

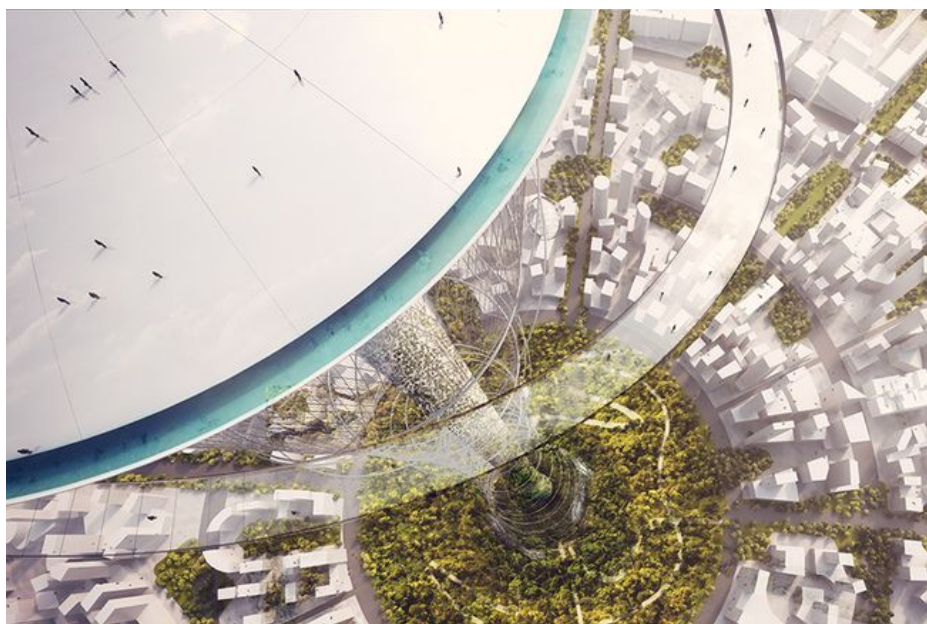
The Mile is an urban park thrust 5,280 feet into the atmosphere

'Imagine you take New York's Central Park, turn it vertical, roll it and twirl it.'



MATT HICKMAN 

March 1, 2016, 9 a.m.



Space Needle on steroids: Meet The Mile, a mega-vertiginous vertical park and observation tower conceived by a design and engineering team headed by MIT Senseable City Lab director, Carlo Ratti. (Photo: Carlo Ratti Associati)

Let's talk [really tall structures](#) for a moment.

When it debuted to the abject horror of many Parisians at 1889's Exposition Universelle, the [Eiffel Tower](#) reached a height that no other architectural monument had reached before: 1,000 feet. (Well, 1,063 feet if you're counting the antenna.)

And so, *tour Eiffel* ruled as the tallest man-made edifice in all the land up until the 1930s when a couple of Art Deco bad boys from the Big Apple, the Chrysler Building and the Empire State Building, easily broke the 1,000-foot mark *and* the seal ... for super-tall structures. In the years since, numerous structures — skyscrapers, communications towers, guyed masts, even residential high-rises and hotels — have clocked in at over 1,000 feet. A select few, including Dubai's Burj Khalifa (2,722 feet) and the Tokyo Skytree (2,080 feet), have even sailed past 2,000 feet.

So what's the next benchmark for super-tall structures?

How about a mile?

