VOL. 3 | NO: 11 | SUMMER 2023

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RARE & UNIQUE VEHICLES

THEME: **IMAGINATION**

Ads with a Twist
The Story of Publicity Vehicles

As Wild As They Come
A Tribute to Barry Stimson

In Need of a Car
Cyclecars in Germany

What Might Have Been
AMC AMX/3

LUIGI COLANI
A Three-Dimensional Philosopher

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AUTO VETERAN COMPANY

1931 Bugatti T49 Roadster by Petera

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- Inline 8-cylinder, OHC, 3.257 cm³ with 3 valves per cylinder
- Considered to be one of the most beautiful T49 in existence

1929 Rolls-Royce Phantom I All-Weather Tourer by Park Ward

- Built according to the patent „La Baule" of Jaques Saoutchik of Paris
- Only 3 owners since new, well-documented history and large "dossier"
- Perfect drivable condition with new aluminium cylinder head
- Desirable KR series "The biggest Rolls-Royce ever built"

1938 Delahaye 135 MS Cabriolet by Henri Chapron

- Highly desirable Modifiée Spéciale version
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1938 Delahaye 135 M Cabriolet by Henri Chapron

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Dear Readers,

PUSHING THE ENVELOPE – this is a phrase that suggests what we mean by "imagination," the theme of this issue. Whether we talk about a radical motorcycle with a semi-radial engine, visionary designers such as Luigi Colani, or such exotic machines as the AMC AMX/3, we are fascinated by the unusual innovations and creative solutions designers create as they stretch their imaginations.

Shortly after World War I, when advertising became more prominent, custom cars and trucks were constructed to resemble particular products. They served as mobile billboards for the manufacturers. These publicity vehicles were built until the 1960s, when TV advertising became the focus. Still, some examples remain today: versions of the Oscar Mayer Wienermobile are still being constructed, while other companies, such as Red Bull, built distinctive vehicles just a few years ago.

In two extraordinary schools, the students built cars as part of their graduation process. The Master School for Craftsmen in Kaiserslautern, Germany, started building their first one-off cars in the 1920s and were still building remarkable concept cars until the 1970s. The Nihon Automobile College in Chiba, Japan, created unique prototypes in the past 30 years.

A number of mostly American custom-car builders have chosen to "reimagine the past." We look at several one-off hot rods and customs based on styling cues from the streamlined cars of the 1930s.

In the Collectors Plaza section, we also feature cars that "push the envelope." For example, a Rolls-Royce with a built-in toilet, part of the Louwman Museum collection; a Fiat-based one-off with a streamlined body, from the Metropole Druten collection; and a front-wheel-drive sports car by Ken Gregory, from the Lane Motor Museum – among others.

I would like to remind you that we seek new subscribers with every issue. Rare&Unique Vehicles magazine limits advertising so that we can supply you with more content. But that means we depend on you. Please share digital examples of our stories with your friends and other collectors, so we can continue to increase our subscriber base. Thank you.

Enjoy the ride!

Dr. Pál Négyesi

EDITOR AND PUBLISHER

Table of Content

Three-Dimensional Philosopher • Luigi Colani

72

130

Going For The Top League • Tatra T607

52

What Might Have Been • AMC AMX/3

Educating Young Minds • Prototypes from Kaiserslautern and Chiba

106

SPECIAL THEME: IMAGINATION

COLLECTORS PLAZA

SPIN THE GLOBE

IMPRINT

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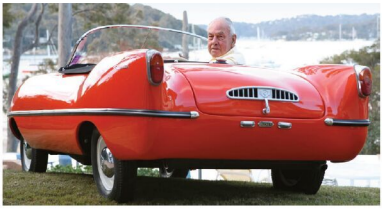


SOURCE: FAIRFAX ARCHIVES

"BILL" BUCKLE

Pioneering Australian racer, manufacturer, and automotive industry figure William 'Bill' Buckle passed away on May 9, 2023, aged 96.

Buckle was perhaps best known for the Buckle Coupe (see RUV No4) and as a local dealer of the Goggomobil. He also built a sporty two-seater (see RUV No2) and a van based on the Goggomobil. He also distributed other brands such as Borgward and Humber. Later he converted American cars to right-hand drive, developed a glass "Sportsroof," and picked up a Toyota franchise. Buckle was awarded a Medal of the Order of Australia in 2014.

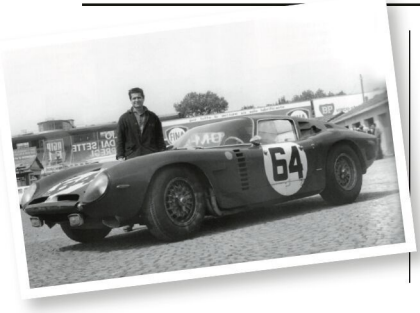
ROMANIAN CONCOURS

After a four-year hiatus, the Romanian Concursul de Eleganta Sinaia returns to the Peleș Castle on 24 June. The friendly event is organized by the Retromobil Club and sanctioned by FIVA. Our editor, Dr. Pál Négyesi, will be one of the judges at the show.

VILLA D'ESTE CONCORSO D'ELEGANZA

Even the rainy weather could not dampen the mood at this year's Concorso d'Eleganza Villa d'Este at Lake Como. As expected, the winner of the Trofeo BMW Group, the Best of Show award, was a remarkable 1935 Duesenberg SJ Speedster designed by Gurney Nutting for the Maharaja Holkar of Indore. The Public Referendum voted for the Ferrari 250 GT Spider California from 1961 with its elegant coachwork by Pininfarina/Scaglietti. For the first time there was an award for "the most beautiful symphonic sound of an engine" with a Porsche 917K scooping the award.

SOURCE: MÁTÉ BOÉR



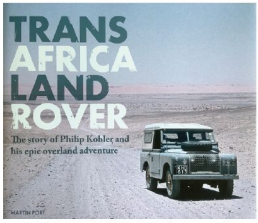
GIOTTO BIZZARRINI

On May 13, legendary Italian engineer, designer, and driver Giotto Bizzarrini passed away. After receiving an engineering degree, he first worked for Alfa Romeo before he was recruited by Ferrari, where he was responsible for sports car and GT development. He worked on the 250 lineup, including the 250 GT SWB and the GTO. After an argument, he left Ferrari in 1961 and set up ATS (see RUV No9). Later he worked on the groundbreaking Lamborghini Miura, the Iso Rivolta and Grifo, and naturally his own GT Strada 5300. In this issue we celebrate his work by introducing the AMC AMX/3, which was his foray into the American market.

Readers' Letters

ROYAL HORCH

Morten Larsen spotted a historical error in our story on the Horch 853 Sport Cabriolet, which was rescued in Norway. We put King Haakon VII in a bad light. In fact, Larsen tells us, "he became the hero of the Norwegian people when he refused to abdicate or surrender. He regularly sent radio broadcasts from England to the Norwegian people, urging them to organize resistance."



Land Rover
CAR OF A
LIFETIME

Australian-born Philip Kohler was only 26 years old and had already spent two years in Rhodesia when he took delivery of a new Land Rover Series II in 1959. With his new car, he set about traveling back to London on a Trans Africa road trip, taking photos with his Leica along the way, most of them in color. Not only that, he also came across the shooting of the film "Hatari!" and was offered a job, which eventually led to a career as production/location manager. Among others, he worked on several James Bond movies. He never separated from his Land Rover and kept it in front of his London home until he passed away in 2015. Martin Port recovered it the following year, which he is documenting along with the subsequent preservation on the 14 final pages of the book. Even though the car would have made an excellent case study, his work is unfortunately not being discussed in the light of restoration ethics. On the other hand, Kohler's story and his photos are simply stunning. It remains unclear how exactly the author obtained the material, if he did any research, or if he embellished his text in some way. Nevertheless, this is a well-designed book and a most entertaining read! **FS**

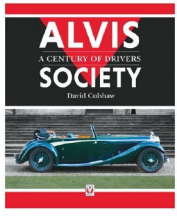
Martin Port: Trans Africa Land Rover
Porter Press, 144 pages, ca. 270 images, in English, 30 £
ISBN 978-1-913089-29-0

A selection of book offerings from around the world, brought to you by Frederik E. Scherer and David Cooper.

Alvis
ILLUSTRIOUS
FRATERNITY

Stretching from 1920 to 1967, the production of Alvis cars has always been as exclusive as the people buying them. This book wants to illustrate just that. It chronologically lists every single chassis number, commenting on some of them individually; the text consists mostly of a short biography of the most interesting previous owner. Some were either wealthy or famous, or both. Movie appearances of Alvis cars are mentioned as well. Don't be misled: this is not a book about the company, nor are there complete histories of individual cars to be found. It is strictly about chassis numbers, so explanations are mostly limited to systematics and production periods. But the longer you delve into this book, the more you question its purpose. It seems to be perfectly clear to the author, but not so much to the general public. Still, that should not detract from the diligent work that he has certainly put into documenting the illustrious fraternity that once were Alvis drivers! **FS**

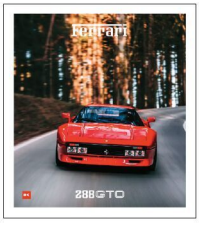
David Culshaw: Alvis Society
A Century of Drivers, Veloce,
224 pages, 215 images, in English, 50 £
ISBN 978-1-787114-73-9



Falcon
LUCKLESS
START-UP

Falcon? Sounds English, but couldn't be more German! Founded in 1921, in the aftermath of the Great War and its obsolete armaments industry, the manufacturer counts among those that did not survive the ensuing financial crisis. The Falcon CA 6 was a small car with a rather conventional design, with the exception of aluminum pistons in its four-cylinder engine. The car remained in production until 1925, though a bigger six-cylinder model named CA 8 was issued in 1923. Falcon was always short on funding and was not to see the prototype T VI put into production – as the factory was taken over by Röhr in 1926. Automotive historian Werner Schollenberger started his research more than 30 years ago. However, he ends by saying: "I know that I know nothing" – and that appears to be overmodest. Given the variety of material presented in such a small volume, his approachable manner in depicting the subject, and his willingness to explain why he reaches his conclusions, Schollenberger gives a good example of how automotive history should be written. The same can't be said about the poor proofreading. Only 300 copies have been printed, and they are likely to be sold out soon. **FS**

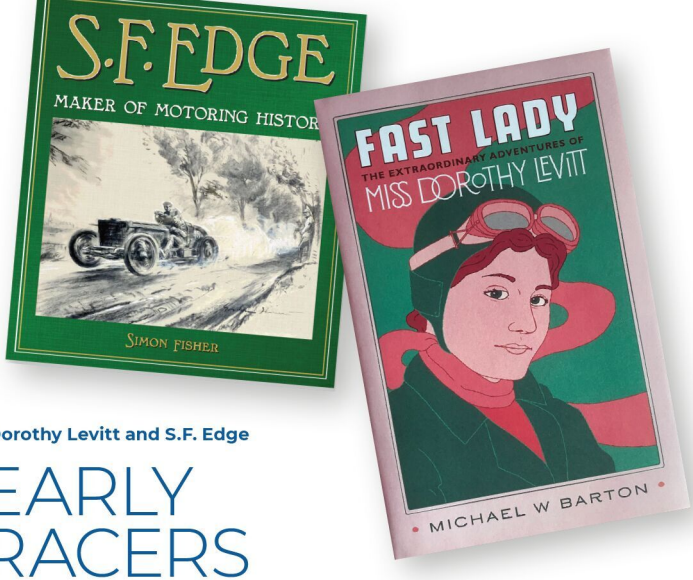
Werner Schollenberger: Falcon
Eine hessische Automarke,
Karren Publishing, 112 pages,
123 images, in German, 29 €
ISBN 978-3-947060-14-6



Ferrari 288 GTO
OUT OF
THE BOX

Only 274 Ferrari 288 GTO cars were built between 1984 and 1985. It looked similar to the 308 but was unique, both in its body design and technical construction. This consequently led to a unique development history. Jürgen Lewandowski drew on interviews that he had conducted 35 years ago for a first book. His new work on the GTO comes in the form of a collectible, not the first of its kind with publisher Delius Klasing: It's a box containing a nicely printed 27 x 29 cm hardcover picture book and a 17 x 23 cm paperback textbook without pictures. The latter is an inconvenience, as texts about technical issues barely work without corresponding illustrations. Also, it is poorly designed and feels cheap. It contains technical data as well as a list by specialist Marcel Massini with all the chassis, engine and body numbers, build start date, and original dealer. In the picture book, we find not only a set of high-quality contemporary photos, but also archive material from the time of the GTO's development, the prototypes, and even a few of the rare design sketches. Artistic photos of blueprint details are nice to look at, though. In the end, all the ingredients for excellent documentation are there – but it's up to the reader to make sense of it. **FS**

Jürgen Lewandowski: Ferrari 288 GTO
Delius Klasing, 240 + 128 pages,
164 images, in German and English, 148 €
ISBN 978-3-667-12519-4



Dorothy Levitt and S.F. Edge

EARLY RACERS

Automotive history is full of names and personalities. Dorothy Levitt (1882–1922) was one of the more famous, even back in her day. "She was the most important of all the pioneering women motorists and a passionate advocate, albeit indirectly, for the improvement of women's rights," writes Michael Barton in the beginning of "Fast Lady." In conclusion, he concedes that "what we don't know about her is very much part of what makes her a legendary figure." The pages in between those two statements contain a biography of Levitt and a search for clues about the circumstances of her life. Her career lasted from 1903 to 1910. Barton has chosen to analyze this seven-year period chronologically (for her racing as much as for her court appearances, that is), weighing the information spread by others against his own research and conclusions. In the light of that, he comments on probabilities but refrains from speculation, even though he can't fill in all the gaps – and that's only one reason why this is a great book. The other is the book itself, which bibliophiles will cherish for its overall production quality.

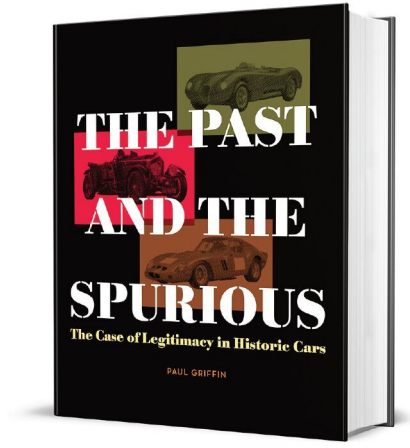
Much more is known about Selwyn F. Edge. It was "SF" who put Dorothy on competitive wheels, being the exclusive distributor of Napier cars. Well before that, he was an accomplished cyclist and as such, he became one of the founding fathers of the British car industry. For SF, life was a competition, which he eventually lost by his investment in AC Cars. Much has been written about (and by) Edge while he was alive. Simon Fisher has put together a superb biography pointing out the factual and the personal facets alike. The book is well organized and referenced throughout using endnotes, which is exemplary; moreover, it is also a "who's who" of the early days of British motoring and a key to understanding this history. Highly informative, and a perfect companion to "Fast Lady"! **FS**

Michael W. Barton: Fast Lady
The Extraordinary Adventures of
Miss Dorothy Levitt, Butterfield Press,
120 pages, 21 images, in English, 25 £
ISBN 978-1-9996325-4-0
www.butterfieldpress.co.uk

Simon Fisher: S.F. Edge
Maker of Motoring History, EVRO,
192 pages, 155 images, in English, 45 £
ISBN 978-1-910505-79-3

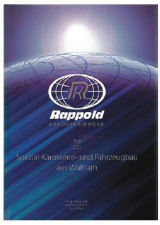
Questions of Valuation

AS CARS BECOME AN ASSET CLASS



Several important questions motivate Paul Griffin's hefty book. What establishes a car's legal identity? What happens to a car's value if it is restored? How can fakes and misrepresentations be exposed? How should we define and value originality or authenticity? These questions are particularly relevant to most historic cars, as they have gaps in their ownership history as well as changes or modifications made over time. As the values of significant historic cars continue to rise astronomically, they become even more pertinent. Griffin, a British attorney and historic racer, provides many case studies of particular cars to illustrate the complexity of the issues. This is the strength of his book. While we can take issue with particular examples as well as the unnecessary addition of Greek philosophers, mythology, and stories in his introductory framework, these objections do not affect Griffin's main arguments. And yet, in the end, many of these questions inevitably remain – to be settled, if possible, by historic vehicle clubs or associations, experts, historians, and documentation of details during conservation/restoration or, if necessary, in the courts. All of the supporting documentation for vehicles must be verified and proved to be accurate. Forensic testing of metallurgy, laboratory testing of original or early paint materials, and carbon dating of soft materials can provide scientific support. An honest appraisal of the challenges in validating valuable historic cars is essential, though the general solutions Griffin puts forth can only be tentative solutions to these complex issues – and a deeper general approach is not yet formulated. Each case study must still be resolved individually. Griffin's volume is nicely printed and well illustrated. **DC**

Paul Griffin:
The Past and the Spurious
The Case of Legitimacy in Historic Cars,
Griffin Press Limited, 418 pages,
in English, 180 images, 75 GBP
ISBN 978-1-7397673-0-3



Rappold
FROM CARS
TO COFFINS

If you are familiar with the Rappold Karosseriewerk, you are probably into hearses. The coachbuilder from Wülfrath built its first one in 1948, making the grim cars its specialty. Ingo Rappold closed his father's company down for good in 2021 due to lack of a successor. Together with long-time employee and master coachbuilder Horst Puck, he has written the history, documenting the special Rappold creations along the way. In fact, hearses are only a part of a much bigger picture: Whenever somebody needed a vehicle for a special, unique purpose, Rappold set about finding solutions. There were racing-pigeon carriers, prison transport vehicles, and a workshop truck for airfield lighting repairs, to name but a few. But there was also a BMW E30 convertible as well as an AFM Formula 2 race car from 1950. The variety of projects is stunning, but also the practical insights given by the authors through the text and the numerous pictures. There are some errors in the identification of certain cars, and the book could have been designed in a more aesthetically appealing way. But with its rather utilitarian twist, it is an enjoyable diversion from the usual coachbuilding books. **FS**

Ingo Rappold, Horst Puck:
Rappold Karosseriewerk 1948-2021
self-published, 344 pages,
ca. 830 images, in German, 58 €
order: rappoldingo42@gmx.de

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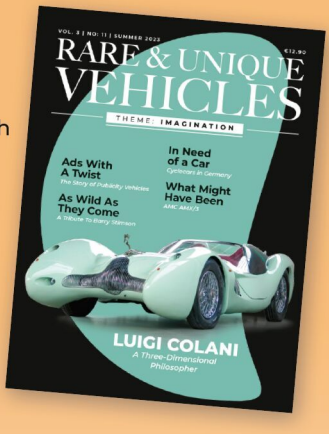

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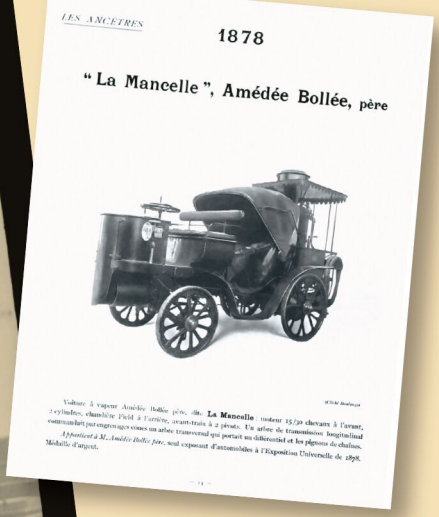
CREDIT: GALLICA/BNF; CNAM

There were 25 units produced of the La Mancelle in France and Germany.

The La Mancelle was in many ways the predecessor of the modern automobile.



LES ANCETRES

1878

"La Mancelle", Amédée Bollée, père

Voiture à vapeur Amédée Bollée père, dite, **La Mancelle**, timbre 15/20 chevaux à l'avant, 2 cylindres, chaudière Field à l'arrière, avant-train à 2 pivots. Un arbre de transmission longitudinal commandait par engrenages coniques un arbre transversal qui portait un différentiel et les pignons de chaînes.

Appartient à M. Amédée Bollée père, seul exposant d'automobiles à l'Exposition Universelle de 1878.

Médaille d'argent.

The development of the automobile, a product of the second Industrial Revolution, required innovative thinking. Sometimes these innovations did not advance the automotive industry; in other cases, they proved to be prescient and are still in use today. As a preparation for the feature articles in this issue, we have collected some imaginative solutions.

HOW *to Move Forward?*

PHOTO: MÁTÉ BOÉR

Thanks to Alfred Krebs, Panhard & Levassor featured steering wheels across its lineup from 1898.

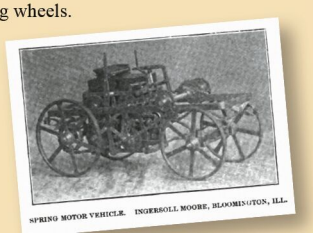
THE FIRST AUTOMOBILE IN SERIAL PRODUCTION

There are many different definitions of what we call the "modern automobile." One important example was the steam-powered La Mancelle built by Amédée Bollée. Though it weighed 2.75 tons and was quite large, it featured many technical innovations that reappeared much later in petrol-powered cars.

Amédée Bollée was the son of a bell maker in Brévannes Le Mans. He started experimenting with steam-powered wagons in the 1860s. His first prototype, called L'Obéissante (The Obedient One), was completed in 1873. This 12-seater vehicle featured a new steering mechanism that allowed the inside and outside wheels to follow different paths around curves, which made the car more maneuverable – the system still in use today. [SEE RUV 7, p. 98, on the development of Ackermann steering.] It also had independent front suspension. Five years later Bollée introduced the six-seater La Mancelle, a front-engine, rear-wheel-drive steam car. La Mancelle had a steering wheel, independent front and rear suspension with transverse double leaf springs, and a maximum speed of 40 km/h. A total of 50 units of the La Mancelle were built in both France by Bollée and in Germany by Johann Friedrich Ludwig Wöhlert.

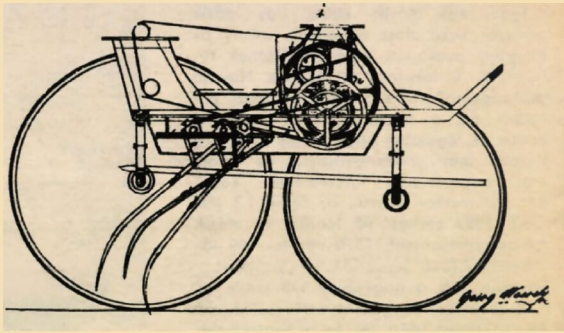
STEERING WHEEL

While the 1878 La Mancelle already featured a steering wheel, most early petrol-driven automobiles were directed with a tiller, following the design of a rudder in boats. It was not until 1894 that Alfred Vacheron competed in the Paris-Rouen race driving a Panhard & Levassor car equipped with a steering wheel. Two years later, Alexander Winton in America used steering wheels for his cars. In 1898 Alfred Krebs introduced a new range of Panhard & Levassor cars which featured steering wheels.



Horseless Age introduced Ingersoll Moore's clockwork car.

György Wessely's Colonet never went beyond the drawing board.



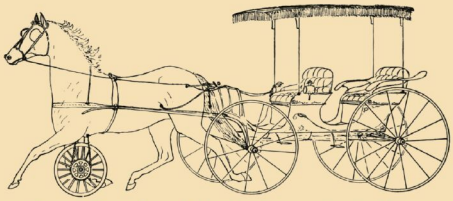
LET'S MOVE

When it came to fuel, steam, electricity, and petrol were the main competitors in the late 19th century. But these were not the only available choices.

In the United States there were numerous patents filed for clockwork-driven cars in the 1880s and 1890s. One of the better-known examples was built by Ingersoll Moore of Bloomington, Illinois, in 1890. "It was driven by four clockwork motors, each having three flat coiled springs. These were connected by gearing, and all could be wound up simultaneously by a lever on the driver's right side. Double-action ratchets allowed the lever to wind the springs as it was moved forward and back. As one historian put it: "This must have been extremely hard work, as you were effectively rowing the car along with one hand."

A little later in the 1890s, A. Burdick of Hubbell, Nebraska, designed a car that was to be powered by a single mainspring, in the same manner that a mechanical clock runs off a main-spring. The car could be wound up by hand or by a small electric motor, or alternatively, the spring would be wound as the car rolled downhill. The energy stored in the spring on the way down could be used to ascend the next hill. "The Burdick spring-wound car did not prove to be a success. The vagaries of the real landscape were just too much for it, and the prospect of having to frequently hand-wind the spring just too daunting," commented an author.

György Wessely, a Hungarian carriage builder, patented a self-propelled wagon, called Colonet in 1876. It also employed a clockwork mechanism linked with chains to three crablike "legs" that moved the vehicle forward.



Joseph Barsaleaux's intriguing mechanical horse had a max. speed of 10 km/h.

MECHANICAL HORSE

As the early automobiles were quite frightening, Joseph Barsaleaux, a blacksmith in Sandy Hill, New York, built a motor horse in 1897, hoping that the familiar shape would quell the public's fear. According to The Horseless Age, "the horse moved on a single wheel about two feet in diameter. This wheel is attached to the shafts just as the live horse is … The reins are attached to the mouth of the horse, and when pulled cause the animal to turn in whatever direction the driver may desire. Mr. Barsaleaux has attached his invention to a two-wheeled road cart." The petrol engine was mounted on the front wheel. The contraption weighed about 250 kg and had a cruising speed of 10 km/h. The mechanical horse attracted some serious attention.

SOURCES

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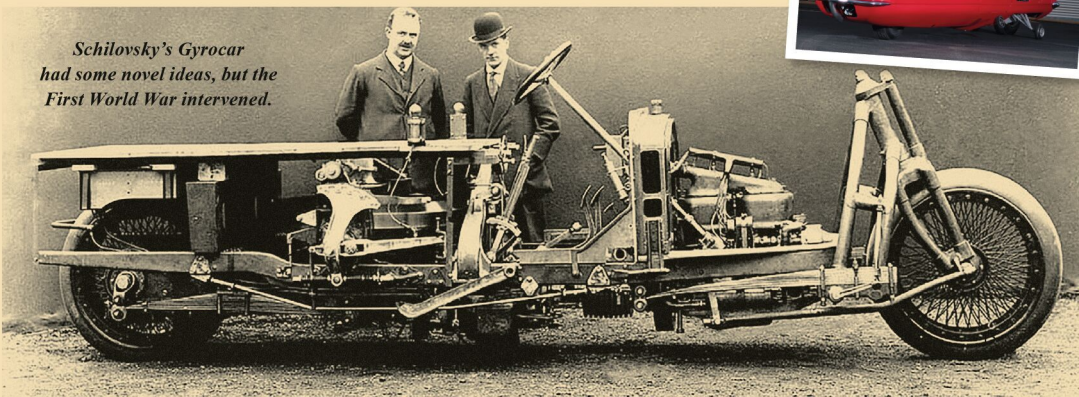
GYROCAR

Count Pyotr Petrovich Schilovsky was a member of the Russian royal family and a jurist, politician, and inventor. He is credited with inventing the gyroscopically stabilized car, with two wheels in line, like a motorcycle. In 1912, he visited the Wolseley Tool and Motorcar Company in Great Britain and commissioned them to build the prototype.

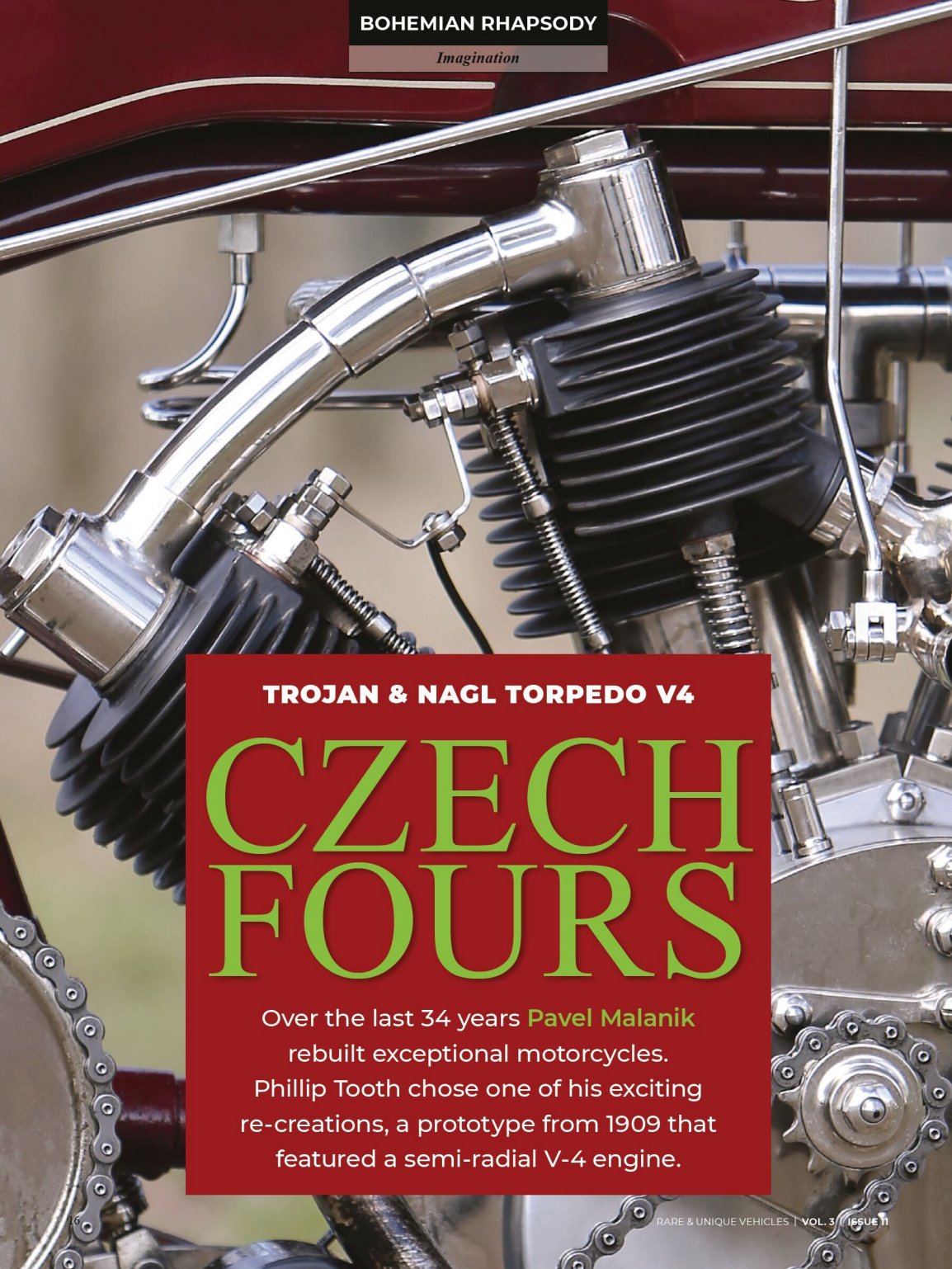
The Gyrocar was powered by a modified Wolseley C5 engine of 16 to 20 hp, with a bore of 90 mm and a stroke of 121 mm. It was mounted ahead of the radiator, driving the rear wheel through a conventional clutch and gearbox. A transmission brake was fitted after the gearbox; there appear to have been no brakes on the wheels themselves. The gyroscope was 101 cm in diameter and 11 cm thick at the rim, and it spun between 2000 and 3000 rpm, powered by a 110V 1.25-hp electric motor. This was beneath the gyro on the same spindle for direct drive. The motor was powered from an engine-driven dynamo mounted beside the clutch. A centrifugal governor rang an alarm bell if gyro rpm fell too low, and support sprag wheels on either side were automatically lowered to prevent the car from falling over. A rather fragile-looking system of toothed quadrants actuated by two 50-kg pendulums maintained stabilization. On April 28, 1914, the first public demonstration took place before a large and interested crowd in Regent's Park in central London. According to a contemporary newspaper report, the Gyrocar could crawl along with people jumping on and off and still maintain its stability. During World War I, Schilovsky returned to Russia. Wolseley abandoned the project and buried (!) the prototype. It was unearthed in 1938 but unfortunately was scrapped in 1948. Curiously, the gyroscopic-car idea was revived periodically. For example, two gyro car concepts were created in the 1920s and three more in the 1960s. The Gyro-X, styled by designer Alex Tremulis, was created in 1967 as an approach to future transportation. It was restored to full function by the Lane Motor Museum, our partner in Nashville, Tennessee. ♦

The gyroscopic car idea was revived in 1967 by Alex Tremulis.



Schilovsky's Gyrocar had some novel ideas, but the First World War intervened.

PHOTOS: BMIHT; WES DUENKEL



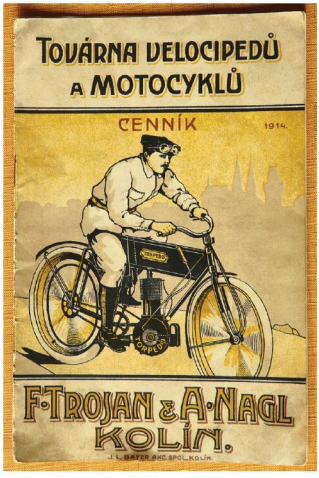
TROJAN & NAGL TORPEDO V4

CZECH FOURS

Over the last 34 years **Pavel Malanik** rebuilt exceptional motorcycles. Phillip Tooth chose one of his exciting re-creations, a prototype from 1909 that featured a semi-radial V-4 engine.

František Trojan and Alois Nagl built a one-off motorcycle in 1904 with a semi-radial V4 engine.

In 1909 the Trojan & Nagl Torpedo V4 was the fastest Czech motorcycle with a top speed of 120 km/h.



Trojan & Nagl built bicycles, motorcycles and cars before the First World War.

We've all seen Jurassic Park, the movie where a billionaire with a passion for dinosaurs employs a team of genetic scientists to create a wildlife park on a tropical island and fill it with cloned Tyrannosaurus rex, Velociraptor, and Brachiosaurus. But what if your passion is old motorcycles, and there are no survivors of the most important models that your country ever made? While you can't clone them, if you're an engineer with enough skill and determination then anything is possible. And if you don't believe us, just look at what Pavel Malanik has brought back from extinction using only the old lathe and a milling machine that he has in his home workshop.

