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Introduction

Today and in the future, work and learning spaces are designed with a high flexibility where the functions of such rooms are defined by the activities within.

What if a building and its rooms could be experienced as a living organism, which can adapt to changing conditions?

Conditions shaped by people's sound, movements, heat signature or their network data and the like rather than by the physical form of the interior alone - like arteries and blood cells in a living creature.

Focus

Why not represent this organism as an installation.

It could represent the current state of a building using digital or physical artifacts interacting with digital media or by haptic gesture. It can also react to a changing environment and in turn transforming the environment itself... creating a feedback loop.

References

http://vimeo.com/57672557

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Ornaments

"... I should say that it would be greatly for our aesthetic good if we should refrain entirely from the use of ornament for a period of years, in order that our thought might concentrate acutely upon the production of buildings well formed and comely in the nude."

Louis Sullivan, ,Ornament in Architecture', 1892

"Do you not see the greatness of our age resides in our very inability to create new ornament? We have gone beyond ornament, we have achieved plain, undecorated simplicity. Behold, the time is at hand, fulfilment awaits us. Soon the streets of the cities will shine like white walls."

Adolf Loos, ,Ornament and Crime', 1908

Ornamentum

lat. ornare (to confer grace upon some object of ceremony)

References

Ornament neu aufgelegt / Re-Sampling Ornament, Oliver Domeisen, Christoph Merian Verlag

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Re-Sampling Ornament

AIP (Restaurant Aoba-Tei), 2005

Location: 2-13-21 Kokubuncho, Aoba-Ku, Sendai, Miyagi, Japan

Architect: Atelier Hitoshi Abe + Hitoshi Abe

In his design for the Aoba-Tei restaurant in Sendai Hitoshi Abe creates an immersive environment evoking the dapped shade of forest canopy.

Winery Gantenbein, 2006

Location: Fläsch, Switzerland

Architect: Bearth & Deplazws with Gramazio & Kohler

Fabio Gramazio and Matthias Kohler are exploring the convergence of digital data and physical materiality through the adaptation of mass-costomisation technology to building construction processes using an industrial robot at their laboratory for Architecture and Digital Fabrication (ETHZ).

Links

http://www.sam-basel.org/en/home/ausstellungen/Archiv/ORNA-MENT-NEU-AUFGELEGT.html

References

Ornament neu aufgelegt / Re-Sampling Ornament, Oliver Domeisen, Christoph Merian Verlag

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Visuelle Wahrnehmung

Kippbilder, Scheinkanten, Neoneffekte, Rotationsillusionen diesen und zahlreichen anderen Phänomenen der visuellen Wahrnehmung spürt Jürg Nänni auf spielerisch faszinierende Weise in seinem Buch nach. Ein Einführungskapitel bringt dem Leser die Grundlagen der visuellen Wahrnehmung näher und schafft damit die Basis für die folgenden Kapitel. Hier führt Jürg Nänni den Leser mit seinen Bild- und Stereoexperimenten durch den geheimnisvollen Kosmos der visuellen Wahrnehmung. "Visuelle Wahrnehmung" ist ein unverzichtbares Grundlagenbuch für Künstler, Designer und alle diejenigen, die an visuellen Phänomenen und deren Hintergründen interessiert sind. Wie entstehen optische Täuschungen? Wie kommt es, dass sich statische Bilder auf dem Papier zu bewegen beginnen? Und weshalb lassen sich unsere Augen überhaupt in die Irre führen? Erst durch die genaue Kenntnis und das Begreifen der visuellen Phänomene ist ihr gezielter Einsatz in der kreativen Arbeit überhaupt erst denkbar.

References

Visual Perception, Jürg Nänni

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The Kaleidoscope Mind

You're never too old to make your mind agile, flexible, self-aware, and able to see patterns and connections that more rigid minds miss.

