space&designstrategies_research

overview ss 08

In 2006, space&designstrategies, a field of study at the Kunstuniversität Linz, established the research platform **space&designstrategies_*research***.

Lead by Univ.Prof. Elsa Prochazka, space&designstrategies offers students the opportunity to develop cross-disciplinary skills in the fields of architecture, art, design, digital media, communication studies, and aesthetics.

The associated research platform space&designstrategies_*research* operates independently of the curriculum and functions as a competence centre for research projects, for Ph.D. studies, and as a resource for independent projects.

It is aimed at supporting the interdisciplinary work of students by facilitating scientific exchange with external researchers, in order to provide a broader framework for discussion, the evaluation of student work, and intensified research.

In addition, we organize a series of events dedicated to specific research topics. In the year of 2007/08 research activities are focusing on the notion of **PROTOTYPICAL SHELTER**.

In summer term ss08, the architect Ulrika Karlsson/servo became invited to lecture and to conduct a three-day workshop.

At the end of the semester we organized a round table discussion including Michael Obrist/feld72 Claudia Pasquero/ecoLogicStudio Jonas Runberger/krets, all of them seeking open work processes which are based on the development of prototypes varying in definition.

Sandrine von Klot
project manager

//intro

//prototypical shelter

SPOORG by servo

//////////////////////**IMPLIED TOPICS**

"While the prototype in architecture often is seen as a full-scale model testing materials and technical solutions, the definition comes closer to the working model, independent of scale and media." [1]

In the forefront we will discuss imlications of the open–ended approach to the potentials of digital design for architecture – opposed to a reductive approach seeking merely for optimization. Key interests include the conceptualization, articulation and organization of space through digital and physical generative principles. Inherent to these principles are parametric design systems which on the one hand remain open to articulation and are reacting to input, on the other hand they are continuously expressing their origins through codes and rules or geometrical setups. The introduction of the prototype to the design process eventually evokes a design environment as a collaborative space in which multiple users may interact and develop it further. The prototype can co–exist in and shift between multiple media, and resembles a transitionary device, in the sense that it investigates change and development. Innovative practices do not produce finished prototypes, but rather prototypes themselves drive the innovation process.

///////////////**PROTOTYPICAL SHELTER**

Referring to adaptive social and material networks, we raise the issues of regarding highly intelligent, temporary shelter within changing urban modes of connectivity and spatial discontinuity.

Shifting to inherent paradigms of minimal, collective space, apart from existing structures and planned programs, incidents of `being sheltered´ may occur through an additional introduction of random parameters within the choreography of social diagrams.

1 Jonas Runberger in: 'Prototypical Development within architecture', PhD project

//lecture

/////////////////////**ULRIKA KARLSSON**

founding member of **servo**

affiliated Professor in Architecture School of Architecture KTH–Royal a the Institute of Technology, Stockholm

collaborator of **krets**

more information on:
http://www.s-e-r-v-o.com
http://www.krets.org

/////////////////////////////**SERVO**
stockholm | los angeles | new york city
Marcelyn Gow, Ulrika Karlsson, Chris
Perry

Established in 1999, servo is an architectural research and design studio that experiments with technology, production, and material at full-scale.

The practice has constructed predominantly experimental prototypes and projects commissioned by museums for exhibitions of international acclaim, several of which have been collected by a variety of arts institutions.

