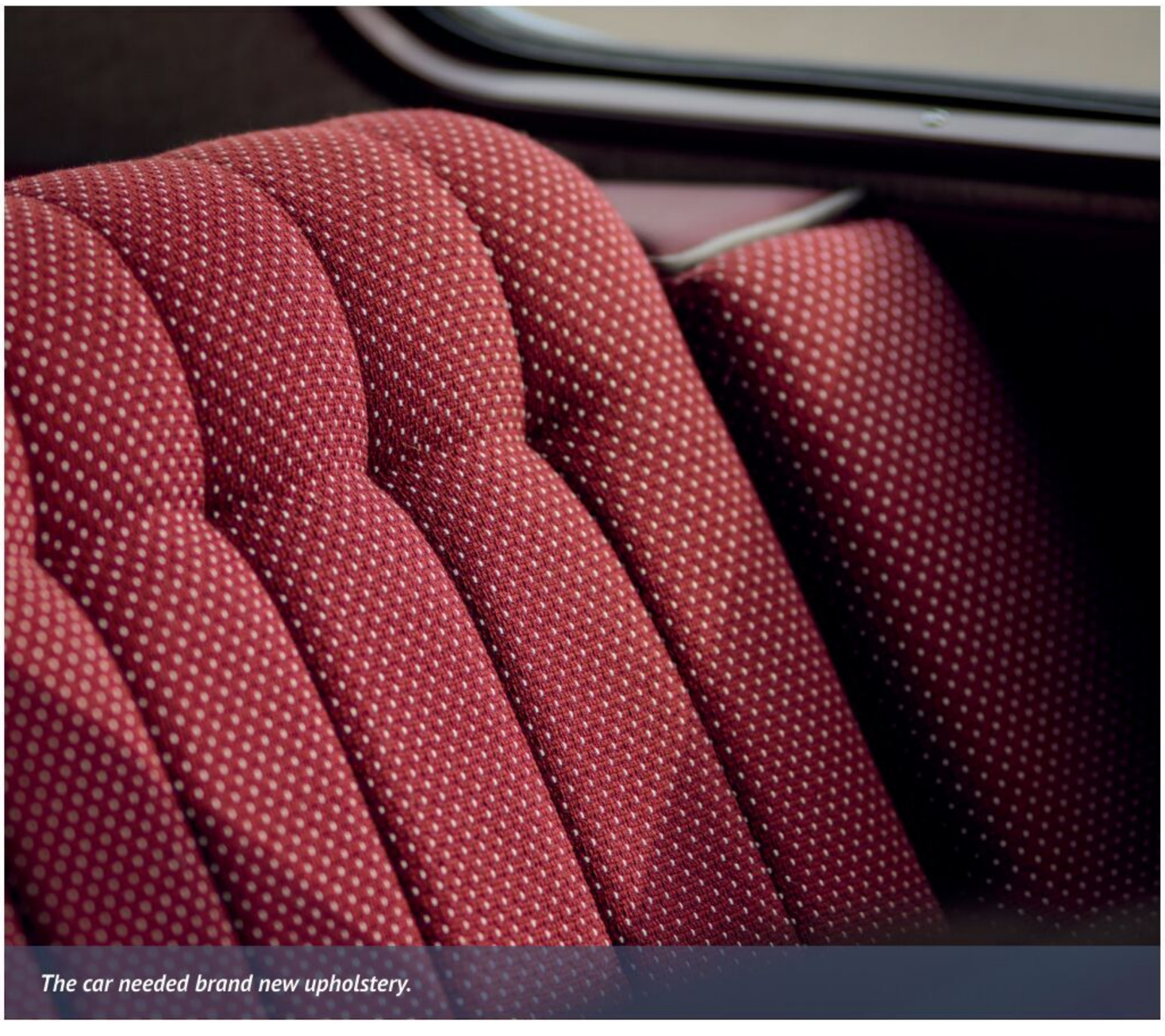
With the mechanical side sorted out and proving its capabilities, the next step was to do the bodywork. Arno Lindner and his son, Helfried, in Mohorn carried out the coachbuilding work. The Lindner Karosserie- und Fahrzeugbau company was set up in 1930, and after the war, it mostly worked on trucks. Building a sports car was a nice change of pace. While wood for the ash frame was not very difficult

to source, obtaining the necessary amount of sheetmetal proved to be a challenge. Eventually, the Reimanns found an old Ford workshop where a lot of leftover truck hoods were stored. These were then processed to become the body material for the new coupé. Altogether 3500 East German marks were spent on the bodywork. To put that into perspective: in 1953 an IFA F8, the East German version of the prewar DKW F8, retailed for almost 9000 East German marks. The car was completed in 1954 and received the nickname "Porscheli." The Dresden road police inspected it and deemed it roadworthy.

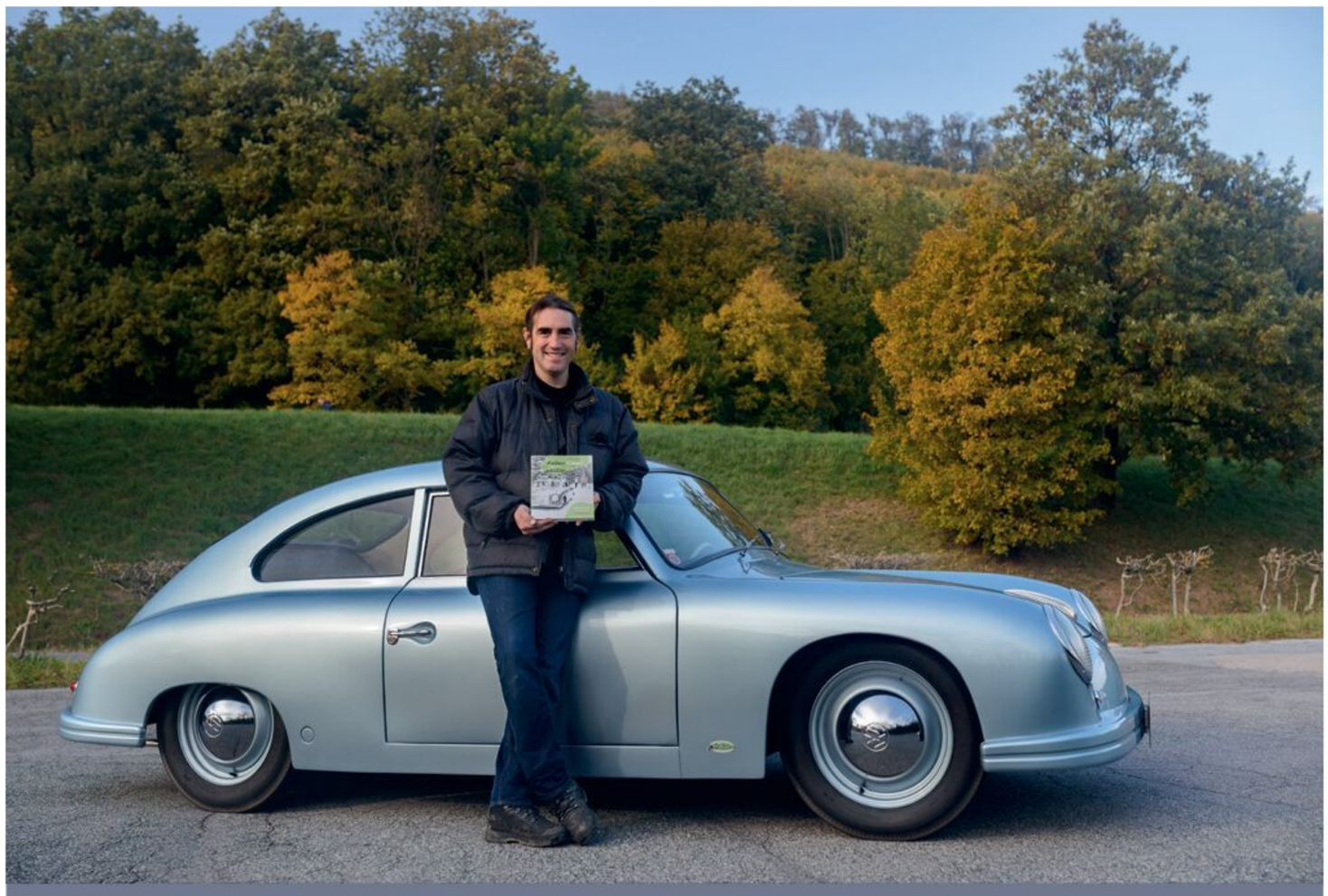
A VISIT TO PORSCHE

The very adventurous Reimann brothers took several trips to the West, including a trip to Stuttgart, where they went straight to the Porsche factory. The Reimanns recall meeting a man named Emmerich (probably Wilhelm Emmerich, head of repairs). He was cautious at first, but upon inspecting the car, he became quite enthusiastic. Not only did the Reimanns receive a personal tour of the entire factory, including a visit to the design and testing offices, they were also shown the latest innovations such as the synchromesh gearbox. Emmerich photographed the "Porscheli" extensively and promised to talk to Ferry Porsche about the car. Soon a letter arrived from Ferry Porsche himself, who congratulated them on the successful project and donated a set of used pistons and cylinders to assist in the project. The parts were sent to Eduard Winter, a Volkswagen dealer in West Berlin, and then smuggled across the border in the most daring way, because smuggling was not a trivial offense, but treason. However, for the Reimann brothers, these parts were crucial. With the right setup, the "Porscheli" was capable of 130 km/h, a speed

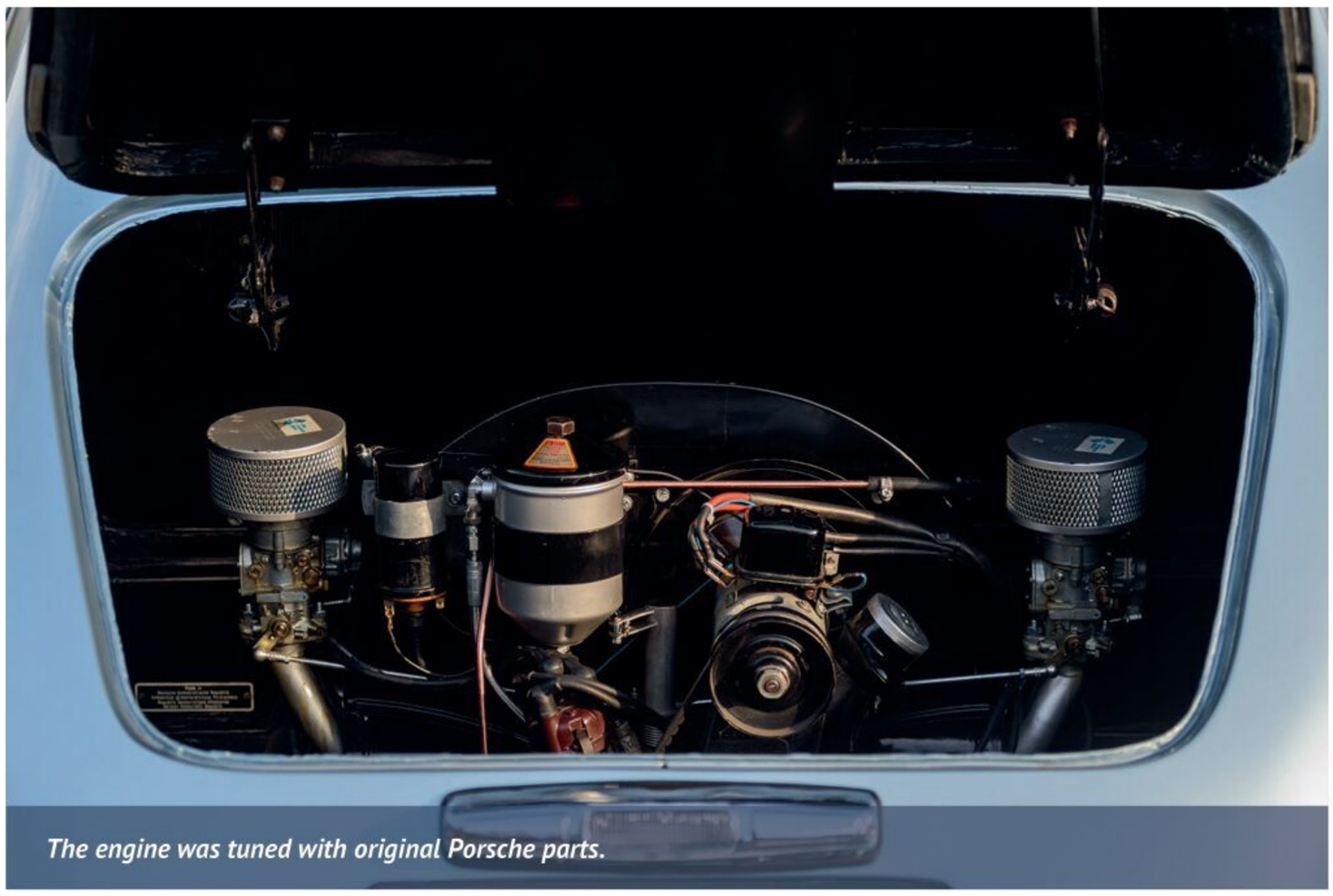
Flower holder is a nice touch.



The car needed brand new upholstery.



Alexander Fritz is proud of both the car and his investigation, which yielded a book!



The engine was tuned with original Porsche parts.

unheard of for street-legal cars in the GDR at the time.

THE AFTERLIFE

Cars like the Lindner coupé, a.k.a. Porscheli, usually fade into obscurity. After a few years, the owners get bored and either sell their vehicles or just discard them somewhere. But Helfried Lindner, with a little prodding from a Mr. Richter, who worked at the Volkswagen service outlet in Dresden, took the story a little further. Soon a second car was ordered, and eventually Richter brokered enough customers for small-series production. Ultimately it is believed that 13 vehicles were built.

The Reimanns sold their car to Siegmar Bunk. He worked for Heinz Melkus, a Dresden-based racing driver who built Wartburg-powered Formula Junior racers and later a batch of a Wartburg-based sports car called the RS1000.

Later the Communist political system caught up with the adventures of Knut and Falk, and they were imprisoned for a year. Upon their release, their path diverged: Falk Reimann went to Hungary, where he worked for the Csepel Motorcycle factory as an engineer. Knut remained in Germany.

Dr. Alexander Fritz acquired the remains of a rusty Porsche-like vehicle in the early 2010s. As his curiosity was piqued, he launched an investigation. That is how he found the Reimann brothers, located the Lindner family, and eventually unearthed the complete story. Restoration was carried out in Hungary, where Falk overlooked the process. In 2016 the Lindner coupé was shown at the prestigious Schloss Dyck Concours d'Élégance in Germany, where it won its category. Later it appeared at some other shows.

MEETING THE CAR

We met at the picturesque Höhenstrasse on the outskirts of Vienna for the photo session. Alexander arrived late; a fuel line broke, and he had to quick-fix it. So we had to be very careful. I tried out the Lindner and somehow fit my 186-cm (6'1") frame into the cockpit. I found the Kübelwagen steering wheel too big, which Fritz confirmed: "Because of its elegant ivory finish, you're so impressed that you almost don't notice that it's constantly touching your thighs." Alexander likes to compare the car to the Porsche Panamera, as it is a four-seater with a rear bench. "The Lindner is similar in attitude to an early 356. Accelerating is as impressive as with a Porsche engine. The sound is also similar because the Reimanns used a sports exhaust. On the other hand, you need to be careful because Volkswagen brakes are not Porsche brakes. The other crucial difference is the gearbox. With the Kübelwagen mechanism, shifting is difficult," he said. On a cobblestoned street with a car that just passed its vehicle inspection, we took his word for it.

(A version of this article appeared in the February 2021 issue of Excellence, the Porsche magazine.)

Moretti + Michelotti = Masterwork

MORETTI 750 GRAN SPORT BERLINETTA

ALTHOUGH KNOWN BETTER FOR ITS STYLE THAN ITS ACHIEVEMENTS ON THE TRACK, THE MORETTI 750 GRAN SPORT BERLINETTA COMMANDS 21ST-CENTURY RESPECT. QUEEN OF THE "ETCETERINIS," THIS RACY MORETTI INSPIRES NEW GENERATIONS OF CAR ENTHUSIASTS. STORY BY **KARL LUDVIGSEN**

The image of Italian automaker Moretti is clouded in the minds of many – and with good reason. Building cars in Turin as he did, Giovanni Moretti worked in the deep shadow cast by the city's colossus, Fiat. In its later years, Moretti became an automaker whose cars were based on Fiat components in a manner that seemed more random than rational. By the end of the 1950s, the built-from-scratch Morettis faded away, with the company becoming more coachbuilder than carmaker.

Giovanni Moretti and His Cars

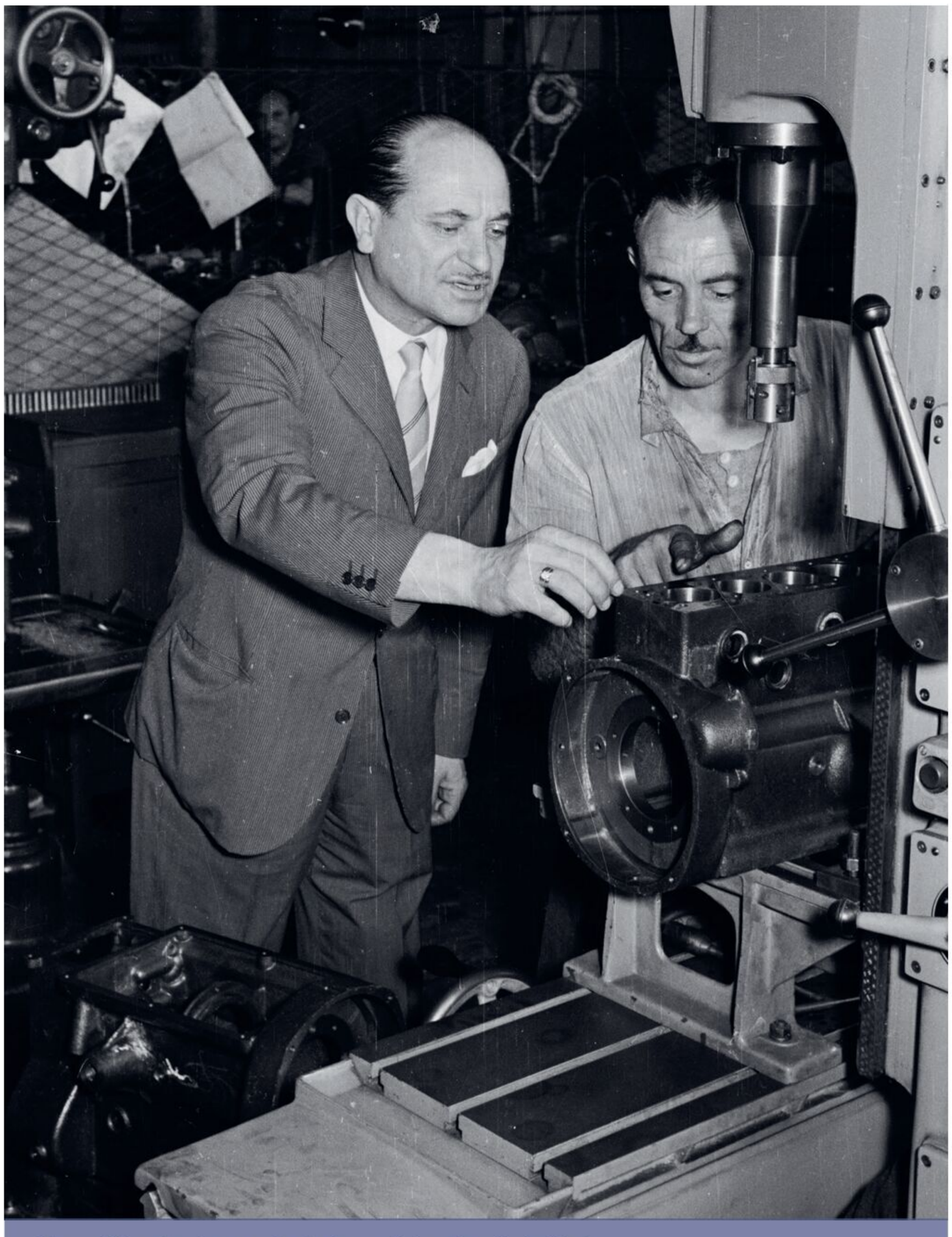
Born in Reggio Emilia in 1904, motor-mad Giovanni Moretti built a motorcycle at the age of 21 and completed his first car two years later. He transferred early to the motor city, Turin, where during World War II he designed and produced electric delivery vehicles to meet wartime needs. After the war, Moretti converted to building a twin-cylinder small car, the 350-cc La Cita. Following this in 1948 was a 592-cc four-cylinder model that was the cornerstone of the postwar production of Fabbrica Automobili Moretti at Via Mantova 38 in Turin.

In spite of modest sales volumes—averaging 200 per annum—Giovanni Moretti made no compromise in the complete production of his cars. All elements of the 1950s Morettis—engine, transmission, suspension, chassis, body—were of his own design and manufacture. Not until the early 1960s was the Moretti company obliged to augment its turnover and reduce its costs by adopting Fiat componentry and later by rebodying Fiats.

Moretti increased the capacity of the single-overhead-cam engine in his standard two-door sedan model to 612 cc and then 748 cc (60 x 66 mm) in 1953. At the same time, based on this engine – with substantial changes in design – he introduced a twin-overhead-cam power unit for a car intended for racing. It differed substantially from the twin-cam prototype that he showed in a drilled-for-lightness tubular chassis at Turin in 1949.

This Moretti engine has much in common with prewar four-cylinder Maserati racing engines. The involvement of freelance designer Alberto Massimino could logically be assumed. It resembles the Maseratis in its cast-iron block and head, its valves inclined at a 90-degree included angle in a hemispherical chamber, and its finger-type cam followers.

Moretti 750 Grand Sport #1132 at the 1954 Mille Miglia, where it was entered by Alberto Fontana and Gino Munaron.



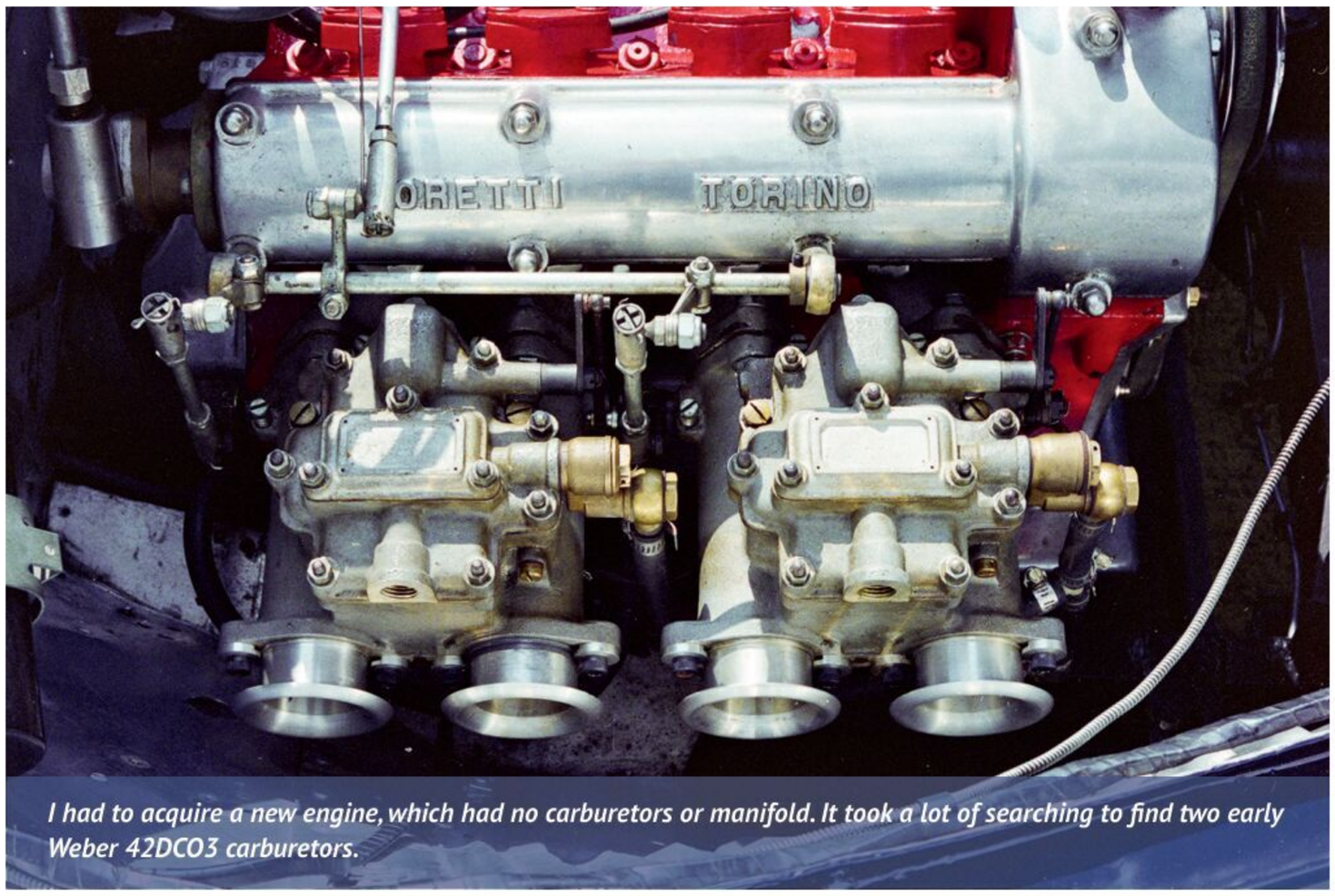
Giovanni Moretti assists a worker in the machining of a cylinder block.

Also Maserati-like was its crankcase. Its main bearings were carried in split "cheeses" which were inserted, already assembled, around the crankshaft from the back end. This tremendously strong construction was shared with the single-overhead-cam Morettis. Most twin-cams had three main bearings, but in 1955 some engines were made with five main bearings for racing. The camshafts were chain-driven and the water pump powered in tandem with the generator on the left of the block. Its wet sump was finned aluminum.

In the 750 Gran Sport Berlinetta, a four-speed gearbox synchronized in its top three ratios was controlled by a short remote lever. Although many assume that the Morettis were Fiat-based, the ring-and-pinion gears in the live rear axle were probably the only Fiat parts used in the car. Rear brakes had cast-iron drums while those at the front were finned aluminum, all 10½ inches in diameter.

Its suspension was unique to the twin-cam Gran Sport, not shared with other Morettis. Trailing quarter-elliptic leaf springs and radius rods formed parallelograms guiding and suspending the rear axle. At each front wheel a pair of quarter-elliptic leaf springs—one above the other and mildly trailing—formed the parallel-arm suspension. It couldn't possibly be simpler. Short tubular shock absorbers completed the suspension, which was untroubled by anti-roll bars.

Steering design was not wonderful. The front wheels were linked together by a split track rod joining forward-facing steering arms. At the center was a forward-facing idler arm. The left front wheel also had a rearward-facing steering arm, from which a drag link took the command from a worm-and-sector steering box. In this circuitous linkage, six ball joints intervene between the steering box and the right front wheel. It was not ideal, but the Moretti was so compact that it was hard to conceive another way of taking the steering around the engine.



I had to acquire a new engine, which had no carburetors or manifold. It took a lot of searching to find two early Weber 42DCO3 carburetors.

The interior was reupholstered in a hue which matched the two-tone exterior.

While normal Moretti sedans and convertibles had a fabricated steel platform frame, the Gran Sport chassis was welded of rectangular steel tubes. They ran along the sills and center tunnel to form a robust structure for the tiny coupe. The trailing quarter-elliptic rear springing meant that the structure rearward of the axle could be very light.

The Moretti Berlinetta was a masterpiece of packaging. Its wheelbase was only 77.3 inches (1963 mm)—less than 6.5 feet. Driver and passenger were tucked in around the engine and ahead of the axle so tightly and neatly that the components and occupants must have been laid out on the floor at Via Mantova and the car designed and built around them.

Track was much wider at the front than the rear: 48.0 inches (1220 mm) versus 45.5 inches (1156 mm). The Moretti was just 129.5 inches (3290 mm) long and 46.0 inches (1168 mm) high. Beneath its tiny silencer, the ground clearance was less than two inches; the Moretti driver had to avoid routes scarred by speed bumps.

Giovanni Michelotti Steps In

Like all the Morettis of the 1950s, the Berlinetta was styled by the genial and creative Giovanni Michelotti. It stands as one of the great classics of Michelotti's oeuvre, perhaps his finest design—especially considering its diminutive size. Built in the Via Mantova works to be ultra-light for racing—the coupe weighs only 1090 pounds (495 kg)—the Berlinetta body was aluminum-skinned with steel reinforcements, for example in the edges and spine of the hood. The windscreen was glass and all the other windows plastic.

Michelotti faced a difficult challenge in shaping the Berlinetta. The Savonuzzi/Pininfarina design for Cisitalia set a template for postwar coupes that was hard to ignore. The Moretti's minuscule proportions were a challenge. Michelotti succeeded with a breakthrough: instead of a classic Italian three-view design, visualized in plan and profile, he created a rounded, plastic, sculptured shape that takes advantage of the ease with which a viewer can scan all perspectives of its form.

Like many sports-racers of the 1950s, the Moretti was shaped by the eye of the designer, not by the wind tunnel. Yet the tapering roof and tail of the Berlinetta show that the air's antics were alive in Michelotti's mind. Slim flares for the wheel openings set off the smoothness of the Moretti's flanks. Recessed taillamps and license plate brilliantly delineate the surface of the tail. Deeply curved and robust, the greenhouse had pillars that were all but invisible. The characteristic Moretti grille shape inspired the raised area of the hood that added character to the form.

One sits well down inside the Berlinetta, yet with good visibility. The relatively high beltline above the relatively large wheels and the proportionally small windows were the keys to the Berlinetta's deceptive appearance. Photos don't disclose how tiny it is. Yet Michelotti's design perfectly met the requirements of this smallest of all sports-racing coupes.

Even the instrument panel was touched by Michelotti's style. A suggestion of a cowl enfolded the instruments, leaving room for a small glove box on the right of the panel of the customary left-hand-drive car (many were right-hand drive for racing). Its steering wheel was a classic three-spoke Nardi.