The term kaleidoscope is Greek and is loosely interpreted as "an observer of beautiful forms." So what, then, is a kaleidoscope mind? A type of mind that is agile, flexible, self-aware, and informed by a diversity of experiences. It's a mind that is "able to perceive any given situation from a multitude of perspectives at will — selecting from a rich repertoire of lenses or frameworks." I would say that a kaleidoscope mind is playful, and it must be able to "see patterns, connections, and relationships that more rigid minds miss."

Like a radio frequency, people can be tuned to see differently. Once you learn a new skill, such as how to ride a motorcycle, you become sensitized in a way you weren't before. You start to see more motorcycles, you become aware and give them more space on the road, you acknowledge them, and you remember what it feels like when the wind hits your face at high speed. Seeing creatively is a bit like that.

Links

http://designmind.frogdesign.com/blog/the-kaleidoscope-mind... http://inoyan.narod.ru/kaleidoskop.swf

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555 KUBIK

The conception of this project consistently derives from its underlying architecture - the theoretic conception and visual pattern of the HAMBURGER KUNSTHALLE.

The Basic idea of narration was to dissolve and break through the strict architecture of O. M. Ungers "Galerie der Gegenwart".

Resultant permeability of the solid facade uncovers different interpretations of conception, geometry and aesthetics expressed through graphics and movement. A situation of reflexivity evolves - describing the constitution and spacious perception of this location by means of the building itself.

Links

http://www.urbanscreen.com/usc/41 http://vimeo.com/5595869 http://vimeo.com/5677104

References

http://mxwendler.net mediaserver

Urban Media Cultures, Susa Pop / Gernot Tscherteu, avedition - p. 64

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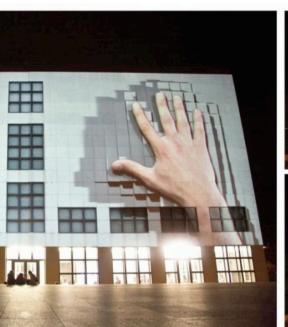


☐ Floor





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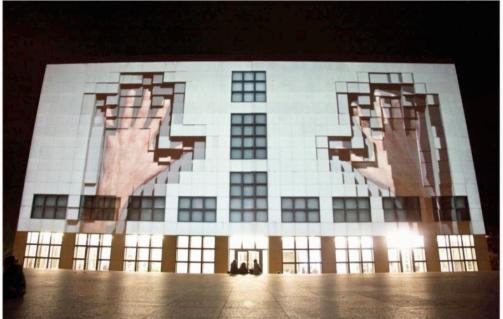












A temporary architectural staging which illustrates the enablement of a building to reflect on its own conceptional and aesthetic creation process using site-specific projections.

The Basic idea of narration was to dissolve and break through the strict architecture of Ungers' "Galerie der Gegenwart" to create a permeability of the solid facade.



Weatherize

Weatherize is a simple interactive data visualization installation that allows an immediate visual representation of meteorological data coming from a city. Users can interact choosing by Twitter their favourite cities using a certain hashtag.

It could be thought as an interactive projection on a particular object or building or you could create an installation in a room that allows the user to enjoy an immersive experience, as if he were in the city he has chosen. After this experience, user can be gifted with a printed postcard, his unique personal "weatherize".

Links

http://www.robertofazio.com/weatherize-data-visualization.html http://vimeo.com/44725732

