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A Truck Is Born

Southern California as an Auto Design Center



Backstage With 'Saturday Night' / Men's Spring Fashions

A Truck Is Born

When Nissan Set Out to Build Its First Pickup Designed Solely for North America, It Came to Its Southern California Team

BY GARY WITZENBURG

When Gerald Hirshberg picked up his phone at the General Motors Design Center late one morning in 1979, he had no idea it was his future calling.

"How would you like to help establish an international design facility, build a building anywhere you want in the country, and do design for a world-class company?" a voice asked.

Hirshberg thought one of his colleagues was putting him on. "Come on," he said. "What are you doing to me?"

"Pardon me?" said the voice.

"Oh, I'm sorry," said Hirshberg. "Is this for real?"

Just 39, Hirshberg was Buick chief designer at GM Design in Warren, Mich. And what the caller described, he recalls with a grin, "sounded so outrageously ideal that I thought somebody *bad* to be pulling my leg. I said I'd have to be crazy not to listen, but it's going to take some convincing before I'll believe it."

The call was from a major executive search firm. The client was Nissan, Japan's second-largest auto maker. It was definitely for real.

It seemed that Nissan's president at the time, Takashi Ishihara, had decided to establish a second design center far removed from the company's main facility in Japan. A truly international center that could better address the tastes and needs of potential buyers from very different cultures—especially Western ones. And its initial production project would eventually result in an industry first: a Japanese truck designed in America, specifically for Americans.

"Way back in the mid- to late-'70s," Hirshberg explains, "Mr. Ishihara had recognized the true international nature of his business, that Nissan was selling more than 50% of its products in markets that were distanced both geographically and culturally. He also recognized that design is really a language and that he was speaking a foreign visual tongue to more than half of his customers."

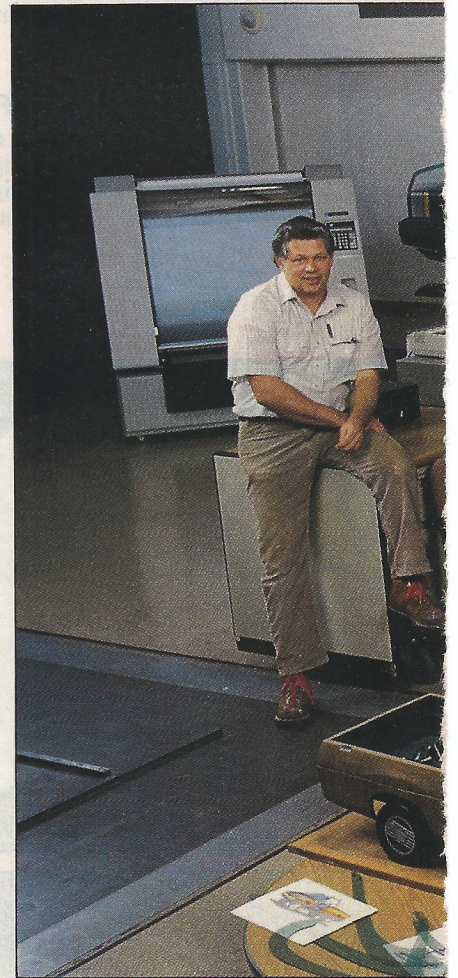
In other words, he had looked into the future and realized the growing importance of designing cars that would have wider acceptance in other countries and cultures. Obviously, drivers in different areas of the world have different tastes and use their vehicles differently.

That is why—at least until recently—Italian cars have had sensuous lines and pedals that are too close to the driver and steering wheels too far away for most Americans. Why French cars have had soft suspensions and shapes like pastries. Why German cars have been stiff in ride, understated in style and solidly stable at 100-m.p.h.-plus *Autobahn* speeds. Why American cars have been large, soft and slow-revving, with interiors like paneled dens. Why Japanese cars have been cramped inside and overdecorated on the outside, like miniature shogun castles.

