Readers, Rodders, and the Next Gen Racers

You would think that someone who has spent more than a quarter century in the automotive aftermarket and motorsports industry would have a very clear idea of the overall industry.

I thought I knew all about the custom car culture. After attending the Columbus Goodguys July event it was obvious that for many it is seriously antiquated.

Never had I seen so many personal expression transpires in one in place at one time. Not even the SEMA Show could compete with this crowd. Inside the building, my husband, Mark, made the observation that you could build a car from the ground up just by cruising the aisles.

The spirit spilled out of Ohio State Fairgrounds onto the streets where locals parked lawn chairs six-deep along the grassy medians of busy thoroughfares, hailed out coolers, cranked up portable tunes and settled down to watch a cavalcade of dazzling cars spanning nine decades. The friendly, orderly crowd would erupt into cheers when someone lit up the tires providing a few screech moments.

Back at the fairgrounds, I gave a presentation on land speed racing to more than 200 folks. Some came simply to escape the torrent of rain that hit around noon, but most, I discovered, had a genuine interest in the sport.

Afterwards, in both space kindly provided by the Goodguys, while I signed copies of my book "Bonneville: The Fastest Place on Earth", nearly 100 people stopped by to say they read this column.

The interaction was stunning. Please understand, I am very lucky to meet a handful of people in a year that read my scribbling, let alone take time to comment. To meet so many and to have them ALL make positive comments was astonishing. Folks, you humbled me.

The big gobsacker was yet to come. Very helpful Goodguys Communicators Director, John Drummond, asked me to attend the street machine and street rod awards ceremony. It was here that the association presented me with "Woman of the Year" honors commemorated with a bitchin’ piece of original artwork created by Bob McGoy.

This honor recognizes a female industry executive who serves to preserve the integrity and growth of the hot rod industry. Why me? The answers from Gary and Marc Meadors, made me realize that land speed racing is far more cherished in the Goodguys world than I ever realized.

I’ve been so damn busy promoting land speed racing to the general public that I had completely lost focus on the forlorned bunch will come from the Buckeye state. David Cooke, 23, the fearless fact-filled project leader of the Buckeye Bullet 2 (BB2), the world’s first hydrogen fuel cell powered land speed streamliner convinced me of that during my recent tour of the facility. Students from OSU have already conquered the electric segment starting with the Formula Lightning Smokin’ Buckeye. Powered by 31 lead acid batteries, the team could do a full pit stop/battery change in under 17 seconds. The car won a great deal of races and every national championship award.

Next came the Buckeye Bullet 1, now the world’s fastest electric powered streamliner with a SCTA national record of 314MPH in Class E/1 and the BNI International record at 273MPH. Pat Runnerefield still owns the FIA World Electric record at 245MPH with the White Lightning streamliner, but will tell you himself that the Bullet is the fastest electric car on earth.

BB2 team chose hydrogen to fuel the streamliner that relies on electric motors to turn the wheels. The car has already set an FIA World Record of 132MPH in Category A, Group 14, Class F for fuel cell engines.

What is most important to understand is this visionary vehicle is designed and built entirely by Ohio State University students. Sure, there is some work that needs to be brought to the timing lights. After visiting the Center for Automotive Research (CAR) at Ohio State University (OSU), it was clear to me that this kind of project is a success of the program and overcomes the project schedule, budget, sponsorship, interfaces with the college.

"I have a few design areas including body work, driveline maintenance, fire suppression, and wheels and tires," he said, "My biggest goal is to be interested members of the team and help provide them with the most exciting and varied experiences any engineering program has to offer. Being able to work endless hours and at the same time seeing something truly amazing go speeding down the track at 300mph makes it all worth it!"

Robert (RJ) Kromer, 21, is the electrical team leader and is a senior in electrical engineering whose major contribution is integrating a sophisticated software-based control system for the car while overseeing all vehicle electrical systems and related projects.

Managing the brakes and suspension as well as helping with fuel cell testing and modification is Rob Ewing, 21, the mechanical team leader who is starting his fourth year of study in mechanical engineering at OSU and his second on the buckeye bullet land speed race team.

Ed Hillstrom, 31, is a PhD Student in mechanical engineering who has worked on all three race car programs at different times. He advises on all mechanical systems and developed the vehicle’s cooling system. In between his Masters and PhD program he spent four years at Chrysler in vehicle development.

Charles Sheff, 26, handles BB2 aerodynamics; he is a fourth-year aerospace engineering student and second year team member. He has been investing internal air pressures and flow rates using computational fluid dynamics (CFD) and will now focus on reducing BB2’s drag coefficient through body modifications including exhaust location, angle, and shape as well as methods to keep the flow attached throughout the aft of the body. Also on the list: air brakes and tire air drag reduction.

In addition to the capture and inverter control is John Adzima, 22, a fourth-year electrical engineering student and part of the electrical team for over a year.

Starting college at age 40, George Willard, 46, brought with him 20 years of welding and fabrication skills – exactly what the BB2 team needed at the time. Enrolled in the welding engineering program he has also had a decade of racing dirt track sprint cars. Primary duties are welding and fabricating for the Bullet and its specialty transport vehicles.

Kevin Kachuba, 50, is part of the electrical team and is an undergrad electrical engineering student at OSU. He works with data acquisition implementing various sensors on the vehicle.

Luke Kelm, 19, is on the mechanical team and is a sophomore in mechanical engineering. New this year to the team, he is focusing on the addition of vehicle sensors such as wheel speed, ride height, and suspension travel and assisting in the development of a vehicle hauler that will be DOT legal for transportation.

New mechanical team member Evan Maley, 19, is a mechanical engineering sophomore who transferred from Dayton University last year so he could join the BB2 project after interning during high school. He assists with motor testing and dyno set-up as well as administrative activities.

High School Intern Evan Hueske, 18, has been on the team throughout his senior year and will be starting as a freshman at OSU this fall majoring in mechanical engineering. His duties are mainly working on the vehicle’s hauling systems and painting.

Oh, and when you stop by to talk to them in the pits, ask the crew why you can power a hydrogen car with urine. No joke. I told you they were visionary.

Note: Photographic Louise Ann Noeth is the author of the award-winning book, "Bonneville: The Fastest Place on Earth", a complete historical review of the first 50 years of land speed racing now in its 7th and final printing. Publisher MBI has informed Noeth when the current inventory is sold the book will not be reprinted. For more details and to order, go to: www.speedlandproductions.biz.