

experiment: speed of light, social structures



diploma

hotel in milan, navigli - italy
april - july 2006

floating
fading
smooth transition

lightscares - nightscares

FLUXUS ist the name of the hotel, it`s latin origin means: floating, fading, smooth transition. the place for the building has a unique position in the fast and busy city of milan.

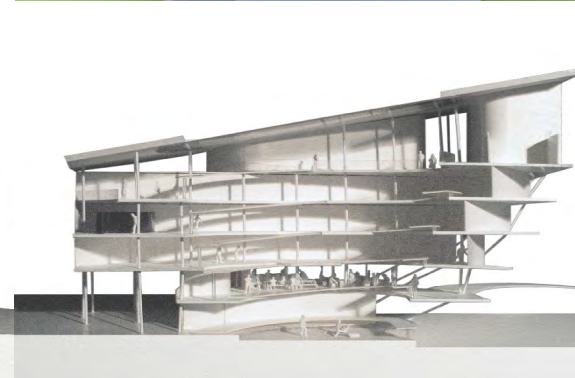
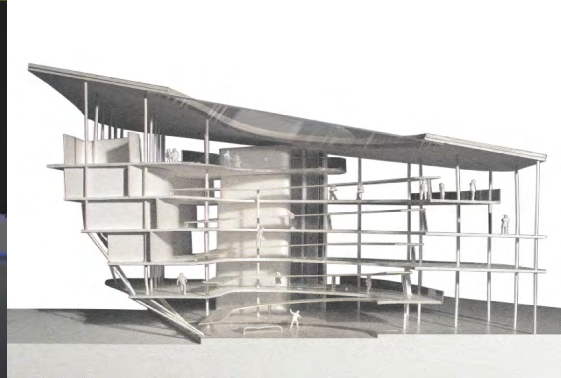
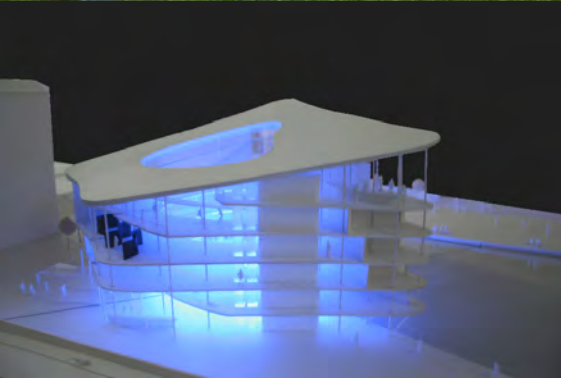
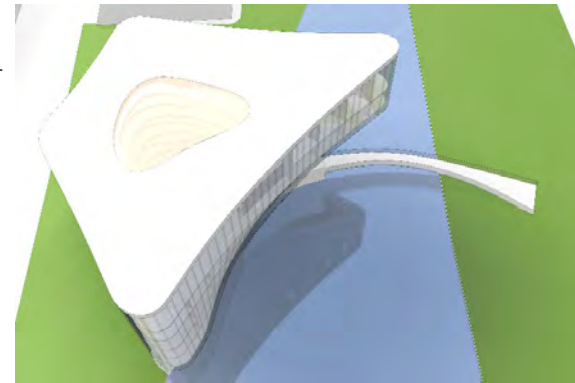
it`s located at the old port basin of the channel naviglio grande, close to the famous duomo- far away from the traffic noise.

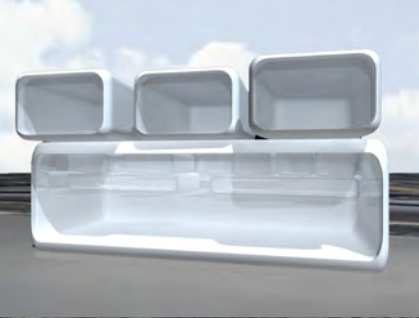
the planning is based on a open public space, to create a new symbol for the people there and to bring the travellers with the resident people closer together.

the hotel soars above the water and establish a new way from the hotel to the duomo by connecting both sides of the water with a bridge flowing into the building.

a park for artists and performers is designed as a band round the waterbasin.

FLUXUS interconnects the people by art and community : interactive spheres stimulate the space and the people. streaming information covers the room - inside and outside.





urban landscapes
 student project:
 intra urbem - extra urbem

wolfareal, basel
 switzerland

concept

- refurbishment of an ancient industrial park in basel
- mixed used buildings for working and living
- create a platform for young artists, designers and architects
- generate new exhibition space for the ART BASEL
- obtain the existing crane runway and convert it into a stage or open air cinema
- buildings besides the crane are used as bars, shops and ateliers
- buildings in the second row contain offices and flats
- new public spaces, local recreation, sculptural park

design
 student competition:
 pendant luminaire

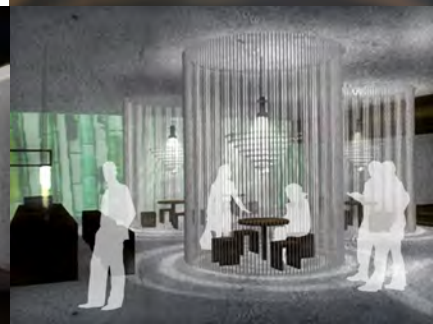
louis poulsen inc.
 1st prize, july 2005