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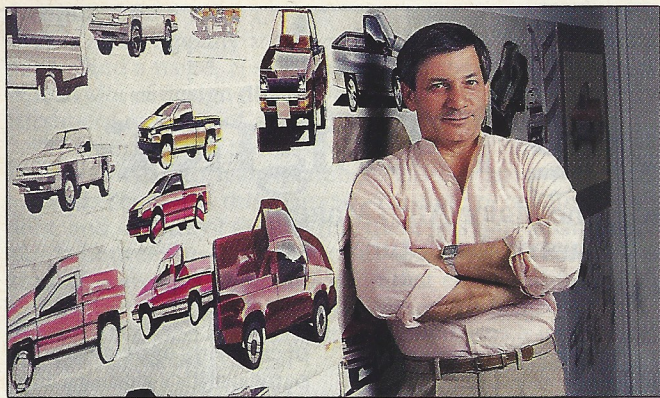
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Gerald Hirshberg, top right, is director of Nissan Design International. He says the Japanese auto maker chose Southern California for its overseas design center in part "because of the international nature of the car market here. It's wonderful, like living at an international motor show." At right, the team that designed Nissan's new "Hardbody" truck in its La Jolla studio: from left, chief sculptor Al Holgerson, studio engineer Jeff Fusco, designers Diane Taraskavage and Doug Wilson, chief designer Tom Semple and design sculptors Victor Kazakevich and Mark Short.

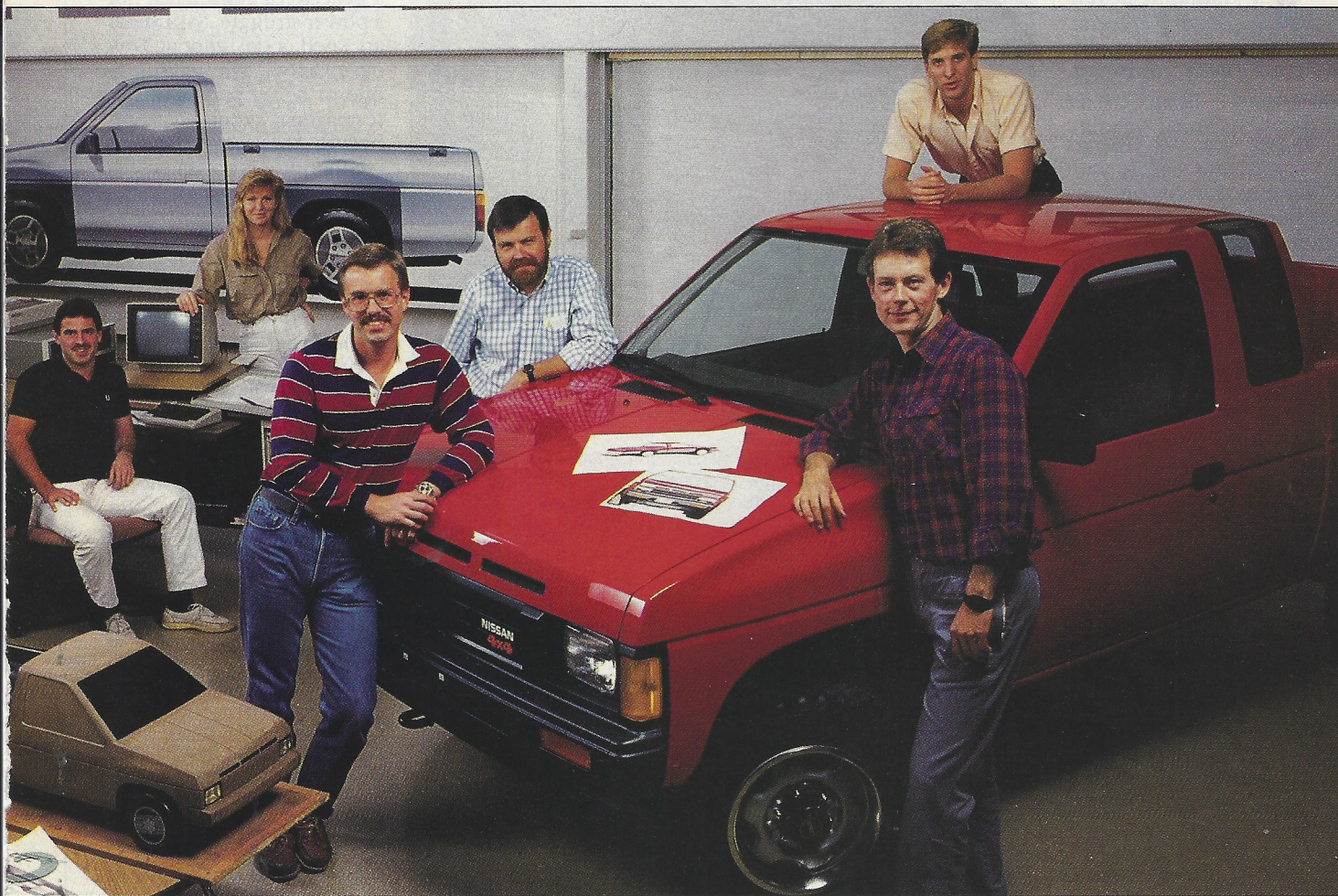


Starting with the Japanese, however, most non-U.S. makers have seen that exporting their products to other major markets—especially ours—is crucial for future prosperity, even survival. But exporting in large numbers requires design that is universally appealing.

