

Motion Actuation: A New Cultural Meme

From the track, you see the scintillating Motion Actuation Tower. The 120 meter tower is a translucent, poetically inter-active renewable energy installation that is both externally elegant and internally educational. It appeals to your senses and reason by uniting the most advanced renewable energy technologies with the beauty of form and function, where the interrelated rhythms of wind, water, sunlight and human activity harmoniously actuate energy producing components. Composed of two concentric forms, the lower portion of the tower houses two helical ramps suitable for parking of up to 1000 bicycles. Its sloping, curved form recalls the site's ship building past and maritime heritage.

The upper volume of the tower is clad in a textured surface composed of 4,800 sculpturally designed vertical axis micro wind turbines, a gracefully slenderized version of Windside's WS-4, suitable for high visibility installations in urban areas. The movement of these helix-shaped, fiberglass and stainless steel turbines creates a constantly changing pattern of reflections, highlights and shadows across the tower's face while indicating wind direction and force. In stronger winds, the surface becomes almost diaphanous, blurring the vertical structure of the tower and intersecting visually with the dual helix pedestrian ramps that spiral up to a platform 100 meters above the park with magnificent panoramic views of the city. The walk up is nearly half a mile, and the height of the tower allows for more energy production on the Pavegen ramp surface and wind turbines. At night, the open air tower is lit from within by its own energy production to create a lantern on the harbor that sits in contrast to the brooding concrete exhaust stacks of the neighboring Amager Combined Heat and Power Station. You park your bicycle and realize this tower of the present and future continues a tradition of city towers, cranes and ship's masts that have made Copenhagen the city it is today.

As you ascend, the park below seems to be designed as an outdoor room, a framework which is influenced by time. The scribing of the orthogonal lines evokes the memory of the linearity of the former shipyard and represents a weaving of land and water. On the viewing platform, you read that there are additional infrastructure benefits. During cloudbursts, the park collects rainwater for irrigation and recreational purposes and that there are diverse habitats for wildlife and native plant communities to naturalize parts of the site.

