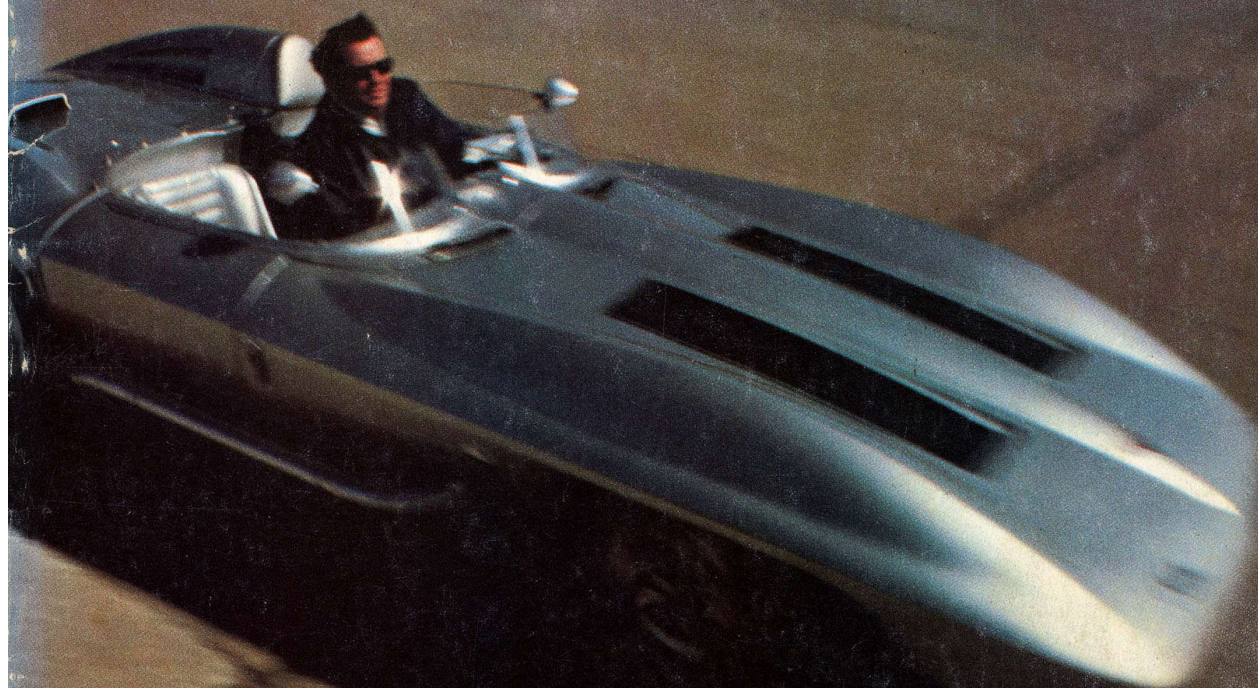


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The Aerovette

The 1980 Corvette is going to be a sensation: a brilliant design from every angle. It's Bill Mitchell's legacy.

Aerovette. Remember that name. In three years, it will mark the end of the Duntov/Cole/Mitchell Era. With a bang. Of all the fanciful show cars, of all the advanced styling studies, of all the incredible engineering prototypes that have passed through the GM Tech Center in the past quarter-century, the 1980 Aerovette will be the only one that makes it to the street virtually intact.

