

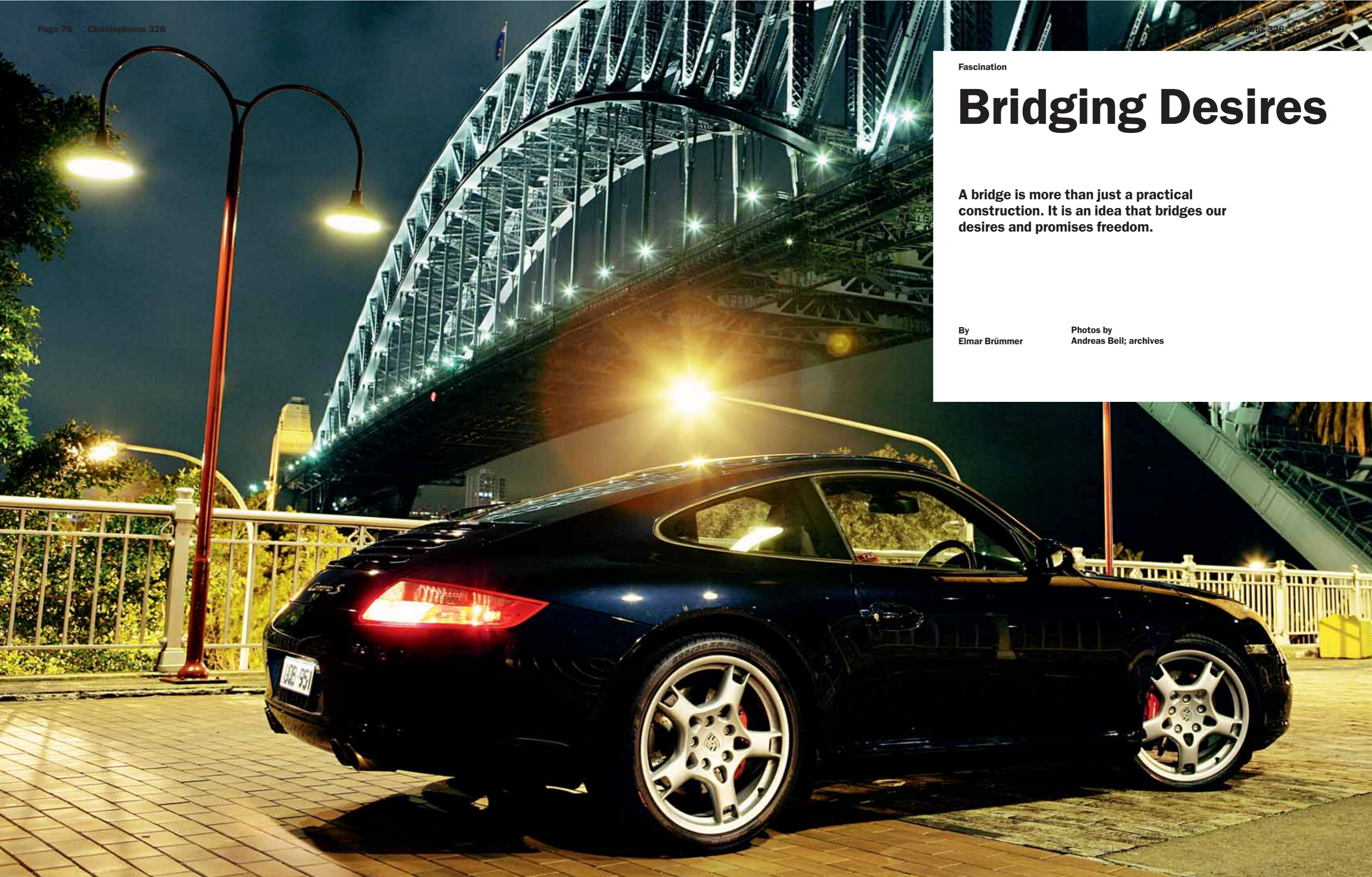
Fascination

Bridging Desires

A bridge is more than just a practical construction. It is an idea that bridges our desires and promises freedom.

By
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Photos by
Andreas Bell; archives



Commuting over water into the Central Business District day after day, drivers will most likely only shake their heads. If you are forced to drive across the Sydney Harbour Bridge twice daily, you probably take little notice of this icon of modern technology. But those who cross the spectacular bay just for the experience of it can't help but marvel at this feat of engineering that has taken up the prerogative usually reserved for rainbows: to connect two different points in a sweeping arch without touching the ground. Not quite as many colors involved here, but impressive nonetheless.

Overcoming the natural boundaries that stand in the way of our mobility has perhaps become too easy; we take it for granted. Maybe we are trained to look straight ahead as we cross bridge

after bridge, instead of looking up or down, or off to the side. Having a free view in all directions, heightened by the sublime feeling of soaring far above the ground, opens new perspectives.