Meanwhile, the art of automobile "design," once thought of as virtually synonymous with styling, has evolved into much more than determining the way a vehicle looks. It encompasses such other crucial considerations as aerodynamics—the way it cuts through the air, which affects performance, fuel economy, stability, interior noise; ergonomics—the size, shape, labeling, location, even the *feel* of key controls, switches and instruments, the relationship of seat to steering wheel and pedals, the interior's overall "friendliness" to its occupants; and packaging—the complicated business of making sure the power train, suspension,



Patrick Downs



Patrick Downs / Randy Leffingwell

fuel system and all other parts and pieces fit within the available space, interact properly and are removable for service.

The trick is to come up with designs that strike the right balance, the proper compromise. Creating a new vehicle takes three to seven years from drawing board to production line and consumes hundreds of millions of dollars. To a large company, a major mistake can be disastrous in terms of money, market share and reputation lost. To a smaller one, it can be fatal.

Ishihara had seen his archrival, No. 1 Japanese auto maker Toyota, establish a design center called Caltex Research Design Inc. in Southern California in 1973. He had watched as the first car to be designed by Caltex, the 1978 Toyota Celica, had been introduced. And he had taken note that, while it had been widely praised for its styling and was selling very

well in the States, it had not been well received in Japan. Perhaps he was already forming the germ of an idea that would prove to be a bold innovation: marketing two different bodies for the same vehicle—one designed by and for North America, the other for his country and the rest of the world. In any case, that is what would occur when Nissan unveiled its 1986½ “Hardbody” trucks.

And so Nissan’s president sought an overseas design center to help make his future cars and trucks more competitive worldwide. He looked at Italy, France, Germany and England, then settled on America. And early in 1979 he sent Kazumi Yotsumoto, an architect by education, a business administrator by experience (and a key player in the establishment of Nissan’s primary design center in Atsugi), across the ocean to found and staff it.

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This new company at first was little more than corporate papers and a name, Nissan Design International; filling the crucial slot of design director would take almost a year. Jerry Hirshberg was one of about 35 candidates.

"The negotiation process was fascinating," Hirshberg relates. "I began to learn patience, Eastern style. But I was hooked. There was this man, Mr. Yotsumoto, our first president, and in spite of the fact that there was only a handful of words between us that both of us understood, there was a kind of nonverbal communication that emanated from him and between us that linked us together just incredibly from the start. I sensed a fineness and an intelligence in this man that leaped across cultural boundaries. And whatever it was that I communicated, evidently he felt comfortable with it.

"Later there were no Americans there, and I knew it was down to a handful, maybe a couple, of candidates. Then there was just Mr. Yotsumoto and I. I remember one day he walked across this little hotel room at the Renaissance Center in Detroit and began telling me about his wife and kids. I knew at that moment that I had gotten the job. It never came down to a slap on the back and a handshake; it was just a kind of trust."

On Feb. 1, 1980, Hirshberg became NDI's director of design.

The next step was deciding on a location. Michigan, New York, New Jersey and Texas were considered, but Southern California won out.

"We both agreed to put it in a place where there wasn't much design history," Hirshberg says. "We wanted to leave all that inertia and baggage behind and start fresh. We liked California because of the international nature of the car market here. For designers, it's wonderful, like living at an international motor show. Also the openness [to new ideas], the interest in automobile culture, the real enthusiasm about cars. It's certainly a nice place to live, and the climate has some real advantages for car designers. We can take our cars outside almost any time and look at them in a natural environment. They change in character completely from when they're designed in a room, no matter how big or well lit it may be."

Yotsumoto and Hirshberg looked in Santa Barbara, in the Los Angeles area and in Orange County. But when they got to San Diego County and considered its beautiful setting and fine quality of life, that was it. They rented a small house in La Jolla, hung a little sign on the door and went to work.