He spent around 2500 hours in his workshop to re-create the prototype Torpedo racing motorcycle. This radical two-wheeler featured a semi-radial inline V-4 engine when it was built in 1909, but only one prototype was ever completed.

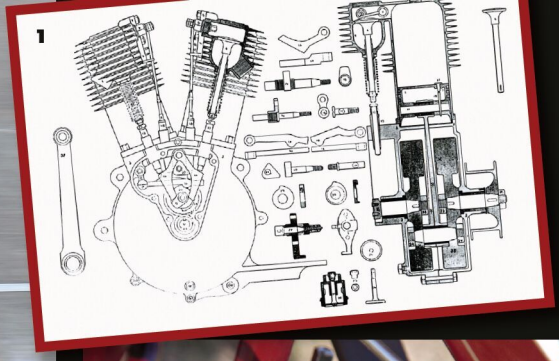
As a proud Czech, Pavel knows well the history of his country and the motorcycles that were made there. From 1918 to 1939 and from 1945 to 1992, his hometown of Luhacovice was part of Czechoslovakia, until it was split into the Czech Republic and Slovakia in 1993. But way back in the 1890s it was part of the Austro-Hungarian Empire.

THE STORY OF THE TORPEDO

In 1902, Frantisek Trojan owned a small business specializing in nickel plating, galvanizing, and foundry work in the center of Kolin, a small town 60 km east of Prague. When he rode a Slavia in a 200-km race that went past the Laurin & Klement factory he was so impressed that he decided to start selling them, but by April 1904 he was ready to start production of a range of motorcycles under the Torpedo brand. These were all 330-cc singles with automatic inlet valves, a forward-mounted low-tension magneto, and a flat belt drive to the rear wheel.

Steel manufacturer Alois Nagl joined Trojan as a partner in 1905 and injected money into the business. Later that year, Trojan & Nagl Torpedo motorcycles were exhibited in Vienna and Prague and exported to Austria, Spain, and even Brazil. These featured 3- or 3.5-hp singles, and 4- or 7-hp twins.

In 1907 the workshop doubled in size when the partners bought the terraced house next door and knocked through the walls. These were the boom years for Trojan, and in 1909 the partners displayed what is probably the most interesting Czech motorcycle ever made: the V4 Torpedo racer. With bore and stroke of 73 x 100 mm, the engine had a capacity of 1,640 cc and delivered 10 to 12 hp at 2,200 rpm. Top speed was in excess of 120 km/h, which made the Trojan V4 the fastest Czech motorcycle around. Trojan & Nagl even went



A few years ago Malanik took his replica to the Montlhéry race track.

into aircraft production and by 1914 they were also making cars, but they were stretching themselves too far, and the company struggled to survive into the 1920s.

REBUILDING A LOST TREASURE

Unfortunately for Pavel, the Torpedo V4 racer has disappeared and only a single photograph remains. There is also a line drawing of the V-Twin engine, so he used these as the basis for his next creation. Pavel used measurements of known components like the wheel rims and flywheels to make accurate dimensions of other parts and produce scale drawings. As making the engine would be the hardest part of the project, he started with this. To give you some idea of what is involved, this is how he made the crankcases and cylinder barrels. Having patterns made to cast the crankcase halves would have been too expensive, so instead he machined the crankcase from a block of alloy using his lathe, the milling machine, and a rotary table so that the angles between the cylinders would be perfect. He bored right through a block of alloy so that the main shaft bearings would be in line, roughly machined the main external shape, and cut the alloy block in half along the vertical line. Then Pavel milled out the timing chest and bored the holes for the cam wheel shafts, the tappet blocks, and the engine bolts.

He could see that the four connecting rods had to be on a common crankpin and, because of the position of the barrels in the photograph, that they were placed side by side and not in two pairs of "blade and fork" as used on a Harley-Davidson V-Twin. So then he made the conrods, the big end and flywheels, the cams and followers… this is a man who doesn't spend his evenings on the sofa in front of the television.

Pavel machined the four cylinder barrels with their square base flanges from steel. Each automatic inlet valve and side exhaust is in a pocket on the side of the barrel, so he milled the fins off one side before welding the two components together and pressing in the cast iron cylinder liners. He fabricated the frame lugs and bent the frame tubes to shape

1 A line drawing of the engine was the basis for the replica.

2 The four connecting rods were placed side by side.

3 Malanik spent around 2500 hours building his replica.

THE LATEST PROJECT

In 2023 Malanik made headlines again with his JAP V8 motorcycle, which won the Best of Show award at the Bohemian Custom Motorcycles Show. It features a few firsts for Malanik, as this is the first chain-driven motorcycle built by him and also the first bike which is his own design. "I was fascinated by this engine from the first moment I saw it somewhere on the internet," says Malanik of the JAP V8, which was originally intended for airplanes, not motorbikes. "I was very tempted to build a bike around it – to make it just for myself, for fun. Brutal, no lights, just the frame, the wheels, the handlebars, and that eight-cylinder monster, and to take it all in that '10s style that I love." It took him almost six years from drawing up the plans to manufacturing the parts. First he visited the Science Museum in London, where a cutaway JAP V8 is being shown. Then he made the drawings. And that's when he realized that he can't build everything on his own: "I asked a friend with a five-axis CNC machine to mill the crankcase for me. It took him almost five weeks." Everything in the re-created V-8 engine, apart from the roller bearings and eight spark plugs, was made from scratch.

4 The company exported to Spain and Brazil.

5 Altogether there were about 600 motorcycles built over a period of roughly 10 years.

before brazing them together. He also made the frame, forks, and tanks plus the two-speed hub with its planetary gears (a bigger version of the type still used today on bicycles), two low-tension magnetos, and the single forward-facing carburetor.

The V4 uses a "make and break" ignition system. The low-tension magnetos generate a current, but this voltage is not enough to create a spark that will jump across the gap of a spark plug screwed into the combustion chamber of a high-compression engine. Instead, there is a pair of breaker points inside the combustion chamber.

One point is connected by an insulated wire to the induction coil in the magneto, while the other point is earthed and is actuated by a pushrod that, when it strikes the breaker arm at the top of the stroke, separates the breaker points and produces the spark. A low-tension ignition system limits engine revs to about 2000 rpm and also limits the compression ratio. Pavel could have built a much more powerful engine simply by using high-tension Simms-Bosch magnetos – they were readily available in 1909 – but he wanted his replica to be a faithful copy of the original.

Because he didn't use CNC machinery, there are no programs, and he can't simply hit a button and make another V4. That doesn't mean that Pavel is afraid to use the maximum performance available from his Czech masterpieces. A few years ago he took the Torpedo to the Montlhéry racetrack near Paris for the Vintage Revival. ♦

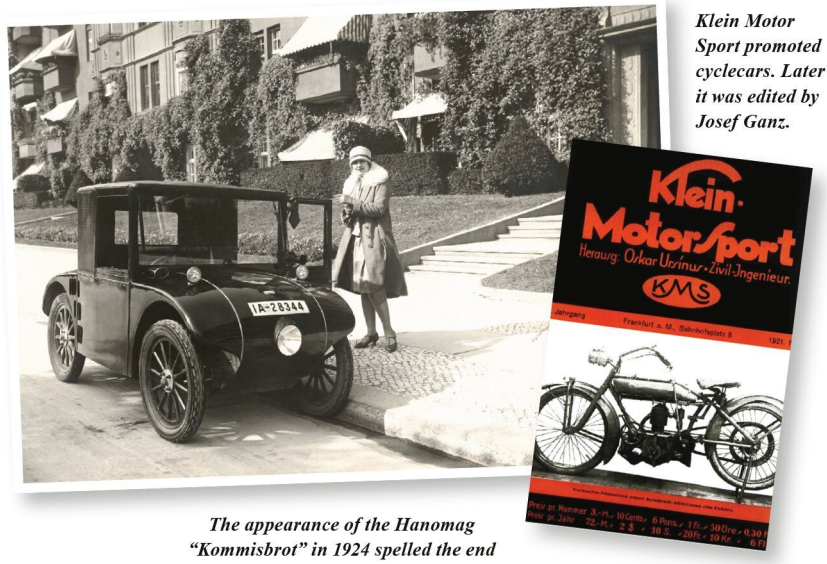
CYCLECARS IN GERMANY

Just like in other parts of Europe, cyclecars enjoyed some popularity, particularly after the First World War. A faltering economy and lack of raw materials made life difficult for “normal” car companies, but it cultivated an environment where dozens of smaller companies emerged. Thomas Ulrich chose some of the most interesting examples.

Meeting of an electric and petrol Slaby-Beringer.

In NEED *of a Car*

Based on its number plate, this is a Munich-built Maja, registered in Berlin.



Klein Motor Sport promoted cyclecars. Later it was edited by Josef Ganz.

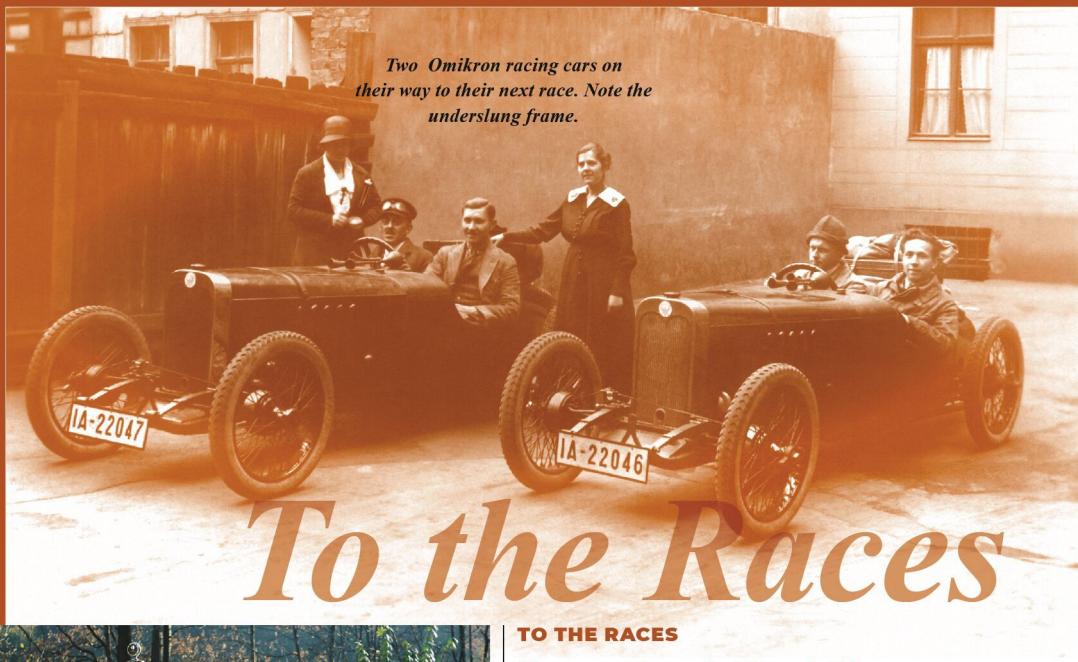
The appearance of the Hanomag "Kommisbrot" in 1924 spelled the end for cyclecars.

While I am fairly sure that G.N., Bedelia, Morgan, and Salmson are known to our readers, I am also certain that brands like Diabolo, Hawa, and Mollmobil are not on your radar. The first German cyclecars appeared together with their counterparts before World War I, but it was between 1919 and 1924 when these types of vehicles really flourished in Germany.

After the war's ending in November 1918 there was no money to buy cars, not to mention the fact that automobile production plants had to be converted back to supply the civilian market. To compound problems, raw materials such as tires were difficult to obtain and became quite expensive. The political and economical situation was also fragile.

While it was difficult for established carmakers to bounce back, a lot of small workshops emerged offering Kleinkraftfahrzeuge (small vehicles). Among these were companies that were not allowed to build airplanes anymore, among them Hans Grade, Otto Trinks, and Hermann Dorner. With the exception of Edmund Rumpler with his teardrop car, all of these people built small cars to a degree of success.

As in England and France, there was a magazine about small cars. Klein Motor Sport came onto the market in mid-1921, but it mainly featured motorbikes. In 1922 a few books were published which described cars of this category from Germany, France, and England. It seemed as if the German cyclecar industry prospered, but inflation, which began straight after the war, grew and grew and became hyperinflation, which meant that no one without foreign currency could afford to buy a car. This period ended in November 1923, when a new currency called the "Rentenmark" was introduced. With the appearance of the Opel 4 PS, a.k.a. Laubfrosch (Tree Frog), a copy of the Citroën 5CV and the Hanomag 2/10 HP Kommissbrot in 1924, the market for cyclecars dried up. Here are some of the most interesting examples from the genre.



Two Omikron racing cars on their way to their next race. Note the underslung frame.

To the Races

This Hataz racing car resides in the Saxony Vehicles Museum in Chemnitz.

HATAZ

Hans Tautenhahn, an engineer in Zwickau, introduced a small car in 1921 powered by a 927-cc Steudel engine, which was also used by many other companies. However, Tautenhahn's Hataz featured a wide track resulting in good handling, which led to racing successes. Boosted by the customer demand, he increased production and started to offer different variants. He stretched himself too thin and by 1925 it was all over.

TO THE RACES

There were cyclecar-oriented races held in Germany in the early 1920s at the new Avus track in Berlin, in the Taunus mountains, and elsewhere. Racing success meant more sales, so companies were happy to participate.

OMEGA / OMIKRON

Fritz Hüttner, with backing from Heinrich and Herbert Pingel, set up Omega Kleinautowerke GmbH at the end of 1921. The Omega, which soon became the Omikron, resembled a bigger car shrunken in size. There was also a racing version with an underslung frame, which raced at Avus in 1923. Production lasted until 1925, and about 400 units were built.

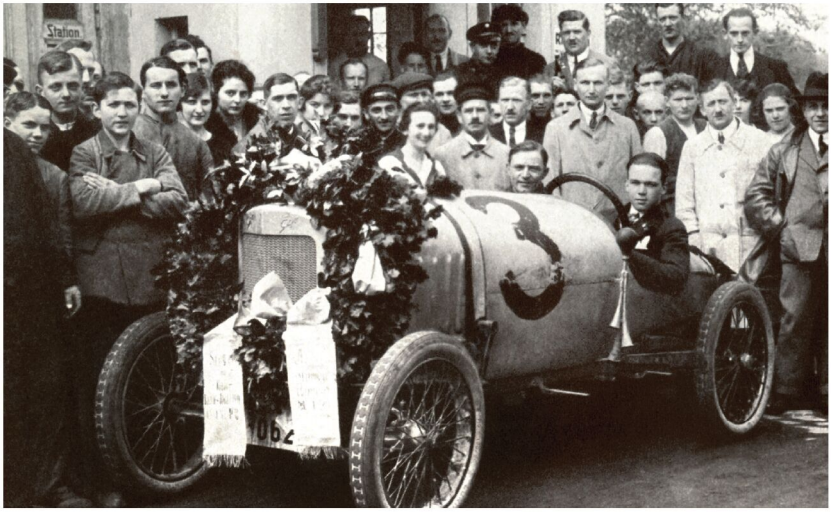
Omikron also offered typical small cars.

Through its short life Bob changed its logo at least twice.

BOB

Bob Automobilgesellschaft was founded in Berlin in 1919 by two engineers, Karl Carpzow and Egon Wachsmann (who quickly quit), together with Fritz Polensky, a trader. Carpzow and Polensky went on to build a 4/10-HP car with a four-cylinder 1024-cc Siemens & Halske-sourced power train. Later, bigger models were also offered. Bob cars had racing successes both in Germany and Austria. The company stopped its activities in 1925. At least two surviving examples are known to exist.

With its long bonnet the Bob looks much faster than it actually is.



The Ego after winning the 1923 Stadion race in Berlin. The man at the steering wheel is none other than Rudolf Caracciola.

EGO

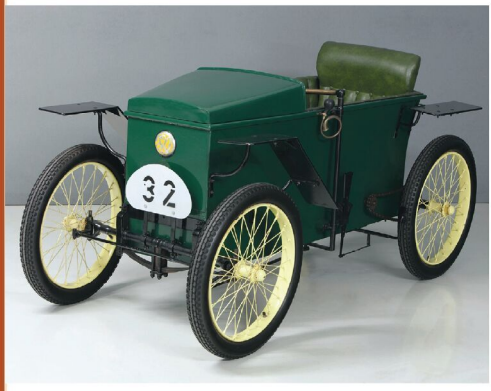
Mercur Flugzeugbau GmbH in Berlin produced military planes and parts during World War I. Afterward they had to find a new product, and just like many other companies at the time they settled on cars – specifically a sporting cyclecar, called Ego 4/14 HP MKA.

This was another short-lived manufacturer which offered 4/14 and 4/16-HP models. However, a victory by none other than a young Rudolf Caracciola at the 1923 Stadion Kleinwagen Rennen (Stadium Small Car Race) in Berlin in an Ego, made sure the car would be recognized.

Electric Cyclecars

ELECTRIC CYCLECARS

Though electric cars were around, there was a reason why electric propulsion was not a good idea for cyclecars. As an analysis of the Hawa EM3 van put it: "A kilowatt-hour cost around 1.50 Reichsmarks in 1921. The EM3 could travel about nine kilometers on that. That corresponded to operating costs of about 17 pfennigs per kilometer. Other cars of the time consumed about eight liters of petrol per 100 kilometers. With a price per liter of around 90 pfennigs, the cost of a kilometer of petrol – not including maintenance costs – was around 7.2 pfennigs at the time." But this did not deter several companies from trying.



Audi has restored an electric Slaby-Beringer.

On top of the rear axle sat the engine.

SLABY-BERINGER

In 1919 Dr. Rudolf Slaby, whose father, Adolf Slaby, was a key figure in the development of the radio and who also wrote an early book on the theory of the gas engine, built a small electric car for his personal use. The design aroused such interest that he decided, together with a salesman named Hermann Beringer, to establish a company and begin volume production of the car.

An initial order for 100 cars was received from the Berlin-based company owned by Jörgen Skafte Rasmussen, the Zschopau industrialist and founder of the DKW company. Difficulties with companies supplying components and signs that inflation was about to devalue the currency made Rasmussen anxious that his high deposit payment could become worthless. He therefore decided to take a one-third interest in the car's manufacturer, SB–Automobilgesellschaft.

The Slaby Beringer was a single-seater, electric-powered car, with a wooden body which was screwed on the first and rear axles. On top of the back axle sat the one HP electric engine. It was a very successful car, with hundreds of sales in Europe and around 1000 in Japan.

In 1923, however, inflation reached such a level in the German Reich that deposit payments from foreign accounts were blocked. In July 1923 the company had no choice but to temporarily stop manufacturing the single-and two-seat versions of the electric car, despite ample stocks in hand and a full order book. When a fresh start was made in the fall of 1923, the electric car was joined by an SB car with a DKW motorcycle engine. In 1924 the firm went into receivership, and Rasmussen took over Slaby-Beringer. Slaby was appointed as the head of a new DKW factory in Berlin, which began to produce cars in 1928.

SOURCE: BS|ENERGY

Hawa was available both as a passenger car and a small van. A survivor has been carefully maintained by BS Energy.

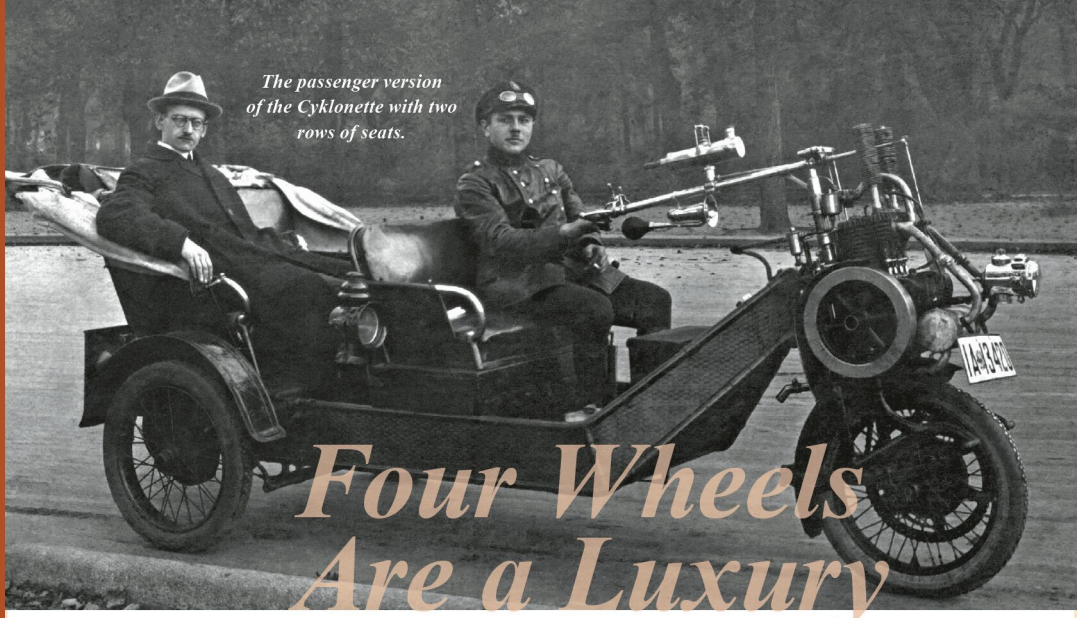
HAWA

Hannoversche Waggonfabrik AG, a Hannover-based company specializing in trams, locomotives, and railroad, felt the effects of the post–World War I ban on airplane production as they produced those during the war. In 1921 the company decided to offer a cheap small car powered by an electric engine but as a passenger car with tandem seating and as a small delivery van. It is claimed that during a two-year production run, around 2000 were built. A van that was used by the Braunschweig municipal utility services survived and it has recently been restored by its successor, BS Energy.

ELECTRIC

Alex Fischer was the distributor of the French Mors before the First World War. He was also involved in the Bedag company, which operated electric taxicabs in Berlin. In 1919 he resumed his activities with a new company: AG for Akkumulatoren und Automobilbau (a Limited Company for the Production of Batteries and Cars). He offered a very simple-looking cyclecar and a mini-truck, which were powered by electricity. It soon became apparent that electric cyclecars were not catching on. Fischer switched categories and offered a small car called the Alfi. This also did not last long.

Alex Fischer worked with electric cars, but by the mid-1920s he was forced to switch to petrol power.

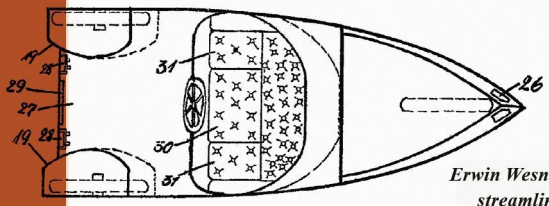


The passenger version of the Cyklonette with two rows of seats.

Four Wheels Are a Luxury

CYKLONETTE/CYCLONETTE

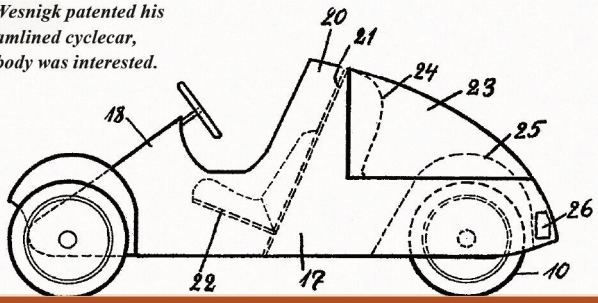
The Cyklonette or Cyclonette was the true predecessor of the cyclecar. It was developed by the Cyklon Maschinenfabrik GmbH in Berlin, which gained experience by assembling French Werner motorcycles under license at the turn of the 20th century.
The original Cyklonette was unveiled in 1902 featuring a single-cylinder 450-cc air-cooled engine, mounted over the front wheel. Over the years the original concept remained unchanged, while the size of the engine grew and in the end it featured a two-cylinder 1298-cc powertrain. The last Cyklonette was built in 1922.



WESNIGK

Erwin Wesnigk, an engineer in Berlin, patented a streamlined three-wheeler small car in 1921 which was eventually put into production two years later. The very light 200-kg vehicle was dubbed the "muffed petrol turtle" by a not-so-happy reporter in the contemporary press. Probably only a very few were built.

Erwin Wesnigk patented his streamlined cyclecar, but nobody was interested.



FOUR WHEELS ARE A LUXURY

Though Germans preferred four wheels when it came to motoring transportation, there were companies that offered vehicles with fewer wheels.

DIABOLO

The Diabolo was a typical small car of the 1920s, except it only had three wheels. It featured a 12-hp, 1093-cc Motosacoche water-cooled V-2 motorcycle engine, which powered the sole rear wheel via chain – much like the better-known British Morgan, though the engine was placed behind the cooler and the first axle. It was produced in Stuttgart and later in Bruchsal between 1922 and 1927. Though it remained in production for five years, it is estimated that fewer than 500 units were sold. As Motor und Sport put it in an answer to a reader's letter in 1929: "This type of vehicle was not accepted in Germany."

Single-Track Cars

SINGLE-TRACK CARS

At the 1921 Berlin Motor Show there were two motorcycle-derived Einspurauto (single-track cars) shown, the Atlantic and the Mauser.

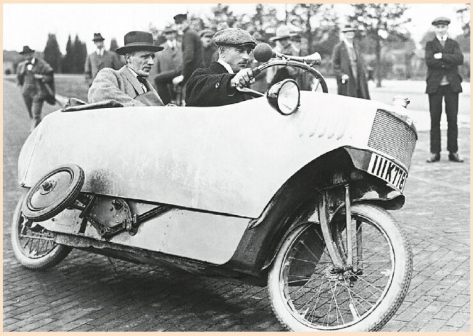
ATLANTIC

Hans Henkel, a Berlin-based engineer, came up with the idea of a single-track car with supporting wheels. It was patented in Germany in June 1921 and a year later in the United Kingdom. Its description described the technical solution in this way: "A single-track power-driven vehicle having lateral supporting wheels. adapted to be raised and lowered by power from the engine, this operation is controlled by a device comprising a sliding member, which is keyed to the shaft on which the lateral wheels are mounted so as to be raised and lowered, and is adapted to hold the shaft and wheels in the operative or inoperative position by the engagement of projections with recesses in a disc connected to the chassis either rigidly or with a limited amount of resiliency through the medium of springs." He convinced Hans Wendriner, a well-known car dealer, to finance his idea, which was revealed at the 1921 Berlin Show as the Atlantic. By the spring of 1922, a separate company was set up to manufacture this single-track car, called Atlantic AG für Automobilbau. Its directors included Henkel, Wendriner, but also Lazard Speyer-Ellissen, a prominent banker from Frankfurt, and Franz Joseph Popp, who was one of the founders of BMW. No wonder the Atlantic was powered by a 500-cc BMW engine. Despite its impressive financial background, the Atlantic quickly disappeared – though Henkel kept improving his patent until the mid-1920s.

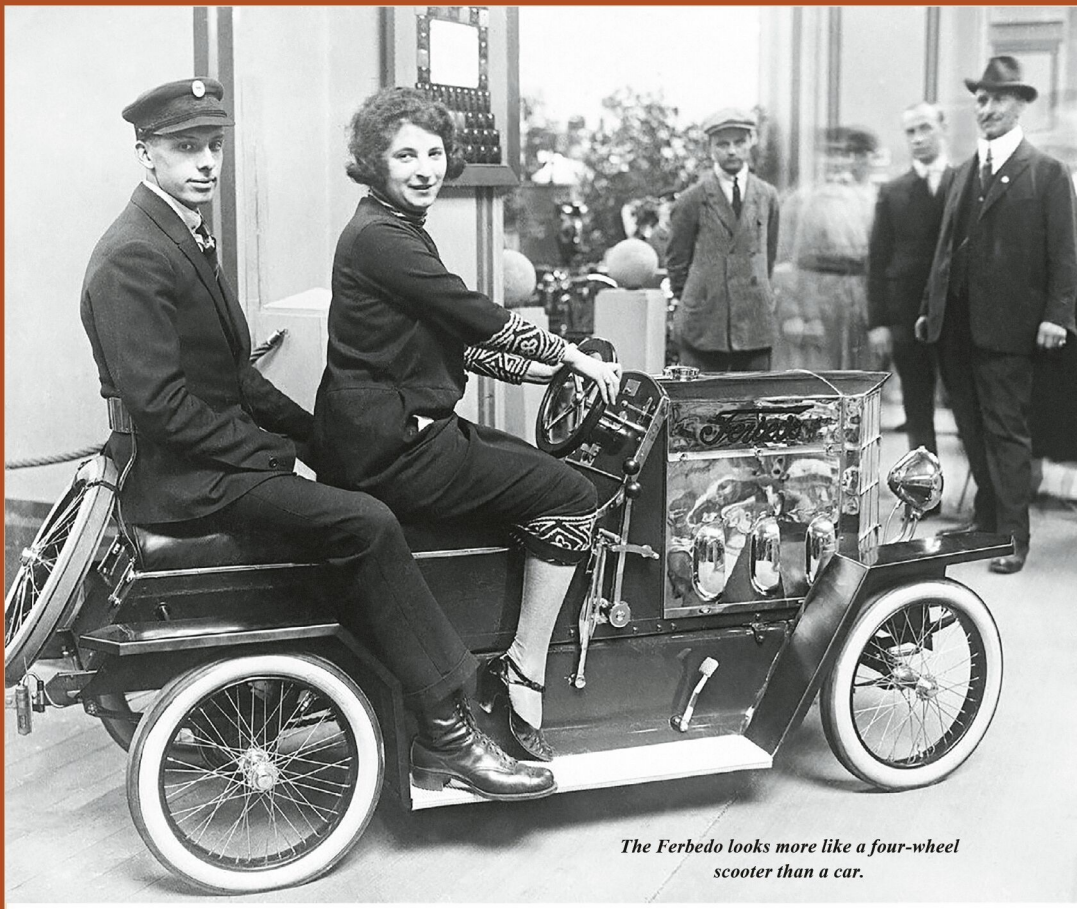
MAUSER

Mauser was a well-known pistol and rifle manufacturer in Oberndorf am Neckar. The Treaty of Versailles limited the company's ability to produce weapons, so they were forced to restructure production to the civilian sector. In Berlin they found the solution in the patent of Alfred Morgan, who patented a monotrace car with a single front and rear wheel (see RUV No. 6). The supporting wheels on the side of the vehicle could be lifted during the drive. Mauser bought the patent and unveiled the Einspurauto in 1921. It had a single-cylinder engine with 510 cc which developed 8 HP. Mauser later produced normal touring cars in very small quantities.
The rights to the Einspurauto were sold to Gustav Winkler in 1927, and he continued production until 1930. In France a license-built version existed for a few years, called the Monotrace. Probably fewer than 1000 Einspurautos were produced.

The Mauser Einspurauto was quite succesful and had a relatively long life.



A demonstration of the Mauser's cornering ability.



The Ferbedo looks more like a four-wheel scooter than a car.

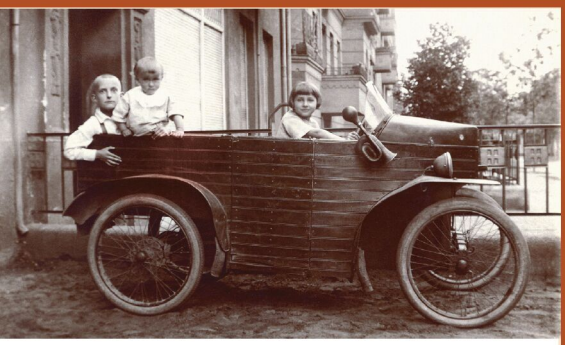
TAKE A SEAT

Not every cyclecar had normal seating arrangements.

Take a Seat

FERBEDO/ TOM FÜR ALLE

Ferbedo, the Ferdinand Bethäuser Maschinenbau, was set up in 1898 in Nürnberg for the production of safes. Later they branched out and expanded their portfolio with children's vehicles. After the war Ferbedo searched for a new field of activity and in 1923 launched a strange vehicle where the driver and passenger sat in a saddle, much like riding on a scooter. But the Ferbedo small cars had four wheels and a steering wheel. Of course weather protection was nearly nil, and with a water-cooled 5-HP Breuer 500-cc engine it was not very agile. In 1924 Ferbedo sold the rights of the car to Hans Ströh in Berlin who continued production under the name "Tom für Alle" (Tom for all). The main difference was the engine. He used a two-cylinder 500-cc BMW engine, which developed around 8 HP. However, customers were still not impressed, so production was stopped in 1925.



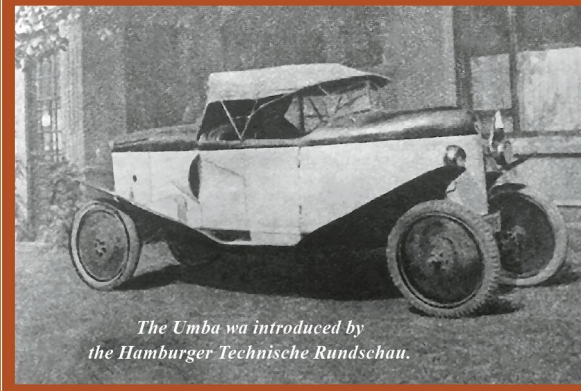
The Mollmobil was ideal for young families.

MOLL

The Mollwerke S.G. from Chemnitz/Saxony, founded in 1916, produced a lot of different things, such as wrought-iron radiators, metal buttons, iron transport barrels – at one point Moll was even regarded as the largest barrel factory in Europe. Another strong pillar was the production of oxygen and acetylene. Household appliances, razors, and razor blades were also produced. After the war the company searched for a new product and began to look at cars. First they produced a 6/30-HP model with a Siemens & Halske engine, but it did not sell well so they developed the tiny Mollmobil. This was a small four-wheeler in which the driver and passenger sat in tandem fashion. The Mollmobil had a 200-cc DKW engine that delivered 3 HP. In 1925, Mollwerke had to file for bankruptcy, and some of its assets were taken over by Borcharding & Co. in Berlin, which produced a small series of cars. The majority of tools and equipment was bought by Zschopauer Motorenwerke J.S. Rasmussen AG, which was in the middle of developing its new DKW small car.