In the 1950s many such Morettis went to the United States. One was featured on the cover of Road & Track in August 1954. "After one gets over the sheer audacity of this diminutive coupe," R&T wrote, "the real surprise was in driving it. For a double-overhead-camshaft engine of its size, the performance was astounding." They timed its top speed at 95.7 mph and were sure that with the right carburetor jets it would reach 100.

"The riding and handling qualities of the car were somewhat disappointing," R&T avowed. "There was no denying that a hard seat, a stiff suspension, and small tires produce a spanking effect that gets rather tiresome after 100 miles or so. The steering itself seemed good at high speeds—2.8 turns lock to lock—but was marred by tire imbalance. The plexiglass side and rear windows were fixed and ventilation could be improved—there was none." Summing up, Road & Track considered the Moretti "one of the most appealing automobiles we've ever seen or driven."

Morettis were active on the track in California, where Ernie McAfee imported and raced them. Successes were enjoyed in the Sports Car Club of America's Class H for 750-cc cars. Michigan's Martin Tanner, who specialized in this class by building his own cars, owned and raced one.

The 750-cc twin-cam Moretti was successful in Europe, too. Coupes were class winners in rallies and races; their best year was 1954. Lino Fayen, the Moretti dealer in France's Neuilly, was a winner at Monthléry in a standard car, and Elio Zagato driving a Zagato-bodied 750 Gran Sport won at Gorizia, Foggia, and Monza. Morettis held the fort in the 750-cc class until first Stanguellini and later OSCA invaded their territory.

My 750 Gran Sport Berlinetta

Having seen these charming coupes race at Watkins Glen and Columbus Air Force Base, I always had a soft spot for them. Thus I was alert when one was offered for sale in 1979, one of the coupes originally exported to California. It acquired a new grille there, an aluminum egg-crate design handcrafted and signed by leading hot-rod artist and iconoclast Von Dutch. It resembles the grille of a 750-cc Berlinetta that competed in the Rallye Maroc in 1954.

First registered as being built in 1955, the coupe carried chassis number 1293. As explained to me by Giovanni's son, Sergio, that meant that it was the

The car was nicknamed "Bumblebee."

1293rd car of all types that Moretti manufactured at its Turin factory since postwar production of four-cylinder cars began in 1948.

On the West Coast, my Moretti made its way north to Washington State. By 1964 it was in Florida, the property of Norman and Betty Dobbins of Dunedin. In 1966 they sold it to Gene Cesari, a great enthusiast who put himself through university by importing and selling Bugattis in the 1950s.

Like the few who then owned this sort of Moretti, Gene's dream was to restore it. He took the mechanical parts to a barn in Pennsylvania—acquiring a variety of other Moretti pieces over the years—and left the body and chassis with Jack O'Donnell in Westfield, New Jersey.

When I went to see the car in June 1979, it was outdoors under multiple layers of canvas, blankets, and plastic sheets. Its doors were missing, its seats a mere memory. But it was unmistakably a Moretti Berlinetta of the sort I had so admired a quarter-century before. Thus began the saga of the restoration of this Moretti at the Ridgefield, Connecticut, premises of Don and Mark Lefferts of Vintage Auto Restorations.

Their doubts about the quality of the three-bearing engine material led to my purchase from the factory of most of a five-main-bearing engine. Its rotating parts were not in good condition, however. I had help from Paul Morgan at Cosworth in getting a new crankshaft and connecting rods produced. The restorers sourced new Jahns pistons from California.

The 1953–54 Morettis used downdraft Weber carburetors. We had no carburetors or manifold at all with either engine, so this presented a major problem. A side-draft manifold from the cutaway display engine in the Moretti showroom was acquired, and after extensive searches two early sand-cast Weber 42DCO3 carburetors were found, fitted, and suitably choked and jetted. Throttle linkages and exhaust manifolds were made from scratch.

The resulting specification, with a lively 10.0:1 compression ratio, corresponded to that of 1955 when similar Moretti engines were rated at 71 horsepower at 7000 rpm. On the road it felt every bit that strong. And it sounded wonderful!

Although some Gran Sport Morettis had Borrani wire wheels, I was happy with the look of the ventilated 15-inch steel wheels on my car. We fitted 135SR-15 Michelin ZX tires.

The highly styled instruments were water temperature and oil pressure on the left of the column and speedometer, tachometer, and fuel level on the right. The tachometer in this car was a Smiths chronometric, fitted in the States for racing and driven from the inlet camshaft.

Water temperature was a problem; even in traffic it didn't always get warm enough. When the car came to Britain after a 10-year restoration in the United States, I entrusted it to talented New Zealander Don Fenwick, former chief of the Chequered Flag workshop. Don fitted an adjustable roller screen in front of the radiator. With this I could keep the engine as warm as it liked to be.

When I first saw these Berlinettas in the 1950s, I was beguiled by their low-backed seats. We found the correct wide-wale corduroy to trim the seats, doors, and tunnel to match the dark blue of the two-tone paint scheme—exactly the pattern originally used by Moretti. Light-blue carpeting covered the floor and the rear deck, where the battery sat in an aluminum box and the spare wheel was tucked neatly into a cove.

Stepping down and into the Berlinetta was relatively easy through the wide and light doors. It's cozy but by no means cramped, with adequate elbow room and a low central tunnel. Your shoulders were right at the window sills. When I bought the Moretti I had no idea whether I could fit into it; there was only just enough headroom. Yet somehow competitors managed to wear helmets in their Gran Sport Berlinettas.

The engine fires with a few pumps of the throttle pedal after a push on the aluminum starter button. Contrary to the reputation of Italian electrical systems, the Moretti starts reliably even in the rain. A lively clatter from cams and followers rises above the engine's busy buzz. With an ultralight flywheel, it revs fast at a prod of the throttle and stops just as fast.

The short, quick clutch sets the Berlinetta moving with a chirpy bounce. All four gears were useful; double-clutching engages first for the slowest city corners. To go up from second to third you just punch the lever forward in the compact gate.

With a throaty rasp the three-quarter-liter engine thrusts the little car forward, easily up to 3000 rpm and thereafter with convincing force. Surprised to find its speedometer reading slow instead of fast, Road & Track found it took 15.5 seconds to 60 mph and 28.2 to 80. Theirs reached 69 mph at 7000 rpm in third gear. Mine, in a higher state of tune, surged fast to 6000-plus, and at 80 mph still leapt forward when the throttle was pressed down.

Negligible wheel travel keeps the Berlinetta glued to every bump in the road. After fine-tuning the special Spax dampers we ordered for the car, its ride became acceptable wherever its ground clearance let it go.

Road & Track didn't like the Moretti's steering very much, and neither did I. It's too vague around center position, and it demands more effort than it should in hard cornering. We went through all the tie-rod ends and replaced the bearings in the

steering box so it was as good as we could make it.

Considering its abbreviated wheelbase, the Moretti felt dead steady in corners and inspired great confidence. With its wide track and stiff springing in front it understeers strongly. Attention to tire pressures helped both steering and handling.

Restored to vivid life, perhaps at that time the only running example of its kind in the world, in the 1980s this Moretti 750 Gran Sport Berlinetta began getting the recognition it deserved. At the highest level of design appreciation and assessment, the Moretti was applauded by the Louis Vuitton Concours d'Elegance. She so bewitched the judges at the Stowe 1990 Louis Vuitton meeting that they issued a special invitation to the Concours at Parc Bagatelle in Paris. Later she appeared in the Louis Vuitton Concours at the Goodwood Festival of Speed.

Various problems led me to commission a rebuild of the engine that was carried out during 1991 in Calne, Wiltshire, by Nelson Engine Services. When in 1997 the RAC decided to organize a classic-car run from York to Scotland to celebrate its centenary, we decided to take part. Amid all the Bentleys, Alvises, and Jaguars, the Moretti cut an exotic figure with her rasping exhaust gaining her the "Bumblebee" nickname.

This was a long drive, including our initial trip up from London. The Moretti mastered it in good form apart from an erratic dynamo on the drive home. We managed it, too, complete with luggage, which made us wonder whether the Mille Miglia—hitherto thought beyond the capabilities of the car and its occupants—could be in the cards. We put in an entry for 1998 and were accepted.

Collecting the Moretti in Brescia, where she was decanted from a van with the cars of other customers, my wife and I set out on the demanding route with no support whatsoever. To our great relief the 750 Gran Sport performed like a champ. Our biggest problem was finding room inside the car for all the goodies thrust upon us at every checkpoint.

We had really tackled the Mille Miglia for the Moretti's benefit, taking her back home for a visit after a long stay away. At one stop a gentleman bent low to have a word. "You know," he said, "we were so glad that you have brought this car here. They were very rare in Italy because most of them were exported, so we never see them. Thank you!" That alone was worth the trip.

We parted from the Moretti in 2001, selling her at auction to a Connecticut collector who had her primped in depth in Italy under the guidance of expert Adolfo Orsi. In the meantime, Morettis of all descriptions began emerging from the woodwork around the globe, carrying the flag for this little-known marque. I was proud and pleased to have led a revival of interest in the doughty motor maker that effloresced so briefly yet brightly in the shadow of Turin's mighty Fiat.

We drove the car at the 1998 Mille Miglia.

KUSTOM

NOT SO EVERYDAY

VIGNALE
and the Fiat 1100

ALFREDO VIGNALE AND **GIOVANNI MICHELOTTI** CREATED SOME VERY UNIQUE COACHWORK BASED ON THE FIAT 1100. **ALESSANDRO SANNIA** CHOSE A FEW RARE AND UNIQUE EXAMPLES.

When he started his own business in 1946, Alfredo Vignale already had a long experience in coachbuilding.

Carrozzeria Vignale was established in the lively years of the postwar reconstruction, when everybody was trying to invent something and find a new direction for their lives. But the automotive life of Alfredo started much earlier, in 1924, when he was just 11! Born in 1913, he began as an apprentice at one of the several small metalwork companies based in the northern area of Turin that was called the borgh del fum ('the "smoky district," because of the many chimneys) in local dialect. His first job at the Ferrero & Morandi workshop was to support the end of the metal sheet while the master hammerer positioned it into the power hammer to form body panels. By 17 he was an accomplished panel beater. But the boy was ambitious and soon applied to an evening school to increase his technical skills. Good choice, because in 1930 when Pinin Farina founded his famous company and was looking for reliable employees, Alfredo was among the first to be selected.

After 18 months of compulsory military service, in 1936 Alfredo moved to Stabilimenti Farina, where his father had already been working for a long time as a painter. Despite his young age, he quickly rose to the position of foreman of the Farina body workshop. Working at Farina saved him from fighting in the Second World War. In fact, Farina was one of the companies considered as "strategic to support the war effort," because they built aluminum fuel tanks, brakes, and other components for aircrafts. Therefore the employees were exempt from serving in the army. The British also considered the factory strategic, and it was hit several times by British bombs. Alfredo survived and in 1945 he was ready to start anew.

The first postwar task however, was ... to remove debris from the factory and rebuild the demolished halls. Alfredo worked as a bricklayer along with his colleagues. He had a dream of starting his own business, but he did not have the resources. To pay the daily bills, he collaborated with a small pot factory, making aluminum pans, and then received an order for the interiors of iceboxes. To keep up the volume he brought in two of his younger brothers for the job.

Then wealthy Italian industrialist Piero Dusio came, along with Attilio Farina (the son of Giovanni, owner of the Stabilimenti, and the brother of Nino, the future Formula 1 champion). Dusio was looking for a good metalworker to do a very special project for an aerodynamic car. Alfredo quietly took on the project as a side job under the direction of Giovanni Savonuzzi. The Cisitalia 202 CMM Aerodinamica was made in this unusual way and finished in late 1946. Dusio was so happy with the result that he gave Alfredo enough money to leave his job and start his own company.

And then luck helped him again. He acquired an old Fiat Topolino almost for free. The car's body was so badly damaged that Alfredo decided to scrap it and build a new one in aluminum. The resulting sports coupe looked good, but Alfredo was strapped for cash so he decided to sell the car. As fate would have it, an English journalist was visiting Turin at the time and took some pictures of the car which were published in The Autocar,

First attempts by Vignale with the Fiat 1100 date back to the late 1940s. Here is the well-known 1949 aerodynamic sedan based on the 1100 E.

credited to Pinin Farina! When the misunderstanding was clarified, the name of Vignale became known.

Dusio continued to help Vignale by asking Pinin Farina to subcontract the construction of the bodies-in-white of the 202 SC to the young Alfredo. At the same time more private customers began arriving at his workshop and asking for a fuoriserie, or custom car.

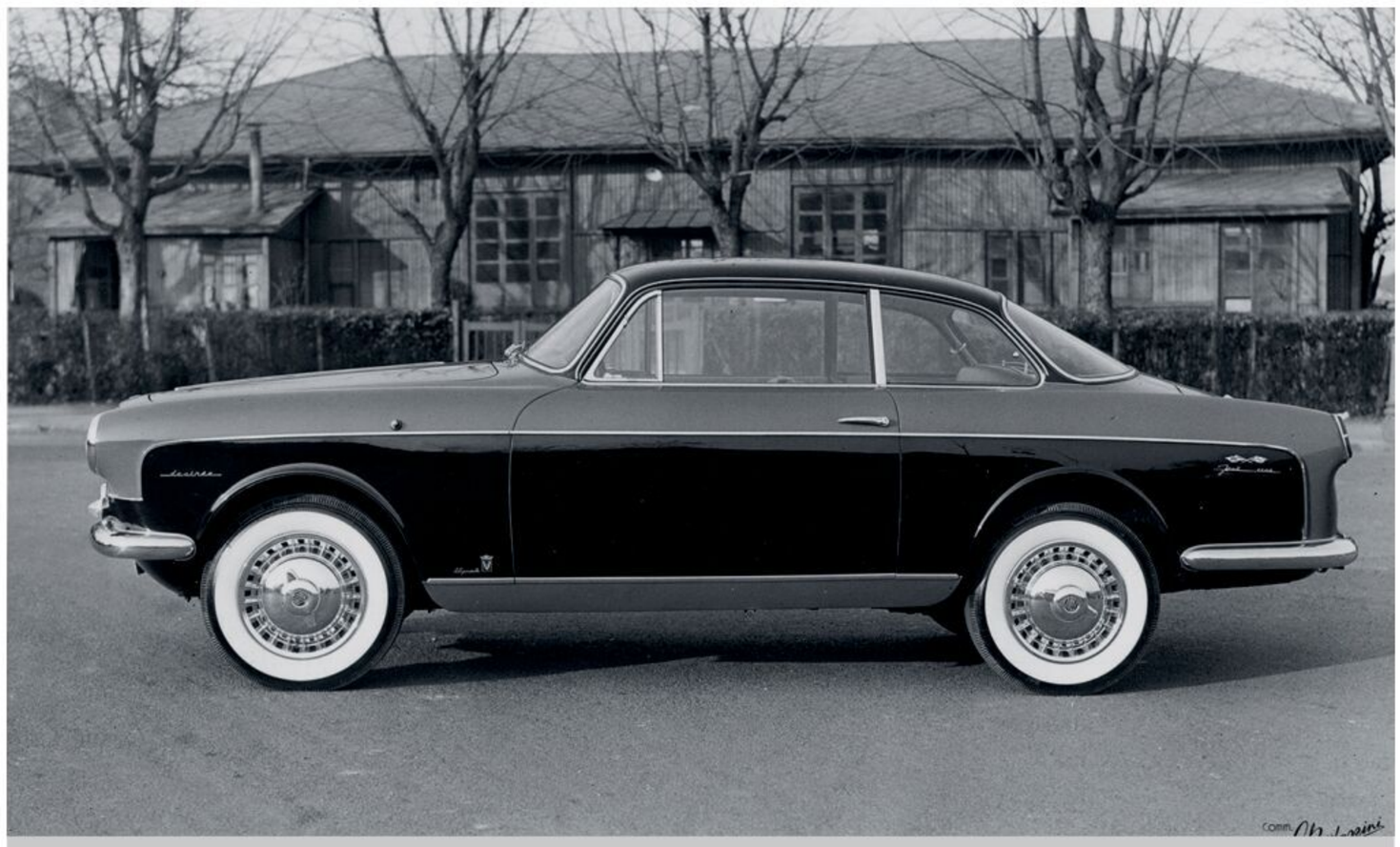
The adventure began. Alfredo had good taste in cars but was not really a designer. He understood that he needed some help to improve his products. A young former colleague of his at Stabilimenti Farina had the right skills: his name was Giovanni Michelotti. With Alfredo's encouragement, Michelotti decided to leave his job and work freelance, something quite uncommon for that period. But he was so talented that all the coachbuilders in Turin eventually hired him to do design work.

With Vignale he had a long partnership, lasting "about" well into the 1960s. This led to the development of several of the most beautiful Italian fuoriserie. Those were the years when everything was made directly in the workshop. Vignale and Michelotti had such a feeling for shapes that often a real drawing was not needed. They skipped the step of making wood bucks to form the sheetmetal shapes. Instead, Giovanni would sketch with chalk on the floor, around the naked chassis, and Alfredo was good enough to interpret these signs and turn them directly into the body shape.

Success came. The Vignale name was often at the top of award lists at concours d'elegance. A little later Enzo Ferraris began to send his customers to the Turin-based workshop. When three Ferraris with Vignale bodies won the Mille Miglia in 1953, it was clear that the Ferrari bodied by Ghia were good for family men, but for racing a Vignale body was needed!

Ferrari were the best-known cars to wear coachwork by Vignale in the early 1950s, but of course they are not the only ones. In fact, in the early postwar years in Italy, custom-built bodywork was quite

The "Desirée" was a masterpiece born from a collaboration between Vignale and Michelotti.



Michelotti moved the windscreen back and added a long tail.

Every little detail inside and outside was designed to turn a humble Fiat sedan into a refined granturismo.

inexpensive, so all different levels of cars could be used. This explains why Vignale was able to work on Ferrari. Maserati, Cunningham, OSCA, Aston Martin, and Cadillac cars, but at the same time he also built bodies for the humble Fiat 1100 and later even the 600.

The Fiat 1100 was indeed the right car for nearly all the Italian coachbuilders. It was the right car in the late 1930s, when the first model was introduced, because it was large enough to allow every kind of bodywork and cheap enough to be affordable.

Just after the war it proved also to be robust and versatile enough to allow the huge proliferation of the "giardinetta," a clever idea by Vittorino Viotti that really contributed to restarting the Italian economy with the right vehicle for both work and family life. However, Vignale never appreciated those utility cars and was most likely the only Italian coachbuilder who never made a giardinetta at that time. And, generally, he built very few station wagons or commercial vehicles in his career.

But the 1100 was a good base for Vignale's light and fast granturismo. As his first work, or opera prima, the Cisitalia 202 was also a Fiat 1100 derivative, although heavily modified, and Alfredo developed the theme in several variants. From those comfortable but bulky berlinetta body styles of the late 1940s, he soon moved to slender coupes based on the new unibody Fiat 1100/103. The first examples, all styled by Michelotti, appeared in 1953 and received a further boost when Fiat, by the end of the year, marketed the TV (Turismo Veloce, i.e., fast touring-car) version with a high-power engine.

The Fiat 1100 served also as the base for Vignale's first serial production. Until then, when he replicated the same bodywork on more than one unit, it was always an artisanal process, with no car exactly like another. To save costs and increase profitability, however, in the mid-1950s it became clear that the production of certain models needed to be standardized.

The "Charmant," introduced in 1954, was based on the sporty version of the Fiat 1100, called the "TV."

As a result, the Fiat 1100 "Charmant" became the first regular commercial product of Carrozzeria Vignale, followed one year later by the Fiat 600 "Chérie" and "Rendez-vous."

Fashion needs innovation, and consequently Vignale never stopped developing new concepts. In 1955 he unveiled a sportier version of the 1100 coupe, called the "Mignon," but the big evolution of the model came in 1956, when he introduced new cars at the Geneva Auto Show. The 1100 was shown in two completely different versions: the comfortable grand-touring car "Desirée" and the coupe "Printemps." Both were styled, as usual, by Giovanni Michelotti.

The Fiat 1100 "Desirée" is one of the masterpieces of the Vignale-Michelotti duo. The car proved that a good designer can turn a calm family sedan into an elegant and refined grand-touring car. While this happened quite often in Italy at that time, with the Desirée it reached the highest level. Michelotti was a master of balancing proportions. He moved the windscreen back, creating a long nose, which was further emphasized by the heart-shaped grille, which looks as if it were hiding an inline-six engine instead of the Fiat four-cylinder. A long tail balanced the volume of the passenger compartment, comfortable enough for four people. It had, of course, only two doors, as do all the Vignale cars (with the sole exception of an outstanding Rolls-Royce Silver Wraith).

The Desirée was a successful product, and this led Vignale to develop it further.

The car pictured in these pages is a lovely restored Desirée with elegant two-tone painting (RM Sotheby's).

The crossed maritime flags were often used by Italian coachbuilders, putting on the left the initial of the carmaker (here is "F" for Fiat) and on the right their own initials.

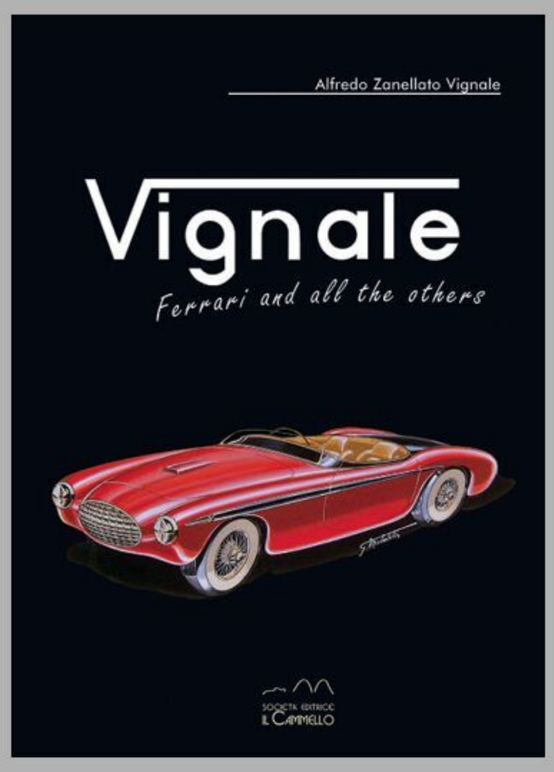
The second-generation Desirée from 1957 was based on the Fiat 1200.

In 1957 Fiat introduced the 1200, with the same chassis as the 1100 but a bigger engine. It was the right base for the second-generation Desirée, and also an attractive sporty station wagon – two-door, of course – under the name "Garden Car."

The 1100-based offerings were completed by the elaborata sedan version (a visual tuning made with chrome trim, better painting, and enhanced finishes) called the "Elite" and a conventional five-door station wagon, mainly sold as a taxi, called the "Orticella." These were not Vignale's most beloved products. He sometimes subcontracted them to smaller workshops to save his production capacity for the more expensive and profitable models. However, they were a reliable source of money for the company. In fact, the business was quickly growing, with more and more promising contracts from the big car manufacturers, both for the serial production of special versions like the Lancia Appia Convertible and for the development of prototypes like the Triumph Herald.

Sharing a similar styling with the Desirée, Vignale also built an elegant sporty station-wagon, called the Garden Car, which was also based on the Fiat 1100.

Vignale was aware that he needed to evolve from a skilled artisan to an industrialist. He needed a modern factory. The time of the dark, smoky Italian carrozzeria came to an end.



Alessandro Sannia convinced a relative of Alfredo Vignale, Alfredo Zanellato Vignale, to compile a book on the life and works of his uncle. Alessandro, who also wrote the Encyclopedia of Italian Coachbuilders, set out to set the facts straight on a complex and highly stressed person. The book, which is over 300 pages, features plenty of previously unseen photos, facts, and information.

More details: https://www.ilcammello.it/index.php/en/product/133-vignale

Genuine Craftsmanship from Spain

PEDRO SERRA'S LIFE AND WORKS

AS A CHILD, **PEDRO SERRA** LEARNED IN HIS FATHER'S WORKSHOP HOW TO TRANSFORM SHEETMETAL INTO ATTRACTIVE BODYWORK. HE MASTERED THIS CRAFT TO THE HIGHEST DEGREE AND DEMONSTRATED OUTSTANDING SKILL, REMAINING ACTIVE FOR HALF A CENTURY. **IGNACIO SÁENZ DE CÁMARA** AND V. **CHRISTIAN MANZ** REPORT.

BODIED IN BARCELONA

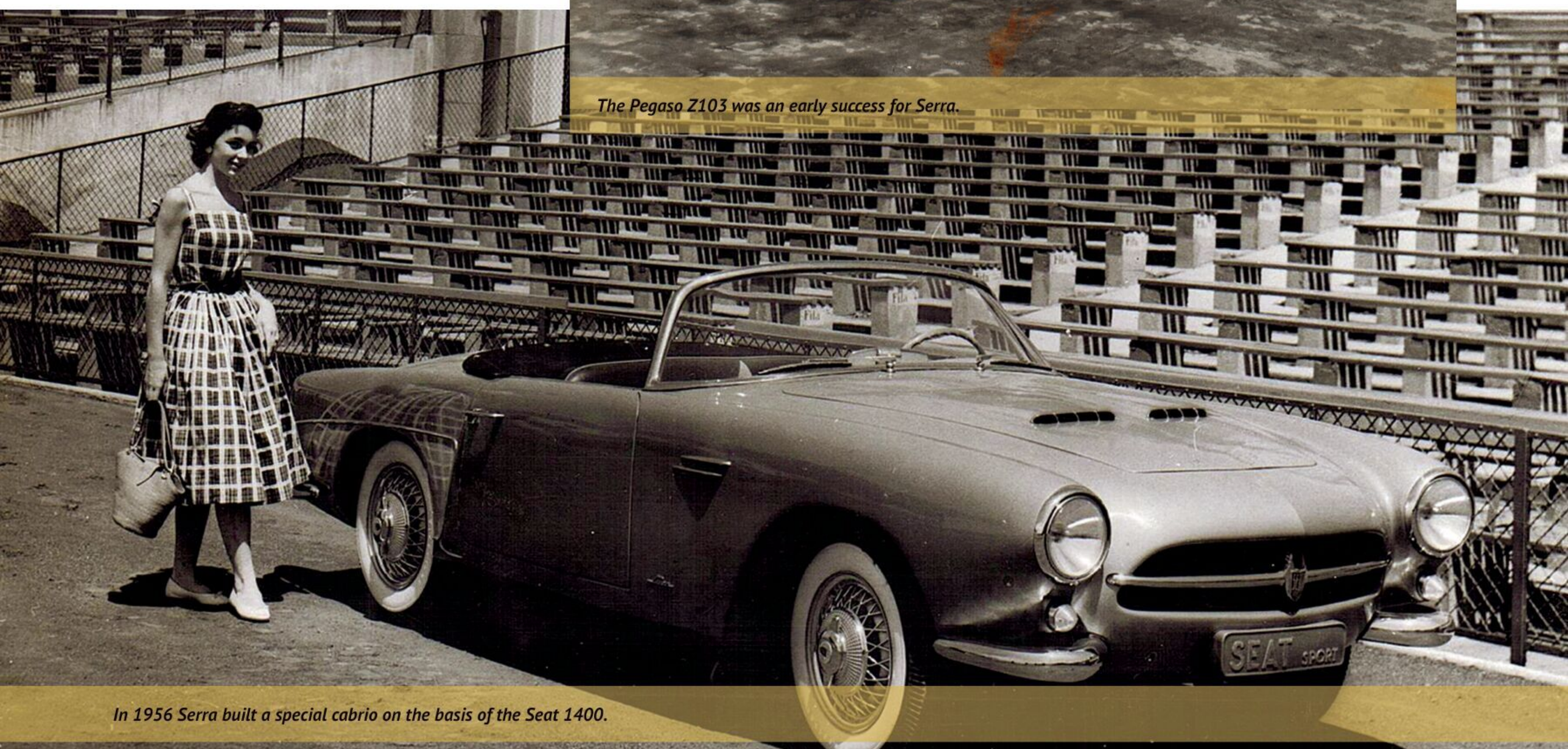
(Photo: Pere Nubiola)

Pedro Serra was born on December 25, 1926. While still a teenager in the early 1940s, he went to work in his father's workshop in Barcelona, Spain, located at number 40 on Paseo de San Juan. While many countries in the early 1940s were suffering from the aftermath of the Second World War, Spain was in the midst of the post-civil-war years, a time in which gasoline was rationed and it was almost impossible to get new spare parts, including tires, for motor vehicles. There were very few cars actually on the roads at this time. Meanwhile, in the Serra workshop, they skillfully crafted bodies for buses and coaches. They also made new, replacement bodies for the prewar Citroën B14, after the cars had been converted into electric vehicles by an outside company, and fitted them with bodywork similar to that of American models. While working in his father's workshop, Pedro Serra started to import some cars that were not on the government's restricted models list.