References

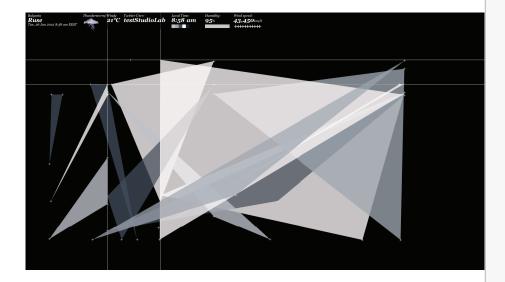
http://www.deep-bo.com

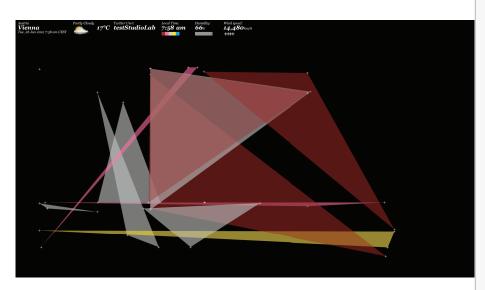
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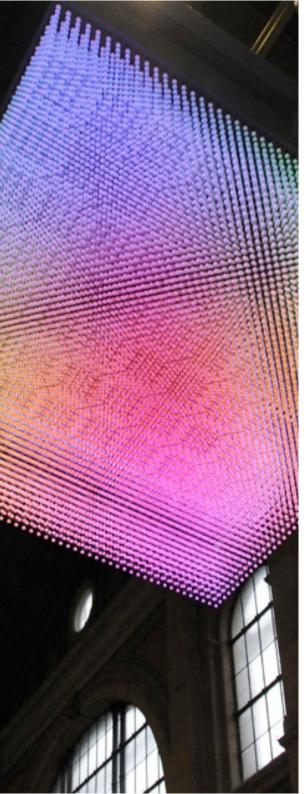




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NOVA

Die NOVA besteht aus 25'000 einzeln ansteuerbaren Leuchtkugeln, welche je mit 12 LEDs (Light Emitting Diodes) bestückt sind, die in einer Farbtiefe von 16 Millionen erstrahlen und mit einer Frequenzrate von 25 Bildern pro Sekunde mit neuer Information versorgt werden können. Das Display kann mit zweidimensionalen bildgebenden sowie dreidimensionalen abstrakten Inhalten bespielt werden. Die NOVA kann nicht nur abstrakte Visualisierungen, sondern auch fotografische und filmische Bildsequenzen darstellen. Der alte Gruppentreffpunkt wurde extra durch einen neuen Glaskubus ersetzt, an welchem mittels Touch-Screen die Leuchtkörper gesteuert werden können.

Fläche Display: 5 x 5 Meter, Höhe 1 m Leuchtkörper: 25'000 Licht-Kugeln

Gewicht: 3.3 Tonnen

Links

http://www.nova.ethz.ch/

References

Live am Hauptbahnhof Zürich

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OURS OF TAXIS

32-48.099) • TIMEFRAME 25 JULY 2011 FUNG RATE REALTIME / EXACT LOCATION

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Sense of Patterns

Sense of Patterns is an on-going project, a series of printed data visualizations aiming to depict the behaviors of masses in different public spaces. The visualizations have a focus on the patterns of moving entities in public like commuters, cars and public transportation vehicles as well as the interaction between these entities and physical structures like roads, sidewalks, buildings and parks. The project intends to provide strong visuals on what we all experience in our daily lives in different cities.

Links

http://casualdata.com/senseofpatterns/ http://vimeo.com/28775555

References

http://www.afo.at/event.php?item=6517 http://www.visualcomplexity.com/vc/project_details.cfm?id=768... http://www.visualizing.org/stories/ga-mahir-yavuz

