



# BRAKING

*news*

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## News From the Museum Director

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The fall was a busy and exciting season for the museum. The first event was the British Car Show in October at Harlingsdale Farm Park in Franklin, Tennessee. This is the city's newest park, and it was a great venue for the show. LMM took five vehicles to display at the show, and several museum staff and volunteers enjoyed a nice drive there and back.

The 1919 Leyat replica was finally completed in September 2009, and arrived at the museum in time to be the hit of this year's member's reception held on November 21. Museum members were the first to see and hear the Leyat started in the workshop which proved to be an interesting backdrop for the reception. We had a fantastic turnout, and I want to thank our members for taking the time to come by. The Leyat has created a tremendous amount of interest and has already been invited to the Amelia Island Concours in March 2010.

On Thanksgiving weekend LMM was invited to bring a display of European Microcars to the Nashville Auto Show. We chose five of our most interesting cars, and attendees really enjoyed seeing cars they had never seen or heard of. I want to thank Richard Ruth, Paul Collins, and Mark and Ryan Qualls for volunteering to staff the booth.

Vicki Garrison, our marketing director, has completely redesigned our website with the addition of blogs and a Facebook page. If you have not had a chance to view the website recently, its worth browsing.

I hope everyone had a great holiday and I am wishing all a fun-filled 2010!

*Jeff Lane*

Director

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# LMM NEWS BITS



## Lane Motor Museum at the Nashville Auto Show



Lane Motor Museum was invited to display European microcars at the Nashville Auto Show November 27-29. With five cars to represent this important part of European automotive history, the museum chose the Peel P-50, Mochet Velocar, Reliant Regal Convertible, Velorex 435, and the Zündapp Janus.

## Lane Motor Museum Attends Hilton Head Concours

Hilton Head is in its third year of having a microcar class and Lane Motor Museum was again invited to participate. The museum brought its 1953 Rovin D-4 and 1959 New Map Solyto. The Rovin D-4 was used for the Friday motoring tour and was a big hit as it was half the size of anything else on the tour. The tour concluded in the afternoon with two pace laps around the historic Savannah race track. With its top speed of 45 mph you barely had to slow down to keep up with the pace! The New Map Solyto proved its worth on show day when we realized we had forgotten our chairs. We just popped the seats out of the New Map and used those! People kept looking the New Map over and would ask - Do you drive it standing up? We would then point out we were sitting on the seats which always brought a laugh.



## The Nashville British Car Show

Lane Motor Museum attended the annual Nashville British Car Show October 10 in Franklin, TN. Five cars were at the show representing the museum. Pictured are some of the cars and their drivers.



*Chris Nicholson with the 1985 Renault Alpine.*



*Richard Ruth with the 1938 Georges IRAT.*



*Mark & Ryan Qualls with the 1965 Matra DJet 5.*

# The Five W's

David Yando

As I give tours to groups, and even just talking with individual visitors, I am finding myself more and more trying to explain *why* some of these cars exist. Sure, just wandering through, looking at all the weird (their words, not mine!) cars can be satisfying in itself. But isn't it more interesting to think about the context in which these motoring marvels were created? No matter how "weird", every one of these cars had a *raison d'être*.



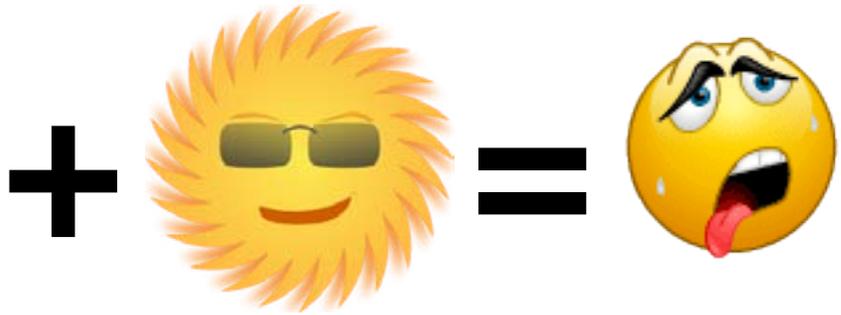
*If you've never learned the "raison d'être" for this two-headed 1952 Citroën Cogolin, click the image to learn more.*

