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Billboard

Save the date: October 9th:

The SAH Annual Awards Presentation & Banquet, Hershey, Pennsylvania. The registration details are in the enclosed flyer and on the society's website: autohistory.org

The Revs Institute just unveiled: "The Rivals: A Golden Moment in Grand Prix History," featuring both the Institute's Lancia D5O and the legendary Mercedes-Benz W196, on temporary loan from the Indianapolis Motor Speedway Hall of Fame Museum. With superb quality period images, sound and video, the epic 1954-1955 "David vs. Goliath" Grand Prix season comes to life in this new exhibit, which is part of the Collier Collection of over one hundred of the most influential automobiles ever created. The exhibit runs through November, see revsinstitute.org/news/the-rivals-a-goldenmoment-in-grand-prix-history/

Remembering Marshall Naul:

Further to Kit Foster's obituary for Marshall

Naul in the last SAH Journal, I would like to record the tremendous help he gave me with my two encyclopedias, on motorcars and commercial vehicles. For both books he wrote nearly all the entries on the smaller pre-1919 U.S. makes (and there were an enormous number of them). For his research he toiled for hours in the Detroit Public Library, and I can honestly say that without his input I could not have compiled the two books. In The Complete Encyclopedia of Commercial Vehicles, he was named on the jacket as U.S. Consulting Editor.

Apart from his writing, he was a good friend, with whom I stayed a number of times, at his homes in Newark, Delaware, and, later, with my family, at Granville, Ohio. He drove me to my first visit to Hershey in October 1970, when he had one of the first Ford Pintos. He sent me a photo of what might have been his first car, a 1934 Chrysler Airflow Imperial Eight which he had in 1941, a surprisingly large car for a young bachelor.

-Nick Georgano

Submission Deadlines:

10/1 Deadline: 12/1 4/1 6/1 8/1 Jan/Feb Mar/Apr May/Jun Jul/Aug Issue: Sep/Oct Nov/Dec 1/31 3/31 5/31 9/30 Mailed: 7/31 11/30

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Front cover: the editor's artistic interpretation of the photo by Kit Foster on page 4.

Back cover: The Revs Institute's Osca 1500 wins "The Spirit of Sebring Award" at the 20th Amelia Island Concours d'Elegance. Presentor Sir Stirling Moss (center) won the 1954 12 Hours of Sebring driving this car, and *Carl Jensen* (left) was there to represent Sebring.



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President's Perspective

As I write this, I look forward to our board meeting at the end of the week at the Studebaker National Museum in South Bend, Indiana. In addition to our day-long meeting and the challenges that must be confronted at this gathering, there will be plenty of time to learn from those in attendance and at the tour and dinner that will take place the following day. As an academic, I can't emphasize to you enough just how much I have learned over the past decade by attending SAH functions. The informal conversations, presentations at the biennial conference (the next will take place in Cleveland in the spring of 2016) and museum tours have given me knowledge of automobile history I could not have acquired anywhere else on the planet! Reading books in isolation can take one only so far.

Several issues ago, I asked the membership for advice on what films to use in an upcoming history seminar entitled "Cars and Film." And as I reported to you in the last issue, the response was most positive. As the course is now winding down I wanted to give you an update on what films I chose and why.

As the students walked into the classroom for the first time I wasted no time in getting them immersed in film. On that first day we watched together Ken Burns's documentary *Horatio's Drive*, the story of Horatio Nelson Jackson and his impulsive decision based on a \$50 bet to drive in a Winton from San Francisco to New York during the spring of 1903. In many ways this PBS film sets the stage for the course; it begins with an excellent opening that summarizes the coming of the automobile to America and the variety of responses and social consequences that followed. Once the narrative shifts to the actual trip, viewers are not only exposed to remarkable scenes of the American landscape at the beginning of the 20th century, but to the notion that the automobile and the road are inseparable, an interpretation that was posed by historian John Rae many years ago.

Horatio's Drive marked just the beginning of our journey. Given the inherent paradoxes associated with the automobile in American life, the following week featured two very different views: the 1930s Henry Ford's Mirror of America and the late 1980s Michael Moore's Roger and Me. Did this new device lead to freedom, economic opportunity, and pleasure, or machine age regimentation and eventual dislocation?

Complexities abound, and as the course unfolds will only multiply during the weeks ahead.

Since this seminar is a history course, generally I use chronology as an organizing principle. Thus, we began by looking at the silent film era; specifically, students watched *Mabel at the Wheel* (1914) and *The Wife and Auto Trouble* (1916). Thus, the topic of gender was introduced, a theme that threads through much of what followed. Supplemental readings included the excellent but somewhat dated essay by Julian Smith, as well more recent essays by Jennifer Parchesky and Melissa Weinbrenner. (The entire syllabus can be found at my blog site, automobileandamericanlife.blogspot.com.)

I can see that my course description would take up far more than my allotted space, so let me condense by summarizing week-to-week topics and the films used. After the week featuring the Silent Era, the topic shifted to "Mobility and the Great Depression"; the assigned films were It Happened One Night and Grapes of Wrath. Students were assigned several readings on how to watch a film like one reads a book. The following week we moved chronologically forward by focusing on "Road Films and Film Noir," viewing They Drive by Night and Detour. By then students had to make choices as to what their seminar paper topics would be, a big decision since so much of the course grade involved writing two preliminary drafts, making a public presentation, and then submitting a final version. As students began preparing tentative bibliographies we tackled the topic "Chrome Dreams and the Tarnished Underside" by viewing Rebel Without a Cause and Thunder Road. Next, reading about and watching an episode from the TV show Route 66 explored the 1960s. Who can leave the 1960s behind without viewing Bullitt and Easy Rider? Finally, in covering the 1970s students took on Nostalgia, Truckers, and the Apocalypse during successive weeks while analyzing American Graffiti, Smokey and the Bandit, and Death Race 2000. In between all of this the class had two visitors, director Charlie Carner (1997 version of Vanishing Point) and actor and director Nick Searcy (Paradise *Falls* and co-star of the FX series *Justified*).

So this is approximately where we are right now with about three weeks to go. Student paper titles include Elvis and His Automobile Films: Spinout and Viva Las Vegas; The Legacy of Thunder Road; Route 66 and America on the Cusp of Social Change; Women, Automobiles, and Film Noir; Hot Rod Films During the 1950s; and Corporate Film and the Promotion of the Early Mustang.

It has been a long semester and I think you can see why. Next stop for me is Leipzig, Germany during May and June, where I will be teaching engineering students auto history while we take advantage of the BMW and Porsche assembly plants there. Side trips to Ingolstadt, Wolfsburg, Munich, Stuttgart, Eisenach, and Zwickau also are planned. Perhaps what transpires on that trip will be the focus of my next message to you.

May all of you enjoy a pleasant spring. I can be reached at Jheitmann1@undayton.edu.



The Bugatti Type 41 Royale "Esders Roadster," a replica built for the Schlumpf brothers of the first incarnation of chassis 41.111, which bears another body by Binder (known as the "Coupé de Ville Binder") and is now owned by Volkswagen and used to promote the current Bugatti marque. Like the original Esders body designed by Jean Bugatti, it has no headlights, since Esders declared that he had no plans to drive the car after sunset. In the background, right center, is the Park Ward limousine (chassis 41.131), and far right is the nose of the Coupé Napoleon (chassis 41.110), the first one made and once the personal car of Ettore Bugatti.

RÉTROMOBILE CLOCKS UP 40

Rétromobile, Europe's largest indoor old-car event, opened Wednesday, February 4th, for its 40th season, a five-day run through the following Sunday. Held annually at the Parc des Expositions at the Porte de Versailles in Paris, it is part car show, part club fest and part merchandise mart.

There are no prizes. Many of the cars are part of dealer displays; others come from manufacturers and still others from clubs. Most every major classic car dealer in Europe is represented,

as are the French "Big Three," Peugeot, Citroën and Renault. Other European automakers with displays included Mercedes-Benz, Porsche, BMW and Škoda. This year Renault celebrated 50 years of the front-drive R16, while Mercedes exhibited the one-off 1938 540K Stromlinienwagen (Streamliner) shown at Pebble Beach last summer.

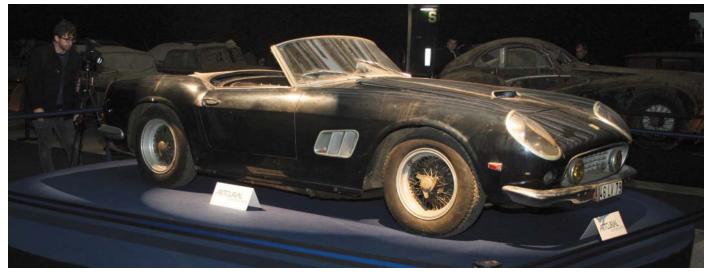
Peugeot and Citroën host clubs dedicated to their marques and models on their industry displays, while clubs for orphan



No fewer than 12 Pegasos were on display, nearly 15 percent of the total production of this Spanish marque. This car is the 1953 "Thrill" superleggera coupe by Carrozzeria Touring of Milan.



