

## The World's 18 Strangest Parking Garages

Parking garages are often architectural afterthoughts. Monolithic and utilitarian, they rarely offer more than the necessary housing of cars for other more aesthetic structures. "It's an expense a developer generally doesn't like, but it is a necessary evil to make his development successful," says Len Tsupros, president of Carl Walker Construction, a design firm that specializes in parking garages. However, as cities become larger and as transportation technology changes, the role and function of the parking garage has to be redefined. Here are some of the world's most interesting, innovative and just plain bizarre parking garages.

BY BRIAN RESNICK



### Car Silos at the Autostadt

Location: Wolfsburg, Germany

Background: Volkswagen's Autostadt—an automotive-themed amusement park—includes a car museum, driving courses, car-factory tours and these 20-story car silos.

Why It's Unique: European VW buyers can opt to pick up their cars from the robotic car silo instead of the dealership—the automation

ensures they will receive a car with an odometer that reads zero. After spending a day enjoying the park, customers watch the central robotic arm travel up the tower and choose their vehicle from the beehive of cars.

JOCHEN LUEBKE/GETTY IMAGES

1111  
Lincoln  
Road

Location: Miami

Background: After designing the iconic Bird's Nest stadium for the 2008 Beijing Olympics, the



architects Herzog & de Meuron created this equally sculptural \$70 million parking garage for Miami Beach.

#### Why It's Unique:

Intended to complement a pedestrian promenade, this "parking sculpture" combines a 300-car garage, retail shops and an ocean-view rooftop restaurant all in one concrete-and-glass design. Each level of the building incorporates use of natural light and allows for views of Miami's skyline.

NELSON GARRIDO/MBEACH1, LLLP/WWW.NGPHOTO.COM.PT



## Umihotaru, the Floating Car Park

Location: Tokyo

#### Background:

Built on an artificial island, Umihotaru (which translates to "sea firefly" in Japanese) is a Tokyo tourist attraction. It offers panoramic views of the city and serves as a rest stop on the aqua-line—Japan's longest underwater tunnel, which took \$11.2 billion and 30 years to complete.

#### Why It's Unique:

Umihotaru is designed in the shape of a cruise liner—and has all the amenities of one: Shops, cafes and public art are many of the reasons why people will drive here with no intention of continuing through the aqua-line.

WIKICOMMONS

## The KRE house

Location: Tokyo

#### Background:

In 2007, Japanese architect



Takuya Tsuchida took on the challenge of designing a home that not only had a nine-car garage but also was able to display one of the cars in the living room—and all of this needed to fit on a 2000-square-foot plot.

**Why It's Unique:**

A mechanical platform allows the homeowner to switch out one Lamborghini for another

equally expensive car. Due to the space limitations, Tsuchida built the garage as the ground floor and placed a modular living area on top of it.

KOICHI TORIMURA



## Eureka Car Park

Location: Melbourne, Australia

**Background:**

Graphic designer Axel Peemoeller used a 3D chalk-drawing technique to create this innovative parking space for the Eureka Tower, the tallest building in Melbourne.

**Why It's Unique:**

Up close, this parking garage's directional signs look distorted and odd. However, stand back and

drivers seemingly motor straight into the directional markers.

STORMBIKES/FLICKR

## Marina City

Location: Chicago

**Background:**

Completed in 1964, these identical towers were designed as a small town square in the heart of the city—originally the complex included a concert hall, retail stores, a skating rink and bowling alleys.

**Why It's Unique:**



Parking for the structure is likewise self-contained: The lower third of the 65-story towers is a continuous up-spiral parking garage with space for 896 vehicles each.

The garage was made famous in the 1979 feature film *The Hunter*, in which Steve McQueen, playing a bounty hunter, is involved in a high-speed car chase up one of the parking spirals. At the top, McQueen's target loses

control of a 1980 Pontiac, careens out of the building and plunges into the Chicago River below.

WIKICOMMONS



## Michigan Theatre

Location: Detroit

Background:

When the Michigan Theatre was built in 1926, Detroit was a booming metropolis built on the developing car industry. Marble sculptures, 10-foot crystal chandeliers and cathedral columns greeted theatergoers during these prosperous times. The theater was constructed on the very site where Henry Ford built his first car, but today it houses the vehicles

that are his legacy.

Why It's Unique:

In 1976, after decades of financial troubles, the theater closed down and was scheduled for demolition. However, tearing down the structure would have made the adjacent buildings unstable. Instead, engineers saved the historic theater and removed the mezzanine and balcony to create the space for a three-level parking garage.

It is not often that buildings are retrofitted to become parking garages, Tsupros says. The tight column layout and the level floors of commercial buildings do not lend themselves to be good parking garages, as they do not drain as well and make it harder to build the infrastructure. Most of the time it is more economical to tear down the old building. The case with the Michigan Theatre is a rare exception.

SEAN DOERR/BUILDINGSOFDETROIT.COM



## Santa Monica Civic Center Parking Structure

Location: Santa Monica, Calif.

Background: This 300,000-square-foot structure is the country's first LEED-certified parking garage, which means the building showcases a successful effort at saving energy

and protecting the environment.

### Why It's Unique:

Along with 900 spaces for traditional cars, the garage reserves 14 spots for electric vehicles and has storage for bicycles. Current parking garage regulations do not call for this level of sustainability, Tsupros says. The building is powered by solar panels (which double as shades for cars on the roof), uses LED lighting and was built with sustainably sourced materials.

T-MAXXDAD/FLICKR



## Kansas City Public Library's Community Bookshelf

Location: Kansas City, Mo.