Bridges open new worlds and promise great freedom. Nowhere else do we seem to feel gravity slip away while still balanced squarely on four wheels. Even if this frontier experience is only possible on particularly spectacular bridges, with every bridge crossing we nonetheless traverse boundaries. We conquer natural barriers in order to reach somewhere beyond. "There's no better symbol for the life-long odyssey of a man than a bridge," Alfred Hitchcock once said. It is not without reason that the imperial title "Pontifex Maximus" was once granted to the Pope—the man designated as the "great builder of bridges."

The longest suspension bridge:

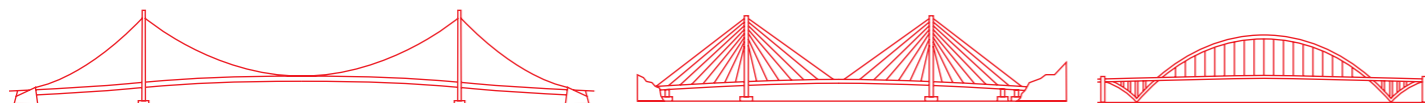
Akashi Kaikyo Bridge in Kobe, Japan
Span: 1,991 meters (6,530 ft.)

The longest cable-stayed bridge:

Tatara Bridge in prefecture Hiroshima, Japan. Span: 890 meters (2,920 ft.)

The longest arch bridge:

Lupu Bridge in Shanghai, China
Span: 550 meters (1,800 ft.)



A beautiful profile:
Bridges help give a city and its people an identity



Man, machine, materials:
Bridges promise freedom

The "Old Coat Hanger" is the affectionate local name for the Sydney Harbour Bridge, which turns 75 this year. Personal ties to the bridge are a part of daily life; no one is immune. In cities with impressive bridges, a searching glance out the window each morning at the city's emblem can be reassuring. Even those who cast an initially skeptical eye at this bridge cannot remain indifferent for long: bridges compel us to strike up a relationship with them. Pointing their fingers of steel and concrete, they command us to think of them as home. To stay with the metaphors of engineers, for whom the precisely calculated quivering and the carefully balanced harmony of forces are an essential part of their construction: bridges are known to give off good vibrations. The strong impression made by a bridge is not limited to the view from the top. Often, the full splendor will hit you only when you are standing from below. The effect of the mighty trusses and pillars is to stabilize our belief in ourselves, to demonstrate that we can do anything if we just want it badly enough.

Few other constructions carry such symbolic power. These wonders of the world connect people and cities, or sometimes—as in Istanbul, where Europe meets Asia—even continents. The fascination with bridges cannot be explained merely by their function. If you've ever driven down the Overseas Highway with its miles of bridges stretching down to the southernmost tip of the United States, nothing but azure blue water left and right, punctuated with mangrove green islands, you would be prepared to pay all the bridge tolls in the world to gain another similar experience. The motivation must come from traces of our primitive conqueror mentality: the desire to take on whatever awaits us on the other side.

Efficiency and aesthetics are not necessarily incompatible. Many of these beauties arching through the air are proud examples of architectural principles. When considering the practical arts ▶

Bridge Stories

Research: Felix Krohmer

The Beacon of San Francisco

The Golden Gate Bridge in the San Francisco Bay is so exquisite that the paint for this construction—deemed one of the modern wonders of the world—was uniquely mixed just for its pillars. "International Orange" is a mix of yellow, black, and magenta. The color is intended to make the pylons blend into the landscape in good weather and make them stand out in fog. Thirty-eight painters are entrusted with the task of keeping up its finish.



Golden Days along the Nile

The most beautiful souvenir from the christening of the Kasr el Nile Bridge in Cairo in June 1933 was a gift to King Fouad 1933 was a gift to King Fouad from the British construction company Dorman & Long—a golden replica of the bridge in the form of a pen, complete with an inkwell.

The Blue Wonder of Dresden

The only bridge in Dresden to survive the Second World War was the "Blue Wonder." But that's not how its name originated. Painted green at its completion in 1893, already in its first night the bridge turned a shade of blue instead.

Masterpiece on the East River

John Augustus Roebling (1806–1869), originally from Thuringia, was one of the boldest bridge builders ever to set the standard for suspension bridges. One of his masterpieces was the Brooklyn Bridge over the East River in New York City. Roebling died shortly before construction of the bridge began; his son Washington completed the bridge in 1881—despite being confined to a wheelchair.



throughout the ages, images of the Rialto Bridge, the Manhattan Bridge or the Tower Bridge come to mind. And with them come images not only of their respective cityscapes, but also of the lifestyles that accompany them.

In Germany alone there are 120,000 road bridges. It all began with a fallen tree lodged over a stream; from there things became rapidly more sophisticated. In 600 B.C., King Nebuchadnezzar of Babylon had a road built over the Euphrates made of cypress and cedar logs perched on stone pillars. Suspension bridges were already being built in Asia 4,000 years ago. Life without bridges is unimaginable today; only wars and catastrophes give us an inkling of how helpless we are without them.

