

DISPENSING

THE

FUTURE





A pair of Boston architects designs a space-age garage based on a Pez dispenser, and finds the future may arrive faster than they thought.

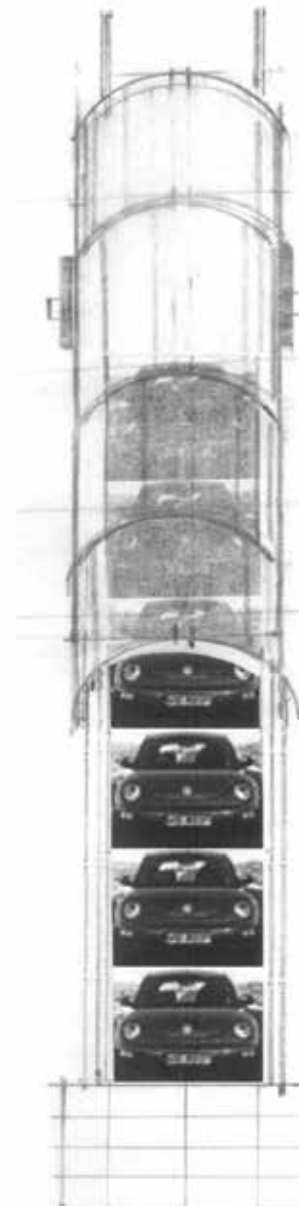
By Kim Fernandez

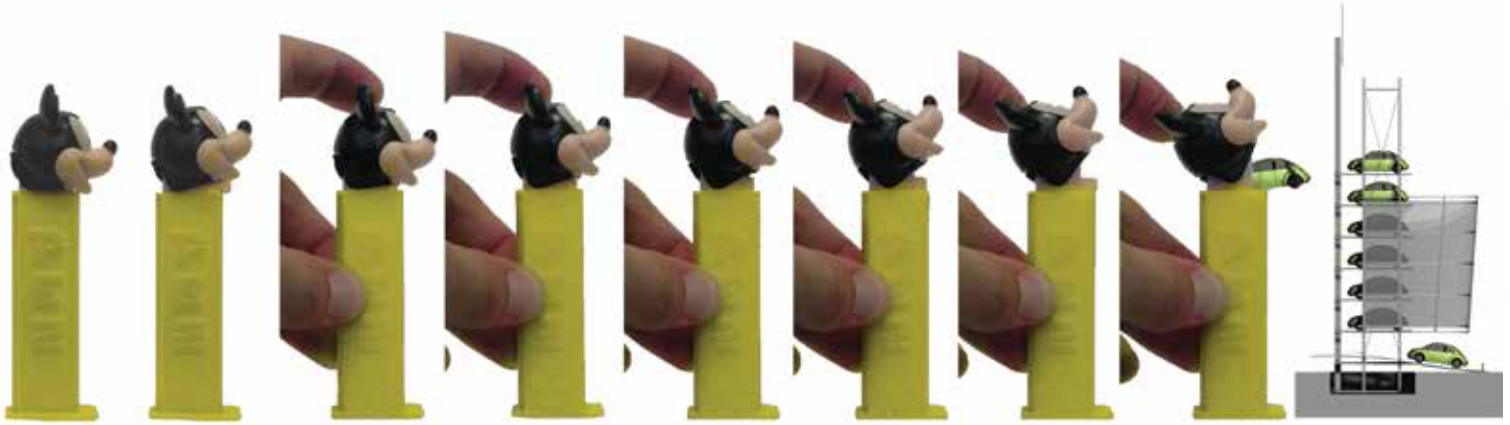
It's not often one can win an architecture award for a structure that hasn't been built, but that's exactly what Boston firm Moskow Linn Architects did a few years ago. Better yet, they did it with a parking garage.

This wasn't any parking garage, mind you. The structure they designed took its inspiration from a Pez dispenser—the little plastic toys that spit out candies when their hinged tops are pulled back. It was designed to improve city living both in its award-winning design and its purpose, which was to dispense shared cars on-demand to members of Zipcar in cities such as Boston and Washington, D.C., where downtown real estate comes at a premium and buildings tend to go up instead of out.

The concept was relatively simple: shared cars would stack in a single column on robotic platforms. Car share members would swipe their cards in a machine at the ground level and be dispensed vehicles, one at a time. Returning the cars would work in just the opposite way: a card would be swiped, the vehicle would enter the garage, and the platform would rise, making room for another car below. On paper, it makes sense: it saves valuable real estate, it's cost-effective, it's environmentally-friendly and efficient, and its striking design serves as a constant visible reminder of the car sharing company to those driving and walking past.

Keith Moskow and Robert Linn, principals of the architecture firm that dreamed up the Pez dispenser garage, had high hopes for it—at the time, the common car share model was that companies would stock only one kind of vehicle, and it wouldn't matter which car an individual member was dispensed. As with many revolutionary ideas,





though, a speed bump appeared. Car sharing providers expanded their horizons and began stocking different cars from which their members could choose, from hybrids to luxury sedans and SUVs.

