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[CONFERENCE FOR ARTISTIC AND ARCHITECTURAL (DOCTORAL) RESEARCH] TU Berlin, Friday September 28 2018 – Monday October 1 2018

Friday September 28

RESEARCH BY GESTALTEN (IFA FORUM)

15:00–16:00 Conference Registration

- 16:00–16:15 Jürgen Weidinger. Berlin Design Based Phd Program introduction (PEP)
- $16{:}15{-}16{:}45 \text{ Magdalena Droste. Form-Creation at the Bauhaus. Methods and their } \\ Optimization from Theory to Praxis$

16:45-17:00 BREAK

- 17:00–17:30 Wolfgang Jonas. Playing Fields and Circularities Some Specifics of Design Research
- 17:30–18:00 Wolfgang Schäffner. Material & Gestaltung: Perspectives of Interdisciplinary Research
- 18:00–18:30 Round table with Magdalena Droste, Wolfgang Jonas und Wolfgang Schäffner. Moderator: Ralf Pasel
- 18:30 **DRINKS**

Saturday September 29

9:00 BREAKFAST

- 9:30 18:00 Presentations and sessions
- 9:30-10:30 Panel 1A (A052): Federico Cioli. Artisans and Craftsmanship. The Florentine Historical Commercial Activities
 - SC: Matevž Juvačič, Thierry Lagrange, Alessandro Rocca*, Filipa Roseta

Panel 1B (A060): Roland Poppensieker. Zeichen und Erinnerung

SC: Donatella Fioretti, Ralf Pasel*, Claus Peder Pedersen, Edite Rosa

Panel 1C (Forum): Uwe Rieger. Real Time Reactive Architecture - A Fusion of Physical Materiality and Digital Information

SC: Matthias Ballestrem, Ignacio Borrego*, Corneel Cannaerts, Cyrus Zahiri

- 10:30-11:30 Panel 2A (A052): Javiera Gonzalez Zarzar. Architecture, Discourse, and Work within Migrating Spaces. Chile 1980-2010
 - SC: Roberto Cavallo, Thierry Lagrange, Ralf Pasel*, Bostjan Vuga

Panel 2B (A060): Marta Fernandez Guardado. Home: Things and Bodies SC: Matthias Ballestrem^{*}, Matevž Juvačič, Sergio Martín de Blas, Edite Rosa

Panel 2C (Forum): Agata Kycia. Hybrid Textile Structures as Means of Material-Informed Design Strategy

SC: Anders Kruse Aagaard, Ignacio Borrego*, Charlotte Bundgaard, Corneel Cannaerts

11:30-12:30 Panel 3A (A052): Anne Mette Boye. Younger Industrial Areas as Free Zones for Urban Experiments

SC: Matevž Juvačič*, Sergio Martín de Blas, Alessandro Rocca, Filipa Roseta

Panel 3B (A060): Sara Cristina Molarinho Marques. Juha Leiviskä: Architecture as a Dialog between Body – Brain – Space

SC: Johan Van Den Berghe, Riet Eckhout, Edite Rosa, Tadeja Zupančič*

 $\label{eq:panel} \begin{array}{l} \mbox{Panel 3C (Forum): John McLaughlin. Construction of a Position. Prototype and Manifesto} \end{array}$

SC: Donatella Fioretti^{*}, Arnaud Hendrickx, Anne Katrine Hougaard, Bostjan Vuga

12:30-13:30 LUNCH

13:30-14:30 Panel 4A (A052): Eduardo Aguirre. Across Scales SC: Ignacio Borrego^{*}, Thierry Kandiee, Ralf Pasel, Cyrus Zahiri

Panel 4B (A060): Bernardo Amaral. From the Drawing Board to the Building Site: how to Inhabit Collectively the Architecture Project

SC: Roberto Cavallo*, Riet Eckhout, Anne Katrine Hougaard, Sergio Martín de Blas

Panel 4C (Forum): Kristof Gavrielides. Spatial Code Lab

SC: Anders Kruse Aagaard, Corneel Cannaerts, Filipa Roseta, Jürgen Weidinger*

14:30-15:30 Panel 5A (A052): Chiara Pradel. Moving Ground. Rethinking and Recycling Earth, Actions and Reflections in Landscape Architecture

SC: Thierry Kandjee, Bostjan Vuga, Jürgen Weidinger*, Cyrus Zahiri

Panel 5B (A060): Teresa Palmieri. Prototyping Residential Subdivisions. Experimenting with Prototyping for Collective Learning.