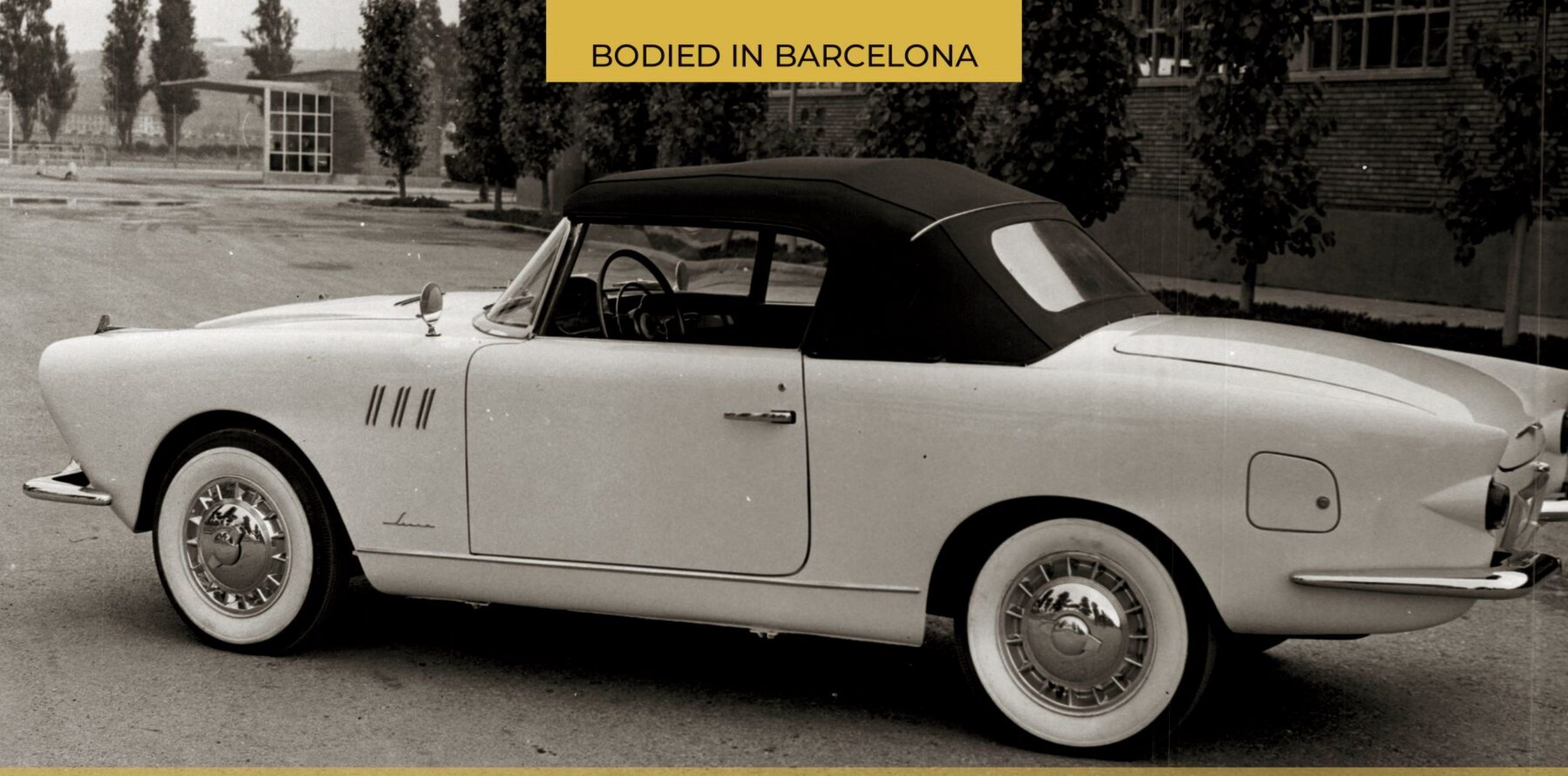
His initial work consisted of offering possible clients a modern body for a car with lines that had become outdated. Serra started with a car he had bought in 1948, a 1929 Amilcar, giving it a new lease of life with a body in the style of beautiful sports cars such as the Cisitalia. Once the

Pedro Serra in his office in the 1970s.

The Pegaso Z103 was an early success for Serra.



In 1956 Serra built a special cabrio on the basis of the Seat 1400.



The success of the original cabriolet led to an agreement and Serra produced around 150 units of the Seat 1400 Sport in various guises (Seat).

bodywork was finished, he sold the car at a considerable profit. He also carried out conversions on the prewar Fiat 500 Topolino and Fiat 1500, as well as on several Rolls-Royces from the 1930s.

In the early 1950s, Pedro Serra also designed and built bodies for a number of Ford Anglia and Standard Eight cars that had been imported only in chassis and engine form to reduce their price. What was striking was that the bodies, although aesthetically similar to those of the British saloons, were more attractively styled.

The Pegaso Z-102 sports car was exhibited at the Paris Salon in 1951. Its bodywork was produced by ENASA, the Spanish publicly owned company that manufactured the model. In addition, in 1952, several examples of Pegaso Z-102s were fitted with coachbuilt bodies: berlinettas by Italy's Touring and cabriolets by France's Saoutchik.

However, the coachbuilding firm of Jacques Saoutchik was already in a difficult economic situation by 1954, and in 1955 the company ceased trading. Up until then, 14 Pegaso coupés and four convertibles had been built, though some of them were still unfinished. Wifredo Ricart, the managing director of ENASA at that time, contacted Pedro Serra and invited him to take charge of completing Saoutchik's unfinished bodywork. When Ricart saw the quality of Serra's craftsmanship on the first example he had sent him, he did not hesitate to entrust him with the construction of the versions with open-top bodywork, while Touring would continue with the coupés.

Pedro Serra clothed the Pegaso Z-102 with a spider body with double vertical headlights, a panoramic windscreen, and air intakes on the hood and on both front wings. Later, he created an open-top body with slight modifications, especially to the front cross-shaped grille and to the lower rear part, which was set farther back. Initially he produced two examples of this style, and then he later produced two more as spiders. In the following years there were at least four other Pegaso Z-102s that were rebodied in the Serra spider style.

PROJECTS WITH SEAT

For the 1956 Barcelona International Motor Show, Pedro Serra designed and built special convertible bodywork on a Seat 1400 saloon. It was so well received—mainly due to its stylish design—and the Seat management were so enthusiastic that they repeatedly asked him to exhibit this convertible on the Seat stand. To the delight of visitors, that first cabriolet was successfully exhibited on their stand; days later the management commissioned Pedro Serra to produce a short series of this model.

The agreement resulted in the construction, up until 1958, of some 150 Seat 1400 cars with convertible bodywork, in the workshop of the Paseo de San Juan in batches of four from chassis sent from Seat. However, Pedro Serra did not like this project which was close to mass production, as it forced him to take on administrative tasks and also prevented him from properly attending to the orders of his traditional customers.

The 2/3-seater convertible introduced in 1956 had an unladen weight of 1075 kg — 55 kg less than the saloon - with the same 1395-cc engine that developed 44 bhp. The body also had more aerodynamic lines and lower height, so its performance was slightly better than that of the saloon version.

The good relationship with Seat management led Pedro Serra to develop special bodies in short series for other new Seat models. This was the case in 1961 for the two-door, four-seater Seat 1400-C

A Seat 600 Roadster by Serra which was modified by Talleres Corver (Photo: Ignacio Saenz de Camara).

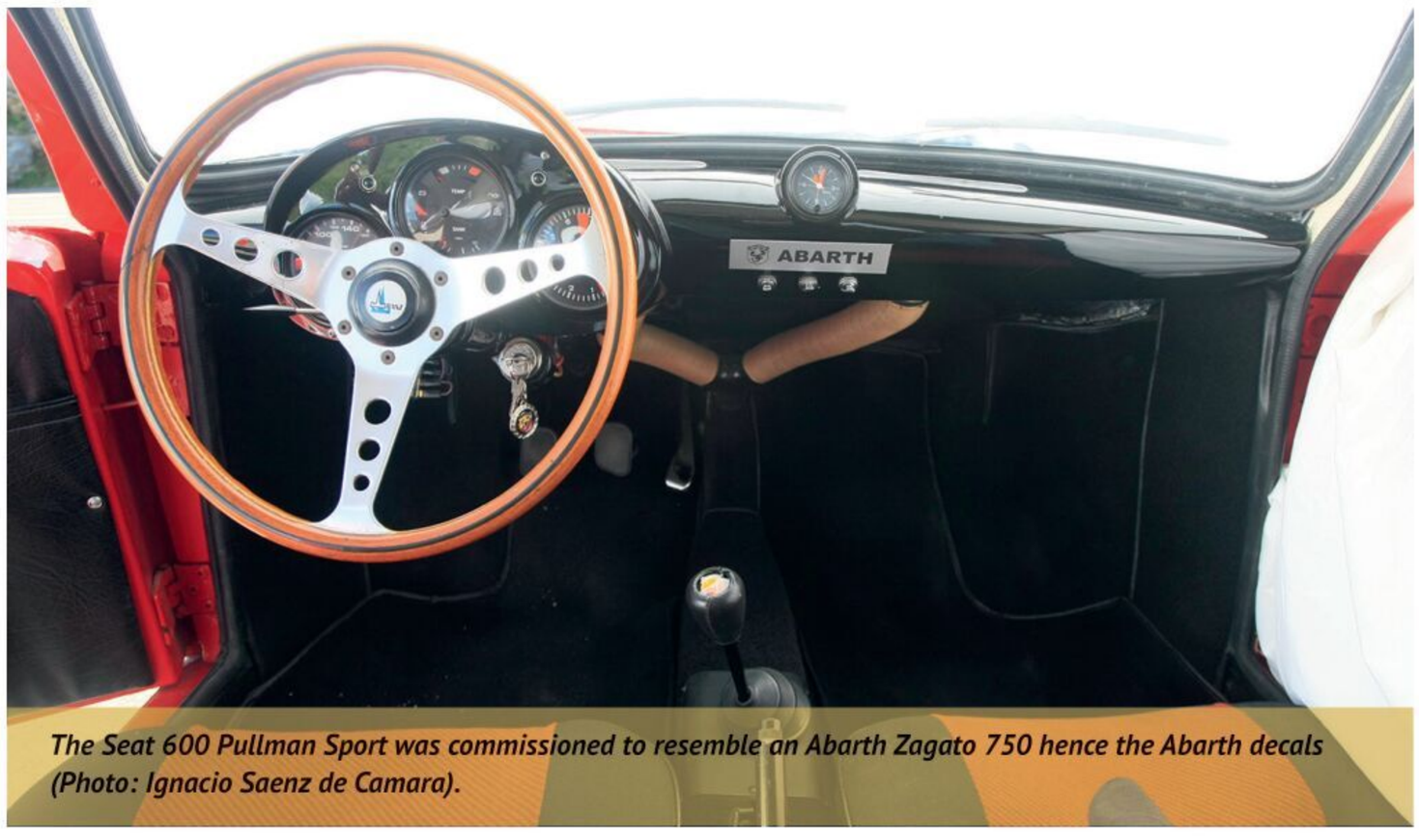
cabriolet as well as coupé and roadster versions derived from the Seat 600. The Seat 600 Sport Pullman was a unique design. In 1959, Pedro Serra used it to create a coupé similar to the Fiat-Abarth 750, as commissioned by the owner of a Seat 600 who wished to have a car of much sportier appearance than the humble utilitarian on which it was based.

As for the Seat 600 roadster, six examples were built by Serra in collaboration with Corver, a company which was responsible for manufacturing tuning equipment to increase the performance of Seat cars. In 1971, Serra also created a Seat 1430 cabriolet, with two doors and four seats, which was shown at the Barcelona Motor Show that same year.

UNIQUE MODIFICATIONS

In the mid-1950s, Pedro Serra was again responsible for the creation of new bodies for luxury cars that had become obsolete. For example, the new owner of a Rolls-Royce Phantom III, built in 1937 by the German coachbuilding firm Erdmann & Rossi, and whose bodywork was outdated by 1957, commissioned Pedro Serra to clothe it with a body of more modern lines. The result was a car similar in appearance to the Silver Cloud, although somewhat larger as it had to retain its original 12-cylinder, 7338-cc engine under its hood.

On the other hand, Serra also designed and built several bodies



The Seat 600 Pullman Sport was commissioned to resemble an Abarth Zagato 750 hence the Abarth decals (Photo: Ignacio Saenz de Camara).

BODIED IN BARCELONA

The Seat 600 Pullman Sport was built by Serra in 1959. After a few years, it was put into storage. It was rescued a few yeas ago (Photo: Ignacio Saenz de Camara).

Engine also features Abarth modifications (Photo: Ignacio Saenz de Camara).

for smaller, more popular cars like the Biscuter 200F, with striking and unique bodywork, or the Clua, which is considered by many to be one of the most beautiful bodies ever produced for a microcar. He also fitted special bodies onto Citroën Dyane and Renault 4CV chassis.

DODGE 3700 BOULEVARD

Pedro Serra also collaborated with Barreiros Diesel, and in 1968 he exhibited the Specter coupé at the Barcelona Motor Show. Underpinning it were the chassis frame and mechanics of the Dodge Dart, which was being manufactured at that time in Spain. The Dodge Specter was a prototype with a front reminiscent in style of the Plymouth Barracuda.

In 1970 Pedro Serra discovered, by surprise, the LMX coupé at the Barcelona Motor Show, a sports car conceived by the Italo-Argentinian engineer Michel Liprandi and with a fiberglass body designed by Franco Scaglione. This model, powered by a 2.3-liter Ford V-6 engine, had already been shown at the Turin and Geneva motor shows in 1968, in the hope that a manufacturer or manufacturers would buy the production license to produce it.

At the Barcelona event, Pedro Serra reached an agreement whereby Michel Liprandi would adapt the chassis to fit the engine and other components of the Dodge 3700 GT, while Pedro Serra would manufacture the bodies and take charge of the assembly of the future sports car.

The prototype was unveiled at the 1972 Barcelona Motor Show, under the name Dodge 3700 Coupé 2+2 Serra Boulevard. It was equipped with a black vinyl roof divided into two halves, two fuel tanks with their corresponding filler caps, and rear light units that consisted of 10 red, sequentially lit lights, which were undoubtedly very spectacular.

This Dodge Serra "Boulevard" 3700 GT Coupé was bought on the spot at the 1973 Barcelona Motor Show by Florenci Sánchez. His family still owns the car (Photo: Miquel Tres).

After its presentation to the public, the production of a first, short series began in September, consisting of 10 units with conventional rear optical clusters, with orange indicators and white reversing lights to comply with the then current Spanish regulations. Subsequently seven other units were built, including a special one called the MM30 with maximum power increased by 30 bhp to reach 195 bhp SAE, based on a higher compression

Sporty interior reflects exterior (Photo: Miquel Tres).

This MM30 version features a power increase by 30 hp (Photo: Miquel Tres).

ratio, modified settings in the carburetor, and a new exhaust manifold.

Unfortunately, the Ministry of Industry hindered the sale of these vehicles by making it difficult to homologate them. The only accepted solution was selling the Dodge Boulevard as if it were a Dodge 3700 GT saloon. Confronted with such bureaucratic obstacles, Pedro Serra, in 1973, abandoned the construction of these Dodge coupés, demoralized by administrative difficulties.

BRITISH LEYLAND AND DECLINE

Apart from Dodge, Serra also attempted to collaborate with Authi in 1967-1968. Authi was a Spanish manufacturing plant which assembled Austin and MG cars under license from BMC (later British Leyland) from 1966. He operated a dealership in Barcelona, Serra Motors, which sold Authi cars among others. His idea was to create a new luxurious model line, called "Equipped by Serra," featuring a distinct interior, color lineup, and wheel design. The locally assembled Austin 1300/MG 1300 were set to feature his style. Unfortunately this project also failed and it is estimated that 15-20 cars were transformed. Additionally Serra built four units of a retro-styled roadster, called the MG Serra Crazy Roadster.

From 1973 onward, the oil crisis further exacerbated the situation, and Pedro Serra was discouraged and unwilling to undertake new projects. The huge increase in the price of gasoline led to a complete halt in the demand for bespoke bodywork for sports or luxury cars. This led the Barcelona coachbuilder to retire from his job and take a rest after completing some minor commissions for customers such as a two-door, four-seater Seat 131 cabriolet ordered by a client from Mallorca and trying his hand on converting BMW cars into cabriolets.

RECOGNITION WITH THE PEGASO Z-103 REVIVAL

Throughout the 1980s, several companies from the United States, Japan, and Europe contacted ENASA to apply for the production rights of the Pegaso Z-102/103, at a time when the market for replicas of the most revered sports classics was booming. However, the Spanish management team of ENASA preferred to take the initiative themselves and, in 1988, took the decision to carry forward the P50 project, to manufacture a replica of the Pegaso Z-103, using one of the most beautiful bodies ever built on this car, the Serra Spider. On July 10, 1991, the model made by the British company International Automotive Design was presented in Madrid.

It was fitted with the 3948-cc Rover V-8 engine, producing 170 bhp at 4750 rpm. Both the transmission and gearbox came from the Alfa Romeo 75, which like the old Pegaso Z-103 had rear suspension with a De Dion rear axle. Inside, it had leather upholstery and wood veneers made by the Spanish company Artespaña, as well as modern fittings such as retractable seatbelts and a radio.

A total of 10 examples of this model were built.

Pedro Serra sadly died on February 17, 2017, at the age of 90.

We would like express our gratitude to Gonzalo Latorre and Cari Sanchez, who procured plenty of illustrations.

BIG AMBITIONS BURNED DOWN

- CARROSSERIE ITALSUISSE GENÈVE

THE SWISS COACHBUILDER ITALSUISSE WAS RESURRECTED FROM THE ASHES OF GHIA AIGLE WITH BIG AMBITIONS FOR A SMALL SERIAL-PRODUCTION CAR. BUT AFTER ONLY SEVEN YEARS, ITS EARLY HOPES WERE BURIED IN A FIRE. **STEFAN DIERKES** TELLS THE STORY OF THE NINE COACHBUILT CARS, WHICH WERE PRESENTED AT THE GENEVA MOTOR SHOW AND, TODAY, ARE ONLY KNOWN TO A FEW CONNOISSEURS.

In March 1957 the Swiss coachbuilder Carrosserie Ghia S.A., located in Lugano, showed no fewer than nine handcrafted car bodies on its stand at the 27th Salon International de l´Auto in Genève. On the stand an employee, a tall, blond-bearded, Renaissance-style gentleman named Adriano Guglielmetti (born April 2, 1930), advised wealthy customers as to which car body best fit their distinct tastes. They ranged from a small open sports car built on the Lotus Eleven platform to coupés built on Fiat-Nardi 1100, Lancia Appia, Alfa Romeo 1900 Super Sprint, and Volkswagen Beetle chassis to another Alfa Romeo 1900 Super Sprint Cabriolet and an Opel Kapitän Station Wagon. All had been designed by the prolific Italian Giovanni Michelotti (1921–1980). Michelotti quit in the same year, and his elder, also well-known, colleague, Pietro Frua (1913–1983), stepped in as the new contract designer for Ghia Suisse[1]. In the meantime, the coachbuilding business was changing. Frua's first design was the cabin for a Renault-based lightweight truck, which was also used for minibuses and removal vans. This became a consistent business for Carrosserie Ghia after 1957.

Adriano Guglielmetti was next seen at the steering wheel of another Alfa Romeo 1900 SS Coupé, designed by Pietro Frua for the much smaller stand of Ghia Suisse at the 28th Geneva Motor Show in March

The only existing Italsuisse emblems have survived on the 1964 Opel Kadett A Spider (Photos on this double page: Bruno von Rotz; above: René Staud Studios).

1 So named to distinguish it from the bigger founding partner Carrozzeria Ghia S.p.A. in Torino, Italy, which is called "Ghia Torino".

1958. Frua had sold his own coachbuilding firm to Ghia Torino in September 1957 and in turn became its design director.

Next to the Alfa, a Renault Dauphine Cabriolet was exhibited. This led to a conflict between Ghia Torino and Frua, as Frua had designed a similar coupé for them. There was a dispute about the copyrights of his design. They finally divorced and Frua was again on its own.

One month later, on April 23, 1958, Ghia S.A. relocated to its former location in Aigle near Lake Geneva. At that time Frua designed the last passenger car for them, a Jaguar XK 150, which was photographed with "Ghia Aigle Lugano" signs in front of the coachbuilder´s premises in Aigle. Only smaller jobs, like hardtops for a Skoda Felice Roadster, an Alfa Romeo 2000 Spider, and a new front hood for an AC Ace Bristol Roadster, followed. Coachbuilding for light trucks and body repairs was the main job for Carrosserie Ghia in Aigle until its liquidation in 1981.

Founded by Adriano Guglielmetti

In 1959, the former "face to the customer" of Ghia Aigle quit and started his own business. He called it Italsuisse to reflect the fusion of Italian design with Swiss craftsmanship. He found a location for the new business in the Rue de la Pyrotechnie in Carouge, a suburb of Geneva. As a designer he contracted – guess who? – Pietro Frua, who was himself in a phase of reorientation. In June 1959, Frua finally founded his "Studio Tecnico Pietro Frua" in Via Villa Glori, south of the river Po crossing his hometown Torino. Frua's much-acclaimed Maserati A6G Spiders had ended production, and the next projects from his main customer were still some years away.

Frua noted his first project for Italsuisse on March 28, 1959, with three 1:10 drawings of a hardtop for the Alfa Romeo 2000 Touring Spider.

Together with Guglielmetti, he afterward conceived a more ambitious

Round instruments taken from the Lotus Elan, which Frua rebodied as a coupe for the 1964 Geneva Show.

Bumpers, bumperettes (mounted upside down), and turn indicators taken from the Kadett.

Rear light glasses taken from the Jaguar Mark 2.

The stand of Carrosserie Ghia S.A. Lugano at the Geneva Motor Show in March 1957 with the 1957 Volkswagen Coupé designed by Giovanni Michelotti in the foreground and the blonde-bearded Adriano Guglielmetti, founder of Carrosserie Italsuisse ca. 1959, in the background (Archive: Lutz Montowski).

Adriano Guglielmetti at the steering wheel of the 1958 Alfa Romeo 1900 SS Ghia Lugano Coupé designed by Pietro Frua (Photo: Pietro Frua, Frua-Family-Archive Roberto Rigoli).

project: a modernized four-seater pontoon body with a surrounding Corvair line, on the platform chassis of the already aged VW 1200 Beetle. Their hope was to produce this new sedan in large numbers.

Pietro Frua noted for the project his very first commission number, "comm. 301," indicating that he had designed roughly 300 cars before he used his new numbering system. After a few sketches, he finished his 1:1 construction drawing with design number "dis. 549" on January 13, 1960. A wooden model was built by freelance carpenters in his workshop and served as the buck for the fitting of the prototype's handmade panels. After only 35 days' building time, the car was finished and driven on its own wheels to the 30th Motor Show in Geneva. The Italsuisse "Sun Valley" was shown on the company's first stand directly opposite the stand of Volkswagen.

According to the American journalist Jerrold "Jerry" Sloniger, at the press gathering, Volkswagen chairman Heinz Heinrich Nordhoff repeated his comments on the occasion of the two millionth VW (December 28, 1957), where he said that the three millionth would look the same and, with the four-million mark near at hand, he indicated that his standpoint was unchanged.

When Sloniger later visited the tiny body shop of Italsuisse, Guglielmetti

Adriano Guglielmetti in front of his Carrosserie Italsuisse at the Rue de la Pyrotechnie in Carouge. On the left is the 1960 Volkswagen 1200 Italsuisse Sedan, designed and built by Pietro Frua (Photo: Jerrold Sloninger).

Alfa Romeo 2000 Touring Spider with Italsuisse-Hardtop 1959. The script between the trims on the side reads "hard top creazione p. frua" (Photo: Pietro Frua, Frua-Family-Archive Roberto Rigoli).

told him that he wanted to produce 1000 Italsuisse Volkswagens. He claimed to already have an order for 5000 such cars from Israel, but a shortage of chassis killed the plan. The prototype never made it to

The wooden buck for the Volkswagen Italsuisse Sedan "Sun Valley" in the Studio Tecnico Pietro Frua in Torino (Photo: Pietro Frua, Frua-Family-Archive Roberto Rigoli).

1960 Volkswagen Italsuisse Sedan "Sun Valley"in the "Parc La Perle du Lac" near Lake Geneva (Photo: Pietro Frua, Frua-Family-Archive Roberto Rigoli).

The Volkswagen Italsuisse "Sun Valley" on the Italsuisse stand opposite the Volkswagen stand at the Geneva Motor Show in March 1960 (Photo: Eberhard Seifert, Archive: Automobil Revue).

serial production, and it was finally sold to the VW and Porsche dealer Hubert Brundage (Brumos Porsche) in Florida, where it disappeared. Volkswagen released its own boxier, upmarket sedan, the VW 1500 (Type 3), at the Frankfurt Motor Show in September 1961.

1961 Geneva Motor Show

One year later, Italsuisse booked two stands (nos. 20 and 310) for four cars at the Salon de l´Automobile in Geneva in March 1961. However, one of the cars, the Citroën Frua Coupé on the shortened ID chassis, which had already had its first public appearance with the French dealer Hector Bossaert at the race course in Monthléry, south of Paris, did not arrive in time. Therefore stand 20 was canceled, and the remaining three cars were shown on stand 310 in the coachbuilder hall of the Palais des Expositions.

First was a little red Fiat Giannini 850 Spider, which was never seen again after the show. But about one year later, Frua sold the design and his wooden buck to Carrozzeria Scioneri in Savigliano in the province of Cuneo, which produced it in a small series of Fiat 750 and Fiat Giannini 850 Scioneri Spiders.

Second a large copper-red two-door coupé on the Studebaker Lark chassis, named the Studebaker Italia. Frua had already shown the Italia – without the Italsuisse signet – on his own stand at the Torino Motor Show in November 1960. This car was later sold via the Roman dealer Renato Bornigia, who even produced brochures with text in Italian, French, and English for the coupé and its sibling four-door sedan.

During the show, the Studebaker was replaced by the third car on the small Italsuisse stand, which was a sky-blue Maserati 3500 GTI Coupé. This design had been Frua's suggestion for the later Maserati Sebring (Tipo 101/10), which was produced with a body designed by Michelotti at Carrozzeria Vignale from 1962 onward. As with the other two cars shown on the Italsuisse stand, the Maserati had been completely built in Frua's studio in Torino. Frua produced three more, which were delivered by Maserati in May 1961, May 1962, and July 1962. The Geneva Motor Show car (chassis number AM 101.1494) was delivered to its first owner, Attilio Monti, an entrepreneur and refinery owner, in Bologna a few weeks after the show on April 22, 1961. According to the Pubblico Registro Automobilstico (P.R.A.), it was

Adriano Guglielmetti with the 1960 Volkswagen Italsuisse Sedan "Sun Valley" (Photo: Jerrold Sloniger).

1961 Fiat Giannini 850 Spider in front of Pietro Frua's villa in Torino (Photo: Pietro Frua, Frua-Family-Archive Roberto Rigoli).

1961 Fiat Giannini 850 Spider on the Italsuisse stand at the Geneva Motor Show in March 1961 (Archive: Automobil Revue).

registered until the end of 1989 and never seen again. But at least the other three cars still exist.

1963 Geneva Motor Show

After one year without exhibiting in Geneva, in March 1963 Italsuisse again had a small stand (no. 307). There it finally presented the Citroën DS 19 Bossaert Coupé, which had been registered in vain for the show in March 1961. So, after two exhibitions at the Salon de l´Automobile in Paris in October 1961 and 1962, it could be seen for the first time in Switzerland directly next to the large stand (no. 308) of the famous French coachbuilder Ateliers Henri Chapron, which specialized in coupes and cabriolets on the Citroën DS 19 floorpan.

1964 Geneva Motor Show

When the doors of the 34th Salon de l'Automobile opened on March 16, 1964, Frua was on the third peak of his career (after his time as head of design at Stabilimenti Farina in the 1930s and with his own Carrozzeria in the 1950s), showing six cars on four stands. In the large "Halle Voitures," he had the serial production Glas 1300 GT coupé and cabriolet and the Glas 1500 sedan on the Glas stand (no. 12) and the Maserati Mistral and Quattroporte on the Maserati stand (no. 39). In the smaller "Halle Carrossiers" near the entrance, Frua exhibited an aluminum-bodied Lotus Elan Coupé on his own stand (no. 309), and a lovely white Opel Kadett Spider on the Italsuisse stand (no. 304). This beautiful rebodied Kadett was – after the Volkswagen-based "Sun Valley" shown in 1960 – again built with the hope to get it into series production, as a rival to the Volkswagen Karmann Ghia Cabriolet. And indeed, Opel management chairman Nelson J. Stork and his director of design, Clare M. MacKichan, were

impressed and ordered a second car with some modifications, which was delivered in July by Frua to the Opel headquarters in Rüsselsheim. But Opel decided against producing the small spider, as their more modern-looking GT was already in development. The test car was sold to an employee of their testing department, who scrapped it only six years later.

1965 Geneva Motor Show

One year later, the double stands of Frua (no. 305) and Italsuisse (no. 306) were located on the left and right of the stairways at the end of the coachbuilder's hall of the Geneva show. The two cars exhibited by Italsuisse had already been shown before: The Kadett Spider from March 1964, now resprayed in a silver color, was sold to a Swiss engineer during the salon. Next to it stood a Mini-Moke look-alike beach car, the Glas "Ranch," built on the floorpan of the "big Goggomobil" Glas 700 Isar. Frua had already shown the Ranch at the Torino Motor Show in November 1964. Probably four Ranch were built, two of which still exist: Frua's own car, which today is in Germany, and another one, which was found in 2013 in a barn in Switzerland.

On the neighboring Frua stand on the left of the stairway, the only new car was a Glas GT four-seater sedan, which was exhibited next to a Glas 1300 GT Cabriolet with hardtop and a Maserati Mistral Coupé.

Later that year, Carrosserie Italsuisse relocated from its wooden shed in Carouge to a larger workshop in the Route du Pont-Butin in the neighboring Geneva suburb of Petit-Lancy.

1966 and 1967 Geneva Motor Show

The next two years marked the decline of Italsuisse. At the Geneva show in March

1960 Studebaker Lark Frua Coupé "Italia" in November 1960 in Torino (Photo: Pietro Frua, Frua-Family-Archive Roberto Rigoli).

1960 Studebaker Lark Frua Coupé "Italia" on the Italsuisse stand at the Geneva Motor Show in March 1961 (Photo: Eberhard Seifert, Archive: Automobil Revue).