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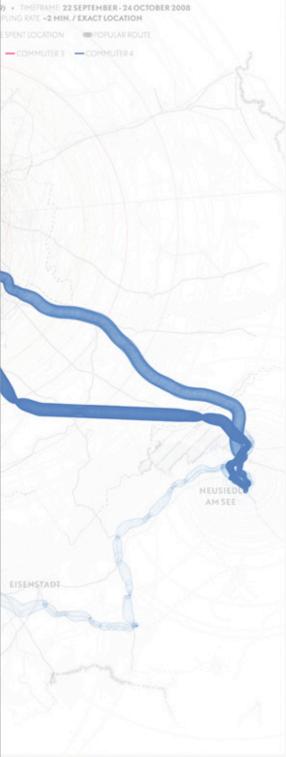
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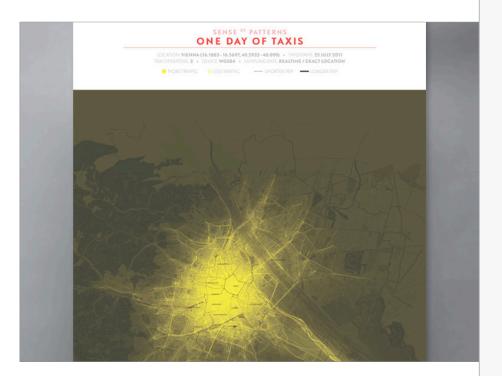
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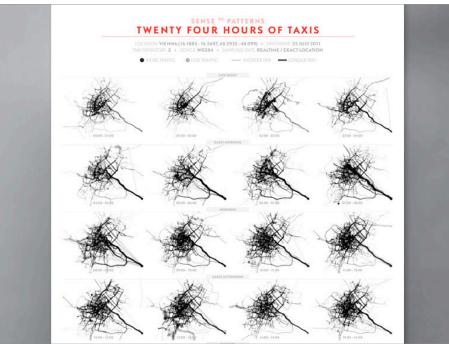
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☐ Wall

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☐ Floor

AMUTERS 9 - TIMÉFRAMÉ 22 SEPTEMBER-24 OCTOBER 200







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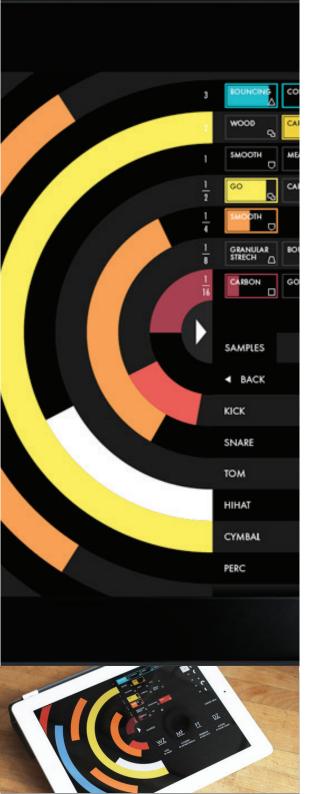
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WALZE - Radical Radial Sequencing

After a year of developing a polyrhythmic beat sequencer in the context of design studies in Augsburg/Germany, we are a proud to introduce the new iPad app WALZE this summer.

RADIAL ARRANGEMENT

In contrast to conventional sequencers, in WALZE loops are arranged in circles. So unnecessarily repetitions can be avoided. Simply draw circles, arrange your loops and get an experience how easy it is.

FLEXIBLE BARS

From the most inner circle with the smallest note value, to larger outer circles, you have got the flexibility to arrange your set according to your needs. You can even switch on filters in addition to work with unusual meters.

LINEAR STAGE

Here you drag the samples you want to play with your set of circles. They are arranged in a row and get played one after another everytime when a circle hits the twelve.

.....Found in PAGE magazine, nice intuitive interface

Links

http://walze.is/awesome/ http://vimeo.com/43632351

References

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BURMA BURMA Air France pluges catalunya generalitat Oposicio partit FINANÇAMENT elecció

AmbientNEWS

AmbientNEWS is a large-scale display, which targets a shared space, characterised by an intense and multivariate flux of information and social activity, such as the newsroom space of a broadcasting company. It aims to augment the awareness of people of its proximity on news topics of their interest and promote discussion of tendencies in local and global geopolitical events. The AmbientNEWS system mines recent global news and developing stories from the web and at the same time local topics related to inhabitants of the shared space. The temporal evolution of information is shown by a dangling flowers animation, which represents the continuous flow and development of the topics by causing the flowers to emerge, grow, proliferate petals, or vanish subtly in response to changes in the online news landscape.