SC: Matthias Ballestrem^{*}, Roberto Cavallo, Sergio Martín de Blas, Petra Pferdmenges

 $\label{eq:panel 5C (Forum): Aileen Iverson. Rabbithole Research (rbt_h0l): Towards a Hybrid Modeling Technique in Architecture$

SC: Anders Kruse Aagaard, Charlotte Bundgaard, Corneel Cannaerts, Ralf Pasel*

15:30-16:00 BREAK

16:00-17:00 Panel 6A (A052): Hanna Malik-Trocha. Urban Inclusion – City Development Achieving Systemic Accessibility in Poland.

SC: Roberto Cavallo*, Eduard Führ, Thierry Kandjee, Petra Pferdmenges

Panel 6B (A060): Ana Kreč. Bridging the Gap: Architecture Practice as a Bridge between Parallel Aproaches to Similar Problematics.

SC: Johan Van Den Berghe, Claus Peder Pedersen*, Riet Eckhout, Bostjan Vuga

Panel 6C (Forum): Sven Pfeiffer. Material Machine Trajectories SC: Anders Kruse Aagaard, Charlotte Bundgaard, Corneel Cannaerts, Jürgen Weidinger*

17:00-18:00 Meeting for organizers

19:00-23:00 DINNER at the Geodäten Rooftop

Sunday September 30

- 9:00 BREAKFAST
- 9:30 18:00 Presentations and sessions
- 9:30-10:30 Panel 7A (A052): Isabel Zintl. Vertical Open Spaces SC: Thierry Lagrange, Jürgen Weidinger^{*}, Cyrus Zahiri, Tadeja Zupančič

Panel 7B (A060): Tiago Molarinho. Proportion and Metric Systems in the Portuguese Building Tradition.

SC: Margitta Buchert, Arnaud Hendrickx, Donatella Fioretti*, Eduard Führ

Panel 7C (Forum): Tim Simon-Meyer. The Potential of a Haptic Approach for the Perceptible Quality of Architecture

SC: Matthias Ballestrem^{*}, Johan Van Den Berghe, Charlotte Bundgaard, Lidia Gasperoni

10:30-11:30 Panel 8A (A052): Sophie Holz. Aesthetic of Climate – The Potential of Microclimate as Immaterial Element for the Design of Distinctive Places in Landscape Architecture

SC:, Thierry Kandjee, Claus Peder Pedersen, Jürgen Weideinger*, Cyrus Zahiri

Panel 8B (A060): Wiktor Skrzypczak. Introduction to a Somatic Inquiry of Architectural Space SC: Matthias Ballestrem^{*}, Margitta Buchert, Lidia Gasperoni, Bostjan Vuga

Panel 8C (Forum): Mania Lohrengel. Eco without "Jute" SC: Charlotte Bundgaard^{*}, Riet Eckhout, Arnaud Hendrickx, Sally Stewart

11:30-12:30 Panel 9A (A052): Petra Pferdmenges. Lived Space

SC: Johan Van Den Berghe, Anne Hougaard, Matevž Juvačič, Claus Peder Pedersen*

 $\label{eq:panel-9B-1} Panel \ 9B \ (A060): \ {\mbox{Sebnem Cakalogullari}}. \ {\mbox{Accident: Transformative Effects of Organic} and \ {\mbox{Mechanical System unity in Architectural Space and Time Experiences} }$

SC: Margitta Buchert, Donatella Fioretti*, Eduard Führ, Edite Rosa

Panel 9C (Forum): Petra Marguc. Displaced.What is the Productive Distance to Situate oneself as an Architect in Transversal Design? SC: Ignacio Borrego*, Arnaud Hendrickx, Sally Stewart, Tadeja Zupančič.

12:30-13:30 LUNCH

13:30-14:30 Panel 10A (A052): Nafiseh Mousavian. Porosity and Playfulness SC: Johan Van Den Berghe^{*}, Eduard Führ, Lidia Gasperoni, Alessandro Rocca Panel 10B (A060): Tomas Ooms. Arrows of Operationality: (Un)Folding the Manifold Work(S)

SC: Margitta Buchert, Riet Eckhout, Anne Katrine Hougaard, Ralf Pasel*

Panel 10C (Forum): Viktorija Bogdanova. Poem-Drawings: Instantaneous Emotive Traces of the Design Process

SC: Donatella Fioretti*, Arnaud Hendrickx, Sally Stewart, Tadeja Zupančič

14:30-15:30 Panel 11A (A052): Chiara Scanagatta. Guidelines for the co-Design: how to Solve Urban Issues