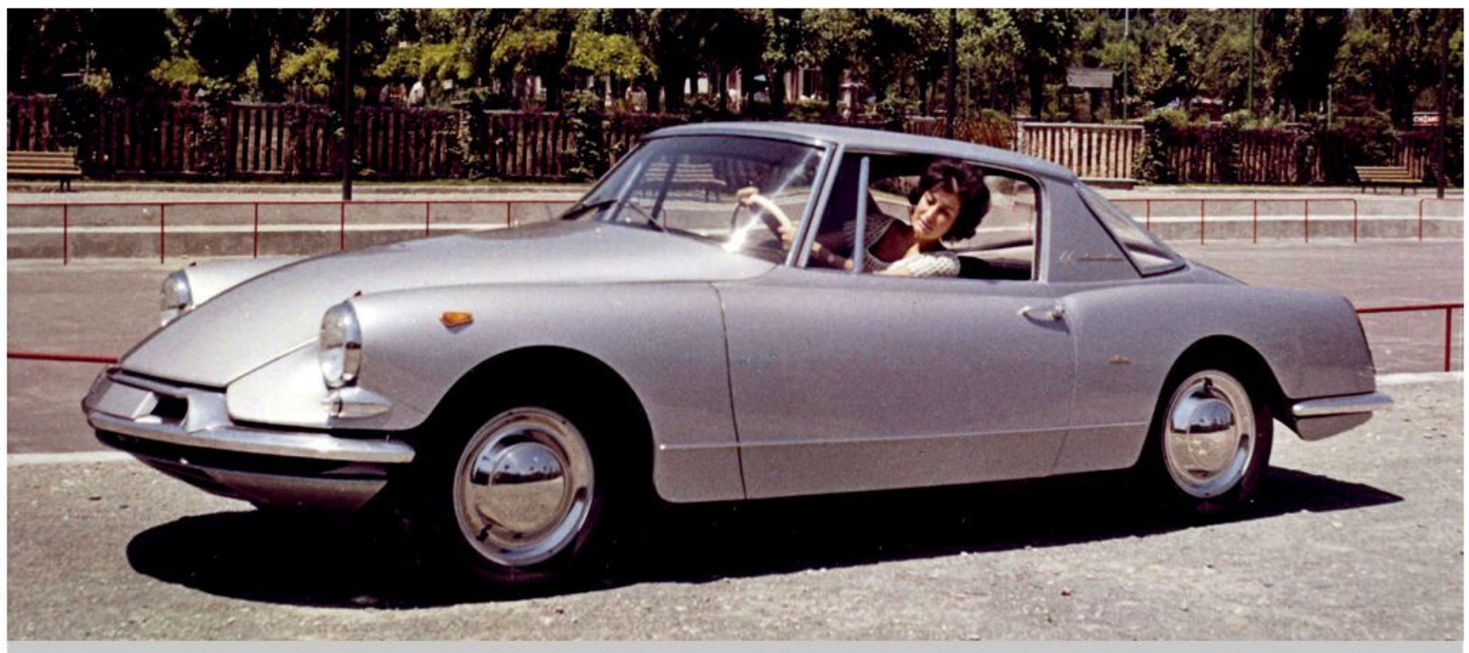
1961 Maserati 3500 GTI Frua Coupé (chassis no. AM 101.1494) on the Italsuisse stand at the Geneva Motor Show in March 1961 (Photo: Eugen Thierstein, Archive: Automobil Revue).

1966, Frua's Italianized version of the Jaguar E-Type Coupé for the British Jaguar dealer and owner John Coombs was shown on the Italsuisse stand.

In the evening of June 17, 1966, a fire destroyed the recently renovated workshop of Italsuisse, including seven cars and most of the equipment. As the local newspapers reported the next day, 40 firemen risked their lives to prevent the acetylene bottles from exploding. The 30-meter-long building was completely destroyed, and the damage estimated at 200,000 Swiss Francs.

Nevertheless, in March 1967, visitors to the Geneva Motor Show saw an Italsuisse stand with a single car. Stand no. 204, again located next to the stairways and Frua's own stand, was just transferred one week before the show opened to Italsuisse from its original exhibitor, Carrozzeria Touring in Milano, which canceled its own participation due to economic difficulties. Exhibited was a Peugeot 204 Hardtop-Coupé, which Frua built for the French car tuner Autobleu. This was Italsuisse's last exhibition.

Today, we know that all coachbuilt cars shown by Carrosserie Italsuisse were not only designed, but also completely built, by Pietro Frua in his own workshop in Torino. The workshop of Carrosserie Italsuisse – despite its hopes for receiving customer orders large or small – did not build complete bodies as its predecessor Carrosserie Ghia Suisse had in the 1950s.



1960 Citroën DS 19 Bossaert Frua Coupé in October 1960 in Torino (Photo: Pietro Frua, Frua-Family-Archive Roberto Rigoli).

1964 Opel Kadett A Italsuisse Spider on the Italsuisse stand at the Geneva Motor Show in March 1964. Opel management chairman Nelson J. Stork (right) discussed the car with his director of design, Clare M. MacKichan (Archive: LAT Photographic).

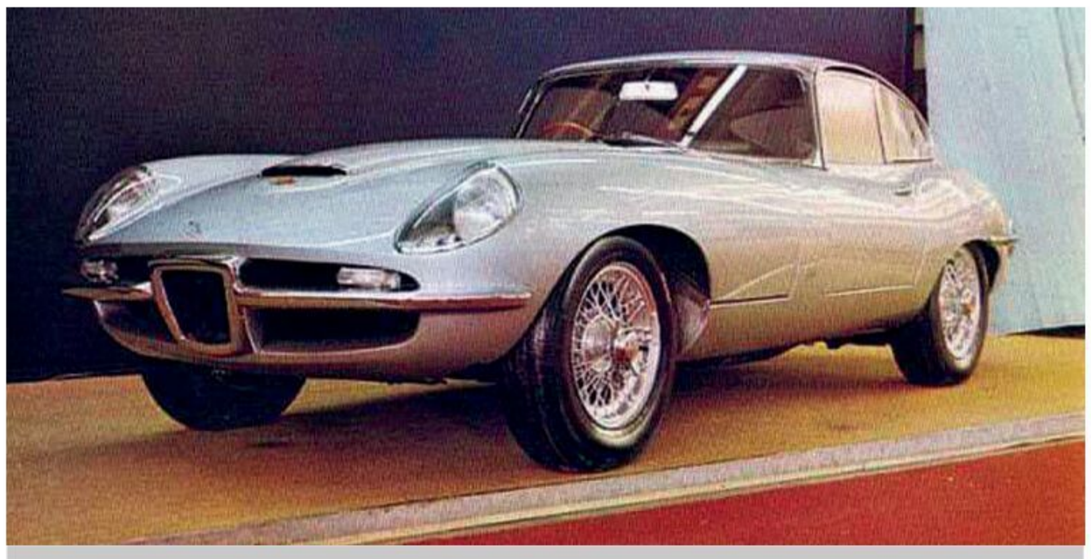
Instead, it was an exhibition and sales division for Pietro Frua's coachbuilt cars, and performed daily body repairs and maintenance on their cars.

Guglielmetti was seen again on Pietro Frua's own stand at the Geneva Motor Show in March 1969, where he consulted potential customers of the Opel Frua Coupé "Diplomat Special" together with Frua.

Adriano Guglielmetti died on January 6, 1990, at the age of 59.

The first Glas Isar Frua Beach Car "Ranch" in November 1964 in Torino (Photos: Publifoto Torino, ex–Archive Wolfgang Terasa).

ITALSUISSE



1965 Jaguar E-Type Frua Coupé on the Italsuisse stand at the Geneva Motor Show in March 1966 (Archive: Graham Arnold).

1967 Peugeot 204 Frua Hardtop-Coupé on the Italsuisse stand at the Geneva Motor Show in March 1967.

The Opel Kadett A Spider that was exhibited twice on the Italsuisse stand at the Geneva show in 1964 and 1965 has survived and was fully restored from 2009 to 2012. Today it is believed to be the only existing car that bears an emblem of Carrosserie Italsuisse. A detailed history of Pietro Frua, Italsuisse, and all cars can be found on the author's website, www.italsuisse.de.

Adriano Guglielmetti at the door of Pietro Frua's 1969 Opel Admiral B Coupé "Diplomat Special" while unloading the car for some street photos after the Geneva Motor Show in March (Photo: Pietro Frua, Frua-Family-Archive Roberto Rigoli).

KUSTOM

What makes a BENTLEY special?

BACK IN THE SEVENTIES AND EIGHTIES THERE WERE SEVERAL COMPANIES AROUND THAT COULD PRODUCE A BENTLEY MK VI SPECIAL ON A MK VI (OR AT A PUSH THE ROLLS-ROYCE SILVER WRAITH EQUIVALENT). THESE ARE VERY SOUGHT AFTER TODAY, SAYS **STEVE HOLE**.

I guess the Bentley scene has always been one of the most evocative. We all think back to these days of beautifully built, silky smooth limousine-type cars that are superb to waft about in. However, although those words 'beautifully built' have always applied to anything produced by Bentley regardless of whether the company was owned by founder 'W.O', Rolls-Royce, or in recent years, the Volkswagen Group.

However, go back to those derring do, Boy's Own days of Sir Henry 'Tim' Birkin and his Bentley Boys, big blowers and infamous cars like the Blue Train Special and owners were never shy to take up a hacksaw and a welding torch in the name of modification.

It's an activity that has always been alive and well but gathered pace following W.O. Bentley's company succumbing to the overtures of rival Rolls-Royce. As soon as the ink was dry, W.O. and the remainder of his workforce that hadn't transferred to the new owners, got cracking shortening and lowering the products of their labours for owners that required it.

It wasn't long before the man still regarded and revered as the 'high priest' of early Bentley tuners, LC McKenzie, created the origins of what became the Mk VI Derby Bentley Special.

McKenzie had a penchant for fitting 4½-litre engines into 3-litre chassis and watching with amusement the reaction of owners as their cars became performance monsters overnight. It certainly gave the old leviathans exceptional firepower and because the cars were so well built, they could easily handle the extra oomph.

Cylinder head guru Harry Weslake was involved in the Bentley scene and he laid down the foundations for future tuners of the marque's renowned effortless engines. He received many plaudits for his work on the Le Mans Bentleys, in particular.

As mentioned, we all think of classic Bentleys and Rolls-Royces as having beautifully hand-crafted coachbuilt bodies that last a lifetime. However, when the Mk VI Bentley was launched in 1946, it wore a steel body and was the first time that Rolls-Royce had ever built complete cars at their Crewe – and Derby - factory.

Previously, customers would order their chassis and have it delivered to a coachbuilder such as Mulliner or James Young, where a body would be fitted to their car. However, with the UK recovering from World War II, many commodities were in short supply, hence the use of steel for the bodies.

If the customer insisted, they could still opt for the traditional coachbuilt method with their Mk VI (aka Derby) Bentley, and about 20 percent of customers did just that. The standard car though came with a steel body and in 1946 was priced from £4473 (approximately £131,000, or €151,500 in today's money).

The issue was that quality of the steel was sub-standard and the bodies

The first postwar Bentley, the MkVI, went on to become a favoured base for special builders.

rusted for fun. They were though still mechanically very sound and otherwise beautifully built, just like before.

One of the first, if not the first to create a Mk VI Bentley Special was a Yorkshireman called Mr. Robinson. He and he reasoned that although the chassis made in Crewe remained of the highest order, the steel bodies made for them by the Pressed Steel Company were definitely not.

Therefore, he dispensed with the lardy steel body and lowered the car's springs, which thanks to not having to cart that heavy steel body around, made the chassis rise up considerably thus giving a vintage air.

Robinson also shortened the radiator shell and took 30cm (12in) out of the car's chassis aft of the cruciform section and finally created a minimalist, bathtub-style replacement body with a 'slab' fuel tank and an external gear-lever.

Other innovators did similar things to rust-prone Derby Bentleys (its cousin, the Rolls-Royce Silver Wraith, could be a donor, too) very much as one-offs. The first to offer commercial Mk VI Specials was a garage business run by the Bradley brothers of Shipton-under-Wychwood in Oxfordshire. They only charged £2500 for their conversion, much cheaper than others.

It wasn't that long before the Bentley Drivers Club caught on to the fact that these Derby Bentley specials were becoming popular and created the Mk VI Sports and Racing Special term for them and introduced a race class for them, too.

As mentioned, the standard Mk VI chassis was absolutely as one would expect of a Bentley frame. The front end featured independent suspension, with servo-assisted brakes and a centrally mounted chassis lubrication system, while at the rear there was the usual leaf spring setup.

Between 1946 and 1951, the standard straight six engine was a 4257cc ('4¼' in Bentley speak) with the F-Head and it was a beautifully smooth and torquey unit, just as you would expect. A year before the car was replaced by the R type, in 1952, a new 'big bore' 4½-litre engine (4566cc) arrived and that was carried over to the new car.

Most of the companies offering Mk VI specials followed the same path, with a few exceptions. The biggest hurdle to making your newly lightened chassis work best without being hindered by the heavy original steel body was sorting out the rear axle ratio.

Initially most companies just got hold of an old Bentley Continental rear assembly, which at the time were dirt cheap, until the suppliers cottoned on that there was a demand for them. Therefore, a new solution was needed. The answer was an old Salisbury-type rear axle from an ancient and usually decrepit Jaguar Mk9 and to fit it with the internals and final drive set of a Jaguar E-type, which gave the desired 2.88:1 ratio that worked perfectly in the Mk VI. Some companies even offered Power Lok limited-slip differentials as an option.

In the late 1970s, Rolls-Royce themselves got in on the act, producing a batch of brand-new rear end assemblies specifically for the Mk VI specials. I believe that these were fiendishly expensive, however, and most stuck with the E-type solution!

Time then to round up the best known of the Bentley Mk VI specials. We've also included stuff like the Sherpley here as, well, it's Bentley flavoured, while companies such as Bob Petersen Engineering and Vintage Racing Green make superb sympathetic replicas that deserve wider recognition.

4000 4¼-litre Derby Bentleys were produced between 1946-51 with 832 coachbuilts. There were a further 1202 4½-litre 'big bore' versions built between 1951-52, with 180 coachbuilts.

GOODA SPECIAL

The beautifully named Gooda special (created by Bob Gooda and Brian Phillips) used the later Bentley R-type from 1952 as donor with the chassis requiring 15 inches chopped from its length.

This R-type was the precursor of Bentley specials. It was built by Robert Peel on order from Robert Gooda (Bonhams).

The bodywork was produced by Peel Coachworks in Kingston-upon-Thames and they were well versed in creating such things as they'd already created some 500 replacement Bugatti bodies by the mid-sixties.

Not sure why only two were made. Perhaps it was a tad too expensive even for well-heeled Bentley customers.

HALSE BENTLEY

Tony Halse was one of the most respected Bentley Mk VI special makers of the seventies. He was based in Lewes, East Sussex, and eschewed normal convention for such cars by using a GRP body and a Ford wiring loom while he preferred the earlier 4¼-litre engine. Approx 16 were made.

JOHNARD BENTLEY DONINGTON J32

A Bentley Mk VI Special package made by John Guppy and Dudley Beck from their Blandford Forum, Dorset base. A well-made and highly regarded product that was initially commissioned by Eastbourne art dealer, Adam Stacy-Marks.

Guppy was a freelance vintage car restorer/repairer until he opened his permanent base in Blandford Forum. In 1975, the company known as Johnard Vintage Car Repairs moved to a larger workshop in Blandford Heights, which is when new business partner, Dudley Beck arrived. Incidentally, the company was christened by their best customer, John Goddard and is a kind of play on words of his name…it's in there somewhere! Think about it for five minutes! They were aware of other people doing Bentley specials and so fancied having a crack themselves although originally never intended to offer it commercially. They found their first 'donor' a 1952 R-type in a Southampton boatyard. Neville Trickett designed their body…it was more like a traditional roadster in style than other Bentley specials.

A similar concept to the Bentley-based products from the likes of Mallalieu, Syd Lawrence and Halse Engineering, although the Johnard was available in kit form, unlike some others.

The body featured a GRP centre tub and 16-gauge aluminium wings and bonnet with a brand-new Bentley grille. Engine choices were 4.25-litre, 4.5-litre or later and nor strictly correct turbocharged 6.3-litre or 6.8-litre V8.

Like most of their rivals, Johnard shortened the Bentley R-type chassis (by 12in) and moved the engine and radiator shell back. They also cut down the front springs for a lower stance, fitted semi-elliptic springs at the rear reinforced by trailing arms that also acted as anti-tramp bars, with a Jaguar-spec Salisbury differential used instead of the original item. Johnard did something very trick with the gearbox.

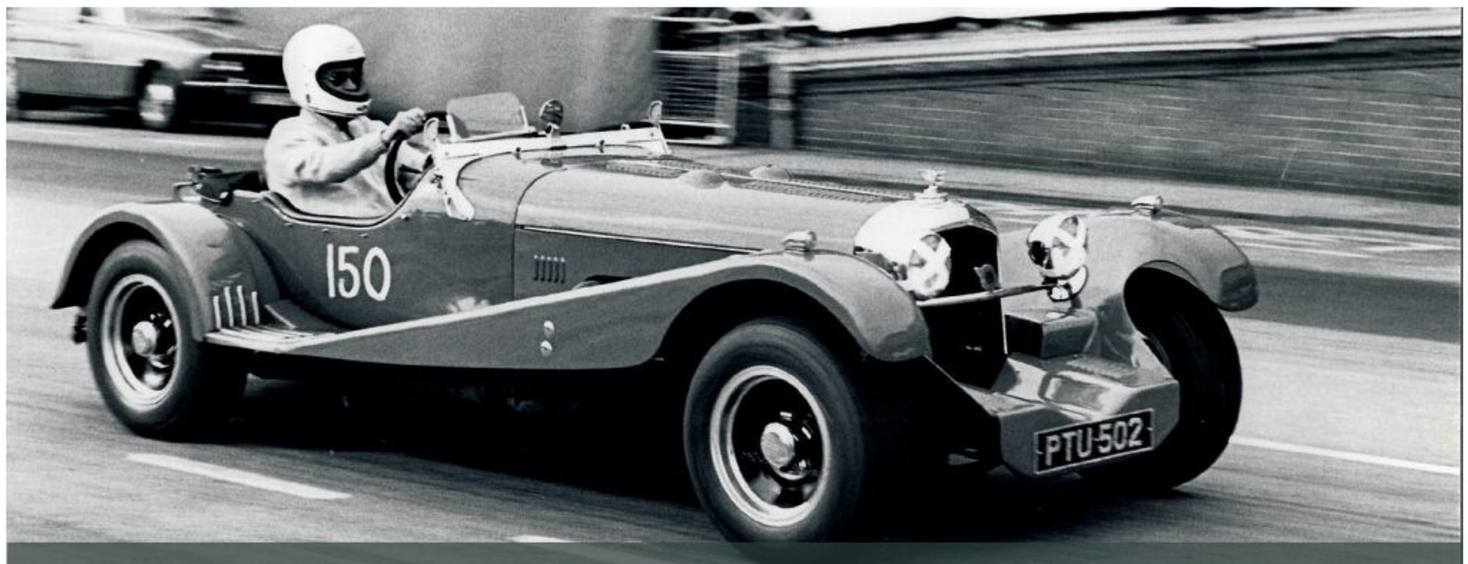
They believed that their customers would prefer a centre-mounted gearlever rather than a right hand one mounted outside the car's body, so came up with such an arrangement.

Debuted their special at the Donington Kit Car Speedshow in February 1976 organised by the Marcos Owners Club, which took place on the Melbourne Loop part of the circuit.

John Guppy and Dudley Beck famously refused to convert what they considered to be sound Bentleys … and I really like that policy. They were possibly the most expensive with their Bentley Johnard Special costing from £12,500.

They were later forced to remove the word 'Bentley' from their car's name incidentally, after the manufacturer objected.

Tony Halse built just 16 Bentley specials with plastic bodies (Bonhams).



A Johnard customer enjoying his Donington at the Bentley Speed Trials in 1974.

KING BENTLEY 4½-LITRE LE MANS OPEN TOURER

A smart replica of a 1928 Bentley by car builder extraordinaire, Mike King in 1970, with an aluminium chassis. King famously used the image on an Airfix box lid to help style his replica.

MALLALIEU BENTLEY CONVERSION

Mallalieu was one of the most revered of the so-called Bentley Mk VI special builders. Although Bradley Brothers of Shipton-under-Wychwood are regarded as the first to produce a Bentley Mk VI special, Derry Mallalieu was possibly the most successful competing squarely against the likes of Johnard, Syd Lawrence, Harry Rose and Halse Engineering.

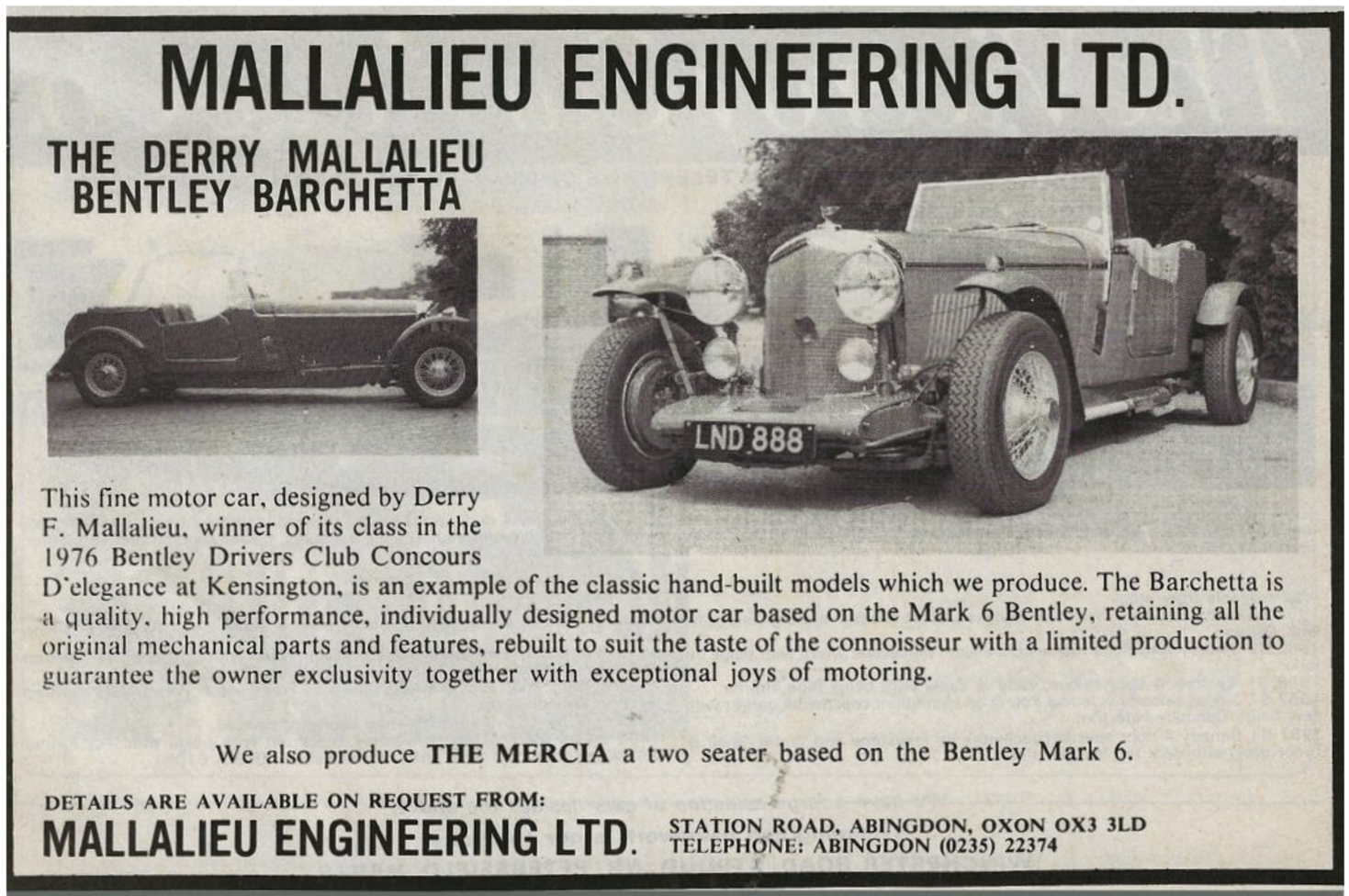
Durham Frank "Derry" Mallalieu was quite a character. He was a Bugatti expert and owned a Type 51, which he'd raced and hillclimbed in 1958, taking wins at Prescott in his car. He and his wife, Sybil, emigrated to the USA in 1959, basing themselves in Norwalk, Connecticut, where he set up his automotive business, even acting as technical advisor to the Rolls-Royce Club of America.

For his birthday in 1965, Sybil imported a standard steel-bodied Bentley Mk VI for him, which sent his imagination into overdrive! By the late 1960s his operation had an agent on the West Coast, a person named Jim Rickman (based in Pasadena, California) and he and Derry built two Bentley specials for customers, one of which won the prestigious Rolls-Royce Club of America's Guerrero Trophy.

In 1971 the Mallalieus returned to the U.K., opening Mallalieu Engineering, first in Haddenham and then in Abingdon to produce "replicas" of his replica Mk VI Special.

Unusually, Mallalieu didn't cut and shut the Bentley chassis as his rivals did, but he did move the engine and radiator back 18 inches in the chassis.

The easy availability of rusty Mk VI Bentleys and their separate chassis proved ideal for building specials. He built the first Mallalieu, a 2+2, in 1974, called the Barchetta Open Tourer, which saw the engine moved back 18 inches. The aluminum body over an ash frame cost £6500 fully built. The first Bentley he built was nicknamed "Fence"



Mallalieu was one of the most succesful Bentley-special builders.

Mallalieu built a slew of different models between 1974-1981.

because it "kept people in and people out"! Mallalieu and two staff built the first cars in a disused railway station in Abingdon – closed by Beeching.

He also devised a two-seater called the Mercia (later Oxford), although Mallalieu himself never saw the new Mercia/Oxford, which was completed later that year. He always felt that the Mercia was better because it was beefier. The Mercia featured aluminum over ash rather than a steel body.

By this time demand was high, especially from the USA, making Mallalieu Engineering probably the biggest of the Mk VI converters.

They weren't cheap by any means, featuring aluminum bodies, with the Barchetta's price rising to £9950 and the Mercia at £15,000. A Barchetta took four months to build and a Mercia/Oxford six months, the latter styled after a Thirties Corsica.

Derry felt that his chassis wasn't up to the job, so he completely re-designed it and only the front section of forward side-rails were retained and the crossmember. New chassis tubes now passed under rather than over the rear axle, with more space for the cockpit as a result. His cars used standard Bentley suspension, with IFS front with unequal wishbones and a solid ("live") rear axle on semi-elliptic leaf springs, which he re-set to allow for the much lighter Mallalieu body.

Mallalieu worked briefly with the late William Towns in the mid-1970s and marketed the innovative Microdot city car for several years, although initially it didn't pass type approval tests.

Mallalieu also did the X600 for USA-based fashion designer, novelist, sailor and military historian John Weitz (born Hawn Werner Weitz in Berlin, but educated in London. In 1979, he took a quarter scale model of his X600 to Mallalieu Ltd to productionize. 'X' stood for 'eXperimental' and '600' for part of his New York zip code. It was based on a Camaro Z/28 platform, 5.7-litre V8 which was moved further back. The body was done by Mallalieu in aluminium. Projected price tag of $60,000. Derry Mallalieu died in 1975.

By 1981, the company, then run by Rivers Fletcher, was experiencing financial difficulties and went bust. They left behind quite a few delightful Mk IV specials.

PADGETT BENTLEY SPECIAL

The company was founded by Newbury-based Alan Padgett in 1957 (the company still exists and today is run by Alan's son, Jeremy). This is a highly regarded Bentley special and almost certainly the company that built the most of them.

ROSE BENTLEY SPECIAL

Harry Rose was like Syd Lawrence a real character in Bentley and Rolls-Royce circles. Rose used a GRP body designed by Neville Trickett, which was a two-seater that looked quite similar to the Vanden Plas Le Mans bodies of the Thirties. The cars were usually fitted with the 4.5-litre straight six engine although they had added bonus of a Garrett AiResearch turbocharger fitted.

The chassis had 12 inches removed from the rear, which was added back into the structure behind the front suspension, thus retaining the correct 120-inch wheelbase.

Rose's adverts used the snappy catchline: "Not only could this be the fastest Bentley you ever own; it could also be the least expensive."

SHRIVE

A Bentley Special offered by marque expert, Don Charles Ltd of Luton that first appeared in 1969. The first Shrive took seven months to build using exhaust tubes for the body support frame.

Steel-bodied Bentley Mk VIs were notorious for rusting out although the chassis, running gear and Derby engine were bulletproof. Charles's company was a general car repair and body shop operation, although he also did property development.

The company suffered badly when in a freak accident Don Charles fell out of a tree and broke his neck, although two long time employees carried on building Shrives, with the by now wheelchair bound and paralysed, Charles supervising. Amazingly, he learnt how to write with his mouth…

Shrives had a modified Bentley chassis with18in removed from the rear and 9in added to the front. They also wore a GRP body although had a traditional Bentley-look. Very akin to a 1926-era Blower Bentley Tourer. They cost from £6500.

The Shrive cars from Don Charles had a whiff of twenties Blower Bentley styling in them.

Alan Padgett was one of the first people who offered a Bentley Mk VI-based special. This car was built in 1969 (Historics).

Harry Rose was another pioneer Bentley Mk VI-special builder. The car was designed by Neville Trickett.

SYD LAWRENCE SPECIAL

No, not a jazz musician but a Bentley Mk VI special from a marque expert from Southgate, Middlesex, called Syd Lawrence. Lawrence was an apprentice at GM Europe aged just 14 working on Buicks and Cadillacs. He is said to have been a real character.