concept

- the object is made out of bi-metal
- if the light is out:
 the lamp is like a disc
- if you turn on the light:
 the object deforms into a spiral owing to the heating of the halogen reflector
- in the consequence of turning off the light again, the object deforms to its original condition - to a disc again

proposal for a restaurant

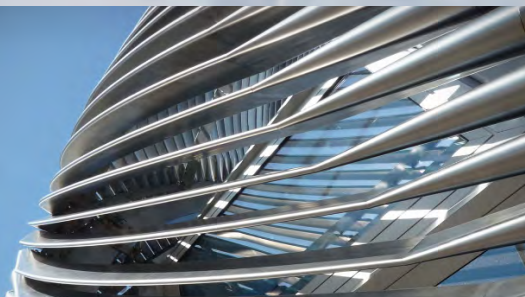
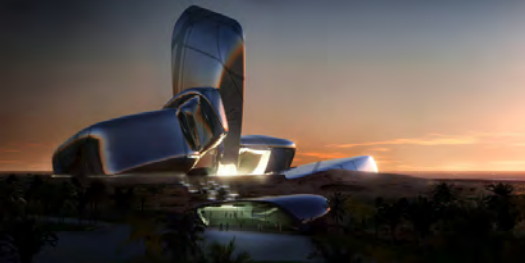
- small autark tubes as dining places
- interaction between the `new object` and the guests at this place
- dining places can be seperated to the whole restaurant by closing the curtains



time at
05/2007 - 07/2009

SNØHETTA

**King Abdulaziz Center for World Culture
saudi arabia, 01/2008**



The King Abdulaziz Center for Knowledge and Culture is a bold new initiative on the part of the Saudi Aramco Oil Company to promote cultural development within the Kingdom. Following an invited architectural design competition in 2007 Snøhetta has been selected to design this prestigious cultural facility.

Located in Dhahran in the Eastern Province the Cultural Center will provide for a wide range of activities serving the local population and becoming a cultural landmark on both a regional, national and global horizon. When completed, the project will contain some 50 000m2 of diverse cultural facilities, including an auditorium, cinema, library, exhibition hall, museum and archive.

The auditorium will seat 1000 visitors and will provide for a wide range of events ranging from opera, symphony concerts, musicals and speeches etc. Together with the smaller cinema, this will be an unrivalled venue for the performing arts in the Kingdom. The library will become a center of learning containing some 300 000 books on open access and catering for all ages and categories of users. The great exhibition hall will accommodate large scale travelling exhibitions, as well as providing the setting for social events, banquets and conferences. The museum and archive facilities connect the vibrant cultural life of the center to the past and to the very roots of the society from which this center is conceived.

On May 20th 2008 The foundation stone was laid by King Abdullah, the Cultural Center will be completed in 2011.



**competition : Sheikh Zayed National Museum
abu dabi, 07/2007- 08/2007**

The museum building is created by physically displaying the movement of sun rays on a number of chosen dates.

The data of specific days of the solar year are projected on to the site and constructed as solar blades following the curvature of each of these days.

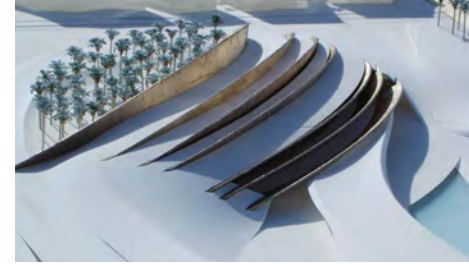
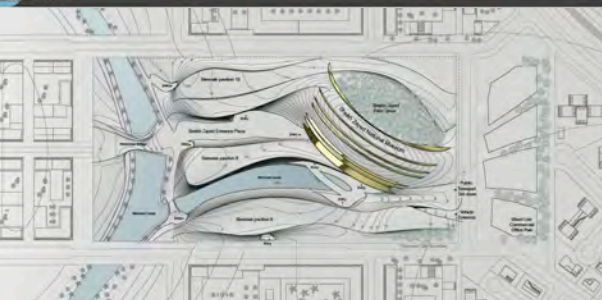
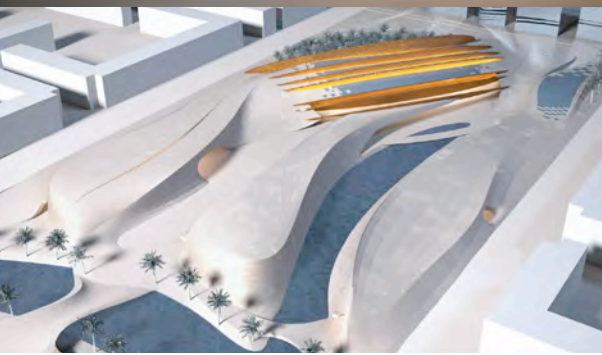
Only on this site will these blades take this shape: a site-specific geometry for this exact location. These arches become the solar signature of the site and their shapes represent an irreplaceable, constant and original personality.

Withstanding the influence of the landscape, the sun blades of the museum direct the shapes of the landscape thus generating spaces between and under homogeneous surfaces made of sandstone.