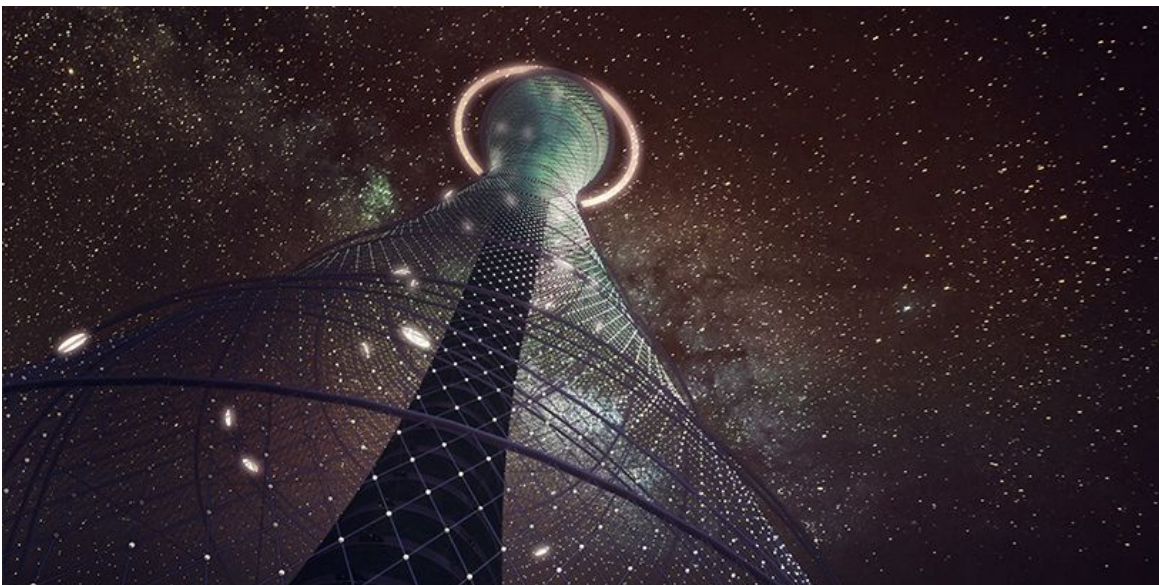


A new kind of walk in the park. (Rendering: Carlo Ratti Associati)

A solid mile — yep, a dizzying 5,280 feet — is both the height and moniker of a new observation tower-*cum*-vertical park concept from the eponymous architecture/innovation firm of Italian designer, engineer and educator, [Carlo Ratti](#). Based in Turin, Ratti is also the founder and director of the [Senseable City Lab](#) at the Massachusetts Institute of Technology, a lab with past projects that include [garbage-tracking devices](#), [tsunami-proof houses](#), [oil-cleaning](#) (and [bar-tending](#)) robots and a hybrid e-bike dubbed the [Copenhagen Wheel](#). More recently, Ratti curated the [Future Food District](#), a tech-driven “micro universe that explores new ways for people and food to interact” at Expo Milano 2015.

But back to The Mile. Conceived by [Carlo Ratti Associati](#) (CRA) in collaboration with London-based digital design studio [Atmos](#) and German engineering firm [Schlaich Bergermann](#), it's tricky describing what would be, obviously, the tallest man-made structure. While ostensibly a seriously terrifying observation tower, The Mile is also a lush, greenery-wrapped park from top to bottom. Basically, the cloud-busting structure's 66-foot-wide shaft doubles as an ecosystem for a wide variety of plants and animals.

“Imagine you take New York's Central Park, turn it vertical, roll it and twirl it,” explains Ratti in a [press release](#).



Imagine a “groundbreaking lightweight structure, based on a structural, 20-meter-wide shaft, kept in compression and secured through a net of pre-stressed cables.” (Rendering: Carlo Ratti Associati)