A Mollmobil is part of the Saxony Vehicles Museum collection today.

And One for the History Books



The Umba wa introduced by the Hamburger Technische Rundschau.

AND ONE FOR THE HISTORY BOOKS

There are plenty of ephemeral brands that have escaped the attention of historians. Here's one of these.

UMBA

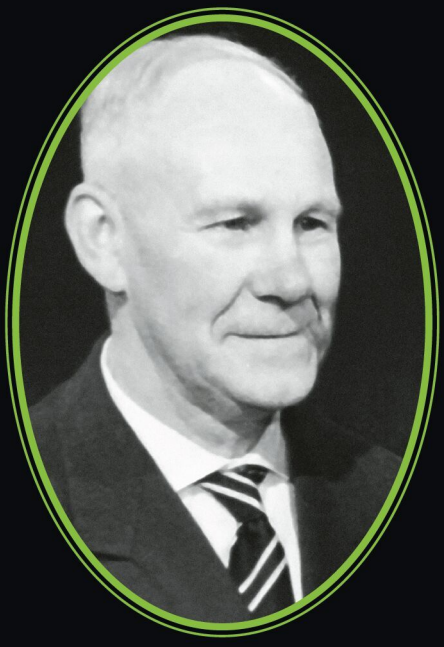
The Umba, which is not mentioned in any motoring books, was built by Curt Umbach in Hamburg from 1923 to around 1924. It looked a bit similar to the Grade and was powered by a water-cooled, two-cylinder, two-stroke 770-cc engine capable of 15 HP. It is unknown how many were built.

The Umba was never advertised in mainstream magazines.

CREDIT: LE PHOTISTE / CLAY

The name Wilhelm Kunz is largely unknown today, yet during his long life he played a key role in two vastly different, but very important projects. Erik Eckermann extensively researched the details of his life.

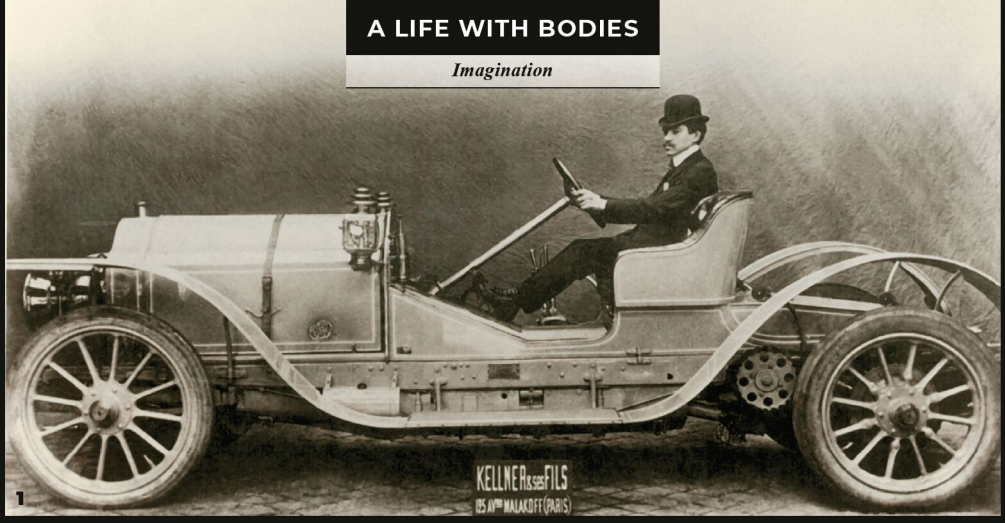
The Hansa 1500 was the first all-new postwar German car. Kunz was instrumental in its development.



A hard working but very modest man, who spent over 50 years in the automotive industry.

THE LIFE OF WILHELM KUNZ

SEARCHING FOR THE UNKNOWN



1 Wilhelm Kunz in a 1909 Rochet-Schneider with a Kellner racing body. It was powered by a 6-cylinder 10.9-liter engine.

2 A Kellner phaeton body from 1903 on a Renault 10 CV chassis featuring a swiveling passenger seat for access to the rear seats.

3 A hansom cab body again on a Renault 10 CV chassis. Driver and passenger compartments were separated.

4 Kellner's external steering limousine with the canopy for the chauffeur sitting outside, which Kunz disparaged.

The 1949 Salon de l'Automobile, held on the shores of Lake Geneva, is best known as the show where Porsche showed its new sports car for the first time. But, at the time, another introduction received even more attention in the German press: Carl Borgward's automobile manufacturing company introduced the Hansa 1500, the first all-new passenger car developed in West Germany after the war as well as the first German car to feature a pontoon body construction, modeled after the 1946 Kaiser-Frazer. The man who made Carl Borgward's plans a reality was Wilhelm Kunz. By that time, he had been a coachbuilder for more than 50 years.

EARLY LIFE

Wilhelm Kunz was born on 26 March, 1878 in Hausen a.d. Rot near Backnang/Württemberg. In his uncle's factory, name unknown, Wilhelm Kunz "learned what was necessary for the production of équipages and barges," according to an article about his life published in 1958 (see sources). From about 1898 onward, he worked at the Scheurer & Cie. carriage factory in Düsseldorf and then moved to the "French-speaking part of Switzerland, where he was a teacher at a state technical school for some time," according to the same article. This raises the question of how he could have been made a teacher after a relatively short period of training. Is it possible that he took on a job of some kind at a technical school in Lausanne or Fribourg? In April 1905, the Musée Industriel in Lausanne received Kunz's donation of a drawing of a horse-drawn Landauer in a display case.

TRAINING AND PROFESSION IN PARIS

In 1904, Kunz was in Paris, where he enrolled in the famous coachbuilding school of Louis Dupont for one year. The Dupont school provided education to some of the best-known coachbuilders in France and Europe.

In 1968, in an autobiographical letter, Kunz recalled that "from 1904 until the outbreak of the First World War in 1914 he spent 10 years at Parisian coachbuilding companies as a draughtsman and designer." Kellner & Fils was probably the one that employed him for the longest period of time.

During these early years, French coachbuilders led the way in styling and taste. Up until about 1910, even affluent German buyers knew "that if you want to buy elegant bodies … you still have to go to France."

But from about 1907 onward, German coachbuilders grasped the concept of the automobile as an overall composition and started to break away from horse-drawn carriages. A carriage included its power source, namely the horse at the far end of the carriage. This transitioned into early cars where the edge of the bonnet butted up against the bulkhead. The cowl or torpedo, which appeared in 1907, resolved this awkward design issue by creating an uninterrupted and harmonious connection between the bonnet, bulkhead, and body of the car. This styling feature was part of the "architecture of curves" put together by a newly set up collective of artists called the Deutscher Werkbund. The intention was to replace Art Nouveau styling with a more eloquent shape, incorporating smooth side walls, a continuous upper edge of the body, no impact strips, recessed door hinges, gear and brake levers on the inside, running boards cleared of battery and tool boxes, and soft-top boxes integrated into the body. [For a more detailed discussion of the evolution of these designs, please check The Road to Elegance, which appeared in our previous issue.]

With the "architecture of curves," a term coined by Ernst Neumann-Neander, a graphic artist and stylist, " … a separate and quite independent German taste had formed before the First World War, which is good and, for the first time in matters of taste, has become authoritative" (Allgemeine Automobil-Zeitung Heft 44/1911, p. 34). By 1914, German body design reached its peak, and French supremacy was countered. However, the First World War quickly changed everything.

AS A DESIGNER IN BREMEN AND DELMENHORST

When Kunz returned to Germany in 1914, he found a completely different design environment. His first employer was the newly set up Hansa-Lloyd-Werke AG in Bremen, which was formed in 1914, combining the assets of three companies: the ailing Hansa automobile company from Varel; the NAMAG (Norddeutsche Automobile- und Motorenwerke AG) company in Bremen, which offered both petrol and electric cars under the Lloyd brand name; and a fellow Bremen-based coachbuilder, Gaertner.

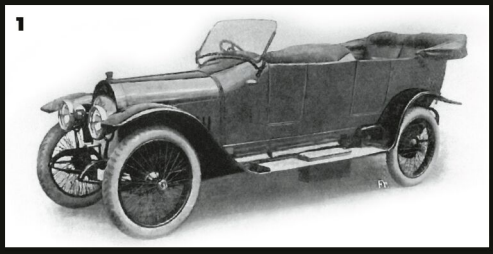
Hansa-Lloyd offered passenger cars, commercial vehicles, buses, and electric vehicles, but the company mainly supplied trucks and ambulances during the First World War. Kunz became the manager of the body design office.

When the war ended in November 1918, Germany was in turmoil. In addition to the emergence of cyclecars (see the separate article in this issue), a new design direction appeared among coachbuilders. Called the German body style it featured sharp horizontal and vertical lines. With its wedge-shaped windscreen, pointed radiator, and angular overall appearance, it appeared static and sometimes even aggressive, a reflection of the machine-dominated war that had just ended and the revolutionary mood after the fall of the Empire. Kunz probably contributed to this design direction during his time at Hansa-Lloyd.

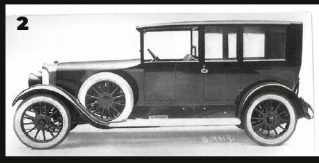
After the end of the war, there was no suitable coachbuilder in Bremen for Hansa-Lloyd. "In order to satisfy the needs of the Hansa-Lloyd factory," Kunz wrote in a handwritten report on Bremen as a car factory location, industrialists and bankers from Bremen reconstituted a former bodybuilding factory "in Delmenhorst, called 'Rembrandt,' in 1921, which supplied the bodies for Hansa-Lloyd, Hansa, and NAG from 1922 onward … " Wilhelm Kunz was head of its design department. The origins of Rembrandt can be traced back to a wagon factory in 1902 that was established by Carl Tönjes, and at one point employed Ernst Neumann-Neander, before it went bankrupt in 1913.

In 1923, Rembrandt displayed a handful of passenger cars at the German Motor Show in Berlin, including a phaeton built on a Hansa-Lloyd chassis in the style common at the time.

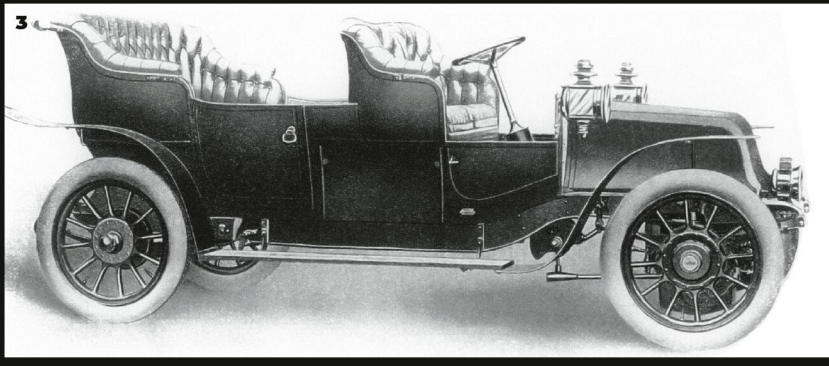
In the following years. their focus shifted to truck and bus bodies. Kunz and his colleagues ventured into new territory. At the 1925 motor show, Hansa-Lloyd presented a low-frame bus with a limousine-like body and one door per row of seats, modeled after the 1921 Fageol American Safety Bus. They also built an American-inspired saloon or weekend car in 1926 on an Hansa-Lloyd Express chassis. This was an innovative mobile home with a cabin equipped with folding beds, a saloon with swivel chairs, and, unusually, a seven-tube radio with roof aerial. "The saloon was homely and comfortable and was only waiting for the sensible and insightful buyer who recognized its value," commented specialist writer Ludwig Betz in his review of the motor



1 Architecture of the curves: harmonious lines by Gaertner on a Lloyd chassis in 1913.

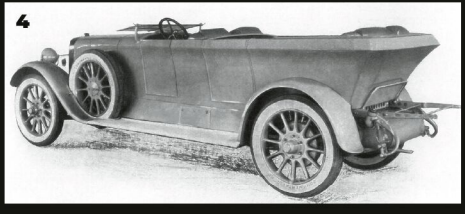


2 A typical early 1920s German body with angular shapes – a Hansa-Lloyd Treff-Aß limousine by Gaertner from 1923.



3 A Lloyd electric double phaeton in Roi des Belges style with armchair-like seats and high backrests. Body was built by Gaertner in 1907.

4 A Bauhaus-inspired Hansa-Lloyd tourer from around 1920-1922 by Gaertner. This type of body was called the Prince Henry.



show. Other Rembrandt ideas included a public service bus with a sloping windscreen, a one-and-a-quarter decker from 1927, and a 1927 observation car on DAAG running gear. The culmination of Rembrandt's oeuvre was the Tubus-Omnibus of 1928, a radical bus with a tubular body made of steel frames and a steel outer skin. The cylindrical body shape was thought to be better able to withstand the constantly changing loads (tension, pressure, bending, twisting) during driving than a rectangular cross-section as in the normal bus. However, the advantages did not come into play because the tube was open at the bottom for the chassis. If Rembrandt had designed the drum bus as a full tube, and thus in a self-supporting construction as Wunibald Kamm did on the SHW car in 1924, the result would have been a lightweight bus of high strength and exceptional torsional stiffness. Rembrandt was said to have built just six of the Tubus all-steel buses.

Like so many other companies, the Rembrandt coachbuilding plant collapsed during the world economic crisis in 1931. Carl F.W. Borgward had already taken over the shares of Hansa-Lloyd in 1929 and merged the company with his Goliath factory in 1931. It seemed obvious that Kunz would have found his next job at Borgward. Instead, however, he took a job at Westwaggon, a holding company of railway carriage builders. For the next six years Kunz constructed superstructures for trucks, buses and railcars.

LAST STATION: BORGWARD

Kunz stayed with Westwaggon in Mainz-Mombach until 1938, when he joined Borgward in Bremen. At this time Borgward built three different six-cylinder passenger cars as well as trucks from 1.5 to 4.5 tons. The Schell program of March 1939 and the beginning of the war on September 1, 1939, resulted in the cessation of passenger-car production and reduced the types of trucks produced for the private sector. Initially, only three models up to three tons were allowed to be built, and then the company had to switch completely to military vehicles: standard diesel, standard three-tonner, half-track tractor, and armored personnel carrier, each with the superstructure required for the purpose – a wide field of activity for Kunz.

5 A postal bus from 1927 which carried both passengers and parcels.

6 A bus for tourists by Rembrandt in 1927 with an easy-to-operate soft top.

7 Rembrandt bus from 1926 which was operated by one man. Front passenger door featured payment counter.

8 New, slightly questionable look, limited legroom but there was a 20 percent weight saving with the Tubus steel bus in 1928.

THE FIRST PONTOON CAR

Because of his work for the Nazis, Carl Borgward was held in an American internment camp in Ludwigsburg for nine months and was not permitted to return to his companies in Bremen until the end of 1948. According to Kunz's letter in 1968, the road to the Hansa 1500 began when Carl Borgward "brought from his captivity back … a completely new car design, the pontoon shape," recalled Kunz in 1968. "This body shape, first rejected by every factory, was later copied by all of them, including the conservative 'Mercedes'."
For this pontoon mold, first a 1:5 scale model was made in plasticine, which was then cast in plaster. From this plaster cast, Borgward himself shaped the final form with a small dessert knife. Then, construction drawings were made, and after these, in turn, the body buck in 1:1 scale. From Kunz's report it can be concluded that he first put Carl Borgward's ideas on paper and then, with the help of other employees and departments, converted them into sheet steel. The Hansa 1500 caused quite a stir at its introduction in 1949.
After this, Kunz remained a designer at Borgward, but his field of activity shifted more and more to bodies for commercial vehicles. Kunz continued working well past the normal retirement age, active in the factory until its closure in 1961, when he was 83 years old. During the last few years Carl Borgward looked after him: for example, he put a sofa in Willy's study for a midday nap and thus retained a valuable worker. Kunz was not the only one to benefit from this care for the elderly. In November 1968, Kunz offered the Museum für Völkerkunde in Munich "to take over from me some pictures, supplements from Parisian trade journals of earlier times about horse and automobile bodies … I am in my 91st year … and do not want these pictures to be lost to posterity after my death." Yet this is exactly what seems to have happened, for after the matter was passed on to the responsible museum, Kunze's documents can no longer be found. His last letter on this matter – typewritten, clearly structured, error-free – is dated February 26, 1969. He died on the 7th of March, 1970 in Bremen. ♦

SOURCES:

- Wagen- und Karosseriebautechnik Heft 4/1958 p. 36
- Deutsche Fahrzeug-Technik Heft 9/1910 p. 274
- Letter from Wilhelm Kunz, dated 15.11.1968

(**Thanks to Peter Kurze for support**)

The 1995 version of the best-known hot-dog ad in America, the Wienermobile.

SOURCE: WISCONSIN HISTORICAL SOCIETY; OSCAR MAYER

THE STORY OF PUBLICITY VEHICLES

The idea to turn the motor vehicle into a sort of mobile billboard and shape it to resemble a certain product has been around for more than 100 years. **Dr. Pál Négyesi** and **Burkhard Broser** selected some of the most memorable examples.

ADs WITH A TWIST

In 1951 Meinhardt Raabe, a well-known little actor, posed as Little Oscar in a publicity shot for the Wienermobile.

SOURCE: NATIONAL BREWERY CENTRE

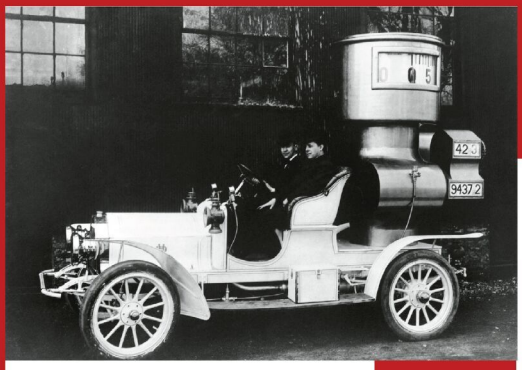
DAIMLER BOTTLE CAR

The recently closed National Brewery Centre in the United Kingdom had plenty of interesting publicity vehicles, including this 1923 Bottle Car, which is one of five purchased by Worthington's Brewery in the early 1920s. They were used throughout the 1920s and 1930s, mainly in towns for promotional purposes. After the merger of Bass and Worthington, in 1927, at least two were re-liveried in the Bass livery. During World War II the bottle cars were laid up but re-emerged afterwards fitted with new Bedford engines and continued to work for the company until they were sold in 1957/58.

It says a lot that there is no proper English term for the type of vehicles which the French call "véhicules publicitaires.' Special Interest Autos magazine called these "Productmobiles" in 1976. British author James Hale's compilation labeled these as "marketing mobiles" in 2005. Other designations include advertising vehicles or promo mobiles, though here we use the translation of the French term: publicity vehicles.

Advertising floats have been around since the Middle Ages. With the advent of motorized vehicles, these elaborate displays were towed more easily and over longer distances. It soon became apparent that there was an even more innovative way to use the motorcar for advertisement: build a new body which transformed the car, truck, or bus into the product itself. While the idea has been best known through various iterations of the Wienermobile in America and the advertising trucks that accompanied the Tour de France race in the 1950s and 1960s, the first such vehicles were built much earlier – in the early 1900s!

Unfortunately, this aspect of coachbuilding never received much attention from historians, though as you will see there were famed stylists who worked on these projects from time to time. ♦



SOURCE: BURKHARD BOSER

WARNER AUTO-METER

Arthur P. Warner was the inventor of the magnetic automobile speedometer. He set up Warner Instrument Co. in Beloit, Wisconsin. Around 1907 he commissioned an oversized working model of the company's "auto-meter" to be mounted on the back of an automobile. The finished vehicle was sent on a national tour for publicity purposes. Warner also invented several other items associated with automobiles. In 1909, he flew the first airplane in Wisconsin.

SOURCE: BURKHARD BOSER

WHALE-CAR

Hertaxin was a producer of cleaning products and shampoo in Berlin, Germany, using the brand name Walfisch (Whale). Unfortunately it is not recorded who came up with the idea of an ad mobile, but a mobile Whale-Car, based on an Audi, appeared on the streets of Berlin in 1914. After World War I a modified version was used as a publicity stunt on the occasion of the 1921 Leipzig Fair.

SOURCE: STATE LIBRARY OF NSW

LIFE SAVERS

Life Savers has been around for over 100 years. It was created by Clarence Crane, a candy maker in Ohio, in 1912. He named his new mint after its shape – it was round and had a hole in the middle, thus it resembled a life-saver. The Noble family in New York acquired a license a year later and made Life Savers a household name, which included packaging candy in rolls. While publicity trucks have been built in America, it was the Australian subsidy that really worked on the idea and came up with a Pep-O-Mint–shaped car in 1924. From surviving photographs, it is apparent that more than one was built.

PETERS BROS. SHOE CAR

In 2017, a photo started circulating on the internet about an intriguing "Shoe Car." A San Francisco-based writer, Katie Dowd, discovered its details: "San Francisco shoppers in the 1920s were stunned, one day, to see a strange car puttering down Market Street. The Chevrolet 940 was a burgundy two-seater, covered in glass to waterproof the vehicle – and it was shaped like an enormous men's shoe … The shoe delivery car belonged to Albert and Henry Peters, the brothers behind the Peters Brothers Shoe Co. of Oakland and San Francisco. They opened their first store in 1913.

By 1920, sales totaled half a million dollars among their four stores, two in San Francisco and two in Oakland. Their business was so successful that the brothers were featured in the trade publication "Boot and Shoe Recorder" in 1921.

The brothers originally bought the car as a simple delivery truck, but someone devised the idea of turning it into a moving billboard. They took their most popular men's shoe in a size 11 1/2 and used it to scale up to car size … However, it is more than an advertisement, for it is a highly practical delivery truck. It has a seat in the back which comfortably accommodates two persons and there is ample room left for packages …

The Peters brothers stayed in business in the Bay Area well into the second half of the 20th century."

SOURCE: SFGATE

SOURCE: ARCHIV E. BARTELS

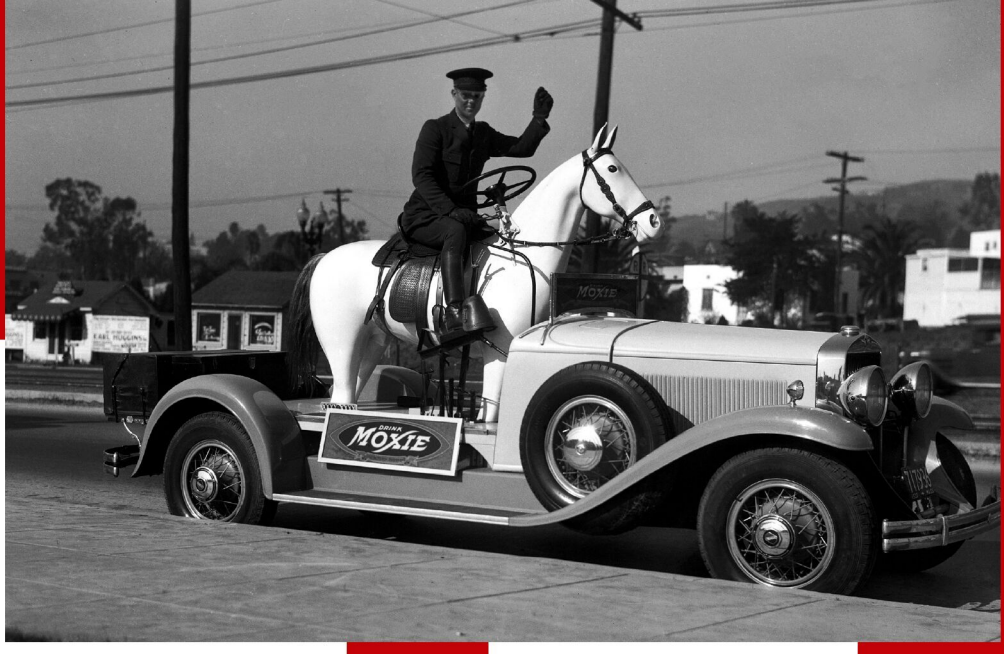
HORSTMANN & SANDER

Albert Sander and Horstmann set up a saddlery in the German city of Hannover in 1884, specializing in suitcases. Around 1937 the company placed an order with Paul Stolle, a local coachbuilder who was a specialist in hearses, for a special "rolling suitcase," based on an Opel P4. After the Second World War the company ordered a second van. The Stolle company is still around today.

SOURCE: ÖREBRO LÄNS MUSEUM

HOLMBERG

August Holmberg had a bookbinder and cardboard factory in Örebro, Sweden, before the Second World War. In 1934 the company's Essex truck was converted into a publicity vehicle showing lots of different cardboard designs.



HAŠLERKA

Hašlerka is a popular menthol herbal candy in the Czech Republic, which is in production since 1920. Its origins go back to the Austro-Hungarian Monarchy. In Austria it was called Caruso, but as the singer was not so popular in Czechoslovakia František Lhotský, a fledgling Prague entrepreneur, who obtained the recipe from Austria, visited Karel Hašler, a popular singer at the time, and asked his blessing to use the name. Hašlerka has a very recognizable packaging. In 1929 the local Uhlik coachbuilder company was commissioned to build a publicity vehicle based on a Praga chassis, which resembled a candy wrap!

SOURCE: REGIONAL MUSEUM VYSOKE MYTO

MOXIE HORSEMOBILE

Moxie, the soft drink that was introduced as a medicine in a Massachusetts drugstore in 1876, used some very early automobiles in advertising campaigns. In around 1915 Frank Archer, the advertising manager of the company, designed the first Moxie Horsemobile. It was an eye-catching full-sized car with a live horse mounted on the back. The first Horsemobile was top-heavy and dangerous to drive, so it was redesigned with a horse made of papier-maché. In later years, the horse was molded from aluminum. Over the years around two dozen Horsemobiles were built using Dort, Buick, LaSalle, and even a Rolls-Royce as donors! Horsemobiles were driven in parades by daring drivers who rode the horse while controlling the vehicle's speed and steering with specially designed pedals and extensions. Moxie advertised in many ways and sold a lithographed tin toy replica of the full-sized Horsemobile.

SOURCE: ADALBERT BARTLETT PAPERS, CHARLES E. YOUNG RESEARCH LIBRARY, UCLA.

SOURCE: WISCONSIN HISTORICAL SOCIETY

WIENERMOBILE

The Oscar Mayer Wienermobile is one of the best-known publicity vehicles. The first version was built in 1936 and several iconic generations later, the Wienermobile is still touring. In 1958 Brooks Stevens created a new Wienermobile design that influenced the next three generations. It was built on a Willys Jeep chassis and incorporated buns into the design for the first time.

CHINOTTO

Chinotto is a small citrus fruit grown near the Mediterranean which has a bitter flavor. After World War II, Pietro Nieri, an Italian businessman, created a local alternative to Coca-Cola, a soda flavored with the fruit. It was called Chinotto Neri, or Chin 8. In 1959 Nieri commissioned Boneschi to develop a nice publicity vehicle. The coachbuilders took a Fiat 1400B, added some American "flavor" with fenders and rear lights, plus a plexi-glass canopy which resembled the bottle of the drink!

SOURCE: ALESSANDRO SANNIA

SOURCE: ALESSANDRO SANNIA

PCI

This Fiat 600 Multipla based vehicle is sort of an exception as it was used by PCI, the Italian Communist Party during the 1958 elections. Boneschi was commissioned to build a copy of the Sputnik satellite, which was used as a reference to demonstrate the prosperity and technological advancement of the Soviet Union as a reason to vote for the Communist Party in Italy as well.

VITABRILL

Vitabrill was a French manufacturer of pomade and other hair care products for men. Its Norwegian distributor, E. Hørgård, came up with the idea of a promotional vehicle. A German Goliath Express van was converted by the Johs. Olsens Vognfabrik in Trondheim. The end result was quite distinctive!

SOURCE: SCHRØDER / SVERRESBORG TRØNDELAG FOLKEMUSEUM

SOURCE: NA3T

MACLEANS TOOTHPASTE

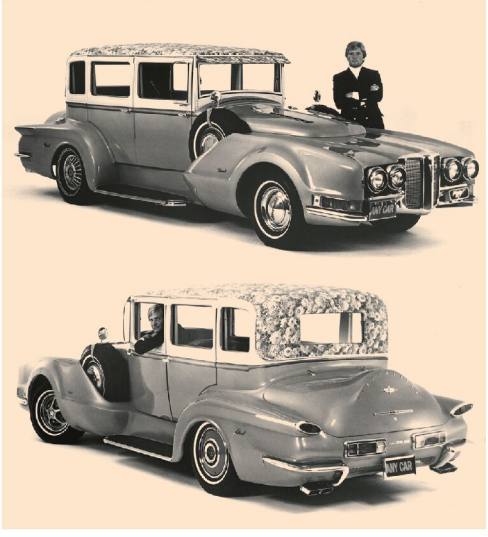
Macleans was a British toothpaste producer, established in 1919. In an unusual move, the company commissioned both full-sized and scale-model versions of the "MacLeans Tube Van" in the early 1950s. The vehicle was built on a Morris J van, while the scale-model version was offered for sale for "1/6d and two empty Macleans toothpaste cartons."

SOURCE: AACA LIBRARY

MANUFACTURERS HANOVER CORP.

Young & Rubicam, the ad agency of Manufacturers Hanover Corp., a New York City-based bank in the 1970s, was no stranger to ad gimmicks. In the 1960s they commissioned a motor-driven sponge as a publicity vehicle. Next step was the Anycar, which was devised to drive home the point that the bank would lend money for "any car." Three cars were built, two by Gene Winfield and a third by George Barris.

The Anycar II combined parts of 50 cars built between the 1930s and 1970s by using the body of a 1929 Hudson as its starting point.



SOURCE: FONDATION BERLIET

➤ *Pento was a French producer of hair cream (brilliantine) – recall John Travolta's hair in Saturday Night Fever and you get the picture. Arnault in Garches, which worked on various publicity vehicles, used a Renault R2061, one of the many delivery vans offered by the French company as a donor for a flashy truck, befitting the company.*

SOURCE: THE REVS INSTITUTE (2)

➤ *Over the years Byrrh, a well-known aperitif drink manufacturer, commissioned various coachbuilders to build barrel-shaped trucks. The first one was built by the coachbuilding workshop of the Commeinhes brothers in Paris in 1950-1951 on a Renault chassis. Even the headlights resembled drink bottles!*

➤ *Felix Aublet (1903-1978), a well-known and vertsatile designer, worked on many different publicity vehicles. In 1952 he cooperated with the Didot-Bottin company, which published the best-known French directory of commerce and industry. The truck was built on a Laffly chassis and resembled a book.*

SOURCE: BONHAMS

➤ *Hoover, the best-known producer of vacuum cleaners commissioned Pourtout, an established coachbuilder in Rueil-Malmaison, which switched from luxury car bodies to trucks after the Second World War. Pourtout built two publicity vehicles. Both featured a giant replica of the Hoover 'Bowl' vacuum cleaner. One was based on a Renault Estafette, the other on a Fiat Multipla.*

TOUR DE FRANCE

The very famous bicycle race was set up by L'Auto in 1903 as a promotional effort to sell more newspapers! In 1929 the race director of the Tour de France had a brilliant idea: to cover increasing expenses he would make the parade of advertising trucks from companies like Menier, Bayard, and Lion Noir official. As there were around 10 million spectators during the three-week-long event, this was a very logical step. The caravans became more and more extra-

SOURCE: FONDATION BERLIET

➤ The celebrated bottled-gas brand Butagaz was one of the most active members of the Tour de France's publicity caravan during the 1950s and 1960s. In 1962 Rotrou, a small coachbuilder in Verneuil-sur-Avre (Eure), went on to build seven advertising vehicles for Butagaz on Simca 1000 chassis. Two types of coachwork were built on these cars, five of which featured domestic gas bottles of the sort readily obtainable from any hardware dealer while the other two featured a bulk storage tank.

➤ A year later Aublet penned a stunning design, commissioned by BIC, which was set up in 1944 as a supplier of writing instrument parts, but it became widely known for its ballpens. It is one of the very few companies, which still supports the Tour de France race with publicity vehicles even today! Aublet cooperated with the Augereau company, which built the body on a Renault truck using sheet metal and Plexiglas, representing a pen with a cap at its back. There are additional pens on the side.

SOURCE: BIC

vagant over the years, reaching their zenith in the 1950s and 1960s. As the French public was eager for new products, the manufacturers of household appliances, furniture, cleaning products, etc., commissioned some of the best-known coachbuilders of the era to create publicity vehicles for the Tour de France caravan. By the 1960s there were other, more effective methods for advertisements, so the era of publicity vehicles came to an end. ♦

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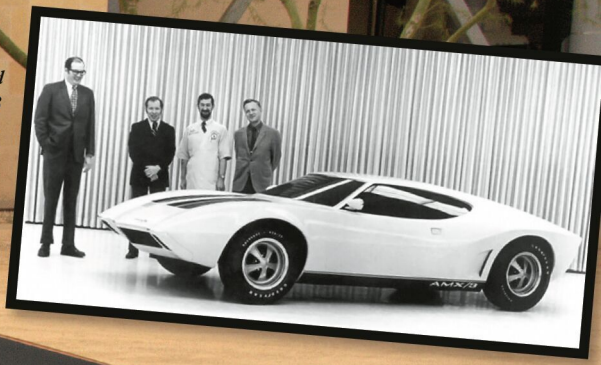
Five decades on, the AMX/3 still looks contemporary.

WHAT MIG

AMC AMX/3

With a small team under the direction of Richard "Dick" Teague, tiny American Motors set out in 1969 to produce a mid-engined sports car to compete with the world's best. The near-production AMX/3 proved that they accomplished that lofty goal.

TEXT & PHOTOS
BY RICHARD TRUESDELL



In 1968, what would become the AMX/3 began to take shape in AMC's Detroit styling studio.

HT HAVE BEEN

In 1970, the first of five AMX/3s commissioned by AMC, built by Bizzarrini, broke cover.