Cars are a product of many factors. The background of the designer can certainly be a huge influence – it's easy to see the airplane elements in the materials and design of a Voisin or a Martin, for example. The raw materials available also come into play – the Trabant, with its agricultural waste-derived "fiber" glass is a good example. We must also consider what was going on when and where a car was produced. The post-WWII rebuilding of Europe, along with the Suez Oil Crisis of the mid-1950s were both huge influences on car design of the period. There had been microcars before, but this period brought an unprecedented boom in the tiny conveyances, especially in Europe. These contexts – the Who, What, When, Why, and Where – are especially interesting to me. Without delving a bit below the surface of these cars, they are simply objects – some pretty, some purposeful, and some, well, a bit homely.



*This 1928 Martin Aerodynamic was built by the Martin Aeroplane Factory. Do you see the influence?*

someone's epiphany, a unique solution to that question – how do I get from here to there? Admittedly, some are better than others. But all are a product of their context.



Would a Peel Trident make any sense in Wyoming? Of course not. But it wasn't meant to – it would be out of context. On the Isle of Man, however, it made a certain amount of sense. An isolated island only 33 miles long, with constant winds, frequent rain, and cool temperatures, a Peel offered protection from the weather while giving one or two Manx some relief from walking or riding a bike. A Corvette could do the same, but how much fun can one really have on such a small island? And you can't pick up your 'vette and pull it through the garden gate for safe overnight parking, can you?

I invite you, on your next visit to the museum, to really read some of the descriptions that accompany each car. Put yourself *there*, and *then*, and think about what the designer was trying to accomplish, and *why*. Then decide for yourself if you think they were successful – after all, there's certainly more than one way to get from A to B.



## Find Us On Facebook!

Join the over 1,100 fans who have joined our Facebook page!

[www.facebook.com/lanemotormuseum](http://www.facebook.com/lanemotormuseum)



## Have You Seen Our Blog?

We recently launched some updates to the museum website that included a new blog. Check it out and let us know what you think!

[www.blog.lanemotormuseum.org](http://www.blog.lanemotormuseum.org)

# Pedal Power

James Green

I love bicycles and can still remember the feeling of freedom associated with riding and balancing on two wheels for the very first time. When I was nine, I got the best Christmas present ever, a shiny new 10-speed. When I started working at 12 years of age, I used my first paycheck to buy myself another bike. Later that same year, I bought my first car. I paid more for the



bike. I rode that bike to work for the four years it took to get the car up and running. And so began the love affair with cars, but bikes have always been in the background and I still love that initial feeling of freedom when I step on the pedals and gain my balance on two wheels.

So it would seem the 1945 Mochet Velocar would have to be a favorite because it combines cycling and motoring all in one petite nifty package. The Velocar only weighs 220 pounds, so it's lighter than most cars, and heavier than most bikes. It's a little over 7' long and its teardrop-shaped body is made of plywood, covered with vinyl sitting on a tubular steel frame. The canvas top provides some protection, but the overall protection from the elements is minimal since there are no side windows. The front wheels are positioned on the exterior of the body and covered by metal fenders, while the rear wheels are nestled inside the body near the engine. The engine is accessed through an 8"x8" lockable door. The engine itself is a 2-stroke 99cc single cylinder that provides adequate power up to about 30 miles an hour. It is fed by a gas tank with a whopping 1/3 of a gallon capacity, which is also tucked inside the same 8"x8" door.

Driving the Velocar is a unique experience even amongst all the oddities that reside in the museum. The driver is first confronted with getting into the driving position. There is a singular door, which allows entry via the passenger's side for both pilot and passenger. The driver has to levitate across 2 scary

Please allow a moment for the photos to load after clicking play button.