The auto-reactive display is designed to be integrated in the upper part of a facade of the inner architectural space of the shared environment thus visible from various viewing angles - considering peripheral attention as an alternative medium of communication in such a complex setting. This case study is conceptualised to reflect on how the design of integrated peripheral displays into shared spaces can augment awareness and serendipitous discovery, by affording ambient aesthetic engagement with information with complex data at the periphery of attention.

Links

http://ninavalkanova.com/?p=16 https://vimeo.com/10459930

References

Urban media cultures [(Re)Shaping the public space through urban screens and media architecture - eds

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Large Displays in Urban Life: from

http://largedisplaysinurbanlife.cpsc.ucalgary.ca/results.html http://ninavalkanova.com/?p=92

References

Example: Health Care

Waiting environment to mitigate

- Interaction technologies are rel

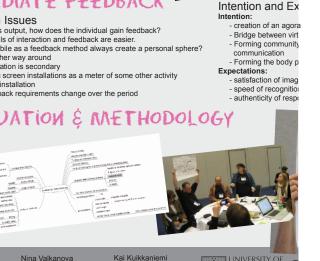
- Recreational, portholes, wayfind

- Info material about medicine In-

Multi-user social context can be

Specifics: Personal identification

CALGARY



Giulio Jacucci

Displays in Urban

WORLD SCENARIOS

and inspired by existing problems to drive the agenda

-World Examples?

chnology-push ,reality-pull

ettings examples:

building, or neighbourhood

Ernesto Arroyo

s: Intervention Studies deployment, approvals

world benefits

pplication dow, shopfront

collaboration

xhibition Halls to Media Facades

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argedisplaysinurbanlife.cpsc.ucalgar

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Immaterials - Data between visibility and invisibility

Designers are increasingly faced with the problem of understanding and visualizing data-filled space and making it inhabitable. In their book Anthony Dunne and Fiona Raby, who conduct research in the field at the Royal College of Arts, speak of the electro-climate and the electro-geography – which can effect architecture just as the real climate can – and refer to it as »hertzian space. « The two designers think of electromagnetic fields full of data. But in times of geospatial data and location-based services data also assumes this wave field-like materiality. Are screens an appropriate medium for this? What is the form of these metadata?

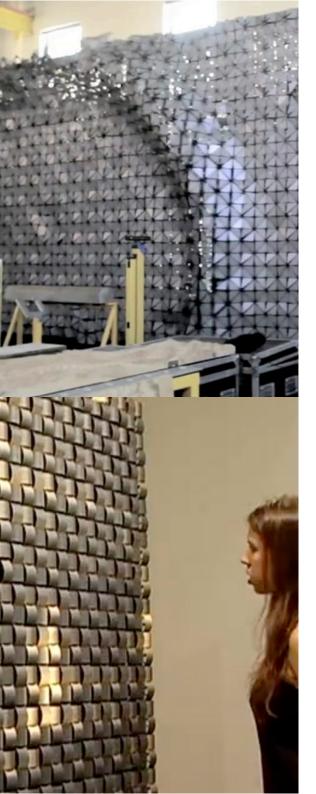
Links

http://www.onformative.com/work/immaterials/

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Mark Goulthorpe - HypoSurface

HypoSurface is the World's first display system where the screen surface physically moves! Information and form are linked to give a radical new media technology: an info-form device.

The surface behaves like a precisely controlled liquid: waves, patterns, logos, even text emerge and fade continually within its dynamic surface. The human eye is drawn to physical movement, and this gives HypoSurface a basic advantage over other display systems.

Links

http://www.youtube.com/watch?v=np0j7uoKMbY http://vimeo.com/47845783 http://hyposurface.org/

Wooden Mirror - Daniel Rozin

New York-based artist Daniel Rozin creates interactive installations and sculptures that have the unique ability to change and respond to the presence of a viewer. His best known works respond in real time and recreate a live visual representation of the viewer's likeness, staging the audience as an active and creative part of his art projects.