Renault's large display followed several themes, one of which was the 50th anniversary of the Renault 16, the company's second front-drive car and one of the first hatchbacks.



The price of patina: 1961 Ferrari 250 SWB California Spider (chassis 2935GT, Artcurial's lot 59,) had been stored indoors but showed the ravages of time. Still, it outsold RM's restored 250 GT/L by a factor of nine at a heady \$18.5 million.

makes, like Hispano-Suiza, Hotchkiss and Salmson, take their own, smaller booths on the periphery. There are also club stands for Corvette and Mustang clubs, as well as many for British sports cars. Large outlets for books and literature and vendors of model cars do a brisk business. There are fewer sellers of car parts, and these tend to specialize in lighting or specialized components like carburetors. Artisans, too, are represented, displaying and selling their paintings, photographs and sculpture.

In past years, Rétromobile had an annual theme. The current management has opted for several smaller topical displays of cars not usually seen together. This year boasted probably more Pegasos under one roof than have been together since the factory ceased building cars in 1956. No fewer than a dozen were gathered, and two more could be found on dealer stands. In another part of the hall, three Bugatti Royales congregated. This was not the largest royal gathering of Bugattis—that took place at Pebble Beach some years ago, when all survivors were united—but two original cars from Cite de la Automobile, the French national motor museum at Mulhouse, plus one replica,

were on display. These were the Coupe Napoleon and Royale Park Ward limousine, joined by the re-created Esders Roadster, which was built for the legendary Schlumpf brothers and uses a railcar engine.

An event of this type is the perfect venue for an auction, and Rétromobile had three. RM Auctions held its second Paris sale at the Place Vauban and Bonhams, long a participant, held its fourth at the historic Grand Palais, some distance away. The official Rétromobile auction house was Artcurial, a French concern, with cars displayed and the sale itself held in the exhibit halls. This year, Artcurial outshone the others with the legendary "barn find" Baillon collection, which, as has been widely reported, brought frenzied bidding to insane prices. Top price at Artcurial was a well-worn and slightly corroded 1961 Ferrari 250 SWB California Spider, knocked down for \$18.5 million, a record for the model. Even more dramatic and only slightly less insane was the crashed and crumbling 1949 Talbot-Lago T26 Grand Sport SWB coupe with body by Saoutchik. Literally in pieces, it still drew a top bid of \$1.94 million.

-Kit Foster



Mercedes-Benz highlighted their corporate display with this oneoff 1938 540K Stromlinienwagen (streamliner) chassis 189399, also seen at Pebble Beach in 2014.



Some assembly required: 1949 Talbot-Lago T26 Grand Sport SWB coupe with body by Saoutchik (chassis 110109, Artcurial's lot 46) had suffered within and without. Still, it drew a \$1.94 million winning bid.



Davide Bassoli, left, receives an Award of Distinction for his book Every Cloud has a Silver Lining: The Definitive History of the Rolls-Royce Silver Cloud and Bentley S Series, from Kit Foster.

Richard Harman, left, receives the Nicolas-Joseph Cugnot Award for Cunningham: The Passion, the Cars, the Legacy, the best English language book in the field of automotive history, from Kit Foster.

TWENTIETH SAH EUROPEAN MEETING HELD IN PARIS

This year's annual SAH European Meeting, held February 3rd at the Automobile Club de France in Paris, marked a significant milestone: the 20th gathering of its kind. Conceived by French member *Laurent Friry*, in a meeting with the late *Taylor Vinson* in 1995, that first meeting convened on Thursday, February 8th, 1996.

After a welcome from *Kit Foster*, the American member of the organizing triad, British convenor *Malcolm Jeal* related some history from the first event. Present were 30 members and guests, from six countries. The late *Paul Berliet*, a member of the ACF, had arranged to sponsor the dinner, which took place shortly after the Club, the world's oldest motoring organization, had celebrated its centenary. The dinner continued the tradition of convening on a Thursday, the eve of the opening of France's Rétromobile show, until recent years, when Rétromobile shifted to a Wednesday debut. Malcolm recognized four members in attendance this year, *Patrick Fridenson*, *Ken Ball, Bryan Goodman* and *Laurent Friry*, who were at that inaugural dinner.

This year's gathering brought 40 members and guests, from France, Germany, Holland, Finland, Italy, the United Kingdom, United States and Brazil. After dinner, a number of awards were presented for publications in the field of automotive history, the recipients of which were unable to be at Hershey in October. British author Richard Harman received the Nicolas-Joseph Cugnot Award for the best book in the field, *Cunningham: The Passion, the Cars, the*

Legacy. This in-depth chronicle of sportsman Briggs S. Cunningham, his life, his cars and the automobiles he built, was published in the United States by Dalton Watson Fine Books. Receiving an Award of Distinction for his book, Every Cloud has a Silver Lining: The Definitive History of the Rolls-Royce Silver Cloud and Bentley S Series including Coachbuilt and Continental versions, was Davide Bassoli from Italy. His book was published by Nubes Argentia. Both these books were published in English.

There were also two awards for books in languages other than English. Receiving the Cugnot Award in that category was Farman: De l'aviation à l'automobile, by Laurent Friry, Claude Rouxel and Sébastien Faurès Fustel de Coulanges. A study of the limited-production prestige French automobile and aeronautical company of the 1920s, it was published in French by Paris-based E.T.A.I. An Award of Distinction was also conferred for a book in a language other than English. Marian Suman-Hreblay of Slovakia was honored for Aerodynamické Automobily, published in Czech by CPress of Brno.

The evening closed with a special presentation. In appreciation for his 20 years of service to the European Meeting, *Malcolm Jeal* presented Laurent with a book on the history of the Paris Auto Salons, suitably inscribed for the occasion. The meeting adjourned, and many participants attended the opening of Rétromobile on Wednesday morning.

—Kit Foster



At the close of the evening, *Malcolm Jeal*, past chairman of the Society of Automotive Historians in Britain, presented *Laurent Friry*, right, the French host for the meeting, with a gift of appreciation for his work on the 20 annual Paris gatherings.

Arthur Jones, right, presents the Cugnot Award for books in languages other than English to Laurent Friry, left, and Sébastien Faurès Fustel de Coulanges. Claude Rouxel, co-author of the work Farman: De l'aviation à l'autoamobile, was unable to attend.

6



Jeff Koons' "Gazing Ball (Mailbox)," a plaster-and-glass sculpture, makes a mailbox into a V8 engine.

THE CAR AS ART

AN AFTERNOON AT THE CENTRE POMPIDOU

To most of us, cars themselves are art, beautiful, ugly or just mundane. We're also aware that many people see them simply as transportation appliances, no more interesting than a refrigerator, and to a few they are a scourge on our society and the environment. It's heartening, then, to see an artist (presumably) without any "car genes" take cars and their parts into the realm of modern art.

On my first sojourn to Rétromobile in 2001, I spent an enjoyable afternoon at The Centre Pompidou, the contemporary art museum named for the French President who chose to dedicate the Plateau Beaubourg area of Paris to the construction of a multidisciplinary cultural center of an entirely new type. Faced with the rare opportunity of a free afternoon, I chose to re-visit that old friend, and see what had changed.

As far as exhibits go everything had changed, even the exhibits from the permanent collections. This was not surprising, nor was the fact that both special exhibits and main museum displays were as edgy as ever. Particularly enigmatic was the temporary showing of works by Jeff Koons (b. 1955, York, Pennsylvania). Koons began his career showing displays of inflatable toys, found in Manhattan discount stores, on mirrors. There followed his "Pre-New" period, when he was obsessed with vacuum cleaners and displayed them with fluorescent lights, creating effects few householders ever imagined could be made with such an appliance. Shifting from "bought objects," he began including such sculptures as a caricaturistic rendering of Michael Jackson with Bubbles, his pet monkey.

With all this, I wasn't prepared for "Gazing Ball (Mailbox)" created in 2013. A plaster-and-glass sculpture, it makes a large, old-style U.S. Mail rural delivery box into a V8 engine, with faithful replications of Moroso valve covers, intake manifold, exhaust



Ron Arad's "Canapé, The Rover 2-Seater" makes a love seat from Rover 2000 seats.

headers, distributor and a Holley four-barrel carburetor. On the top is a blue glass gazing ball. We'll probably never know what was going through the artist's mind, but we can imagine he has some fondness for the Chevy small block.

On a lower floor in the permanent collection I came across a love seat that was obviously made from front seats of an automobile. "Clever," I thought. "It would be fun, and not very hard, to do that at home." Then I realized the seats looked *very* familiar. Sure enough, the work is titled "Canapé, The Rover 2-Seater," (1985), by Ron Arad. The seats are not from a 1985 Rover, obviously. Rather, they're from a Rover P6 of the 1960s, like the one I drove as primary transportation for 15 years. If only I'd kept the seats from one of my parts cars.

Finally, in a long chain of spheres called "Avalance" was a spherical scooter taxi, the sort of machine that's called "tuk-tuk" in Thailand and neighboring countries, auto rickshaw in others. Two spheres behind it, bringing up the rear of Wilfredo Prieot's 22-meter work done in 2003, was an orange ball with hinged "roof." Complete with sink and dual refrigerators, it was constructed for vending fruit drinks, in this case Aranciamara, an Italian franchise brand.