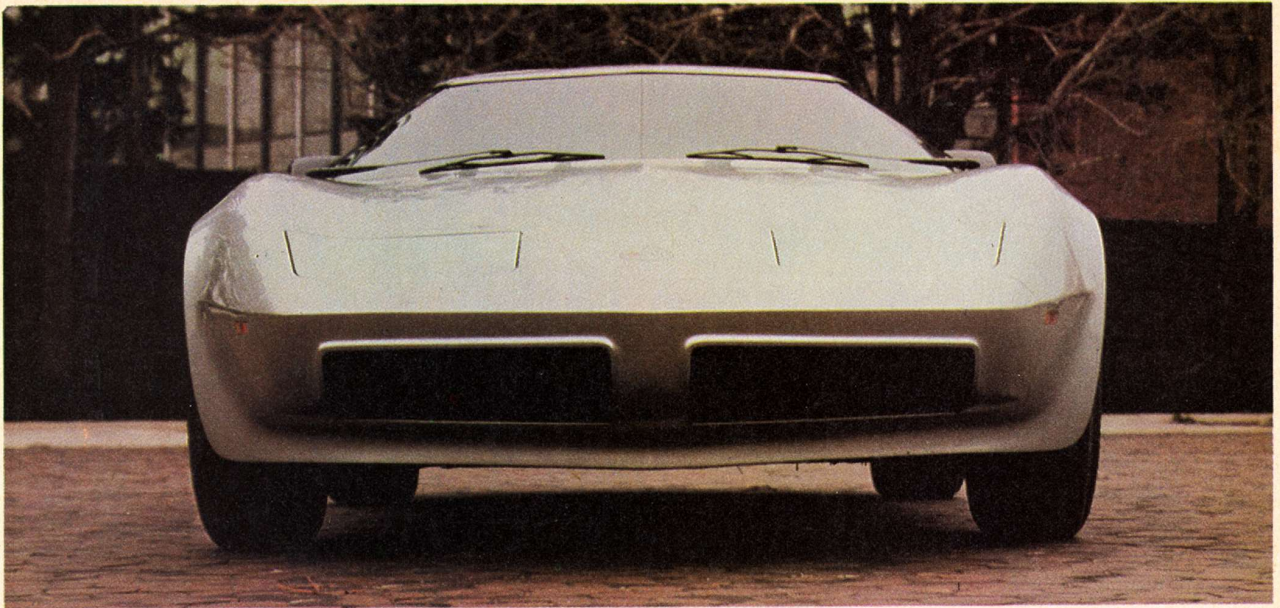
The '63 Corvette has a lot of the feel of the Sting Ray, the Monza GT gave a lot to the Corvair and Opel GT, the Mako Shark led directly to the second series Stingray. But in every case, the production car came out taller, narrower, somehow dumpier than the original. Not so with the Aerovette. According to Bill Mitchell, "The only difference between the Aerovette and the production car will be an inch more of head room. Otherwise, it's the same." Incredible.