The spaces within the museum itself sequence themselves in layers between the blades, repetitive but with the changes of the length of days as diversifying elements.

The organization of the interior follows this organization and stays within the geometry of the building.

The pavilion spaces do however follow the shapes of the landscape reflecting the volumes of the same and appear less autonomous as constructed objects.



**environment concept
sun diagram and sand topology**



project : Lysaker Park 05/2007- 07/2007

- reconstruction of an office building complex in oslo



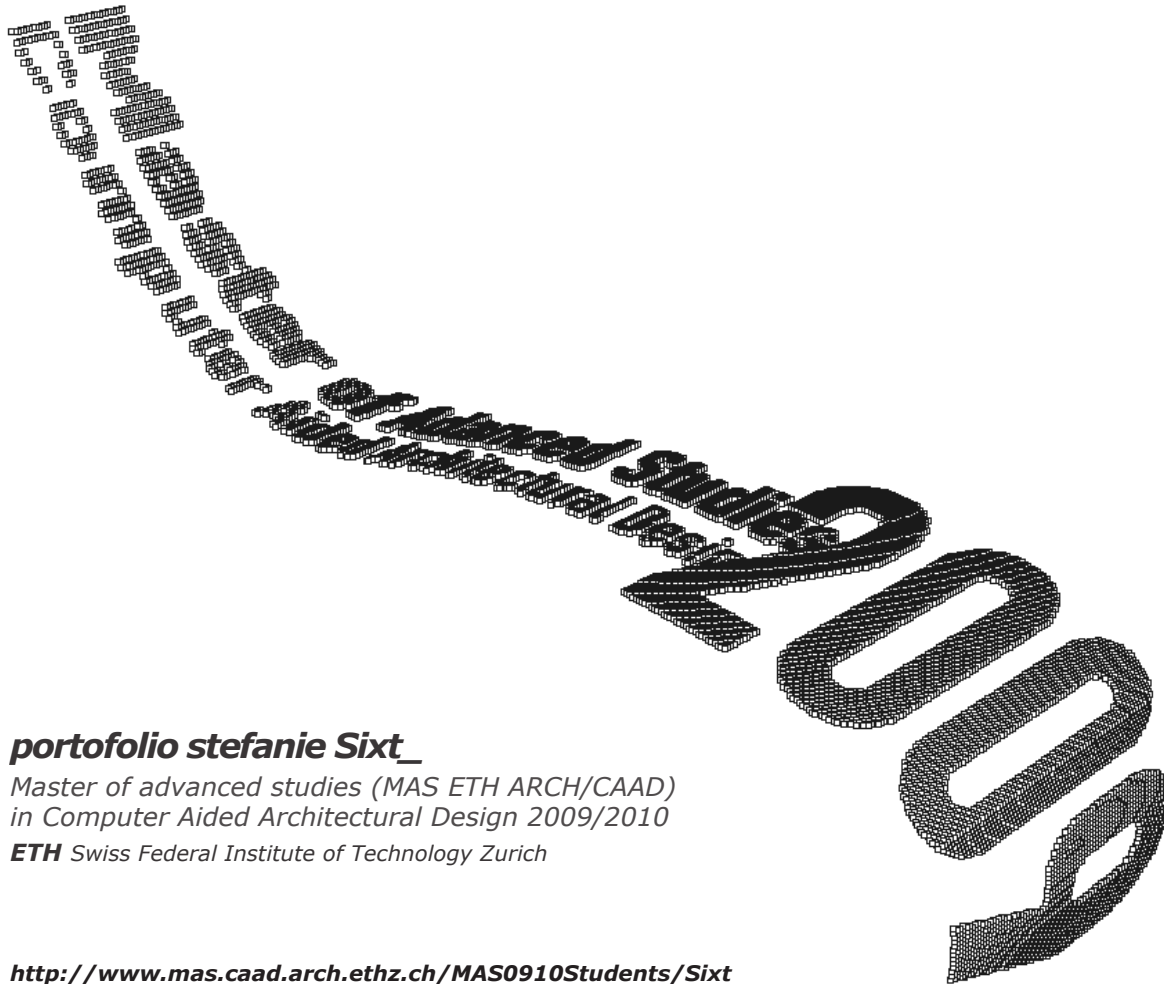
LYSAKER PARK

SKISSEPROSJEKT

30.06.07

DEL 1



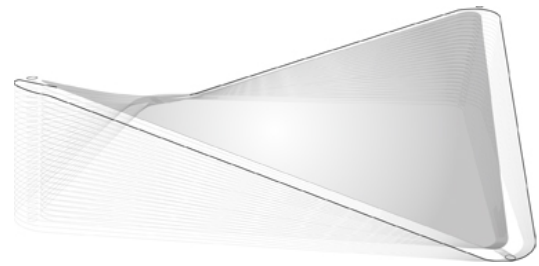
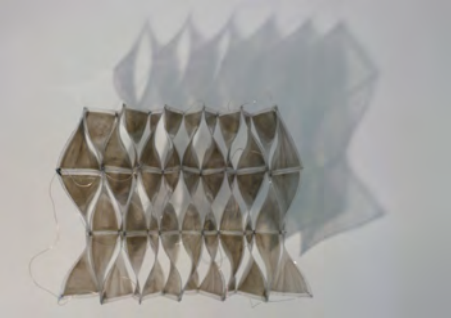


portfolio stefanie Sixt_

*Master of advanced studies (MAS ETH ARCH/CAAD)
in Computer Aided Architectural Design 2009/2010*

