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## ***She Changes*, 2005**

Porto and Matosinhos waterfront, Portugal

**Client:**

Government of Portugal, Ministry of the Environment.

**Size:**

160 ft. x 300 ft. x 240 ft.

**Materials:**

Painted galvanized steel and TENARA™ Architectural Fiber.

**Awards:**

2006 IFAI International Achievement Award of Excellence

2005 Public Art Network's Year in Review Award

**Budget:**

1.25 million Euros (Equivalent US\$ 1.87325 million)

**Team:**

Janet Echelman, artist

AFA Consult (Porto), structural engineers

Peter Heppel Associates (Paris), aeronautical engineer

Speranza Architecture, consultant

Eduardo Souto Moura (Porto), architect

**Description:**

Using color and material to invoke the memory of the site's history as a fishing and industrial center, this three-dimensional multi-layer net floats over the Cidade Salvador Plaza. This work is credited as the first permanent, monumental public sculpture to use an entirely soft and flexible set of membranes moving fluidly in wind. The work casts cinematic shadow drawings onto the ground further highlighting the "wind choreography." The the city has made the sculpture its graphic symbol. When interviewed, local people give different interpretations of the work, from fishing nets, ships and masts of the Portuguese maritime history, the red-and-white striped smokestacks of the area's industrial past, to Portuguese lace, sea creatures, and ripples in water.

Three steel poles, ranging in height from 25 to 50 meters, are painted white with red stripes to reference nearby smokestacks and lighthouses. These poles support a 20 ton steel ring, 45 meters in diameter, from which the net weighing about one ton is suspended. The ring greets the ocean at a slant, ranging from 13.5 meters off of the ground at the lowest point and 27 meters at the highest. The smokestack reference is continued through the red and white stripes of the net.

The net is comprised of 36 individual mesh sections in different densities, hand-joined along all sides into a multi-layered form. The net material is TENARA™ architectural fiber, a 100% UV-resistant, colorfast fiber made of PTFE (poly-tetra-fluoro-ethylene), the substance most widely known as the non-stick cooking surface Teflon®.