[Photos may also be viewed in a gallery online.](#)

Slideshow requires Acrobat Reader 6 or newer. Current version is Acrobat Reader 9;

Free download at: <http://get.adobe.com/reader/>

sets of chains, cranks, sprockets and pedals. If you have ever caught your pants leg in a bike chain you understand the perils that lurk around your legs. A lady in a long dress need not attempt the folly.

Once positioned, the driver is confronted with an astounding steering wheel, festooned with levers. Since your feet are busy pedaling the Velocar, all the normal foot controls have been moved to the steering wheel. There is no gas pedal; there is a gas lever. There is no clutch pedal; there is a clutch lever. The other lever decompresses the engine, which is how you turn it off, since there is no ignition key. You would expect there to be a brake lever on the steering wheel as well, but there is none. Braking is accomplished via a handbrake, much like you would find on a bicycle, mounted below the seat between the passenger and driver. The lever actuates via cable two drums on the rear axle. Don't worry about not having a strong enough grip to stop the car; you can always stop it in the Fred Flintstone manner with your feet, since there are no floorboards.

Starting the Velocar is a delicate dance for your hands with all the levers on the steering wheel. Just a touch of the decompression lever so the engine turns over easily. Crack the throttle maybe a quarter open. Hold the clutch lever down completely. Now start pedaling. I like to slowly pedal my way over to a slight incline, where I let gravity do the balance of the work. As speed increases, slowly release the clutch lever while closing the decompression and hopefully the engine sputters to life. If it does, you can stop pedaling and adjust the throttle. Keep your feet resting on the pedals unless you have plans to resole your shoes. Your bike has morphed into your car.

## Upcoming Events

### **Amelia Island Concours d'Elegance March 12-14, Jacksonville, FL**

<http://www.ameliaconcours.org/>

Lane Motor Museum will proudly exhibit the newest addition to our collection of propeller cars, the 1919 Leyat Helico Replica.

*Do you have plans to attend Amelia Island? If so, we are considering plans to gather our Nashville based friends during the event. Contact Vicki Garrison at 615-742-7445 or by email at [marketing@lanemotormuseum.org](mailto:marketing@lanemotormuseum.org) if you would like to be notified of any plans.*

### **Vroom...Start Your Engines**

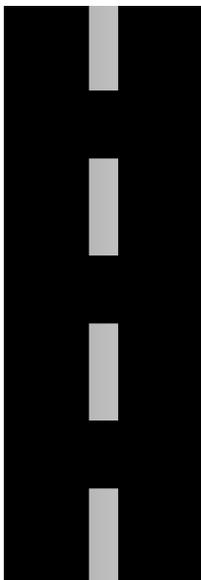
**Saturday, March 20, 2010, 11am-4pm**

Join us for this exciting day when we open the hoods on many of our cars to offer a rare look inside. Many cars are started throughout the day so you can hear their engines in action! Basement tours will be available on a first-come, first-served basis.

### **Walter Mitty Challenge**

**April 29-May 2, 2010, Atlanta, GA**

Nissan will be taking one of the many historic cars that they house with us to the Walter Mitty Challenge; the two-time Trans Am Winner, the BRE #46 Datsun 510. Though plans are still being finalized, we are considering bringing a museum owned car as well.



# From Garage Project to Track Ready...In Two Weeks

David Yando

In the last issue, we had a sidebar teaser about a two-week Lotus Europa restoration. You may want to hear the rest of the story...

In late August, our director got an intriguing phone call from Mark B., an old autocross friend. His wife worked with Barbara, whose husband Chris owned the Europa. Mark was trying to find someone - anyone - that could refresh Chris' old Lotus for one last track day, coming up very soon. You see, Chris was dying of cancer, and his doctors had told him he had maybe 5 or 6 months left. The track day was on the 18th. Of September!