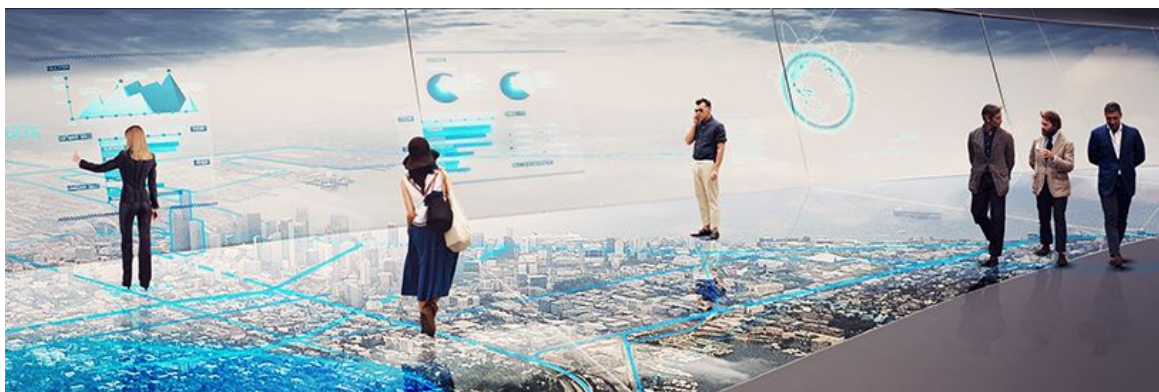
OK. So what happens when you've reached the tippity-top and arrived at the “constellation of observation decks” found on the mile-high end of this vertical variation of Central Park that's supported by a net of pre-stressed cables?

Once visitors have completed the ascent via an “orbiting sculptural capsule,” they'll find a restaurant, viewing platforms, an outdoor “sky walkway” and something called “Jump in the Sky.” All that's missing is a pay-by-the-hour boutique hotel for indoctrination into

the mile high club.

CRA describes the observation decks as a “piazza in the sky for citizens and tourists to visit, congregate, relax and play.” I’d recommend bringing a coat, lip balm and perhaps a portable receptacle to throw-up into.

Currently, the world’s tallest observation deck can be found at the Shanghai Tower. At 1,841-feet, that’s roughly 20 feet higher than the 148th floor observation deck at Burj Khalifa. While China rules in the realm of impossibly high observation decks, the U.S. has a few including the Willis Tower (1,345 feet), the Empire State Building (1,244 feet) and acrophobia-inducing newbie One World Trade Center (1,268 feet).



A virtual reality-aided view from the top. (Rendering: Carlo Ratti Associati)

Once you’ve had enough, you can return back to the ground — sweet, sweet ground — in a “panoramic lift” a la the Space Needle (but a *much* longer ride) or in the aforementioned observation capsules which appear to be similar to the gondola-style passenger pods found at giant observations wheels. As envisioned by CRA each capsule will serve a different function, capable of accommodating meetings, dinner parties, spa treatments and group freak-outs.

Elaborates CRA: “The capsules will be equipped with open-air Virtual Reality screens, permitting an interaction with the 360-degree view over the landscape. Aloft in the sky, visitors can see the city as is — or could be, unencumbered by headsets that typically accompany VR.”

So, this is all heady stuff but is a mile-high public observation deck that’s serviced by crazy observation capsules even, well, possible? While Ratti is known for embracing big and bold concepts that push the limits of technology and engineering, he’s not one to waste energy and time on concepts that are exceedingly starry-eyed, impossible. And the lauded Schlaich Bergermann isn’t exactly known for taking on novelty spec projects just for the hell of it either.