Merging the geometric with the participatory, Rozin's installations have long been celebrated for their kinetic and interactive properties. Grounded in gestures of the body, the mirror is a central theme of Rozin's practice. In his art, surface transformation becomes a means to explore animated behavior, representation, and illusion.

Links

http://www.bitforms.com/daniel-rozin-gallery.html http://vimeopro.com/bitforms/rozin/video/7067089

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Kunsthaus Graz

Architects: Peter Cook und Colin Fournier

The BIX communicative display skin, designed by realities:united, integrated into the main eastern façade of the Kunsthaus Graz, Austria (2003).

Links

http://spacelab.co.uk

References

Book: Performative Architecture - Beyond Instrumentality, Branko Kolarevic, Spon Press

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Toni Areal Background Research













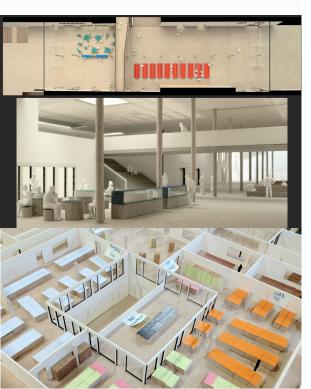












Orte des Informellen

The Zurich University of the Arts and the Zurich University for Applied Sciences ZHAW are realizing in Zurich-West a unique high school campus.

In the spatial areas between institutions and departments at the future Toni-Campus 'informal places' will arise. These areas will intentionally enable informal learning and encounter between the disciplines.

The requirement of spatial 'voids and wastelands' – which are not occupied by an aesthetic and functional architecture - seems to be an essential target. Not the architecture needs another plattform but learning, working, exchange and experiment.

The project 'informal places', initiated by the ZHdK and the ZHAW, veryfies and realizes the needed interventions to achieve the comitted target.

Links

http://informalplaces.wordpress.com

Notes & Analysis

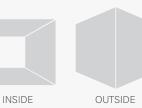
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HyperAura - Spaces of Attention

Die momentan auf mehr als 35 Standorte verteilte Zürcher Hochschule der Künste (ZHdK) bezieht ab Mitte 2013 einen Campus im Toni-Areal in Zürch-West und wird damit erstmalig mit allen Disziplinen an einem Ort vereint sein. Der neue Campus stellt entscheidende Weichen für die Art und Weise, wie an einer Kunsthochschule gelernt, geforscht und kreativ produziert wird.

Vor diesem Hintergrund hat die ZHdK im Jahr 2011 unter dem Titel «Orte des Informellen» eine Reihe von Projekten gestartet, die die Fragen behandeln, wie das Toni-Areal als Plattform für Innovation genutzt und wie das informelle Lernen und der Austausch der verschiedenen Disziplinen untereinander gefördert werden können.

Informelles Lernen, Social Networks und interaktive Strategien sind relevante Fragestellungen für eine Bildungs- und Kulturinstitution wie die ZHdK. Die vorgesehene Installation ist eine innovative Entwicklung, die diese neuen Technologien dazu benutzt, um den informellen Austausch zwischen den Studierenden, Dozierenden und Mitarbeitenden im Toni-Areal zu fördern.

Durch die interaktive Verknüpfung des Medienarchivs der Künste – einem digitalen Archiv, in dem die Arbeiten und Projekte der ZHdK-Angehörigen gespeichert werden – mit dem realen Raum werden Projektskizzen und -dokumentationen jeweils dort aufscheinen wo sich die Autorinnen und Autoren der gezeigten Arbeiten real aufhalten. Dies kann im Windfang, auf einem speziell dafür entwickelten Tisch in der Mensa, im Kino-Foyer (z.B. für Filmtrailer studentischer Projekte) oder als Wandprojektionen in der Eingangshalle realisiert werden.