It's encouraging indeed to discover the appreciation that artists have for the automobile. Perhaps, however I'm seeing it only in my own eyes. They think they're using "found objects."

—Kit Foster



"Avalanche," by Wilfredo Prieot, includes a spherical scooter taxi as part of a 22-meter life-size sculpture.



Brazil: 1994 Ford Versailles off VW Santana

EXPORTS LEAD TO EXTENDED LIVES, NEW LOOKS OR DIFFERENT ENGINES

ith the formation of the International Committee of SAH, there is a desire to have our members from around the globe share their knowledge of their domestic auto industry. Following are examples of cars that took on a new extended life, changed looks or gained different engines when their manufacture began overseas. We also look at the effects of some mergers and unusual products that emerged. All these cars have a story to tell that can best be written by someone more familiar with their own domestic market. Likewise this article serves as an indication of the value of a global review of auto history, rather than focusing on a design in its country of origin. Research benefits from collaboration with our international members.

Designs from the UK

The Ford Model T might claim to be the first international car but Austin can lay claim to the earliest adoption of its design by several other manufacturers. The Austin



Australia: 1963 Morris Major off Wolseley 1500

7 was such a brilliant creation that it helped BMW start its four-wheeled vehicles after their 1928 acquisition of Dixi Werke, who had secured the license in 1927 to build the design in Germany. Lucien Rosengart received the license rights for France. Datsun in Japan did not negotiate any rights, simply creating a clone of the Seven which did not prompt Sir Herbert Austin to challenge the issue. The American Austin Car Company was not successful producing the Bantam because Americans found little use for such small cars.

After WWII Britain realized that the prime way to revive its economy was export or die. During a time of rationing, the material allocations were dependent on a manufacturer's export quota with many Commonwealth countries at the receiving end of these exports. But elsewhere in the world, remote countries were expanding their assembly operations, which in many cases evolved into light manufacture. This postwar manufacture facilitated the opportunity to create foreign variations that are the focus of this article.

For postwar cars we start with India for the simple reason that the Morris Oxford II, first introduced in 1954, served as the Hindustan Ambassador for a further 57 years from 1957 to 2014. That sixty-year lifespan compares with the Volkswagen Beetle that really only got into mass production after WWII lasted until production ended in Mexico mid-2003. Yes, they were

released in 1938 but very few found their way to private customers before the war. Besides the Ambassador, or Amby as it was nicknamed, earned some sort of record for the longest timeframe built elsewhere after production ceased in its country of origin.

Hindustan also took over the tooling and dies of the Vauxhall Victor FE which ended in 1979, creating the Contessa which ran from 1984 to 2002. At first it shared the BMC 1.5 engine of the Ambassador but later adopted engines from Isuzu. The Triumph Herald also headed to India gaining a pair of rear doors. The four-door version called the Standard Herald ran from 1968 to 1971 and became the Standard Gazel from 1971 until 1978. The Gazel ditched the Herald's rear independent swing axle suspension for a leaf sprung live axle and

AUSTIN TASMAN/KIMBERLEY
ENGINE: six cylinder in-frien, 10c, front mounted (transverse). CAPACITY: 2270cc
102 bbp. TRANSMISSION: 4 speed g/box driving rear wheels via talistaff
PERFORMANCE: 90 mpb, sig % mile 19.35, 24 mpp. MODELS AVALLABLE (incl., its
PERFORMANCE: 92-8283, Transmi factor brand \$1325; Kimberley 3166, Kimberley (sut
Trans) \$343].



Australia: 1973 Austin Kimberley off Austin 1800

destroyed any styling appeal with revisions front and back.

Vauxhall's second generation Viva HB became the Holden Torana in May 1967 and after adding a longer nose in October 1969 accommodated a variety of six-cylinder engines. The third generation Viva HC earned the Chevrolet Firenza title when it received Chevrolet 2.5-liter engines in South Africa in addition to the 1.2 Vauxhall units. A 5.0 V8 was also squeezed into the coupe body style to create the Chevrolet Can Am. A restyled nose coincided with the deletion of the Firenza name, replaced by 1300 or 1900 that also included a hatch version not found in the UK. Both the Victor 2.1 and Cresta 3.2 were fitted with Chevrolet engines from 1966.

From September 1972 Ford Australia began fitting Falcon 3.3 and 4.1 straight sixes into the Cortina Mk III. New Zealand acquired the 4.1 six for their Cortina Mk IV. South Africans were not left out, using 2.5 and 3.0-liter V6s beginning with the Mk III but dropping the 2.5 engine thereafter.

Faced with the dominance of sixcylinder engines in Holdens and later Ford Falcons and Chrysler Valiants, BMC added the Morris Marshal as an Austin A90 companion in Australia. Rather than field the later 2.9-liter Westminster, BMC added two inches to the wheelbase of the Farina bodied Austin A60 and installed a 2,433 cc six, calling it the Austin Freeway. This May 1962 introduction included a Wolseley version. The six was based off the 1,622 cc four. The Wolseley 1500 served as the basis for the Morris Major and Austin Lancer with significant changes to the nose and later sprouting small fins and a 1.6 engine. The front-wheel-drive Austin 1800 also received a transverse 2,227 cc six in 1970 Down Under called the X6. The wheelbase was again lengthened two inches, the tail extended and the rear quarter windows eliminated. The Morris 1100 body fitted a 1.5-liter engine in 1969. The later Australian Leyland P76 bore no relation to any UK models.



India: 1977 Standard Gazel off Triumph

Not to be outdone by the Ford Cortina Six, the Morris Marina received a 2.6 OHC six-cylinder in Australia, not seen in the UK. When Leyland closed in Australia the tooling for the 1.8 and 2.6 engines was sent to South Africa in 1975 for use in the Marina and Rover. South Africa along with Spain added a tail and nose to the BMC 1100 creating the Apache in 1971, while stripping off the Wolseley Hornet Mini's tail and later giving the longer tail to the regular Mini.

In Argentina CIDASA produced the Farina-bodied Riley under the Siam Di Tella 1500 name in sedan, wagon and pickup form, the latter two not offered in the UK. These cars spanned 1960 to 1966. A Di Tella Magnette was the MG equivalent of the Riley.

To conform to South Africa's local content laws, the Rootes group fitted locally

built Peugeot engines in their Hillman and Humber. Likewise the Iranian Paykan, derived from the Hillman Hunter since 1967. fitted Peugeot engines from the late 1970s. The Brazilian Dodge Polara was actually a Rootes Avenger.

Designs from France

While Mercedes-Benz will never let you forget its claim to birthing the first cars, it was France who nurtured this infant industry. Many early French engines were adopted by early manufacturers well beyond the French borders.



Brazil: 1970 Ford Corcel off Renault 12

The Peugeot 404 continued five years beyond its French manufacture in Argentina lasting until 1980, while continuing through to 1991 in Kenya. The Peugeot 504 had a far longer life outside France once production ended in 1983. Chinese versions spanned from 1979 to 1997. Argentina continued through to 1999 and, with a strong African rally reputation, continued in Kenya until 2004 and a year later in Nigeria, largely because of their pickup model. In Australia the 404 and 504 were produced and sold in arch rival's Renault factory and dealer network.



Argentina: 1981 Renault Torino off AMC Rambler

Renault has not tended to extend its model lifespans in a similar fashion to Peugeot. More recently Renault has amalgamated with or acquired Nissan, Dacia in Romania and Samsung in South Korea and has an alliance with Russia's AvtoVAZ.



Argentina: 1971 IKA Torino off AMC Rambler

However, its South American involvement saw Brazil producing the Ford Corcel that preceded the Renault 12 on which it was based. In Argentina Renault bought out IKA (Industrias Kaiser Argentina) in 1970 and inherited the Torino that began life as an AMC Rambler, long before Renault gained a majority interest in AMC during 1980.

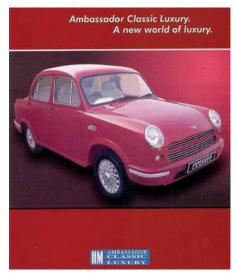
Designs from Italy

Fiat's best known foreign adaptation was the Lada, cloned from a Fiat 124. Confronted with such harsh conditions, it either validated the soundness of the design or adoption of changes to suit the local market. In India the popular Fiat 1100 became a Premier Padmini and the 124 was called the 118NE. Fiat also gave birth to the NSU-Fiat and later Neckar in Germany, having secured a plant in Heilbronn in 1929. This plant was bought from NSU Motorenwerke, who produced motorbikes and would eventually claim title to the NSU name, leading to the creation of the Neckar brand for German Fiats. but this arrangement only lasted until 1971. France's Simca also had its roots from Fiat when production began in 1935. Seat of Spain was formed in 1950 beginning production of the Seat 1400 late in 1953 based off a Fiat 1400 design. Seat developed their own 800 between 1964 and 1967 which was a four-door version of the Fiat 600.