ETH Swiss Federal Institute of Technology Zurich

<http://www.mas.caad.arch.ethz.ch/MAS0910Students/Sixt>



SHAPESHIFT

...towards a soft architecture - responsive to its environment

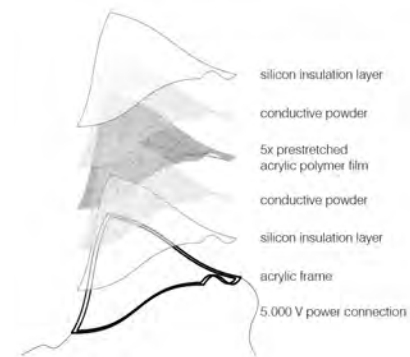
ShapeShift is an experiment in future possibilities of architectural materialization.

This project explores the potential application of electro-active polymer (EAP) at an architectural scale.

EAP offers a new relationship to built space through its unique combination of qualities. It is an ultra-lightweight, flexible material with the ability to change shape without the need for mechanical actuators.

As a collaboration between the chair for Computer Aided Architectural Design (ETHZ) and the Swiss Federal Laboratories for Materials Science and Technology (EMPA), ShapeShift bridges gaps between advanced techniques in architectural design/fabrication and material science as well as pushing academic research towards real world applications.

concept development of an automated/responsive air control and lighting/shading system, which could be incorporated in a new kind of building skin.



design sept2010:
Edyta Augustynowicz, Sofia Georgakopoulou, Dino Rossi
and Stefanie Sixt
(in supervision by the ETH CAAD through Manuel Kretzer)

www.caad-eap.blogspot.com

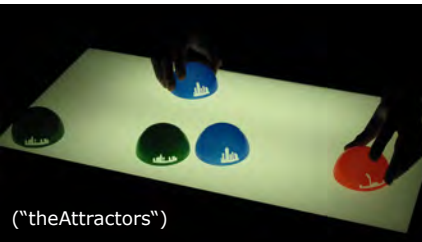




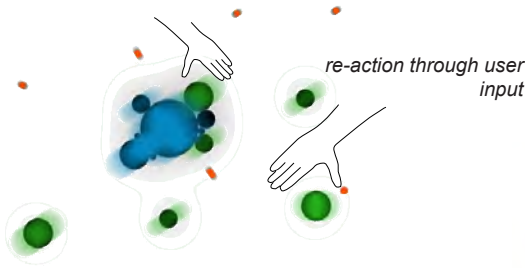
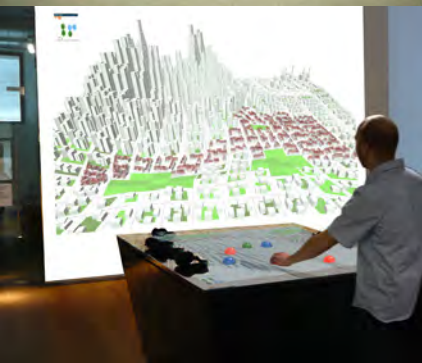
ACGen! —

get attracted >>react - interact >>

>>move the colors
 and see how the city reacts !



("theAttractors")



>> AttractiveCity – an interactive city generator installation for open public spaces and museums

The Attractive City Generator is an interactive installation with which users can create or rearrange virtual cities by placing and moving physical objects.

The aim of the project is to enhance wider public interest in the urban development process and to create social awareness.

The ACG serves mainly as a **game**, which enhances the physical interaction of a group of people using a digital medium.

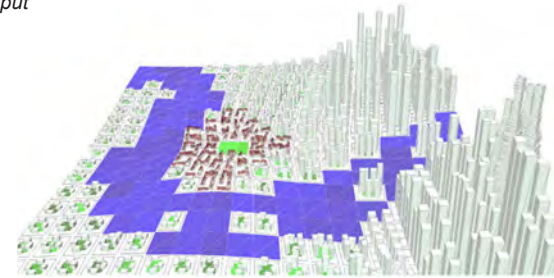
Through the set of simple inputs that the users provides, the ACG is capable of creating complex and growing cities.

This ability to effectively combine direct physical movements with a virtual creation giving real time feedback is what makes the ACG unique.

Only a few moves are needed for the users to create and rearrange big cities – a task, which would have been tedious and time consuming when using physical models.

The users are drawn to the colourful and simple interface. Due to the practical and also informational feedback, that the city returns, the users can feel more attached to the city they have created.

A dynamic dialogue is formed between the city and its creators.