Links

http//hyperaura.com

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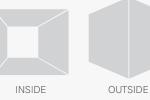
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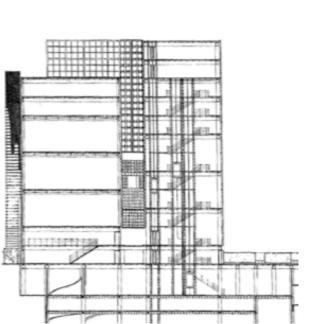
Dynamic Ornament

The Design of Responsive Architectural Envirement, Mark Meagher EPFL

This thesis study investigates the architectural potential of digital in-formation, using case studies and prototypes to explore the integration of dynamic information in the architectural environment. Responsive architecture, a design field that has arisen in recent decades at the intersection of architecture and computer science, invokes a material response to digital information and implies the capacity of the building to respond dynamically to changing stimuli. One important function of responsive architecture is the communication of dynamic qualities of the environment, a function that has the potential to enhance the experience of the building by giving expression to its fleeting, change- able aspects.

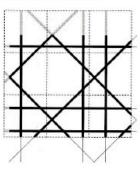
References

Dynamic Ornament: The Design of Responsive Architectural Envirement, Mark Meagher EPFL

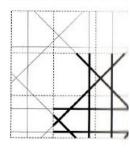


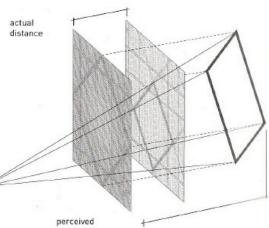
in affect through an offset pattern of dots on two ombination produces a flickering view through an

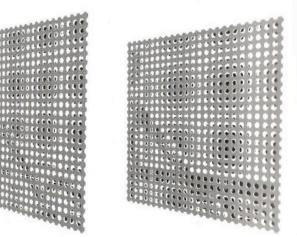
3 Inner and outer panels align, but the smaller pattern is shifted relative to the grid.



4 The smaller pattern repeats every two panels and the larger every thre so they appear not to allo







The Function of Ornament

A graphic guide to ornaments produced by building envelopes in the 20th century. The growth in size and number of "blank" building typologies that do not require any contact between the interior and exterior has provided an opportunity to look at new performances for building envelopes: liberated from their association with the interior core, these envelopes can explore perceptual effects targeted to the urban realm. A renewed discussion on ornament has become increasingly relevant as the figure of order and shape that emerges from the construction of these effects. This book is a graphic guide to ornaments produced by building envelopes in the 20th century. Unveiling the function of ornament and dismantling the idea that ornaments are applied to buildings as discrete or non-essential entities, the book traces contemporary experiments in envelope design, focusing on the relation between material and effect.

References

The Function of Ornament, ed. by Farshid Moussavi

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BIOTECHN REMARKS INTENSITY CONDITION

Biotechniques: Remarks on the

Intensity of Conditioning

WILLIAM BRAHAM

The term "biotechniques" was coined by the architect Frederick Kiesler in 1939 to indicate the equivalence between biology and technology.2 He was affiliated with Buckminster Fuller's Structural Studies Associations at the time and he used the term to distinguish his thinking from the more direct imitation of biological forms or processes, which today we call biomimicry, and was being called biotechnics by Patrick Geddes, Louis Mumford and Karel Honzik in Kiesler's time.

"Man = Heredity + Environment. This diagram expresses the continual interaction of both the total environment on man and the continual interaction of its constituent parts on one another." From Kiesler, "Correalism and Biotechnique."

Links

http://works.bepress.com/william_braham/11/

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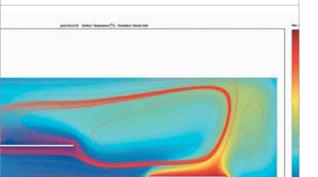
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/ILLIAM BRAHAM







Interview Philippe Rahm:

"Form and Function follow Climate"

Every quest for comfort, be it in terms of organ- ising space or, as in your work, the "biological" or even "physiological" dimensions of space, is linked to the issue of control. As you admit in an interview in the magazine ICON, work on the "physiological" data of a dwelling enables you not only to control but also to manipulate fac- tors such as sleepiness, mood, wellbeing and so forth. In that interview you even use the term "perversion" to describe this potential.