Brazil: 1983 Ford Jeep

Alfa Romeo specifically tailored its large cars for the North American market but had a tough time gaining acceptance, so focused on South America. Following its Italian withdrawal in 1959, Alfa Romeo contributed the Berlina 1900 body for the IKA (Industrias Kaiser Argentina) Bergantin built between 1960 and 1962. But the L-head engines of 2.5 and 3.7 liters came from Willys and Jeep, preventing the use of Alfa's heart shaped grille.



India: 2014 Ambassador off Morris Oxford

In Brazil Alfa Romeo started off as the FNM 2000 JK, with Fábrica Nacional de Motores being the government manufacturer and JK the president's initials. This design was based off the Alfa Romeo Berlina 2000 and when significantly updated in 1974 regained the Alfa Romeo 2300 title. Alfa withdrew from local manufacture in 1987.

Designs from Germany

Volkswagen ended the German Beetle production run in January 1978 while it continued on in South America (until 1996) but longest in Mexico where it finally ceased in July 2003. The VW Golf first edition ended in Germany during 1983 but carried on in South Africa to August 2009 as the Citi Golf. The second edition of the Passat that evolved into the Santana lasted in China through to 2013 after its German departure in 1988.

Volkswagen Brazil engineered their own designs that are outside the scope of this article. Mention should be made of VW absorbing Ford in Brazil creating numerous badge engineered clones. Ford models



Argentina: 1978 Ford Falcon

became VWs and visa versa, with the Fusca (Beetle) about the only model to exclusively retain its VW identity. Volkswagen also acquired Chrysler's operations in Brazil but soon disposed of all models other than the Dodge truck.

Russia hijacked the Opel Kadett tooling and factory facilities after WWII as war reparations creating the Moskvitch 400/401 from 1947 through to 1956. When sold in countries like Norway, customers were advised to use Opel dealers for support and parts. Germany did without a Kadett until the arrival of a new model in 1962.

Starting in 1966 Opel Rekords received a 2.1-liter variation of a Chevy II engine in Mexico and South Africa. This practice expanded to the 1968 South African Ranger (but not the European Ranger) and Brazilian Opala from 1969, both based on the Rekord C of the time. South Africa used the 2.1 and 2.5 four, whereas Brazil fitted the 2.5 four or 3.8 and later 4.1 six. The Opala expanded into the Comodoro and Diplomata, gaining prestige all the way through to its final production in 1992. With the arrival of the Opel Rekord D/ Commodore C, South Africa named these models as Chevrolet 2500, 3800 and 4100 to reflect engine sizes. The use of these American-based engines continued through to 1982 when the Opel name and engines were adopted. The 1991 Rekord 380 was unique in that it had independent rear suspension, a Buick 3.8 V6 and the previous generation Rekord body.

From late 1978 the Australian Holden Commodore used an Opel body but with Holden sixes and V8s. From 1984 the Opel Senator six-window styling was incorporated but without the German rear independent suspension through to 1988, at which point the Australians decided to widen the Opel Senator body leaving little in common with its German counterpart other than profile. Daewoo in South Korea tended to follow Holden's styling trends but continued using Opel engines. However their Imperial model had an entirely unique C-pillar design. As an aside, the Holden Torana of the early 1970s was assembled in South Korea as the Chevrolet 1700 with an Opel engine.

Production under the BMW banner in South Africa started with a Glas design which was restyled in late 1973 to incorporate a kidney grille. Because the turbo in the 745 prevented a right-hand-drive version, South Africa in 1983 fitted the 24-valve M1 engine, which was also exported to Hong Kong. Two years later they created a potent 333;

After Borgward's insolvency in 1961, the manufacturing facilities were shipped to Mexico where production of the Isabella and 2.3 P100 lasted from 1967 to 1970. Two oddities found in Brazil were the DKW with four headlamps and the Toyota Land Cruisers with Mercedes-Benz engines. Another car to live well past its European equivalents was the second generation Opel Corsa which is still sold in Brazil and produced in Argentina.

The IAME Justicialista was a front wheel driven car that used either a DKW two-stroke or a Porsche boxer four in an attempt by the Argentinian government to establish a domestic auto industry. This first attempt lasted from 1952 to 1956 and was followed by the Graciela based on a Wartburg from 1956 to 1964. IAME relied on trucks thereafter until the 1974 to 1979 Rastrojero Conosur that revived the

Borgward transmission with the remainder domestically engineered.

The New Generation Mercedes-Benz W114 in 220D form was produced in Argentina between 1972 and 1976 in "El Camino" pickup or ute form, to use the Australian classification. The 1953-1955 Mercedes 170 was also produced in pickup form, but this variant was also available in Germany. The Mercedes-Benz W124 design was the basis of the SsangYong and Daewoo Chairman built in South Korea, where MB engines also found their way into SsangYong SUVs.

Designs from North America

The North American designs sent overseas were complicated by the fact that most Commonwealth countries acquired their imports from Canada. Pontiacs in Canada were based off Chevrolet engines and chassis for much of the time as were the Dodge relationship with Plymouth and the Mercury with Ford.

Whereas Ford created smaller pre-WWII designs for the UK and Germany and much later for France, GM acquired Vauxhall and Opel to satisfy the local characteristics of these two markets. Chrysler waited until long after WWII to buy the Rootes Group and Simca while also taking an interest in Mitsubishi.

However, Chevrolet did field a small bore engine from October 1937 reducing capacity from 3.5 down to 2.9-liters and even installed the Opel Kapitän 2.5 engine in regions such as Switzerland.

The Australian government imposed a severe import levy on imports of fully built cars during WW I resulting in several local body builders getting established, with Holden the best known. This resulted in different styling for many cars when compared to their country of origin for the simple reason that the local manufacturers wanted to share a similar body across much of their client base.

When the Argentine government sent a delegation to the USA in 1951, only Kaiser expressed an interest to manufacture in Argentina. By the time that an agreement was inked in 1955, Kaiser had joined with Willys in 1953 and both companies shipped their defunct car production lines to the newly formed IKA (Industrias Kaiser Argentina). When Kaiser Jeep was absorbed by AMC (American Motors Corporation), other AMC products were produced by

IKA with the Rambler evolving into a rather desirable Torino with European touches such as wood dash together with appropriate sporting features. IKA was also involved with Alfa Romeo and eventually acquired by Renault in 1970.

Brazil created some unusual mergers. Ford first bought Willys in 1967, with Willys being the senior partner in terms of greater market penetration from the volume of Renault cars. The Aero-Willys began in 1960 after the US car closure in 1956 and continued under the Ford label into the 1970s. The Willys Jeep Utility Wagon was known as the Rural in Brazil and also gained a Ford badge. A Ford Galaxie using the 1966 body and a 1954 vintage 272 V8 spanned from 1967 to 1983. The Ford Corcel was more Renault than Ford being based on the FWD Renault 12. In 1987 Ford merged with Volkswagen creating AutoLatina both in Brazil and Argentina with Ford as the junior partner. This merger lasted until 1994.

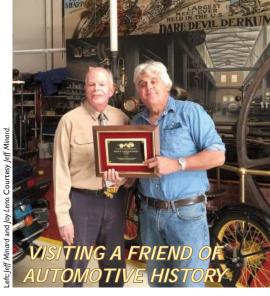
The original Ford Falcon had its longest lifespan in Argentina where it existed from 1962 to 1991 gaining nose and tail alterations along the way. Unfortunately its use by thuggish government authorities prevents many people from having fond memories of the Falcon.

Chrysler vacated Brazil in 1958. but its European purchase of Simca automatically gave back to Chrysler, its old plant that they previously sold to Simca. Thus Chrysler gained the Simca Vedette successor, the Chambord. to which was added the Dodge Dart and later a Rootes sourced Dodge Polara. As mentioned above, Chrysler Brazil sold its operations to Volkswagen in 1979.

Over to You

The brief overview was intentionally prepared to solicit expanded histories from international members or potential members who have greater knowledge of the various makes. Such a short article cannot possibly cover all exported variations. This should also serve as a clear indication how much auto history awaits to be explored. Anyone can hardly claim to have fully researched a given make if they have not followed it overseas to explain how various models took on a new life, born out of the soundness of the original design. The value of working with international enthusiasts cannot be underestimated.

—Louis F. Fourie



The SAH Friend of Automotive History Award was to be presented to Jay Leno in Hershey, but since Mr. Leno could not attend, President John Heitmann asked me to arrange a presentation for him in Burbank. Getting an official pass to visit the Big Dog Garage is a treat you all would want to have.

Eight of us arrived at 9:30 and Jay soon showed up to the coded gate, riding in a black 707 horsepower Dodge Charger SRT Hellcat.

He greeted each of us and was very casual and friendly. First, I presented the plaque, and read the award text, well written by John Heitmann. Jay was a bit embarrassed by the praise heaped on him, but took it well since this was an award, obviously, and our job was to honor him.

Behind him in the photo is an Ace, a very rare four-cylinder motorcycle. Jay drives and rides all his cars and cycles so he knows how they operate and their challenges.