Working as a collaborative, servo constantly seeks to reconfigure its existing internal relationships while forming new external ones with a variety of academic and professional entities, to acquire specific areas of expertise and exchange within the office or with other institutional partners. Some of these partnerships include: The MIT Media Lab, The Interactive Institute's Smart Studio, Krets, bio(t) hing, Small Design Firm, Trollback and Company, LOLA, and Stephen Kinder Design Partnership.
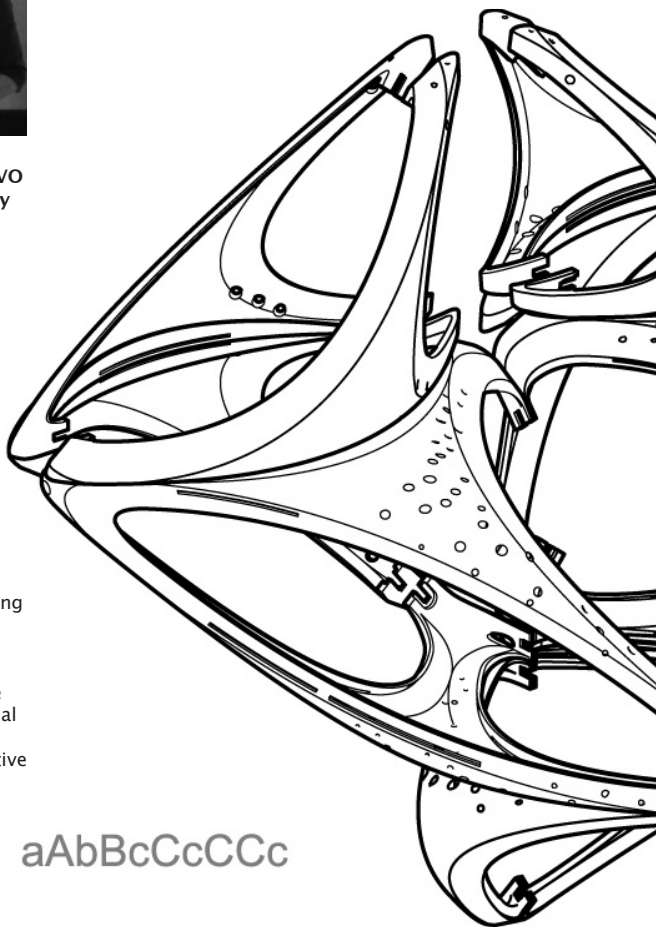

aAbBcCcCCc

//statement

///////////////////////////**SPOORG**

Each spoorg module is embedded
with local intelligence, enabling it to
communicate with adjacent spoorgs.
spoorg reacts to local as well as
environmental changes of light and
responds by modulating sound textures
based on a series of algorithmic rules,
producing larger scale atmospheric effects.
Materially it is equal parts architecture,
decoration, hardware and software.
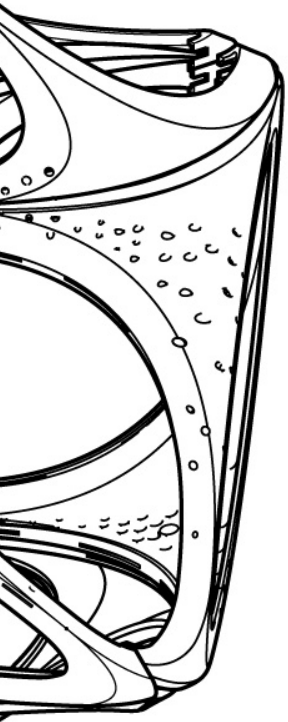
KANTEN by servo
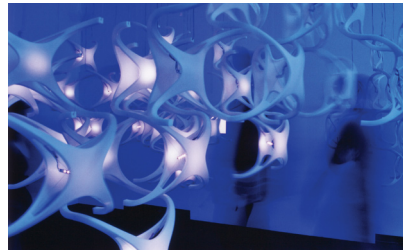
LATTICE ARCHIPELOGICS by servo

*"... servo's work focuses on the development
of spatial infrastructure for the production of
atmosphere. These infrastructures respond
to and integrate numerous technologies such
as lighting, sound, and interactivity. More
importantly, it is through this technological
integration that particular affect within a given
environment are produced and by extension
become mutable over time, giving the space
in which they're situated dynamical properties.
This spatial dynamics is interactive and thus
adjusts to the environment's users, allowing
both the architecture and its occupant to*

*influence one another."* [1]

//workshop

conducted by Ulrika Karlsson, Stockholm
may 13 –15 2008

/////////////////////////**OUTLINE**

The focus lies on the investigation of the medial coherence of individual senses within their specific context formations. Media and senses can not be separately conceived. Every medium immanently requires feedback and correlation of the senses. On the other hand, our understanding of perception operates on the basis of interconnected and structured media.