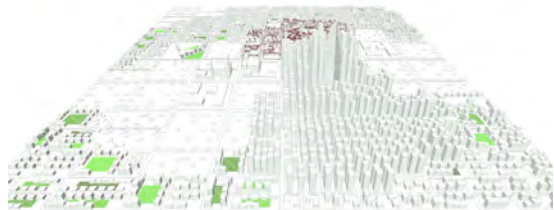
inputs

- Landscape maps+ water schemes
 - drawn by the user
- Sociostatistical maps – zone maps:
 residential, business or industry zones
 - represented by ("theAttractors") physical object
- Important buildings and landmarks –
 churches and bell towers, city halls,
 monuments
 - represented by ("theAttractors")



population 990 6667
 6589 3325 commuters
 density 0.074635796
 main city function industrial
 pollution level: medium

outputs: visual and factual

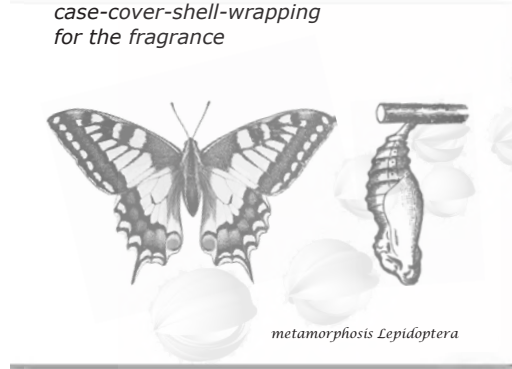


statistical data

- sociologic (population, density+permeability, general quality of life)
- economic (city`s main functions+products, employment)
- environment (pollution)

>> **comme une merveille**>> flacon
rhinoScript, 3d plot

3d_programming, automatization + optimization, generative behavior

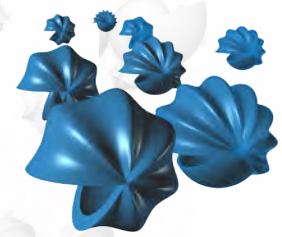


<<comme une merveille>>

element 1: inner body
sphere as "perfect - infinite element"
contains the perfume like a treasure

element 2: loft_outer body
skin is covering and protecting the treasure
"get a glimpse"

element 2 is growing out of element 1
_transformation process_metamorphosis



inspiration flakon



get a glimpse

```
Option Explicit
'Script written by steflix
'Script copyrighted by @flogangram
'Script version: Freshy, 9. October 2009 13:16:57

Call Meta()

Sub Meta()
  Dim s
  Dim arrWallCurve C()
  Dim objRadius
  Dim arrPlane
  Dim loftObject
  Dim arrAngle
  Dim arrAxis

  loftObject=CS
  Dim arrWallCurve C()
  Dim objRadius
  Dim arrPlane
  Dim loftObject
  Dim arrAngle
  Dim arrAxis

  arrAxis = Array C(0,0,0)
  arrPlane = Rhino.PlaneFromNormal(arrAxis, arrAngle)
  arrWallCurve C() = Rhino.AddArc(CornerRadius, arrRadius, 180)

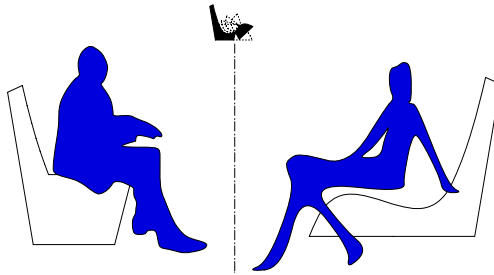
  For i=0 To 360 Step 15
    arrPlane = Rhino.PlaneFromNormal(arrAxis, arrAngle)
    arrWallCurve C() = Rhino.AddArc(CornerRadius, arrRadius, 180)
  Next

  Rhino.DeleteObjects arrWallCurve
End Sub
```