Jeff said to bring it by and we would be willing to at least take a look at it. Apparently it had been sitting in a garage for the past 12 years, but "it ran when parked". The car arrived on a trailer on the afternoon of Sept. 2, and it was complete but partially disassembled. The body was more or less intact, but the paint was in terrible shape, the front trunk (photo #1) and interior (photo #2) were stuffed full of boxes of parts that the owner, Chris, had accumulated over the years. The doors sagged. The windows (electric!) didn't work. Wiring hung out of the dash. The engine seemed to be all there, but the battery was precariously balanced on a rear crossmember. Nothing was going to be easy - it was even a challenge just finding a way to jack up and support the car! After taking a look at it, and conferring with Greg, the Museum decided to take on this challenge and work began in earnest - we had less than three weeks! Oh, and did I mention that Chris's hope was to also have it painted in the classic Lotus green and yellow prior to the track day?! (more on that later) Or that he really wanted a set of "real" Minilite wheels? Or that we were only a couple of days from a three-day weekend, delaying any parts we might be able to order. We had our work cut out for us.

I did what I could at the start - researching parts sources, making phone calls and internet inquiries, and trying to document the whirlwind of activity surrounding the little



Lotus. Jeff, James, and Greg set about removing everything that wasn't nailed down. (photos # 3,4 & 5) and In almost no time, a gas can and hose were set up, a fresh battery hooked up, and the engine started right up and settled into a relatively healthy idle – good news! The (really heavy!) air conditioning system had to go, so James began at that end of the car. The brakes, power assisted by a remote booster, needed to be gone through completely, so Greg started at that end. (photo #6) I hit the internet, and started looking for shop manuals, online .pdfs, anything that might help with getting the car track-ready. I quickly found a great online source of information – the Golden Gate Lotus Club – with lots of technical articles and tips available online. We learned that the power brakes were a problem, and how to modify the system to work as intended without the extra weight and complexity. I printed out a drawing for Greg, and started looking for wheels and tires.

I called John R. at Tire Rack, who appears monthly in *Grassroots Motorsport* magazine as a performance tire expert, for advice. 13" street-legal track tires are all but nonexistent in the sizes needed. I explained what we had gotten ourselves into, and he bent over backwards to pull a set of suitable Kumho tires, have them shaved for track duty, and get them shipped to us right away. They aren't dedicated track tires, but they are far and away better than anything that was on the street when the car was built! And they held up remarkably well in track sessions.

Wheels were a different story. "Real" Minilites are made in the UK, and at first there did not appear to be a US distributor on their website. Between the time difference and day of the week, I didn't see much hope in chasing down the wheels, but decided to send an email inquiry anyway. Nothing to lose, right? I had another look at their website – nothing under dealers for the USA, but I did eventually find a contact under "links" for the US. I clicked on the link, got a phone number, and called. I was rewarded by the sound of wailing racecars. Had to be a good sign! John Targett, Minilite's US distributor, was at Lime Rock Park for the Fall Historics. He couldn't hear me very well over all the track sounds, but he got enough of the story to find a quiet place to talk. I again recounted what was happening and why we were into this project, and he said he'd call England first thing Monday and have news for me.



It was a long weekend, with Labor Day and all. Greg made short work of the rear subframe and engine removal, (photo #7) so plenty of progress was made. He had already been busy burning up the VISA card with parts orders prior to the weekend. He also had luck asking for things to be shipped before the weekend, so we had a chance of getting everything in time. I heard from John on Tuesday – Minilite had just cast a new batch of 13" blanks, so we were good to go. He had already ordered a set for us to be drilled to the Lotus bolt pattern, and had arranged for expedited air freight to get them to us ASAP. What should have taken two weeks took two days, and the prices were way more than fair. I am sure that nobody made any money on those wheels. That's the sort of customer service that you just can't buy!