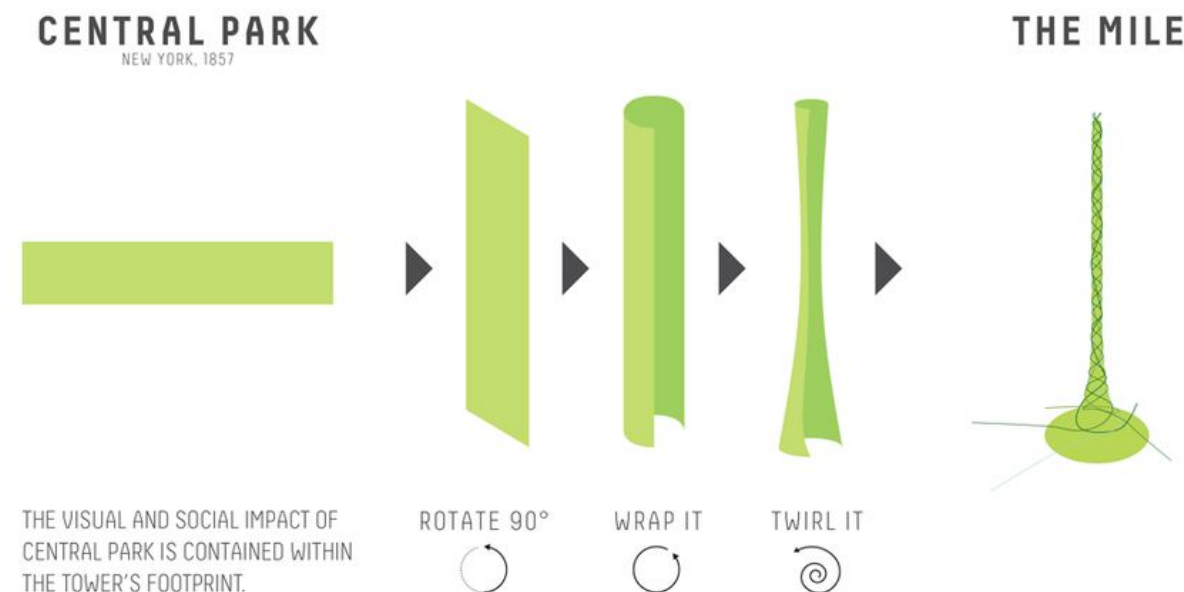


Illustration: Carlo Ratti Associati

Boris Reyher, an associate at Schlaich Bergemann, explains how The Mile, from an engineering standpoint, could indeed be realized:

Following the example of the 1972 Munich Olympic complex, engineered by Joerg Schlaich and Rudolf Bergemann, which pushed the boundaries of the possible and became a milestone in architectural history, the structural concept for The Mile is technically feasible because of its consequent and uncompromised light-weight approach. The architectural form and the spatial equilibrium of forces become one and the same thing. On the one hand, this leads to an optimized usage of high-grade materials. On the other hand, the structural form and load paths become intuitively comprehensible by every spectator.

This all said, there is a serious, real-life client behind the project; a client that's commissioned both economic and engineering feasibility studies. While no names have been named or no potential locations have been hinted at (my money's on the UAE), more details on this early stage concept will likely be revealed later this month at MIPIM, the international real estate bonanza held each year in Cannes, France.

Whatever the case, I still have my reservations regarding the feasibility of the project. And if The Mile was ever built, I'm not sure I'd be game to take the trip up to the top as I'm not one to mix crippling panic attacks with trips to the park.

