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New NYC Interactive Art Landmark— Climb 2,500 Steps to Breathtaking Views

For at least 8,000 years people have used staircases to go from one elevation to another. It is hard to imagine a new sixteen-story structure being built today emphasizing staircases as the way to go from floor to floor. By emphasizing the staircases as the means of travel in and around Vessel, a new interactive public art installation (Photo 1), climbers will definitely need to catch their breath as they climb 2,500 steps to different observation landings for unique views of the surrounding area. Vessel is scheduled to be completed in fall of 2018.

Hudson Yards is a \$20 billion mega construction project mow under construction in NYC. When completed, this 12.7 million square foot neighborhood will include 16 new skyscrapers with places for people to live, work, shop, eat,

now building Vessel (Photo 2.) It is an observation tower that will become a NYC landmark. Vessel is de-



Photo 1— The bronze-colored tower is an interactive architectural art structure of staircases for people to climb.

Photo 3— Inside the structure, you are surrounded by beautiful staircases that wind their way up to the top.



Photo 2—Vessel will sit in the center of a five-acre park surrounded by new office buildings, stores, restaurants, and a school, a place for people to visit and also climb to see spectacular views of the area.

and even go to school.

At the center of this 21st century mini city is an open-to-the-public fiveacre park-like setting, where they are signed as interactive art for people to climb. Since Vessel has no floors to anchor its staircases, it

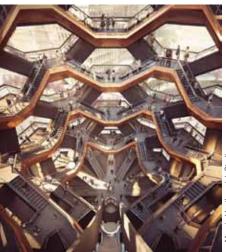
is a unique construction project.

The *Architects Newspaper* describes Vessel as a \$2.5 million super large interactive piece of architec-

tural art. From the outside Vessel resembles an open weaved beehive shaped structure with an outer skin of bronzed steel. From the inside Vessel is a structure of grand staircases that spiral upward with majestic beauty toward the sky (Photos 3 and 4)

When you build a tall building, the load of each level must be supported by the floors below, with the foundation supporting the total load of the structure. Vessel has been designed so it will look like it defies gravity. It will have a relatively small footprint at its foundation. From this base diameter, each level spirals a little further out as its staircases and landings climb 16 stories into the air to give many breath-taking views

The staircases with their landings are being built in Italy and will be shipped to the construction site for assembly. They can best be described as giant jigsaw puzzle pieces, each consisting of a staircase and a landing (Photo 5). Many workers will join together giant Lego sections that can only give full structural integrity when all of them are joined together. Each section



transfers its load to the next section going up, and the last section going down, until all the sections are attached and Vessel can carry the

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s Massie Heatherwick Stu



Photo 4— The landings of the different staircases all give you different views of the surrounding city.

full load of the structure down to its foundation.

Vessel's structure will draw citizens of NYC and tourists to the area's restaurants and shops. The 154 flights of stairs will provide 80 large landings for people to relax and regain their strength so they can continue to walk up and down the 2,500 steps to get different views of the city.

Vessel's maze of staircases will provide breathtaking views only for

those people with the stamina to climb some, or all, of its flights of stairs. There will be no shops, restaurants, or other places to visit at any of the staircase landings; the only entrance and exit is on the ground. In many ways Vessel is a monument to physical fitness.

These YouTube videos will give you a good idea of the engineering behind

Vessel 's design: www.youtube.com/ watch?v=OLG3uTmceCE, and its construction: www.youtube.com/ watch?v=zInhFBVI1AI. You can also see what the entire \$20 billion Hudson Yards project entails by watching this video: www.youtube.com/ watch?v=q9IiS9RnchQ.

Taking It a Step Further

Tech Challenge: Your mission, if your teacher assigns it, is to build the tallest tower possible that is

narrower at its base than it is at its top. Specific design elements and construction materials will be determined by your teacher. 👨



Photo 5-Vessel is a giant jigsaw puzzle that is being shipped from Italy for onsite assembly at the construction site.

