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## FROM THE MUSEUM DIRECTOR

Spring started with Lane Motor Museum attending a local car show in April. Kars 4 Kids was the event, and it is always a lot of fun. With a beautiful setting at the Tennessee Baptist Children's Home in Brentwood, it also makes for a relaxing day. The Museum was able to get ten cars on the road to caravan down to the show and back. A good time was enjoyed by all.

Next up was our 5th Annual Microcar Drive on April 26, which included a tour out to Percy Priest Lake, enjoying lunch and rides in the Amphicar, then touring back. After we returned to the Museum, we all competed in the gymkhana that was set up in the back lot by David Yando. To make the competition even, everyone drives the same vehicle - the museum's fire-breathing, 25-mph Schmitty Jeep. This year's Microcar Drive went off without a hitch as usual, and everyone's car ran perfectly. We also enjoyed a day of perfect weather, which added to our fun.

June 6 was our first of two Family Fun Days. We had tours, activities in the children's play area all day, along with rides around the parking lot in the Museum's Fiat 500. If you missed the first Family Fun Day, hopefully you can join in on the fun when we have the second one which will take place on July 11.

In early June, I attended the Ault Park Concours d'Elegance in Cincinnati, Ohio. This year's Concours had a Microcar class, so I took four cars (Zündapp Janus, Scootacar MkII, Peel Trident, and Peel P-50). I always enjoy Ault Park Concours' Saturday tour, and decided to drive the Peel Trident. Fortunately, it was an overcast day and I did not bake on the 50-mile tour, although it was warm. Janet Guthrie was the Grand Marshal of the Concours this year, and she enjoyed the Peel so much, she agreed to have her picture taken in it!

Father's Day was another big success this year and the Museum was fortunate to have over 400 guests enjoy car rides and demonstrations throughout the day.

The Twini Mini project in England has been completed, and it will be arriving at the Museum in the next couple of months.



Janet Guthrie (the first woman to compete in the Indianapolis 500) tries the Peel Trident on for size at the Ault Park Concours. Photo by John Long.

I am preparing to leave for Germany for a 3,000 km Microcar rally with Claude Guéniffey, our propeller-driven car expert. I think it is going to be a fantastic event, and I am looking forward to it.

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### The Swiss Gonnection Ghia, Michelotti, and the Geneva Motor Show

#### By David Yando, Museum Manager

Elsewhere in this issue, you may have seen the announcement that the museum has recently acquired a "new" car – a show car - a Ghia-Aigle built coupé, designed by Giovanni Michelotti, and based on a Panhard Dyna chassis, built in 1954. Knowing that we already had a 1958 Tatra 603 that was shown at the Geneva show, I decided it was time to learn a bit about the International Geneva Motor Show. I've never paid much attention to Geneva – I mean, they don't even have an auto industry in Switzerland, right? What would possibly be shown here that wouldn't be shown in London, or Frankfurt, or Milan? A *lot*, I was to learn...

The Geneva Motor Show has been around since 1905, making it one of the oldest auto shows in the world. The very fact that it is held in a politically neutral country, without a motoring industry, is precisely why many manufacturers favor this show above all others to present ground-breaking designs, technical breakthroughs, new partnerships, and social issues. The Geneva Motor Show's strengths "have always been neutrality, representativeness, and annuality" according to their website. In other words, it is the most level playing field for the world's manufacturers to show their new ideas.

What significant cars have been introduced to the world at Geneva, you may wonder? (I did). How about the European introduction of the Ford Model A? The Chrysler Airflow in 1934. The Citroën 7CV in 1935. The Fiat 500 (Topolino) in 1937. Jaguar's XK-120 (1951) and E Type (1961) Fiat's first V-8 car, the 8V, in 1952. Mercedes' SL-Series coupés in 1963. The Maserati Bora, Fiat X 1/9, Ford Capri, Lamborghini Countach, the controversial Porsche 928, the Volkswagen Scirocco, the Audi 80 and 100, BMW's über-

successful 3 –Series coupes, the supercar Ferrari F50 and the lowly Ford Focus all debuted to the world here. There are dozens and dozens more – more than could be named here!