He walked us into another building where his 1925 Doble E-20 Steam Car was parked. It was made in California, and it has a complex drive train to say the least! Jay spent 30 minutes explaining in detail how some of these vehicles worked, and how he obtained them. His knowledge is extraordinary, as many have reported, because he enjoys each car, drives them, and appreciates the stories behind the creators who designed them.

Jay has over 200 performance cars in eleven buildings in Burbank, adjacent to a studio. Walls are covered by original art created from old ads and scenes, and each car is restored, drivable and ready to run. He and his small staff run them each on a schedule.

Present for the hour visit were Southern California Chapter members Warren Westerholm, John Meyer, Jeff Minard, Michael Feinstein, Mac MacPherson, and guests David and Karen Whitehead.

—Jeff Minard



Clark Heater Foot Warmer

AND VENTILATION: THE FIRST 44 YEARS

Editor's Note: this article discusses the highlights of predominantly U.S. automotive heating and ventilation spanning the time frame from 1897 to 1941. The author informs that the material was excerpted from his book, Automotive Climate Control: 116 Years of Progress, ISBN 978-1105183614, presented herein with slight alterations. Among his degrees, patents and other qualifications, Gene Dickirson made his career at Ford Motor Company, starting in 1963 as a draftsman and retiring in 1998 as a manager in the Product Engineering Office.

In the early era of automotive development—the late 1800s and early 1900s—the engineers were focused on developing vehicles that would move, turn and stop. Heating the interiors was not a priority. The cars were essentially open carriages fitted with motors so it was natural to employ the same heating techniques used in horse drawn wagons and buggies.

Methods of keeping the driver and passengers warm included specialized clothing, lap robes, gloves, goggles, neck scarves and charcoal heaters. Lap robes were not only functional blankets to keep the users' feet and legs warm, they were fashion items. The 1908 Sears Roebuck catalog featured two full pages of lap robes with various fabrics, colors, pictures and levels of waterproofing. Pictures included dogs, horses and deer. Prices ranged from \$1.10 to



A lap robe from the 1908 Sears Roebuck catalog.

\$7.30. The robes were stored on robe rails or robe cords on the back of the driver's seat. Several automakers offered upholstery-matching lap robes with monogrammed owners' initials for many years.

The same Sears catalog also offered "CARRIAGE HEATERS OR FOOT WARMERS." These were popular in the era and two models were listed. The Tropic Foot Warmer and Carriage Heater sold for \$1.74. The Perfect Carriage Heater sold for \$1.60 for the 14-inch model and \$2.95 for the 20-inch model. These heaters functioned by preheating "Perfect Prepared Coal" charcoal briquettes in a fire then placing the hot briquettes into a sliding tray. The tray was then slid into the heater and the heater was placed on the floor of the vehicle. The user would place his or her feet on the heater and cover his or her legs with a lap robe to contain the heat. The briquettes were claimed to burn for 12 to 15 hours and could be extinguished and re-lit for future usage. The advertised price for one dozen "cakes" was 59 cents. The Tropic heater was 14x8x5 inches and weighed seven pounds. The 14-inch Perfect heater weighed 51/2 pounds and the 20-inch model weighed 71/4 pounds. Both featured all-metal construction with attractive fabric exterior coverings.

Rain aprons were used to protect the occupants of early open vehicles. These were made of heavyweight rubber cloth with plaid backing. They were offered with one, two, four or five openings. They functioned as tarpaulins with a hole for each occupant in the vehicle to place his or her head through. Hats and goggles would also be needed to shield from rain and snow. Apron prices ranged from \$2.00 to \$13.50.

An early automotive-specific heater was advertised in February 1907 by The Motor Car Heater Company. It featured a metal sleeve surrounding the vehicle's exhaust muffler. A metal duct carried the heat from the muffler sleeve into an outlet register in the floor of the vehicle. Many of the early vehicles had air-cooled engines so hot engine coolant was not available for heating the passenger compartment. Using the automobile's exhaust system as the primary source for heat would be used until the 1940s.

One of the early heaters to use hot engine coolant was advertised in 1917. It was described as using "piping" to carry the engine coolant to two heat exchangers in the passenger compartment, then back to the engine radiator. A stopcock was used to turn off coolant flow for summer usage.

Up until circa 1917 heaters were only offered by aftermarket suppliers. They were installed and maintained by automotive dealers and repair shops. One of the earliest OEM heater offerings was on the 1917 Jordan. The 1918 Oldsmobile also offered a combination heater and footrest for its rear seat passengers.

Ventilation was not an issue with early open vehicles. However, it became an issue when enclosed bodies became more common. An early example of an aftermarket device to improve ventilation was offered in 1918 for fitting to the cowl top of Ford Model Ts. It sold for \$3.00. Opening and closing cowl-top ventilation air inlet scoops would become standard equipment on most vehicles until the 1960s.

In the mid 1920s Chevrolet and other vehicle manufacturers offered "VV windshields" (vertical ventilation or vision and ventilation) on their closed models. The windshield could be moved upward and lowered by turning a hand crank.

An early example of a forced air exhaust heater was the Universal 660 Heater offered in 1927. It featured a duct from the engine-cooling fan to the exhaust cover sleeve. Prior to this device the warm air was forced into the passenger compartment by small air scoops on the muffler cover sleeve or plain convection.

In 1928 US patent 1,668,491 was awarded for a hot water heater that was a forerunner of heaters still in use today. It featured a hot water heater core and an electric fan to force the air across the heat exchanger. This was a major breakthrough in automotive heating when compared to the dangerous exhaust heaters commonly in use.

In 1929 a heater was offered by the Donaldson Co. that used only the vehicle's engine cooling fan and a duct to pipe hot air into the passenger compartment. It did not use the vehicle exhaust system as the heat source. The manufacturer claimed the device was safe because a test driver had slept in a vehicle equipped with the device all night with the engine running.

The TORRID-HETE heater offered by the Ashco Corp. in 1929 featured a heat exchanger and an electric blower. The heat was supplied by the vehicle's exhaust gas actually circulating through the heat exchanger located in the passenger compartment. The manufacturer claimed the device "cannot leak nor allow motor fumes to enter car interior because of special construction and installation."

In 1929, Cadillac offered an accessory electric ventilation fan. The fan was intended

for year around use to improve ventilation in the summer and help keep the windshield clear in the winter. It is interesting to note that numerous types and sizes of small fans were popular for years and they are still being manufactured and sold in this modern era for automotive use.

Windshield defrosters began to be available in the 1920s. Like heaters, the aftermarket offered them. The hot air ducts were simply draped over the instrument panel and held in place against the windshield using vacuum suction cups.

Another type of early windshield defroster used electric heating elements. The Fulton Electric Frost Shield consisted of a small glass plate approximately 16 inches wide by 7 inches high with resistive wires attached. The clear glass had a rubber gasket and chrome frame surrounding it. The defroster was attached to the windshield by four suction cups. The electric current was supplied by the vehicle's six-volt battery.

A major ventilation innovation was made on General Motors vehicles in 1933. It was called Fisher No Draft Ventilation and featured crank-operated glass ventilators in the doors. The ventilators would become known as "ventipanes." These door ventilators would become very popular and were standard on nearly all vehicles. They began to phase out in the 1960s due to air-conditioning.

In 1934, Delco released a unique heater that was used on several different vehicles including Cadillac, DuPont, Duesenberg, Marmon and Pierce. The heater used steam to heat the vehicle. A coil filled with water was wrapped around the exhaust pipe. The coil was filled with water and connected to the heat exchanger in the passenger compartment.

Another common type of ventilation was through swing-out windshields. A crank or knob located on the instrument panel was turned to open and close the windshield that was hinged at the top. Both Ford and Studebaker offered opening rear windows on their 1935 and 1936 model coupes. The 1936 Chrysler Air Flow



A foot warmer from the 1908 Sears Roebuck catalog.

vehicles offered dual crank- out windshields along with dual cowl top ventilation intakes.

Defroster ducts and nozzles were integrated into the instrument panels of the 1937 Pontiac and Studebaker models. This made the important devices out of sight and out of mind and would soon be adopted by all OEM's.

The totally integrated heater system released on the 1938 Nash was called Nash Weather Eye. It was a major breakthrough for the era because it was the first time a vehicle was designed with provisions for a fully integrated heater and ventilation system. The system included a cowl top ventilation air intake with a rain separator and a serviceable air filter. In the 1939 model an automatic temperature control feature was added, as were integrated defroster ducts and nozzles.

In circa 1937 Stuart Warner introduced the South Wind fuel-fired heater. The heater used fuel from the vehicle's fuel line and ignited and burned it in a combustion chamber inside the heater housing. An electric fan circulated the air inside the

vehicle. This heater was very popular and several million were sold over the years.

Underseat heaters were offered on the 1940 Buick on three out of four optional alternative heater systems. The underseat heater was claimed to be superior to dash mounted heaters because it warmed the rear passenger floor and the hot air would rise from the floor rather than directly from under the instrument panel. The automaker claimed this arrangement would lessen the chance of drowsiness due to the driver breathing warm air. In 1941 Cadillac featured a heater system with two underseat heaters and automatic temperature control. The 1941 Studebaker "Climatizer" system also featured a single underseat heater.