The second car built, originally red, the "Monza Test Car."

The interior was quite spacious given the mid-engined configuration, more Italian in style than American.

The chassis from the 1966 Bizzarrini P538 would contribute elements to the AMX/3.

After a run of success in the early 1960s, which saw Rambler rise to the third-best-selling nameplate on the U.S. automotive scene in 1961 (behind just Chevy and Ford and ahead of Plymouth), American Motors Corporation (AMC) seemingly lost its way. After the 1962 departure of its visionary CEO, George Romney, to successfully run for the governorship of Michigan, little AMC tried, unsuccessfully, to compete head on with the Big Three. By 1967 the company was on the verge of bankruptcy. Part of the blame was successor Roy Abernathy's ill-fated decision to deviate from Romney's carefully cultivated plan to build three distinctly sized models – the compact American, the intermediate-sized Classic/Rebel, and the full-sized Ambassador – off a shared platform to save tooling costs. But as soon as Romney left, Abernathy embarked on a costly program to upgrade and upsize the intermediate-sized Classic/Rebel and the full-sized Ambassador to directly compete with GM, Ford, and Chrysler. The result, by 1966, was an unmitigated financial disaster for AMC that led to Abernathy's ouster, replaced with a new investor and management team. In those dark days of 1966 AMC displayed a number of idea and concept cars at auto shows to convince both buyers as well as investors that the company was viable and had cars in development that would turn the tide. Most notable was the first in a series of sports cars that were designated AMX (short for American Motors Experimental). The first AMX was a fiberglass-bodied non-

1970
Mark Donohue with the #3 car at Michigan International Speedway.

1971
Had it made production, the DeTomaso Pantera would have been the AMX/3's most direct competitor.

STATE OF THE ART

Five decades on, the AMX/3 stands the test of time:

	1970 AMX/3	1971 DE TOMASO PANTERA
Length	4460 mm/175.6 in	4270 mm/168.1 in
Height	1105 mm/43.5 in	1100 mm/43.3 in
Width	1920 mm/75.6 in	1830 mm/72 in
Wheelbase	2675 mm/105.3 in	2515 mm/99 in
Weight	1400 kg/3086 lbs	1600 kg/3527 lbs
Engine Type	Pushrod V-8	Pushrod V-8
Displacement	6.4 liters 390 cubic inches	5.8 liters 351 cubic inches
Induction	Normally aspirated	Normally aspirated
Advertised Horsepower	325 hp @ 5000 rpm (SAE)	330 hp @ 5400 rpm (SAE)
Advertised Torque	420 lb-ft / 570 Nm @ 3200 rpm (SAE)	325 lb-ft /440 Nm @ 3400 rpm (SAE)
0-30 mph (0-48 km/h)	3.0 sec	3.2 sec
0-60 (0-96 km/h)	5.5 sec	5.8 sec
0-100 (0-160 km/h)	13.4 sec	16.6 sec
Top Speed	160 mph (257 km/h)	158 mph (254 km/h)

2020

It took a U.S. manufacturer five decades to mass produce a mid-engined supercar, the 2020 Chevrolet Corvette.

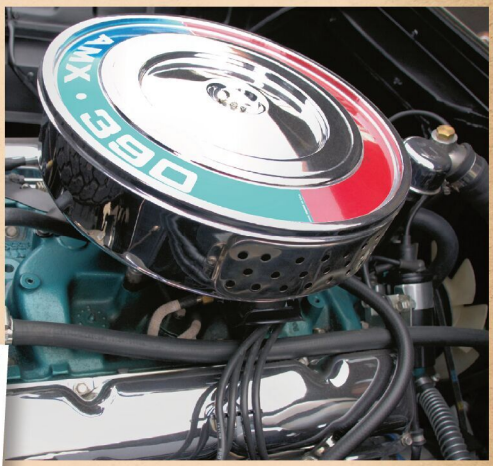
2020

CHEVROLET CORVETTE (BASE)

4630 mm/182.3 in
1234 mm/48.6 in
1934 mm/76.1 in
2722 mm/107.2 in
1527 kg/3366 lbs

Pushrod V-8
6.2 liters 376 cubic inches
Supercharged
490 hp @ 6450 rpm
465 lb-ft /630 Nm @ 5150 rpm

1.8 sec
3.8 sec
6.7 sec
180 mph (290 km/h)



AMC's 390-cubic-inch fit comfortably in the AMX/3/s engine bay.

runner (pushmobile) that was displayed at the 1966 Chicago auto show in February, notable for its "Ramble Seat," where the decklid popped up, providing seating for two.

The response was so strong that AMC commissioned a second running prototype, built in Italy by Vignale, that was completed in record time so that it was on display at the New York auto show that April. This running AMX/1 appeared on the cover of the May 1966 issue of Motor Trend. It survived and is in the Fred Phillips Collection in Calgary, Alberta. Phillips also owns the non-running fiberglass styling study, the AMX/2, that for many years stood atop a pole at a used-car dealership in Ephrata, Pennsylvania, after it was discarded by AMC. It is the link between the original front-engined prototype that evolved into the production 1968½ AMC AMX and what would evolve into the very limited-production 1970 AMC AMX/3.

As AMC launched the four-seat 1968 Javelin in the fall of 1967, followed in spring 1968 by the two-seat AMX, AMC's Vice President of Styling, Richard "Dick" Teague, moved forward with the idea of developing a roadgoing mid-engined sports car. Remember this was at a time when the Lamborghini Miura was pushing the boundaries of supercar design. Teague, a car enthusiast of the first order, wanted to showcase AMC's abilities to produce a world-class sports car. Throughout 1969 the project pushed forward and the first AMX/3 body was built inside AMC's Plymouth Road facility in Detroit. This fiberglass body (from a mold taken from the original clay model) is considered by AMC purists as the definitive version of the AMX/3 body, devoid of the functional scoops found on the steel-bodied AMX/3s that would follow. This body would escape destruction and was sold off by AMC. It would surface decades later, when AMC

This view shows the AMX/3 parked with a 1970 DeTomaso Pantera.

enthusiast Tom Delaney purchased the AMX/3 body from a Craigslist ad. (More details at Tom's website, amx390.com.) Following the positive reception of the AMX/3 prototype, the decision was made to enlist the help of Giotto Bizzarrini to develop a series of prototypes to test the viability of series production of what would become the AMX/3. Ultimately five prototypes would be produced by Bizzarrini in Livorno, Italy. Through the development of the chassis of his 1966 Bizzarrini P538 race car, Bizzarrini was uniquely qualified to develop the semi-monocoque backbone chassis used under the AMX/3 seductive bodywork. It was powered by a mildly tuned version of the same AMC 390-cubic-inch V-8 that was found under the hood of its mainstream passenger cars, from the two-seat AMX sports car that competed with Chevrolet's Corvette to the nine-seat Ambassador station wagon that targeted Ford's popular fake-wood-clad Country Squire.

The torque produced by the AMC V-8 (430 pound-feet at 3600 rpm) raised issues for the transaxle that was originally selected: a five-speed ZF unit. Ultimately, Bizzarrini turned to OTO Melara for a four speed transaxle. (Later, Teague would buy many of the unused transaxles.) Other chassis components included independent front and rear suspension of upper and lower wishbones and a four-wheel power disc brake system supplied by Teves. To keep the mid-mounted 390-cubic-inch V-8 (340 horsepower at 5100 rpm) cool, a front-mounted radiator with twin cooling fans was installed. Five completed cars were produced before development stopped and the program canceled, which cost AMC a reported $2 million (the equivalent of $15,507,216 in 2023 dollars). This was not long after the car premiered to a select group of motoring journalists in Rome at a press program in March 1970.

There were several reasons for the cancellation of the AMX/3 program. Escalating costs concerned the AMC product planners. They estimated that the AMX/3 would have to sell for at least $12,000 (about $75,000 today, adjusted for inflation). Then a month later, in April 1970, came the introduction of the DeTomaso Pantera, marketed in the U.S. by Lincoln-

The first chassis is being restored now.

Mercury dealers at $10,000. AMC felt the AMX/3 would be uncompetitive at the projected price of $12,000.

Next, pending bumper regulations would make it difficult and costly to adapt the design to meet the upcoming 1972 standards. And the final nail in the AMX/3's coffin was a debilitating strike at AMC in 1970 that put additional financial constraints on the program. AMC requested Bizzarrini to stop all work on the program and to destroy all the previously developed tooling. After the cancellation of the program, Bizzarrini completed a sixth car for his collaborator, Salvatore Diomante.

For many years this car was one of the centerpieces of the collection of Walter Kirtland of Baton Rouge, Louisiana. In 2014 it was sold to Jurgen Wilms of Düsseldorf, Germany. After acquiring the car and seeing its cracking red paint, he commissioned a comprehensive restoration and was rewarded with a class win at Pebble Beach 2016 in a class honoring the cars of Giotto Bizzarrini. This car, number two in the original series of five pre-production prototypes, is also known as the "Monza Test Car." As such it had been lettered "AMX/3" up front and "AMX/3 by Bizzarrini" on the rear. Like Wilms, I always felt that the lettering detracted from the car's stunning and truly elegant lines. And it also served to minimize the company that designed and commissioned the car's build: American Motors Corporation and the passionate and visionary car guy Dick Teague.

So after displaying the car at the 2015 Concorso d'Eleganza Villa d'Este, Wilms was faced with a dilemma. Since the car was in need of a respray, should he restore it to the in-period Monza test specification? Or should he take another tack and restore it to a presentation that would represent the way the AMC design team envisioned the car: as a potential Pantera competitor? Wilms chose the second path, and when the car was updated with new paint, the color selected was P79 "Bittersweet Orange," an actual era-correct AMC color used in 1970.

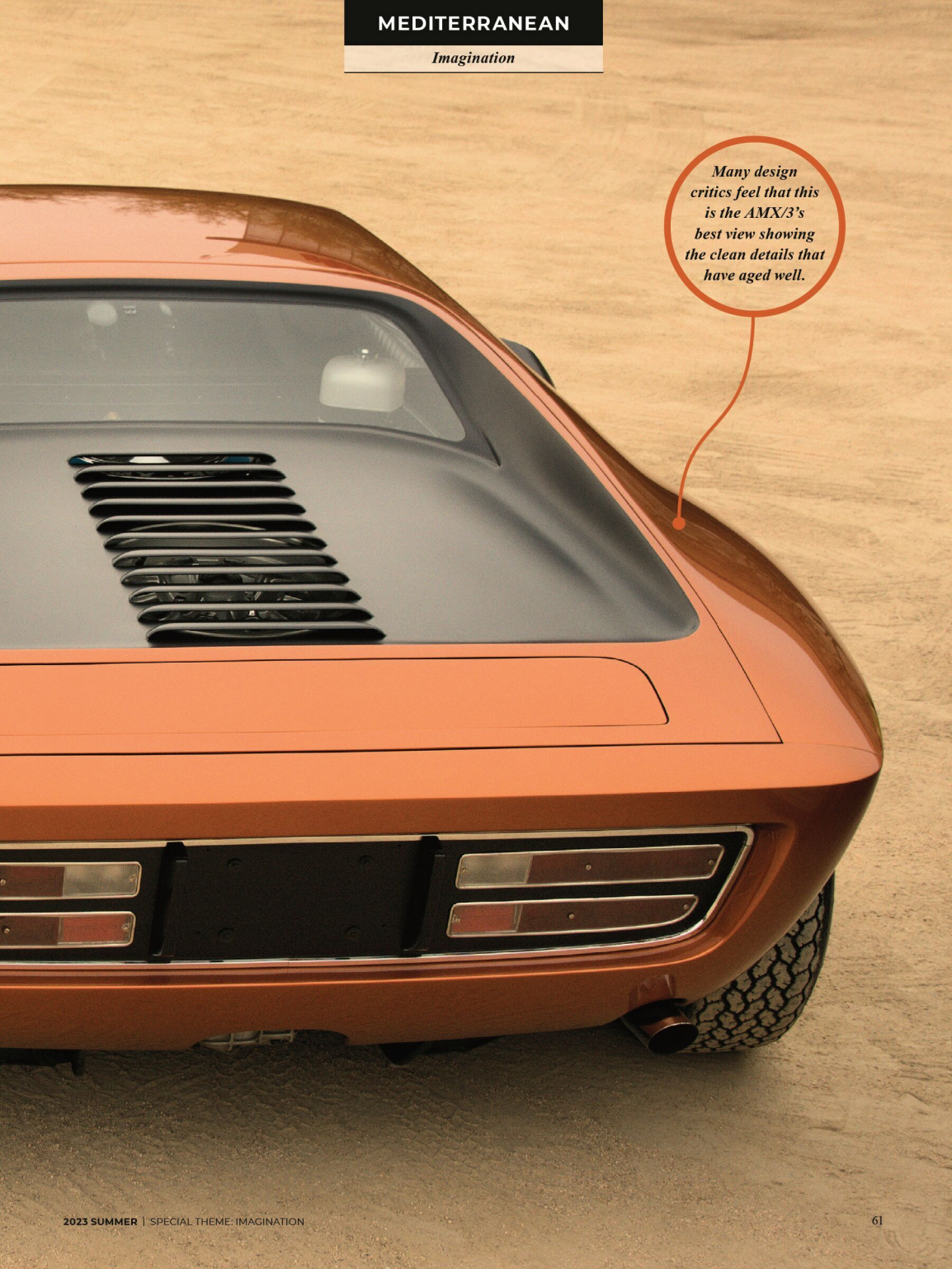
It should be noted that when the car was designed and developed by Teague's team at AMC's Plymouth Road facility

The wheels on the AMX/3 were similar to those found on its Italian competitors.

(the team also included Bob Nixon, Chuck Mashigan, and Vince Geraci) in 1968 and 1969, it was envisioned that the AMX/3, with more than 300 horsepower, would have a top speed in excess of 160 miles per hour. There was just one problem. Bizzarrini noted that, in the high-speed test above 145 miles per hour, as they sorted out the chassis, the front tended to lift. At Monza, Bizzarrini experimented with a number of front spoiler configurations to remedy this issue. By the time testing at Monza was completed with an eye toward possible production (originally the plan was to produce 5,000 AMX/3s a year, which, before the project was scaled back, had been reduced to as few as 24 cars in 1971 or 1972), the car was stable to 160 mph and beyond, according to a Bizzarrini statement at the time. The AMX/3 chassis was seen as the ultimate evolution of his P538 chassis. BMW, who also was involved in the pre-production testing and development of the chassis, stated that it was among the stiffest chassis designs it had ever evaluated.

As offered by Gooding in 2017, the car represents the ultimate evolution of the AMX/3, what might have been offered to the public in 1972 as AMC's halo car. It is proof that by working with the talented Bizzarrini, AMC could produce a state-of-the-art sports car that could compete with the world's best, which at the time was the Lamborghini Miura. Remember, the introduction of the Ferrari 365 GT/4 Berlinetta Boxer was still at least a year into the future.

As it was developed at the time, the AMX/3 represented a state-of-the-art package. Sad to say that development was halted prematurely. It took another major American manufacturer five decades to equal it with the 2020 eighth-generation Chevrolet Corvette. ♦


Many design critics feel that this is the AMX/3's best view showing the clean details that have aged well.

AS WILD AS THEY COME

A TRIBUTE TO BARRY STIMSON

In an age of wild and wacky kit-car designs of the Seventies, the Scorcher was the maddest of all.

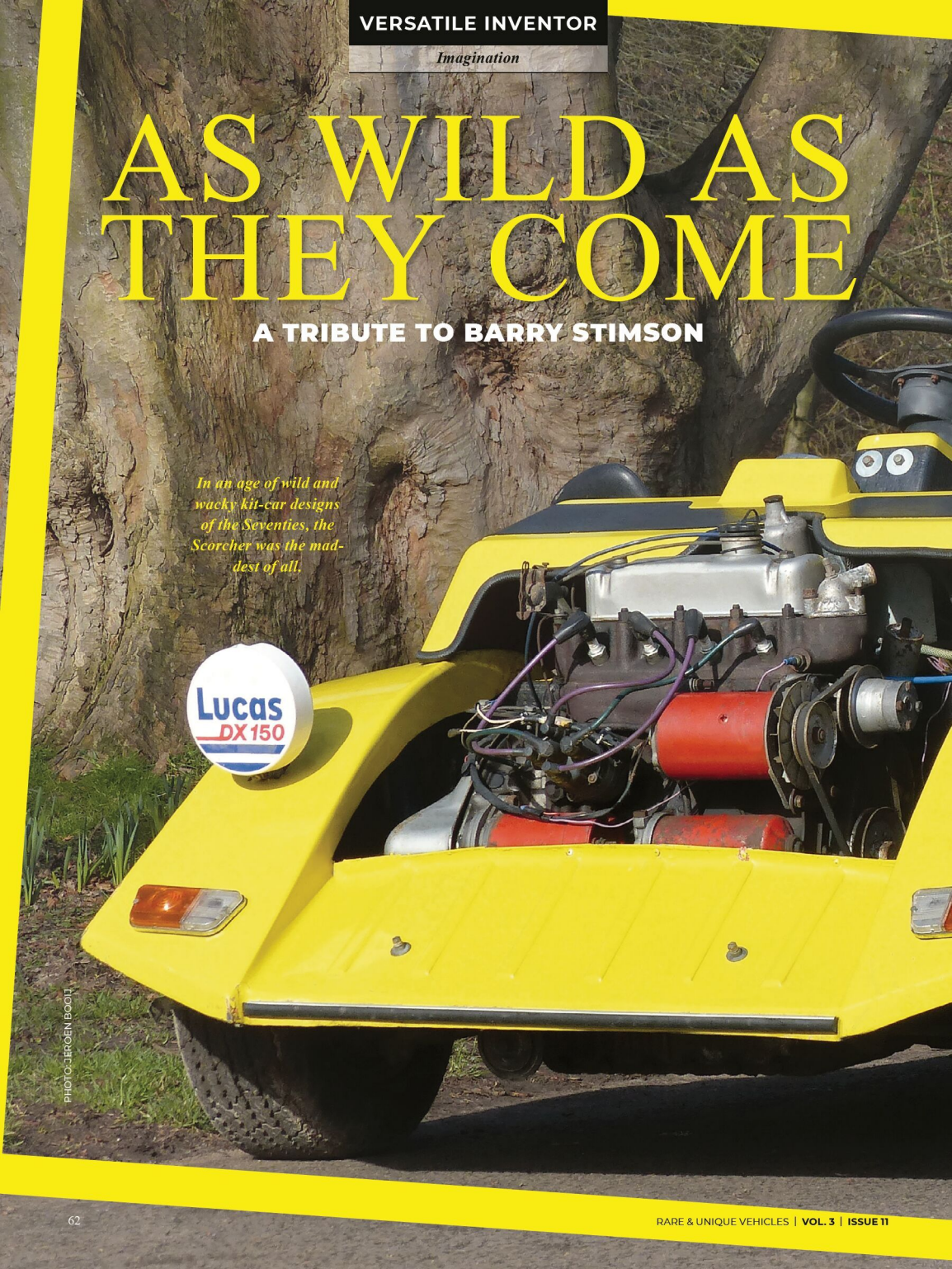


PHOTO: JEROEN BOOIJ

Not only was Barry Stimson a great designer with an incredible ability to think outside the square, but he was also a genuinely funny man who always had an opinion on anything you asked him to talk about. **Steve Hole** tells his story.

Barry with the Mini Bug-1 prototype, which featured a plywood bonnet, in 1969.

A lovely photo. A young, fresh-faced and happy Barry at his drawing board. Some interesting renderings seen here including some ideas for his motorhomes. The image at bottom left was slightly revisited albeit in a re-vamped style in 2002 for his Sting three-wheeler.

VERSATILE INVENTOR

Imagination

The specialist car industry lost a great designer in early January when news came of the death of Barry Stimson. Specialist car enthusiasts will know about the man's work, but if you're a newcomer, you need to know that Barry was not only a really great bloke; he was also a rather talented designer.

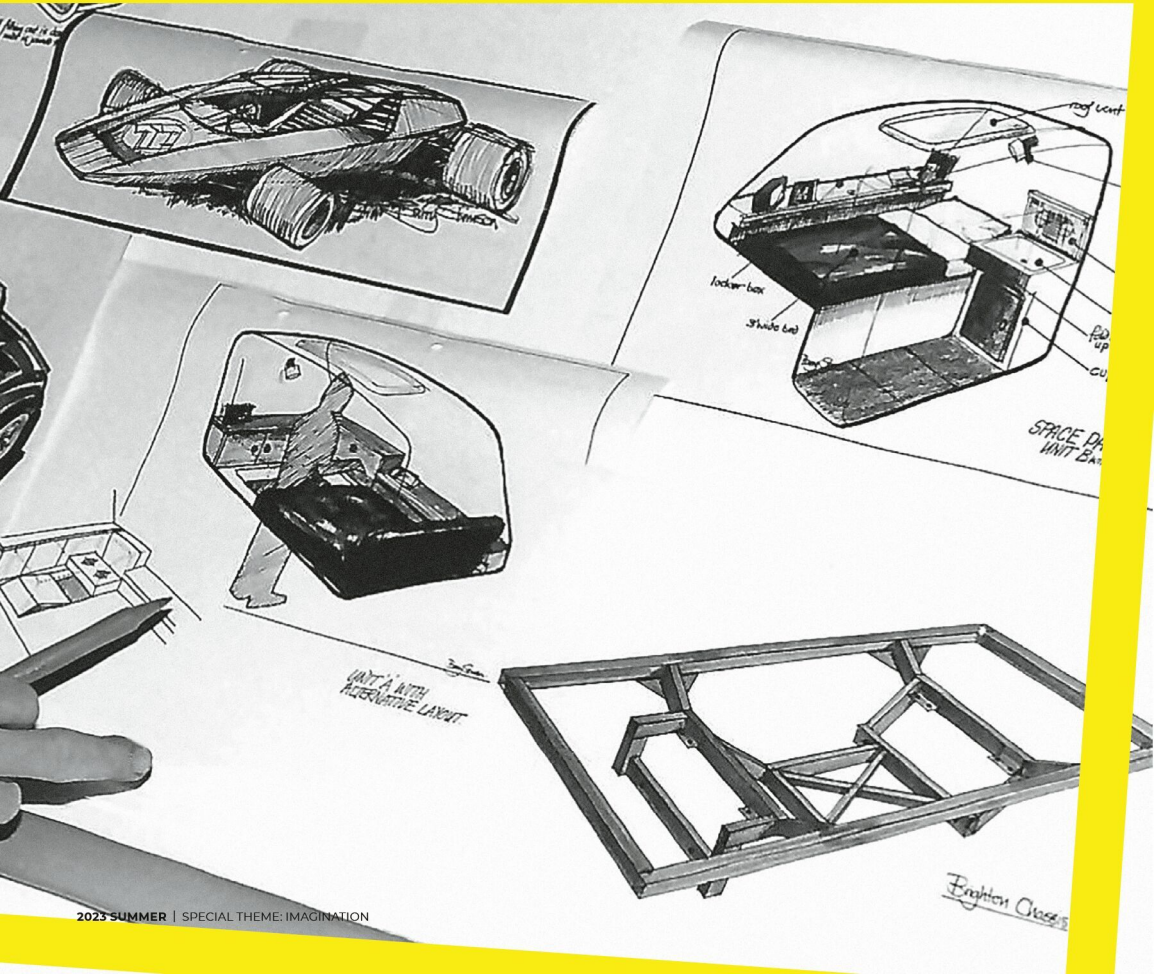
He didn't just draw cars, either. He was a big cheese in the world of motorhomes, designing several models for Romahome. Indeed, his Honda Acty-based van added a camping pod to the rear and a Luton roof … and was the first model offered by the then Island Plastics-owned company based on the Isle of Wight, in 1980.

As well as designing stuff for himself under the Design Developments name, he worked as a consultant for Portsmouth car dealer John Evans.

Plus, that's not all as Barry also designed modular houses, was an acclaimed artist, designed furniture and industrial objects … Oh, and he created the Cockburn Holdsworth Minuet motorhome, too.

We know him best as a prolific creator of innovative kit cars. I asked Barry about it once and his reply was typical Barry: "I know, I think I had some kind of design diarrhea at the time," he laughed. Back in the Seventies, a select small number of designers seemed to be responsible for most of the kit cars on the market, at least the better ones. Names like Richard Oakes, William Towns, Neville Trickett, and of course, Mr. Stimson, whose creations always had real flair about them.

He never needed an excuse to reminisce about those good old days, recounting stories not only about the array of wild vehicles he'd penned, but also the tales that were inevitably behind them. It all started for the Portsmouth native with



A rare magazine outing for the rendering of the stillborn Stimson Jeepette.

a 1937 Ford Prefect (93E), his first car, when he was 17. It took all of a few days before he'd taken a hammer, a spanner, and a handsaw to it. "I had a vision!" Barry told me once, very tongue-in-cheek. It didn't stop his mum banning his handiwork from outside her house, though.

The first Stimson design proper was produced in the late Sixties, when he was living in Vancouver, Canada, with his first wife. They were residing on a hippie commune and Barry was designing houses for a living. "They were quite radical-looking houses, but my boss at the planning department would never pass them," he laughed.

In shortish order, he and whom he referred to as "wife Mk1" split, and Barry headed back to the U.K. with their two children, Coral and Sean. However, the Meyers Manx he'd spotted in Vancouver had an impact on a young Stimson. Ideas quickly formulated.

He drew an outline drawing for his new car on the Boeing 707 while heading back to England and that design soon became the Mini Bug – and he was helped on development and construction of it by his father, Burt. "It was Mini based because it has all the main components (engine, gearbox, and suspension) boxed within the front subframe so I didn't need to reinvent any of it," he said. One thing he told me really has stuck with me since: "All the stuff I do is sort of radical but to be radical, it doesn't have to be complicated."

He rented an old Nissen hut on a derelict farm in Chichester in late 1969, quite near where Richard Park and one Geoff Jago were busy selling speed parts and building hot rods. He and the two children (aged four and six) were living in a caravan parked in the Nissen hut. Not ideal. "It wasn't particularly good but they liked it and most importantly they have good memories of it. I also designed some toys made from pine for them to play with, plus I marketed them, too."

Barry appointed two dealers to help sell his Mini Bug – Surrey Racing Cars in Godalming, Surrey, and the Custom Hot Rodding Centre in The Haymarket, Edinburgh, run by ace autocrosser Vince Gonelli.

When the Mini Bug became a hit, toy production ended. Suddenly he was a carmaker, working mainly on his own but with access to a couple of hired hands, a welder and a GRP laminator, when he needed them.

Ever the innovator, Stimson would often press household items into impromptu car service, such as dustbin lids for hubcaps and the bread bin lids he used as headlight recesses on the Mini Bug. Meanwhile, the car's windscreen was a Perspex sheet that he'd heat and bend to shape using an old two-bar electric fire. He built about six Mk1s, with the Mk2 (with separate body/chassis) being the bigger seller. About 160 of them found homes.

Hot Car magazine featured the Mini Bug several times and loved it. This is when his friendship with a young journalist called Peter Filby began. "People would come down to the farm in their Minis – pile all my bits on the roof and then go off to convert it into a Mini Bug." Barry recalled. He was forever grateful for the magazine and TV coverage that was given to the Mini Bug. "I don't think any other kit car of that time had as much media coverage as we did. Once you've had the hit you are off and running … and we were properly off and running," he laughed.

Other people noticed the attention and there were several Mini Bug copies, the Luna Bug being the most blatant. However, interestingly Barry saw the Mini Scamp as his only real competition. At this time, Barry also fell in love with France, which started when he went to Paris to have the photos for the Mini Bug brochure taken, accompanied by his girlfriend, "One-Eyed Patsy." "Well, she was called Patsy and she had one eye, but she was a lovely soul," said Barry.

More TV appearances continued to come. The car appeared in a Southern TV children's series called The Freewheelers, which ran on ITV between 1968-73.

Barry says he got that gig because he was friends with the series producer, Chris McMaster. The plot revolved around three young people getting themselves embroiled in regular dramas and trouble. The show starred Ronald Leigh-Hunt and Wendy Padbury. As well as Barry's car, there was a Lotus Elan that appeared regularly.

Popular motoring program of the day Wheelbase also featured the Mini Bug 2. Meanwhile, Olivia Newton-John also drove a Mini Bug on the "It's Cliff Richard" TV show in 1970.

When mainstream media needed a car design expert, it was usually Barry or William Towns they called.

Barry didn't like the work of some of his contemporaries, but he liked Towns and respected his work greatly. Then came a tie-up with a motoring journalist and raconteur called Ian Smith and a newly formed company called Barrian Cars (Barry and Ian, basically) which brought a move to Westbourne in Hampshire. "Ian was a larger-than-life character, who had really good contacts and just happened to be friends with Graham Hill and Colin Chapman. He could sell anything," Barry recalled.

"Smith arranged for the Mini Bug to be based in the paddock for the Monaco GP in 1970. He'd lined up Jackie Stewart to drive some demo laps in my car on the circuit before the race. Unfortunately, The Daily Express's motorsport correspondent David Benson took it out first and drove it into the wall at the fountain at Casino Square, with Graham Hill's wife, Bette, in the passenger seat!" Barry laughed.

Only funny in hindsight, I suspect. Smith had driven the car to Monaco and had arranged a nice little TV slot called "A Jaunt to Monaco," which was to feature his trip and

Barry would often take his demo cars to the busy waterfront on Portsmouth as a marketing exercise and to gauge response. These two young ladies clearly liked the car!

Mini Bug 2 attracted good sales and all sorts of colours and specifications appeared.

One of Stimson's Mini Bug dealers was well-known autocrosser, Vince Gonelli of Custom Hot Rodding in Edinburgh.

Bright colors, such as this orange hue really suit the car.

Barry's original Mini Bug prototype.

This image was last seen out of captivity in Hot Car magazine in 1969.

➤ *CS+II was the best of the Stimson 'CS' models and a natural development of the Mini Bug.*

➤ *This is how Barry did shows. No promotional backdrops or potted plastic plants – just the car with a leaflet or two in the windscreen.*

➤ *This is one of the finest examples of a CS+II .*

➤ *Safari Six was another fine example of Barry's furtive mind.*

A TRIBUTE TO BARRY STIMSON

Earlier this year at the Classic Car & Restoration Show, which was held Birmingham Paul Wylde, an avid Stimson fan and collector together with a team of fellow enthusiasts put together a tribute to Barry Stimson with a display of six different vehicles under the banner Minikits!

Jackie Stewart's drive. Although Stimson and Smith were having a great time, meeting all the right people, living the high life, Smith also managed to do a deal with Lord Stokes, boss of BMC, to sell Mini Bugs in kit form via their Unipart network.

All looked good and potentially huge for Barry, his imaginative design looking like having a bright future. That was until a man in a white coat asked for crash and stress test results. Clearly, Barry's retort about the stress test involving his 20 stone (127 kg) friend Bernie to bounce up and down in the demonstrator, didn't cut it and as a result there was no deal. There were, however, export deals with agents in the Netherlands and Switzerland, where it was known as the Barclay Mini Bug. Ian Smith was also friendly with Brands Hatch boss John Webb, who had just created Formula Ford with Motor Racing Stables boss Geoff Clarke. Smith somehow persuaded Webb that they could do something of an off-road nature with the Mini Bug. Sadly, that idea came to nothing, mainly due to FF1600 taking off so quickly.

Stimson had gone as far as developing a version of the Mini Bug tailored for a one-make off-road race series called the CS+I model, which was intended for autocross. With weight crucial for the works team, rather than drill holes in panels and/or use lighter grade GRP, Barry's solution was to sack the 100-kg driver and let the mechanic, who weighed 70 kg, drive instead.

John Bevan was the driver in the Cars & Car Conversions backed car, where incidentally, Barry had got a job as art editor.

The CS+II was a revised road version of the CS+1 and, without premises, Barry built the demonstrator in the single garage of his bank manager, at weekends in Hampshire.

Those early Seventies were incredibly busy and fruitful times for Barry. Some of his most imaginative work came about during this time. The Stimson Snow Bug, the C-Donki, and the Midi-Bug, which indirectly led to the Safari Six, all came about during this period.

In 1973, Barry had enough of being a kit-car manufacturer and took his family and toolkit to a new life in France. He handed the production of his cars to his laminators, Fauchen Plastics. Nothing was ever as it seemed with Barry, though: "I'd become fed up with selling kit cars and sold the projects off, bought a Dutch barge in northern France, and negotiated 297 lock gates on the River Rhône, eventually ending up in the south of France."

The barge was loaded up with his children, new girlfriend Anna, a Lambretta scooter, and two mates, Mike and Val. While on this journey he'd had an idea for a boat design, too. It was called the Sea Dart and when he'd built it he was going to teach parascending from the back of it.

Finding France too expensive, he came back to the U.K. in late 1974 with the intention of selling Sea Darts. It was tested by several U.K. boating mags, which loved it, and sales were pretty good. While he got back on his feet and to pay the bills, Barry, as mentioned, got a job as art editor on Cars & Car Conversions magazine.

He soon returned to cars, though, and perhaps his most bonkers effort, the Stimson Scorcher, came out in 1976. It was totally crazy. The triangulated steel chassis, Mini front subframe, and GRP body were pretty standard fare, but then – unsurprisingly – all logic went out the window.

It looked like a fairground ride and had tandem seating, with an exposed Mini A-series engine providing the power. The Scorcher name was pretty apt, I have to say, and driving/riding one is an experience never forgotten. The heat from the engine between your legs was intense. However, it went like a proverbial rocket.

The U.K. authorities hated it but classified it as a motorcycle and sidecar. By this time, the nomadic Stimson was living in Brighton in West Sussex. The Competition Special CS theme was revisited too, with the CS+1 (with Mini Bug 2 bodyshell) briefly launched before he'd departed for France. When he came back, he relaunched it as the CS+II, a road-going version as mentioned, but he only sold two of them before selling the whole project to Mini Motors of Rochdale.