This process of aggregation and clustering is where a lot of design decisions have to be made, and depends a lot on the participants decisions and findings of architectural, structural and geometrical qualities in relation to context.
How can a series of simple rules start to transform the space, the actual context? When working digitally different qualities can tried to be achieved, such as growth of depth, more transparency/porosity when the structure is deeper, working with scale transitions of parts when having to, for example, mediate between horizontal extension and vertical extensions (smaller parts when dealing with a corner situation, larger parts when constructing more generic regions).
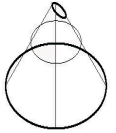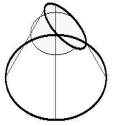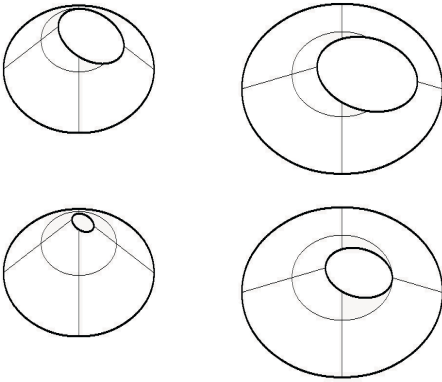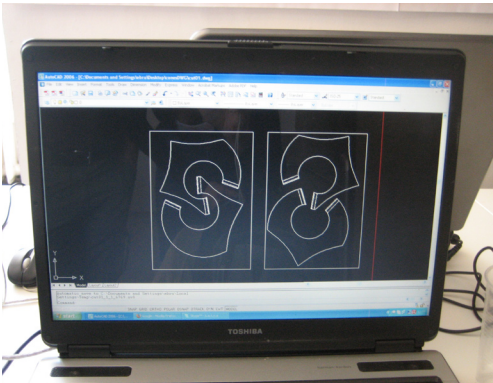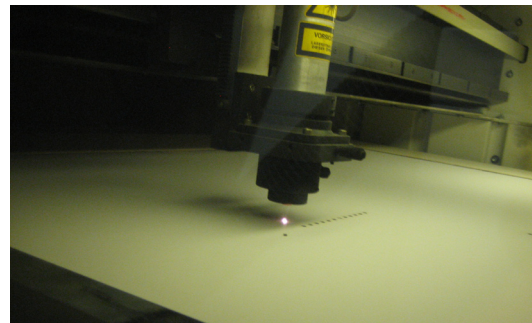
//medial coherence

fig 2

######/CONFIGURATION 1////GEOMETRY

A cone can be flattened without distortion
and thus lends itself to a fabrication
process of laser cutting. The maximum
radius of the circular unrolled cone
(flattened cone) should be no more than
350 mm to fit the laser cutter.

//workshop

/////AGGREGATION OF CONICAL PARTS

Aggregative procedure is mostly based on intersections. Always when intersecting conical parts, remember to trim away the intersected parts of the cones.
Intersection of cones/conical parts can only occur when 2 conical parts share 2 base points.
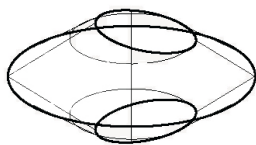

fig 3

fig 8

Intersection between different-angled cones: A rotation of a cone when intersecting with another cone is achieved only when it is rotated around the axis that appears between the 2 shared points on the base. When rotated so that the apexes of the cones move closer to each other, the rotation angles 15, 30 and 45 degrees can be used.

When intersecting conical parts, the surface distance between intersection line and elliptical section should never be less than 50 mm.