The OEM heaters and defrosters discussed above were offered in various models and prices. Most automakers offered heaters and defrosters as accessories rather than standard equipment in this early era. This policy would continue until 1988 when Federal Motor Vehicle Safety Standard 103 mandated windshield *defrosters* on all vehicles sold in the U.S. Even though heaters were not mandated, they were needed in order to meet the defroster requirements.

The early methods of heating were slow, cumbersome and dangerous. In unknown cases exhaust heaters most probably caused drivers to lose control due to carbon monoxide leaking into the passenger compartment.

The heaters discussed above represent the major changes in heater technology in the early years. Automobile production ceased for World War II and so did heater development. After the war heaters continued to evolve and became integrated with the new air conditioning systems. Future heaters will continue to evolve by becoming lower in cost, lighter in weight and better performing. They have become standard equipment and are taken for granted by modern drivers. They provide nearly instant comfort and safety and make driving pleasurable.

-Gene D. Dickirson



The Last Days of Henry Ford

by Henry Dominguez
Racemaker Press (2014)

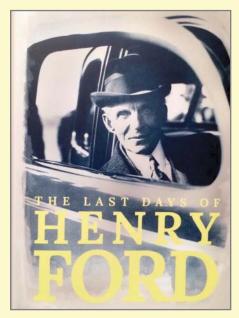
Racemaker.com/ 617-723-6533

360 pages, 6" x 9" hardcover w/dust jacket one color and 99 b/w images, indexed, bibliography, and chapter notes

Price \$45

ISBN-10: 1935240110 ISBN-13: 978-1935240112

Special Edition (\$65): signed, numbered, slipcase, pull-out color print and Ford family tree insert.



Boston made headlines with its record-setting snowfall as Boston-based Racemaker Press released a quintessential wintertime-curl-up-in-your-favorite-chair read. The beautifully produced book, *The Last Days of Henry Ford*, also demonstrated author Henry Dominguez's writing skills. His prose is fluid and engaging.

Dominguez's unusual (especially for an automotive history) source materials permitted him to write dialogue and tell personal, behind-the-scenes details without being accused of creating a work of historical fiction. Those "enablers" were the recorded interviews and conversations with Henry and Clara's longtime live-in maid Rosa Buhler, butler John Thompson, some Ford family members and personal friends.

As the title suggests, Dominguez's book focuses on *The Last Days of Henry Ford*'s life and his passing. The narrative does extend forward, in order to present observations on Henry's life the year prior to his death, and afterward so it can include the remaining years of Clara's life.

No one is apt to refute that Henry Ford had a profound influence on humankind and its social structure with automobiles, especially the Model T, that he created, built and marketed. It's also true that as his influence and notoriety increased it became increasingly difficult to "see" the real person amidst all the stories about him.

Henry Dominguez's *The Last Days of Henry Ford* offers a clear look at Henry Ford, the man. That "look" at Henry Ford is visual as well as verbal. A benefit of his access to files, boxes and folders retained by Ford Motor Company as well as museums and libraries, enabled Dominguez to illustrate his book with 99 black-and-white images and one color photograph—the latter the only color photograph of Henry Ford thought to exist.

For its part, publisher Racemaker Press has delivered a handsome book as comfortable in the hand as to the eye. It's a worthy addition to anyone's library but more to the point, a book to be read and enjoyed!

—Helen V Hutchings

The Fast Times of Albert Champion

by Peter Joffre Nye
Prometheus Books (2)

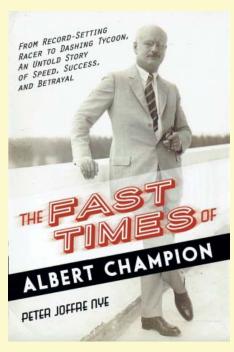
Prometheus Books (2014) Prometheusbooks.com/ 716-691-0133

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47 images, notes, bibliography, indexed

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A utomotive history is rife with stories of men from modest working class backgrounds without the benefit of formal education who rose to achievement and wealth by a commitment to hard work and an instinct for opportunities. Henry Ford, Walter Chrysler, Charles Nash, Adolphe Clement

and William Morris are a few whose lives are well known and who gave their names to important manufacturers. Some made their marks in design and technology, others in business leadership, and still more as participants in areas less familiar to the public but fundamental to the growth of the industry. Albert Champion must be considered as one of those.

Champion was born in Paris in 1878, son of a coachman and a washerwoman, and left school at the age of twelve to assist his mother, then widowed, in supporting him and his two brothers. Like so many young men at the time he was soon smitten by the latest fad, the bicycle. Self-reliant and a natural showman, he made a living by stunt riding then moved on to amateur road racing. His victories brought him a place with Clement Cycles, then the most innovative of bicycle manufacturers. Racing on weekends and filling in at the factory during the week, he was taken under the wing of Adolphe Clement and exposed to the fundamentals of business and publicity. He was soon winning races of national and international importance. When cycle racers changed from pedal driven to motor powered pacers, Clement began to equip his two and three-wheeled pacing machines with DeDion-Bouton motors. Their electrical equipment including spark plugs, was designed and produced by the company itself.

At the turn of the century Champion traveled to Boston at the invitation of Charles Metz, bringing several DeDion-Bouton singles. For Waltham Manufacturing Company he would install his motors to put Metz into the motorcycle business, in addition to gaining additional cycling championships.

With the bicycle declining in public favor, he traveled with Metz to New York to display and demonstrate Waltham's new Orient machine at the Automobile Show. There he met James Ward Packard of Packard Electric Company, Alfred Sloan of Hyatt Roller Bearing Company and Carl Fisher, who bought an Orient motor-tricycle. The bicycle craze was clearly at an end. In the summer of 1904 he returned to France to compete for the national cycling championship. The final triumph capped his sporting career but, with his body disfigured from numerous crashes, he made the decision to retire at the top of his game. He was 26 years old and had passed the half point of his life.

Champion had been exposed to the world of business through his employment with vehicle manufacturers and he acquired a practical knowledge of machinery at their works and on the track. He decided to set himself up as an importer of French auto parts and reached an agreement with Edouard Nieuport to sell his electrical ignition parts on the American market. Nieuport was an engineer and incidentally a former bicycle racer whose products were earning respect on the road and in the air. In the spring of 1905 Champion returned to Boston, bringing trunks of Nieuport spark plugs, coils, magnetos, and storage batteries. The Albert Champion Company was an immediate success and soon moved to design and produce its own electrical parts. Champion took personal charge of advertising and promotion, traveling to Detroit and elsewhere to demonstrate his equipment to manufacturers and agents. At the Boston Buick dealership he encountered William C. Durant whose company was building the largest-selling car in the nation. By good fortune Durant was not satisfied with the spark plugs being installed on his cars and offered to set up a new company in Flint to produce spark plugs to meet Buick requirements. The plugs would be called AC since Champion's partners refused to relinquish the Champion name. Along with Weston-Mott Company, Dayton Engineering Laboratories, Fisher Body Corporation, and other suppliers, it became a component of General Motors.

Over the years AC and Champion, Albert Champion's previous firm, grew to dominate the spark plug market. His fortune was made, but what was his role in the company's success? He was not an engineer, but he learned from the beginning to employ the best designers and managers to keep the company at the forefront of technological innovation. Alfred P. Sloan said: "The keynote of his success was

that he was never satisfied with the product of the job he was then doing. His mind was always open to the necessity for constant improvement." His competitive instinct on the track was later mirrored in the business world.

Peter Nye has done an outstanding job is this first biography of Albert Champion which is fully noted, plus bibliography and index. It is a long book with two-thirds devoted to his cycling career and we might have been content with less detail on so many of his racing exploits including the admiring comments of the press. Less detail is given for his business career, perhaps because it was not as fully publicized, and given General Motors' penchant for secrecy and slight interest in corporate history. Champion died in 1927 from wounds received in a fight over the wife of a colleague, not the only amorous adventure that blighted his career. You can read all about it in this highly recommended work which throws new light on the drama of those who played in the first acts of the history of the automobile.