The Trek was like a more civilized (these things are subjective) four-wheeled Scorcher but was still completely crazy. With wanderlust never far away and with emigration to Australia on the horizon, Barry had sold about 50 of

➤ *One of Barry's last car designs – in 2003 – was the Sting seen here under development shortly before he launched the car at the Donington Kit Car show in September 2003.*

➤ *A lovely, moody shot of a Scorcher. This image appeared in many magazines over the years but it still remains as dramatic as when I first saw it.*

those before selling the project to a company called Sarronset. When in Australia, Barry grasped the outdoor living concept, created more houses for a living, and generally enjoyed life. However, it was no surprise when Barry returned to the U.K. in 1990 once more, but he decided to concentrate on boat design and also motor caravans rather than cars, which he said he was fed up with. The Sport Pack boat arrived in 1992, followed in 1996 by the
St. Tropez. Meanwhile, the Stimson Trail Finder was the first motorhome, in 1990, paving the way for a succession of others right up to the Stimson Outback of 2006.

Barry did return to cars just as we all knew he would. He even reappeared at a kit-car show, in 2003 at the Donington Show with his innovative Sting, Storm, and Buggy designs. He clearly hadn't lost his flair or eye for detail.

When asked his views on his first kit-car show appearance for some 22 years, he paused before giving his answer, in which he reckoned nothing had changed and some of the manufacturers he'd previously known were still wearing the same suits, with the same plastic plant pots on their stands.

In recent years Barry had resettled in the Portsmouth area and had two more children (Benny and Tom) with his lovely wife Caroline (they'd been together for over 40 years), who was Barry's rock; managed his affairs, monitored his emails … and even though he'd slowed down a little bit, life was never dull with Barry.

He was certainly one of the most talented and imaginative designers I have ever met in 37 years writing about kit cars, as well as one of the most humorous, and I always enjoyed speaking to him. He was busy creating motorhomes, working on private commissions and artwork, right up until his death. Unfortunately, he suffered a devastating stroke in September 2022 and another in November. He spent his final weeks being cared for at home by Caroline, other family members, and friends. He was 82 when he died on New Year's Day 2023. We won't see another designer like him in our industry, certainly not one with his style and imagination. He'll be missed. Barry's designs – as exhaustive as one can get but with Barry there was always stuff you didn't know about that he swore blind he'd advised you of! ♦

▲ *Unusual to see Scorchers that aren't black, orange or red. This yellow hue really suits it. Every time I see a Scorcher it makes me smile.*

▼ *Safari Six was perfect for use around the farm!*

PHOTO: JEROEN BOOIJ (2)

THE CARS

Stimson Mini Bug	*1969*
Stimson Mini Bug 2	*1970*
Stimson Snow Bug	*1970*
Stimson Formula Mini	*1970*
Stimson Barclay Mini Bug	*1971*
Stimson Midi-Bug	*1971*
Stimson Safari Four	*1972*
Stimson Safari Six	*1972*
Stimson CS+1	*1973*
Stimson CS+II	*1976*
Stimson EK-S	*1976*
Stimson CS2	*1977*
Stimson CS+2	*1979*
Stimson Micro Bug	*1979*
Stimson Trek	*1982*
Stimson Buggy	*2004*

THE THREE-WHEELERS

Stimson Project 1269	*1969*
Stimson C-Donki	*1975*
Stimson Scorcher	*1976*
Stimson Sting	*2002*
Stimson Storm	*2004*

THE BOATS

Stimson Sea Dart	*1975*
Stimson 2000 S	*1986*
Stimson Sport Pack	*1992*
Stimson St Tropez	*1999*

THE MOTOR CARAVANS

Romahome Dismountable	*1980*
Stimson Trail Finder	*1990*
Stimson Sportique	*1991*
Stimson Alpine	*1992*
aka Romahome St. Michel	*1994*
Stimson St. Moritz	*1993*
Stimson Odyssey	*1997*
Stimson Tirol	*1997*
aka Romahome St. Tropez	*2004*
Stimson Provence	*1997*
Stimson La Méditerranée	*2000*
Stimson La Parisienne	*2002*
Romahome Duo	*2003*
Romahome Duo Plus	*2004*
Stimson Outback	*2005*
Stimson Chalet Van	*2008*
Stimson Overlander	*2010*
Stimson Outback	*2012*
Stimson Free Spirit	*2018*

▼ *The Stimson Storm was introduced in 2002 and was offered as a kit, but it seems only one was built.*

▲ *The Trek was used in autotesting, labelled as the "motorsport series for the poor."*

▲ *Barry probably sold about 60 Trek kits. He saw it as a four-wheeled version of the Scorcher.*

LUIGI COLANI – MASTERMIND OF INDUSTRIAL DESIGN

A THREE-DIMENSIONAL PHILOSOPHER

"I am not a designer at all. I studied aerodynamics, I studied philosophy, I studied sculpture. "

SOURCE: LUTZIGER CLASSIC CARS, DPA

Colani had a very distinctive appearance including a walrus mustache and a cigar in his hand.

Over a career spanning six decades Luigi Colani created cameras, pens, coffins, pianos, kitchens, and toothbrushes as well as some sensational cars, bikes, trucks, and trains. Anthony Marchese was struck by his exceptional talent.

CREDITS
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Karl Smith
CarDesignNews
Gary Axon

"I consider myself a 3D philosopher. I am not a designer at all. I studied aerodynamics, I studied philosophy, I studied sculpture – high technology on one side, and on the other side, art" – said Luigi Colani in an interview. He called his design approach and style Biodynamic, reflecting his passionate love of nature and natural processes. His experience diving in the ocean profoundly affected him as he saw natural creatures moving seamlessly through their environment in bodies perfectly shaped for the sea.

EARLY LIFE

Colani in his trademark white, which matched the plaster dust.

SOURCE: KARL SMITH

Lutz Colani was born in Berlin in 1928. The "Luigi" came along in the late 1950s when he was working with Italian manufacturers.

He first grew interested in design at the age of three, when he spotted a Mercedes roadster belonging to a wealthy neighbor parked near his home. He was fascinated by the lines and curvaceous massing of the roadster body. He would later recall, "I remember standing behind this car, admiring the trunk, how nicely shaped it was, for an hour."

Still, automotive design was not his first love. The family lived only 200 meters from the railway, and the young Colani loved to watch the high-speed trains streaking from Berlin to Dresden. Additionally, his family lived near the old Tempelhof airfield and the young Colani saw the most advanced planes, both production and prototypes, flying overhead – a source of continual fascination.

Colani's family managed to survive the war in Berlin, witnessing some of the worst of the bombing, but having found housing at the edge of the city limits, they were outside the main bombed area.

After the war, Colani enrolled at the Akademie der Künste (Academy of Fine Arts) in Berlin until the late 1940s, when he began doing research on aerodynamics at the Université de Paris-Sorbonne (Paris-Sorbonne University) in Paris, France.

Colani found work very quickly after his time in school. He traveled to America in the early 1950s to pursue work in industrial design for American aerospace engineering corporation and defense contractor McDonnell-Douglas. Colani served as the head of the New Materials project group until the year 1953, when his effervescent and outlandish natural design sense led him to focus on creating a variety of new designs for cars and many other industrial products.

The Colani GT became a kit car in the 1960s.

Alexander Fritz's Colani GT at the Großglockner in 1966.

In 1957 Carlo Abarth commissioned Colani to build an experimental aerodynamic car based upon an Alfa Romeo Giulietta Spider.

The Colani GT was honored at the Schloss Dyck Concours d'Elegance in 2018.

SOURCE: ALEXANDER FRITZ (3); BONHAMS

AT FIRST, CARS

Colani had been scouted by French automaker Simca (Société Industrielle de Mécanique et Carrosserie Automobile) back in Paris. When he returned to Europe, Colani helped to develop and design the 1953 Simca Development Studio Fiberglass Coupe, one of the first European all-plastic car bodies. Colani became known for his round, organic shapes, which he called biodynamic styling. In 1954, Colani was awarded the 'Golden Rose' international prize at the Geneva Motor Show for his exterior design efforts on the Fiat 1100 TV. Colani developed a number of Fiat designs, and into the 1960s made design contributions to Alfa Romeo, Lancia, Volkswagen, BMW, and others. Colani's impressive advancements in design quickly led to the creation of his own car, the Colani GT, in 1960, which later became available as a DIY (do it yourself) kit that could be built on a Volkswagen platform.

In 1970, Colani transformed an iconic Lamborghini Miura into a bio-dynamic car. The Miura was cut transversely and received a new body.

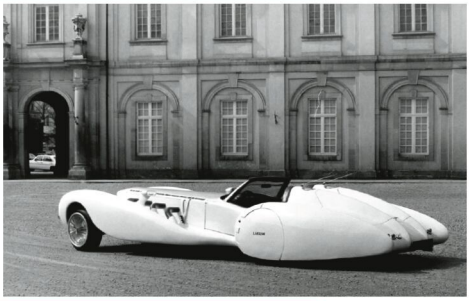
In the 1980s Colani experimented with Mercedes-Benz trucks, reducing fuel consumption by 30 percent. A prototype is shown today in the Swiss Setz Museum.

The 1972 Eifelland 21 Formula 1 racing car was based on a March 721. It featured Colani's hallmark aerodynamic style.

The 1987 Gorbi was an all-terrain vehicle built for desert rallies and based on a Lada platform.

SOURCE: ZWISCHENGAS (2); OSKAR SETZ AG; DANIEL REINHARD; COLANI MUSEUM

SOURCE: VERKEHRSMUSEUM DRESDEN; ALEXANDER FRITZ



The L'Aiglon was a concept car built by Colani in 1976. Originally it was a roadster with retro styling elements. Later it was modified with a hardtop.

In 1992 the Dresden Transport Museum featured an exhibition of Colani's work, titled "The round world of Luigi Colani."

At the 1998 Essen Motor Show Ford presented a Ka, aerodynamically optimized by Luigi Colani. A series of 200 units were built.

THE HEYDAYS OF COLANI IN THE 1970s, 1980s, AND 1990s

After Colani had quickly grown in both success and popularity, he opened a studio in 1970 near Sassenberg, Germany. Colani's design team developed a series of successful projects for an array of respectable companies. One of the more notable projects was his design work on a 1970 Lamborghini Miura, which he called the Le Mans Concept. This was a two-part hybrid car design which he constructed using the original parts from a Miura, including the entire rear suspension.

A Mercedes C11-inspired C-112 concept was equally unique, with a claimed drag coefficient of just Cd 0.20. This car led to a commission from Mercedes-Benz to build an increasingly advanced and odd range of truck concepts, some cunningly using the German brand's famous three-pointed-star emblem as a clever rotating windscreen wiper layout.

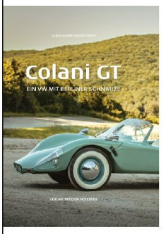
Throughout the 1970s, Colani also developed a strong relationship with the Japan market. He traveled to Japan to study and conduct research in 1973, one year after his design work on the 1972 Eifelland Formula 1 car. Seemingly involved in endless projects at once, in 1976 Colani veered away from cars slightly and designed the world's first Wankel rotary-powered plastic sports airplane. Colani's numerous car, truck, aircraft, and other various studies were frequently displayed at exhibitions around the world during this time. His other late-1970s concepts ranged from a curvy, low-drag Citroën 2CV–based two-box saloon capable of a frugal average of 138 mpg, to a very long neo-retro 1930s-style L'Aiglon roadster, powered by an Opel Diplomat V-8 and stretching well over 20 feet in length. A coupe version was later presented as well.

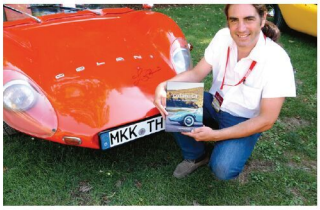
By 1982, Colani relocated entirely to Japan to become a professor in Tokyo. In 1984, after various design projects for Japanese multinational corporation Canon, he was subsequently voted as the number-one industrial designer in Japan during the Otaru exhibition. Perhaps his most interesting endeavor came in 1989, Colani's Automorrow '89 exhibition, which showcased 12 of his designs around the world at places such as the Bonneville Salt Flats and the Ford headquarters in Dearborn, Michigan. Also in 1989 came the one-off 1989 Ferrari Testa d'Oro, based on the underpinnings of a Testarossa model, to chase land speed records at the Bonneville Salt Flats. In 1991, the Testa d'Oro successfully won its class, hitting a top speed of 211 mph.

Colani's ambitions included an attempt to revive the once prestigious Horch car brand – now part of Volkswagen Audi – with an ambitious luxury retro 1996 Mega-Roadster, as well as unusual coupes based on cars as diverse as the Trabant (!), Ferrari Daytona, Ford Ka, Chevrolet Corvette, and Volkswagen Polo, and even more outlandish truck concepts made for Mercedes and others.

COLANI GT – A BOOK

Alexander Fritz is proprietor of the Volkswagen Vienna Collection. In Rare & Unique Vehicles No 4, we featured his Lindner Porsche and in No 5 his one-off Kaiserslautern-built prototype. In 2018, to commemorate the 90th birthday of Luigi Colani, he wrote a book on the Colani GT. Titled "Colani GT – Ein VW mit Berliner Schnauze," it charted the story of Colani's Volkswagen-based kit car with plenty of archive photos.





In 2001 Colani presented a new front-end for the Trabant. It was available as a kit, which could have been easily bolted onto existing Trabants.

A year later Immo Warnecke in Leipzig built a Trabant Speedster, featuring Colani's front end.

THE 2000s

After the turn of the century, Colani continued to work on projects big and small. His work took him around the world, although most were centered in Europe and China. Only in the USA did he have trouble breaking in. Colani tried several times to work for General Motors and other American manufacturers, but his work and outsized personality were considered too "hot" for the "suits" in Detroit to handle.

In 2007 he told Interview magazine, "It isn't easy for me to have contact with the industry, because it is so outdated. Look at General Motors, look at Mercedes, look at Chrysler, look at Porsche, look at BMW … They are all building cars from yesterday! Nobody has an idea how the car of tomorrow should look. I've built them already."

BEYOND AUTOMOTIVE

Colani continued to be very busy, designing cars, trucks, and other vehicles for a wide array of different companies and people. While his automotive design work is at the forefront of this article, it's important to note that there is seemingly nothing Colani didn't attempt to restyle or create with his own unique approach. From ballpoint pens to piggy banks, cameras, and more, Colani attempted to place his signature styling on almost everything. He even went on to design a literal kitchen sink for German ceramics manufacturer Villeroy & Boch.

Luigi Colani thought that the Opel Speedster was "soulless," so in 2002 he turned it into the Stahl Shark with the help of a German Opel dealer.

A 3D PHILOSOPHER OF THE EROTIC

Colani never considered himself a designer in the traditional sense. He was not interested in standard procedures or processes; his was a more intuitive way of working. He called himself a "3D philosopher" and approached each design challenge as a philosophical as well as design problem, seeking to answer some greater questions with each project. He felt that the study of life, its processes, and resultant forms could perfect his designs. Those natural processes included reproduction, and his work reflects a fascination with the erotic. "Eroticism is the driving force behind everything in the world," Colani declared. "It is absolutely the central theme – that life is erotic, period." The form of his work was highly organic and biomorphic, reflecting his fascination with natural forms and creatures such as birds and fish, whose forms relate so closely to their movements. He was not shy about claiming inspiration from the human body as well – particularly the female body. "The female body is one of the most extraordinary designs ever done in this universe," he stated in an interview.

The 1979 Coal-Dust-Power Steam Locomotive was designed for a Soviet railway line.

SOURCE: DPA (2); STAHL; VOLKER LIEDTKE

In 1989 Colani built 13 vehicles and brought those to the Bonneville Salt Flats in Utah to break new speed records. The Utah-8 was just 90 cm tall and had a weight of 550 kg.

In 1986 the Colani-Egli MRD-1 motorcycle broke the World Land Speed Record for 10km from a standing start, at 170.26 mph (272.41 kmh). Its top speed was 330kmh.

The 1996 Mega-Rodster was Colani's vision on how Horch should be resurrected.

A SINGULAR PERSONAL STYLE

Unlike the current designer chic (black or gray), Colani dressed in white most of the time, in oversized pullovers and trousers. His outfits were all of his own design, even down to the underwear. When asked about the white he said, "I work with plaster and styrofoam, all white and dusty materials. I'm dirty all day and I want to be able to go out without changing so I just pat myself down and a cloud of smoke puffs away and I'm clean."

As for that cloud, it was not just plaster dust. Colani was infamous for smoking large cigars. "I smoke a lot," he once told The Guardian in an interview, "20 to 30 cigars a day for the past 40 years. I copied Winston Churchill. The smoke clouds around me give me some inspiration."

When the smoke occasionally cleared, visitors would be treated to his long, unkempt mad-scientist mane of hair and walrus mustache. "I don't care a thing about my hair," he declared to The Guardian. "Each morning I just run my fingers through it. I've never owned a comb in my life." As for the moustache, it once won Moustache of the Year from an international moustache society.

Whether it's a pen, piano, lamp, car, bus, or maybe even an aircraft, if Colani designed it, it's bound to be memorable. The maestro may have died in 2019, but we can forever appreciate the biodynamic designs he created for us. ♦

In the early 2000s China's German ambassador invited Colani to submit projects for Shanghai.

SOURCE: VOLKER LIEDTKE (7); LUTZIGER CLASSIC CARS

COLANI – THE MUSEUM

In the 1980s Colani worked in Bern, Switzerland, and his work was varnished by local body specialist and painter Jürg Bärtschi. The two struck up a friendship. Ultimately, Bärtschi opened a small museum dedicated to the artist in 2009 in Aarwangen near Langenthal. Colaniswelt features three vehicles, furniture, porcelain, books, watches, and many original drawings.

More details are available on https://www.colaniswelt.ch/

SOURCES

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- https://www.goodwood.com/grr/road/news/2019/9/axons-automotive-anorak-luigi-colani-from-toothbrush-to-speed-record-ferrari-testarossa/
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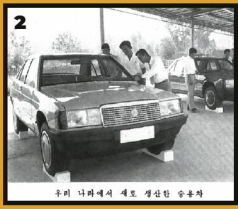
In 2004 Volker Liedtke put together an exhibition in Karlsruhe featuring Colani's best works, including this land speed record car from 1993. It was based on a Ferrari Testarossa and was tuned by Lotec.

In 1987, Colani opened a new, all-white atelier, where he presented his interpretation of the Porsche 959.

1



2

1 1989 a German group of scientists visited North Korea and saw this yellow car, labeled Pyongyang 4.10.

2 A Pyongyang 4.10 at the 1989 Exhibition of the Achievements of Socialist Construction in Pyogyang.

3 Either a Pyongyang or a rebadged Mercedes – it had a standard Mercedes steering wheel.

SICKLES & STARS

PHOTO: VON OWE

MYSTERIOUS MERCEDES-BENZ 190E CARS FROM NORTH KOREA

North Korea is a closed and very secretive country. **Erik Van Ingen Schenau** has long been wondering about the Asian country's automotive industry. With limited information and several photographs, he offers this speculation about Mercedes-Benz 190E cars seen in North Korea in the 1980s and 1990s.

3

For decades political leaders behind the Iron Curtain were intrigued by Mercedes-Benz cars. Communist leaders in both the Soviet Union and China had Mercedes-Benz 600 limousines, while in North Korea the ruling dynasty, Kim Il Sung (the grandfather), Kim Jong Il (the father), and the present ruler, Kim Jong Un (the son), were/are collectors of Mercedes automobiles. Over the years there were scores of German Mercedes cars imported to the country, including several batches of the 190E model in the 1980s.

Despite restrictions, tourists were able to take snapshots of various trucks, Jeeps, and cars in North Korea over the past decades. In addition, the author found several local accounts. While we can't establish the provenance of the photographed cars with absolute certainty, let me share with you my speculations.

THE ORIGINS

On October 4, 1987, Kim Il Sung announced his decision to develop a North Korean car industry similar to South Korea. The first car would be named Pyongyang 4.10.

According to some Korean sources, the task was to build a copy of a Mercedes 190E. It was assigned to the Second Economic Committee of the Party Central Committee. This department has jurisdiction over munition production. The same sources claimed that a few munition factories – at least three – dismantled original Benz cars and built copycat parts. With these parts, a copy of the 190E was constructed. This has not been independently verified. It is highly doubtful that North Korea was capable of building such high-quality parts. In South Korea there are many stories circulating about these North Korean Benzes, mostly told by North Korean defectors. These stories must be taken with a grain of salt. According to one story, North Korea developed 10 cars during a period of about three years (1985-1988). These looked exactly like a Mercedes-Benz. When these 10 had been completed, they were exhibited in September 1988 in the "Socialist Achievement Exhibition." Up until now there have been no photos or any other proof regarding these alleged copycats. The account continues: "When viewed up close, the body was a tricky mess. They conducted a trial run for six months in and around Pyongyang, but the car broke down so often that it was always accompanied by five tow trucks. In the end the car was put into storage in 1989." And: "The knockoffs came with no air conditioning, and they were not tightly built or sealed." Another story tells that the engine of the Pyongyang 4.10 was a Soviet GAZ engine. And: "The windows didn't close and it didn't even have a heater." However, it is possible that the supposed Mercedes cars were confused with the Paektusan, a crudely handmade square

1 A Kaengsaeng 88 (Self Reliance 88) photographed in 1992 at the Industrial Exhibition Centre in Pyongyang.

2 The same hall was visited by a Japanese tourist in 1995, who spotted a blue Kaengsaeng 88 there.

3 Defectors' account of North Korean Mercedes cars may be about Paektusan, a car built in small numbers earlier.

PHOTO: GERHARD JÖREN; "HARIBO"

1 Over time North Korea imported a lot of different Mercedes cars.

2 Korea imported basic 190E models with just one rear view mirror in some quantity.

SOURCES

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- https://note.com/chosunautomobile/

sedan of which a number were made in North Korea a decade earlier.

THE CARS

Consider the accompanying illustrations, which depict at least five different cars with three different logos.

The yellow car is the Pyongyang 4.10. Its name is written on the car in Korean script. It was seen by a German university group in May 1989. It features a logo with flames. The grille is different from the original Mercedes logo.

Jörg-Peter Rabe, who once owned a Mercedes 190E himself, took a photo of the Pyongyang 4.10. The differences between a real Mercedes and the Pyongyang are easily noticeable. Rabe believes the Pyongyang 4.10 featured a fiberglass-reinforced plastic body. The grille, the taillights, and the grids on the C-column are quite different than the Mercedes.

The guide of the university group, Prof. Dr. Eckart Dege, peeked inside the car and recalled, "The Pyongyang 4.10 had a Mercedes star on the padded center of the steering wheel." He assumed that "it WAS a Mercedes Benz with a new radiator grille." But it equally could have been a Mercedes steering wheel installed on the Pyongyang 4.10.

A red Kaengsaeng (Self-Reliance) 88 was seen and photographed three times. It was first seen by Gerhard Joren, a German photographer, in 1992. Second, a group of Japanese tourists saw the car in 1995; and third was Jay Ullal, an Indian photographer, who worked for 'Der Stern' in Germany in 1996. It was built either by the November 26 Factory or the January 26 Factory, as it is very difficult to decipher the text. The Kaengsaeng looks very much like a Mercedes with its three-pointed-star logo replaced by a five-pointed star, a pentastar. (Chrysler fans, please take notice.) Haribo, a Japanese tourist, photographed a blue version, which was also spotted by Ullal. This seems to be identical to the red car. The last car was featured in an unknown magazine or newspaper. The caption reads: "Mercedes imitation built from Daimler, Toyota, and Volvo parts." It sports a rhombic-shaped logo.

There are three possible explanations:

1. The cars are complete metal copies of the Mercedes, and each part has been accurately copied.
2. The cars are complete plastic (FRP) copies of the Mercedes, the metal parts having been used as molds.
3. The cars are rebadged Mercedes cars with changed logos.

Without more information, it is difficult to come to a conclusion. What we know is that there were at least five – and possibly more – cars shown in North Korea between 1989 and 1996 that looked like a Mercedes 190E (W201). Some of them looked messy. We know the names of some of the cars, we noted their logos, and we also know that one was most likely built by the November 26 or January 26 factory. Any of the three options are possible. But we cannot reach any firm conclusions – yet. ♦

ADREN

It may remotely look like an Alfa, but the Giocattolo packs a V-8 engine and Kevlar body.

GIOCATTOLO GROUP B

ALINE

FROM DOWN UNDER

Paul Halstead has two passions in life: computers and fast cars. He did amazing things in both fields in his native land, Australia. One of his biggest achievements was creating the first supercar coming from Down Under. Dr. Pál Négyesi has the story, with photos from Nathan Duff.

BEFORE THE GIOCATTOLO

Paul Halstead's first passion was programming – he joined Australian Data Processing (Adaps) in 1967. Five years later he moved to the UK where he worked for Computer People, which he developed into the biggest contract services company in Europe. He returned to Australia in 1976 and set up an IT Contract Services company, which he sold in 1984 for a lot of money.

Halstead invested his new wealth into his other hobby, fast cars. He took over a local De Tomaso workshop and told the story: "De Tomaso exported Australian-made Ford V-8s to Italy and in return received export credits. These credits were applied to imported De Tomaso bodies, which were subsequently fitted with Australian Ford V-8s by my Sydney-based engineering company. Over the next two years De Tomaso Australia became the sole supplier of Australian-made Ford V-8s to Automobili De Tomaso in Italy for all De Tomasos sold worldwide."

Within two years he decided to expand his business into retailing: "I had the Lamborghini franchise as well as the De Tomaso Pantera and Longchamps, which we now assembled in a dedicated workshop employing 30 mechanics in St. Leonards. The Toy Shop also sold Ferrari, Porsche, and Chopard jewelry. As well, the Toy Shop sold exotic secondhand and historic cars and motorcycles. At one stage it sold a helicopter, which we displayed in our North Sydney

1 Halstead had to buy complete Alfa Romeo Sprints.

2 In 1985 Halstead and Barry Lock built a special "ground effects" De Tomaso Pantera which won the Australian GT Championship.

3 A one-off Giocattolo Competizione which is 80 kg lighter and has a more powerful, 570-hp engine.

showroom, and which was later used in a prisoner heist at Long Bay Jail."

In 1988 the value of the Australian dollar dropped radically. At the same time, Ford stopped producing V-8 engines in Australia. To make matters worse, a luxury tax was introduced. He took these events as a challenge: "Clearly it was time to build our own Australian supercar!"

GIOCATTOLO GROUP B

By the mid-1980s, Australia's motoring history was already littered with ambitious attempts at home-grown sports cars and supercars. Very few of them made it to production, and even fewer achieved commercial success. Halstead set out to change that.

PAUL HALSTEAD

1964-1972
Programmer in training with the Victorian Railways, then joined Australian Data Processing (Adaps) as a sales manager

1972-1976
Worked in the United Kingdom for Computer People and got his first De Tomaso, a Mangusta

1976-1984
Returned to Australia, rejoined Adaps and developed it into an IT Services Contract Company

1984-1986
Sold Adaps and purchased De Tomaso Australia. Imported De Tomaso bodies, which received Ford V-8 engines. Additionally Ford engines were sent to Italy

1985-1988
Operated Toy Shop in Sydney, which sold exotic cars, such as Lamborghini, De Tomaso, and also Chopard watches

1988-1990
Realised his dream and built the first Australian supercar, the Giacottolo

SINCE 2006
Manages Haldesign and works on a new W-16-engined supercar


1

2

3

He and his family moved to Caloundra, Australia. Together with his partner, Barry Lock, who previously worked on Formula 1 and IndyCar racing cars and built a racing Pantera for Halstead, they set to work.

Halstead loved Alfa Romeo's failed Group B prototype, called the Sprint 6C. It was based on the 1500-cc front-wheel-drive Alfa Sprint coupe but featured a mid-mounted 3.0-liter Busso V-6 running through a ZF transaxle. He saw an opportunity to build the local supercar based on it.

And that is how the Giocattolo (Italian for toy) was born. Halstead used a stock Alfa Romeo Sprint as a starting point. Alfa Romeo was not happy with the project, so they had to buy complete cars and strip those down. Naturally, the four-cylinder engine was discarded. First a V-6 was considered, but the Italians refused to supply that as well. Tom Walkinshaw, a British touring car veteran who set up shop in Australia, came to the rescue. He offered his own version of the 5.0-liter Holden V-8. Lock had to work hard to shoehorn this into the rear of the Sprint. The engine used a bespoke twin throttle body and intake plenum which pumped out 300 horsepower. From the Sprint donor car, the monocoque frame, front suspension, steering, and dashboard were retained. Brembo disc brakes were taken from the GTA. The mid-mounted engine necessitated a redesign of the rear suspension. Lock produced a Lamborghini Countach–inspired double wishbone design with cast-alloy uprights and twin coil shock absorbers. Wide 285/40 rear and 195/50 front tires shod 15-inch Simmons alloy wheels.


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The car made extensive use of Kevlar – one of the first supercars to do so. Both body panels and rear bulkhead were crafted from this exotic material. The result was a lightweight mid-engine sports car with the same power as a Ferrari 348 but 300 kg lighter at 1100 kg. It had a top speed of 260 km/h and accelerated from 0 to 100 km/h within five seconds. Not bad from a two-man operation!

This was clearly European supercar territory, so the interior was very carefully laid out. While the dashboard was out of a Sprint, it featured Recaro seats, full leather upholstery, a bespoke instrument panel, and a premium audio system.

A reasonably sized boot was located behind the engine, while the front was taken up by radiators. In the boot, the tool kit contained a bottle of Bundaberg Rum for emergencies.

THE STORY OF 15 CARS

The Giocattolo was launched with former F1 world champion Alan Jones breaking the lap record at Lakeside at a press day. One Giocattolo was even dolled up in Queensland Police lights and decals as a PR stunt to imply the police were considering them as an option.

Halstead intended to build three prototypes in 1986, followed by 22 cars in order to comply with Australian Design Rules for limited-production cars. While he had ambitious plans, Halstead was aware that if they were to reach a volume of more than 25 cars a year, the car would have to undergo crash and emissions testing. Halstead intended on building more than 25 a year but needed to begin selling them before he could afford to crash one.

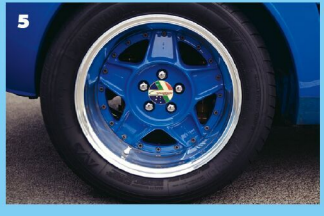
1 The luxurious interior was crafted locally.

2 Top speed was 260 km/h.

3 The engine was rebuilt about five years ago with upgraded cylinder heads.

4 V-8 engine requires extra cooling.

5 There are 15x8" front and 15x10" rear Simmons wheels and Brembo brakes.



With the V-8, the Giocattolo was priced at AU $90,000 – about the same as a BMW M535i. It still remained a relative bargain.

A less powerful Ferrari 328 cost $148,000 in 1987. The high price, coupled with the 1987 stock market crash and consequent soaring interest rates, saw the customer base for unproven wild V-8-powered supercars evaporate. Production numbers were lower than expected, and costs were becoming too difficult to contain. When Halstead missed two payments to the Queensland Industry Development Commission, the organization took over the premises and shut the project down. Altogether, three prototypes and 12 production cars were completed.

In the aftermath of the Giocattolo story, when Paul Halstead was forced to sell his family home in 1991 and was facing bankruptcy, he turned to his wife, who was upset, and said: "Don't worry … I'll bounce back and I'll produce an even better car and I will call it the Giocattolo Marcella, after you." She turned to her husband and said quietly: "You are mad, you know."

Halstead prefers the term "eccentric," though: "Being eccentric has massive advantages when you are faced with adversity." Today, Halstead, aged 76, is planning a new supercar – probably his last.

But his first car secured a position for him among the great Aussie motoring figures. ♦

1 ZF five-speed manual gearbox was able to handle Walkinshaw's tuned Holden V-8.

2 The tool kit includes a bottle of Bundy Rum.

3 Everything is a snug fit.

4 This is the third production model built.

5 The Giocattolo was lighter than a Ferrari 348 and had the same power.

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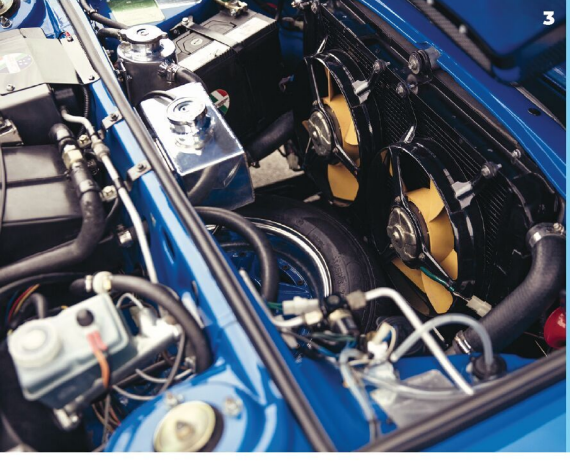
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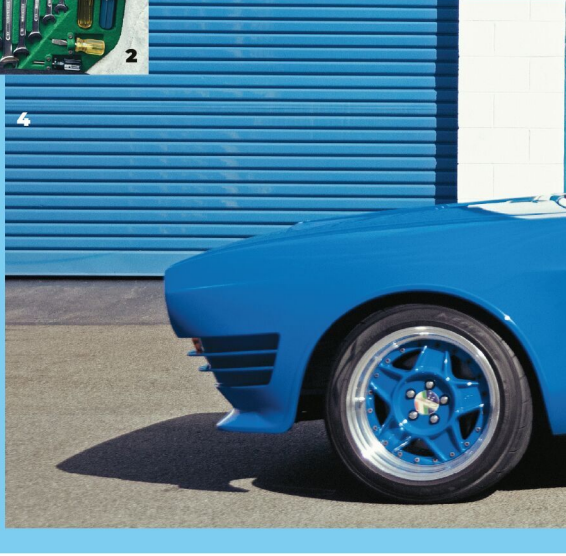
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REIMAGINING *The Past*

CUSTOM HOT RODS

Boyd Coddington's homage to 1930s French coachbuilt cars was called "Whatthehaye," a play on Delahaye.

SOURCE: BARRETT-JACKSON AUCTIONS

The term “neo-classics” has been applied to fiberglass-bodied cars with styling that harks back to the 1930s. In the past 20 years another trend has emerged among hot-rod and custom car builders, which reinterprets the past in a more respectful way. Our editor, Dr. Pál Négyesi, broadened his horizon.