Besides Yotsumoto and Hirshberg, the original staff consisted of an administrative assistant and a bilingual secretary. Six years later, the \$5-million NDI complex, completed in February, 1983, on 6.5 acres, houses three design studios, a full modeling facility, a lounge, a library, an ample outdoor viewing area bordered by landscaped courtyards and even a

tennis court. It employs about 30 people, including clay modelers, engineers and six designers. Of the latter, two were trained at Pasadena's Art Center College of Design, two at Detroit's Center for Creative Studies, one at Illinois Institute of Technology and one (Hirshberg) at Cleveland Institute of Art.

Although nearly all Japanese auto makers and the three major domestics have design facilities in Southern California, Hirshberg believes that NDI is unique in its relationship to the parent company. Not simply a concept house contributing ideas or an advanced studio turning out show cars produced to demonstrate future technology, NDI was intended from the beginning to do actual production design.

Like the Nissan designers in Japan, Hirshberg's are assigned responsibility for specific product lines.

"We have an on-board group of product engineers," he explains. "We have Japanese liaison engineers living and working with us, and we have an elaborate communications network for daily interaction with our counterparts at Nissan. We will be designing vehicles that sell predominantly in the West, and we provide a full design service. We are not just doing 'style,' renderings and illustrations. We're doing full-size clay models and engineering prototypes. During a program that takes roughly a year, we take maybe three trips to Japan, and the engineers we're working with there make three trips to meet with us here. And by the time our concepts leave these shores, they are 92% to 95% production-ready."

It was early 1982 when NDI kicked off its first major production design program: the all-new Nissan truck. Instead of a compromise design, there would be two different trucks. NDI's would be aimed more toward American tastes, uses and anatomies and marketed primarily in North America. Nissan's own, more conventional version would serve the Japanese market and most other areas of the world.

This was a daring decision on the part of Nissan's usually conservative management, but it made sense. While what we think of as small trucks have become, to large numbers of Americans, pleasure vehicles, almost *macho* "sports cars," they're strictly practical nearly everywhere else. "There's no such thing as 'truckin' in Japan," Hirshberg says. "Trucks there are farm tools, equipment haulers, commercial vehicles with names of businesses, ropes, hooks and wires all over them. So their market is utterly different from ours, and it was very important for them to honor that difference."

Also important is the difference in aesthetics. American tastes have been inching toward the cleaner, more understated European look, while the average Japanese driver still prefers a lot of "surface excitement"—bumps, scoops, swirls and other embellishments on the vehicle's body.

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Randy Leffingwell

Nissan's 1986½ truck for the Japanese market, top, looks much like the one it replaces, while the new model for North America has a broad-shouldered, macho look. The styling reflects differences in the two markets: Americans see the compact pickup as a pleasure vehicle; in Japan it is used only for practical purposes.

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But isn't it doubly costly to design and tool two different bodies for the same basic vehicle? "It's really not all that expensive," Hirshberg says. "For one thing, half of our U.S.-market trucks are now being built in Tennessee. And with [increasing use of] robotics for body assembly, I think Nissan is trying to exploit the inherent flexibility of a fully computerized production line. As you know, there are a lot of things a truly international company has to be able to do, such as meeting emissions and safety regulations in different countries. So I don't think it's expensive relative to what they feel they can gain in acceptability around the world."

All designs start with preliminary sketches, and some were already on the walls of NDI's small rented building when the assignment became official in February, 1982. The studio of chief designer Tom Semple, another veteran of General Motors, had been entrusted with the job.

"The Japanese emphasized how very important this project was," Semple remembers. "Nissan started the small-truck market, and they wanted this to be the next generation, a vehicle that was all new from the ground up."

Nissan had indeed introduced the Japanese pickup to America, beginning in 1959, when they exported a total of 159. Today, nine major makers sell more than 1.2 million compact trucks a year to U.S. buyers; Nissan's share in 1985 was about 20%, or 240,000 vehicles, second only to Toyota among the Japanese makers.

The first step the NDI staff took was to study all of the other small trucks. And it turned out that they were very similar. "They all had skinny little vertical cab areas with minimum vision, a long, flat hood and cramped headroom," Hirshberg says. "A truck is a three-volume concept: hood, cab and bed. Truck buyers in America insist that it's a practical vehicle, but we all know that ain't necessarily so. People use them to do all sorts of impractical things. So we started with the cab and rethought it."

Out of this analysis grew the idea that the new truck would be designed from the inside out, putting as much emphasis on the needs and comfort of the driver as on load capacity and handling.