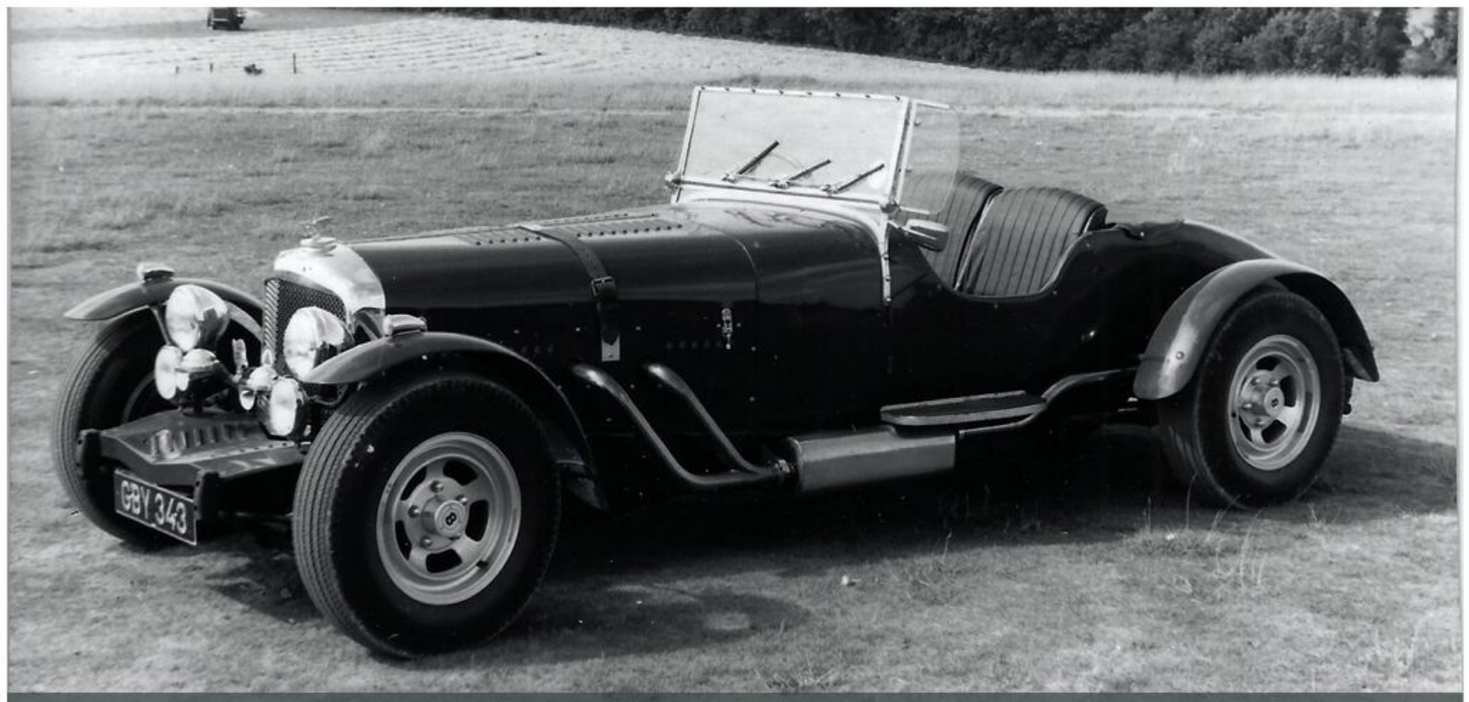
He also worked at the engine experimental works at British Anzani Engine Co until they shut down in 1926, and most importantly at the original Bentley operation run by W.O. Bentley himself. Syd was the foreman in the engine department at Cricklewood. He also raced his own 4½-litre Bentley Special soon after WW2.

This is not available in kit form but included here for completeness. Lawrence had an incredible knowledge, so he was perfectly placed in 1970 to offer a special based around a rusty Bentley Mk VI. Syd said he called his cars "Special" because he'd seen umpteen bad ones!

Lawrence's company repaired and serviced vintage Bentleys, Rolls-Royces and Mercedes-Benzes and his Special could be purchased with GRP or aluminum bodies in short wheelbase or unmodified long wheelbase forms, while he also tuned the Derby engines including four SU carburetors. Another thing that set these cars apart from the rival offerings is the innovative spring-mounted front suspension cross member arrangement, which Syd reckoned made them handle much better.

The Lawrence cars had only one door, which was on the passenger side. In the November 1974 issue of Motor Sport magazine Syd was offering his 4½-litre Mk VI special in two forms: the GT Super Speedster and the Super Sprint, described as the fastest of the Mk VI specials.

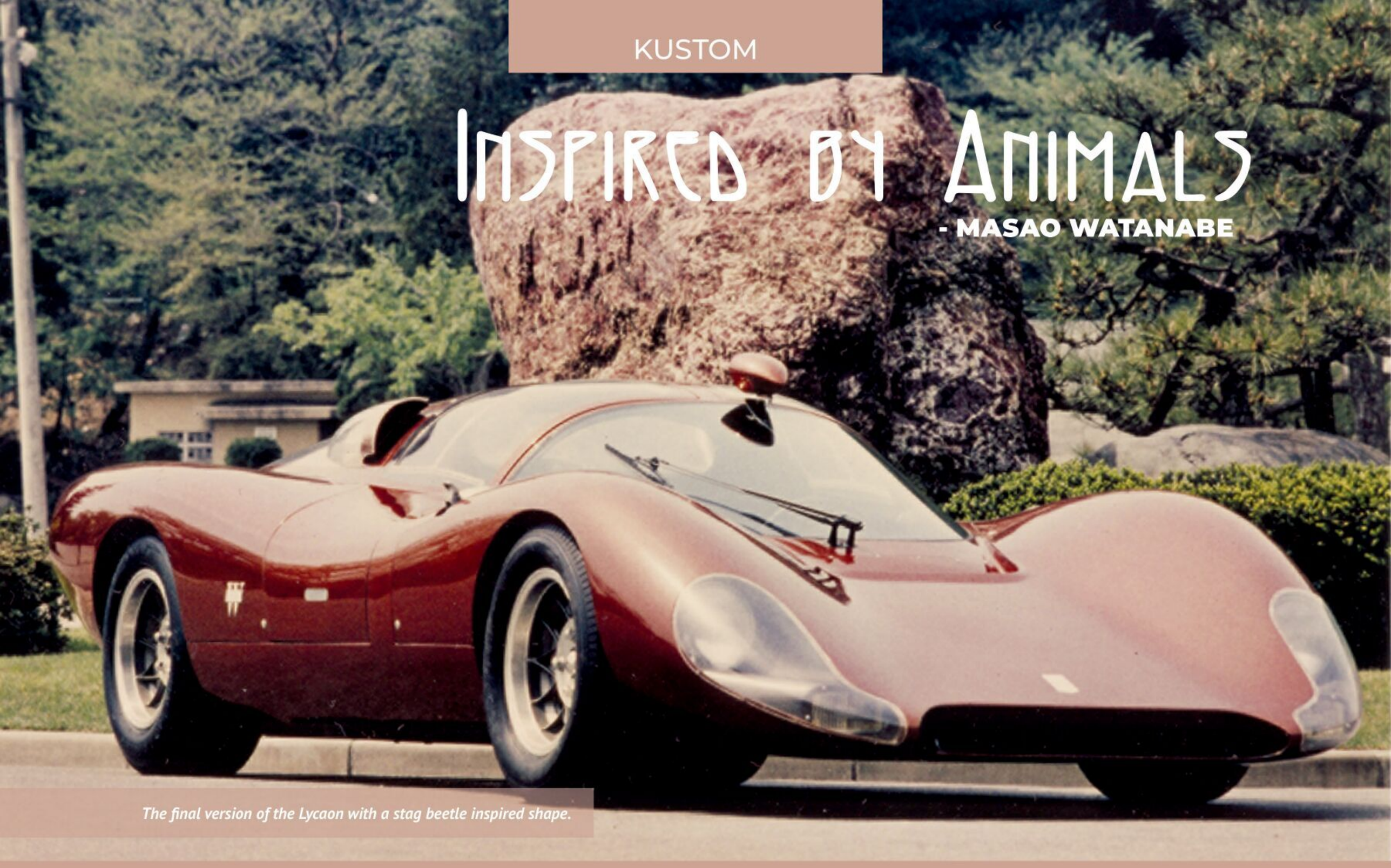
Customers took their donor rolling chassis to Syd Lawrence and in return for £9000 (£31,600 today) he'd give you back one of his Mk VI specials.



Syd Lawrence's Southgate Motors produced two different models, including this Super Sprint.

Inspired by Animals

- MASAO WATANABE



The final version of the Lycaon with a stag beetle inspired shape.

PEGASUS, GRIFFON, LEOPARD, AFGHAN - MASAO WATANABE, ONE OF THE FIRST JAPANESE CUSTOM CAR BUILDERS FAVOURED ANIMAL-DERIVED NAMES FOR HIS CREATIONS. **DR PÁL NÉGYESI** RECALLS HIS VISIT TO THE WORKSHOP IN CALIFORNIA 25 YEARS AGO.

As a 20-year-old Hungarian car enthusiast I was hooked on the news column of the British Autocar weekly. This was the early 1990s when there was no Internet and few of the car magazines in Hungary kept up on the latest developments in the automotive industry. Even then, I have to admit I was interested in the rare & unique part of the motoring horizon.

In 1992 Autocar briefly mentioned the DuoPower Pandora, which had just been shown at the 1992 Detroit Auto Show. I sent a letter to DuoPower, Inc. Masao Watanabe personally replied and sent his portfolio with slides, photos, and a historical overview.

Four years later I made my first trip to California to visit relatives and attend Car Week – Concorso Italiano, the Monterey Historics and the Pebble Beach Concours d'Elegance. It was also a perfect opportunity to stop by at Santa Fe Springs and visit Mr Watanabe.

What I remember from that visit 25 years ago is that the workshops were small and Mr Watanabe worked alone, supported only by his wife, Tamiko.

The small workshop in 1996.

When Mr Watanabe passed away in 2003 there were no lengthy obituaries praising his work. My old website, the KTUD Automotive Archive, is still up and that is the main English-language website featuring his very interesting custom cars.

CARROZZERIA WATANABE

In his youth Masao Watanabe worked with Formula 3 cars in Japan. This is where he got his first assignment: Mobil Oil comissioned him to build a show car to be featured in their TV commercials. Watanabe promptly established Carrozzeria Watanabe in Japan and got to work. The fiberglass-bodied coupé, named Flying Pegasus, was based on a Honda S600 and was first shown at the 1970 Tokyo Racing Car Show featuring a chromed bumper – a rarity among Japanese cars. Mobil Oil used it on posters, TV ads, and even used it as a pace car for a race.

The Day & Night Mk V, the first version of Watanabe's Lycaon used a Brabham chassis.

Watanabe also exhibited the first version of its Lycaon sports racer at the show. It was originally an closed racing car named Pegasus R-1 but it was not successful. It was then converted to an open-top version featuring a Brabham chassis and a Mazda engine. In this configuration it was entered as the Day & Night Mk V at the 1971 Fuji 500 Km Race. In the meantime, a road-legal sports version was also built, called the Lycaon.

Its shape was inspired by the stag-beetle, featuring "mandibles"

The Flying Pegasus, a Honda-based fiberglass-bodied coupé, was Watanabe's first successful custom car in 1970.

at the front. Mr Watanabe was very proud of the fact that every part was handmade. In addition to the frame and the body, such smaller parts as the Prince G15 clutch housing, the camshaft, the cylinder head cover with the name "Watanabe" stamped in, etc. The sleek racing car was powered by a Nissan Skyline 1500 engine tuned to 140 hp. Mobil Oil was happy to support it, and the car appeared in the Japanese TV series Shichinin no Keiji (Seven Detectives).

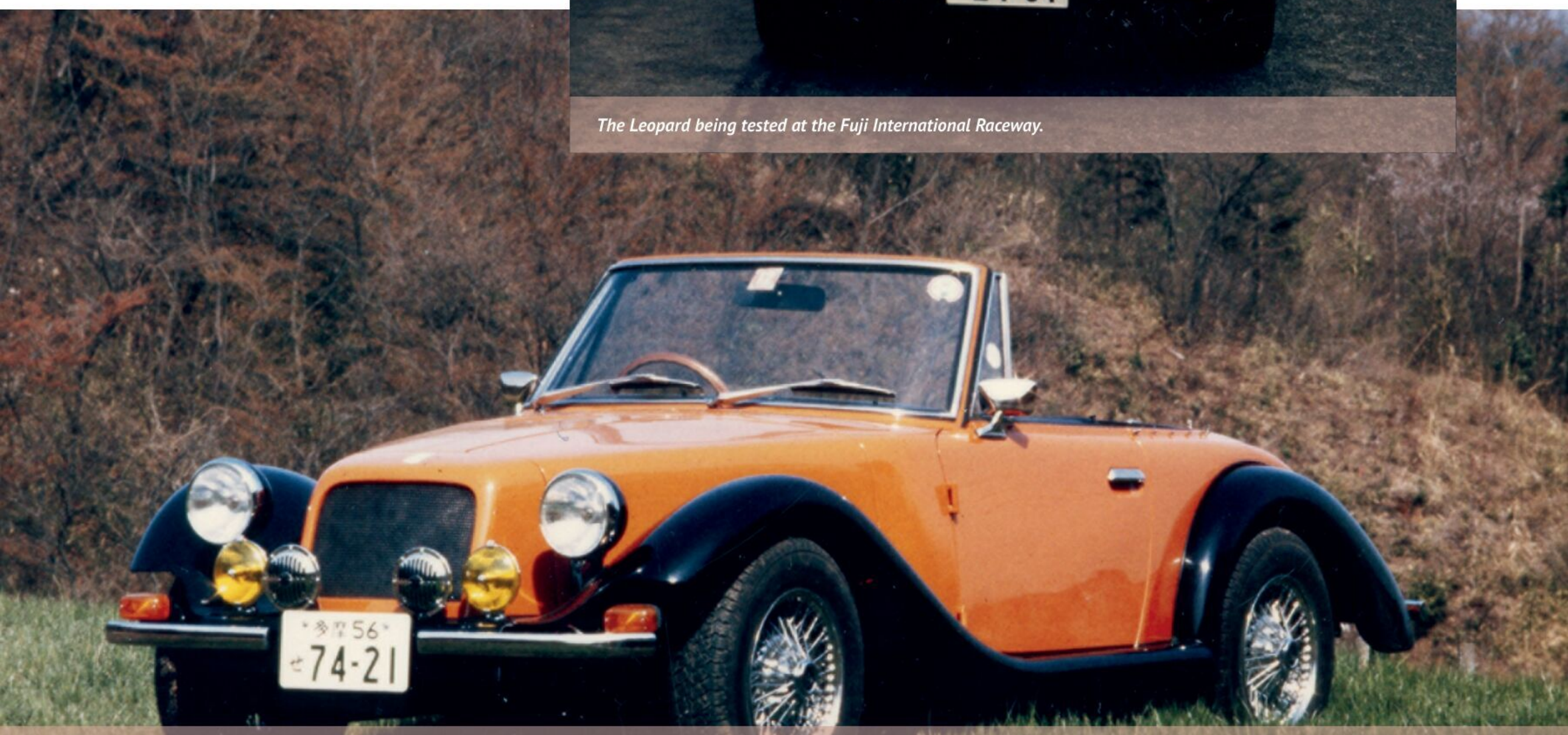
In 1971 Watanabe updated the Flying Pegasus. The new model, called Griffon, appeared in the TV mini series Dengeki Strada 5 and the producers requested five cars to be built.

Two years later another update yielded the Leopard one-off, which was later used by Micro Seiki as their promotional vehicle.

In 1976 Watanabe built his first open-top road-legal car. This was a neo-classic roadster, named Basillic based upon the Datsun 2000. Though small series production was

The last iteration of the Flying Pegasus was the Leopard, which was used by Micro Seiki as their promotional vehicles.

The Leopard being tested at the Fuji International Raceway.



The 1976 Basilic was based on the Datsun 2000. Only three were built as stringent regulations made a small series impossible.

The Datsun interior has been upgraded with wood inserts and an elegant steering wheel.

envisioned, only three units were built due to tough Japanese regulations.

DUOPOWER

In 1980 Mr Watanabe made a deal with a Japanese company to build a few cars in the United States. His work between 1980 and 1984 included a few custom car designs, Corvette conversions, and fabrication of parts.

Still, Mr Watanabe felt constrained and in 1984 he set up his own studio, called DuoPower.

His first client, Isuzu, commissioned an open-top version of their Impulse model. The Impulse convertible was shown in America and Japan but failed to garner the public's attention.

Right after the Isuzu project DuoPower was asked to assist Mazda North America by supplying prototype parts for certain cars and pickup trucks.

The DuoPower Afghan was comissioned by Takashi Koga, who wanted a Ferrari-esque sports car.

A stock Chevy V-8 powered the fiberglass-bodied Afghan.

Pandora featured an innovative one touch roof mechanism.

Pandora's new body parts were made from carbon graphite and kevlar reinforced plastics.

The Gilamonster was never finished.

In his free time Mr Watanabe worked on yet another custom car, the Gilamonster high-performance roadster. In 1989, however, an order from Takashi Koga, a Japanese parts manufacturer, put the Gilamonster on the back burner. Mr Koga was an exotic-car enthusiast. When he conceived the shape of the Afghan, he thought in terms of Ferrari power. But to keep costs down he opted for a stock Chevy 350 V-8 block (5.7-liter capacity). The rear end featured a Camaro live axle, but the front A-arms were custom fabricated. Using Mr Koga's scale model and full-size drawings, Mr Watanabe fabricated a highly rigid fiberglass body out of Kevlar. Plans were afoot to offer a rolling chassis package and turnkey cars in both roadster and coupé bodies, but it never happened. The car was named after the afghan, Koga's favorite breed of dogs. It is still around!

It was Mr Watanabe's wife, Tamiko, who was the next "client." She was not happy with her Mercedes-Benz 190 so in 1990 Watanabe converted the car into an open-top roadster. Watanabe called the car Pandora because of its "femininity." Again a small series was planned, but the soft-top mechanism was complicated, and the sticker price was too high, so no orders came.

Mr Watanabe finished the Gilamonster in time for the 1993 Los Angeles Auto Show, where it was shown together with the Pandora and the Afghan.

This was the last known appearance of Mr Watanabe, who died in October 2003.

Sources:

- Correspondence with Masao Watanabe
- Kit Car, November 1993 issue
- Autopuzzles.com
- http://www.team.net/www/ktud/duo.html
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THE LAST OF A GREAT ERA

Delahaye 235 by Antem, 1952

LIKE MANY OTHER LUXURY COMPANIES, DELAHAYE WAS JUST A SHADOW OF ITS FORMER SELF BY THE 1950S. ITS LAST PASSENGER CAR WAS THE 235, OF WHICH ONLY 84 UNITS WERE BUILT. THE PRAGUE-BASED AUTO VETERAN COMPANY RECENTLY FOUND ONE OF THE MOST INTERESTING MODELS OF THIS SERIES.

Delahaye entered the car for the 1953 Monte Carlo Rally, on behalf of Dunlop, which wanted to test its new tire.

The original Delahaye 135 was one of the most beloved French sporty luxury cars of the 1930s, bodied by the best-known coachbuilders of the era such as Saoutchik, Chapron, and Figoni & Falaschi. However, times changed after World War II, and Delahaye lost its prestige and footing. A new, even bigger model series called the 175 failed to garner interest due to the new luxury tax on vehicles with engines over two liters.

As a last resort the company updated the 135, which became the 235. Its modern pontoon-style bodywork styling was penned by Philippe Charbonneaux. The car was presented at the 1951 Salon de l'Automobile in Paris. Delahaye still did not have an in-house body shop, so the customers had

Only four Delahaye 235 chassis received an Antem body.

The car is in original condition...

to find a coachbuilder. Chapron, Figoni, and Saoutchik worked on 235 chassis. However customers' preferences eventually changed and they no longer demanded expensive one-off custom bodies. A Mercedes 300 "pontoon" was luxurious enough. If they wanted extravagance, they opted for a Ferrari 375 America. As a response, Delahaye recommended a cheaper Chapron-supplied "factory" bodywork in 1953. But a year later the company succumbed to financial difficulties and was taken over by Hotchkiss.

ANTEM

The 1950s were also challenging for Carrosserie Antem, which relocated to Courbevoie during World War II.

The company was set up by Jean Antem, a descendant of a prestigious Spanish family who arrived in Paris in 1910. After the First World War he set up an automobile workshop. Later

... and it was found without its original foglamps.

The 235 featured Delahaye's renowned 6-cylinder, 3.5-liter engine which produced 152 hp thanks to its triple carburetor.

The car now features its original foglamps.

Interior still features original upholstery.

another Spaniard, Camille Monroig, joined him and convinced him to move into the coachbuilding business.

Antem first showed his bodies at the 1923 Salon de l'Automobile. His early work was based on the Weymann principle and involved a wooden frame covered with fabric. Antem bodies were built on a wide range of French and foreign chassis from Chenard-Walcker to Citroën, from Mercedes-Benz to Rolls-Royce.

In the mid-1930s Jean junior joined the company, and its products started to appear at various concours d'elegance events. But it was more mundane contracts, such as the production of cabriolets for Licorne and small vans for Matford, that kept Antem afloat.

During World War II Antem introduced a small electric car – the company's first self-branded product. Like many other similar models, this remained in the experimental stage. Also, Antem was able to produce bodies for builders of electric commercial vehicles, which provided enough revenue during the war.

After the war, custom coachbuilding work dwindled. Though Phillipe Charbonneaux penned some exciting vehicles, and a business relationship with Deutsch-Bonnet yielded interesting road and racing cars, in 1955 production of passenger-car bodies came to an end.

Afterward Antem worked on commercial vehicles, and its camions for the Tour de France became well known. From the 1960s the company focused on caravans. Antem survived until 1997.

818036

This Delahaye 235, with chassis number 818036, was built in 1952 and received a sporty body from Antem. It participated in the 1953 Monte Carlo Rally, where it was

driven by Roger Crovetto and Julio Quinlin (you can read more on the connection between Delahaye and the Monte Carlo Rally in the forthcoming 5th issue of Rare & Unique Vehicles). Delahaye took part on behalf of Dunlop, which developed a new tire and looked for a demanding race to test it.

After the rally, the car was recommissioned and purchased by an American sculptor and inventor named La Haye. He took it back to the United States and used it for some time, but then put it in the garage. It languished in that garage for decades until the great-grandson of La Haye discovered the car. Auto Veteran took over the car in 2020 and introduced it at the Rétromobile Show in Paris.

Contemporary road testers said the 235 was a "pleasure to drive."

Chassis plate features lubrication guide.

Auto Veteran also has a Delahaye 175 which also participated at the Monte Carlo Rally.

A SUMMIT OF MODERNITY

PANHARD & LEVASSOR 8 HP FORWARD CONTROL CAB PHAETON, 1901

SAMMLUNG K IN GERMANY HAS THE SOLE SURVIVING PANHARD & LEVASSOR 8HP WITH THE UNUSUAL ELECTROMAGNETIC GEARBOX. BERNARD VERMEYLEN WALKS US THROUGH THE HISTORY OF THIS MODEL, WHICH BROUGHT TOGETHER CUTTING-EDGE TECHNOLOGIES.

Gottlieb Daimler and his partner Wilhelm Maybach, Emile Levassor, and also Armand Peugeot are, without a doubt, the founders of the automotive industry, together with Karl Benz. The launch of the first Panhard & Levassor and Peugeot in the fall of 1891 marked the birth of the modern petrol-engined automobile.

THE M4E ENGINE

The "M4E" engine belongs to the second generation of Daimler engines, now called "Phoenix." Much lighter than its predecessor, the Phoenix had a camshaft and rocker arms, which can be seen on the left side of the engine. It also featured an all-new revolutionary constant-level carburetor. It is also worth mentioning that this time the Phoenix engine was available in a four-cylinder configuration for automobiles. Previously the only four-cylinder Daimler engine powered boats.

Another popular bodystyle was the coupé (Source: Bernard Vermeylen).

FORWARD CONTROL

The Phoenix was produced in both two- and four-cylinder variants from the beginning. Emile Levassor, who established himself as the technical director of Panhard & Levassor, was the designer of the brand's first automobiles and their components, with the exception of the engine. Nevertheless he made certain improvements in that field as well; he had frequent communication with Daimler and Maybach and forged a true friendship with the latter.

A few cars with two-cylinder engines (4 HP M2E and 6 HP M2F) were produced starting in April 1896, but the new Daimler Phoenix engine made its first official appearance on the occasion of the second motor race of the year, the Paris-Marseille-Paris run, which took place from September 24 to October 3, 1896. This race was a new triumph for the brand, which won three of the first four places in the ranking. The winner was Émile Mayade in an 8 HP M4E. This model, which had been in production since July, became one of the pillars of a four-cylinder range that included the 12 HP M4F from 1897 and the 16 HP M4I from 1899.

THE ELECTROMAGNETIC GEARBOX

On April 14, 1897, a tragedy occurred at the factory: Emile Levassor died suddenly, while he was working on the plans for an electromagnetic gearbox. Those plans had been submitted to him by Arthur Krebs, commander of the Paris fire department, who patented the idea in May 1896. This event completely disrupted the organization of the company. René Panhard went on to set up a public limited company, and he recommended to the board of directors that they hire Commander Krebs as a technical director to replace Levassor. Krebs was quickly elected, and his creativity and determination allowed the company to continue on the path drawn up by his predecessor: that of technical progress and quality.

The hansom cab body was most probably delivered by Kellner (Source: Bernard Vermeylen).

According to the sign, this car is equipped with a patented drip-feed oiler (Source: Bonhams).

The car in the De Autostal museum in the 1990s.

Under his leadership, the model range was developed and production followed an upward curve.

Work on the magnetic gearbox continued and was concluded in November 1897. The device was first mounted for testing on a 4 HP (M2E) chassis; it is not known if these tests were successful, but it is assumed that some problems were uncovered, as it took another two years to see other chassis with this device. With the exception of a single 6 HP (M2F) chassis produced in May 1900, all other electromagnetic cars on the market belonged to the 8 HP (M4E) family. The 8 HP was offered as a coupé, a landaulet, or a hansom cab. Its chassis design abandoned the straight chassis of the other versions for a curved chassis; the clutch disc was placed under the steering mechanism.

Documentation on the magnetic frame is difficult to find. We could not find any technical description in the Panhard Archives, although it was the subject of patents at the time in France, Belgium, and the United Kingdom. The latter, GB189619774A, titled "Improvements in Mechanically Propelled Vehicles," talked about "the coupling of the several change gears with the motor shaft for the purpose of obtaining the desired changes of speed and also rearward movement, by means of an electro-magnetic apparatus controller by an electric commutator; and to produce by electrical means the automatic disconnection of the motor mechanism for stopping the car by means of a pedal which also serves to operate the brake … On the driving shaft are loosely mounted four discs on which are fixed four pinions … In order to throw any desired one of the four pinions into gear with the motor shaft, I employ an electro-magnetic device formed of two double . . . electro-magnets keyed on the said shaft and whose discs carry the pinions serving as armatures. The electric current necessary for exciting the electro-magnets is produced by a small dynamo driven from the motor shaft and it is led to the exciting bobbins by means of brushes rubbing on insulated rings provided on the cylindrical surfaces of the said electro-magnets. For the purpose of operating the electro-magnetic clutch, I employ a commutator arranged preferably under the handle bar and adapted to be operated in such a manner as to establish, according to five different positions, the electrical connections that correspond respectively to rest; forward movement at low speed; forward movement at medium speed; forward movement at high speed; and movement in the rearward direction."

Starting on June 23, 1899, the board of directors set a new price for all models which ranged from the 4 HP M2E chassis at 6500 francs to the 16 HP M4I chassis at 29,500 francs. The 8 HP M4E was available in three versions: the normal chassis at 14,000 francs, the "Paris-Amsterdam" type racing chassis equipped with several improvements as standard (aluminum body, tires, steering by steering wheel, and finned radiator) at 15,500 francs, and finally the magnetic frame at 16,000 francs. The Mines models (B1 or B2) are common with the other four-cylinder

The hansom cab body style results in a sem-closed compartiment for the passengers and a well exposed position for the driver (Source: Bonhams).

models (12 HP and 16 HP), while the two-cylinder models are of the A1 or A2 type. The difference between models with an index "1" or an index "2" is not clear. It is either a question of weight or a distinction between touring and utility models.

Oddly, the advertising material published by the brand at the time did not refer to the electromagnetic clutch. So it is difficult to ascertain how many cars were produced with this equipment.

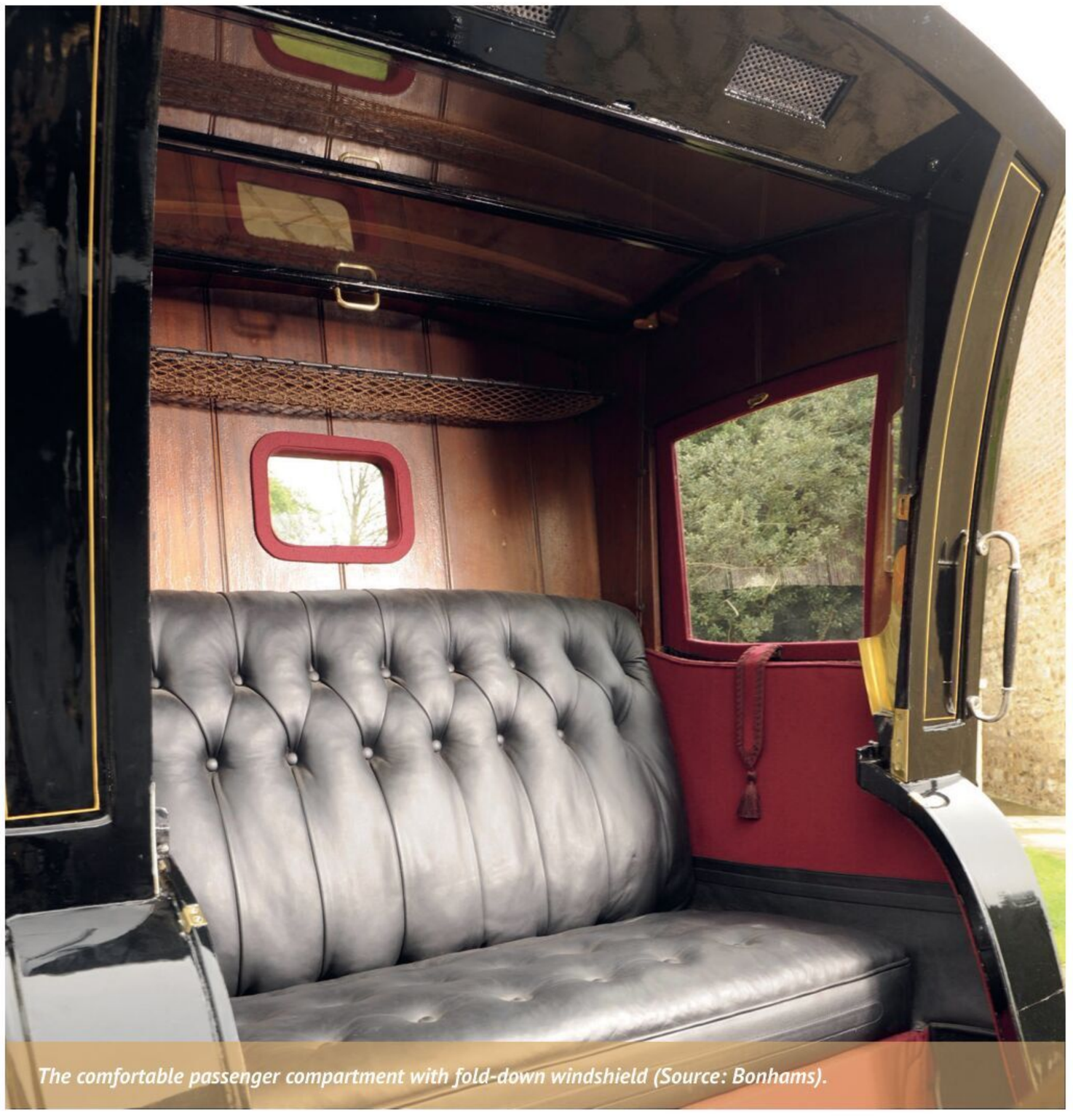
By consulting the registers and handbooks we have found that in addition to the prototype 4 HP (1897) and the experimental 6 HP (1900), there were 20 units of the 8 HP produced, including three in 1900, 12 in 1901, four in 1902, and one in 1903. However, as the range of models with Phoenix engine were updated in 1901, and the electromagnetic models were built on the basis of the previous generation, we can assume that the last five units were built from stock. Of the 20 cars produced, one was assigned to René Panhard, another to Hippolyte Panhard, and a further two to directors of the company, Marcel Holtzer and Emile Garnier. Two other cars were exported to Belgium and one to Italy (it appeared at the Turin Exhibition in 1901).