It all started with famed industrial designer Brooks Stevens, who was a consultant to Studebaker.
In 1963 he was asked to develop a halo car for the brand. Having been smitten with the Mercedes-Benz SSK for years, he crafted an SSK-like body onto a modified Studebaker chassis. However, Studebaker had to pull out from the project, as the company faced serious financial difficulties. Still, Stevens went ahead and unveiled the Mercebaker at the 1964 New York Auto Show. It resembled the SSK enough to attract serious attention. This led to an updated version called the Excalibur, which was built around GM components. The Excalibur remained in production until the 1980s, when Stevens's sons sold the business. By that time other neo-classics had sprung up, such as the Clenet, the Zimmer Golden Spirit, and others. It was a bit over the top, a bit kitsch, but Hollywood celebrities, pop singers, and others who craved attention liked these flashy rides.
In the 1990s another direction took shape, thanks to the likes of Terry Cook and famed custom car builder Boyd Coddington.


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Terry Cook


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1 Figoni-style pontoon fenders on a Chip Foose-designed Boattail Speedster.

2 Type 57s Bugatti "Bella Figura" at the Bonneville Salt Flats.

3 Bentley "Sultan" by John Caswell, an homage to Jacques Saoutchik.

4 Iconic custom "Scrape" Zephyr started the flat on ground trend.

5 "Bugnaughty" also featured pontoon fenders.

6 "Creamsickle" combined a fiberglass boattail body with a Viper V-10 engine.

7 Influenced by Bugatti's Atlantic, Cook jokingly called this car "Pacific."

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TERRY COOK

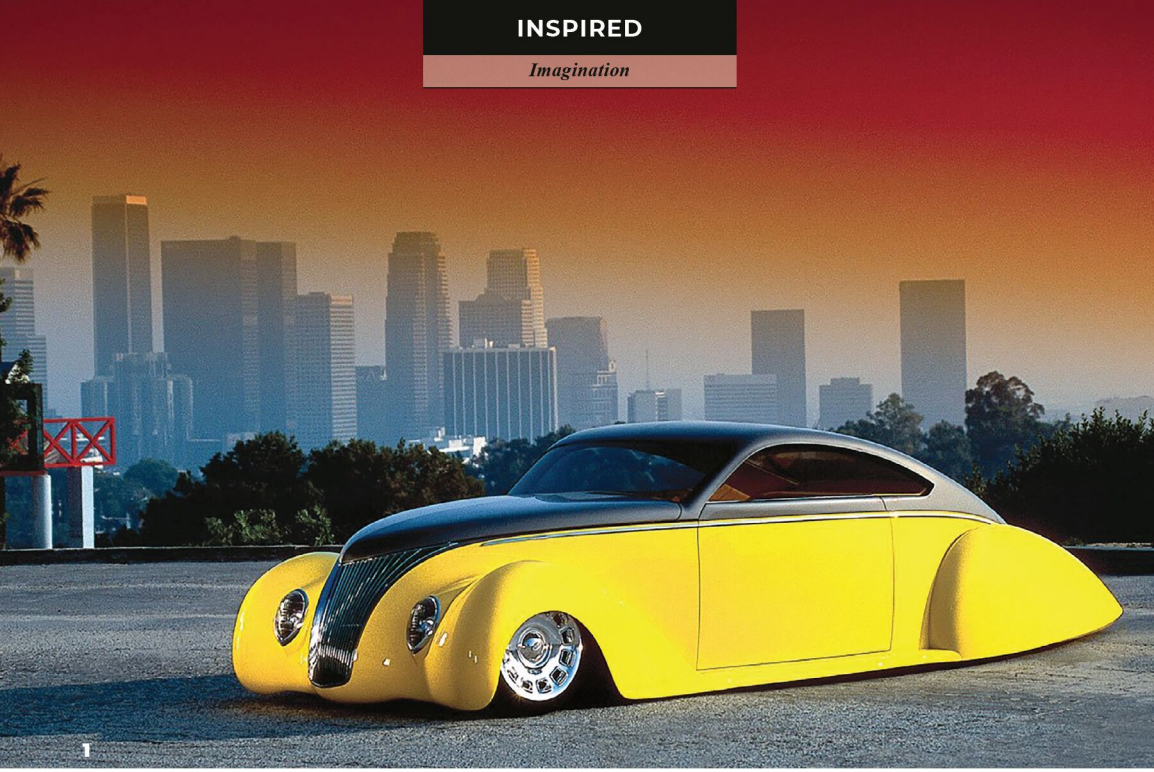
"Born in 1942, I started drawing cars and World War II single-and twin-engine airplanes at the age of six. Because I could not afford airplanes or expensive sports cars, like many American kids I started gravitating toward hot rods because they were comparatively inexpensive and affordable. By the time I was 24 I was working at Petersen Publishing's Car Craft and later Hot Rod magazines, becoming editor of both titles, totally immersed in hot-rodding car culture. With my roots deeply in hot rodding and American car customizing, my life took a serious change of direction when I attended a Concours d'Elegance where I saw the Vanvooren-bodied 1937 Type 57 "Shah of Persia" Bugatti. Its fully enclosed pontoon fenders stunned me, and suddenly I became a devotee of European coachbuilding of the 1930s and '40s. I feel the most beautiful cars ever made came from the 1935-1948 period. Initially influenced by Sacramento, California, customizer Harry Westergard (1916-1956), whom I consider the real father to the American custom car movement. I started morphing or melding my love of American 1940s and 1950s customs with the stunning coachbuilt cars, many of which came from Paris. In the early 1990s I deviated away from traditional rods and customs to cross-breeding them with classic European styling of the late 1930s."

Having struck gold with a chopped Lincoln Zephyr, which became highly popular in kit-car form, Cook teamed up with Chip Foose to offer a modern take on the 1935 Auburn Speedster: *"I've always been enamored by Auburns, Cords, and Duesenbergs, and around the turn of the century saw a sketch of a lowered and streamlined Auburn Boattail by styling legend Chip Foose of California. I hired him to design a slick boattail and hired others to build a buck and fiberglass molds... Influenced by Figoni's Type 135 Delahayes and Talbot-Lagos, I also designed a set of fully enclosed pontoon fenders. There were 15 Deco Rides Auburn Speedsters built.*

"My third kit [which] I offered in fiberglass body form was what turned out to be four different body styles of a modernized 1937 Type 57 and 57s Bugatti. I offered two different styles of coupe, the Bella Figure and the Nasty, a fastback called the Pacific, which was a clone of the famed Atlantic, and a folding-top Gangloff drophead."

At the age of 81, Cook has recently sold his two companies, Deco Rides and Delahaye USA, but he's still keen to work: "One look at Ralph Lauren's Type 57SC Gangloff drophead set me off on a 20-plus-year quest to build a clone, which I am about to deliver to a customer."

While Cook offered most of his homages with fiberglass bodies, other custom car builders built one-off all-metal creations.



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BOYD CODDINGTON

Boyd Coddington (1944-2008) was once hailed as the "King of Hot Rods." In the 1970s he worked at Disneyland as a machinist during the day and worked on his hot rods after work. The success of his operation, particularly the wheels, soon caught the eye of investors. At their peak, the Coddington companies were worth $120 million and traded on NASDAQ. But things got out of hand and the better part of the 1990s was spent with bankruptcy proceedings and reorganizations. In 2001 he built a streamlined hot rod called Led Zephyr, which was his first streamlined design. It also steered him toward European design influences.

The Led Zephyr was followed by the WhatTheHaye in 2004, which combined "French influenced coachwork with pure American muscle." It was commissioned by a longtime client, Scotty Gray, who wanted a "Delahaye-style car." Coddington and his team quickly built a chassis and fitted it with a V-10 engine from a Dodge Viper. The rolling chassis was then sent to the Custom Metal Shaping workshop, where the late Marcel De Ley and his sons, Marc and Luc, employed European coachbuilding methods when it came to metal fabrication. "Boyd brought us a chassis, a rough sketch, and an idea – he gave us a sort of free-for-all," recalled Luc De Ley later. According to a report: "The De Leys formulated an evocative, late-'30s-style European streamliner. They used the Viper's length to fashion a long prow of a nose, and the passenger compartment places its occupants near the rear wheels. The coachwork invokes the image of very influential cars: The '39 Delahaye Type 165 World's Fair car for its overall shape and feel and the Bugatti Atlantic for its distinctive dorsal rib."

The WhatTheHaye was followed by Coddington's swan song, The French Connection. Another longtime Coddington customer, Ricky Walker, was taken by the idea of a French-inspired hot rod. Its styling was inspired by the full-fendered 1939 Delahaye Type 165: "Designer Eric Brockmeyer was brought on board to provide the direction and put Boyd's vision to paper for the creation. The lines were cleaned up, the front end slanted back, and the fender skirts fully molded in so that the wheels, normally an iconic part of every Boyd build, were not visible. Flowing headlights and taillights were made to ensure the [fewest possible] eye interruptions. A full-size scale drawing was created so that the De Leys could hand-craft the body. In the meantime, a Hemi-headed Italian V-12 boat motor was picked off eBay and chosen as the exotic power plant to be used. Unfortunately Boyd Coddington died before he could see the end result.

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Boyd Coddington

SOURCE: BARRETT-JACKSON AUCTION

1 Coddington also built a custom Lincoln Zephyr tribute, "Led Zephyr," which marked his return to custom car building in 2001.

2 The aptly named "French Connection" was the last custom car built by Boyd Coddington.

3 The car, which was clearly inspired by a 1937 Delahaye, featured a 12.8-liter, Hemi-headed V-12 engine.

4 The shape of the 2004 WhatTheHaye was finished by Marcel De Ley and his sons.

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Rick Dore

SOURCE: MECUM; PETERSEN AUTOMOTIVE MUSEUM (2)

1 The De Ley family also contributed in realizing Rick Dore's ideas in metal.

2 The breathtaking Aquarius was inspired by a Figoni & Falaschi-bodied 1939 Delahaye.

3 The Shangri-la is Dore's latest French-styled custom car. It is based on a 1936 Cadillac.

3

RICK DORE

James Hetfield is best known as the frontman of Metallica, but he's also an avid collector of custom cars. After commissioning several chopped and modified cars he asked Rick Dore, the head of the Beatniks Custom Car Club, a renowned custom car builder and TV personality, to take things one step further. In 2013 the pair got hold of a 1948 Jaguar, and after looking at Art Deco renderings they laid out a few sketches. The task of shaping the body from aluminum was again given to the De Ley family, who came up with the final shape in six months' time. "About all that remained of the original Jaguar chassis after the build were the outer frame rails, which now supported a 375-hp Ford 302-cubic-inch V-8 and a Ford C4 automatic transmission." The car, called Black Pearl, won the 2014 Custom of the Year award.

Next up came the Aquarius, where, as Dore put it, "We took a French-style car and put an American twist on it." The "we" refers to James Hetfield again. Using the chassis of a 1934 Packard, Dore worked on styling inspired by one of his favorite cars, the 1939 Delahaye 165 by Figoni & Falaschi. Dore gave the car a split front windshield, a higher beltline, a smooth top that can be lifted off, and a longer nose to make it even more of a dream car than the Delahaye.

Along with its overall silhouette, the pointed trim and split front grille of the Delahaye 165 are mirrored in the car.

Dore's third "swoopy ride" was the Shangri-La in 2018, named after the James Hilton novel "Lost Horizon" from 1933, representing a fictional utopia. Dore wanted "to capture the design era of coachbuilders like Saoutchik and Figoni & Falaschi in the modern day." He took a 1936 Cadillac and modified every inch of it. The body was hand-formed out of aluminum by the De Ley family. The custom chassis is the work of Art Morrison. The car's ultra-bright PPG Indian Inkwell blue paint was applied by Ron Cambra in Orange, California, and won the Charlie Hutton Paint Award for outstanding finish in 2018.

Under the long hood roars a 5.7-liter Ram Jet V-8, making 380 horsepower, and a four-speed 700R4 automatic transmission.

1

STEVE PASTEINER

When we decided to do an article on custom cars, we knew we had to include our friend and partner Steve Pasteiner. His shop, Pasteiner's Auto Zone Hobbies, which he operates with his son, is the meeting place of classic-car fans in Detroit. We are truly grateful for the support they provide – some of our American readers got acquainted with this magazine at his shop.
Steve was born in Budapest, Hungary. His bio says he showed "an interest in automobiles at an early age, in fact his first words were 'nagy auto,' meaning 'big car,' and not mama. His mother never forgave him for that." As a small boy he could be found drawing pictures of Buicks on the steps of the American Embassy, where he befriended one of the chauffeurs. In November of 1956 the Hungarian Revolt was crushed by Russian tanks, and on the day before Christmas at the age of 14, Steve, as a young refugee, crossed the border into Austria alone. "I got into a little trouble," he said.

As fate would have it, a close relative was a professor at the University of Cincinnati (Ohio), and the couple invited Steve to become a newly adopted son and come to live in the land of Buicks. English came as a third language fairly easily and of course all through high school the love of drawing cars remained. After graduating from high school, he joined the U.S. Army's 101st Airborne Division, partly because jumping sounded like fun, and the extra jump pay could be saved for tuition at the Art Center College of Design, where he could learn to be a real car designer.
After four years at Art Center, Chuck Jordan hired Steve as a junior designer at GM Styling and assigned him to work in the Buick Studio. He actually got paid for drawing Buicks! Regals, GSs, Rivieras, Grand Nationals, and many others. Eventually he became an Assistant Chief Designer before striking out on his own in 1989 to pursue his dream to have his own auto design business, Advanced Automotive

1

Steve Pasteiner

Technologies (AAT). Over the years AAT built some interesting prototypes, such as the Helldorado concept car in 2000, a two-seater sports car with scissor doors and a Cadillac 4.6-liter engine, and the rugged Jeep Serengeti SSUV in 2016, which was built for two clients to showcase their abilities.

Additionally, AAT created around 200 commemorative Corvettes. The idea to rebuild C5 Corvettes to resemble the 1953 original to celebrate the model's 50th anniversary came from an executive at Magna, a supplier to General Motors, in 2003. However, the idea was shelved. Pasteiner picked up the pieces and set up a facility to modify C5s. He even built around a dozen Nomad Vettes too!

At around the same time that the Corvette idea was born, Pasteiner also helped out another GM division, Buick. To celebrate the company's 100th birthday the company wanted to build a custom show car that would incorporate styling cues and parts from a number of their historic models. The Buick Blackhawk would use design language from the legendary 1938 Y-Job, sheetmetal from 1941 and 1948 Roadmasters, and interior components from a 1990s Riviera, in addition to a host of custom fabricated features. Pasteiner got the job of building the prototype, using a custom chassis incorporating Corvette C-4 suspension and 455 cu in (7.5-liter) Stage III Buick engine and a full carbon fiber retractable hardtop. Upon completion, the Buick Blackhawk made appearances exclusively at Buick enthusiast events. It even had a brief appearance in the movie Bad Boys II. Thereafter, the Blackhawk found a home at the GM Heritage Center. It was sold in 2009. In 2011 the Blackhawk had a companion, when the workshop created a modern reinterpretation of Harley Earl's original 1939 LaSalle powered by a modern 6.2-liter Cadillac 556-hp CTS-V supercharged engine. The car, called LaSalle C-Hawk, was auctioned in 2013.


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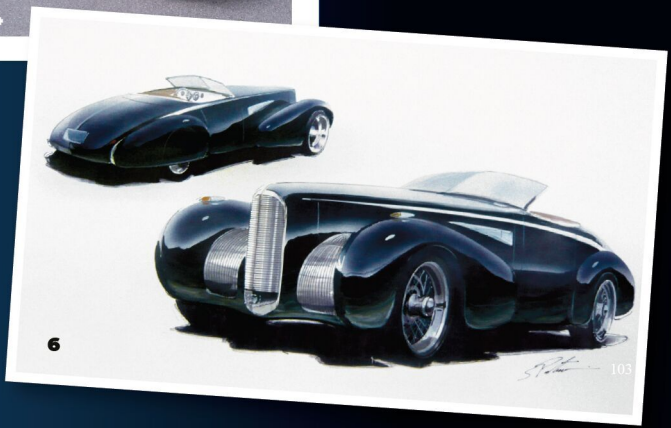
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1 The C-Hawk was inspired by the classic styling of the 1939 LaSalle.

2 The Nomad was a modern interpretation of the original 1954 Corvette Nomad.

3 The Buick Blackhawk was built at the request of Pasteiner's former employer General Motors.

4 AAT built around 200 commemorative Corvettes.

5 Pasteiner in one of his sporty concept cars, the 2000 Helldorado.

6 An evocative drawing of the C-Hawk.

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Andy Saunders

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1 Deja is the latest creation of British custom car wizard Andy Saunders.

2 "I bought four wings at Beaulieu in 2018" – that's how the idea to build such a car was born.

3 The roof mechanism and closing panel have been taken from a Ford Street Ka!

4 Luckily an original Saoutchik dash found its way to the workshop. It has been chopped, turned upside down, and narrowed in order to fit.

SOURCE: MATT WOODS PHOTOGRAPHY

ANDY SAUNDERS

The idea of reinterpreting 1930s classics has now crossed the ocean. Andy Saunders is a British classic-car restorer and custom car builder who labels himself an "automotive alchemist." He saved the 1957 Aurora safety vehicle; created such prototypes as the Citroën 2CV–based Picasso, which became a meme; and built cars with strange names like Tetanus and Hesperus. His latest project is called Deja – as in déjà vu, resembling 1930s French coachbuilt cars. In typical British fashion the car is made from a hodgepodge of parts, including a Ford Street Ka roof mechanism, Jaguar Mk V roof, and Mini doors. The idea came in 2018 when he bought "four wings" at a classic car show and then "started to look for something to put them on." As he had had problems with the homologation process before, he knew that he needed a single donor chassis. After some soul-searching, a Riley RMB, a four-seater sedan with a 2.5-liter engine which was made between 1946 and 1952, proved to have the right dimensions. Once he found a suitable specimen and brought it home, he spent hours looking at Diana Dors's custom Figoni & Falaschi – bodied Delahaye 165 and came up with a desired shape. But he had to cut, weld, fill, and modify the Riley to have everything in the right place.

The four Delahaye wings were not long enough, so he had to stretch those. He even procured an old Delahaye grille, but he could only salvage a few bits and pieces. The idea for a curved windscreen came about through studying the work of Jacques Saoutchik, notably his Delahaye 175.

After three and a half years, the car was completed just in time to be on the cover of Andy's latest book. It also made a "triumphant" debut at a London classic car show last November. ♦

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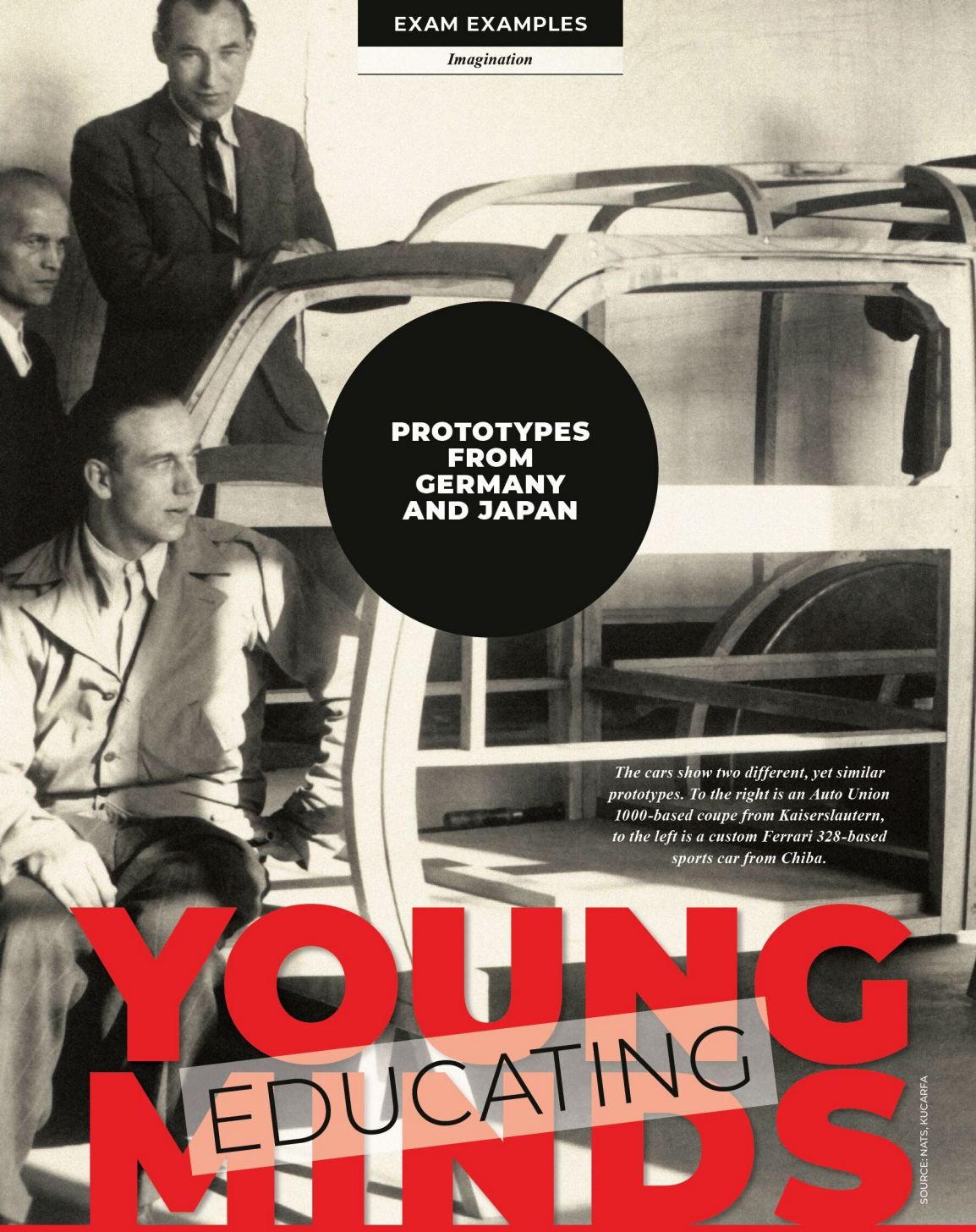


PROTOTYPES FROM GERMANY AND JAPAN

The cars show two different, yet similar prototypes. To the right is an Auto Union 1000-based coupe from Kaiserslautern, to the left is a custom Ferrari 328-based sports car from Chiba.

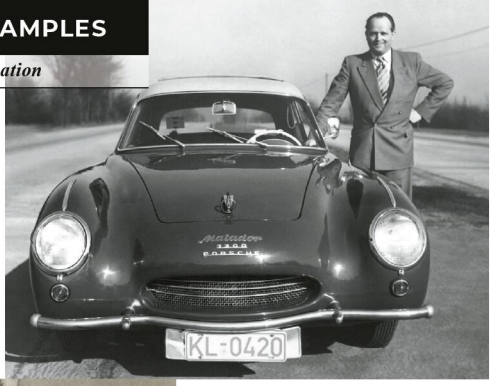
YOUNG MINDS

EDUCATING

SOURCE: NATS, KUCARFA

Jens-Uwe Olfermann (far right) was the head of the Vehicle Department from the 1930s to the 1970s. He worked hard to get his students great jobs at Mercedes, Porsche, etc.

Two schools from two different countries on opposite sides of the world both have the same purpose and ethos. The Master School for Craftsmen in Germany and the Nihon Automobile College in Japan both train experts for the automotive industry. In the process, prototypes created by students show us how customization evolved over time. With assistance from **Alexander Diego Fritz** and **Brandon Saunders**, we look into the past and the future.



▲ *In the 1950s the school presented its prototypes at industrial fairs.*

▼ *Up until the 1950s wood still played a key part in body construction.*

▲ *Benno Kleinau with one of the prototypes he sold to America.*

▼ *This car also ended up in America.*

▲ *The wrought iron gate still looks the same today.*

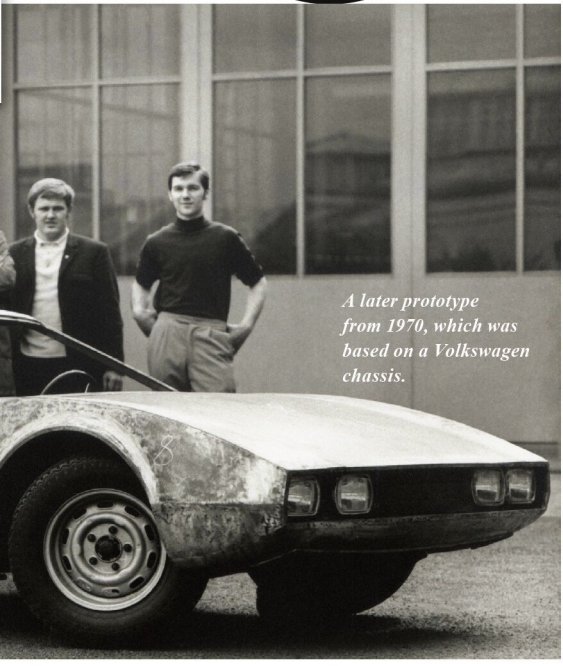
In the past 30 years, dozens of wild custom cars and one-off prototypes have emerged from the halls of the Nihon Automobile College in Chiba, Japan. Every January, the automotive press has a field day when they report from the Tokyo Auto Salon, where the school rents exhibition space and displays the latest prototypes built by the students. Whether it is a Suzuki minicar turned into a pastiche BMW M3, a Toyota minivan which has morphed into something remotely resembling a 1950s woodie, or a Toyota 86 that looks sort of like a Lamborghini Urus pickup, it is evident that students have a respect for motoring history, but also that they are full of fresh ideas.

Coincidentally, 70 years ago, the same phenomenon happened in Germany. Students at the Meisterschule für Handwerkehr (Master School for Craftsmen) in Kaiserslautern, who were trained to be handy with bodybuilding, repairwork, engine maintenance, etc., put together similar prototypes, resembling then current American cars, Porsches, or a Volkswagen Karmann Ghia.

➤ *A DKW-based car built for Olfermann in the early 1950s.*

➤ *Günter Schenk's V olkswagen-based prototype was featured in car magazines in 1954.*

KAISERS-LAUTERN



A later prototype from 1970, which was based on a Volkswagen chassis.

MEISTERSCHULE FÜR HANDWERKEHR

The origins of the Kaiserslautern school go back to the 1870s. With the advent of the Industrial Revolution, the need for well-trained craftsmen and industrial workers increased. In 1874, a trade school was established, followed by the opening of the Palatinate Trade Museum, which had the task of promoting arts and crafts in general. The training workshops of the museum's own technical school were transferred to the trade school in 1903. This formed the basis for the wide range of courses offered by the master school.

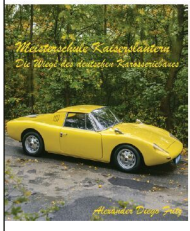
You can read elsewhere in this issue about Wilhelm Kunz and his effect on early German coachbuilding training. Oskar Bergmann already opened a training school for coach-builders before the First World War.

The archives of the Kaiserslautern school, which were almost destroyed by a flood a few years ago, reveal that it was in the 1920s that the first courses were offered for people who wanted to work in the automobile industry. It is almost certain that a few prototypes had already been built before the Second World War, but the heyday of these student-built one-offs was in the 1950s. Instructors encouraged teamwork, so typically a group of students would get together to realize their dream cars. The school enjoyed an excellent reputation among the apprentices, and it was considered a privilege to be admitted to the master school in the subject of bodywork. At the beginning of the 1950s, the students' designs primarily emulated the cars of such elite brands as Mercedes and BMW. It was not uncommon to see similarities to the Volkswagen Karmann Ghia, essentially a Beetle in a sport coat. The youth of those years dreamed of badass sports cars, including the pinnacle of driving pleasure and design language, i.e., Porsche. A large number of these vehicles, inspired by everything from the classic Porsche 911 to the Porsche 904 racing car, were created in the mid-1960s. Even renowned car brands have had prototypes made at the master school. Like the designer himself, these extravagant sports cars drew on Volkswagen's parts shelf. Volkswagen engines were fitted with Porsche parts to increase performance. Through the 1960s, picture-perfect cars continued to be handmade at the school, but as modern cars became more complicated, safety regulations also changed rapidly. Road traffic approvals for self-built cars became increasingly difficult. At the beginning of the 1970s, the building of complete cars was finally discontinued. However, the master school still trains young people very successfully in vehicle construction today. These one-off vehicles, which were almost indistinguishable from real sports cars in terms of performance and appearance, naturally had their price. For example, a brand-new Beetle cost around 5000 DM in 1963; the Porsche 911, which was introduced a year later, around 22,000 DM. A hand-built one-off from Kaiserslautern cost around 15,000 DM, excluding the chassis! This also explains

The Kaiserslautern school taught all sorts of useful skills.

NEW BOOK IS COMING

In issue No5 we already introduced Alexander Diego Fritz's 1967 prototype, which is reminiscent of a Porsche 904. The car recently traveled to Kaiserslautern, where it was reunited with Rudi Edinger, the builder of the vehicle, on his 85th birthday. With assistance from the school, Fritz put together a book on the prototypes, which will be published this autumn by Hollinek in Austria. See https://www.hollinek.at for more details.



➤ *The first custom car from the Japanese school was the Zero in 1997.*

why so many vehicles found their way across the ocean to well-heeled customers, mostly thanks to a used-car dealer named Benno Kleinau. He was a well-known figure in Kaiserslautern in the 1950s, because he not only sold used Volkswagens, but as a trained master car mechanic, he could also lend a hand himself when the Beetle was suffering from a minor ailment.

In the 1960s one of his friends, Hans Müller, who came from a butcher family, emigrated to America. In the States, he became aware of the good reputation of German sports cars. The name Porsche, at least since the tragic accidental death of the legendary youth idol James Dean, was in any case a household name among American asphalt cowboys. But affluent young women also appreciated the Beetle in its chic outfit. Before Müller devoted himself to the production of sausages, he and Benno Kleinau organized the import of several Kaiserslautern-built cars with Porsche lettering and more or less souped-up engines. The resourceful car dealer personally accompanied the transport to the USA. Family contacts were also helpful to him in the United States, because Benno's half-sister had also emigrated and lived in St. Petersburg in Florida. In the past 20 years or so, more and more such vehicles have been discovered in America.

NIHON AUTOMOBILE COLLEGE

NATS was founded in 1989 as the Nihon Automobile Technical High School to offer educational training and programs on automotive engineering. NATS has a rich history and legacy of excellence in automotive education and training. Between 1991 and 2001, it cooperated with BMW and trained engineers for the German company. In 1995 a partnership was set up with the Beverly College in the United Kingdom, which enabled students to obtain an 'Auto Mechanic' qualification from the Institute of Motor Vehicle Manufacturers (IMI).

NATS first appeared at the annual Tokyo Auto Salon (not to be confused with the Tokyo Auto Show) in 1997, and their Zero sports car won the Excellence Award in the complete car category. This led to the establishment of the customization department a year later.

The name of the school was changed to Nihon Automobile College in 1999.

In the early 2000s, a group of students were sent to the 24 Hours of Le Mans race as pit crew! Soon a motorsports department was opened in the school to train race mechanics.

Today its sprawling campus in the city of Chiba, near the Narita Airport, is equipped with a 1.2-km race circuit, a 1.5-km dirt track, and maintenance rooms.

The school's diverse programs include a two-year mechanics

This custom car, which slightly resembles an American woodie, started its life as a humble Toyota minivan.

The NATS 98 roadster predated the similar Daihatsu Copen.

Hepsi sticker, Badrich tires – a few students read too many American custom car magazines from the 1960s.

This roadster is based on a Toyota middle-class sedan.

CHIBA

course, three-year customization course, three-year motorsports course, and four-year research course.

Student-built cars won over 20 awards at the Tokyo Auto Salon, while their racing cars conquered first place at the Student Formula Japan championship for five years in a row.

One of their key strengths is partnering with leading automotive companies in Japan. These partnerships provide students with access to industry experts, opportunities for real-world experience, and professional networking with future colleagues. Students often work on projects with these companies while gaining valuable experience and building their skills and knowledge in the process. NATS works closely with the Japanese government and other international vocational schools to promote research and development in the automotive industry, and to support innovation and growth.

Perhaps one of the most notable aspects of NATS is its impressive roster of alumni. Graduates have gone on to become leaders and innovators in the automotive industry, with many holding key positions at leading automotive companies both in Japan and around the world. The current CEO of Toyota, Akio Toyoda, is an alumnus, and the former chief executives of Nissan and Honda are also graduates.

The 2002 Aithon concept is one of the few which made it into small-scale production as the Ohno Naomi III.

Both Kaiserslautern and NATS-built prototypes show innovative spirit and have aided students to learn every aspect of the automotive industry. It doesn't matter which direction the automotive industry takes: design students will make sure imagination will always be an element of car design. ♦

FAMILY TREASURE

FIAT 1100 PADOVAN

Not much seemed to be known about the Fiat 1100 Padovan when it suddenly turned up outside Italy a decade ago. Who was behind this cool design? And even with most of the whys, whats, and wheres unraveled, the car remains a bit of an enigma, says Jeroen Booij.

1 An intriguing one-off which originally featured concealed headlights.

2 Dimensions were affected by the availability of parts.

3 Interior bits were also sourced from Fiat.

4 Riccardo Padovan was a coachbuilder in Pordenone between 1923 and 1955.

COLOR PHOTOGRAPHY: MAURICE VOLMEYER

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It's only a few years since Dutchman Frans van Haren decided to open his private collection to the public. And you are in for a treat when you enter the unlikely village of Druten, some 100 kilometers from central Amsterdam. To display his roughly 200-piece collection, the entrepreneur bought an entire home interior mall in his hometown and thoroughly renovated it for the occasion. You can now buy a ticket to go and have a look there. Where seats and sofas were once on display, you will now find classic cars laid out under big chandeliers. Many of the cars in Metropole could make it straight onto the manicured lawns of the big concours d'élégance – they are prestigious and expensive. Think prewar Alfa Romeos, coachbuilt Ferraris, and gullwinged Mercedeses.