Intersection between same-angled cones: Same-angled cones can intersect with 2 shared base points (fig. 3), can be flipped and paralleled, can get stacked to create a cushion volume (fig. 8), can get stacked in the shape of an hourglass
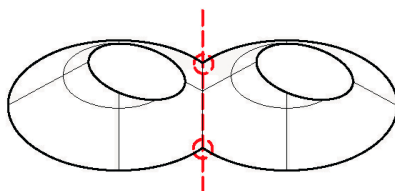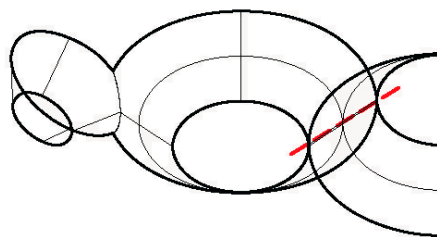
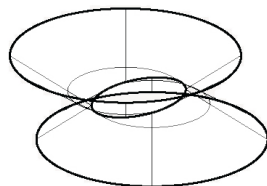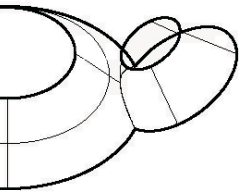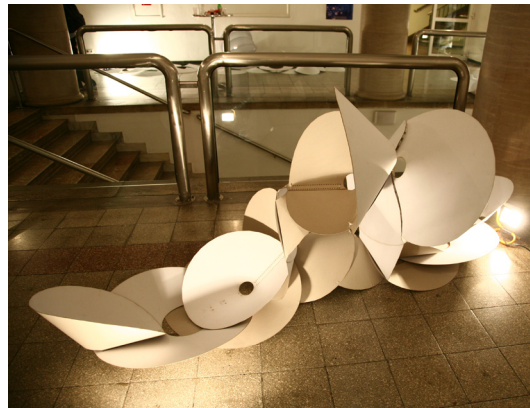

fig 9

fig 6

////**CONFIGURATION 3** ///**FABRICATION**

Digital preparation for fabrication is allowed by flattening the conical parts. The additive process of growth and aggregation should be able to facilitate the construction of surface and volume that can grow horizontally as well as vertically.

//**roundtable**

////////////////////**ROUND TABLE SS08**
may 28 2008 at 7 pm, Hörsaal A,
Hauptplatz 8/ Kunstuniversität Linz
moderation: Sandrine von Klot
         r&d_research

/////////////////////////////**GUESTS**

Claudia Pasquero
co-founder of **ecoLogicStudio**

- took part in the London + Venice
Architectural Biennale exhibiting the
installation project STEM
- co-director of Fibrous Structures Project
- teaching/ lecturing at East London
University, Turin Polytechnic, The Kingston
University (London), UDLA (Puebla, Mexico
City), IAAC (Barcelona), ITU (Istanbul), Bilgi
University (Istanbul)
- she is currently unit master of Inter10
at the Architectural Association School of
Architecture London and tutor on the MA
sustainable design at UEL
- visiting professor in Turin Polytechnic
- with ecoLogicStudio currently working on
a new installation to be presented at the
next Venice Architectural Biennale `08 and
the next Seville Artand Architectural
Biennale`08

Jonas Runberger
 founding partner of the research
collaborative **krets**, director of the ssark
medialab, co-developer of the Streaming
Architecture Projective Space spatial media
concept, a frequent collaborator of Servo

- currently teaching at Architecture
InFormation, and London Metropolitan
University
- has been lecturing and publishing in
Sweden and abroad
exhibited internationally, most recently by
Vitra Design Stiftung in the Open House
exhibition and AKAD at Lunds Konsthall
- currently developing a design driven
PhD at the KTH School of Architecture/
main focus is on the concept of prototypes
within architectural research and practice
and how they can operate as physical
artefacts, digital parametric systems or
sets of organisational rules, associated to
recent developments within the building
industry in regards to industrial processes,
as well as experimental practice of
architecture during the past decade

StemCloud by ecoLogicStudio
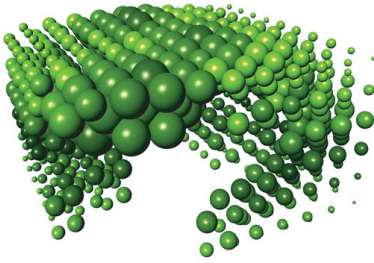
Michael Obrist
co–founding partner of feld72/ collective for
architecture and urban
strategies