elements of the chair_function

workNap
 $\text{Log}(\text{Sin}(x) + \text{Sin}(y) + 2.01)$

concept

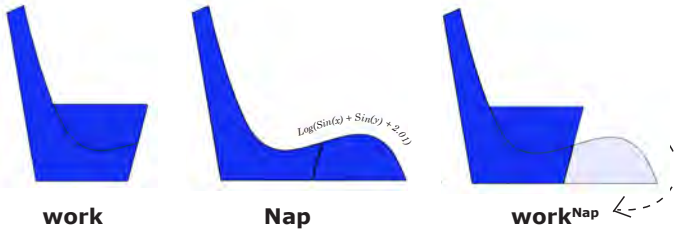


Category
 furniture design
 digital fabrication_parametric cardboard

Programming and tools
 rhino, vbScript, zünd 2d-cutting machine

Design by
 stefanieSixt_maHaidong

Date of production
 09-10-07 til 09-10-30

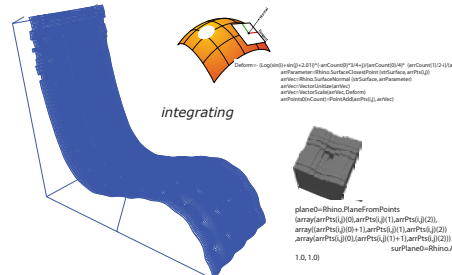
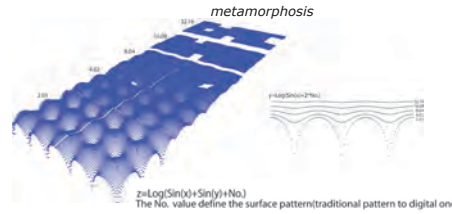
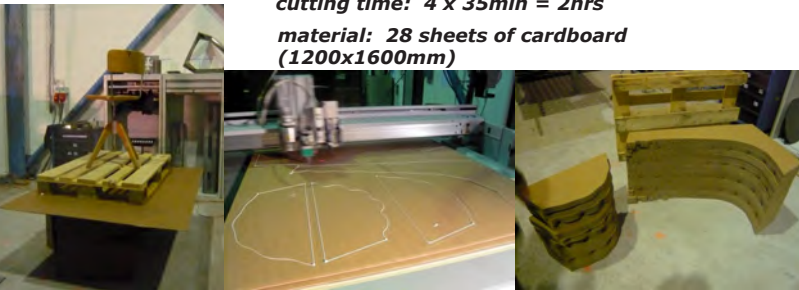


scripting

loop

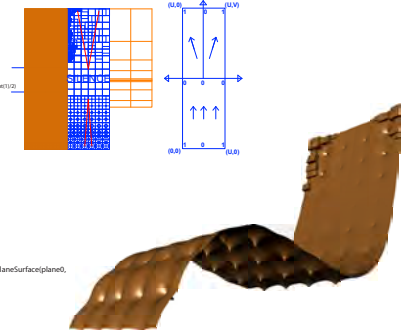


cutting time: 4 x 35min = 2hrs
 material: 28 sheets of cardboard
 (1200x1600mm)



```

Sub Main()
Dim i as Integer(1)toForm
a=Count(1)to24
a=Count(1)to24
a=Count(1)to24
For i = 0 To a/Count(1) - 1
    For j = 0 To a/Count(1) - 1
        Call Rhino.AddText(i*Count(1)+j*Count(1),i,j,0)
    Next
Next
For i = a/Count(1) To a/Count(1) - 1
    For j = 0 To a/Count(1) - 1
        Call Rhino.AddText(i*Count(1)+j*Count(1),i,j,0)
    Next
Next
For i = a/Count(1) To a/Count(1) - 1
    For j = 0 To a/Count(1) - 1
        Call Rhino.AddText(i*Count(1)+j*Count(1),i,j,0)
    Next
Next
End Sub
    
```



```

plane0 = Rhino.PlaneFromPoints
(array(arpst(1)(0),arpst(1)(1),arpst(1)(2)),
array(arpst(1)(0)+1,arpst(1)(1),arpst(1)(2)),
array(arpst(1)(0),arpst(1)(1)+1,arpst(1)(2)))
surfPlane = Rhino.AddPlaneSurface(plane0,
1.0, 1.0)
    
```

about_ pattern recognition & feedback in realtime
 > *simulation of natural conditions*
 > *about the environment and human behaviour*
 a combination of nature and technology

Keywords and tags:

interaction design_webDataApplication_wirelessNetwork

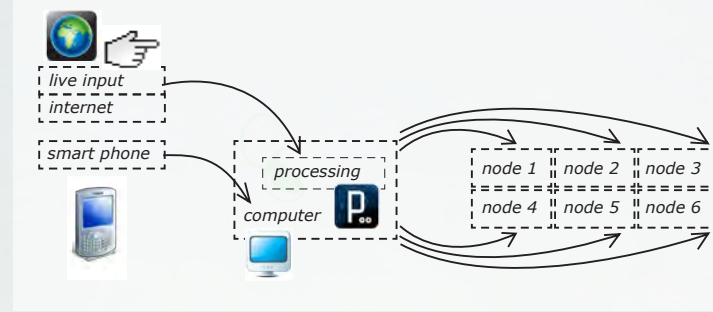
Programing and tools:

processing, arduino, rhino, laser cutting machine, 3D printer

white balloons, LEDs, sensors, xbee, servomotors, joysticks

Design by: jacobPryzbylo_maHaidong_min-ChiehChen_stefanieSixt

Date of production: 10-03-07 til 10-04-22



windy_ or the natural behaviour is an **interactive design object ...**
 nodes of simple white balloons

...reflects and simulates natural conditions & reacts on the behaviour of people

windy_ is a student project developed at the chair of CAAD at the ETH in zurich during the Physical Computing Module.

windy_ is an interactive design object which reflects and simulates natural conditions and also reacts on the behaviour of people.

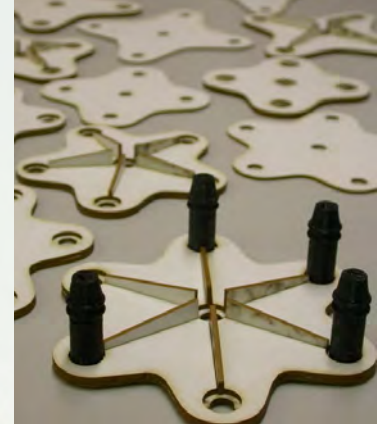
This object, a combination of nature and technology, exists out of many nodes - a set of simple white balloons.

The idea is to embed functional properties within a simulation of natural attributes like wind and temperature.