ETCETERINIS

But it's the less obvious showpieces that catch our attention, naturally. A Siata with a Ford V-8 under its bonnet intended to storm the American market, a Bandini 750 with racing pedigree by Lorenzo Bandini himself, a Fiat 1100 with bodywork by Fissore in great barn-find condition. Those cannot be considered to be highlights of the Italian automobile industry – rather footnotes from it from tiny builders that were abundant on Italian circuits and in local hill-climbs and rallies. Etceterinis always leave you surprised. That certainly goes for the Fiat 1100 Padovan, which is joining the others here. What exactly is this? It's hard to figure out, although the blunt front end, the low windows, and those wacky fins on both nose and rear do remind you of, well, of all sorts.

EXPERIMENTAL AGE

Creations from the late 1940s by some of the major coachbuilders come to mind. Farina perhaps – not Giuseppe "Pinin" Farina, but his brother Giovanni. His austere designs were among the best of the immediate postwar period. Farina dared to equip a handful of Alfa Romeo 6Cs and Lancia Aprilias without their distinctive grilles but with futuristic-looking and wide front ends with horizontal lines all over them. There are also a few Bertone designs with similar front ends. And Ghia was no exception, even hiding the round headlights in integrated square housings. These are the experimental shapes of the Italian carrozzerie, trying out things different and new. No more separate wings with round headlights on top of them; no more running boards with spare wheels and upright chrome grilles. Soon after the war, they were eager to get going again and were sparkling with new ideas, well before America started setting the tone with tons of chrome, tail fins, and multicolored paint jobs. Touring, Boano, Zagato, Bertone, Ghia, Frua, and Farina led the way here. But Padovan … ?

SWORN OATH

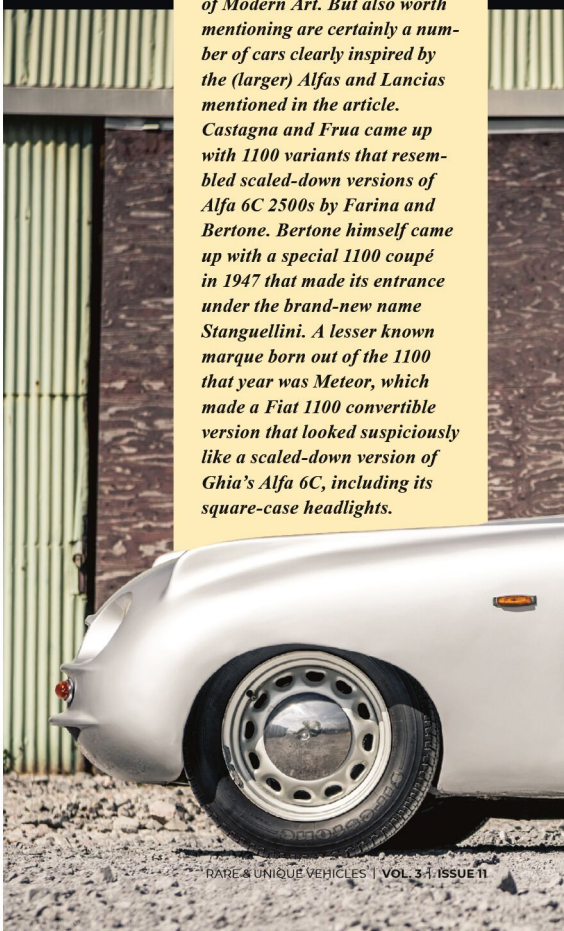
Who or what exactly was Padovan? Even Frans van Haren and Metropole collection curator Raymond Janssen do not know exactly. What seems certain is that Padovan's Fiat was influenced by those creations of the famous coachbuilders, shown at the Turin and Geneva motor shows of the late 1940s. Yes, the expensive and large Alfa Romeos and Lancias, but also a few creations based on the more common Fiat 1100s (see sidebar). Postwar Italy had been a bubbling source of inspiration for budding coachbuilders, creative metalworkers, and other design enthusiasts. And Riccardo Augusto Padovan from Pordenone had been one of them. His name becomes evident from the little paperwork that comes with the car. But the Italian registration certificate plus two old invoices do not make us too much wiser. There is also a document drawn up by the local solicitor in 1949. This shows that in October of that year, Padovan was allowed to officially register the car under his own name after swearing an oath to God and all. So that effectively makes it a Padovan 1100 rather than a Fiat 1100. The typed document also clarifies that the builder used an engine from a Fiat 1100 bought from a Mrs. Ottilia Ceschia and placed in a chassis of his own design, assigned number 163849 by the Italian authorities.

THE LETTER

So much for the official records. But there has to be more to find, you'd think. There's not a word in specialist books about Padovan's creation and even the world wide web only knows about the car since it appeared at a show in 2012. Apparently, no one has ever bothered to dig deeper into this creation. But then an Italian colleague comes forward. He knows the car from a photo accompanying a letter sent to a magazine in 1988. Senders: Luigi and Alberto Padovan, sons of the builder. "This is a prototype built by hand by our father between November 1947 and September 1949," they wrote. And they revealed quite a bit more about the car: "The term 'handwork' is certainly not an exaggeration in this context, as our father made practically everything himself. He was a good metal worker, working on cars from his childhood and teaching it himself. For more than 30 years, roughly from 1923 to 1955, he worked as a coachbuilder in Pordenone. Even though we were only children at the time, we remember well how Father would work on the drawings at home in the evenings. And then in the workshop building the car, in the scarce free time he had. In fact, Saturdays were working days, leaving only Sundays and holidays for his hobby. He used parts of the mechanicals of a Fiat 1100A (engine, gearbox, differential, and front suspension) and mated these to the chassis of a Fiat 1500A. Of course, he made some modifications: he shortened the central frame and fitted the rear suspension of that same 1500 after having modified it by lengthening the arms. Initially, he was unsure whether to build an open or a closed body. It eventually became a coupe,

COACHBUILT FIAT 1100S

Fiat's 1100 was launched in 1939 in six variants: as a pillarless saloon with short or long wheelbase, as a convertible, a sports berlinetta (again short and long), and as a taxi. Plenty of choice, it seems, but naturally not enough for the Italians, with carrozzeria versions appearing not long after the launch. Well known is the handsome Cisitalia 202 MM, at least as aerodynamically shaped as Padovan's version but many times more famous, and since 1951 even an exhibit in the New York Museum of Modern Art. But also worth mentioning are certainly a number of cars clearly inspired by the (larger) Alfas and Lancias mentioned in the article. Castagna and Frua came up with 1100 variants that resembled scaled-down versions of Alfa 6C 2500s by Farina and Bertone. Bertone himself came up with a special 1100 coupé in 1947 that made its entrance under the brand-new name Stanguellini. A lesser known marque born out of the 1100 that year was Meteor, which made a Fiat 1100 convertible version that looked suspiciously like a scaled-down version of Ghia's Alfa 6C, including its square-case headlights.



1 At first Padovan was unsure whether he wanted an open or closed car.

2 The car can get hot inside but cooling is all under control.

3 Streamlined two-door shape was very advanced in 1949.

1 The car was raced occasionally but only locally and ages ago.

2 Engine was from a Fiat 1100A, but the chassis came from a Fiat 1500.

3 There is a hint of Alfa Romeo BATs, but those were built later.

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and he designed the two-door body with a relatively long and streamlined side with low glass surfaces. This depended not only on aesthetics, but also on the materials available – he had to make do with what he could find."

ALFA'S BAT CARS

From this description it seems remarkable that the chassis was not entirely of his own design after all, despite the sworn oath. But Padovan did design and build the bodywork all by himself, almost a decade before Franco Scaglione built the first aerodynamic BAT car for Alfa Romeo, which may be reminiscent of it. As with that car, Padovan also used superleggera technology of round tubes over which an aluminum skin was shaped. That aluminum body is certainly striking, with the blunt nose hiding air vents under three horizontal lines. And then there are the three vertical fins at the front. The middle one of these divides the windscreen in two, then runs partly across the roof to the rear and tapers out widely there, only to end above the number plate. A cover of equally shaped Perspex protects the latter. Padovan's sons wrote in the 1988 letter: "We don't know if, and if so how, this fin affected the car's road handling. But Dad did race it every now and then. In the Tolmezzo-Verzegnis hill-climb, for example, where he once came second and even first in class another time."

FOLDING HEADLIGHTS

The brothers also add that when the coupé was finished in 1949, it was still equipped with folding headlights. That must have been quite something as the first and until then only production car to feature this gimmick had been the 1935 American Cord 810. Why Padovan's coupé doesn't have it anymore now is due to Italian legislation. When the law was changed in 1959, the car's headlights had to be modified and replaced by a more usual headlight arrangement. Other notable details: the large suicide doors and partially removable roof. With the exception of the split windscreen, the rest of the glass is all plastic, and you can tell that everything is hand-formed, especially that piece of art around the rear number plate.

SLIPPING CLUTCH

Inside, you will notice that the passenger sits a bit farther forward in the bucket seat. This is because the battery is mounted right behind it. In the back there is only room for luggage. "You really fall into it," says Raymond Janssen, who put the car outside for us. The doors close remarkably well, and behind the white steering wheel, visibility through that low windscreen is not quite so bad. Below that view is an array of gauges: water, oil pressure, oil temperature, petrol, and, of course, revs (up to 7000) and kilometers (up to 210, nice and optimistic). Then some switches, buttons and indicator lights, and, naturally, the inevitable Saint Christopher plaque. How to start it? Easy. Insert the key, don't even turn it, and pull out the button at the bottom left. But then it has to start. The Metropole mechanic may have made it run yesterday, but the 1100 runs lousy today. And when it finally catches on with a lot of use of the choke, it only idles. A dirty carburetor makes the engine stall abruptly at the slightest movement of the throttle. Only with a silky soft foot and a seriously slipping clutch and quite a lot of revs do I get the car moving. This is, however, immediately compensated by a delicious sound that echoes against the walls of the Metropole building. With the front wheels hidden so deeply in the wheel arches, the little coupé has a worthless turning circle. But there's nothing wrong with its acceleration. The gears are short and even with the clutch slipping, gravel is thrown up.

TESTADORO HEAD

The two invoices that remain with the car show that Padovan gave the Fiat engine the necessary extra punch. He bought in Turin a now highly sought-after Testadoro cylinder head, a hot camshaft, a special intake manifold and a Weber carburetor plus a set of flat pistons. According to his sons, the top speed was 140 km/h, which certainly seems plausible. But when opening the bonnet, you do wonder why the car was not made any lower and thus a lot more aerodynamic. This could easily have been accomplished, as it seems amazing how deeply the Fiat engine is hidden in the body. Apart from the huge and relatively high-placed radiator shaft, the engine is tucked away so deep that the aluminum surrounding it could easily have been made 15 or even 20 centimeters lower. What is also noticeable here is that the fuel lines run very close to the block. Admittedly not on the side of the exhaust (and intake) manifold, but still close enough to get seriously hot, thinking about vapor locking. Heat seems a danger for Padovan's coupé anyway, with its minuscule front grille area. Because the engine stalls so quickly, we let it run but not without keeping an eye on the temperature gauge inside. It has to be said that it does wonderfully well and the 1100 stays at operating temperature just fine, despite the hot day that it is. Ah well, Italians knew how to deal with that, we guess.

NO DESCENDANTS?

It is a pity that Luigi and Alberto Padovan can no longer be found. By 1988 their father had died and they must have been well into their 50s themselves. They concluded then: "It hardly needs saying that we have no intention of ever selling the car." But eventually that did happen to this family heirloom in 2012, and it seems only plausible that they may have followed their father by that time. Could there have been no more descendants? In that year, the special coupé ended up in the showroom of a German dealer. The information with it was minimal then, and the price on request. Fast-forward another 10 years, and the car has at least found a place of honor in a beautiful private museum, and now its story is written down here. ♦

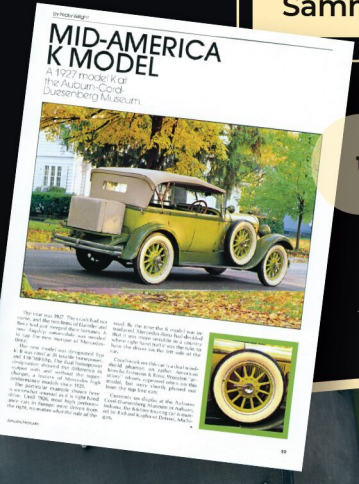
THE STRADIVARIUS OF THE ROAD

MERCEDES-BENZ 630K ERDMANN & ROSSI, 1928

The 630 was the flagship of the newly created Mercedes-Benz company in 1926. This dual-windshield phaeton, the work of Erdmann & Rossi, represents the ultimate luxury of the time. After spending decades in the USA, the car has been part of the **Sammlung K** collection for over 20 years.

COLOR PHOTOGRAPHY: MÁTÉ BOÉR

1 This article came with the car, but its origin is unknown.


MID-AMERICA K MODEL

A 1927 model K at the Auburn-Cord-Duesenberg Museum.

1

2 IA 5960 once belonged to Louis Adlon, owner of Hotel Adlon in Berlin.

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It has been our privilege to introduce so many different supercharged Mercedes cars from the 1920s, from the collections of Dieter Dressel and Sammlung K. This elegant phaeton, which is usually called a tourer in English, was one of the first cars that formed the basis of what is known as Sammlung K today.

The name 630K refers to a special, shorter-wheelbase version of the 630. Its origins lie in the Paul Daimler–designed four-cylinder supercharged models, which were unveiled in 1921. Later these were refined by Ferdinand Porsche, who developed six-cylinder versions in 1924.

The Mercedes 24/100/140 hp became the new top-of-the-line model in the passenger-car range. In 1926 a sporty version appeared with a shorter wheelbase, underslung half-spring rear suspension, and an uprated engine.

Following the merger of Daimler and Benz all Mercedes-Benz passenger cars were given new model designations in

1928. In the new regime the 24/100/140 hp became the 630. It was still powered by a supercharged 6.3-liter overhead-camshaft six-cylinder engine. The exhaust was routed through massive triple pipes, exiting through the right-side bonnet panel.

Production of the "K" in Untertürkheim had been discontinued in August 1928 as, with the introduction of the "S," a higher-powered successor had been available for over a year. This model version was bought by only the wealthiest of connoisseurs, so it is no wonder that only 150 units were completed between 1926 and May 1929.

ERDMANN & ROSSI

Erdmann & Rossi, one of the best-known German coach-builders, was founded by Willi Erdmann, owner of a foundry, in 1897. Erdmann first worked with carriages, because at that time there were just a few cars in Germany. With the arrival of Eduard Rossi in 1906, who came from the automotive

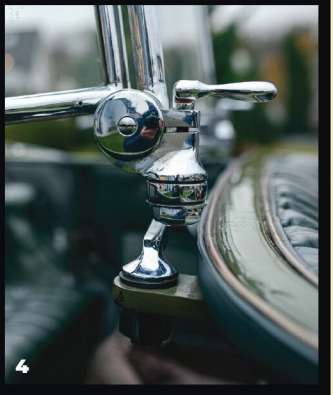
3 Once the flagship of the new Mercedes-Benz brand, the car still commands a presence.

4 The supercharged engine, which elevated the three-pointed star to a new level.

1 Mercedes-Benz sent a representative with each 630K delivered.

2 2. Lessons had to be learnt to drive the car properly.

industry, the company, now renamed Erdmann & Rossi, shifted its attention to automobile bodies, which represented the continuation of the car construction technology with wooden skeletons and wooden panels or metal sheets nailed over them. A new, five-story factory was opened in 1908.
In 1909, Eduard Rossi was killed in a traffic accident, which unexpectedly presented the company, which now had around 40 to 50 employees, with a new situation. Willi Erdmann, who had already retired from day-to-day business, handed over not only the management but also the company to one of his employees, Friedrich Peters (1886-1937).
Erdmann & Rossi clientele now included Kaiser Wilhelm II, who ordered a few vehicles, which he then usually gave to foreign heads of state as small gifts to maintain friendship. For example, during the First World War, Enver Pascha, co-head of the Young Turks and Minister of War of the ally Turkey, received a dashing Phaeton on a Mercedes chassis. Erdmann & Rossi had reached the top.



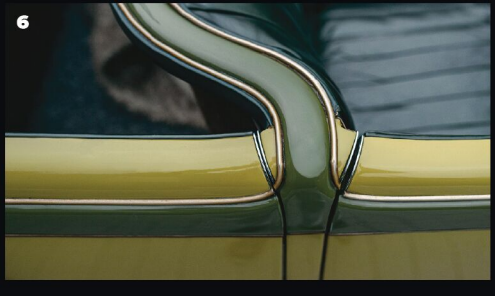
3 For long-distance travelling a large trunk was required.

4 Rear wind deflector could be adjusted.

5 Erdmann & Rossi moved to the Berlin-Halensee district in 1923.

6 Two-tone painting was cleverly employed.

7 Despite reduced wheelbase, the view is still majestic.



In the 1920s Erdmann & Rossi introduced running board lighting and streamlined bodies, among other design features. In 1933 Erdmann & Rossi took over the Neuss company. Thanks to the relationships maintained by Neuss, E&R was increasingly able to supply luxury and special bodies to representatives from politics, the military, aristocracy, business, culture, and sport, who often specified the design of the bodies – much like the French workshops of Figoni & Falaschi and Saoutchik.

After the early death of Friedrich Peters in 1937, his brother Richard (1898–1976) took over the management, with the former Neuss bodywork technicians Karl and Johannes Beeskow as head of body construction at his side. In the meantime, E&R had taken over the Rolls-Royce agency, and the company employed up to 250 people by the end of the 1930s. During the Second World War (1939–1945), E&R manufactured some open bodies for Horch 901 off-road vehicles, but mainly conversions and repairs were carried

1 When the driver pushed pedal to the metal, the supercharger came to life.

2 The car spent decades in America, before it returned to Germany.

3 Headlights and driving lights were supplied by Carl Zeiss in Jena.

4. The 630K had a top speed of over 140 km/h.

5 Sumptuous leather seats.

out for the SS and Wehrmacht. In an alternative operation set up because of the bombing raids on Berlin in 1943, the remaining crew repaired damaged vehicles. In 1949, at the Berlin Motor Show, the company presented the last E&R car, a prewar Maybach SW 42 Cabriolet.

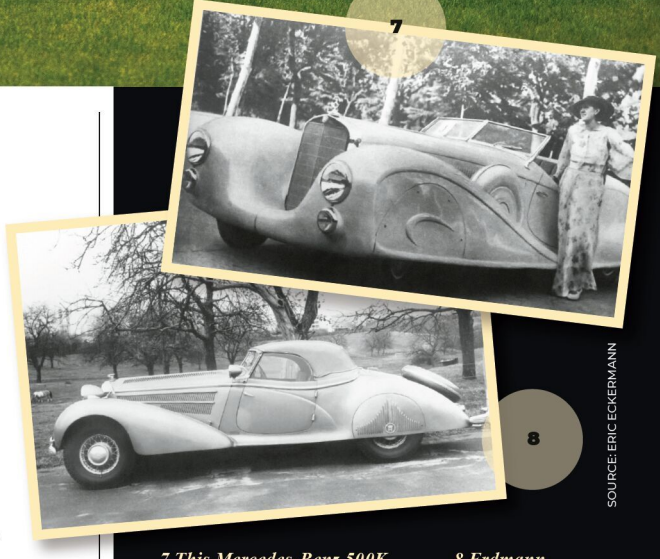
37837

It is claimed that Erdmann & Rossi built two double-phaeton bodies on the chassis of the 630K – one with left-hand drive, the other with right-hand drive. "Until 1926 most high-performance cars in Europe were driven from the right, no matter what the rule of the road. By the time the K model was introduced, Mercedes-Benz had decided that it was more sensible in a country where right-hand traffic was the rule to have the driver on the left side of the car," according to an article. The body resembles contemporary American touring cars, but features wooden "artillery" wheels, which were soon phased out from production. It was delivered to Hotel

6 Back in the day, you could have bought six flats for the price of a 630K!

6

Adlon in Berlin in 1928. Though it is claimed that a certain "Mr. York" was the customer, Berlin registration books show that IA 5960 belonged to actor Louis Adlon himself.
Its fate is unknown after the late 1930s. In the 1960s it resurfaced in America, in the collection of Leo and Bud Oser in Fort Wayne, Indiana.
In 1974 they sold it to the newly founded Auburn-Cord-Duesenberg museum for U.S. $1. This was a way to enable the museum to generate some revenue by selling the car.
By 1979 it was owned by Richard Kughn, a Detroit-based collector, who kept it in the museum for a while. Later it was transferred to Carail, a Kughn-operated museum, which displayed trains and cars. In 2003 the whole collection was auctioned and the Mercedes returned to Germany, where it became a part of Sammlung K. ♦



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SOURCE: ERIC ECKERMANN

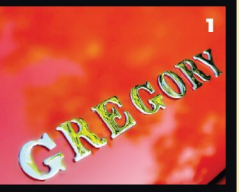
7 This Mercedes-Benz 500K received a streamlined body by Erdmann & Rossi on request from the King of Iraq.

8 Erdmann & Rossi bodied plenty of Horch 853 chassis too.

FOCUSING ON THE FRONT

BEN GREGORY'S FRONT-WHEEL-DRIVE FASCINATION

Ben Gregory spent a lifetime building cars and trucks with front-wheel-drive. One of his experimental roadsters is part of the Lane Motor Museum collection today. Its curator, Derek E. Moore, is giving us a guided tour on the life and cars of this pioneering mind.



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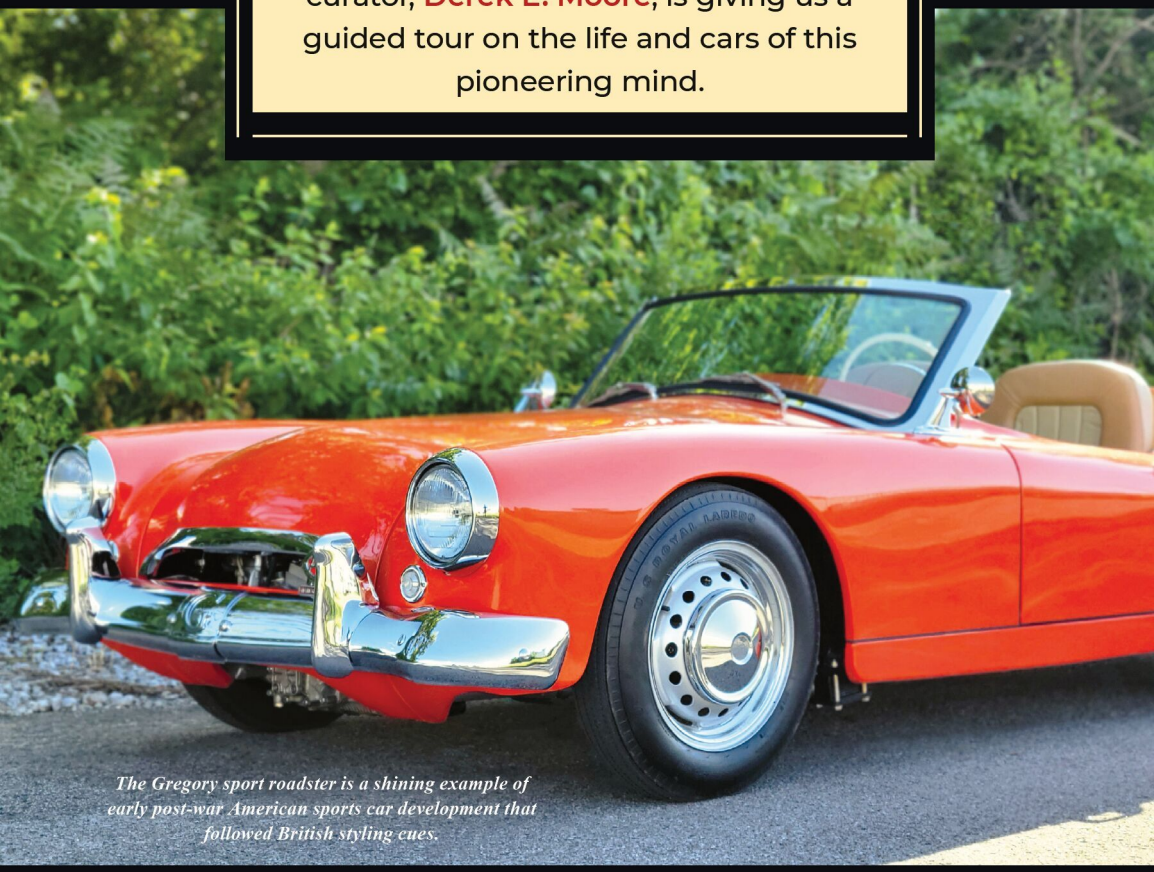
1 The decklid is the only panel on the body adorned with a Gregory emblem.


2



The Gregory sport roadster is a shining example of early post-war American sports car development that followed British styling cues.

3

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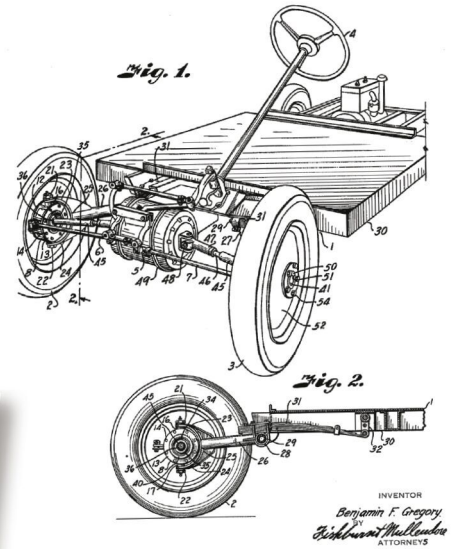
2 The front and rear bumpers have a large G emblem, keeping the body mostly free of any branding.

3 A 1922 Gregory front-drive roadster appearing to belong to the Kansas City Fire Department.

4 Ben Gregory sitting in the driver's seat of his sport roadster.

SOURCE: AACA



Gregory patent drawing for his rear-engine, front-drive vehicle design including his leading/trailing arm with quarter-elliptic spring suspension which he filed in 1945 and was awarded a patent for in 1950.

In 1769, Nicolas-Joseph Cugnot developed the world's first self-propelled vehicle, the Fardier de Cugnot, for the French military to experiment with moving their heaviest cannons. The vehicle was unlike anything that had been seen before: a large kettle-style boiler protruding from the front end of the vehicle, massive cylinders on either side of the single front wheel, and long connecting rods attached via a ratcheting mechanism to the front wheel. Yes, the very first self-propelled vehicle in history was front-wheel drive. Although front-wheel drive would not become commonplace in the world of the automobile until well into the 20th century, attempts were made to perfect and utilize this style of drive system with the onset of the automobile industry in the late 19th and early 20th centuries.

Let us fast-forward approximately 160 years to the turn of the 20th century. The early 1900s in America saw a boom in automobile manufacturers, with some of these manufacturers developing designs for front-wheel-drive vehicles, such as the famed Christie race cars. J. Walter Christie was one of the earliest American proponents of a front-wheel-drive system and had numerous worldwide patents for his system, which involved a transverse-mounted engine. The most recognizable American front-wheel-drive story, though, comes in the late 1920s – that of the Ruxton versus Cord battle to become the first mass-produced front-wheel-drive automobile in the United States. As we know, the Cord L29 won that battle in 1929, with Ruxton entering the scene shortly after. However,

1 Inside is roomy; the two-tone Ford steering wheel is well placed for piloting the little roadster.

2 The side profile shows the 1952 Ford rear bumper and MG TD wheels.

3 The front-engine, front-wheel-drive configuration allows for a low stance.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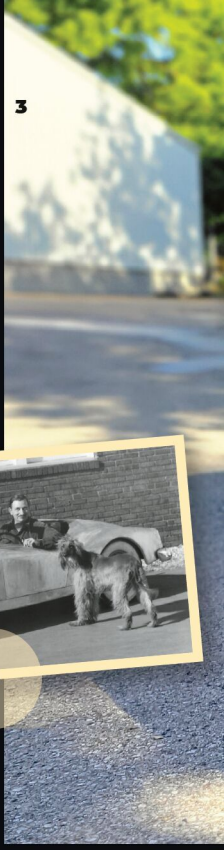

3


4

4 The freshly finished aluminum body outside Libby Radiator Shop in Kansas City.

before the Cord, before the Ruxton, even before the famed Harry Miller front-wheel-drive race cars that graced the Indianapolis Motor Speedway, there was a gentleman named Ben F. Gregory.

Gregory was born on April 23, 1889, and although not much is known about his childhood, it is known that automobiles and aircraft were always a passion for him. As a young man, Gregory was employed as a chauffeur in Kansas City, Missouri, and became involved in dirt-track racing at the age of 18. He had the opportunity to race one of the famed Christie front-wheel-drive race cars in Cleveland, Ohio, during 1912, which is when he became enamored with the idea of pulling a car, rather than pushing a car, with its drive system. Shortly thereafter, with the outbreak of World War I, he found himself in the U.S. Army, assigned to the Ordnance Truck Repair Depot in Hoboken, New Jersey. Whether it was pure coincidence or possibly a bit of manipulation on Gregory's part, that Repair Depot just happened to be located in the buildings of the Front Drive Motor Car Company, founded by none other than J. Walter Christie for the production of front-wheel-drive tractors that would modernize older horse-drawn fire equipment. This assignment gave Gregory the fortunate opportunity to learn from Christie himself about front-wheel-drive systems.

After leaving the army, Gregory returned to Kansas City and by 1920 had completed an experimental front-wheel-drive automobile based on a Scripps-Booth chassis. With the desire to produce these vehicles, he continued dirt-track racing, this time with his own front-wheel-drive racers – one with a Curtiss OX-5 engine and another with a Hispano-Suiza V-8 – and also became a well-known aviation barnstormer to raise funds, though he never amassed enough to start production.

As another of the early proponents of front-wheel drive in America, it is believed that Gregory assembled somewhere between 10 and 30 cars from 1920 to 1922. These 10 to 30 cars were a mix of race cars and prototype passenger cars, all utilizing a de Dion-style front axle, but reviews reveal that the cars were not well sorted and they tended to fight the driver, which led to one of Gregory's biggest breakthroughs – the need for center-point steering. Little else is known about

these early cars, and it is believed that none are extant.

After the demise of Gregory's hopes to produce front-wheel-drive cars due to the depression of 1921–1922, he turned heavily to his other passion, aviation. He continued flying on the barnstorming circuit, operated an air transportation company using Ford Tri-Motor airplanes, and worked for North American Aviation. His hopes to produce a front-wheel-drive automobile were reignited in post–World War II America when the American public began to hunger for new cars to drive. Ben Gregory seized this opportunity and, like other small startup automobile companies of the era, he went to work again on making his dream a reality.

The first prototype car to be assembled by Gregory between 1946 and 1947 was a small sedan constructed from an American Austin Bantam. This car was rudimentary and likely just a proof of concept for Gregory to continue moving forward with his new ideas. Aside from the push to bring his front-wheel-drive ambitions to the forefront of the automobile industry, he had developed a unique suspension system for his vehicles. The system would utilize front leading and rear trailing arms with quarter-elliptic leaf springs, seen in his patent drawings for his U.S. Patent 2,503,477, filed in 1945. His second prototype, another small sedan, would be constructed in 1947 and, like the first postwar Bantam-based prototype, was uniquely different from his prewar cars; these two vehicles utilized a rear-engine, front-wheel-drive configuration. Though little more is known about the first prototype, the second still exists today in the collection of Lane Motor Museum. This second prototype utilized an air-cooled, horizontally opposed four-cylinder, 40-hp Continental engine for its rear-mounted powerplant which was connected to a front-mounted transaxle design utilizing a manual, three-speed Borg-Warner transmission and Gregory's front-drive system. Understanding the benefits of lightweight construction, he also constructed numerous body panels for the car out of aluminum.

It was these first two prototypes that brought Ben Gregory closest to seeing his dreams put into production. The layout of these first two vehicles was noticed by Mid-America Research Corporation on an idea for a new military-style jeep

for the U.S. Army. They commissioned Gregory to produce a prototype version of his vehicles with a military-style body, constructed completely of aluminum, that could be shown to companies for production. However, it wasn't until the late 1950s at American Motors Corporation that further prototypes would be built and a contract awarded for production of what became the AMC Mighty Mite. Production of the Mighty Mite ran from 1960 until 1962 and saw 3,922 units produced.

During the time between Gregory's work on the Mighty Mite prototypes and its actual production at AMC, he constructed two more vehicles. Starting in the early 1950s, he went to work on a sports roadster that would be powered by a Porsche 356 engine, reversed, and placed at the front of the vehicle, with an inverted Volkswagen manual gearbox, and his patented front-wheel-drive system, along with the center-point steering he had realized was needed years before. The chassis was constructed at Luther Shelton Machine Company in Kansas City utilizing the leading arm and trailing arm with quarter-elliptic spring suspension.

Once the chassis was completed, it was sent to the Libby Radiator Shop, also in Kansas City, to have the completely aluminum body formed and placed on the chassis. The Gregory sports roadster was possibly the most refined of his postwar vehicles and still exists today in the collection at Lane Motor Museum. During its recent restoration, we were able to document the various components that Ben Gregory used including the Porsche engine and VW transmission, but also the Ford steering gear, steering wheel, switches, bumpers, and headlights, along with the Plymouth taillights and windshield, and don't forget the Studebaker front brakes.

Ben Gregory's final attempt at building a front-engine, front-wheel-drive vehicle came in the form of a truck chassis. The truck differed a bit from the sports roadster; whereas that vehicle used a Porsche engine, the truck utilized a reversed Volkswagen engine and had coil spring suspension rather than the leading/trailing arm and leaf spring suspension of his other postwar vehicles. Though little is known about Gregory's overall ambition for this truck chassis, it still exists today and is also in the collection of Lane Motor Museum.