This 1958 Tatra 603 was also shown at a Geneva Motor Show.



This Panhard Dyna, Jr and the 1954 Panhard-Ghia share an identical chassis and drivetrain.

But what of our 1954 Ghia-Aigle-built Panhard Dyna Coupé? What exactly is Ghia-Aigle, anyway? I mean, who doesn't know the Ghia name – long associated with Ford products, but also tied to other iconic cars such as Karmann-Ghia? Ghia-Aigle was a division of Ghia of Turin, Italy that was located in Aigle, Switzerland, and later Lugano (then back to Aigle 3 years later, but I digress.) Mario Boano (of Ferrari fame) had assumed direction of Ghia of Turin in 1944 after founder Giacinto Ghia's death. Seeing the potential for another market, he formed Ghia-Aigle in 1948, and asked Giovanni Michelotti to join him in the new endeavor. By 1951, Michelotti was the Chief Designer and in charge, and 1953 saw Ghia-Aigle become an independent company. During Michelotti's tenure, 1948-1957, Ghia-Aigle and Michelotti were responsible for dozens of significant designs – at the 1954 Turin show, for example, fully 40 of the cars on display were by his hand, yet he could not publicly claim them in the interest of maintaining good relationships with *all* the different manufacturers! Michelotti's philosophy was that of "a free pencil". To illustrate his point, he likened many designs to that of the camel – a horse drawn by a designer *after* a meeting with the Board of Directors.

His career lasted for decades, with long standing relationships with firms such as Vignale, Frua, Ghia and Ghia-Aigle, and his own eponymous firm, now headed by his son. He also contracted with many European and Japanese manufacturers, such as Alfa Romeo, BMW, DAF, Fiat, Ferrari, Hino, Lancia, Maserati, NSU, Standard/Triumph, and Tatra, creating often iconic cars for each. He is officially credited with 1200 designs during his long career, and the list of his influences surely numbers much greater. Ghia-Aigle, on the other hand, languished after the departure of Michelotti in 1957. By the early 1960s, they were performing ambulance and trash-hauling conversions on customer chassis with some minor coachbuilding and repair business mixed in. By the early 1980s, they were in bankruptcy, and closed their doors forever in 1988. The parent company, Ghia in Turin, continues their long tradition of Italian automotive design, and is now a wholly-owned subsidiary of Ford Motor Company.

Lane Motor Museum's "new" 1954 show car was featured in the July 1954 issue of Road & Track magazine, along with photos from the show of several other Michelotti designs, from both Ghia and Ghia-Aigle. With less than a handful of owners since new, and a fully documented history, it's a real treat in mostly still-original condition. Come see it!

# Delivery Room

New Arrivals at Lane Motor Museum

### 1933 B.S.A.



Birmingham Small Arms was started in 1861. Its main products were machine guns, shotguns and rifles. In 1880 B.S.A. also started to build bicycles. B.S.A.'s first cars were produced in 1907, and cars made from 1907 to 1915 were of the conventional 4-wheel type. B.S.A. also began producing motorcycles in 1910 and by the late 1920s was the largest motorcycle maker in Great Britain. The 3-wheeled B.S.A. cars are really an offshoot of the motorcycle business. In an attempt to make an affordable car, B.S.A. chose 3 wheels and a simple V-twin engine. Morgan also made 3-wheeled cars, but they had much higher performance levels, as the motors were much more powerful and the chassis much lower for better road handling. B.S.A. ceased production of cars with the onset of WWII and never restarted production after the War.