A SURVIVOR

This amazing automobile that was the 8 HP ultimately left little mark in motoring history, but fortunately at least one car – chassis number 2646, delivered on April 22, 1901, to Mr. Thorey in Paris – survives today. Its hansom-cab-style coachwork was supplied by the well-known Kellner company. This vehicle features forward control, separating the chauffeur from the owner, who would sit snugly in the hansom-cab rear, protected by a leather apron and a drop-down windscreen. At some stage early in the car's life, the steering controls were moved to a more conventional position. This enabled the driver to steer the car from within the hansom cab and generally updated the overall appearance of the vehicle. In this form, the car was displayed in a French museum for many years and later acquired by Brian Moore of Veteran Car Club fame in the United Kingdom before changing hands at an auction in London in July 1989. The new owner, Stijnis Schotte, a well-known Dutch collector who operated the De Autostal museum, first exhibited the car in its changed state but eventually opted to restore it to its original specifications. In 2004, the car returned to the U.K., where it was part of the Ward Brothers' Collection. It appeared at the 2008 Pebble Beach Concours d'Elegance. Earlier this year it became part of Sammlung K.

Patent details: https://worldwide.espacenet.com/patent/search/family/032536216/publication/GB189619774A?q=GB189619774

The wheel below the steering wheel changes gears in a very smooth manner. It is the predecessor of the modern paddle shifters on automatic gearboxes.



The comfortable passenger compartment with fold-down windshield (Source: Bonhams).

THE CAR YOU OUGHT TO HAVE

1908 Mitchell Model I Touring

HENRY MITCHELL WAS ONE OF THOUSANDS OF ENTREPRENEURS WHO VENTURED INTO THE AUTOMOBILE INDUSTRY IN THE EARLY 20TH CENTURY. HYMAN LTD. IS NOW OFFERING ONE OF THEIR TOURING CARS FOR SALE.

In the early years of the 20th century, the state of Wisconsin developed into a regional center for the automobile industry, thanks in large part to Charles W. Nash who made his automobile plant the largest producer of automobiles outside Detroit.

Other Wisconsin companies joined the race to produce automobiles before World War I. In Racine, a successful wagon maker, Mitchell-Lewis, began building cars in addition to wagons.

MITCHELL-LEWIS

The Mitchell wagon company was set up in the 1830s by Henry Mitchell. Over the years the family business expanded, and Henry set up a business partnership with his son-in-law, William Turnor Lewis. By 1877, Mitchell, Lewis & Co. was one of the largest and best-equipped wagon manufacturing plants in the nation. It had over half a million dollars in capital, employed 7200 men, and made 8000 to 10,000 wagons a year. A factory fire could not stop the growth.

With the beginning of the new century, big changes started happening for Mitchell and Lewis's company. Expansion into new markets was inevitable, starting with the

A 2-cylinder air-cooled Mitchell runabout from 1904. PIctured are Mary and Helen Lewis, daughters of the company's founder, William T. Lewis (Lewis Miller).

introduction of bicycles and motorcycles that had begun in 1898.

By 1902, the first motorcycles were being built for consumer purchase. They were nothing like today's fancy motorcycles, however. The first ones that were built in 1898 were so slow that someone pedaling on a traditional bicycle would be able to reach their destination faster. By 1902, better mechanics and design led to a faster product, and the Mitchell Motor Cycle was outpacing models made by Harley-Davidson in Milwaukee. In that first year of production, 600 Mitchell Motor Cycles were built, making it the best-selling motorcycle at the time.

But 1902 was also a big year for the company for another reason: the introduction of the automobile. The first motorcar was made by the company in that year, and it became clear that the automobile would soon replace the wagon as a primary method of mobility.

Thus, in 1903, the Mitchell Motor Car Company was established, as the company officially made the switch from wagons to automobiles.

An assembly line was used at the automobile plant (Lewis Miller).

The Mitchell Car needed a slogan and in 1905, the well-known slogan was born: "The Car You Ought to Have at the Price You Ought to Pay." The company continued to expand, producing 315 vehicles, including bigger trucks.

Conquering the United States as a market wasn't enough of a conquest for Mitchell. In 1907, the Mitchell Car Company began shipping worldwide. An agency selling the Mitchell was opened in Paris, creating a central selling hub in Europe, but the company also had agencies in South America, South Africa, Australia, and Hawai as well.

The Lewis family on tour with a Mitchell in France in 1910 (Lewis Miller).

In a feat of mechanical ingenuity, by 1908 all of the parts for the Mitchell car were manufactured in-house, except for the electrical equipment, wheels, and tires. Through the elimination of the middleman, production was streamlined even further, and in 1908 alone, 2166 cars were built.

Changes and additions to the various Mitchell models increased by 1912. Cars ranged in size from a smaller "woman's" car to a custom limousine that cost as much as $7000. The year 1913 brought in the French designer René Petard to make some design adjustments, including electric lights and self-starters. Petard contributed these changes while also running the Paris dealership.

In 1915, the Mitchell Motor Company lost an icon. At the end of the year, William Turnor Lewis, the second founder, died suddenly of a stroke. Sales peaked at 10,000 units by 1916, but the family sold all its interest in the company to big-city investors from Chicago and New York.

After the Mitchell and Lewis families sold their holdings in the company, Mitchell began to decline in popularity

Model I is one of the earliest examples of a large touring car with four doors.

As it was usual at the time dashboard features a clock and a rev counter.

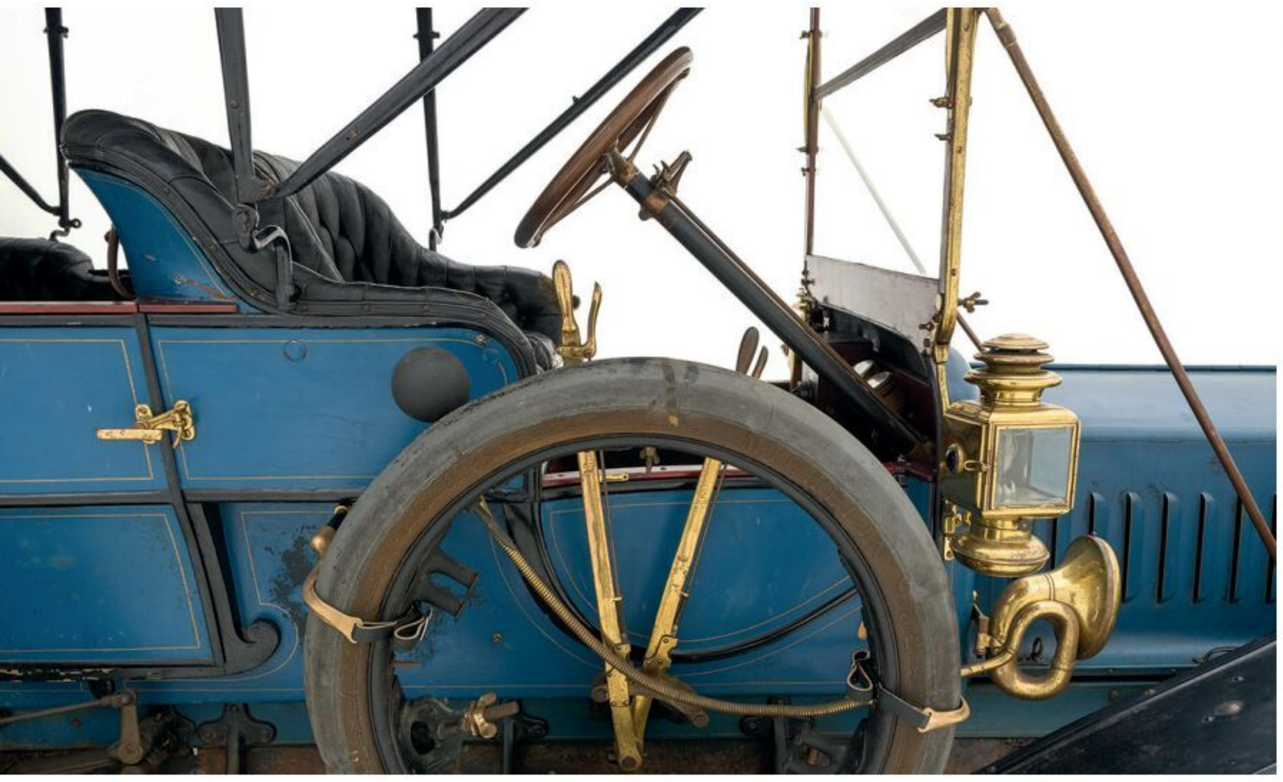
Mitchell cars were respected for their quality and performance.

and was eventually absorbed into the Nash empire.

THE 1908 MITCHELL MODEL I TOURING

The Model I tourer was Mitchell's flagship for 1908, and it has numerous interesting features. The wood body is beautifully crafted, and it is one of the earliest examples of a large touring car with four doors. It features high-quality brass fittings, including dual-cowl lamps and fantastic Solar headlamps. While it appears to ride on conventional wooden-spoke artillery wheels, they are, in fact, Jackson steel spoke wheels. The side-mounted spare is another fascinating piece, consisting of a solid rubber Michelin tire on a steel rim that, in the event of a flat, clamps to the offending wheel rim, negating the need for a tricky roadside change. Other details like the spring-loaded bumpers and integrated storage trunk highlight Mitchell's thoughtful approach to design.

Mitchell also took an unconventional approach to its engine design. The Model



Picture Above left; ***Side-mounted spare consists of a solid rubber Michelin tire on a steel rim that, in the event of a flat, clamps to the offending wheel rim.***

Picture Above right; ***High-quality brass fittings include Solar lamps.***

Picture Left; ***The Model I is powered by an inline-four with individually cast cylinders and an F-head valve layout with exposed valve gear.***

I is powered by an inline-four with individually cast cylinders and an F-head valve layout with exposed valve gear. It is a powerful machine, rated at 35 horsepower.

The story of this Model I was traced back to the Field Museum in Chicago, where it was on display after World War II. It was acquired by Millard Newman, a collector of Rolls-Royce Silver Ghosts. Later Newman sold the Mitchell to Ed Hook, a pioneering car collector and one of the founding members of the Antique Automobile Club of America (AACA).

In 1982 the car changed hands again. Its new owner, Frank Kleptz, recognized the significance of a totally unrestored, untouched original car, and he took great pride in its preservation.

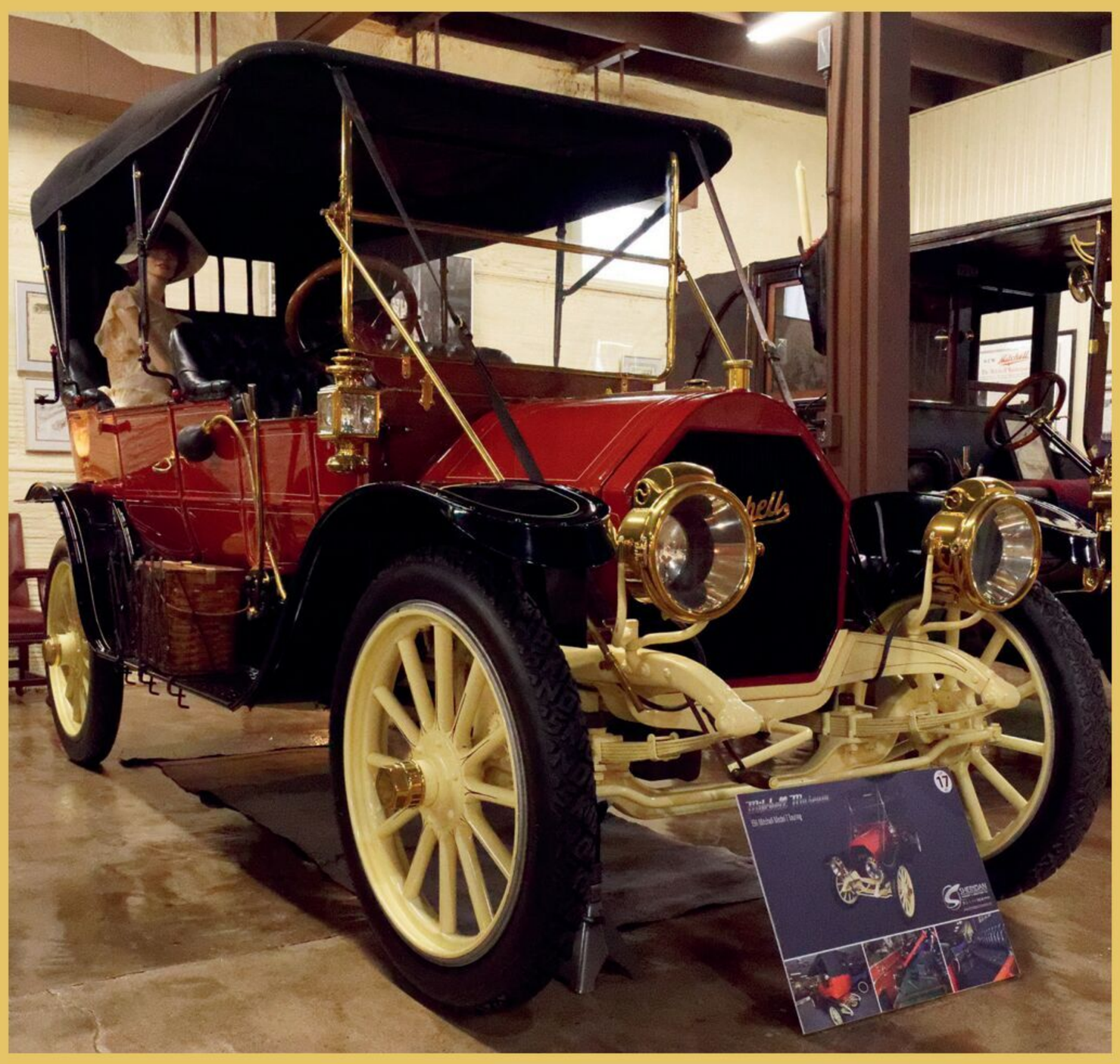
Sources:

- **Hyman Ltd**
- **Erika Janik: A Short History of Wisconsin. Wisconsin Historical Society Press, 2010**
- **Lewis Mitchell**

Interior has been well preserved.

Integrated storage trunk was a welcome idea.

QUALITY FROM RACINE



If you visit Racine, Wisconsin, the Mitchell Motor Car Company collection is a must-see attraction. Lewis Miller, the great-great-grandson of William Turnor Lewis, has amassed an extensive collection of cars, wagons, and other vehicles. His museum displays the only Mitchell bicycle known to exist, one of only four surviving Mitchell motorcycles, three Mitchell wagons, and plenty of Mitchell cars. It is open by appointment only.

More information is available at https://mitchellcarcollection.com/

What's that on the cover?

Do you think you know? Do you see the clue?

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90 YEARS OF PERSEVERANCE

- THE STORY OF SISU

SISU IS A UNIQUE FINNISH TERM THAT CAN BE ROUGHLY TRANSLATED INTO ENGLISH AS STRENGTH OF WILL, DETERMINATION, AND PERSEVERANCE. SISU IS ALSO THE BRAND NAME OF A FINNISH COMMERCIAL VEHICLE PRODUCER THAT IS CELEBRATING ITS 90TH ANNIVERSARY THIS YEAR. OLLI BLOMBERG, WITH ASSISTANCE FROM MOBILISTI MAGAZINE, CHARTS THE EVOLUTION OF THE COMPANY.

Sisu is well known at both a national and international level, particularly in the field of timber transports and earth-moving technology. However, during its 90-year history, Sisu has also developed other truck and bus models, locomotives, trains and trams, combustion and hydraulic engines, axles, components, military vehicles, and more.

THE EMERGENCE OF SISU

O/Y Suomen Autoteollisuus A/B (SAT, translated as Finnish Automotive Industry), the producer of Sisu, was set up in 1931. In that year, two competing but unprofitable coachbuilders, O/Y Autokoritehdas and O/Y Autoteollisuus, were forced to merge by their financiers. They were located on opposite sides of Fleminingkatu in the Kallio district of Helsinki. The Ministry of Industry and Trade approved both the merger and the new company name on April 1, 1931. Activities were concentrated at Fleiminginkatu 27, which remained the new company's headquarters until the mid-1980s. Soon a public

Four Sisu S-323D trucks from a fleet of six ordered by the Finnish Army Service Corps, ready to be delivered during Autumn, 1932.

competition was announced for a brand name, and "Sisu" was favored by the majority of voters.

The first nine Sisu vehicles, a prototype series consisting of a bus and eight trucks, rolled off the production line in 1932. Until 1934, Sisu vehicles were based on Volvo chassis.

Once serial production started, sales increased at a rapid rate, despite the fact that the product was slightly more expensive than its foreign counterparts. Guided by the talented Tor Nessling, the factory succeeded in convincing customers that quality was more important than just the sticker price.

TOR NESSLING

Tor Nessling (1901–1971) was the general manager of O/Y Suomen Autoteollisuus for four decades. Under his leadership the company expanded and thrived.

He graduated as a Mechanical Engineer at the Helsinki University of Technology. Between 1926 and 1929 he worked at various car dealerships. In 1929 he was appointed Technical Director of O/Y Autoteollisuus, one of the coachbuilders which went on to form O/Y Suomen Autoteollisuus A/B. In the new entity he kept his post as technical director. A year later he was promoted to managing director, and by the Second World War he owned the majority of the company's shares.

During the war, Nessling rejected the government's proposal of seeking refuge as a partly state-owned company. In response, the Finnish government set up a new company, O/Y Yhteissisu, to produce military vehicles based on Sisu technology, and forced Tor Nessling to be its general manager. After the war, Nessling left this position. O/Y Yhteissisu was transformed into Vanajan Autotehdas and went on to become a competitor to Sisu.

By now, Nessling was becoming increasingly embittered with the Finnish government. First his ideas about domestic heavy-vehicle production were ignored in the 1930s, and then the government forced through the creation of a powerful competitor that had established itself by using technology developed by Nessling's company. Disenchantment with politicians was in evidence when the government offered Nessling beneficial funding opportunities in the 1960s: he replied that he had never requested and would never ask for anything from the government.

In 1968 Vanajan Autotehdas and SAT were merged. Soon Nessling found it difficult to work with the appointed board of directors. He left his company in 1970 and died a year later.

Tor Nessling at a truck launch event in 1962.

THE GROWTH OF SISU

Starting in 1935, SAT utilized American Hercules engines in its growing range of trucks and coaches. The Sisu range became quite popular, and there was a six-month waiting list.

In 1942, the Sisu S-15 bus chassis was unveiled, which was the company's first fully localized model.

It is no wonder that SAT quickly outgrew its initial production location. The first thoughts of production decentralization were recorded in the minutes of meetings by the company's board of directors even before the Second World War. The plans came true in 1942, when construction began at Karjaa on new production facilities. Initially tram production and the coachbuilding department were transferred to the new facility, followed by the production of complete trucks starting in 1950.

Finnish-manufactured Sisu gasoline engines, which were licensed from Hercules, gave way to diesel engines from various suppliers such as Henschel, Leyland, Rolls-Royce, and Cummins.

SAT started a partnership with British specialist Leyland Motors in 1950. As a part of the partnership, SAT became a representative for Leyland products in Finland.

The first Sisu brochure was published in late 1932.

This Sisu S-322D coach started its life in 1933 as a long-distance tourist bus. Despite its fancy full length folding sunroof, it was too slow for its purpose, so it was sold to the Dallapé orchestra as their touring bus. It was rescued in the 1970s (Helsinki City Museum).

SAT ventured into the small-van market, first with Trojan vans in 1951 and then with a series of DKW Schnellasters assembled from CKD kits.

The 1950s saw the diversification of Sisu with the introduction of heavy and small forward control lorries, heavy dump trucks, and timber trucks.

The latter was the result of a shift in logging from horses and floating to motorized vehicles. The combination of heavy loads and poor roads led to the need for increased pulling power. As a response, SAT patented a hydraulic radial piston motor in 1961, which produced high torque at low speed. It was designed as part of the wheel hub.

Also in 1961, a new 157-meter-long assembly hall was commissioned in Karjaa, where the manufacture of railway carriages, locomotives, and other railway equipment was introduced in the 1950s. Tram production ceased at the end of the 1950s, as had production of bus bodies.

1961 was the year when SAT produced the K-50SS, a six-wheel-driven ballast tractor, which is still the largest automobile ever built in Nordic countries.

In 1964, Leyland Motors became a minority owner of SAT.

Sisu SH6 articulated truck from 1936, featuring a 95-hp Hercules petrol engine.

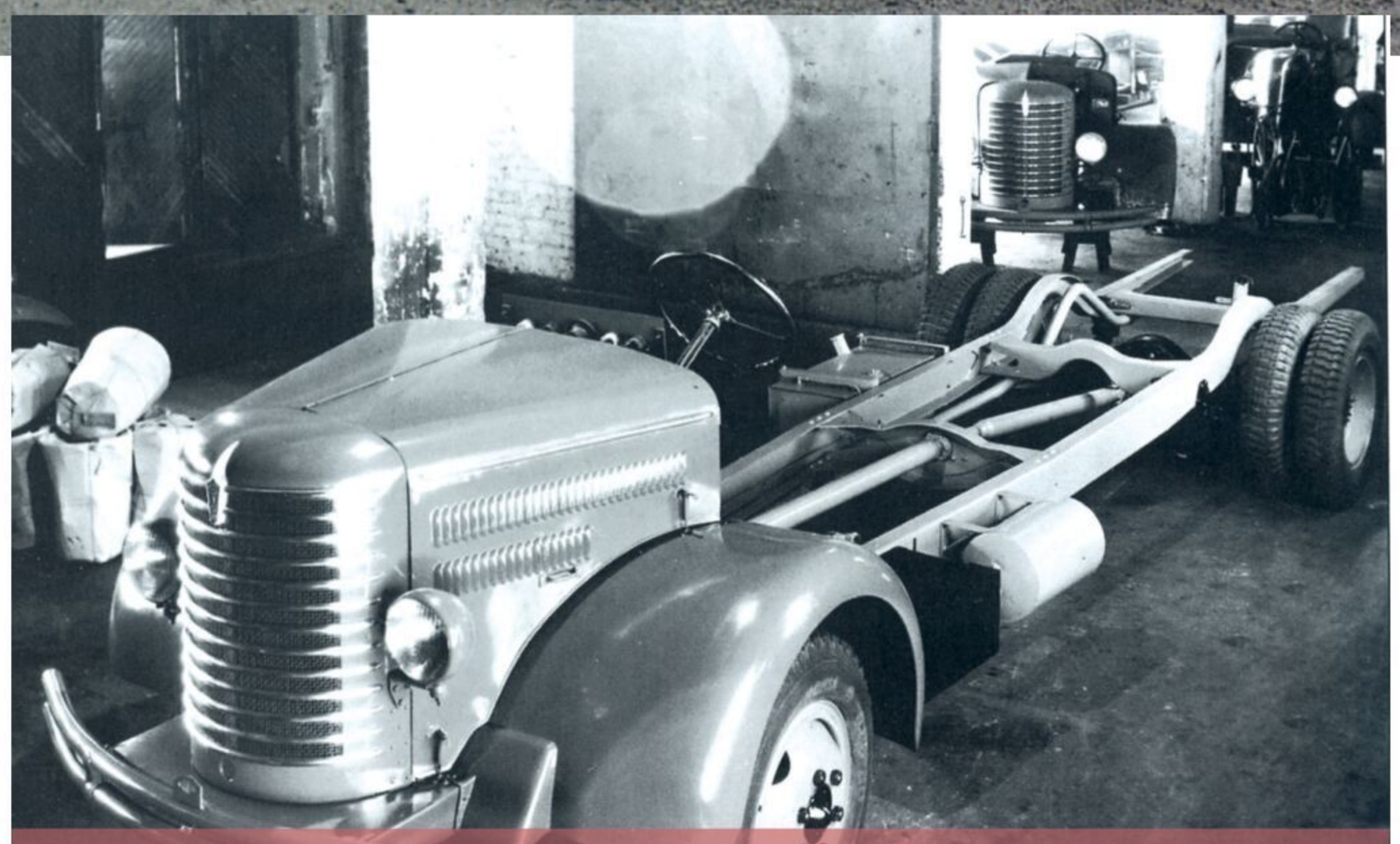
Self-bodied Sisu SHD-5B city bus from 1937.

In 1968, Vanajan Autotehdas merged into SAT. In turn the new company changed its name to Sisu-Auto. Production of bus chassis, terminal tractors, and military vehicles was moved to its factory in Hämeeinlinna. Truck cabs, which had largely been produced by sub-suppliers, were now manufactured in Karjaa.

Production of plastic components was moved from Karjaa to a new factory in Mäntyharju, some 200 kilometers northeast of Helsinki. The factory also supplied engines, mud guards, bonnets, and other plastic components to outside companies. The same was true of the axle factory, which moved from Fleminginatu to Hämeeinlina.

In the 1970s, the Finnish state increased its stake in the company. In 1976 the state signed the so-called tripartite agreement with British Leyland International and Saab-Scania, under which both held a 10 percent share of Sisu.

Erik Gillberg, who took over from Tor Nessling, led the company through an extensive renewal of the whole product range. The new S-series was designed to accommodate



The Sisu SH-15 chassis was the first of its kind to be manufactured without any imported parts in 1942. It was not an easy task in the middle of the Second World War and acted as a reminder to the Germans that Finland still had some resources left.

The Sisu B-525G was very popular among Finnish bus operators in the late 1940s.

ANNIVERSARY

This Sisu K-232SI from 1949 features bodywork by a O/Y Auto-Heinonen, a creative Sisu dealer.

A heavy-duty K-405ST 4x4 nicknamed the Jyry-Sisu from 1959. Jyry means rumble or other loud, low sound from the distance.

The Sisu K-36SS dumper was in production between 1958-1960, powered by a Rolls-Royce diesel engine.

conventional cabins as well as forward-control models of different heights. However, the state thought that Gillberg spent too much money on this complex program, and he was replaced with Jorma S. Jerkku in 1983.

Jerkku instigated a reorganization. The company management was reduced and moved from Fleminginkatu to Konala in 1985, and the old headquarters was sold.

Sisu operated some car dealerships and distributed Iveco in Finland, but both operations were discontinued in 1988. The aforementioned plastics factory in Mäntyharju was spun off into a separate entity and sold. Jerkku's cost-cutting initiatives were successful. However, the new organization led to fragmentation of engineering operations between lorry, terminal tractor, and military-vehicle segments, resulting in a significant loss of synergy.

Production of bus chassis was discontinued in 1986. Remaining product lines were heavy and extremely heavy-duty trucks, terminal tractors with additional material-handling

equipment, and military vehicles such as armored troop carriers and multi-wheel all-terrain trucks.

In the 1990s, the different business areas for material handling, defense, and axles were converted into separate, independent companies and sold off.

The ownership structure of Sisu-Auto has changed as the state first increased its ownership, then sold the company to Partek, a local multi-branch firm. Likewise, the name of the company has changed many times. In 2004 a group of Finnish investors became owners of Sisu Auto (now without hyphen).

Today Sisu is owned by Timo Korhonen. For the past 10 years, Sisu has been cooperating with Daimler Truck AG, which enables the Finnish company to use the latest technology and the ability to flexibly produce unique small-series products.

The 1961 Sisu K-50SS is probably still the largest street-legal road vehicle manufactured in Scandinavia. It was powered by a 300-hp Rolls-Royce F6-TFL engine and had a towing capacity of 38 tons.

Ola Karhu, the company's chief designer for over 40 years photographed at his studio in the early 1960s. He had an immense impact on all phases of Sisu production. He was an outsider among mechanical engineers, but his down to earth visions proved very valuable to the survival of the company in the 1950s and '60s.

Sisu tried to keep its bus chassis production alive by creating this articulated prototype in 1983. It was powered by a DAF engine and featured a body by Wiima. It remained a one-off.

ANNIVERSARY

The First Russian Iakowleff Frese

THIS YEAR MARKS THE 125TH ANNIVERSARY OF THE **FIRST PETROL-ENGINED CAR** IN RUSSIA, WHICH WAS BUILT BY IAKOWLEFF AND FRESE, SAYS **STANISLAV KIRILETZ**, WHO ALSO CHARTS FRESE'S ACTIVITIES.

The first Russian car with an internal-combustion engine was built in May 1896 in St. Petersburg and soon presented to the general public at the 26th All-Russian Industrial and Art Exhibition in Nizhny Novgorod. This is both an important anniversary and an opportunity to talk about other cars made by one of the creators of the first Russian self-propelled vehicle.


Акціонерное Общество постройки и эксплоатаціи экипажей и автомобилей

ФРЕЗЕ и К°.

Actien-Gesellschaft für Bau und Exploitation von Equipagen und Automobilen.

FRESE UND CIE.

Société Anonyme pour la fabrication et l'exploitation de voitures et d'automobiles.

FRÉSÉ ET CIE.

IAKOWLEFF OR FRESE?

We will not delve into the debate as to whether this car was a copy of the Benz Velo. Let's just say it was similar in appearance but had numerous differences. At that time, others were also studying the cars of Karl Benz. It is also worth noting that this car had more similarities to the Benz Duc that was introduced a year later, which raises a number of questions on possible cooperation between Karl Benz and Russian engineers.

But the car that is the subject of this story was made entirely in Russia without

the direct participation of the Germans. We know a lot about it, but not everything. To begin with: What was the car's name? There is no general consensus among Russian auto historians, as nobody saw the nameplate that adorned it.