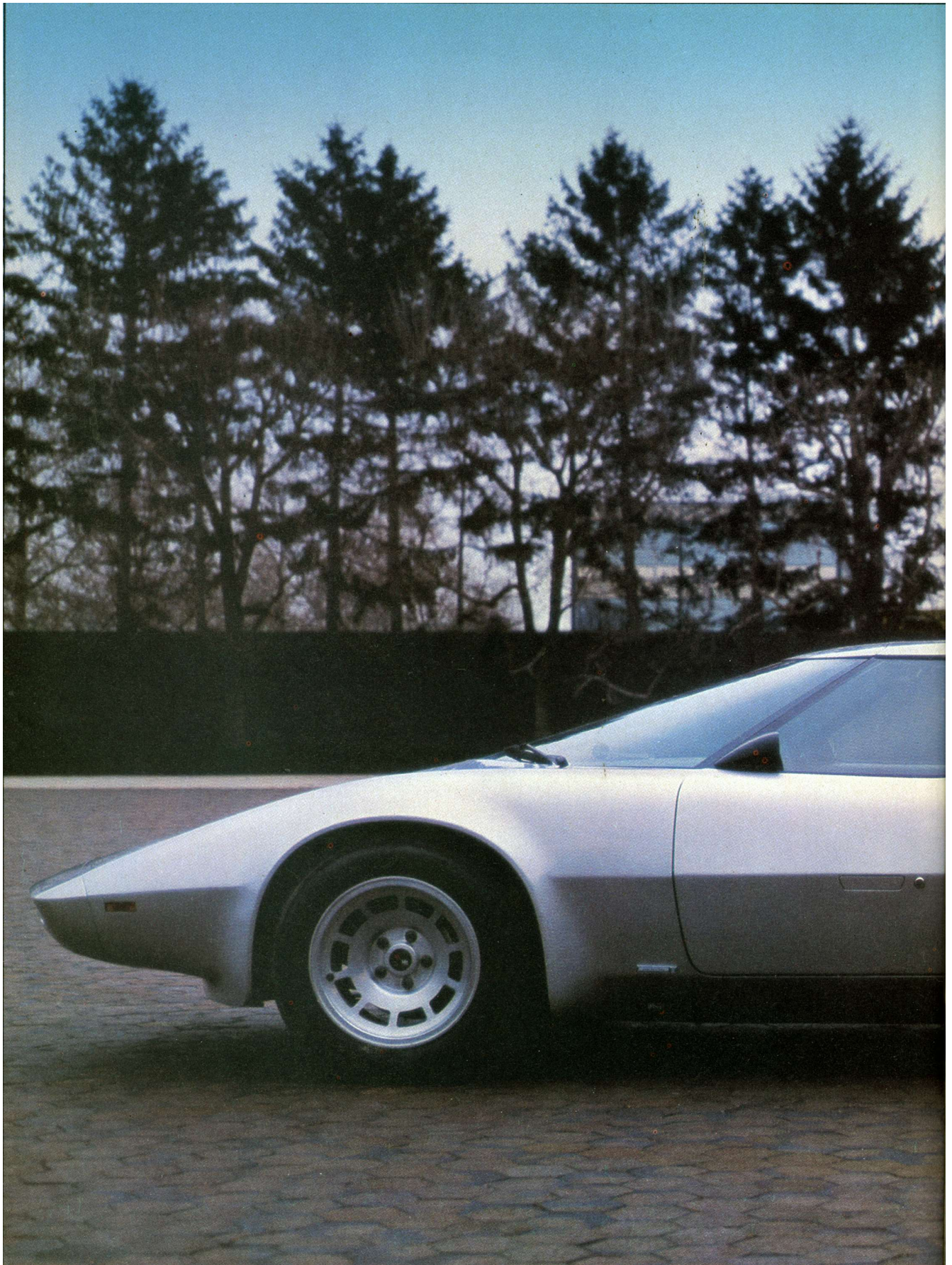
The Aerovette began life in 1968 as the XP-882, one of Zora Duntov's long string of mid-engine experiments that started with CERV I and went through CERV II. XP-882 was the big engineering breakthrough. The earlier cars all used a conventional mid-engine, bolted

to an expensive transaxle. But there was no way Chevrolet could justify building a transaxle just so Duntov could have a mid-engine Corvette.

Duntov's patented solution was to turn the V-8 90 degrees. The stock GM Turbo Hydra-Matic now nestles under one side of the V-8, also mounted transversely. It's driven by a direct chain from the crankshaft, and in turn connects to the stock Corvette differential with a short driveshaft that turns a right-angle corner at the front, in order to line up with the transverse transmission. To further complicate things, the driveshaft passes through the engine sump, encased in a tube. It isn't an elegant solution, but it works.

Duntov's high technology engineering group built two XP-882 coupes in the beginning of 1969. Almost the day they were finished, John Z. DeLorean became Chevrolet general manager and dropped the XP-882 program as impractical and too expensive. But that only lasted a year. When Ford announced the Pantera, DeLorean had one XP-882 cleaned up and exhibited at the New York Auto Show. The car magazines dutifully trumpeted "the mid-engine Corvette arrives,"