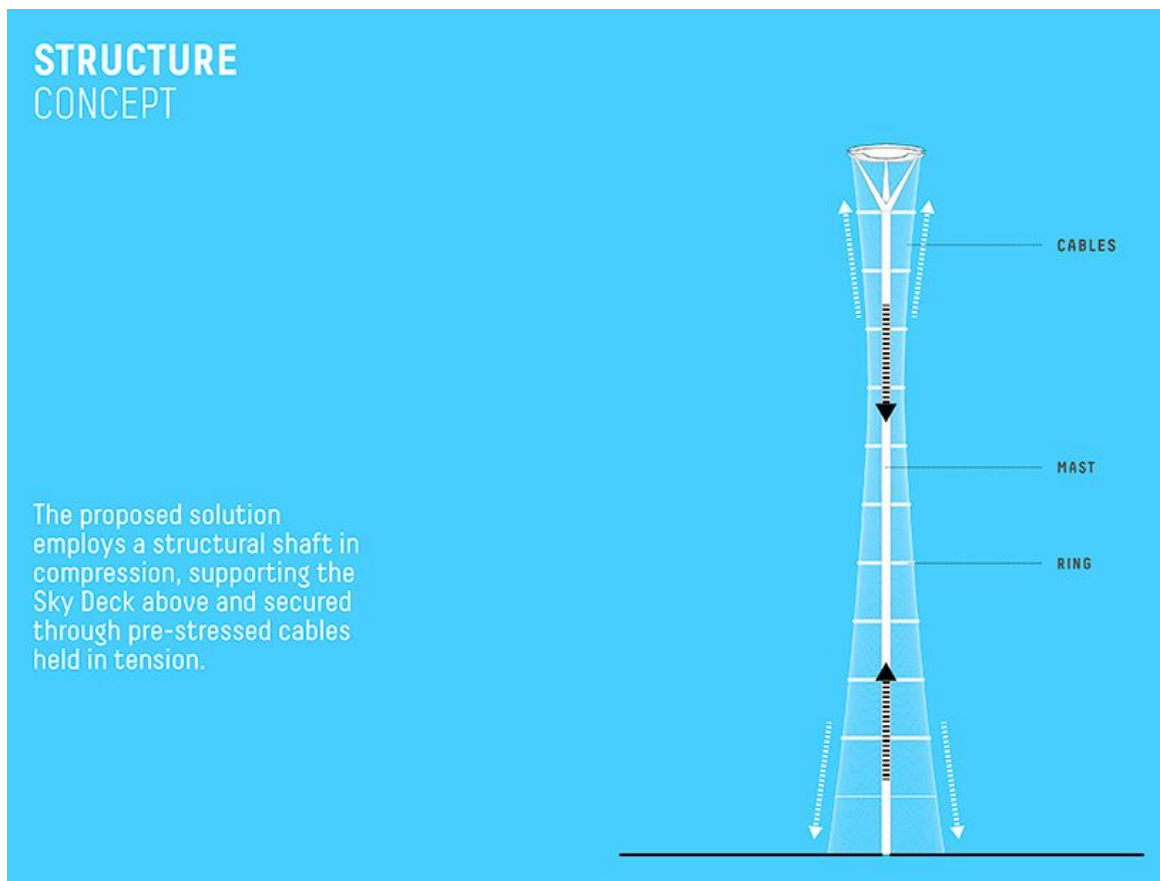


Illustration: Carlo Ratti Associati

SKY PATH CONCEPT

The ultimate draw of the view from the top is celebrated by creating and sustaining a feeling of suspense as visitors ascend the tower towards the Sky Deck. Once at the top, views of the sky are carefully curated, building up to the "on the edge" moment.