The trust we invest in bridges is enormous, given the often incredible heights and great distances. Beyond the laws of physics, a philosophical principle also seems to hold: "Bridges solidify our

relationship to the material world." They are sandbox fantasies come true. Such clear structures, yet they never cease to intrigue.

Bridges rest on a certain tension. Particularly for those whose job it is to design them: "Higher, faster, further" is the rule. Bridge construction has become an Olympic discipline. Heavy metal at the base, architectural poetry above. There's nothing more thrilling than building in mid-air.



**Information:
The German Bridge-Building Prize**

The German Bridge-Building Prize, which is co-sponsored by Porsche, honors bold arches and innovative technology. Since the first award in 2006, prizes have gone to the Wild Gera Viaduct in the Thuringian Forest and the La Ferté Bridge in Stuttgart-Zuffenhausen. The award for 2008 will once again be granted by the German Association of Consulting Engineers and the Federal Chamber of Engineers under the aegis of the German Minister of Transportation. The nominations will be made in December 2007 and the winner announced on March 10, 2008.

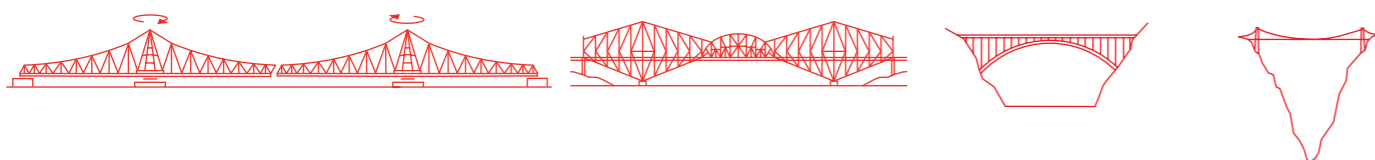
www.brueckenbaupreis.de

The longest swing bridge:
El Ferdan Bridge in Egypt
Span: 340 meters (1,115 ft.)

The longest cantilever bridge:
Quebec Bridge in Canada
Span: 549 meters (1,801 ft.)

The highest arch bridge:
New River Gorge Bridge in Beckley, USA, 267 m (876 ft.)

The highest suspension bridge:
Royal Gorge Bridge in Cañon City, USA, 331 meters (1,085 ft.)



Only serviceable bridges were taken into account.
Source: www.brueckenweb.de



Bird's-Eye View in Rügen

When crossing the Strelasund Sound to the Baltic Sea island of Rügen in northern Germany, your attention is drawn to the steel cables that lead up to the 128-meter-high (420 ft.) pylons. The cables have a diameter of 12 centimeters (4.7 in.), although 7 centimeters would have been enough to ensure sufficient support for the bridge. The extra bulk was added to make sure migratory birds flying over the Baltic can see the pylons clearly and navigate around them.



Venice Still Sighing

A grim history for such a prominent piece of architecture: the Ponte dei Sospiri, Venice's Bridge of Sighs, connected the old prison of this lagoon city to the interrogation rooms in the Doge's Palace. Those condemned to death were able take a last look at freedom from the bridge—a rather cruel privilege. But when the bridge was finished in 1605, the zenith of the Inquisition had already passed. Today the bridge serves a much more romantic purpose: couples who kiss under the bridge during a sunset gondola ride are promised eternal love.

Bridges and their stories: Two millennium bridges in Great Britain were built to compete with the time-honored Tower Bridge. One is in London, the other in Newcastle over the river Tyne. The latter has a unique way of letting large ships pass through: It appears to tilt back like a giant eyelid, but the movement is in fact a controlled central rotation.



Photo: www.structure.de, Jet Love



Photo: Courtesy of DWIDAG Systems International (DSI), Germany

Wrapping It Up in Paris

Translated literally, Pont Neuf means “new bridge,” although it is in fact the oldest bridge in Paris—and the first made of stone. The planning and building of this graceful route over the Seine took 29 years. Wrapping artist Christo fought city authorities for a decade before he was finally able to shroud this classic bridge in a silky cloth with the help of 600 assistants in 1985.

A Bridge Worth Millions in Alaska

As if the name “Miles Glacier Bridge” were not impressive enough, this bridge built at the turn of the twentieth century is known as the “Million Dollar Bridge” among Alaskan natives. But the construction cost of \$1.4 million has more than paid off; some \$200 million in copper has been transported over the bridge.

Crossing the Tracks in South Africa

Bridges that cross over abysses and waterways are found everywhere. A bridge named after Nelson Mandela and serving as a symbol of the new Johannesburg takes you across something else: 42 parallel train tracks.



**Red-blooded and proud:
A monumental expression
of the American dream**