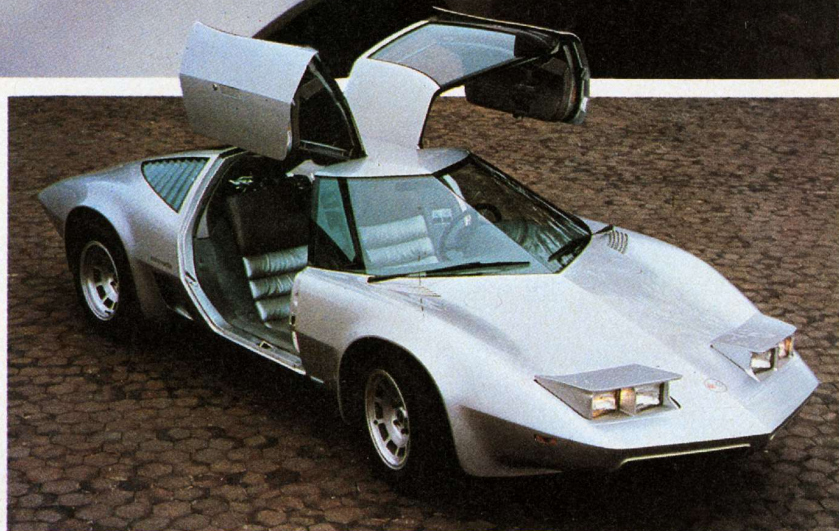








Diametric opposite of modernday designs resembling, as Mitchell puts it, "pieces of cardboard folded together," the Aero-vette is proof positive that at General Motors Styling at least, the age of ghastly bathtubs came to an end long ago. Its lines are just about unimprovable.



though nobody at GM had said anything about production.

At this time, Ed Cole went Wankel crazy. Along with the Wankel Vega—which never appeared—Cole had Duntov build an all-new two-rotor Wankel sports car. Styled by Pininfarina, the little two-rotor was highly touted as “the next generation Corvette.” In addition, the remaining XP-882 had a pair of Vega Wankels grafted in, to make a four-rotor, 420 hp super car. And to visually transform the old chassis into an all-new car, Duntov persuaded Mitchell’s crew to come up with a new body.

Now Mitchell at this point—witness the Pininfarina body on the Two-Rotor—was engaged in a monumental power struggle that stopped only after John Z. DeLorean left General Motors. He seized the Four-Rotor Aerovette as a heaven-sent opportunity for a brilliant power play. The Aerovette had to be stunning, better than anything DeLorean could buy outside.

“Originally,” says Mitchell, “they were going to let Georgetto Giugiaro do it. This is my example of the opposite of Giugiaro. Giugiaro’s cars are all full of angles. He can’t draw perspectives, so he makes a side view and a top view. All his cars look like they’ve been cut from cardboard. But the Aerovette has nice contours, soft curves and still a certain sharpness. It has really good balance . . . it’s a design you can look at from any angle. A car is like a girl. You wouldn’t want to see a girl from only one angle. You want to get more views.”

The overriding concept of the Aerovette is aerodynamic penetration. It’s only 44 inches high, and according to the wind tunnel tests, has a drag coefficient of .325. This is substantially better than any other car in production. It will probably start a new styling trend, away from both the boxy “formal” styling of American cars and the angular idiom of the Giugiaro school. Efficient aerodynamics are going to be a necessity with smaller, emission-controlled engines, and the Aerovette is clearly the trendsetter.

The real triumph of the Aerovette is to incorporate masterful efficiency in a package that is sumptuously sensual. Unlike most cars, the Aerovette looks right from any angle, high or low. The surface transitions are handled so tightly, so finely, so naturally, that the car avoids any hint of the artificial histrionics of the current Corvette.

The body is a taut skin, stretched over the people package. If you look at the Aerovette from the side, you’ll notice the most remarkable proportions. The car is not only symmetrical from side to side, but also from front to back. Except for a hint of a break where the hood and windshield meet, the continuous curve of the top to rear deck is almost exactly matched by the continuous curve of the windshield and hood. It is not a tear-drop, but rather a symmetrical, stream-

lined mound, very nearly triangular in elevation.

From the front or rear, extreme tumble-home gives the same slope-shouldered appearance. There is no indication of whether the car is front- or mid-engined, and indeed, it could clothe a chassis of either type. In a sense, it borrows something from the extremely smooth aerodynamic studies with which Sergio Pininfarina busied himself in the late Sixties and early Seventies, especially on Ferrari chassis. The same rounded forms are here, the same voluptuous contours, the same insistence on clean surfaces and excellent air penetration.