Two St. Petersburg enterprises took part in its creation. The E.A. Iakowleff Machine-Building Iron and Copper Foundry—a pioneer in the field of gasoline and gas engines in Russia—manufactured the power unit, while the Frese & Company Carriage Factory built the body and chassis and completed the final assembly. Which inventor should you give preference to: Eugeni Alexandrowitch Iakowleff, or Piotr Alexandrowitch Frese, also referred to as Peter Frese? Some colleagues believe that the car should be called Iakowleff, while others think Frese.

At the end of the 1890s, E. Iakowleff mentioned the car in his advertisements: "News: Self-Propelled Carriages." But in the Illustrated Bulletin of Culture and Trade and Industrial Progress of Russia, which was published in St. Petersburg in 1902 in Russian, German, and French, there is an article about "Frese and Co.," saying: "The factory began to engage in the automotive business in 1895 and at the Nizhny Novgorod exhibition presented a car, the first built in Russia; the owner of the company, P.A. Frese, was honored to show it personally to His Majesty."

Traditionally, the first Russian car in the literature is called by the names of both designers: "Iakowleff and Frese" or "Frese and Iakowleff." The second option is less common, but in my opinion it is more suitable. Let's leave it that way until we find other information. It is not known how many self-propelled carriages were produced by St. Petersburg entrepreneurs jointly — apparently only one. But it was advertised until 1898.

LOOKING FOR PARTNERS

Founded in 1891, E.A. Iakowleff's company was a pioneer in the construction of internal-combustion engines in Russia. It would seem that he was the ideal partner for P.A. Frese in the automotive business, but in 1898 he unexpectedly died. Other plant managers had zero interest in cars as demand was small and motorists preferred German and French cars.

And what about Frese? In 1827 Karl Karlowitch Nellis, of Danish origins, set up a small carriage workshop in St. Petersburg, which merged with the P.A. Frese workshop in 1876 and was known as "Nellis and Frese." The factory cooperated with foreign suppliers and expanded production. In 1893, it participated at the World's Columbian Exposition in Chicago, where it received a bronze medal and an honorary diploma. The entry of the exhibition catalogue read: "Nellis and Frese. St. Petersburg. Carriage Builders . . . Steel and varnish received from England, silk stuff and leather from France, timber from America and Germany. Sold in Russia." It so happened that at the same exhibition, the stationary engines of E.A. Iakowleff were also shown. Elsewhere a Benz car was also exhibited. Could it be that the idea for the first Russian horseless carriage was born here?

An electric hansom cab designed by V. I. Romanoff and built by Frese in 1899-1900 (Photo: A. V. Benkin).

A closed variant of the Romanoff electric car (Photo: A. V. Benkin).

Electric bus, designed by Romanoff and built by Frese.

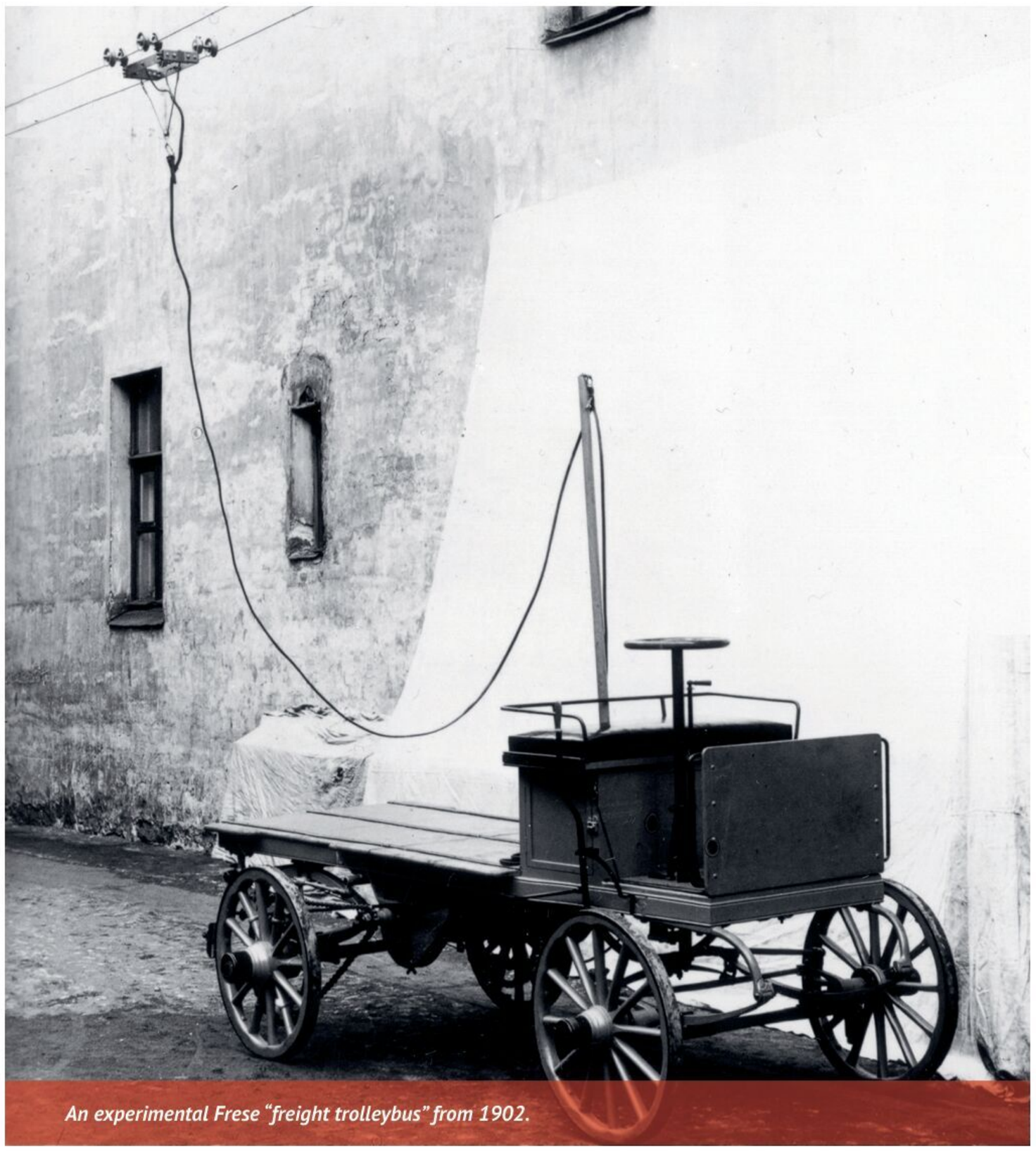
The first Frese electric truck, which was made for the Georg Bohrmann confectionery factory. Photo was taken by Karl Bulla, a famous photographer in St. Petersburg.

In the same year, the factory changed its name to Frese & Cie. While in the 1890s horse-drawn carts, carriages, and pedal cars were its main products, Frese never gave up on the dream of motorizing Russia. He decided to work in the field of public transport and found a new partner, Ippolyt Vladimirowitch Romanoff. Romanoff was an inventor who built two electric hansom-like cabs in 1899–1900 and had a plan to come up with a 600-unit-strong fleet of these in St. Petersburg, but his plans came to nothing.

FRESE ELECTRIC CARS

In 1899, P.A. Frese established the Frese & Cie, a "public limited company for manufacturing and exploitation of equipages and automobiles." Frese had more modest plans compared to Romanoff. His electric light car was completed in 1900. A little later, other improved models were built, then buses and trucks. The factory set up a battery charging station; there was an attempt to set up an electric-vehicle rental-car initiative in St. Petersburg, Riga, and Warsaw, but it faltered. Frese also built petrol cars (see below), which were much more accepted.

In April 1902, Frese presented the first Russian trolley bus to government officials, but again no support was offered. It seems only a dozen or so electric vehicles were completed by Frese.



An experimental Frese "freight trolleybus" from 1902.

FRESE PETROL CARS

P.A. Frese also worked on internal-combustion-engined cars in parallel with electric vehicles. First he looked at Benz but deemed that company's omnibus design to be outdated. So he turned to one of the leaders of the automotive industry: De Dion-Bouton et Cie. in France. De Dion's small engines were used by hundreds of different companies worldwide, and their Voiturette was also widely copied. Frese's first cars were copies of French cars. But he also became the general representative of De Dion-Bouton in Russia. The lineup consisted of a mixture of home-grown models ranging from 3.5 to 12 horsepower – with De Dion-Bouton engines – and original De Dion cars. Trucks were fully self-developed.

This 1901 advertisement features mostly De Dion products.

By 1902, the Frese factory advanced to the production of front-engined cars.. One of the company's first customers was the Ministry of Railways. Its leader, Prince Mikhail Ivanowitch Chilkoff, contributed in every possible way to the development of motoring in Russia. In 1901 he organized a reliability test run in which three cars participated, including a Frese. All cars passed the test and were recommended for use in government agencies.

This was followed by a similar test conducted by the War Department in 1902. De Dion-Bouton-powered cars made in St. Petersburg by Frese and Co. were deemed "quite suitable for military purposes." Soon, in large maneuvers near Kursk, four passenger cars and four 1-ton Frese trucks were included, the first time cars participated.

In 1902–1905, the St. Petersburg police and post office acquired Frese cars. In 1903, 14 delivery vans were manufactured by order of the General Post Office. However, after a few months almost all of them burned in a garage fire. The following year, the first Frese fire engine appeared in St. Petersburg. Frese trucks and vans served large stores and factories, while Frese cars served the City Duma, City Council, and other institutions. During the Russo-Japanese War of 1904-1905, the Russian Army was the first in the world to use cars at the front, including some Frese-branded vehicles.

Beginning in 1903, Frese added Panhard & Levassor-engined cars to its lineup.

In 1902 Frese cars participated in military demonstrations.

Frese driving one of his cars at a military demonstration in Kursk in 1902.

An 8-hp front-engined Frese and a 6-hp rear-engined Frese at Kursk.

These Frese cars were used by the headquarters of the St. Petersburg Military District in 1903.

The following year, a Frese-made narrow-gauge train was tested on a temporary railroad in St. Petersburg with a Belgian Germain 30-hp engine, which powered not only the wheels of a motorcar but also the wheels of the five trailers via electric motors. The Ministry of Railways was not interested in it. But in 1906 the company built its first road train for them - a 2-ton truck with a 15-hp Panhard & Levassor engine and a 1-ton trailer.

THE END, AND A NEW BEGINNING

Beginning in 1906, Frese & Co. began to curtail automobile production, mainly fulfilling only rare individual orders. In 1908 the factory produced a unique car for the Emperor's Estate and Property Department. It was a utility vehicle designed to carry six people, 800 kg [about 1750 pounds] of cargo, and a massive cash safe. It was powered by a 14/15-hp Panhard & Levassor engine.

Production of Frese cars ended in 1908; altogether, around 200 units were produced. The factory was mostly engaged in the production of bodies, or as they referred to it in their ads, "Carosserie de luxe." Frese was also very active as a representative of various foreign car brands in Russia. In addition to the brands already mentioned, the company also offered Gillet-Forest, La Buire, Lorraine-Dietrich, Millot, Radia, Renault, Roval, and Unic cars from France, plus Minerva cars and Sarolea motorcycles from Belgium. It also kept a large quantity of parts and accessories and carried out repair work.

P.A. Frese was awarded the Great Gold Medal at the 1st International Automobile Exhibition, which was held in St. Petersburg in 1907, "for the production of car bodies and the initiative in distributing cars in Russia."

In 1910, the company was acquired by the Russo-Baltique Wagon Works and continued as its subsidiary, responsible for the production of bodies and car repairs until the end of 1917.

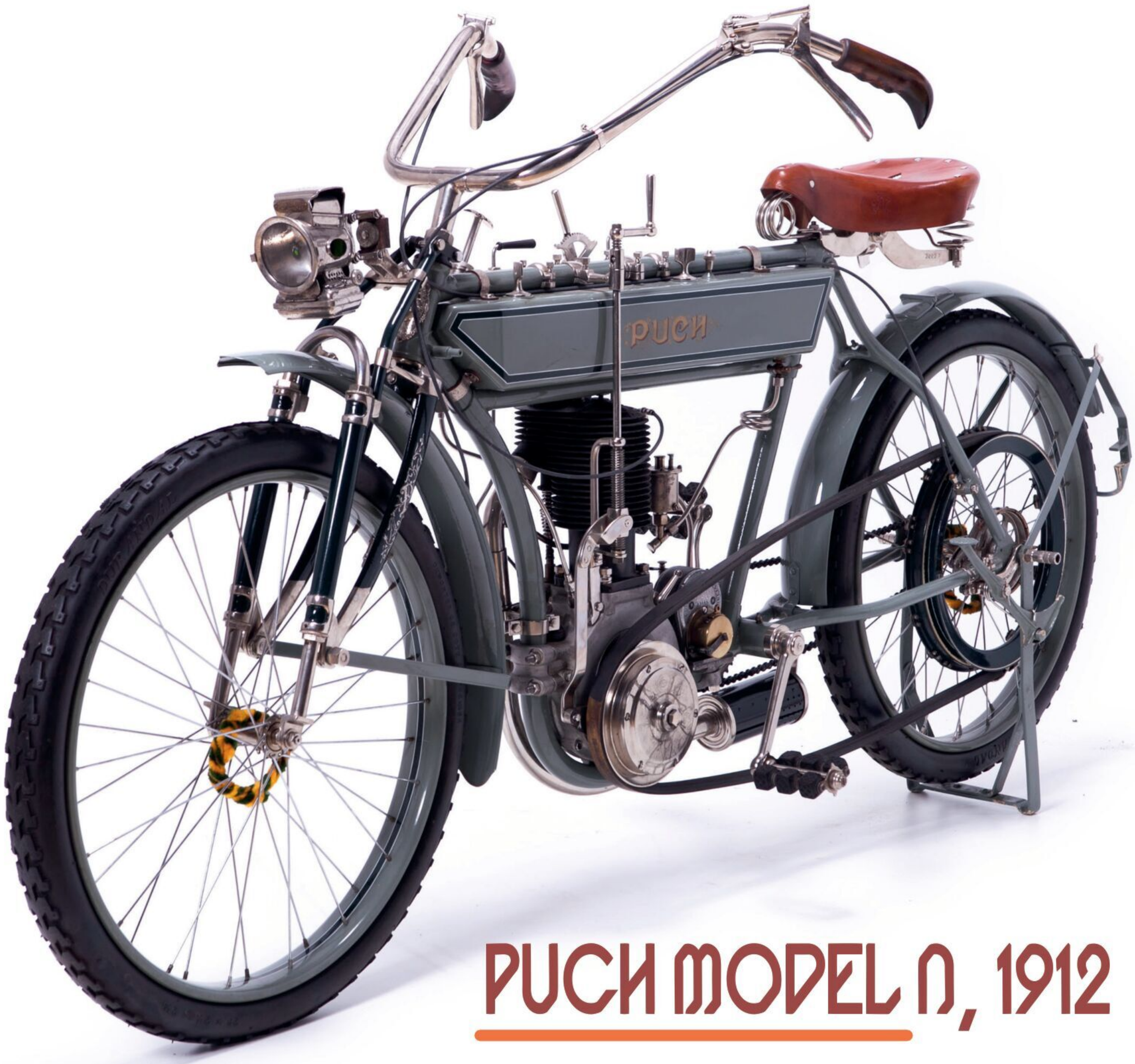
The legendary brand, which has sunk into history, has recently been unexpectedly and curiously

A Frese postal van from 1903.

Le Petit Journal published this graphic in 1904, which was based on a photograph depicting General A. N. Kouropatkin in Manchuria in a Frese car.

"Cars from the best factories, suitable for Russian roads" says this 1907 ad.

revived. An energetic entrepreneur from Latvia managed to obtain the rights. For several months now, he has been trying, without much success, to promote cheap electric cars made in China under this name in EU countries. How embarrassing! He registered the brand as Freze, as it is usually written in modern publications in the English way. But Piotr Alexandrovich himself wrote his name in the Latin style: Peter Frese.



PUCH MODEL N, 1912

AN INVENTOR WHOSE FAME IS CLAIMED BY TWO COUNTRIES. A MOTORCYCLE WHICH HAD A VERY DIFFICULT RESTORATION PROCESS. **NATAŠA GROM** TALKS ABOUT JANEZ PUH AND THE GROM MUSEUM'S AWARD-WINNING PUCH MODEL N.

HISTORICAL CONTEXT

The second half of the 19th century was a period of more or less rapid industrialization in many European countries, as in the rest of the world. But the Slovene lands in the Habsburg Monarchy remained on the fringes of economic events and progress. Therefore, they could not be as involved in the process of growth. Industrialization in Slovenia gained real momentum only after the construction of the Southern Railway in 1857. Numerous factories, railways, and other industrial plants began to appear, which increasingly changed the way of life and work that had been established until then. As people's innovation and ingenuity began to awaken, more and more new, visionary solutions and inventions came into the lives of ordinary people, which gave many the impetus for a different and more dynamic life. It was during this period that Janez Puh (written outside

of Slovenia as Johann Puch) (1862–1914), an inventor and successful entrepreneur with very modest roots, emerged from Slovenske gorice. He marked the beginning of the Technical Revolution with his patented inventions and improvements. He was one of a number of industrialists at that time such as Karel Pollak (leather), Avgust Žabkar (factory owner), and Peter Kozina (footwear).

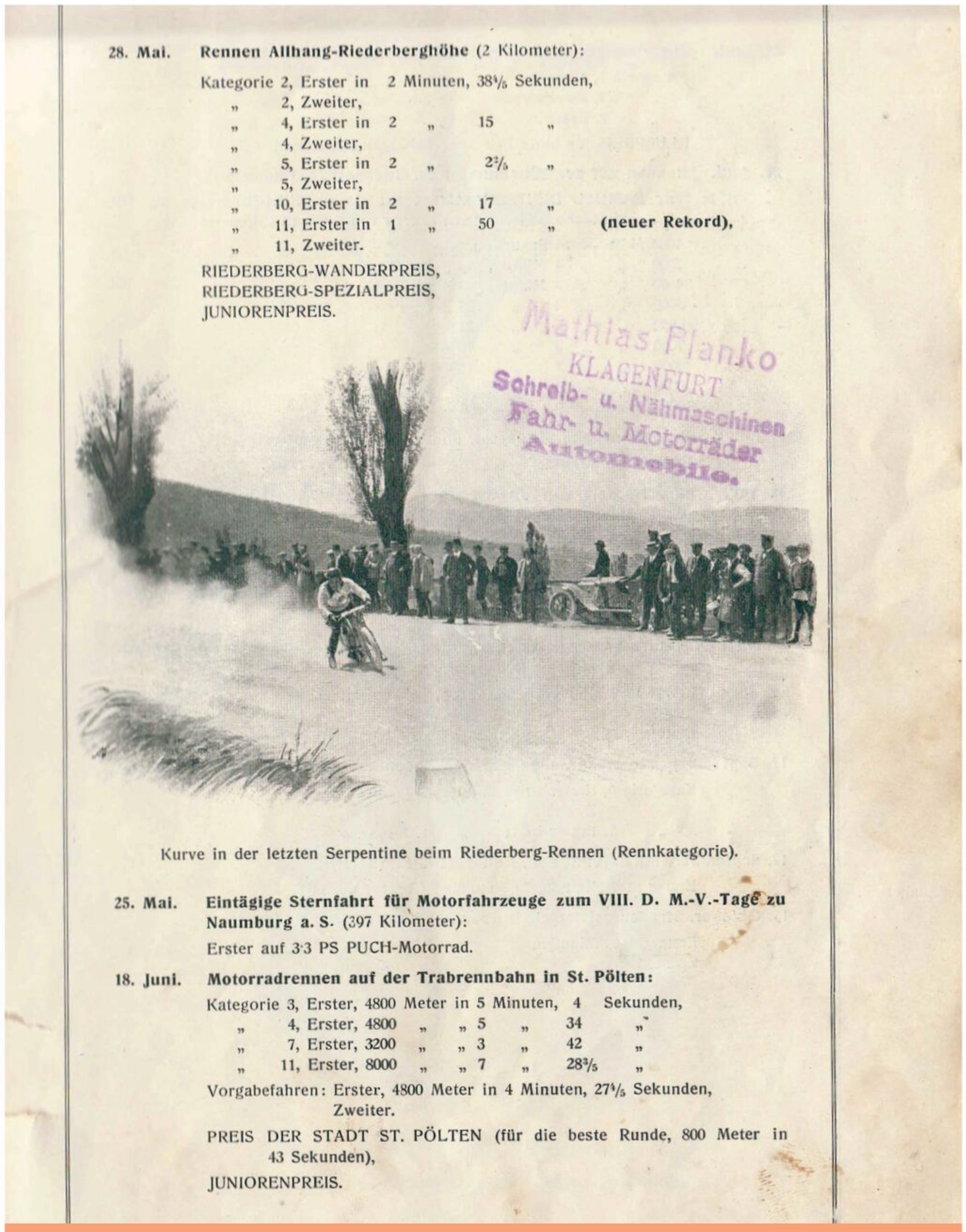
If you ask an Austrian, he will probably claim that Puch is theirs; but if you ask a Slovene, he will confirm today that Puh is ours. In fact, the political and economic situation in the early 20th century dictated how and where Janez Puh would be able to work. Perhaps partly due to the past regime and an imposed way of thinking, Slovenes have neglected their native inventors and researchers in technology and science and devoted themselves more to the literary field. However, with independence we have gained a little more self-confidence and have focused on all that is ours and all that we can be proud of. Knowing our past has strengthened our self-confidence and pride and has shaped us today into a strong nation, albeit small in numbers.

AN INVENTOR WITH MANY PATENTS

Janez Puh is a Slovene by birth and by mother tongue (he was born in 1862 near Juršinci). However, his body of professional work helped him make his mark in the world history of technology. He was a man without an academic title but with a great talent, who was not afraid of European competition. Puh lived in Europe but at the same time he never forgot where he came from, and he always liked to return to his hometown.

At the age of fifteen, he trained as a locksmith and started his first job in Radgona, but his desire for something new and bigger drove him to Vienna and to Germany, from where he returned in 1882.

After military service in 1885, he settled permanently in Graz. There, he worked for various craftsmen and trained in various tasks, from repairing sewing machines to



28. Mai. **Rennen Allhang-Riederberghöhe** (2 Kilometer):

Kategorie 2, Erster in 2 Minuten, 38⅕ Sekunden,
„ 2, Zweiter,
„ 4, Erster in 2 „ 15 „
„ 4, Zweiter,
„ 5, Erster in 2 „ 2⅖ „
„ 5, Zweiter,
„ 10, Erster in 2 „ 17 „
„ 11, Erster in 1 „ 50 „ **(neuer Rekord),**
„ 11, Zweiter.

RIEDERBERG-WANDERPREIS,
RIEDERBERG-SPEZIALPREIS,
JUNIORENPREIS.

Kurve in der letzten Serpentine beim Riederberg-Rennen (Rennkategorie).

25. Mai. **Eintägige Sternfahrt für Motorfahrzeuge zum VIII. D. M.-V.-Tage zu Naumburg a. S.** (397 Kilometer):

Erster auf 3·3 PS PUCH-Motorrad.

18. Juni. **Motorradrennen auf der Trabrennbahn in St. Pölten:**

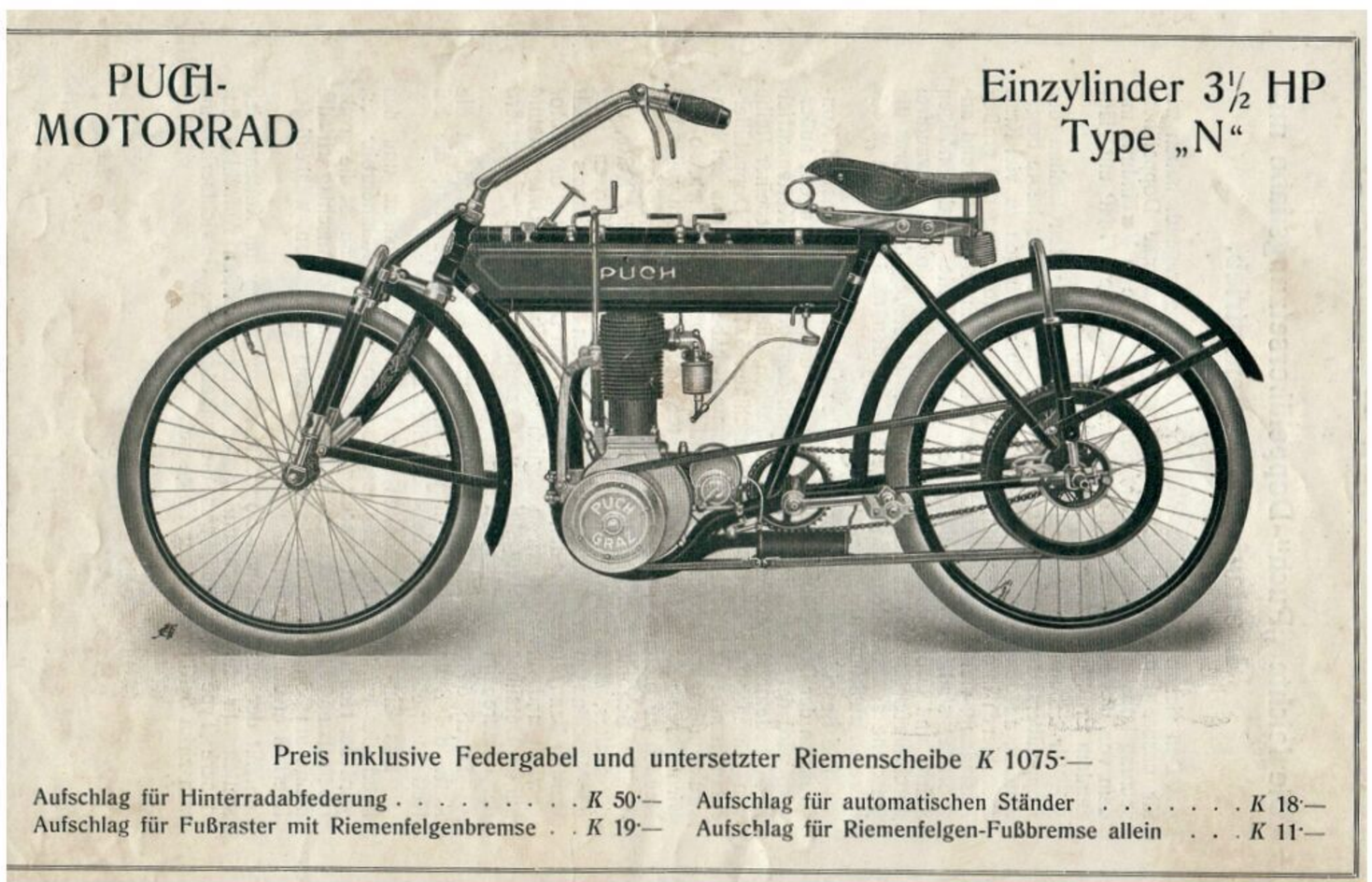
Kategorie 3, Erster, 4800 Meter in 5 Minuten, 4 Sekunden,
„ 4, Erster, 4800 „ „ 5 „ 34 „
„ 7, Erster, 3200 „ „ 3 „ 42 „
„ 11, Erster, 8000 „ „ 7 „ 28⅗ „

Vorgabefahren: Erster, 4800 Meter in 4 Minuten, 27⅕ Sekunden, Zweiter.

PREIS DER STADT ST. PÖLTEN (für die beste Runde, 800 Meter in 43 Sekunden),

JUNIORENPREIS.

The 1912 Puch brochure featured the brand's racing victories.



Preis inklusive Federgabel und untersetzter Riemenscheibe K 1075·—

Aufschlag für Hinterradabfederung . . . . . K 50·— Aufschlag für automatischen Ständer . . . . . K 18·—
Aufschlag für Fußraster mit Riemenfelgenbremse . . K 19·— Aufschlag für Riemenfelgen-Fußbremse allein . . . K 11·—

Price included first fork and pulley.

repairing bicycles. At master Luschneider's shop he repaired uncomfortable and dangerous bikes called "misolin" (Micha bikes) and thought about design improvements. At master Alblo's shop he brought improvements to life — he lowered the wheel frame and installed two same-size wheels with a ball bearing. The rear wheel was driven by pedals via chain.

In 1889 he married Maria Reinitzhuber, the daughter of a wealthy citizen, which opened quite a few doors for him. They never had children, but Janez said (by testimonies of the locals) that he looked after her. After his death, Maria was somewhat lost and didn't know how to operate in the business world, having never been part of Janez's projects or investments. Her role was the role of a loving wife and housewife, a burgher, as befitted the women of that time. After her husband's death, it was said that she had turned to some French spiritualist friends to help her with the proper investment of half of her inherited property but unfortunately the advice was poor, and all the shares were misplaced.

A good marriage and a long, painstakingly negotiated trade permit enabled him to open his first Styria bicycle workshop in Annenstrasse. In 1893 to 1895 in international races, against strong competition, his first bikes achieved excellent results and won the famous ride from Bordeaux to Paris.

Janez Puh made good use of his talent for making bicycles, having obtained as many as 17 patents for bicycles. Puch started to build motorcycles in 1902 shortly after beginning work on car production, which he reportedly began making so that the rain would not get his wife wet. His first car was a voiturette model, which he drove on April 1, 1900, onto the Schlossberg of Graz with its 22 percent slope, to show its suitability for the mountains. That same year, he also introduced a 2.7-horsepower two-seater voiturette with a 2.7-horsepower De Dion-Bouton engine; a four-seater voiturette with a 7-hp Puch patent engine with vis-a-vis seats and a plug-in roof; and another one with a 12-hp Puch engine with seats one behind the other and a leather roof, with both 7-hp and 12-hp models having the latest patent applied for magnetic-electric ignition. In 1903, another prototype was created and in 1906 serial production began.

In 1913, Puch's car lineup included sports, luxury, touring, city, ambulances, and trucks. He soon supplied the Austrian court with his vehicles. The most prominent model was the Type VIII from 1913, an Alpine car with 14/38 hp, which was considered the most reliable personal and emergency vehicle during World War I and remained in use long after the end of the war. Successes in sport provided Puch's factory with the best advertising. In 1906, the Puch motorbike won the Coupe Internationale, and in 1909 a Puch car achieved a speed record of 130.4 km/h.

In addition, Puch also worked in the development of aviation; the Renner boys' aircraft was equipped with an engine he designed.