The design team built a mock-up of the passenger compartment to test the idea that by pushing the windshield forward and extending the cab rearward, the interior space could be enlarged without increasing overall size or reducing cargo capacity. They produced more than a dozen sketches of vehicles, took them to Japan and won approval to proceed with full-size renderings and clay models.

For better aerodynamics, they "sped up" the windshield (increased its angle), shortened and sloped the hood, raised the sides and rear of the bed and wrapped the upper doors into the roof and pillars. To improve visibility, they increased

the glass area all around. To give a strong, broad-shouldered look, they gave the fenders subtle, neatly integrated flares (Semple calls them "triceps") front and rear. "We tried to preserve all the things that truckers want," he says, "yet make a very smooth new statement with it."

The design was completed in January, 1983, and shipped to Japan to be translated into the full-scale fiberglass model from which the body tooling would be derived.

Three years later, the production result still looks like a truck, but even the casual observer can see that it's different. The new proportions are obvious clues. Then you notice the sloping nose, swoopier windshield and larger doors and windows. Inside, unlike most small pickups, it has enough leg and headroom for the comfort of six-foot Americans.

"We are not aiming for controversy," Hirshberg says, "but this thing is going to be noticed. It's exactly what we meant. We can't hide behind the excuse: 'Well, the engineers screwed it up.' It came through the process just as we intended it to."

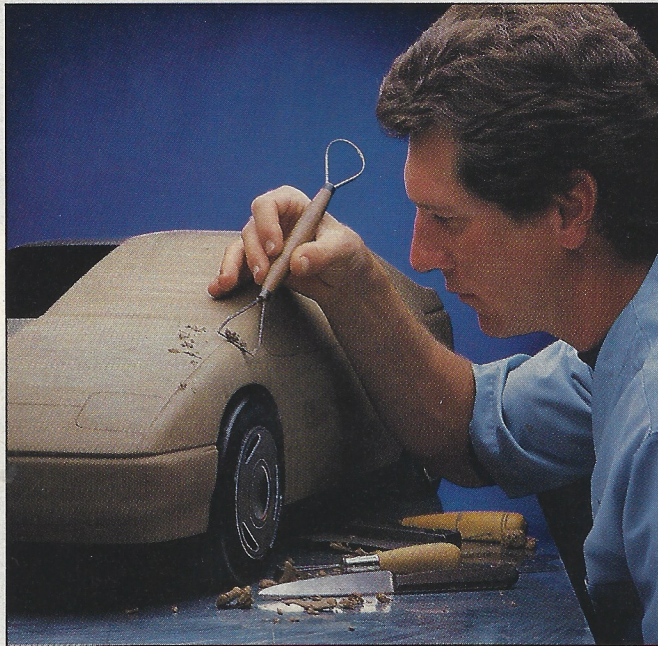
"The neat thing about the Japanese is the degree of consensus work that goes on. Though we're outside of headquarters and protected to some extent by an ocean and a cultural gap, at the same time we're closely linked. We think of ourselves as 'outside insiders.' We don't really collaborate with their designers, but the Japanese engineers became part of a team with us."

"And, boy, when the ball gets rolling and we begin negotiating, and then by the time we're finished, they honor that design totally. When it started rolling off the production line, our jaws dropped open at the degree of adherence to the initial concept."

The '86½ truck, introduced in January, improves on its predecessor in other ways as well. Its wheelbase is more than three inches longer, for better ride, while its front and rear track widths have been increased by about three inches and one inch, respectively, for better handling and stability. Its optional overhead-cam, fuel-injected V-6 engine (similar to the one in the 300-ZX and Maxima) is the largest in its class. It has the most ground clearance, the biggest standard fuel capacity and the deepest and widest cargo bed in the compact category.

As successful as the new truck is likely to be, the next obvious question is how soon this pioneering two-design concept might be extended to the company's passenger cars. "I think it's safe to assume that the same logic applies," Hirshberg answers cagily. "Nissan is making strides to make internationalism more than just a word. Until now, it's meant that our products are sold in a lot of different countries. Now they're going to be adapted and attuned to those countries."

When Jerry Hirshberg first took that fateful call seven years ago, it may have seemed like a practical joke. But it may well have been not only his future and Nissan's, but that of a whole industry, on the line. □



Arthur Markiewicz, a design sculptor at Nissan Design International in La Jolla, works on a quarter-scale clay model.