### 1934 B.S.A.



The water cooled 4-cylinder B.S.A. was introduced at the 1932 Olympia Motor Show in England. The car was an instant success, as buyers were eager to have a quieter, smoother, and easier to start car than the original 2-cylinder car, although it was heavier and not as powerful. Part of the attraction of the B.S.A. was its low weight; below the 8 cwt. (896 pounds) limit, cars were taxed at a far lower rate. The heavier 4-cylinder car appeared outwardly identical to its V-twin sibling, but many parts were produced in aluminum to bring the weight below "the magic 896." Three-wheeler production ended in 1936.



### 1954 Panhard-Ghia

This car is a one-off prototype based on a Panhard Dyna and built by Ghia-Aigle of Lugano, Switzerland for the 1954 Geneva Auto Show. The Michelotti designed body is handformed aluminum and the chassis and drivetrain are identical to the Panhard Dyna Jr. This car was originally purchased by Seymour Northrop of Spokane, Washington and has spent its entire life in the United States. It remains in its original condition except for a body re-spray at some point in its life. Ghia-Aigle built approximately 50 different coachbuilt cars in the 1950s.



# The 1950 Martin Stationette

...brought to you by Red Bull

By James Green, Automotive Preparation Manager

So you need to finish that project wooden car that you've spent the last two years laboring on. The clock is relentlessly spinning. Six P.M. becomes 8 and 8 becomes 11, and now it's after midnight. The car has to be in Florida for its advertised debut at the Amelia Island Concours d' Elegance. The fabric covering the slat wood top needs to be stapled down. That final perplexing piece of wood has to be carved and fitted. The chrome trim that accentuates the roof line and hides the jagged edge of cloth covering the roof must be carefully bent and tacked into place. Wiper motors need to be fitted. And a thousand other minute details are crying for your beleaguered attention. What tool do you reach for first? Wrench? Hammer? Skilsaw? No, no,



The scene of the caffeine.

no. First grab another Red Bull and get your brain focused again.

The steady diet of Red Bull began on Wednesday. I picked up two four-packs at the store to help the crew fight off fatigue as they battled against a looming deadline. To my surprise they were all gone the next morning, so I got eight more. Those went even quicker since the crew's tolerance had

risen. Back to the store for eight more. And once again for eight more.

The crew fell into a discernible cycle. Exhaustion was met with a skinny can of Red Bull which brought on a giddy hysteria that was very productive but led to an agitated paranoia that was counter productive which eventually yielded to exhaustion and the need for another Red Bull.

Around 10 P.M. the project reached a critical point- a literal make or break point. The "one of one" rear window needed to be pressed in place. Several pairs of hands pressed in the stubborn glass and its seemingly too thick rubber gasket. The crew knew that the pressure on the glass needed to be constant and equal or the glass would crack and if the glass broke the project would be dead in the water. With all straining, the rubber gasket eased its way into place; wooden holders were quickly screwed in. A collective sigh of relief was released and then quickly forgotten as other details needed sorting.



The exhausted crew (John Williamson, Michael Hüby, and Greg Coston, L to R) share a champagne toast at 1:38 A.M. with the finished car in the trailer.

And suddenly around 1:30 A.M., like an overnight success that had struggled for years, it was done. The stars had finally aligned and it was "all tools down!" The tired crew looked at each other realizing the battle was over, some even managed a smile. The Stationette immediately roared to life, and after a quick spin around the museum's parking lot, was loaded on an enclosed trailer for a ride to the Atlantic coast where it met an admiring public for the first time.

The restoration shop was left a disaster area that took weeks to clean up and sort out. Piles of old wood, piles of sawdust from new wood, thousands of different fasteners, and dozens of empty Red Bull cans.

Thanks to the crew. You know who you are.

### Dementia Dilambda

By Dick Buckingham

The Lane Motor Museum acquired the final restoration of this 1932 Lancia Dilambda at auction about 4 years ago. The car's restorers, Dick & Judy Buckingham, have kindly allowed us to re-print their personal accounts of the lengthy and detailed process of restoring this car to the state in which we enjoy it today. This month's article is Part 2 of a 4 part series. Our January newsletter, which contains part 1, is posted online at: www.lanemotormuseum.org/archive.htm if you would like to read the previous installment of this article.

