Supporting presentation for lecturers of Architecture/Civil Engineering

Chapter 01

Art
Andy Scott: The Kelpies

Andy Scott: "The original concept of mythical water horses was a valid starting point for the artistic development of the structures. I took that concept and moved with it towards a more equine and contemporary response, shifting from any mythological references towards a socio-historical monument intended to celebrate the horse’s role in industry and agriculture as well as the obvious association with the canals as tow horses.”

The Atomium was constructed for the 1958 Brussels World Fair. Its nine stainless steel clad spheres are connected so that the whole forms the shape of a unit cell of an iron crystal magnified 165 billion times. It was renovated between 2004 and 2006. The renovations included replacing the faded aluminium sheets on the spheres with stainless steel. CNN named it Europe's most bizarre building! It is one of the major attractions of Brussels.

Location:
Brussels, Belgium

Material:
Polished 1.4404 (316L) stainless steel

Dimensions:
102 meters high with each of the nine spheres having a diameter of 18m

Weight:
2400 tons

Year created:
1958
**Gateway Arch**

**Location:**
St. Louis, MO, USA

**Material:**
AISI 304 Stainless Steel Cladding

**Dimensions:**
192m tall

**Weight:**
4164 tonnes

**Year created:**
1965

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**Designer:** E. Saarinen  
**Engineer:** H. Bandel

Gateway Arch

Intended to be “A suitable and permanent public memorial to the men who made possible the western territorial expansion of the United States....”, the gateway Arch in St Louis, MO, USA, is 192m tall, the world’s tallest arch, and has become the symbol of St Louis. The arch weighs 4164T, of which 803T of AISI 304 stainless steel cladding.
Sir Anish Kapoor: Cloud Gate

Cloud Gate is British artist Anish Kapoor's first public outdoor work installed in the United States. The 110-ton elliptical sculpture is forged of a seamless series of highly polished stainless steel plates, which reflect Chicago’s famous skyline and the clouds above. A 12-foot-high arch provides a “gate” to the concave chamber beneath the sculpture, inviting visitors to touch its mirror-like surface and see their image reflected back from a variety of perspectives. Inspired by liquid mercury, the sculpture is among the largest of its kind in the world.

Location:
Chicago, USA

Material:
Highly polished 304 stainless steel plates

Dimensions:
10 by 20 by 13 m

Weight:
110 tonnes

Year created:
2004
Anilore Banon: Les Braves

This memorial stands on the beach known as Omaha Beach in the village St. Laurent-sur-Mer in Normandy, France and commemorates the soldiers that fell on the beaches of Normandy on D-Day, June 6, 1944. The memorial was dedicated on June 5 2004, for the 60th anniversary of the landing.
Louise Bourgeois: Maman

The title *Maman* enhances dynamic contradictions at the heart of the sculpture. Why the spider? *"Because my best friend was my mother and she was deliberate, clever, patient, soothing, reasonable, dainty, subtle, indispensable, neat, and as useful as a spider. She could also defend herself, and me, by refusing to answer 'stupid', inquisitive, embarrassing, personal questions"*
Jaume Plensa: Mirror I and II

The principal concept in this piece is that of dialogue. The two figures face one another as if in perpetual, silent conversation. The title, *Mirror*, is the act that the figures perform for one another — standing as reflections of the other’s thoughts and dreams. There is room enough between the two figures for the viewer to stand and “enter” the conversation. The figures are modeled in letters from eight alphabets – Arabic, Chinese, Greek, Hindi, Hebrew, Japanese, Latin and Russian. The artist considers this dialogue and interaction as central to learning, and more importantly to understanding, between people and cultures.
Eila Hiltunen: Sibelius Monument (1967)

The Sibelius Monument in Helsinki, Finland, is dedicated to the Finnish composer Jean Sibelius. Weighing around 24 tonnes, the sculpture is made up of more than 600 stainless steel tubes, welded together in a wave-like formation which resembles the shape of organ pipes.
Monica Bonvicini: Hun Ligger (She Lies)

It is a permanent installation, floating on the water in the fjord on a concrete platform next to the Oslo Opera House, 12m above the water surface. The sculpture turns on its axis in line with the tide and wind, offering changing experiences through reflections from the water and its transparent surfaces.
Sir Anish Kapoor: Turning the world upside down

The stainless steel piece is 5 m tall and 5 m in diameter and flips the whole city of Jerusalem into the sky, signifying the spiritual importance of Jerusalem as a heavenly city.
Jon Gunnar Arnason: Sun Voyager

