

# This One Just May Be The Car Of The Century

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Chicago Sun-Times

What America needs is a car that gets 70 miles per gallon, cost less than \$2,000 and requires little maintenance.

Twentieth Century Motor Car Corp., which doesn't believe that Detroit's automakers have a divine franchise to build cars, has such an auto. It's so futuristic-looking that Buck Rogers would feel right at home behind its steering wheel.

The car, a two-seater called the Dale, will be introduced next fall, says Elizabeth Carmichael, president of Twentieth Century Motor of Encino, Calif. It'll soon be followed by a \$2,450 car called the Revelle that will get 50 miles per gallon, and a station wagon for the same amount of money called the Vanagon that will seat eight people and will deliver about 40 miles per gallon.

All will have three wheels. If this doesn't sound a little peculiar to you, you're probably the kind of person who thinks that buying the Brooklyn Bridge is a tenable proposition.

## But wait.

Mrs. Carmichael, who's 37 years old, 6 feet tall, weighs 175 pounds and is the mother of 5, sounds quite serious when she says that Twentieth Century Motor is capable of "taking on General Motors," or any other automaker, for that matter.

Speaking from her firm's posh offices on Ventura Boulevard in Encino, Mrs. Carmichael says she has millions of dollars in backing "from private parties," a 150,000-square-foot assembly

plant in Burbank, Calif., a large research and development laboratory, and a big office and warehouse facility in Las Vegas, Nev.

Mrs. Carmichael also says she has about 100 employees, including "an elite group of mechanical and aeronautical engineers" and 250 dealers who've signed up to sell the autos — despite the fact that they must provide a separate facility to handle the cars. "Another 950 are waiting to sign up, but we're checking them out," she says. All this, despite the fact that the Dale has received almost no public exposure.

**But three wheels? Actually,** three-wheel British Morgan sports cars were sold for decades. And who can forget the tiny, three-wheel Isetta, built from 1953-1964, it looked like a lump of ice cream on wheels.

"The Dale is 190 inches long and weighs less than 1,000 pounds," Mrs. Carmichael says. "The lighter the car, the better the gas mileage. By eliminating a wheel in the rear, we saved 300 pounds and knocked more than \$300 from the car's price."

"The Dale's lightness doesn't affect its stability or safety. It's nearly impossible to roll it over because its low center of gravity always remains inside the triangle of the three wheels. It's smoother, easier and safer to handle than four-wheel vehicles. The body is made from rocket structural resin, which is stronger than steel. I drove it into a wall at 30 mph and there was no structural damage. I didn't get hurt."

"We meet all federal safety requirements. The bumpers are energy absorbing. The interior of the Dale is like a crash helmet. Passengers are protected with four inches of foam padding throughout the cockpit area."

"On snow or ice, with more than 50 per cent of the car's weight over the rear tire, which is twice as wide as each of the front tires, you end up with as much traction as a car with four wheels."

**The 51-inch-high Dale** is powered by a thoroughly revamped BMW two-cylinder motorcycle engine, which turns out 40 horsepower. Mrs. Carmichael says it'll hit 85 mph. The automaker's two other cars will have more powerful engines.

As for maintenance, Mrs. Carmichael says, the rear-engined Dale's entire power train assembly can be taken from the car in a short period of time. "All you have to do is remove four nuts," she comments. "Everything is 'quick change' when it comes to repairs."

Simplicity is one of the car's prime virtues. "Everything on the Dale is functional," Mrs. Carmichael says. "There are no gadgets, gimmicks, trimming or needless ornaments. The car's air conditioning system has no moving parts. The key to our success will be in keeping costs and weight down. Two men will be able to turn out a car body every six minutes. There's no room for waste if you're building a \$2,000 auto."

"Our cars will constitute a better system of getting from here to there for much less money. Dollar for dollar, the Dale is the best car ever built. By the end of 1975, we'll have dealers in every state of the union. And we're going to stick to our prices. We'll cut down on our profit margin if the cost of materials goes up."

**The Dale, which will come** with an automatic or manual transmission, looks like it is fun to drive with its rack and pinion steering, special shock absorbers and strong little engine.

"I'm no kook," Mrs. Carmichael says. "My late husband was a structural engineer for NASA. I've also got an engineering degree. We used to be in the auto customizing business."

"I've been working on engines and cars since I was 18 years old. I drove my own autos in stock car races. I grew up on a farm in Indiana. There, when a farmer had a daughter, he either turned her into a boy or made an application for a new kid. So I tuned the tractors."

"I've rebuilt the bodies and engines of Fords, Chevrolets, Nashes and Hudsons. I've designed and built experimental cars. I was always looking for better performance and gas mileage. I was constantly striving to get more efficiency from cars."

As Mrs. Carmichael sees it, the auto industry is on a collision course with her. She doesn't think that car

producers have given the public any meaningful improvements in more than 30 years "with the possible exception of the automatic shift."

Mrs. Carmichael anticipates consumer resistance to cars with three wheels. "But only because people normally tend to be wedded to the conventional," she says. "I predict that consumer antipathy to our cars' triangular configuration will gradually disappear. My chief engineer is Frank McGuinness. He worked for seven years on the Saturn rocket program. I wouldn't have employees like this if I wasn't determined to write a new chapter in automotive history."

Despite its sleek aerodynamic body, Mrs. Carmichael tends to talk about the Dale as if it were an appliance. For instance, she points to its printed circuit dashboard, which eliminates the need for wires. Just like a modern television set. "All accessories — radio, heater and air conditioner — simply plug into the printed circuit dash."

"Everybody except maybe J. Paul Getty and some of his friends, will be interested in the Dale. We're not ignoring the public's demand for good, low-cost transportation. We're going to fill one hell of an important gap in the car market. We're going to revolutionize personal transportation."

Mrs. Carmichael says she'll sell 88,000 cars during the first year of production and 250,000 during the



second year. Eventually, she hopes to sell millions of them.

"Sure Detroit will try and hurt me," she says. "That's why I'm talking about my autos so far in advance. If we're hurt by the big automakers, I want it out in the open. I want the world to know."

**But does anyone remember the Davis?** It also was a three-wheel car built in California and was a spectacular auto in many ways with its aluminum body, tubular frame and disk brakes.

Only 17 were built between 1947 and 1949.

This isn't to suggest that Mrs. Carmichael's three-wheel cars will meet the same fate, although several Detroit auto executives have gone into hysterics when this writer has mentioned the Dale. "No way!" they exclaim after they finish laughing.

Good luck, Mrs. Carmichael.