The first order of business was to do research on what was missing and what was incorrect and try and find the missing parts, or perhaps borrow originals which could be copied. I researched every article, book, picture and archive that I could get my hands on. I contacted the Detroit and Seattle Public Libraries, the Library of the National Automobile Museum as well as the Lancia factory Museum and the Archivo Storico Fiat. The Lancia Motor Club of England sold me a manual of period articles and information obtained from original owner's and part manuals. The big problem with original factory publications was the lack of any printed material for the 2<sup>nd</sup> series car (which is what we were working on). As an example, the Dilambda was made in such limited numbers that Lancia didn't think it was warranted to do a parts manual for the 2<sup>nd</sup> series car when only somewhere between 389 and 561 of the later model were produced—the different numbers come from two different sources and are typical of the problems encountered when trying to get valid information on old Lancia models. Chris Dickel of LA has a 1st series car with an English body in need of a total restoration which he graciously made

available for study. Parts were borrowed from this car to study and remanufacture. I consulted all of the gurus of the ALC, but there aren't many (if any) Dilambda experts. I contacted Lancia experts in England, Australia, Switzerland, and Italy getting every piece of information that I could. I went through photos that I had taken at world Lancia

meets years ago and found some Dilambdas. I also had taken pictures of the Dilambdas at two different Italian restoration facilities and at the Harrah Museum. However, when I took these pictures, it was just for general interest, not because I ever thought I would be involved in a Dilambda restoration. Had I known, I would have certainly taken more pictures with more detail, but hindsight is wonderful. Anyway, this was the challenge we faced.

The "trail of the carburetor" is an example of what I went through doing research, obtaining information and trying to get parts. When I purchased the car, I knew that the downdraft bronze Weber on the car was incorrect. The correct carb was (according to the books) an updraft Zenith 105 DC. A previous owner had simply turned the intake manifold upside down in order to fit a more readily available and more easily



The Zenith Carburetor after cleaning.



The Zenith updraft carburetor in the engine compartment.

tuned downdraft Weber on the engine. I made a tracing of the intake manifold "footprint" and set off to find an updraft. We did locate a Stromberg UU-2 in New York State for \$1600 which appeared similar to the Zenith. However, I wanted the real thing! None of the carb experts that I contacted as well as the archivists at the National Auto Museum knew what cars used the Zenith 105 DC besides the Dilambda (which they knew from my telling them). While at a friend's birthday party, mention was made of my quest, and the guest of honor said he had acquired a carb for his Deusenburg from a local man who had a large stock of carbs but who had since died. Much detective work utilizing various old time members of the local Classic Car Club finally located a Stutz collector 75 miles from here who had bought the carb stockpile. He was familiar with the carb because it turns out that the carb was also used on the SOHC 8 cy. Stutz engine from 1927 to 1930. The "carb man" was unaware that the carb fit anything but a Stutz, and yes, he did have two of the Stutz carbs, but they were in very poor shape. problem, it seems, was that the carbs were made of pot-metal and they all "self destructed"—probably the reason that the Dilambdas I had seen now had track-down sources. Through various other contacts in the car world. we learned that a man in Australia was making bronze reproduction 105 DCs

Continued on the back cover...

## Calendar of Events

July - November 2008

Exhibit: Nissan Z Cars Exhibit Now through September 29, 2008

Explore Nissan's revolutionary rise in the sports car market from the 1970 240X to a 2002 350ZX. Included is the 1974 260Z formerly owned by Mr. Yutaka Katayama, President of Nissan Motors North America and known as "The Father of the Z Car." The Nissan Z Cars exhibit is part of the North American Heritage Collection.