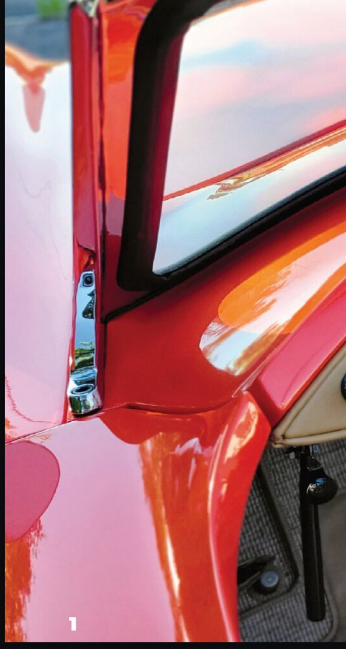
In total, Ben Gregory was responsible for somewhere between 14 to 34 front-wheel drive prototype vehicles between 1920 and the late 1950s, along with the development of the AMC Mighty Mite for the US military, and multiple front-wheel drive patents. This often-forgotten name in the history of front-wheel-drive vehicles is one that certainly deserves more attention than it has received in years gone by. Without Ben F. Gregory, the front-wheel-drive world may not have evolved as quickly as it did. ♦

1 The simple dash has only three gauges: a speedometer, a fuel gauge, and a tachometer.

2 The compact packaging of the Porsche 356 engine and VW transmission under the hood.

3 Ben Gregory with his sporty creation.

4 A period rear-view of the Gregory shows the concrete evidence of the Ford bumper and 1953 Plymouth taillights.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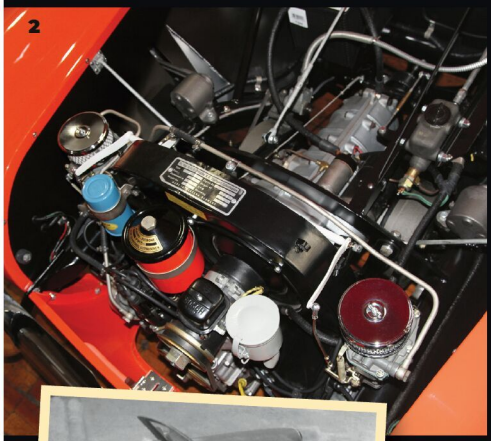
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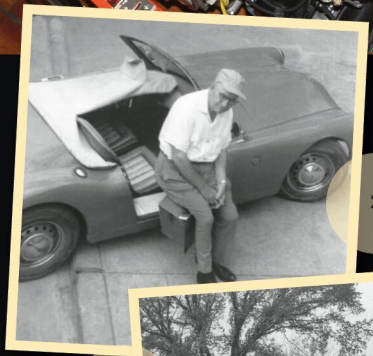
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5 The rear-engine, front-wheel-drive Gregory sedan prototype in storage at Lane Motor Museum.

5

GOING FOR THE TOP LEAGUE

TATRA T607

Despite the phenomenal success of the Tatra T607 race car in Czechoslovakia, it is one of the great "might have been" stories. Its engine size would have enabled the car to compete in Formula 1 or 2 racing ... The Czech Auto Veteran Company is restoring an original example.

1

1 A first-series 607 at a Prague race in 1953.

2 Adolf Veřmiřovský's record-breaking 607-2.

SOURCE: AVC; MOTOR JOURNAL (2); MARTIN MICANEK

3 Bruno Stojka introduced the new Tatra 607 at the 1950 Brno Grand Prix.

4 Wire wheels and drum brakes on all wheels were almost customary in the early 1950s.

The Czech auto industry had been successful in international racing going back to 1899 when Nesselsdorfer, the predecessor company of Tatra, had its first racing success in Vienna. Later, Tatra participated in the 1925 Targa Florio race with two specially prepared T11 roadsters, which finished in first and second place in their class. Skoda also tasted international success with its Popular Sport, which finished second in its class at the 1936 Monte Carlo Rally. And let's not forget Aero, which took second place in its class with a sporty Minor at the 1949 24-hour Le Mans race. These results were the fruits of a fervent local racing scene.

THE BIRTH OF THE T607

After the Second World War, Tatra quickly resumed its racing activities. In 1949, the company commissioned Sodomka, a well-known coachbuilder, to build a two-seater racing car, powered by the four-cylinder engine of the T600 "Tatraplan." Known as the T602, it had its racing debut at the 1949 Czechoslovakian Grand Prix that featured, among others, Giuseppe Farina, Louis Chiron, Maurice Trintignant, and the eventual winner, Peter Whitehead. The T602 finished in

SOURCE: MARTIN MICANEK

T607 AT THE LANE MUSEUM

Ecorra, a Tatra specialist in the Czech Republic that offers both restoration and custom car building services, built a replica of the T607-1 for Lane Motor Museum, powered by a 2.5-liter V-8 engine lifted from a T603.

1 One of the 607-2 cars is part of the Tatra Museum collection in Kopřivnice.

2 Lane Motor Museum's car carries an original 607 aluminum body atop a replica chassis and reworked 603 engine built by Ecorra.

3 The single-seater cockpit has minimal gauges, a left-hand shift lever, and brake fluid reservoir at the right.

4 The short nose and air-intake behind the driver is indicative of the mid-rear-engine platform of the 607.

ninth place. Nonetheless, it was probably the first time ever that an air-cooled car had finished in an officially sanctioned Grand Prix event.

Though government economic planners banned the company from producing passenger cars in 1950, development work did not stop. To have a suitable test bed for the engine of the secretly developed T603 and the yet-to-be-released T805 truck, a team of engineers, led by Julius Mackerle, built two racing cars named model T607 between April and September 1950.

The T607 featured an air-cooled V-8 engine placed in front of the rear axle. One of the cars, driven by Bruno Sojka, had a displacement of 1987 cc while the other, which was piloted by Jaroslav Pavelka, had a larger 2345-cc unit. However, their peak power outputs at 6.5:1 compression were approximately identical, at around 95 horsepower, though torque and acceleration were better with the larger engine. Both had a top speed of 190 km/h. To maintain the optimum engine temperature, two axial fans in front of the engine were driven by V-belts from the crankshaft. Two Solex 32 IFF double-gradient carburetors and a Scintilla-Vertex 12V magneto ignition were used. The four-speed fully synchronized manual transmission, which worked with a Mecano single-disc dry clutch, came from the earlier Tatraplan and was located behind the rear driven axle.

An alloy body covered the tubular steel space frame, which weighed just 36 kg. The monoposto body was very compact: it was only 3460 mm long, 1475 mm wide, and only 980 mm low. The suspension was transverse double triangular arms at the front and typical Tatra independent swinging semi-axles at the rear, as well as longitudinal torsion bars and inclined telescopic shock absorbers.

RACING ACTIVITIES

The T607 had its first outing at the 1950 Czechoslovakian Grand Prix, where Bruno Sojka finished in second place behind Václav Hovorka's dated prewar Maserati 6CM.

A year later, international participants arrived again. Jaroslav Pavelka beat Edgar Barth from East Germany, who later emigrated to the western part of his divided country. Unfortunately, Bruno Sojka died in a racing accident at the wheel of a T602.

After Sojka's death, drivers Jaroslav Pavelka, Adolf Veřmiřovský, Josef Chovanec, Alois Mark, and Metoděj Přikryl dominated the regional races in Czechoslovakia, and particularly the Ecce Homo, which Pavelka won in 1952 through 1954, while Veřmiřovský triumphed in 1957 and 1958. Due to the political situation in Eastern Europe, there were no races in 1955 or 1956.

In 1953, the wheelbase of the 607 was lengthened from 2250 to 2350 mm, improving directional stability as well as weight distribution. The fuel tank was enlarged from 95 to 105 liters. The grille was also replaced. The engine was enlarged to 2545 cc and a maximum power of 110 kW (150 hp) – this

1 Auto Veteran Co. almost finished restoration of the chassis of their 607-2.

2 Rev counter is calibrated to 8000 rpm.

SOURCE: MARTIN MICANEK

3 The 607-2 which now belongs to Auto Veteran Company previously was part of a Czech Tatra collection.

4 When the car arrived to the Auto Veteran Company it looked okay, but there's a lot of work to be done.

same unit was later used in the T603. The new version was called T607-2.

The 1953 Liberec circuit was dominated by Adolf Veřmiřovský in an older T607, ahead of Pavelka with the newer "two." The Ecce Homo belonged to Pavelka again. In September the T607 had its sole foreign outing at the East German Sachsenring track, where it finished in fourth place behind Barth (EMW), Rudolf Kraus (BMW-Greifzu), and the legendary Hans Stuck (AFM).

During the "Record Day on the Fly Mile" under the Barrandov Rock on October 4, 1953, factory pilot Adolf Veřmiřovský reached a speed of 197.7 km/h (197.7 mph) using an even larger 114 kW (155 hp) engine. In October Veřmiřovský reached 207.972 km/h, which remained the national speed record for many years.

Further development brought the engine up to 121 kW (165 hp). In 1954 Pavelka triumphed again in Brno after a battle with Arthur Rosenhammer and Barth (both EMW). From the mid-'50s onwards, the original ejector fans were completely replaced by ejectors and managed to be perfectly tuned. The power output increased to 135 kW (184 hp). The engine, with a displacement of 2472 cc (bore 75 mm, stroke reduced to 70 mm) and larger intake valves, had even more, 147 kW (200 hp) at up to 8,000 rpm, running at 12.8:1 compression and using ethanol fuel supplied by a quartet of twin Weber carburetors.

With the launch of the T603, racing activities at Tatra had to take a back seat, and by 1958 it was completely abandoned. Some sources claim that seven examples of the T607 versions were built, but there is a lot of confusion.

AUTO VETERAN'S T607-2

"Our Tatra 607-2 was a part of the Tatra works museum collection in Kopřivnice. In 1992 a local collector, Jan Houšť, managed to exchange it with another car. Until 2021 the car was owned by the Houšť family. At that time it was partially restored. We now continue the restoration hoping to have the car finished by 2025. Today the car is equipped with a fiberglass body, which Mr. Houšť produced with the help of the museum in Kopřivnice. Originally, the T607 had an aluminum body, but in 1957, they were replaced with fiberglass ones. However, we will be re-constructing an aluminum body as originally intended," said Jaroslav Vrabec of the Auto Veteran Co. ♦

SOURCES:

- https://www.auto.cz/tatra-607-1950-1958-vedeli-jste-ze-v-koprivnici-vznikl-vuz-f1-112048
- https://www.lanemotormuseum.org/collection/cars/item/tatra-t-607-monopost-replica-1950/
- https://www.unracedf1.com/the-forgotten-tatra-t607/
- http://ceautoclassic.eu/julius-kubinsky-and-his-great-sports-and-racing-cars/

LIKE A BREEZE

ROLLS-ROYCE SILVER WRAITH BY VIGNALE

Ordered by an American businessman who liked to live large, this Rolls-Royce is the only one bodied by famed Italian coach-builder Vignale. Today this car – which features a built-in toilet claimed to have been used to cool champagne – can be seen at the Louwman Museum in The Hague.

1 This is the only Rolls-Royce bodied by Alfredo Vignale.

2 Joseph John Mascuch had an eventful life and a car to match his personality.

SOURCE: BONHAMS (2)

"HIS STYLE OF LIVING IS LUXURIOUS, TO SAY THE LEAST," READ AN ARTICLE ABOUT JOSEPH JOHN MASCUCH IN 1973 IN THE NEW YORK TIMES. HE AND HIS COMPANY, BREEZE, WORKED ON MISSILE LAUNCHERS FOR THE MILITARY, CRANES FOR THE SHIPPING INDUSTRY, BUT ALSO ON AN ARTIFICIAL ELECTRICALLY POWERED HEART!

According to the report, he was an automobile buff with a $65,000 Rolls-Royce equipped with a bar, television set, vanity, and built-in toilet. His chauffeur also kept a Cadillac limousine and Oldsmobile station wagon in top shape. "Mascuch is also an art connoisseur, and his million-dollar, 19-room mansion in Millburn [New Jersey] reflects his tastes and knowledge. His art collection includes a Rembrandt and a Holbein, antiques that could grace a museum, oriental rugs (some of which are used as stairway runners), and mementos of his safaris in Africa."
Let's see that Rolls!

THE SILVER WRAITH

The Silver Wraith, launched at the end of 1946, was an evolution of the prewar Wraith. It featured a longer chassis compared to the Bentley Mk VI. Unlike the Bentley which came equipped with "standard steel" bodywork, the Silver Wraith was offered as a chassis, which was clothed by coachbuilders. Novel features included independent front suspension by coil and wishbone, with leaf springs at the rear, a live axle, and hydraulic brakes for the first time. The 4,257-cc overhead-inlet, side-exhaust engine, which was developed before the war, was redesigned. The engine block was now one piece with an F-head configuration. Overhead inlet and side exhaust valves permitted larger sizes, and eventually, in 1951, the displacement was increased to 4,566 cc. Altogether there were 1,783 Silver Wraiths built between

3 Built-in toilet was rarely used.

4 Toilet is part of the 'mobile office' kit, which also includes a telephone...

5 ... a full bar and other amenities.

6 The classic Rolls grille is flanked by two sealed-beam P100s, while fog-lights sit on the fenders.

1 The driver's compartment was trimmed in black leather.

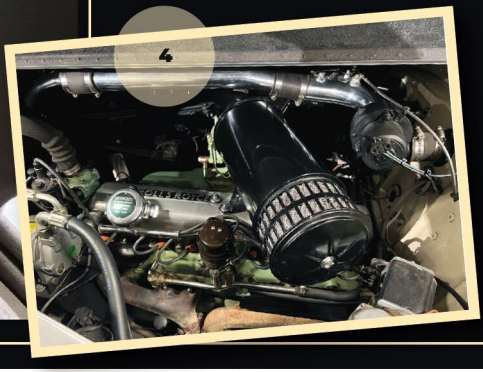
2 Built-in television enhances comfort.

3 Interior was kept intact over the years.

4 Mascuch ordered a lot of parts to be painted green and the pipes to be chrome plated.

5 A rare combination of English luxury and Italian style, with mixed results.

6 After Mascuch's death a private collector bought the car, which was auctioned in 2014.



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1946 and 1959 – including 1144 short-wheelbase and 639 long-wheelbase models.

VIGNALE

Alfredo Vignale was born in Turin, the heart of Italy's ever-expanding car industry, in 1913 as the fifth of seven sons. He was trained as a metal worker and in 1930 joined the newly founded workshop of Battista "Pinin" Farina. Vignale benefited from the thirst for young talent in this new company, but after a few years he was drafted into the army. In 1936 he joined his father and two brothers at Stabilimenti Farina. Here he received valuable advice from men like Felice Mario Boano and Pietro Frua. Vignale turned out to be exceptionally talented.

He was finally set up in his own company in 1946 with help from Piero Dusio, who also financed Cisitalia. The Savonuzzi-designed Cisitalia 202 MM was realized thanks to the talents of Vignale. He also worked on Fiat and Lancia chassis.

In the early 1950s Vignale was contacted by Enzo Ferrari, who was increasingly unhappy with demands from Touring for long-term contracts and was looking for a purist coach-builder with a heart for the job. Alfredo Vignale turned out to be the most suitable man precisely because of those qualities. Vignale was on the up and up. While other coachbuilders went into the direction of more lucrative contracts which saw them churn out smaller or larger series of special cars, Vignale still worked on one-off custom cars.

Sports cars thus remained the main source of income for the ever-growing Vignale in the early 1950s. During these years, the coachbuilder made full use of the great designer Giovanni Michelotti (who also did commissions for Ghia, Allemano, and Bertone), whom Alfredo got acquainted with at Farina before the war. This marked a high point for the Turin-based company. Vignale and Michelotti proved a golden duo, especially in their commissions for Ferrari. The Lancia Appia series became a turning point for the company:

ANOTHER BUILT-IN TOILET

The idea of a built-in toilet is not new. The Royal Stables in Copenhagen, Denmark features a carriage museum. Part of the collection is the Augustenborg Carriage which has a built-in toilet. It once belonged to the Duke of Augustenborg, who probably used it for long-distance trips, where such a feature was a welcome plus. It was sold to the Royal Stables in 1811.

1 The chassis plate of LCLW14 is still intact.

2 The kneeling lady mascot was created after World War II be in harmony with the new lower bodies.

3 Built-in toilet was necessary for longer trips.

4 The Royal Stables in Copenhagen bought the carriage in 1811.

SOURCE: CHRISTIANSBORG PALACE (2)

the number of units built suddenly became a lot larger, and they had to think about a new production site for the first time. In 1961 Vignale moved to larger premises and spent the 1960s expanding. However, Alfredo Vignale's life was cut short by a fatal car accident in 1969. His company was sold four years later.

LCLW14

Starting with a long-wheelbase Silver Wraith, Mascuch enlisted Alfredo Vignale's company to build a very special one-off body. The classic Rolls grille is flanked by a pair of sealed-beam P100s, while a smaller set of hooded fog lights capped the front fenders. The rear window and C-pillar were swept back, and the rear window was retractable. Even with the long wheelbase, the finely appointed cabin necessitated a long rear overhang to accommodate a full-size trunk.

If the look of the car wasn't enough to draw one's attention, the list of special features certainly would. Under the hood, the block, head, dynamo, starter, air cleaner, carburetor, and inlet manifold were all painted green. In addition to that, the build sheets indicate that the "customer requires all visible pipes under the bonnet [to be] chrome plated." Inside, air conditioning kept the cabin cool while fine cabinetry in the rear compartment hid a full bar and a center-mounted television.

A Becker Mexico radio in the dash provided music to fit the occasion. All of the windows were of course power operated, as was the front seat. The chauffeur's compartment was trimmed in black leather, while Mascuch enjoyed gray broadcloth. Most distinctively, under the right rear passenger seat is a toilet with a gold-painted toilet seat – although it is understood this was only used as a champagne cooler.

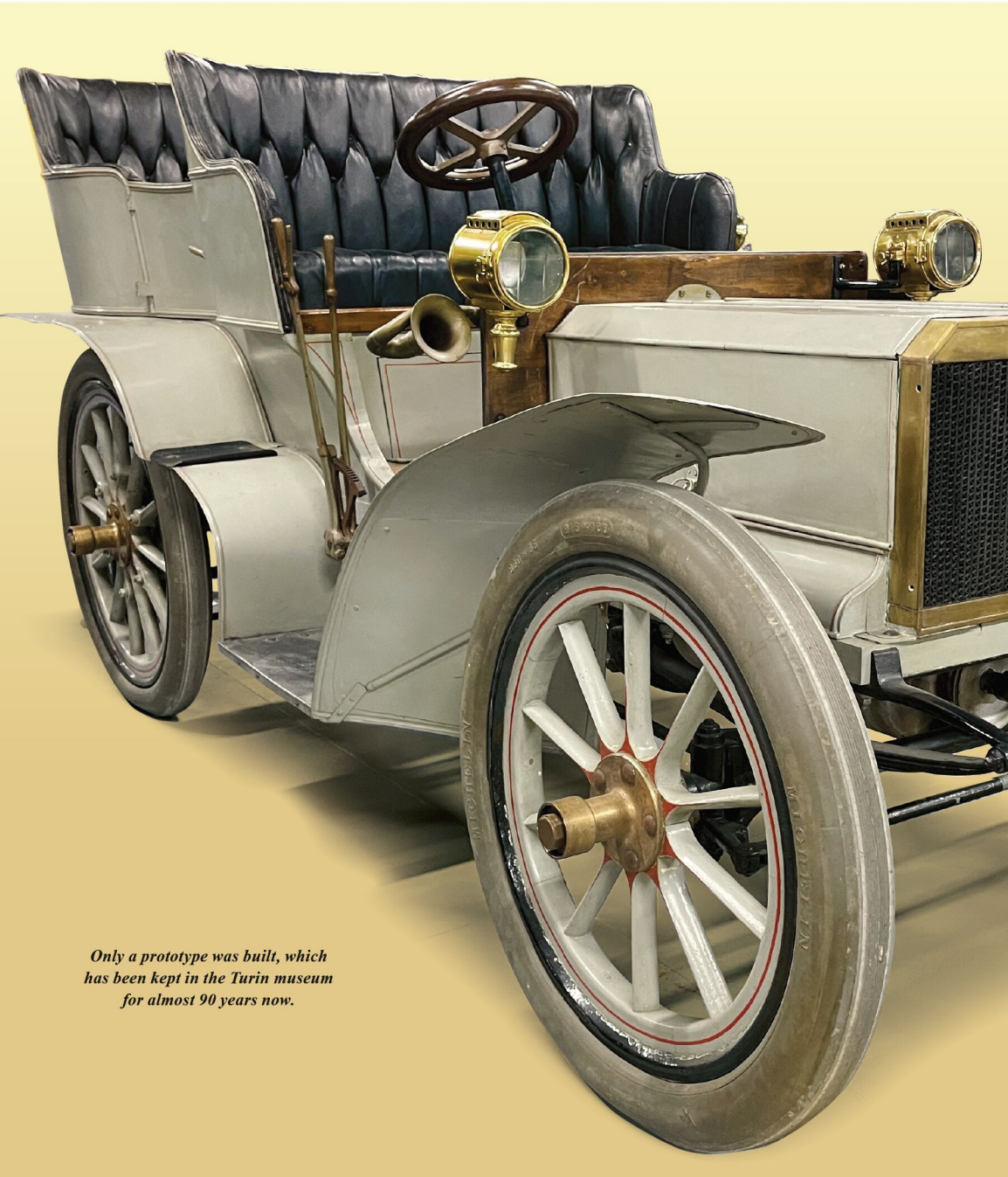
Mascuch kept the car until his death, when it was sold to a private collector. In 2014 the Rolls-Royce was auctioned by Bonhams and has been procured by the Louwman Museum, which houses plenty of rare & unique cars. ♦

STEP INTO THE HISTORY OF DUTCH DESIGN

SPYKER 60-HP RACING CAR, THE WORLD'S FIRST CAR WITH A SIX-CYLINDER ENGINE, FOUR-WHEEL DRIVE AND FOUR-WHEEL BRAKES.

LOUWMAN MUSEUM

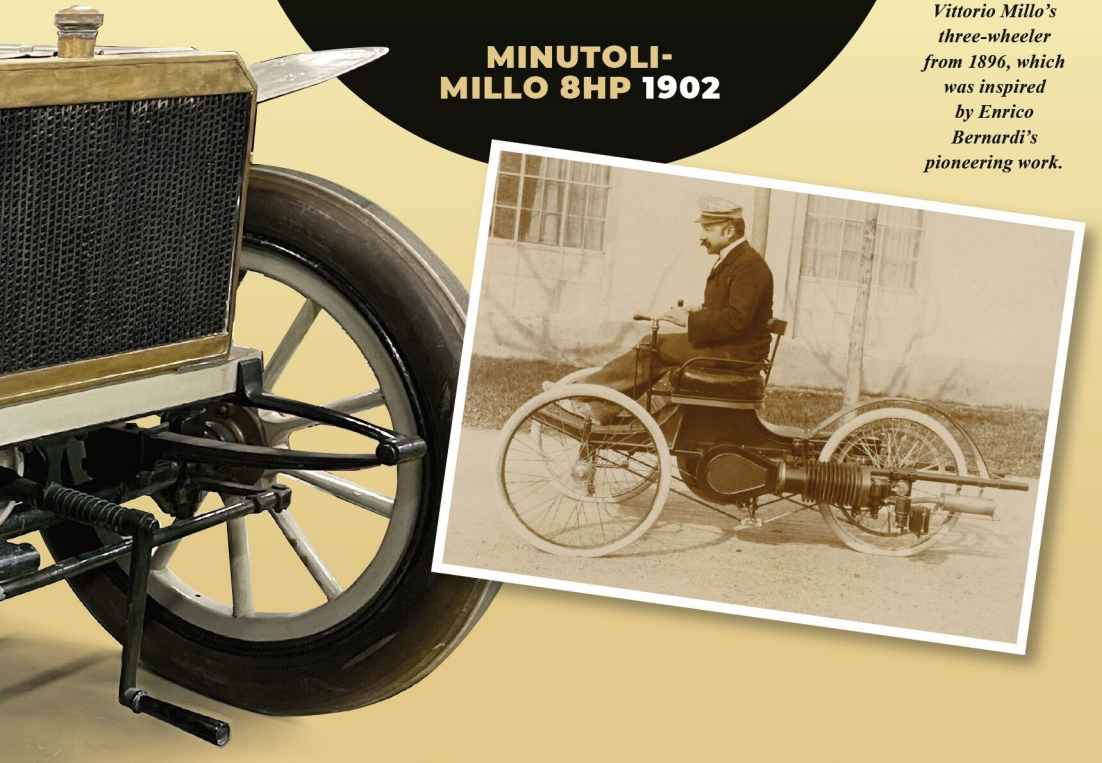
YOU CAN DISCOVER THIS AND OVER 275 OTHER ICONS FROM THE HISTORY OF MOBILITY IN THE LOUWMAN MUSEUM IN THE HAGUE. GO TO LOUWMANMUSEUM.NL FOR TICKETS



Only a prototype was built, which has been kept in the Turin museum for almost 90 years now.

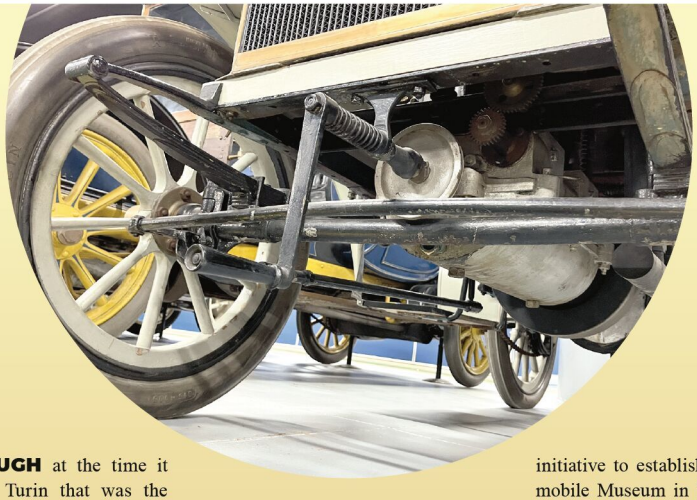
PROTO-TYPE FROM A FARM

MINUTOLI-MILLO 8HP 1902



Vittorio Millo's three-wheeler from 1896, which was inspired by Enrico Bernardi's pioneering work.

Vittorio Millo was an Italian engineer who, just like many of his peers, became mesmerized with the automobile at the dawn of the 20th century. His dreams were cut short by his untimely death. Frederico Signorelli visited the MAuto to take a closer look at his prototype.



Leaf springs, wooden wheels, crank to start the engine – the designers kept it safe.

THOUGH at the time it was Turin that was the Italian nerve center of the automobile industry, other regions also had their fair share of early adopters. In Florence it was the Fabbrica Toscana Automobili Florentine, later Florentia. Their cars provided the inspiration for Vittorio Millo, a director of a cotton mill in Lucca, near Florence.

Millo had already built a motor tricycle around 1896. In 1902 he teamed up with his friends Alessandro Minutoli and Eugenio Fascetti to build a reliable and practical touring car. Minutoli offered financial support, while Fascetti brought with him technical expertise and his nephew, Renato Balestrero, a protagonist of the heroic times of motor racing.

Due to probable lack of space in the cotton mill, construction of the car took place at Minutoli's farm near Vorno, in the province of Lucca. The Minutoli-Millo car was very typical of its time with chain drive, leather cone clutch, three-speed gearbox, and low-tension magneto ignition. The intake valve of its side-valve, four-cylinder, 2143-cc, 8-hp engine was opened by vacuum while its exhaust valve was controlled. A single pedal operated the clutch and brake simultaneously. There was a double-phaeton body, comfortable for four to five people. It is clear that the design was mainly under the banner of sturdiness and general simplicity, trying to achieve the goal of a reliable car with practical handling, but this did not prevent the car from having a certain personality and originality in its aesthetics, determined by the technical choices of the engine and formal choices of the body. Singular is the volume of the low, wide, squared-off hood almost like a box, on which no logo stands out, demonstrating the prototype nature. Other distinguishing features are the wide, almost winglike front fenders and the rear fenders that mold to the side interspersed with the running boards covering the transmission components. The rear seats can be accessed via two small side doors.

The Minutoli-Millo 8 HP was finished in a few months' time. Following successful tests, a company was set up to manufacture the car. But in 1903 Millo suddenly died and the whole project collapsed.

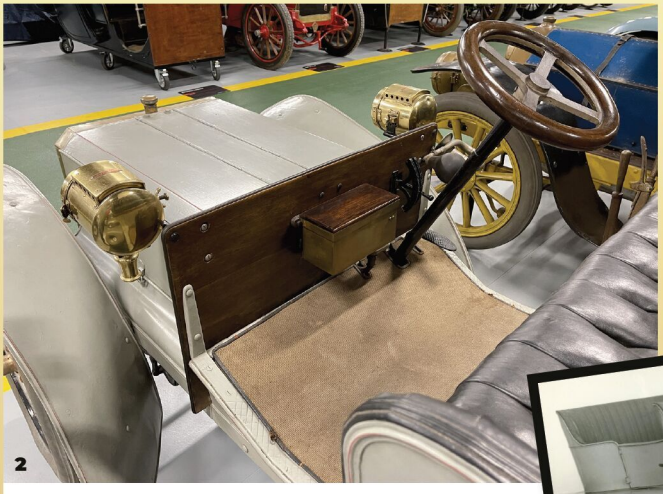
The spinning mill factory kept the car until 1935. In the 1930s Carlo Biscaretti di Ruffia, the Turin-based historian, designer, and illustrator, launched an initiative to establish a National Automobile Museum in Turin. Directors of the spinning mill factory contacted him about the early car they kept.

Shortly thereafter, after a fruitful exchange of letters, the car was loaded onto a transporter (with the wheels disassembled) and donated to the nascent museum, where it arrived in good condition in 1935.

The paintwork of the car is worthy of note: it is now a very light gray with contrasting red fillets, although there is no firm evidence that this was its real color. We do know that this was chosen by a close associate of Carlo Biscaretti di Ruffia, Pietro Vercellone, to make it presentable to the public in the 1930s. It is thought that the car was never actually painted as it was a prototype, so a color scheme was sought that would make the car presentable for exhibitions but at the same time "true" to its guise as a "car in the making." Certainly it is now a historicized modification that tells the story of the car's different lives.

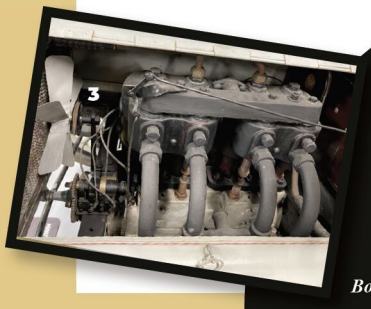
At the time it did not express itself in large serial numbers as desired by Vittorio Millo, but today it has perhaps achieved much more: definitive consignment to automotive history as the witness of an era, an adventure, and the status of a significant moment in the evolution of the car made of ingenuity, courage, and passion. Not a bad career. ♦

1 Side-valve engine was capable of 8 hp.

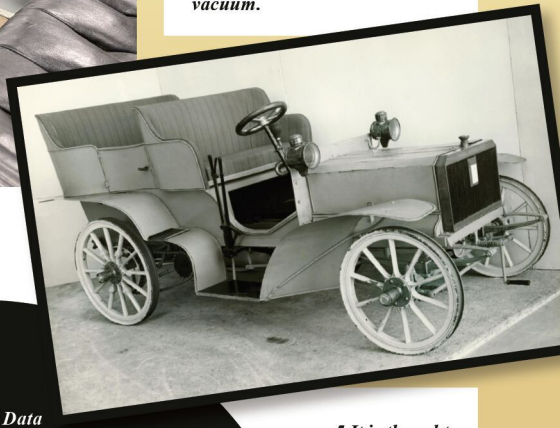


2 The interior was also very spartan, partly because the car was a prototype.

3 The museum finished refurbishing the car recently.



4 Intake valves were opened by vacuum.



5 It is thought that the car was unpainted and it received a fresh coat of paint at the museum in the 1930s.

Technical Data

MINUTOLI-MILLO 8HP 1902

ENGINE:

Four-cylinder, side-valve

Bore: 80 mm • Stroke: 120 mm • Capacity: 2413 cc

Engine power: 8 HP @ 1000 rpm

DIMENSIONS:

Length: 3120 mm • Width: 1450 mm • Height: 1530 mm

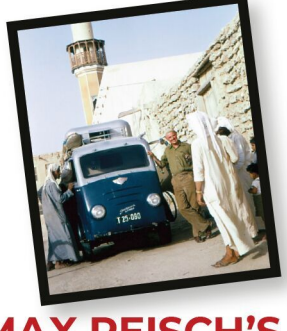
Wheelbase: 2130 mm • Weight: 750 kg

Preview

INSPIRATION FOR THE WORLD

DEDION-BOUTON ENGINES

ONE CAR MANY NAMES

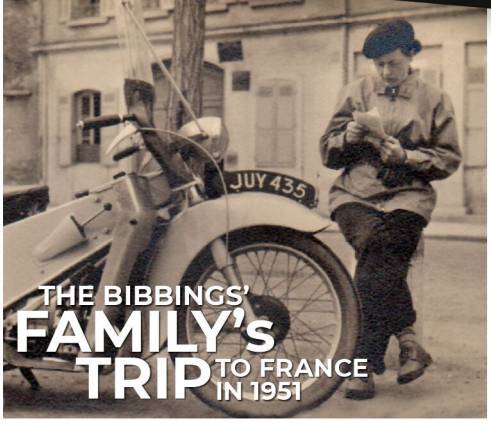


MAX REISCH'S TRAVELS THROUGH THE YEARS

THEME

Globetrotter

refers to someone – and in our case something – who/which travels regularly to different parts of the world. This may be someone who did an expedition with a vehicle. It can also refer to a car or a car part which affected the industry far from its birthplace, like the DeDion engines which kick-started the career of hundreds of car companies.



THE BIBBINGS' FAMILY'S TRIP TO FRANCE IN 1951

RENAULT IN ARGENTINA

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- *Co-starred in Chitty, Chitty, Bang, Bang*

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