—Arthur Jones

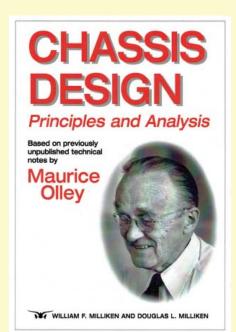
Chassis Design: Principles and Analysis (based on previously unpublished technical notes by Maurice Olley)

by William F. Milliken and Douglas L. Milliken Society of Automotive Engineers, Inc. (Feb. 2002) www.sae.org (publications@sae.org)

676 pages, 7" x 10" hardcover, plates, figures, tables, indexed

Price: \$89.95

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ne rarely gets the opportunity to review a book that can only be described as a magum opus in technical automotive history. Many readers here, of course, will immediately recognize Maurice Olley as the automotive engineer who almost singlehandedly developed the engineering concepts and techniques that premise the field of vehicle dynamics and handling. Among his acknowledged major contributions must certainly be included his work toward making independent front suspension technology (first achieved by Mercedes-Benz in 1931) feasible for mass production across all General Motors divisions. Why is it, I muse, even as a child riding in my aunts' and uncles' late '40s early '50s Buicks and Pontiacs, did those cars feel more comfy and stable on the highway? Ah, yes, thank you Maurice Olley for the "flat ride!" His work at GM resulted in more than 40 US and Canadian patents and he was twice awarded the Crompton Medal, among the highest honors in automotive engineering. From his early career chassis design work with Rolls-Royce both in England and later in Springfield, Massachusetts, to his work in heading the engineering team that worked to perfect the dynamics of the first Corvette, Olley became the industry's leading light when vehicular handling and stability issues were to be addressed. More critically, Olley wrote *prodigiously* throughout his life—letters, internal white papers, annual reports from the GM Proving Grounds in Milford, Michigan, and longer technical papers both published and unpublished. In addition, he produced monographs on which this book largely was based. For the non-technical minded reader, the compilers have kindly summarized a number of Olley's more important technical papers, thus making them eminently more understandable to the lay reader.

Admittedly, this reviewer is not an engineer and was lost after saying hello to the first page of what are over 500 pages of often complex mathematical and scientific formulas and constructs of Olley's pioneering vehicle dynamics research. While certainly appreciating the technical science that makes up the bulk of this book, the main objective in this review is to highlight some aspects of Olley's *character and personality* revealed in the book's introductory comments as well as through the appended correspondence over many years with William Milligan.

First, Olley's gentlemanly nature, humility, respect for those with whom he worked, as well as his profound respect for history come almost immediately to light in his "Reminiscences" (pp

3-26 and reproduced for the text in his actual delicate hand-written print style.) These recollections, written in 1957 for the benefit of the General Motors Institute faculty, begin with the quaint, yet witty, observation where he recalls "....a talk given by (Charles) Kettering on the unusual theme, for Ket, of 'Don't underestimate the past, don't overestimate the future." He goes on to note: "As always, it was a masterpiece of clear thinking, delivered in homely language which only thinly disguised the erudition behind it." Even as a pioneer himself, Olley was deferential to other pioneers. Frank Winchell, who succeeded Olley as Chevrolet's director of research and development, apparently saw the same things in Olley as Olley saw in Kettering: "Clear thinking, discipline, often a home-spun sense of humor, and at the same time a quiet and attentive listener." Winchell went on to note in the introduction to this book that his predecessor was a great communicator and that '....in any company, his question/answer ratio was about one." Moreover, former colleagues from England during his time with Rolls-Royce note that Olley was a master of a somewhat different art than engineering: "...the ability to illustrate his argument with sometimes gentle, sometimes sharp, but always apt aphorism."

Indeed his witty aphorisms became legend and only two among hundreds are shared here for smiles: "The trouble with these oscillations is that there are too many of them" and "an engineering organization that works in complete harmony is making no progress."

From all accounts Olley was a man of absolute integrity and trusted by all of his colleagues even from his early days in England. SAH member *Tom Clarke*, writing in the July/ August 2010 issue of *The Flying Lady*, noted that "Much, much more begs to be written about him" and he added that the late *Beverly Rae Kimes* was working on just such a project when her untimely death intervened. Clarke also noted that Olley's trusted status in England was such that he was assigned the postwar assessment of the German motor industry, a task taken on with both enthusiasm and objective detachment.

Olley seems also to have been somewhat captivated by intrigue as he recounts his involvement in 1940 with the famous shipment of Rolls-Royce Merlin aircraft engine print records handed to the U.S. Air Force and landed—under guard—at the then Wright Field in Dayton, Ohio. In his reminiscences he recounts—almost like a spy under cover—

spending nearly a week in Dayton awaiting the release of the Rolls-Royce prints, finally claiming those prints, and then returning to Detroit at 3:00 in the morning where they were to be reviewed by Ford, but then later turned over to Packard for manufacture.

Most of the prior appraisals of Olley's career-long work, first with Rolls-Royce, and then later his years with General Motors have consisted of explications of and appreciation for Olley's technical contributions which, without question, became the foundation for all future studies of chassis design and handling characteristics. Accordingly, little attention seems to have been given to Olley the man, a quiet automotive pioneer who didn't get a lot of publicity and indeed largely shunned the spotlight during his career. Seemingly little attention has been given to the man who declared that "Prediction of future trends is dangerous ground because engineering is an art." And little attention still has been given to his view that while we now know more about vehicle dynamics "...the missing link in studies of handling is lack of understanding of the driver."

Several questions arose in this reviewer's mind including, in the context of the history of automotive engineering, the questions of

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how relevant is Olley today and has Olley gotten his due, given that many would agree that his name is not widely recognized? This reviewer will leave it to the informed reader to push toward answers to these questions, but the point needs to be made—often supported by communications and observations found in this book—that Olley was an automotive pioneer who truly saw engineering as an art, but an art that required clear and disciplined thinking.

Finally, it seems that Olley always was characterized by others as having a talent for pungent criticism based upon penetrating technical and quantitative facts. As a case in point, the Millikens note that their early attempt during 1968 to publish these technical studies and documents was quashed by General Motors legal, given the reality that from 1963 to 1968 the corporation was knee-deep in Corvair litigation. They justifiably reasoned that anything published on handling-no matter how fundamental and factual-might be misconstrued and used by wrongful death litigants. Pointedly, they observed that Olley-who was to pass away only a few years later—was immensely saddened by the corporate action to suppress release of his seminal work. Curiously, as reported in the September 1959 issue of *Popular Science*, to quash doubts about the handling of rear engine cars like the Corvair, GM at a press conference trotted out the then-retired Olley where it was claimed that he was a "proponent" of rear engine cars (although there is no clear evidence for that). Indeed, Ralph Nader's Unsafe at Any Speed (1965) used Olley's own prior statements to rebut this claim. Nader wrote that: "His field of specialization was automobile handling behavior. In 1953 Olley delivered a technical paper, European Postwar Cars, containing a sharp critique of rear-engined automobiles with swing-axle suspension systems." In that paper, Nader pointed out that Olley noted that such cars could not handle safely in a wind even at moderate speeds. Fortunately, later in November 1959, Olley filed a patent application where he said what he really thought of the Corvair suspension: "The ordinary swing axle, under severe lateral forces produced by cornering, tends to lift the rear-end of the vehicle so that both wheels assume severe positive camber positions to such an extent that the vehicle not only over steers but actually tends to roll over." Prophetically perhaps, even earlier in 1953, Olley observed that: "My present belief is that the ordinary passenger car (in the future), will be front wheel drive with independent front suspension... it is the safest

handling vehicle for an unskilled driver, under all road conditions."

Perhaps the finest acclaim that might be given to this master automotive engineer would be to borrow the words of Sir Henry Royce: "Strive for perfection in everything you do. Take the best that exists and make it better. When it does not exist, design it." These words remain the measure of Maurice Olley. This "ultimate engineer," as one of his colleagues referred to him, was inducted into the Corvette Hall of Fame in 2008. But let us suggest that even higher and greater honor for this underappreciated pioneer might be future induction into the Automotive Hall of Fame given his fundamental, seminal contributions to chassis design and vehicle dynamics. In short, his research helped define modern ideas of automotive ride and handling. Every skilled race car driver on every track around the world and every under-skilled driver of every vehicle being guided safely and comfortably down today's highway owes a lasting debt to Mr. Olley.

—Ed Garten

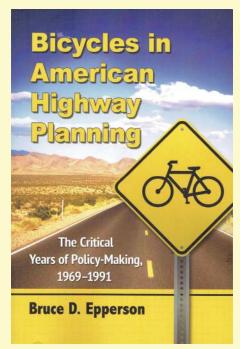
Bicycles in American Highway Planning: The Critical Years of Policy-Making, 1969-1991

by Bruce D. Epperson McFarland & Company (Nov. 2014) McFarlandpub.com/ 800-253-2187 239 pages, 7" x 10" softcover, bibliography,

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For those who followed my earlier review here of the collected writings of automotive engineer Maurice Olley it seems wholly appropriate to begin this review on bicycles and highway planning with a delightfully precious quote from Olley who—while speaking of the early days of motoring in England-observed that Bicycles hovered like moths in the head lamps. Turn-of-the-century England had few motorcars and many bicyclists and so, winding down lanes and byways, early drivers likely often encountered thongs of cyclists. Indeed, at dusk it might have been easy to imagine them in the mind's eye as moths. He went on to observe that, back then "...the ancestral peace of the countryside was being disturbed by these new-fangled motorcars." Today in America we have many cars and many bikes, seemingly on far too many roadways, vying for the right-of-way. How did matters get this way? What has been done or not done with respect to the coexistence of the automobile and the bicycle? Bruce Epperson, in this important book, offers us some answers, debunks some commonly held assumptions, and at the same time raises a few challenges to our current thinking.