That seemed to sound the death knell for the Pez dispenser garage. After all, with a single column of robotic platforms, customers would be forced to accept the next car in the stack when they swiped their cards. The concept languished in the Moskow Linn offices, buried at times beneath buildings and ideas that actually came to fruition.

But things have changed again, as they often do, and those who claim to be ahead of the curve technology-wise say the single-car sharing model may not be a dinosaur after all. In fact, they say, city dwellers may soon rely on single-model pod-type vehicles to get around: they're clean, they're efficient, and they're easy to park, with some taking only one-third the curb space our current cars require.

And so the vehicle Pez dispenser may well be dusted off and reconsidered, and perhaps even constructed in a city near you in the not too distant future. Its designers say they'd be thrilled to see that happen and that its parking model embodies everything they hope to accomplish: create more forward-thinking, sustainable, and livable cities through innovative design.

The Idea

"We are always thinking about city living," says Moskow from his Boston office. To him and partner Linn, finding garage inspiration in a children's candy dispenser isn't anything out of the ordinary.

"We have a limited number of parking spaces in Boston," says Linn. "We started brainstorming how to use some of the leftover pieces of the city, and how we could take space that holds one or two cars and fit seven or eight instead. The genesis of the idea was that we realized there's no way to do that cost-effectively unless you use a non-sorting system."

The two envisioned stacking cars in a tube, the same way Pez candies are stacked in their dispensers, only flipped upside-down. Instead of bending back the head of Darth Vader or Mickey Mouse to get a sweet treat, drivers would request a car at the bottom and have it dispensed the same way as the candy: by popping out of the garage.

Research seemed promising. "We used a simple stacker crane—the same thing you'd use in a warehouse," he says. "It only costs about \$30,000. It's very cost-effective." They drew up designs for their tall, narrow dispenser and realized even more potential.

"The beauty of this is that a stack of their cars would become advertising for the car sharing company," says Moskow. "You'd see this linear stack and wonder what the heck it was, and then you'd realize it was for Zipcar."

They developed a protective enclosure for the dispenser that could also hold actual advertising on it. In their drawings, the translucent scrim moves up and down as cars are dispensed, lowering to protect pedestrians as cars enter and exit, and raising again to shield the stacked vehicles inside and serve as a sort of billboard. "It could be self-financing," says Moskow.

The hitch, of course, is that the dispenser as designed would require the car sharing company to only house one type of car; originally designed for Volkswagen Beetles, it could be modified for any model, but limited to only one.

"It only works if it's a single stack," says Moskow. "It doesn't matter which car you get if they're all the same. It would be perfect for a car rental company that only had one kind of car, which actually could be a model for a company—the Jet Blue of car rentals."

While that was the original thought for car sharing, that industry morphed to give customers more choice, giving the industry greater reach. The Pez dispenser wasn't built. But that doesn't mean Moskow and Linn have given up hope.



Attention

Moskow says the Pez dispenser garage served as a catalyst for a lot of conversations in the parking and other industries about what was possible, even when space was tight, when the goal was improving livability downtown.

Looking ahead, they say the garage is still a viable idea, particularly as members of the Millennial generation and those younger eschew individual car ownership in favor of mass transit and car sharing when they need their own wheels. And technology is finally catching up to the design they sketched out back in 2003.

“In 10 years, the idea of swiping and operating something has become much more prevalent,” says Linn. “Ten years ago, no one was checking in at the airport by themselves. No one was checking out at CVS by themselves, or at the grocery store, or at Home Depot. It’s part of a trend. We didn’t know that when we came up with this, but we’ve embraced a self-serve model of consumerism, and perhaps this garage becomes a model.”

Linn agrees, and can envision morphing the original garage idea into something that better serves specific populations. “There’s a movement right now that looks sort of like a big drying rack, but it’s for bicycles,” he says. “People want to get their bikes off the ground for storage. So maybe that’s where this works, but it also creates an architectural element that heightens awareness of alternative modes of transportation. It’s a different approach to bicycles, but in the same family as the way we think about cars.”

Even for cars, the garage may have simply been ahead of its time. If the concept of shared cars really takes off in crowded cities, experts say they likely will not be the Toyotas and Chevrolets we think of as being small now. Instead, drivers may well embrace micro-cars, such as the Fonseca EMO concept car. It actually changes shape as it’s driven, going from an upright smaller vehicle when parked to a flattened-out, wider shape as speed increases. Consider the URBAN.POD, which is a one- to two-seater vehicle that offers sensors to avoid crashes and takes up much less space on the street than currently produced consumer vehicles. Then there’s the concept EN-V from General Motors, which is a tiny electric car that can link up with others to form a sort of train, saving energy and road space, and letting drivers break off the chain when they reach their destinations. All of these would be candidates for housing in the Pez dispenser garage—it may just be a bit ahead of its time.

“In a lot of ways, I think it’s nice to make parking different,” says Linn. “You’d get more people taking public transportation to get in and out of the city, which makes the city more pedestrian-friendly and feeling like a better, quality space.”

That said, he’s realistic. “There is always going to be a need for people to drive downtown,” he says. “Having a parking alternative that gives you a way to drive a car in and park and be cost-effective is important.”



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