But there is a difference. All previous aerodynamic bodies have had a definite side, top, front and back. But the softened contours of the Aerovette cleverly disguise where the edges begin. There’s hardly a straight line on the car, the transitions from one area to another are never clearly delineated. From every angle, the shape seems right, seems one-of-a-piece. Like any true work of art, to move any one plane would destroy the whole, so subtle is the surface detailing. The Aerovette is an aesthetic tour de force, a triumph of surface over line.

Vinnie Kay and Jerry Palmer are the stylists who actually did the superb Aerovette body for the XP-882 chassis. It was first presented in Wankel form in late 1973, at which point Car and Driver called it “The betting man’s choice to replace the Stingray.” But the Wankel died at General Motors during the Energy Crisis, never to be revived.

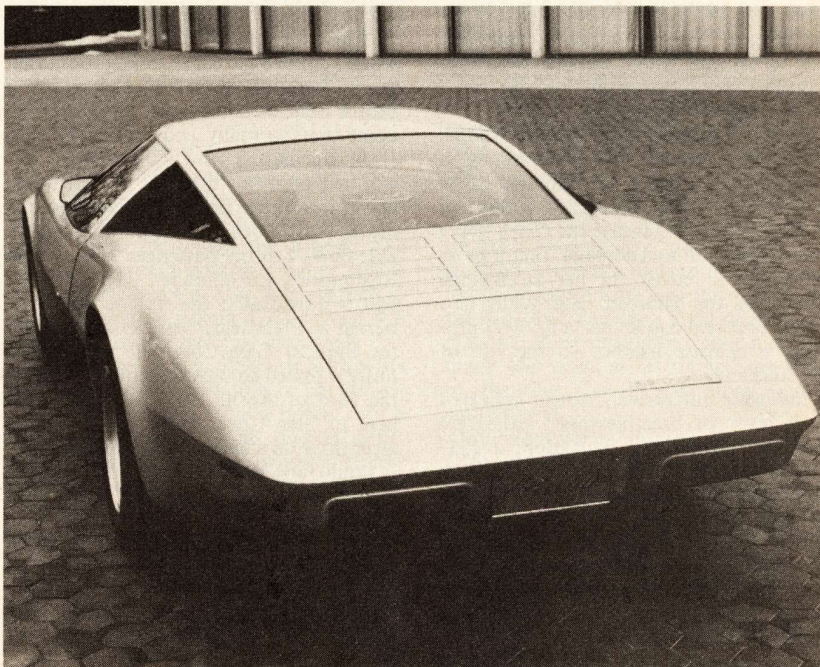
Bill Mitchell is nothing if not persistent. Ed Cole was gone, Zora Duntov was gone, the Wankel was gone, but the Aerovette was still sitting in the Special Vehicles warehouse, covered with a

sheet. Mitchell had the car dragged out, and repowered with the original 400 cubic inch smallblock of the XP-882. And then he started lobbying at Chevrolet division for a new Corvette. As usual, if Mitchell wanted something badly enough, he got it. Thomas Murphy let him have the Aerovette for 1980, at least partly because of the possible threat from John Z. DeLorean’s independent rear-engine, DMC-12 sports car.

The production Aerovette clays are now complete, and tooling is scheduled to begin in the fall. Which means, at least for this moment, that GM honestly intends to finally get the Aerovette into production. The Aerovette will have this same gorgeous body, and the chassis will be the steel platform frame of the XP-882 complete with Duntov’s clever transverse V-8. The top production engine is a 350 these days, so that’s probably the one that will end up in the car, though by 1980, the 305 might be the biggest GM V-8. There will be a 4-speed, and a Hydra-Matic.

The Aerovette suspension will be pulled right off the Stingray, which of course was Duntov’s original, cost-cutting goal. With a fiberglass body, gullwing doors and fixed side windows, the Aerovette really shouldn’t be any more expensive to build than the Stingray. Which means, by 1980, a pricetag in the \$15,000 range. At that price, the dealers will be beating buyers off with sticks. If any car will be an instant classic, the mid-engine Aerovette will be the car. Like the Stingray, I think it will turn out to be a ten-year car, at least, which will take us all the way up to 1990 in high style. The Mitchell Era . . . over? Not at all. It’s hardly just begun.

—Rich Taylor



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