At the peak of its production in 1912, the Puh factory produced 16,000 bicycles, 300 motorcycles, and 300 cars, which was relatively large for those times. By the end of his life, Janez Puch had developed 21 car types, for which he was granted 13 car patents. As evidenced by his numerous race victories, his bikes and motorcycles were among the best. He died on July 19, 1914, in Zagreb, Croatia, and was buried in Graz, Austria. After his death, the Puh factory continued to develop, and on May 10, 1935, it was merged into the Steyr-Daimler-Puch Werke A.C. concern based in Vienna. The Slovenian brand Tomos also grew on Puch's foundations.

We know of 19 of his patents, filed in the official protection procedure in 1899–1913 and granted in 1900–1915 (the last patents were granted to him posthumously, and one was granted to him only four days before his death). There were even more posthumous publications of his patents. Among the mentioned patents, 13 are in the field of road vehicle technology and six are for typewriters.

"THE MAN WHO TURNED THE WORLD UPSIDE DOWN"

In 1998–1999, when setting up the exhibition that opened in Ptuj on September 25, 1999, and was dedicated to John Puch, in cooperation with Mag. Kristina Šamperl Purg, we assisted with an extensive article for a monograph on this exceptional genius, and some museum exhibits. The exhibition was prepared in cooperation with the Historical Archives in Ptuj entitled "Janez Puh, Johann Puch, the man who turned the world upside down." This project allowed us to explore Puch's life path in more detail. And of course, we confirmed the long-standing collection of Puch exhibits, memorabilia, documents, and motorcycles.

Today we are proud to be associated with an exceptional collection, probably one of the most extensive, and with some unique motorcycles of this brand. Among them are the Puch Type N motorcycle, the 1906 Puch Type D, and the recently discovered little treasure, the Puch B single-cylinder engine that had a volume of 397 cc (75x90mm) and developed 2.5 horsepower. The motorcycle was designed for a used belt transmission, rather than gears. This four-stroke engine had one mechanical exhaust valve and an automatic intake valve. The early Bosch magneto produced low-voltage current (3.2V). The combustion chamber contained moving electrodes that came into contact and, as they separated, produced a spark. This system was used only rarely. The Puch B single-cylinder engines were popular at the beginning of the First World War but were quickly updated and replaced. The recently discovered engine was from a type of motorcycle that no longer exists.

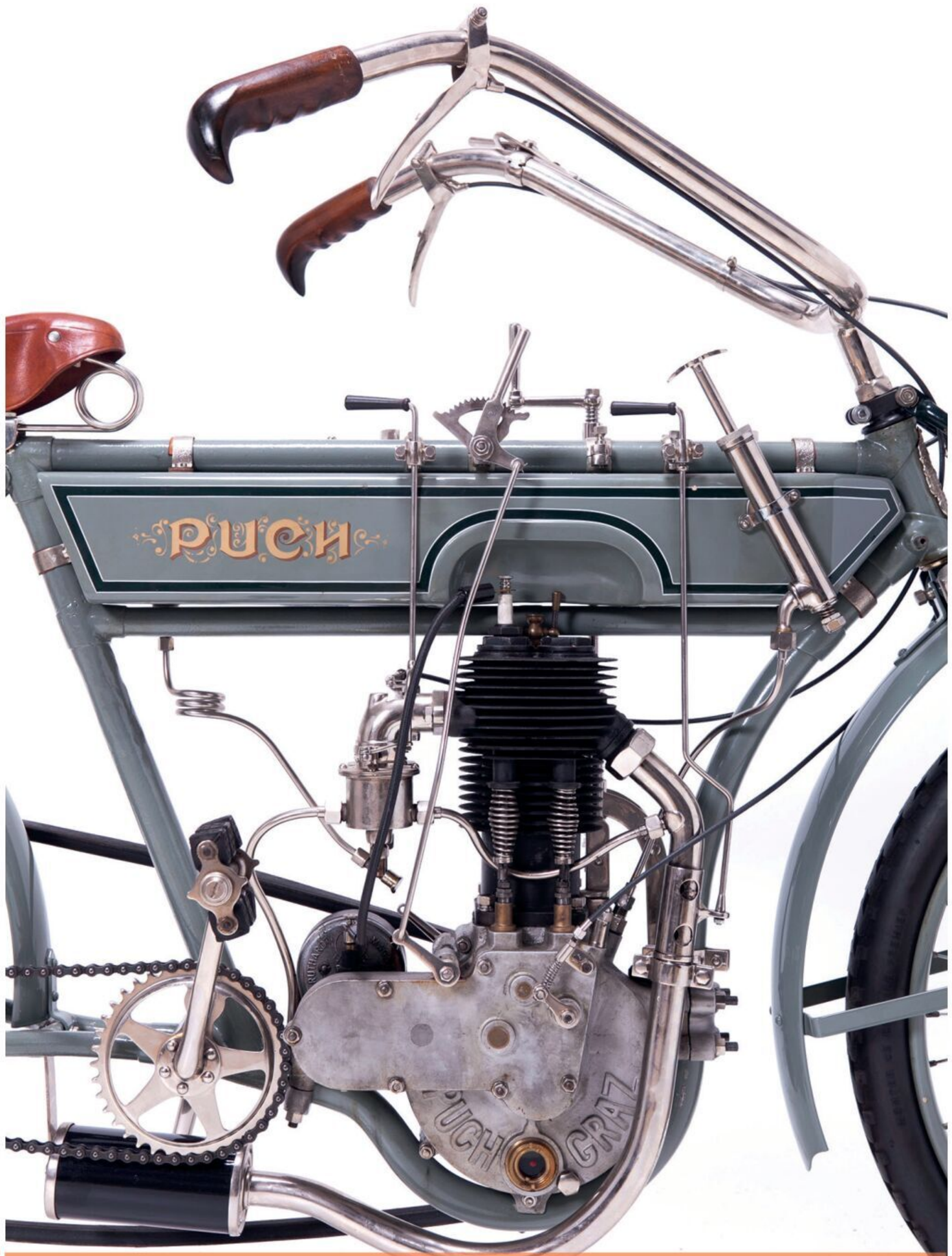
OUR PUCH N

This Puch Type N 3½ HP, No. 5123 with a 453-cc engine, which was made in 1912, brought us victory at the prestigious Concours d'Elegance Villa

d'Este in 2015 in a class titled "The Establishment: The First Two Decades."

We spent almost a decade renovating the motorcycle, and luck smiled on us only toward the end, when we got one of the few still existing catalogs, which helped us solve quite a few questions. The motorcycle came to our workshop in boxes, and although the frame was intact, some parts were missing. This Puch model, which sold for 1075 Kron, was quite popular as it was designed for slightly heavier terrain. It was driven by a leather belt motor in addition to the pedals, which gave it even more power. It weighed 70 kg and reached a speed of 75 km/h, and it was said that around 80 were made.

Puch's Type N 3½ HP was sold nearly all around the world.Just look at one of the many answers provided in a Puch survey on motorcycle satisfaction. One respondent was Pap Wilhelm of Colombo, Ceylon, who wrote the following on October 15, 1911: "I am happy to report that this year I purchased the single-cylinder Type N 3½ HP motorcycle No. 5122 and it has met and even exceeded all my demands. I was able to ride it from Maymo to Mandalay (Upper Burma) and back with a distance of 86 miles, with a total ascent of 3800 feet, in 120°F weather in a single day without any problems. To demonstrate the state of the local roads, which only see ox-drawn carts, I can show you the Continental tires on the rear wheel that I have completely worn out in a month and a half. The machine itself, however, has not experienced the slightest of issues; it is all running perfectly. You may use my reply for promotional purposes if you so wish."



It took almost a decade to restore this Puch Model N.

Petja Grom at the 2015 Villa d'Este Concorso Eleganza with the award the Puch N won at the prestigious event.

Sources:

- **Grom Motorcycle Museum archives**
- **Janez Puh - Johann Puch: Man, Inventor, Factory Owner, Visionary. Edited by Kristina Šamperl Purg. Ptuj: Historical Archives, 1998**

Hybrid Thoroughbred

1937 RAILTON SPECIAL BY RIPPON BROTHERS

COLONEL REGINALD RIPPON, OWNER OF THE RIPPON BROS. COACHBUILDING COMPANY IN THE UNITED KINGDOM, SPARED NO EXPENSE WHEN HE BUILT A CAR FOR HIS PERSONAL USE IN 1937. DR PÁL NÉGYESI HAS THE STORY, WITH PHOTOS BY ROY QUERY.

The Rippon Brothers company is considered to be Britain's oldest coachbuilder, tracing its roots back to the 16th century. The first car coachwork was done in 1905. Later Rippon supplied Queen Elizabeth I and Mary, Queen of Scots and held an exclusive manufacturing deal with Rolls-Royce. No wonder the name Rippon was synonymous with luxury. After the Second World War, its coachbuilding activities resumed but ceased in 1958. As the company was based in Yorkshire rather than in a fashionable part of London, it is not as well known as Hooper or Park Ward.

Among the slew of Rolls-Royce and Bentley models bodied in the 1930s, one car stands out: a Railton, which

Reid Railton's name became immortalized with the car.

was the personal car of Colonel Reginald Rippon. Rippon won a lot of prizes with the Railton Hudson before the war.

THE ORIGINS OF RAILTON

Parodying the slogan of British Railways, Railton burst onto the British luxury-car scene in 1933. The slogan "Quickest by Railton" reflected zero-to-sixty road test times of less than 10 seconds, phenomenal acceleration that wouldn't be matched by many other sports cars until well after the war.

The Railton was the brainchild of Noel Macklin, who previously produced the Invicta. The effects of the 1929 economic crisis caused the company's downfall, but Macklin was

Styling was derived from Macklin's previous luxury car offering, the Invicta.

Unusually for the era, there were two sliding roof panels.

not one to give up easily. Together with his associate, L.A. Cushman, he hit upon the brilliant idea of a fusion of British and American ideas. The idea was to produce an elegant British car with a big, flexible American engine.

Macklin retained the services of Reid Railton, who was very well known in world land speed record circles. He previously worked for Parry Thomas and later designed one of the record-beating Bluebirds for Donald Campbell.

The first Railton was largely an updated Invicta with altered running gear and a Terraplane Eight engine under the hood. Boasting a maximum speed of just under 90 mph, the car was on a level with the Alvis Speed Twenty and a little below the 4 1/2-liter Lagonda and the Bentley 3 1/2-liter, but none of the British contingent could approach the Railton's zero-to-60-mph time of 9.2 seconds. And the Railton was considerably cheaper than a Lagonda, an Alvis, or a Talbot. Railton's peak year was 1935, with 377 cars delivered against 224 in 1934 and 308 in 1936.

Afterward Railton lost its direction and after 1460 cars built, production was stopped in 1940.

THE RAILTON SEDAN BY RIPPON

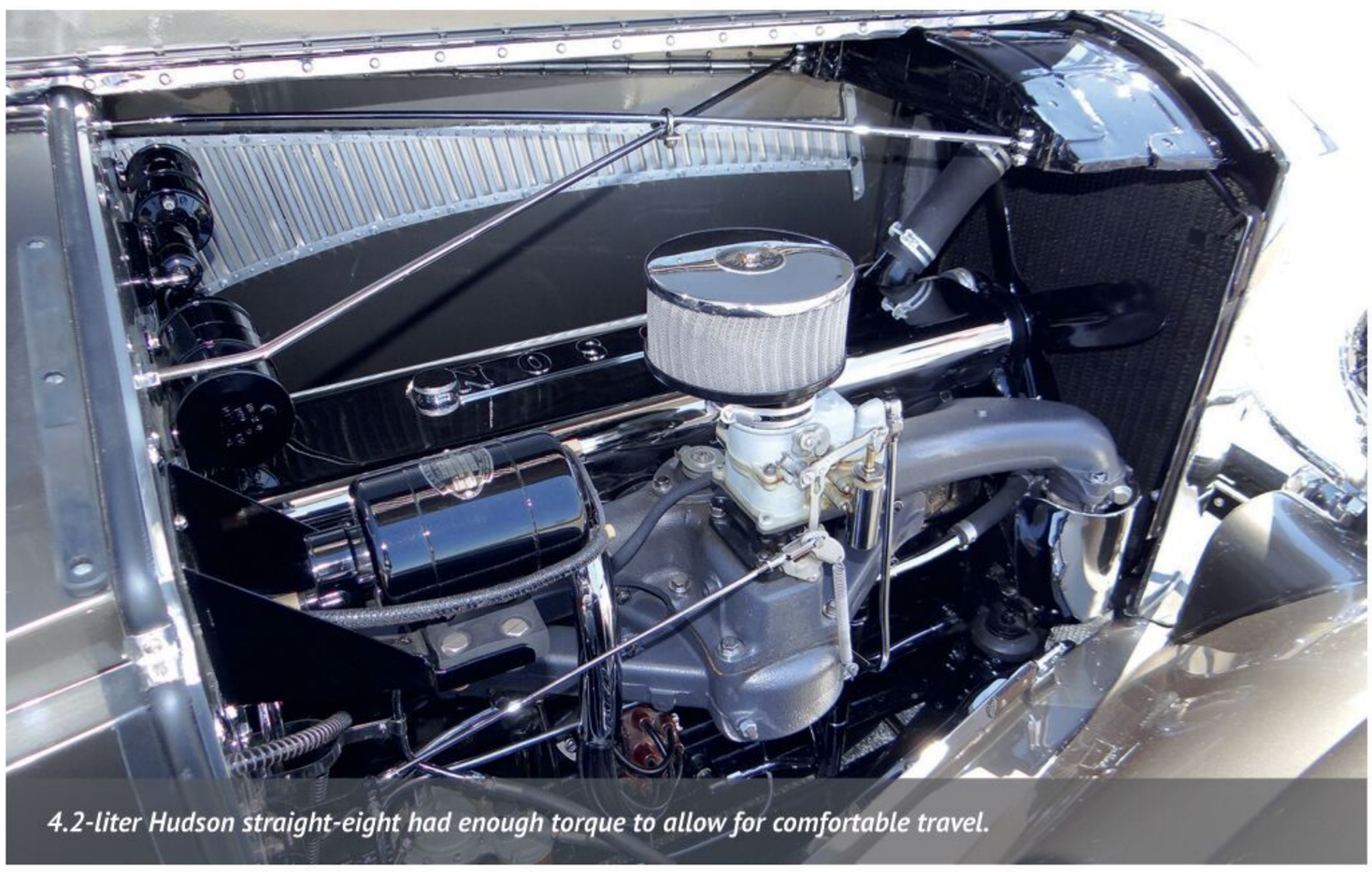
Colonel Reginald Rippon went to great lengths to build the perfect car for himself. No expense was spared on the aluminum

In 2018 the car fetched $462,000 (almost €400,000) at an auction.

Individual drawers pull out containing small tools, light bulbs, fuses, and maps.

Walnut was featured on the dashboard and in the rear compartment as well.

Even the bottom of the seats feature drawers.



4.2-liter Hudson straight-eight had enough torque to allow for comfortable travel.

Travel in style: The cavernous trunk stows custom luggage designed to match the body's curvature.

coachwork. The car has a wheelbase that measures 139 inches and an overall length of 214 inches. There are two sliding roof panels, fitted three-piece luggage, a hidden waterproof compartment for sporting guns, tools painted to match the car's exterior color, a reinforced trunk lid to seat six people, and an inlaid walnut cabinet in the rear compartment that forms a table and contains a silver-plated cognac flask, corkscrew, chocolate box, matchbox, and cigarette and cigar boxes. This car was also fitted with built-in jacks, so changing a tire was much easier.

According to Jim Donnelly, who reviewed the car in 2016 for Hemmings: "The levels of appointment and ingenuity are both remarkable. The woods, hides, and carpet skins used inside are exceptional. Very unusually for the era, the Rippon body boasts two sliding roof panels, one for the chauffeur. The boot is filled with form-fitting leather suitcases. Individual drawers pull out containing small tools, light bulbs, fuses, and maps. The rear compartment contains a humidor and a silver-plated cigarette case. Individual trays accommodate amenities such as aperitif glasses, a sandwich box, and a chocolate box – with one original 'Chocolates of Distinction by Terry's of York' that was produced at the same time as the Railton."

Colonel Rippon kept the car for a year. In 1978 the car went to an American collector. Later it was the centerpiece of Eldon Hostetler's Hudson collection. Today the car resides in an American collection.

Sources:

- **Michael Sedgwick: Quicker by Railton. Automobile Quarterly, Spring 1969.**
- **https://lavinerestorations.com/project/1937-hudson-railton-4-door-sedan/**
- **Jim Donnelly: Two Continents, One Legend - 1937 Railton Special Limousine.**
- **https://www.hemmings.com/stories/article/two-continents-one-legend-1937-railton-special-limousine**

A Touch of Tomorrow

1913 COLE SERIES 8 ROADSTER

COLE MOTOR CAR COMPANY PRODUCED MORE THAN 40,000 CARS BETWEEN 1909 AND 1925. **LAURA GINER**, PROGRAM DIRECTOR AT THE PALMETTO COLLECTION, INTRODUCES ONE OF JUST 79 SURVIVORS.

The 1913 Cole Series 8 Roadster is an enigma in time and space, its formidable heft and length a singular statement, its six-cylinder powerplant easily devouring "touring" competitors that lumber about with their four cylinders and five or seven seats. The Cole seats only two, a duo sandwiched comfortably between the cavernous engine compartment and the sloped rear, a racing machine poised on giant artillery wheels with an oh-so-long 132-inch wheelbase. It's a mantis, ready to pounce. The Series 8 employs the latest technology: a Delco cranking, lighting, and ignition system that was only slightly behind Cadillac in its application, and a straight-six engine rated at 60 horsepower, unmatched by its 1913 rivals. It also has drum brakes and a cowl dashboard that sets the standard for modern dashboard design.

HISTORY OF COLE MOTOR COMPANY

Cole Motor Company evolved from Indiana's carriage industry. Joseph Jarrett Cole had been a carriage salesman, and in 1904 he became part owner of an Indianapolis carriage company. Cole partnered with an engineer to design his very first car in 1908. Through the years Cole

created new models, participated in races, and advertised abundantly. Thousands and thousands of automobiles were sold year after year, and dozens of notable innovations were realized, but in the post–World War I year 1920, the company would see a decline.

J.J. Cole was a prolific advertiser. He appealed directly to a market of well-heeled automobile consumers who were eager to buy an American car synonymous with quality and innovation. "There's a Touch of Tomorrow in All That Cole Does Today" was Cole's 1921 advertising slogan. Although Cole knew that for most every man buying a Cole there was a woman attached to the

Cole Motor Car Company was an Indianapolis pioneer in the development of the V-8 engine.

Thomas Mott Osborne, a former warden of the Sing Sing Prison and a prison authority, visited Indianapolis in the 1910s and he was taken on a tour in a Cole 8 (Detroit Public Library).

With a price of $2485 the Cole Series 8 was firmly in Packard territory.

The Cole 8 posing in front of the Palmetto Collection.

deal in some shape or form, many of Cole's advertisements included misogynistic claims and references. Today these can be dismissed as representative of the societal and cultural underpinnings of the era. "The Man's Car That Any Woman Can Drive," for instance, certainly implies that a man enjoys jurisdiction over his automobile, and at the same time Cole recognizes that women may, in fact, wield some influence over the man's choice of car. Cole advertisements were seen in popular publications of the day, including the Saturday Evening Post. A 1913 advertisement in the magazine touted the slogan, "Cole – The Standardized Car," and according to the book Indiana Cars: A History of the Automobile in Indiana, it was the largest automobile advertisement purchased to that date.

J.J. Cole knew a great deal about the importance of appealing directly to the consumer, who had a choice about what car to buy (for indeed by that time there were many makes from which to choose). And he was an incredibly talented businessman. Cole himself stated in a letter published in a 1997 issue of the Cole Bulletin: "Business possibilities are limitless. If we find we can not dispose of our product in the accustomed way, there's another way in which to do it that can be found, if we work hard enough."

THE 1913 COLE SERIES 8

In 1913 Cole introduced five different models, all with six-cylinder engines, a move that yielded a 78 percent increase in sales. With a price tag of about $2500, buying a Cole required seven times Henry Ford's price for a Model T around that time, and it cost only slightly less than the luxurious Pierce-Arrow, the car that everyone who was anyone

This 1913 Cole 8 was last restored more than 50 years ago.

wanted. The Cole's reputation was as a sturdy, well-made, well-appointed, dependable car. And if the Cole lacked the glamour of the Pierce-Arrow, it compensated with stalwart construction and a highly recognizable name.

The 1913 Cole was last restored more than a half-century ago by Leonard Colpitts, and an extensive restoration it was. The dash and firewall were refinished, the engine blocks rebuilt, cylinders rebored, pistons machined, and every ball, roller, or sleeve bearing replaced, among other things. The large artillery wheels went from natural wood to painted wood and again back to natural wood. The whole process took nearly 10 years.

The Cole boasts original instruments, including a nickel motometer, clock, and speedometer.

The two-seater roadster body was built on a 132-inch-long (3.35 meters) long wheelbase.

The straight-six engine was rated at 60 hp.

A record of the Cole's provenance includes owners Charles Jackson, Leonard Colpitts, Randy Riley, and Richard Ringfelt. The Cole today resides at The Collection on Palmetto, a museum of American Brass Era cars in Clearwater, Florida. The hickory artillery wheels are unpainted, an unusual choice for authentic Brass Era restorations, but time will tell if they will see a coat of lacquer applied to their 12 spokes, front and rear. The instrumentation is all original: the dash is mahogany, the plating, nickel. The spectacular 1913 Cole Roadster was a car unrivaled in its day, marketed fiercely to consumers, and which has stood the test of time (over a century).

This example is one of few, and possibly the only example of a 1913 Cole Sixty Horsepower Roadster to exist.

ABOUT THE COLLECTION ON PALMETTO

The Collection on Palmetto is a museum of mostly American Brass Era automobiles located in Clearwater, Florida. Its oldest automobile is the 1886 Benz Patent Motorwagen, and the youngest is the 1952 Allard J2X, a personal favorite of the founders. Steam energy powered the Industrial Revolution and was one of three methods of propulsion in early automobiles. It is heavily represented here in engines of field and factory and in the outstanding display of steam automobiles from Locomobile, Stanley, and White. Of particular interest is the Stanley Steamer car, an American icon. Six expertly restored and highly authentic and original Stanley models dating from 1910 through 1925 can be viewed. The Collection on Palmetto is a 501(c)(3) private foundation.

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- **Colpitts, L. F. (1968). Restoration of a Cole Six. Bulbhorn.**
- **Horvath, D. E., & Horvath, T. (2014). Indiana Cars: A History of the Automobile in Indiana. Hoosier Auto Show & Swap Meet.**
- **McKee, H (1912). The Cole Blue Book. Cole Motor Company.**
- **The Cole Motor Car Registry - http://colemotorcarregistry.com/**

Captation

KEN GROSS

Ken Gross served as Executive Director of the Petersen Automotive Museum in Los Angeles. His thirteen critically acclaimed automobile exhibitions have appeared at major fine art museum across the United States. A 31-year Pebble Beach Concours d'Elegance Chief Class Judge and a member of the Selection Committee, Ken is a founding member of ICJAG (The International Chief Judges' Advisory Group), and he judges at many North American and European Concours. The author of twenty-four books, and countless magazine articles, Ken is a recipient of The Automotive Hall of Fame Distinguished Service Citation, The International Motor Press Association's Ken W. Purdy award, the Motor Press Guild's Dean Batchelor award, and the Lee Iacocca award. He lives in Hamilton, VA (Photo: John Lamm).

LAURA GINER

Laura Giner is the Program Director of The Collection on Palmetto, a new museum of Brass Era automobiles and engines of field and factory. Laura's background is in education, and as such she has been asked to develop education programs for visiting school children. Laura also has served as acting historian for the museum, and she considers it her great privilege to learn about the extraordinary vehicles that comprise the era which most impacted the automobile industry, and in turn convey that information through writing and speaking. The personal stories related to The Collection, told by prior owners, enthusiasts, experts and visitors young and old, is of particular interest to Laura. Laura is pursuing a master's degree in education at the University of South Florida.

THOMAS WIRTH

Thomas Wirth was born in Mannheim in 1967 and works where Carl Benz invented and tested his Patent-Motorwagen in 1886. Keen on motor cars as long as he has been able to think. Writing about classic cars since 1989 for all major German and selected international magazines. Many books and catalogues published. Now also working voluntarily to support saving the cultural heritage of the automobile for the future.

BERNARD VERMEYLEN

Born in Brussels in 1953, Bernard Vermeylen has been fascinated by motoring history since his youth. His first book was published in 1995 and it was inevitably about Panhard & Levassor, his favorite brand. Since then, he has written more than 20 books, about Panhard of course but also about Renault, Nissan, BMC, and cars from Eastern Europe. Bernard is also a regular contributor to French motoring magazines.

FREDERIK E. SCHERER

Frederik E. Scherer (34) bought his first car, a 1967 VW Beetle, at the age of 15. Being not only an incurable pistonhead, but also an avid reader, he has studied history, specializing in the History of Books, Publishing and French at the Johannes Gutenberg-Universität in Mainz. He is a writer, journalist and professional reviewer for car magazines mainly in Germany and France. He has been specializing in conveying restoration ethics according to FIVA's Charter of Turin and works also in the field of museum education.

STEFAN DIERKES

Stefan Dierkes was born in 1961 in Germany. He received his doctorate in Neuroscience at the University of Vienna. Later he worked in the publishing industry. Since 1979 he has been the type consultant for the Opel Kadett A in the German Alt-Opel IG. In 1994, after the purchase of the Kadett Italsuisse Spider, he started his research on Pietro Frua and Italsuisse; later also on Ghia Suisse and Tom Tjaarda. In 2001 he founded the Registro Pietro Frua and undertook numerous research trips, including to Geneva, Turin, Rome, and California. In 2004 he digitized the Frua family archive in Turin. He has organized Frua car meetings (1996, 2003) and exhibitions (2003, 2013). His scientific approach to automotive history is described on his website: www.pietro-frua.de/impressum.de. There is also a list of his publications.

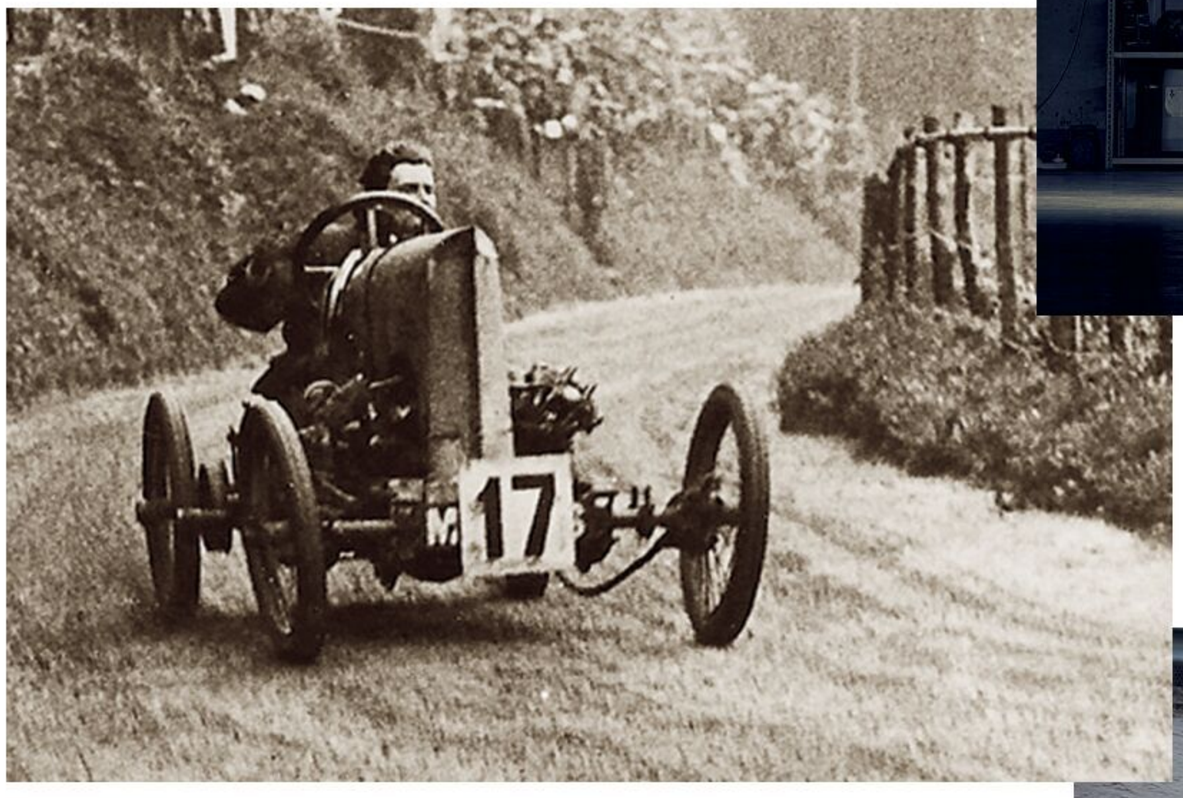
JAN-HENRIK MUCHE

Jan-Henrik Muche, born in 1971, lives in Frankfurt am Main and has been writing about classic cars, technology, design, motorsport, and motoring personnel for 25 years. As a freelance journalist and author, he works for daily newspapers, international car and trade magazines, and book publishers. Heel Verlag has published his books on the Opel GT and Opel racing history, the Audi Quattro, and the Porsche 924. The renowned motor journalist has been editor-in-chief of Porsche Fahrer magazine since 2007 – a passion that extends into his own garage, where more than a handful of classic cars and sports cars are parked. A new car has never been there.

SPECIAL THEME: KUSTOM

METALLURGIQUE - MAYBACH
FROM AIRSHIP TO RACING CAR

BALLOT 3/8 LC
DEFINING AN ERA



G. N. SPIDER
HILLCLIMB CHAMPION

PININFARINA ABARTH 1000 BIALBERO
"LA PRINCIPESSA" 1960
- RESTORED RECORD RACER

For sale: Talbot-Lago Grand Sport | One-Off Saoutchik Design

FOR SALE

1900

PEUGEOT

• 2 ¼ HP TRICYCLE •

DE DION Bouton 239 cc
Engine #3095
2 Speed

Time warp machine!
DELIVERED NEW TO
Albert Beauvalet — Lisboa

In original condition, running and driving