– currently teaching Conceptual architectural
strategies at the University of the Arts in Linz
at the unit for space&desingstrategies and at
the department for "urbanism" at the
Technical University of Graz
– lectured internationally including Bauhaus
University Weimar, Centre for Central
European Architecture Prague, Technical
University Vienna, Academy of Fine Arts
Vienna,
Technical University of Graz, The Academy
of Fine Arts Hamburg, Steirischer Herbst,
Museum of Modern Art Salzburg, European
Academy Bolzano, National Gallery
Bratislava,
Technical University of Timisoara among
others
– board member of the editorial board of
wonderland/ magazine and platform for
European architecture

The design of the network of
dependencies becomes a crucial part
of thea overall design by highlighting
certain relationships over others and
thereby allowing for specific local
changes to impact the models global
scale and behaviour. Within the urban
fabric of contemporary cities emerging
patterns of social and economic tension
as well as increasing environmental
imbalance ask for complex strategies
of stimulation and interaction. Design
as iterative process, responding to
changing environmental pressures
seeks to develop behavioural patterns
in relation to its context. Sensual,
atmospheric experiences are being
provided and adapted to varying
surrounding conditions. Ideally a
catalogue of operational typologies may
serve the purpose of re–connection
as well as co–action in the midst of
alienated and disrupted urban networks.

//round table quotes

MillionDonkeyHotel by feld72
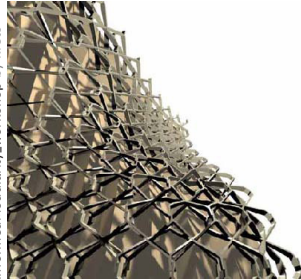

InformedModularity_workshop by krets

" When I entered the school and saw the different prototypes that you have done in the workshop, on one side they are prototypical and they refer to one single component that gets repeated and assumes different types of actualization, but on the other side if you look at them no one of them is really sheltering you. That interests me, because for me a shelter is not a shelter or for me the interest o prototypical shelter doesn't lie in the word shelter but actually in the possibility that can create an interaction between man and environment. " [1]

" Prototype used to be like testing of something that needs to go into production while today we tend to use prototype in a different way. We tend to assume a prototype is not just one type but a type that implies multiple actualizations according to a certain value. But somehow this is not really articulated because then we use also prototype when we test a material and we go from digital to physical again in the old way as we test a prototype. So it is quite interesting this dichotomy between the two meanings and how definitions change and become something else." [1]

Lightwall by ecoLogicStudio

" I think what is really important in what we are trying to define here is that it is something, like an entity, it has certain characteristics and you can interact with it. Most important seems you want to interact with it. It is not sort of a dead thing that shows a type but it rather invites someone else like a designer or a user or a community to actually go in and maybe change it, make even something different out of it." [2]

" If we go back a little in our contemporary history to the kind of pattern language of Christopher Alexander for example, if you take those social aspects, in a certain way this approach appears similar to what you were describing earlier about your work – only that you introduce geometrical issues to the pattern language." [2]

Aqvagarden by ecoLogicStudio

1   Claudia Pasquero
2   Michael Obrist

1   Claudia Pasqueo
2   Jonas Runberger

//feedback

/////////////**WORKSHOP PARTICIPANTS**

Florian Achleitner
Ulli Asamer
Miha Cojhter
Dominique Hölzl
Dimitar Ivanov
Andreas Liska
Daniel Mandel
Nora Neukum
Steliana Nikolova
Elina Noomen
Jenny Picco
Mathias Schnell
Helene Schoißengeyr
Veronika Schürr
Felix Vierlinger

" I know we have the idea of the non-standard and we have heard it too many times, and then you have self-similarities, changes, repetitions and other things out here – it is obvious that one looks for the familiar anyways or tries to establish that." [1]

" So we came up with this survival kit for traffic jams based on boredom, aggression and concentration. We put all of the banal elements one uses which would generate this kind of discourse like water pistols, binoculars, condoms etc and we made them into a prototype and we produced like 1000 pieces of them and we went into the public space searching for traffic jams." [2]

" So you have this global and at the same time local kind of exchange in which you bring in a certain technology while you try not to superimpose anything onto a specific context but rather to establish a dialogue that will effect your component as well to a certain extent."[3]

1   Jonas Runberger
2   Michael Obrist
3   Claudia Pasquero