Designer Ron Hill was very involved with the Fiero, as is indicated by his automotive artwork. The design on the left featured a two-seater with a chopped off roofline and vents for the engine bay. To its right is a convertible with an integral rollbar, while the coupe at the right placed styling emphasis around the rear wheels.

Shelf cars. If you ever had a chance to go back into the warehouse at GM Design Staff—which I think they've long since done away with—there were probably, for every new concept vehicle that you would work on, you'd probably do 10 to 20 before one would actually see the light of day. Because basically what it was, was a continual refinement of particular model lines, with a major model change every five or six years and major facelifts every three years. But to do a car [such as the Fiero] with no antecedents was an interesting process, one of the few times I've ever had that happen.

CA: I want to ask you more about that.

Hill: We did the Fiero in the early Eighties. In 1980 I actually came out to California to do a wind-tunnel test on the first model of the Fiero. At that time, my career got fairly interesting because [GM] said, "All right, we want to do an aerodynamic studio. You're the person that should be doing that," because I'd always been kind of interested in it. We worked with a lot of people at Engineering and primarily Research Staff.

What we did was to set aside a block of time and started doing some fundamental aerodynamic studies. We ignored the previous and, I must say, to some extent current flow of aerodynamic investigation—which was to do a vehicle, have it approved by management, and then take it to the wind tunnel.

What we did, we started off with very fundamental shapes that proportionally represented a line of vehicles, and then started paring them away incrementally, both forebody and afterbody, and finding out certain characteristics. We dispelled some myths, found out some things that were very, very interesting and important. And usually . . . if you can look through the scatter of a production car with its seams, its openings, its misfits, its undercarriage, the sort of fundamental processes and objectives were still there.

CA: There were a lot of little ways to make it smoother and slipperier?

Hill: Well, those are band-aids, those are remedial. For example, the one thing that we found out is the forebody, for the front end of the car, if you don't do anything stupid—you know, like having large, forward-facing cavities—you can pretty much do what you want. Certain edges are critical, but you can have a relatively upright bluff front end on a vehicle, as witness Mercedes, and still have good aerodynamic efficiency.

Actually, what we did is we took blocks of simple material and started off with an absolutely block front end. What we found out is if you could radius the corners, roughly a four-inch radius . . . we found out that, going through all excursions of all front-end configurations, that you really had a tough time getting better than the block with the radiused corners. The difference was that the block with radiused corners had a fair amount of lift component. But the sloping back of a perceived aerodynamic front end had good downforce and relatively okay flow, but not any orders of magnitude better than the bluff front.

CA: Even allowing for the frontal area?

Hill: Well, frontal area is the bottom line. If the frontal areas are the same, it doesn't make much difference. The differences are academic at best. So, in other words, a Volkswagen Kombi from the early days is probably as good as a lot of cars with the so-called sleek profile. . . . To make a long story short, front ends have a lot of [illegible] and the steeply [illegible] everything from about mid-form back—that's where you can make major gains and major losses.

CA: We see a lot of high tails now . . . .

Hill: There's a very good reason for that. It's for reattaching [the air] flow. Because what happens is, if the flow starts tumbling—you get turbulent flow off the back of the greenhouse—and it doesn't ever reattach, then you've got a major negative-pressure area, which is drag.

CA: Going back to your years at GM and all the cars you've worked on—which has got to be a ton of different models—what's your favorite?

Hill: I think the most gratifying were the Corvair and Fiero, those two.

CA: Because? Were they mostly yours?

Hill: Well, as much as could be said by anybody as being theirs. It is a team effort.

CA: But the Corvair and the Fiero were the two cars that had the most input from you?

Hill: Well, they were the cars that I believed in. And there were a lot of production cars like Firebirds and Buicks that were always interesting.

CA: You must have enjoyed working on things like the '65 Corvair, the Vega, and Fiero because they were high-efficiency packages.

Hill: Yes. Technically innovative. The Fiero was somewhat to that, even though it was off-the-shelf. We were able to do it because the components existed: the T-car [Chevette] front end, the X-car drivetrain just stuck in the back. I was going to tell you that Oldsmobile tried that initially. They just chopped an X-car, shortened it up to two passengers. Of course it looked ridiculous; I mean it was *horrible*. The next step was to turn it around, set the driver and [illegible] and the only way you could do that without looking over the drivetrain was to put it in the back, so it was a pretty logical sort of thing. No, I always enjoyed that aspect of it. And that was intriguing—much more intriguing to me than just trying to do a new stylish whatever, although that was fun, too, at times.

CA: About the X-cars. . . .

Hill: Well, the X-cars were actually pretty interesting cars. They suffered from, functionally they suffered from some cost-cutting problems.

CA: Faulty execution in places.

Hill: Same way with the Fiero, same way with the Vega, certainly was true with the Corvair. Those were all very interesting vehicles. With a few more pennies put into them they would have been really, really wonderful cars.