Event: Family Fun Day II Date: Friday, July 11, 2008

Join us for the second Family Day of the season! Activities will include children's tours, car demonstrations and more!

Event: Magic of the Machine! Date: Saturday, July 26, 2008

Enjoy motoring madness at Lane Motor Museum with vehicle demonstrations, a tour of the LARC, vehicle rides for adults and don't forget the basement tour!

Event: 5<sup>th</sup> Anniversary of Lane Motor Museum Date: Saturday, October 18, 2008

A special exhibit will be on display as we celebrate the 5<sup>th</sup> Anniversary of the Museum!

Event: Free Day for Veterans and Active Military Date: Monday, November 10, 2008

All veterans and active military get in free on Veterans Day! Don't miss the display of military vehicles representing the U.S., Austria, Czechoslovakia, Germany, Switzerland, and the U.S.S.R.

Event: Day After Thanksgiving Date: Friday, November 28, 2008

Join us for special tours and vehicle rides for adults (rides for adults only and weather permitting).

### July Events

Family Fun Day II Friday, July 11, 2008 11:00 am- 3:00 pm



11:00-3:00PM Ongoing car crafts

11:00 AM Rides in a Dynasty IT Electric Car\*

11:30 AM Demonstration: Davis\*

12:00 PM Children's Tour (about 1/2 hour)
1:00 PM Demonstration: Helicron\*

1:00 PM Demonstration: Helicron\* 1:30 PM Coloring Contest

1:30 PM Coloring Contest

2:00 PM Children's Tour (about 1/2 hour) 2:30 PM Demonstration: Ford Quadricycle\*

\*Vehicles are subject to change-Rides may be cancelled in bad weather.

#### Magic of the Machine Saturday, July 26, 2008 11:00 am - 4:00 pm



All Guests can sit in an IRL car 11:00 AM Rides in a Fiat Multipla\* 11:30 AM Demonstration: Peel P-50\* 12:00 PM Rides in a Tatra T-87\* 12:30 PM Demonstration: Citroën Cogolin\* 1:00 PM Tour of the LARC-LX\* 1:00 PM Rides in a 1963 BMW 3200\* 1:30 PM Demonstration: Helicron\* 2:00 PM Basement Tour 2:30 PM Demonstration: 1974 FaunWerke Kraka Folding Car\* 3:00 PM Rides: 1964 Amphicar\* 3:30 PM Indy Racing League car will be

of PM Indy Rac started

4:00 PM Rides in a 1956 Volkswagen

Reetle\*

\*Rides are for adults only and may be cancelled in bad weather. Vehicles are subject to change.

# My First Car - 1970 Pontiac GTO



Though the original photos have been lost-this one looks just the same!

#### By Greg Coston, Restoration Specialist

Ever since I can remember, I've enjoyed traveling. It didn't really matter by what means; car, bus, train, plane, or boat. It seemed the longer the trip, the greater the difference it was from everyday life. Getting on a plane for an hour might take you from a hot, dry desert to cool tree-filled mountains. On the bus or train, I'd put my head against the window- the connection to the machine might lull me to sleep or awaken me to something new rolling by. I wasn't conscious of most of these things; like the unspoken joy of the wind rushing in from an open window on a hot day- it just is!

So it's not surprising that I spent a considerable amount of time in my youth dreaming of the day I would have my own car. And the more time

that went by, the more I invested in the meaning of the freedom that my own car would bring to both my mobility and to my growing mechanical curiosity.

I remember quite vividly the first time I saw my first car parked in the shade of a big oak tree. All the anticipation that had fermented over the years materialized in a 1970 Pontiac GTO, red with a tan interior and a 455 cubic inch engine under the hood. It was much, much more than the sum of its parts, and I was infatuated.

Relief came quickly after getting the car; no more walking to and from school, or to work. After work, no more having to get a ride from someone else, walking or taking the bus. On the weekends I'd take long

drives to the nearby mountains along winding stream-lined roads, or along the beach. I could drive for hourswindows down, radio on. And of course, dating didn't come with the baggage of using Dads car; that seemed like a big deal at the time, after all he had a Mercury Monarch-Blahh#%\*!