“Sun Voyager is a dreamboat, an ode to the sun. Intrinsically, it contains within itself the promise of undiscovered territory, a dream of hope, progress and freedom”. The sculpture is located by Sæbraut, by the sea in the centre of Reykjavík, Iceland.
Robin Wight: Fantasywire

UK sculptor Robin Wight creates dramatic scenes of wind-blown fairies clutching dandelions, clinging to trees, and seemingly suspended in midair, all with densely wrapped forms of stainless steel wire. The artist currently has several pieces on view at the Trentham Gardens.
http://www.fantasywire.co.uk/
Joana Vasconcelos: Marylin (2009)

*Marilyn* takes the form of an elegant pair of high-heeled sandals, whose enlarged scale results from the use of saucepans and their respective lids. The unlikely yet assertive association between the saucepans and high-heeled sandals, two paradigmatic symbols of Woman's private and public dimensions, proposes a revision of the Feminine in the light of the practices of the contemporary world. The recourse to saucepans, sign to which one would associate the traditional domestic sphere of Woman, in order to reproduce an enormous high-heeled sandal, symbol of beauty and elegance demanded by social conventions, contradicts the impossibility of the dichotomic relation of the Feminine in the domestic and social spheres. The represented object thus emerges as panegyric of the feminine duality, insinuating the full realization of individuality through the subversion of the social norm.

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**Location:**
Versailles, France

**Material:**
Stainless Steel

**Dimensions:**
3m x 1.5m x 4m

**Weight:**

**Year created:**
2009
Robert Gahr: Surge
Wall Sculpture

Location:

Material:
polished & colored stainless steel

Dimensions:
3 panels of 1mx1m each

Weight:

Year created:
2011
Jeff Koons: Sacred Heart Red/Gold ...

“...acridly comments on the commercial debasement of emotional and religious experience.”
(NY Times)

<table>
<thead>
<tr>
<th>Location:</th>
<th>New York, USA</th>
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<tbody>
<tr>
<td>Material:</td>
<td>High chromium stainless steel with transparent color coating</td>
</tr>
<tr>
<td>Dimensions:</td>
<td>357 x 218 x 121 cm</td>
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<tr>
<td>Weight:</td>
<td></td>
</tr>
<tr>
<td>Year created:</td>
<td>1 of 5 unique versions 1994–2007</td>
</tr>
</tbody>
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Architect Jaime Latapi Lopez: Cristo de Chiapas

The "Cristo de Chiapas" is an impressive cross, which is coated with gold-colored stainless steel accentuating the figure of Christ and shines in the reflection of the lights of the sun.
Art

Gil Bruvel: Dichotomy

Inspired by the complexities of living fully in all worlds at once, Dichotomy meditates on and celebrates the dual nature of existence. Composed of “ribbons of energy” that seek to capture the process of engaging all levels of being in order to be fully human, the sculpture reflects the natural strength and quiet majesty inherent in integrating the various levels of existence. As a result, the figure inhabits a serene meditative space, fully embracing a dichotomy of existences: anima and animus, male and female, conscious mind and unconscious mind, waking and dreaming.
David Černý: Metamorphosis

The structure is comprised of seven separate layers that rotate intermittently, dissecting the sculptures features. Custom-written programs control motors embedded within the structure to orchestrate choreographed sequences. Every motor has a feedback switch so the computer knows where each piece is at any given moment, allowing for random motion within the sequences. This movement is controlled via the Internet by David himself and represents a continuation of his work that incorporates mechanical engineering and computers as an integral part of the design. Live streaming video of the sculpture in motion can be viewed online at www.metalmorphosis.tv

**Location:** Charlotte, NC, USA  
**Material:** stainless steel  
**Dimensions:** Height 8m  
**Weight:** Uses 14T of stainless steel  
**Year created:** 2011
Ralfonso Karo: #1 Kinetic Wind Sculpture

25 diamond shaped stainless steel elements connect, self-balance and move independently in the wind. Click here for video (4’51”)

Location:

Material:

Dimensions:
2.1m tall

Weight:

Year created:
And there is a lot more!

http://www.worldstainless.org/applications/art
http://street-furniture.org/furniture/Art

If you have other remarkable works of art in mind, please let us know!
1. http://www.thekelpies.co.uk/
12. https://www.youtube.com/watch?v=yHkOQWPZhyM
15. http://www.nytimes.com/2010/06/01/arts/design/01bourgeois.html?pagewanted=all&_r=0
17. http://blog.iminox.org.mx/?q=node/308
References Art (3/3)