Many auto history buffs have an equally strong attraction to the history of the bicycle, the confluence of bicycle mechanisms with early automobiles, and immense respect for both forms of transportation. As such, this book will both delight and inform. In an earlier work (Peddling Bicycles to America: The Rise of an Industry, McFarland, 2010) the author provided transportation historians with a first-rate comprehensive look at both the economic and technical history of the early bicycle

In this latest effort, Epperson, a transportation planner and attorney, brings both a quick wit and a solid grasp of history to the seemingly obscure area of U.S. (and to some extent European) bicycle policy planning, all with the clear goal toward offering ways and means through which cyclists and motorists might coexist more amicably and safely on our nation's highways and streets. This said, the book's subtitle is a bit misleading. While the book ranges back to the 1860s and forward into the 1990s, its primary intention is to point to the period when an ineffectual bicyclist lobby and indifferent highway engineers ended up with a default policy—"vehicular cycling"— one

that treats bicycles much as if they were cars. Credit for the name "vehicular cycling" as well its first relatively complete articulation of principles is said by the author to go to Harold C. Munn. So there, dear reader, if you're ever on *Jeopardy* and the category is "vehicular cycling" you'll know one of the answers!

Using contemporary magazine articles, government reports, and archival sources from industry lobbying groups and national cycling organizations, Epperson tells the story of how America became a nation of bicyclists largely without separate bikeways. From his perspective this occurred as, essentially, a non-policy; a decision put off so long that the issue had become irrelevant. Vehicular cycling, he argues, is "the consensus approach to the problem of bicycle transportation in a society that chose neither to ban cycling nor to provide for it in a rational manner." Rather, as a society we chose "to incorporate as many small-scale roadway enhancements as possible without significantly increasing costs or adversely impacting motor vehicle convenience."

Among the several assumptions the author debunks is the widely held belief that vehicular cycling can be traced to the late 19th century League of American Wheelmen and their fight for the road rights of cyclists over against the motorcar. While some influence by the Wheelmen can be noted to include their often poorly coordinated support of the Good Roads Movement, in the end Epperson asserts that the "good roads" issue and the accommodation to vehicular cycling was largely decided by the establishment of rural free postal delivery as well as a federalized highway structure.

Epperson tells this broad and intriguing story in detail—sometimes in dense detail—and so the reader must be alert to the need to tie often serpentine and parallel developments together in one's mind. Chapters 1 and 2 cover the pre-history of bicycle policies in the U.S. and Europe. Chapters 3 and 4 take up the 10-speed bicycling boom of 1969-73 and the handful of bicycle towns (specially mentioned are Davis, Boulder, and Portland) that earlyon implemented bikeways. And chapters 5-7 cover the title period, beginning with the 10-speed boom and ending with the American Association of State Highway and Transportation Officials' 1991 second edition of the Guide to the Development of New Bicycle Facilities. For those interested

in a summary of the current (January 2015) Federal Highway Administration's Pedestrian and Bicycle Activities the following website may be accessed at:

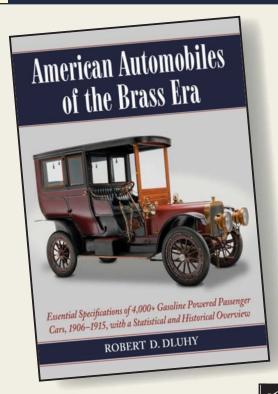
http://www.fhwa.dot.gov/environment/bicycle_pedestrian/overview/trb_summaries/trb2015.cfm

The author notes what he calls the U.S.'s "stealth bikeway program" of mandated sidewalk curb cuts and the success of bikes-on-the-bus programs, neither of which, he argues, had much to do with official bicyclist lobbying. While urban bikeway efforts are discussed there is no reference to the emergent practice of cities now providing pay-as-you-go bicycles for downtown mobility, only a slight oversight however.

As might complement a book prefaced by *more than four pages* of cycling-specific acronyms, the large cast of actors and programs and their often times changing positions on cycling over time can be both daunting and confusing to the reader. Who knew there were so many cyclist lobby groups, volunteer hobby organizations, short and longer term study taskforces and associations devoted specifically to the challenges raised in this book? Nonetheless, Epperson's sharp sense of irony and ability to tease out the intersections among groups and their interests saves the day for the reader. This all said, however, stolid believers in bikeways or their own conceptions of how bikeways should be developed will be disappointed, as the author refuses to take on the dress of a cheerleader. To his credit his is astringent transportation history at its finest.

Epperson ends this superb analysis with a realistic assessment of where we stand today by claiming that bicyclists are vehicular cyclists simply because there has been in the past—and likely will be in the future—little to no funding for urban bicycle facilities or alternative side-of-roadway development. He notes that what funding does exist has been sporadic, typically unplanned, and often spent for political rather than technical reasons. As such it is likely that we drivers of motorcars will see bicycles like moths in the head lamps for some time to come.

—Ed Garten



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A premier concours d'élégance in the U.S. has reached a milestone; the Amelia Island Concours d'Elégance (AIC) celebrated its twentieth year this past March 11th through the 13th. The site of the show has always been the Ritz-Carlton in Amelia Island, Florida, just south of the Georgia state border on the Atlantic coast.

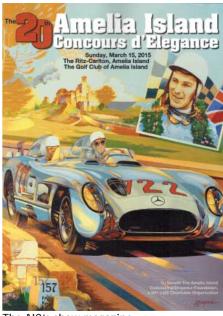


Best in class: 1929 Stutz M-8 Convertible Victoria by Hibbard & Darrin, owners: Ralph and Adeline Marano.

Founder Bill Warner is a "car guy"—no surprise there (he started as a photographer and writer for Road & Track in 1971)-and the story of the show's start often emphasizes his desire to raise funds for charity; indeed, the show has led to the donation of over \$2 million to a number of charities over the years. But, as a car guy, Bill wanted to start and grow a car show. Keith Crain, editor-inchief of Automotive News, writes: "Actually, it's hard to call it a classic car show. I always think of it as 'Bill's show.' Besides traditional classic cars, he features the bizarre and unusual simply because it is his show and he can do it. Good for him." Examples of "bizarre and unusual" this year were classes: "Cars of the Cowboys," "Forgotten Fiberglass" and "Orphan Concept"—along with the traditional, for example: "American Classic (1932-1934)."

For any major concours, traditionally there is much that goes into print about its theme(s), winners, activities, seminars, auctions, etc. Those particulars abound for this show. RM Auctions is the official auction of the AIC; Gooding & Co., Bonhams (this year for the first time) and others also run

auctions near the concours. For the twentieth anniversary, the show invited back its first honoree, Sir Stirling Moss, and further honored him with a class: "Cars of Stirling Moss." The show also celebrated the 60th anniversary of the Mercedes-Benz victory at the Mille Miglia, honored Stutz, the Porsche 914, and "Cars of the Cowboys." But here the aim is to touch on historical perspectives... that is, in the context of automotive history, where do these "concours d'élégance" fit? What do they add—what could they add—to automotive history?



The AIC's show magazine.

This question has numerous possible answers, but to pick one contribution (for now): the quality production of the show's program (magazine). It is clear that extensive efforts continue to go into AIC's program. This year, article titles and authors were:

"The Legend that is Sir Stirling Moss," by Simon Taylor, "Moss on the Mille Miglia," by Doug Nye, "The Emergence of the American Post-War Sports Car," by Geoff Hacker, Rick D'Louhy, Guy Dirkin, Rollie Langston, Raffi Minasian, Paul Sable, H. Row Pace, Erich Schultz, and Phil Fleming, "The Sporting Stutz," by Carl Jensen, "Undaunted: Frank Lockhart and the Land-Speed-Record Stutz Black Hawk," by Charles Dressing, "BMW 328: Where the Legend Was Made," by Matt Stone, "914: A True Porsche Pedigree," by Betty Jo Turner, "Chrysler's Town and Country, 'The Grace and Elegance of a Yacht," by N. Mark Becker, "The Battle of East and West: Hot Rodding's Second Longest Running Rivalry," by Ken Gross, and "Orphan's Dreams," by Charles Dressing. The purpose of listing these (there were more) is to help convey the scope and caliber of authorship. With that, the material amounted to engaging coverage of their subjectscertainly beyond the call of duty. Editor-inchief Brian Webber and his staff delivered.

There are "pillars" for the preservation of automotive history: manufacturers, collectors, restorers, media and libraries, government, museums, car clubs, auction houses and concours—all of these amass holdings and information. The records of cars' pedigrees held by the major concours must be nothing short of impressive. (Witness the two volume Pebble Beach sixtieth anniversary books.) The production quality of its magazine, as well as many other aspects, indicate that AIC takes its role as a "pillar" seriously, in addition to simply putting on a great show—which is what *Bill Warner* does, "because it his show and he can do it."

—R. Verdés



Sir Stirling Moss with a gathering of "The Cars of Stirling Moss" class; an impressive assembly of 25 cars. Up front, the three Mercedes-Benz race cars are (from left): the W196 "slipper" Grand Prix car (first Formula 1 World Championship race at his home Grand Prix at Aintree, England in 1955), the 300SLR #722 (his Mille Miglia record time stands six decades later), and the W196 streamliner (his final F1 race for Mercedes at Monza in 1955).