There were a few drawbacks to the GTO. I wasn't at all crazy about the attention it attracted, especially when it came to the police. It seemed as though I could not pass one without being stopped. And fuel, it really liked fuel. Lots of people had interpretations for what GTO stood for; as I recall, Gas, Tires and Oil, was the most common interpretation. In my experience: Gas, Ticket, Overhaul, is most accurate.

I owned the car for about six years, and in that time I replaced or refurbished just about all the major parts on it. I doubt the mileage I put on the car justified what I put into it; it turned out to be a bit of a needy car. But, my eagerness to dive into repairs might explain some part of that. Over time, the car took a lot of my time and drained lots of money from my wallet. In the end I let it go because my priorities had changed, and maybe I had lost my appetite for it.

Today I think more about the simple utility of my car than I did with my first. But, I think it goes without saying, I've never lost the passion.

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for "down under" Stutz owners—this solved the pot-metal problem. However, he made the carbs in batches and didn't have enough demand to make a new lot. After much negotiation and correspondence, I managed to get him to part with the one he had made up for this car. And, in one of the few lucky breaks of this restoration project, it happened that a Dilambda had been "parted out" in the same part of Australia after a road accident, and this particular machinist had acquired some of the parts from the Dilambdas carb. So we ended up having a new carburetor made from scratch with the proper Dilambda linkages in place. Needless to say, this was quite expensive and we didn't get the thing until late July, but it fit on the car and worked acceptably even though it was jetted for the Stutz rather than for the Lancia.

The knock-off wheel nuts are another example of the complicated process of obtaining parts. The knock-offs on the Dilambda are similar (except much bigger) to those of the previous Lancia Lambda. They are made in two parts: a large machined nut (with ears) and on top of this a soldered steel dome which has the Lancia logo, an arrow showing the direction to turn for removal and either the word Sinistra

or Destra which indicates to which side of the car is should be fitted. The Rudge Whitworth company (who manufactured most of the wheels and hubs for cars of this era) had different sized nuts to fit different sized hubs. The Lambda was a 52, the Astura was a 72, and the Dilambda was an 80. The number refers to the O.D. (in mm) of the largest wheel bearing which could be fitted inside the hub using that particular nut. We found out from the company in England that was making new wheels for the car, that the only other car which used an "80" was the 8 liter Bentley—a very rare model. As we only had 4 knockoffs and they were in poor condition, we decided that perhaps we could buy spare Bentley ones from the Bentley spares' consortium in England. Unfortunately, they had just had a fire at their facility and weren't even sure if they had any. So we decided to make them from scratch. The biggest problem would be the embossed Lancia logo in the middle of the stamped dome. As it turns out there were far more Lambdas made then Dilambdas (12,003 vs. 1679) and a far greater percentage have survived. For this reason there is a Lambda parts consortium in England and they have remanufactured the domes for the Lambda knock-offs. Of course they

are much smaller than what we



The Lancia logo on the wheels.

needed, but the Lancia logo, while not identical to Dilambda, was very similar. A local machine shop with CNC equipment agreed to make the knock-offs from billet steel wafers measuring 10 x 2 in. while leaving a recess in the machined dome to accommodate the center section of the remanufactured Lambda dome- each of which would have to be individually cut and fitted. So even though I am able to describe this operation in one paragraph, it actually involved months of brain-storming and hard work, with ideas and parts from England, L.A. (Gary Byrd kindly supplied the Lambda domes from his horde of parts) and Seattle, and the services of two different machinists, a sheet metal company, as well as the plater-However, they look polisher. absolutely spectacular! They are one of the nicest features of the car.



702 Murfreesboro Pike Nashville, TN 37210 (615) 742-7445 www.lanemotormuseum.org