Background: Local readers nominated their favorite books to adorn the side of this parking garage turned Kansas City landmark.

Why It's Unique: More of an oddity than an architectural innovation, each of the 22 spines of classic

literature measures 25 feet by 9 feet and is sandwiched between two metal stairwells that act as the bookends. "In general, parking garages are something shoehorned in later, or something they hide behind a building," Tsupros says. However, this garage is front and center and draws people into the library.

THE KANSAS CITY PUBLIC LIBRARY/FLICKR

## The Parkhaus



## Engelschanze

Location: Stuttgart, Germany

Background:

The Parkhaus Engelschanze is more of a parking palace than a parking garage.

Why It's Unique:

People tend to feel vulnerable in parking garages, so an effort to incorporate light and open spaces is ideal, Tsupros says. This parking garage features an all-glass exterior and an inner courtyard complete with a waterfall and creek and used-glass curtains. An innovative ramp design ensures that up traffic and down traffic never have to cross paths.

WWW.WITTFOHT-ARCHITEKTEN.COM



## Rheinauhafen Parking Tunnel

Location: Cologne, Germany

Background:

Rheinauhafen is Europe's longest underground parking tunnel, nearly 2.5 miles long—and it has only three entrances. Engineers spent 15 months on the project, which opened in 2003.

Why It's Unique:

The tunnel was built alongside the Rhine, a river known for overflowing its

banks. A 1995 flood surged the river 23 feet, leaving Cologne's city center under 6 feet of water. So designers carefully engineered the tunnel to withstand up to 37 feet of floodwater before taking any in.

PATRICK BUECHNER/WWW.DERRINGDOS.COM

## Cordova Parkade

Location: Vancouver, British Columbia

Background:

This \$28 million renovation of an old department-store parking garage incorporates pieces of old Vancouver bridges into the design.



**Why It's Unique:**  
Inspired by the train stations of the turn of the century, architects conceived the project as a parking garage that would help revitalize

Vancouver's downtown. Aside from blending in with the city's historic architecture with its granite-and-steel facade, the facility is innovative in that it has concrete supports on the outside, which allow for an interior light well and a storm-water-filtration system.

BABAK MANAVI/HENRIQUEZ PARTNERS ARCHITECTS



## EPA Experimental Parking Lot

Location: Edison, N.J.

**Background:**  
This parking lot is intended for science instead of cars. The EPA built the facility in 2009 experimental parking surfaces with the hope of improving the storm-water management of parking lots and garages of the future.

**Why It's Unique:**  
The EPA is testing three types of road surface—porous asphalt, porous concrete and interlocking concrete blocks—that it hopes will significantly reduce storm-water runoff from parking surfaces. The project is intended to last for 10 years to test the durability of these new pavements.

COURTESY OF WEST EDMONTON MALL

## The Eco Cycle

Location: Tokyo

**Background:**  
In a city where 30 percent of commuters use bicycles, the Eco Cycle helps alleviate a



cluttered mess of bikes on the street by storing them below ground.

Why It's Unique:

The only thing cyclists see on ground level is a kiosk that accepts the bikes. What they don't see is the underground multi-tiered storage wheel with space for 144 two-

wheelers. When a cyclist wants to pick up his or her ride, it only takes a robotic arm 10 seconds to select the bicycle and take it to the surface. Tokyo commuters can either become a member of these garages or pay per use.

DANNY CHOO.COM



## Robotic Parking Garage

Location: Dubai, United Arab Emirates

Background:

Dubai, a city that boasts a chain of private man-made islands arranged in the shape of the globe, is likewise extravagant and innovative with its parking structures. This is currently the world's largest robotic parking garage and can handle 250 cars per hour

Why It's Unique:

From the outside it looks like a single-car garage, but hidden inside is a 765-vehicle storage facility. The robotic automation ensures that the cars are parked as efficiently as possible. The automation makes it easy on the driver and saves space, but it requires a lot of capital from the developer, Tsupros says.

ROBOTIC PARKING/THE NATIONAL

## Smart Parking in Baltimore-Washington International Airport

Location: Baltimore, Md.

Background:

When you are rushing to make a flight, searching for a parking space is one more stressor you do not want—and airports are notorious for their enormous, hard-to-navigate parking structures. Instead of driving around in



circles for hours looking for a spot, this parking garage directs drivers to empty spaces.

#### Why It's Unique:

The airport's parking garages hold 13,200 spaces, and each is equipped with an electronic sensor that relays information as to whether the space is occupied. Signs

on each of the garage's levels let drivers know how many spots are open and direct them to the vacancies.

BALTIMORE/WASHINGTON INTERNATIONAL AIRPORT



## Nutwood Parking Facility

Location: Fullerton, Calif.

#### Background:

This 2541-car facility at California State University at Fullerton was built in 2006 as a green remodel of an outdated parking system. Lighted at night, it serves as a recognizable landmark for people navigating the campus.

#### Why It's Unique:

The garage employs a living-wall system—bamboo and flowering vines cover three sides of the structure, which generates oxygen and helps offset the garage's carbon footprint.

BEZ Z/Flickr

## Carousel Car Garage

Location: Tokyo

#### Background:

As with a carnival Ferris wheel, you drive the car into the bottom ramp of this garage, where it is hoisted



away and stored vertically.

Why It's Unique:  
When space is at a premium, garages have to be built vertically, Tsupros says. These carousel-parking garages store cars in tall, narrow stacks and eliminate

the need for on- and off-ramp infrastructure.

NADJA KECK/OTTO NUSSBAUM GMBH & CO

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<http://www.popularmechanics.com/cars/news/pictures/worlds-strangest-parking-garages>