The architect's role would hence no longer be simply to question tectonic limits; he would also address the border between the inside and outside of the human body?

Links

http://www.wolfsberg.com/documents/Interview_PhilippeRahm.pdf

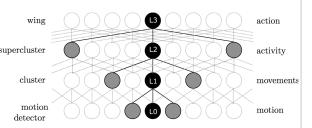
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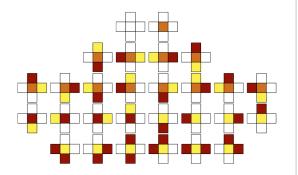
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Technology Background Research

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Toward Scalable Activity Recognition for Sensor Networks

We have shown that a network of simple motion detectors can be used to re-cover useful information about the state of a building in an efficient, scalable, and privacy-friendly manner. It is possible to recognize both simple movements (walking, loitering, entering a room) and more complex activities (visiting and meeting). We see these low- and mid-level behavior detectors as the building blocks for high-level understanding of the context of a building. The movement detectors are intentionally simple to allow mod- est computational engines to evaluate them despite relatively high input data rates. The movement detectors locally summarize the data, lowering the data rate and making the more demanding activity recognition models tractable, al-lowing us to scale up the extent of our network. We have also presented a list of movements that appear to generalize well to novel contexts. We argue that these low-level detectors can provide a powerful tool, enabling the analysis of building activity without the need for significant adaptation to novel contexts. This scalable, reusable, efficient, privacy-friendly framework for behavior understanding in buildings enables an enormous field of applications for the future of responsive buildings.

Links

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References

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LEAP Motion

For the first time, you can control your computer in three dimensions using just your hand and finger movements and Leap Motion enabled software. The possibilities are endless: Art. Healthcare. Engineering. Gaming.

This isn't a game system that roughly maps your hand movements. The Leap Motion controller is 200 times more accurate than anything else on the market — at any price point. At just about the size of a flash drive, it can track your individual finger movements to 1/100th of a millimeter.

Leap Motion is a breakthrough technology focused on bringing motion control to the desktop – instead of force-fitting TV technology into computers. The result? Touch-free, 3D motion sensing and motion control software that's unlike anything else on the market. Ever.

Links

https://www.leapmotion.com/

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Video Projector

Video mapping is a projection technology used to turn irregularly shaped objects into a display surface for projection. Using specialized software, a two or three dimensional object is spatially mapped out in a virtual environment. Using this information, the software can interact with a projector to fit any desired image onto the surface of that object.[1] Using this technique, artists can add extra dimensions, optical illusions, and notions of movement onto previously static objects. The video is commonly combined with, or triggered by, audio to create an audio-visual narrative.

High performance Projector

Der F35 ist der weltweit vielseitigste professionelle Hochleistungsprojektor. Die Modelle verfügen über eine Auflösung von bis zu 2560 x 1600 Pixeln. Die Ultra High Quality Projektionslinse, eine Lichtleistung bis zu 7500 Lumen und die Möglichkeit der aktiven und passiven 3D-Stereo-Darstellung unterstreichen den Anspruch an Hochwertigkeit und Professionalität dieser Serie.

Projektion als Bühnenbild

Abgesehen von einigen Requisiten besteht das Bühnenbild ausschliesslich aus 10 transparenten Stoffbahnen die beweglich aufgehängt als Projektionsflächen dienen.

Links

http://videomapping.tumblr.com/ http://www.projectiondesign.com/de/products/f35-series http://www.tdc.com.au/projection/barco-flm-hd20-dlp-projector http://www.georglendorff.ch/

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