There was plenty to do in the meantime – Zenith-Stromburg carburetors (photo #8) to be rebuilt, a new master cylinder to plumb, wiring to sort out, suspension parts (photos # 9, 10, & 11) to be cleaned, painted, and re-bushed – the list was a mile long but growing shorter every day. Parts started pouring in after Labor Day. The only thing we were held up on was a pair of thinwall aluminum pipes – essentially very long radiator hoses - that ran through the backbone frame from the mid-mounted engine to the front-mounted radiator. This doesn't sound too major on first glance, until you realize that almost nothing can go back in until these two pipes are in place - the engine block sort of gets in the way! Work continued while we waited – and waited – on the pipes. With only a couple of days to go, everything was ready for reassembly – except those darn tubes! Returning from lunch on Wednesday





(that's less than 2 days until it had to be delivered to the track...) a long cardboard tube arrived. It was just what we needed! By midday Thursday, the engine (photo #12) was in, (photo #13) the new brakes (photo #14) plumbed, bodywork and interior put back together, new wheels and tires bolted on, and the car sat back on the ground for the first time in two weeks. Heck, while we waited on the pipes, Greg even had a chance to skimcoat the flaked paint and apply some black primer – the car wouldn't be painted, but it would look a lot more presentable than it had 16 days earlier!

At 1:30pm, September 17th – just 19 hours from when it was to be teched for its track sessions, Greg took the car out for a trial run. (photo #15) Other than a bit of carburetor tweaking and an alignment, all seemed to be in order. Greg worked on the rear alignment into early Thursday evening; the front had been easy – the rear, a bit more involved. The rear suspension of a Europa is simple, as Colin Chapman intended. However, simple also meant not a lot of built-in adjustments were available. Bolts had to be loosened, shims installed, the car set back on the ground and measured again. And again, over and over until it was in spec. James placed some of the badges and emblems back on the car so it would be presentable, and we called it a day. It was a great feeling to know that Chris would get his wish the next day – and we hadn't even met him. James loaded the car the next morning onto our Citroën Tessier carrier, and Greg and I followed in the van with some parts and tools, just in case. We arrived at the paddock and set about unloading (photo #16) the car, not really knowing who anyone was – we didn't know Chris, his wife Barbara, or anyone else for that matter. Local press was there, interviewing folks and taking photos and video, so we knew we were in the right place. Barbara and Chris' friend, Mark approached us and gazed at the Lotus. Chris was back in the garages, resting and staying out of the drizzle. Greg fell right into explaining this and



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that about the car to Mark, who was to join Chris on his track familiarization laps. Greg (photo # 17 & 18) walked the car through the tech inspection, while Chris and Mark went to the mandatory driver's meeting. Soon after, Chris and the running, driving car were reunited for the first time in many years. Afterwards, Barbara said he had not smiled that much in almost a year. Hugs all around for us. That made it all worthwhile right there.



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Chris and Mark took the car out (photos # 19 & 20) for a couple of slow reconnaissance laps behind the pace car. They came in, made a final fluid and tire check, donned their helmets, and went out and had fun. (photo # 21) Chris tired quickly, and came in after a handful of laps. Mark continued lapping the car in session after session throughout the day. The car was pretty much flawless, with only a minor leak (those darn cooling tubes again) and a balky shifter, both easily dealt with trackside. Chris had to leave, he was tired and sore, but I'm sure also thrilled to have scratched one more thing off his bucket list.



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Fast forward a few weeks, to October 7th. The Europa had gone to a body shop for paint, and we had had it in for a bit of work on the shifter again. We had heard from both Barbara and Mark – Chris wasn't doing too well, but hoped to see and drive the completed car once more. An hour after the car was driven past his bedroom window, painted in Lotus' signature British Racing Green and Yellow (photos # 22 & 23), Chris passed away. We barely knew him, yet he had touched all of us. It was a fun, fast-paced project, and I think I can speak for everyone involved that we are all proud to have been a part of it.



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