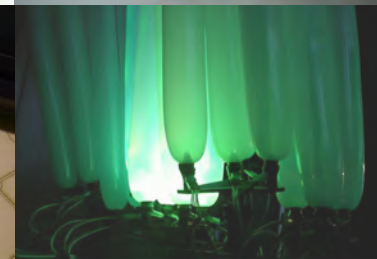
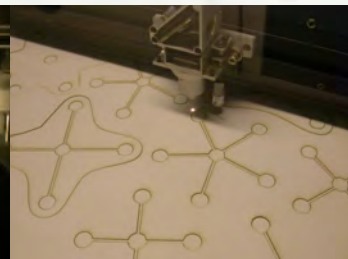
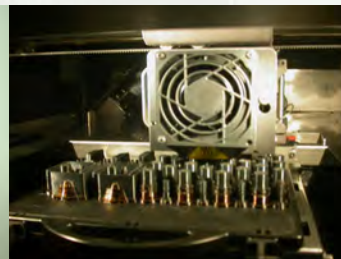
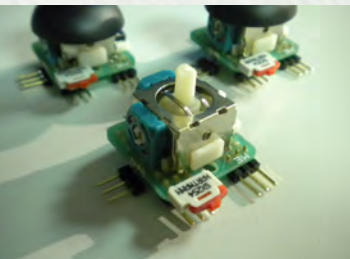
The object moves indoor as an object outdoor does - influenced by exterior weather conditions (e.g. grass and wind).

It reacts, but is also able to provide you with actual, useful information in a surprising manner.

These features are split up in 3 modes and are supported by using a smart phone.



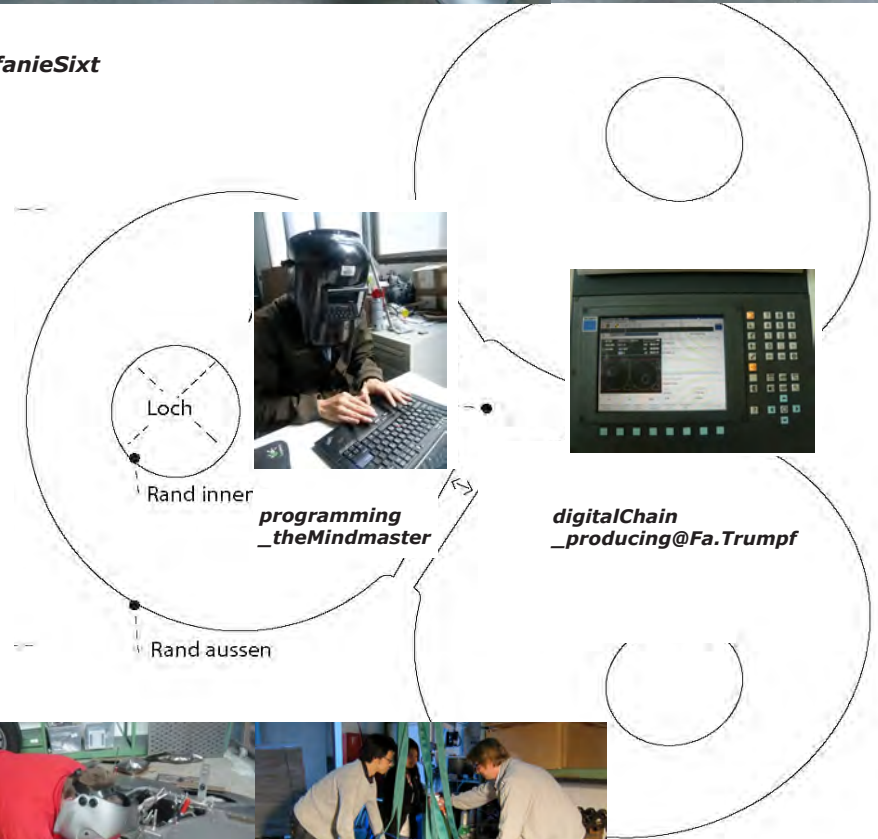
<http://vimeo.com/14502652>





bench_circlesInHarmony
 by **chunYangWang_dimitriDemian_jacobPryzbylo_maHaidong_stefanieSixt**
 june2010