Illustration: Carlo Ratti Associati

SKY DECK VISITOR JOURNEY

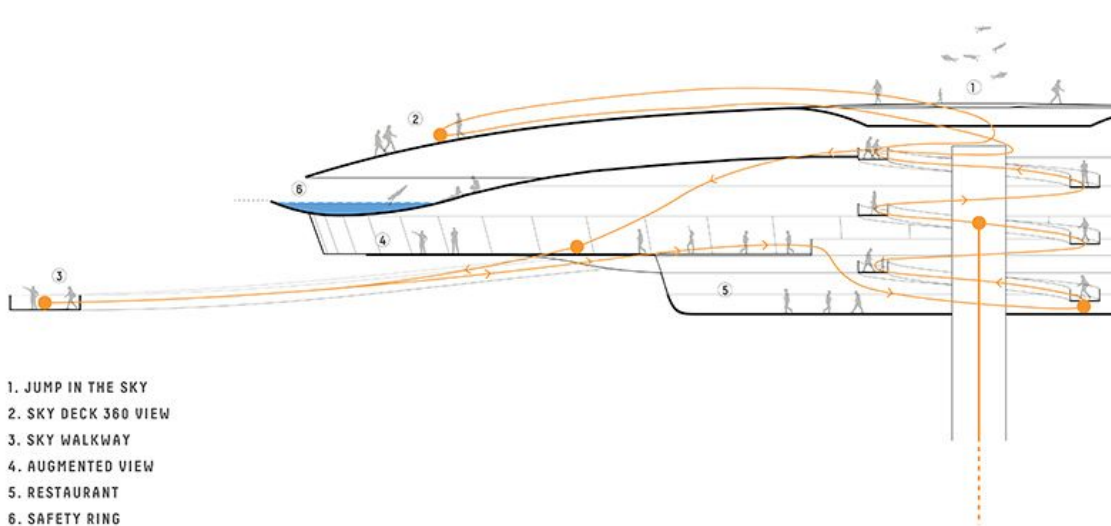


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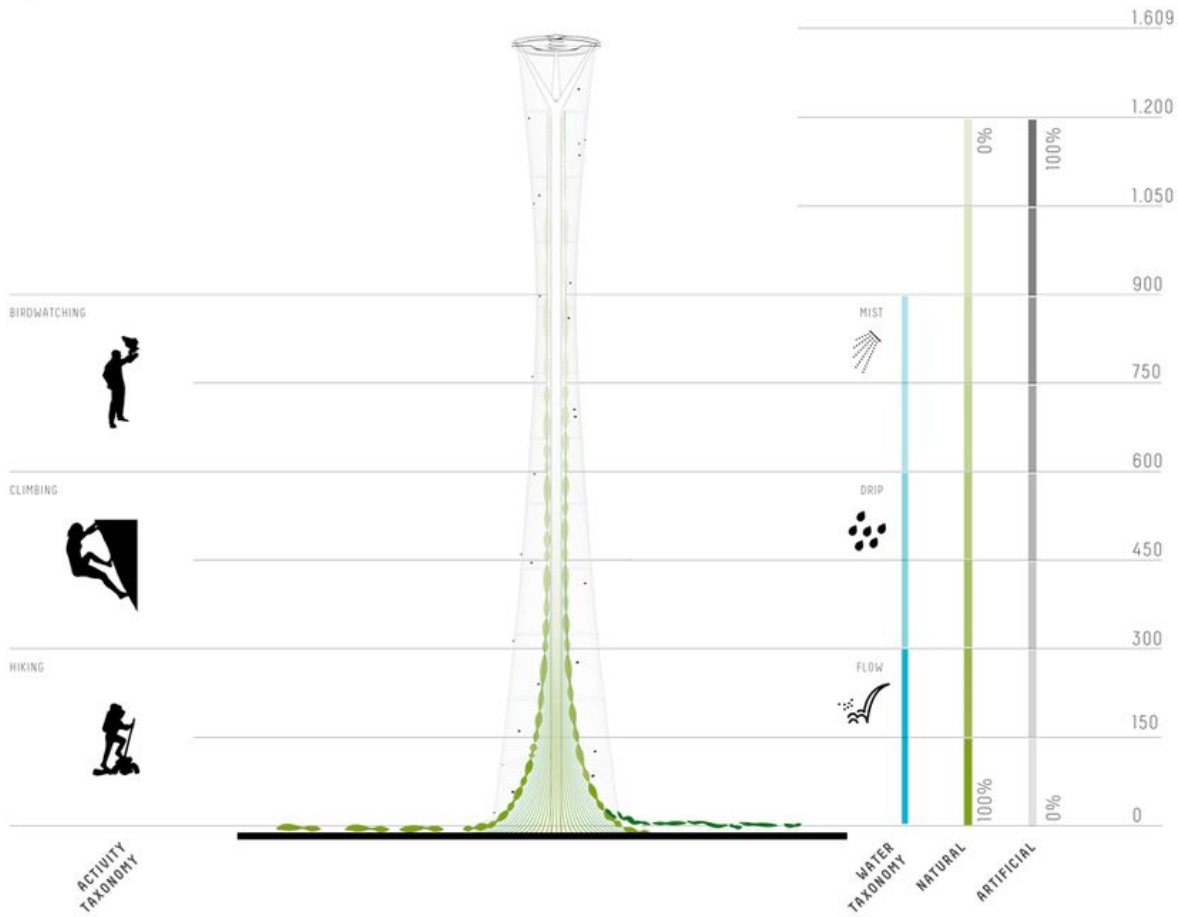


Illustration: Carlo Ratti Associati

Via [Gizmag], [Dezeen]

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Matt Hickman ([@mattyhick](#)) reports on design, architecture and the intersection between the natural world and the built environment.

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