---> **inUse**



---> **production: welding part + assembly**



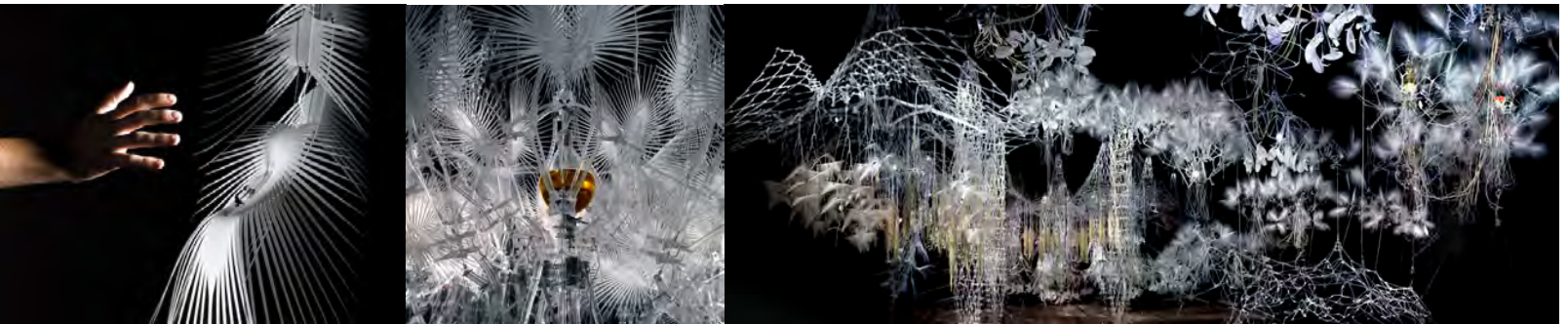
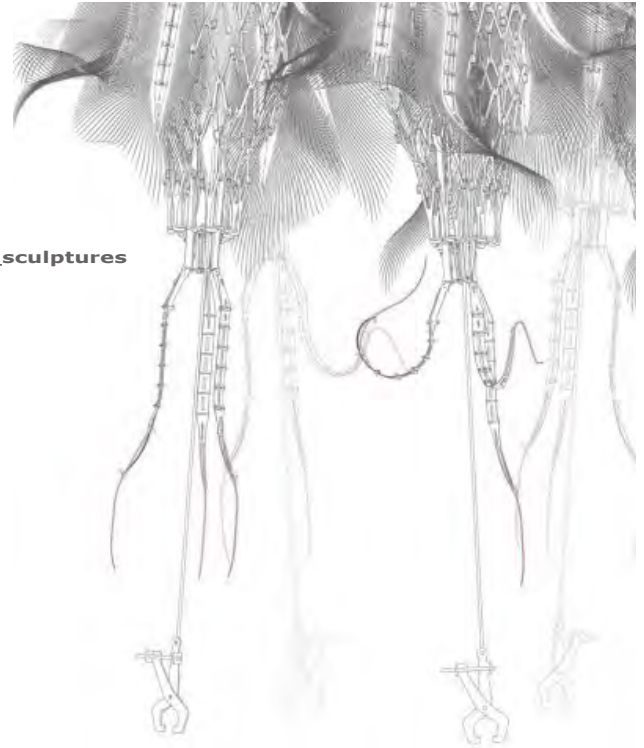
Project
HYLOZOIC GROUND_Philip Beesley_biennale Venice2010
CANADA PAVILION, 12TH INT. ARCHITECTURE EXHIBITION

Category
installation setup and organisation

Keywords and tags
liminal responsive architecture_kinetics_geotextile installations_sculptures

Design by
philip beesley Architect Inc.
<http://www.philipbeesleyarchitect.com/>

Date of production and setup
from 10-07-14 (10-08-27 opening biennale)



curriculum vitae

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switzerland
phone: +41- 77 421 68 74
e-mail: stefaniesixt@gmx.de

date and place of birth: born 06-12-1980 in kirchheim/teck, germany
nationality: german

PROFESSIONAL EXPERIENCE

- since 05/2007 employed as architect at snøhetta architects in oslo - norway:
projects ◦ competition for the Sheik Zayed National Museum in abu dabi
◦ Lysaker Park - reconstruction of a larger office building in oslo
◦ exhibition pavillon for the Think car company in genève
◦ King Abdulaziz Center for World Culture in Dharan - 70.000sqm
(SDI_ Sketch Design - CD_Construction Documentation)

member of „faglig torsdag“: professional comittee for organizing lectures and workshops in the office
- 01/2007 - 04/2007 collaboration with ghilardihellsten arkitekter in oslo - norway
- 10/2006 - 12/2006 collaboration with rsk arkitekten, stuttgart:
competition for a town hall in reutlingen, germany (honorable mention)
- 08/2003 - 12/2004 internship at bothe richter teherani (brt) arkitekten, hamburg:
08/2003 - 01/2004 internship part 1: ausführungspanung (construction detailing)
02/2004 - 12/2004 internship part 2 : wettbewerbsabteilung (competitions)

EDUCATION

- 09/2009 - 03/2011 MAS ETH in Architecture, Specialisation in Computer Aided Architectural Design (MAS ETH ARCH/CAAD), Chair of CAAD, Prof L. Hovestadt
- 10/2001 - 07/2006 studies in architecture at the university of applied sciences in constance, germany
- 07/2006 diploma (dipl.-ing.)
diploma thesis: "zeitweilig" , hotel in milan_navigli, italy
- 06/2005 student competition „pendant luminaire for louis poulsen“ (1.prize)
- 09/2000 - 08/2001 prestudies in art & design at „werkbund werkstatt nuernberg“
- 08/1991 – 07/2000 upper stream secondary school
graduated in a-level degree (abitur) at ludwig-uhland-gymnasium, germany



LANGUAGES

german: native
english: fluent in speaking and writing
french: good knowledge
norwegian, spanish and italian: first skills
latin: good knowledge

SOFTWARE SKILLS

- microsoft office / iWork
- visualization: adobe photoshop, illustrator, indesign, premiere, dreamweaver
- cad: vector works, microstation, autocad 2008
- scripting/programming: processing, arduino, RhinoScript
- 3d modelling: rhino, cinema 4d