SC:, Johan Van Den Berghe*, Matevž Juvačič, Alessandro Rocca, Filipa Roseta

Panel 11B (A060): Erika Henriksson. Exploring Architecture: The Architectural Making Process as Filedwork and Therapy

SC: Roberto Cavallo, Lidia Gasperoni, Claus Peder Pedersen, Tadeja Zupančič*

Panel 11C (Forum): Maja Zander. Agencies in Architectural Becoming – Intermedial and Cross-aesthetical Transpositions

SC: Jürgen Weidinger*, Anne Katrine Hougaard, Thierry Lagrange, Sally Stewart,

15:30-16:00 BREAK

16:00 Plenary Session (Forum)

Monday October 1

9:00 BREAKFAST

10:00 - 12:30 Sessions on Research methods for PhDs and supervisors (Forum)

* Each Panel will have one pannel member as moderator in charge of procedure and timing



Technische Universität Berlin Fak.VI Institut für Architektur

Straße des 17. Juni 152 10623 Berlin

Subway Station: U2 Ernst-Reuter-Platz







SCIENTIFIC COMMITTEE

Alessandro Rocca Anna Katrine Hougaard Bostjan Vuga Charlotte Bundgaard Claus Peder Pedersen **Corneel Cannaerts** Cyrus Zahiri Donatella Fioretti Edite Rosa Eduard Führ Filipa Roseta Vaz Monteiro Gabriele Schultheiss Ignacio Borrego Johan Van Den Berghe Jürgen Weidinger Lidia Gasperoni Margitta Buchert Matevž Juvačič Matthias Ballestrem **Oya Atalay Franck** Ralf Pasel **Riet Eckhout** Roberto Cavallo Sally Stewart Sergio Martín de Blas Susanne Hauser Tadeja Zupančič **Thierry Lagrange Thierry Kandjee** Petra Pferdmenges Arnaud Hendrickx Viktorija Bogdanova

PRESENTERS

Aileen Iverson Teresa Palmieri Isabel Zintl Ana Krec Uwe Rieger Mania Lohrengel Sven Pfeiffer Marta Fernandez Guardado Eduardo Aquirre **Roland Poppensieker** Javiera Gonzalez Zarzar Wiktor Skrzypczak Tomas Ooms Agata Kycia Anne Mette Boye Oliver von Spreckelsen Bernardo Amaral Chiara Pradel Hanna Malik - Trocha Sebnem Cakalogullari Federico Cioli Petra Marguc Tiago Molarinho Petra Pferdmenges **Kristof Gavrielides** John McLaughlin Sophie Holz Maja Zander Tim Simon-Meyer Erika Henriksson Chiara Scanagatta Sara Cristina Molarinho Marques Nafiseh Mousavian Viktorija Bogdanova

GUESTS

Onur Özdemir David Moritz HinterhofF Thilo Folkerts Hans Drexler Stefan Bernard Simon Banakar Šárka Malošíková Boštjan Botas Kenda Luo Li Guro Sollid Steffan Robel Otto Paans Theodora Constantin Petra Vlachynská Michael McGarry **Gennaro** Postiglione Dimitra Almpani-Lekka Daria Kovaleva Marie Boltenstern Maria Faraone Viktorija Bogdanova

KEYNOTE SPEAKERS

Magdalen Droste Wolfgang Schäffner Wolfgang Jonas



ABSTRACTS

Agata Kycia TU Berlin

PhD Candidate

HYBRID TEXTILE STRUCTURES AS MEANS OF MATERIAL-INFORMED DESIGN STRATEGY KEYWORDS material form-finding, 3D printing on textiles, lightweight textle structures, the performative building envelopes, self-shaping textiles

 ABSTRACT Data test and choicese on potential applications of fightweight testile structime test and building industry. The tended of more co-friendly and tighter materials, more fiexable designs and substantial cost reduction create new possibilities for testiles as construction material. Development of highly engineered, programmable fibers as well as new 3D printing technologies allow for re-infoculating faculties into the build environment as sections.

The special intelligibate the behaviour of 30 printing on the stream for the provide the special basic provides and show one provide the stream of provide the special basic provides and show one provides the stream of provides and the special provides of the stream of the stream of the statistic of the special basic provides of the stream while the booking into performance, modularity and scatability. The position, geoendry and height of the 30 printed form can locally affect the domain. This statistic of the taking into the tension is released. Such method enables precise the matterial needed to fabricity the togetted the commonship lates the tension of the tension of the stream of the model of the tension special and the matterial needed to fabricity the tension fabric the tension of the tension of the stream of the stream of the tension the stream of the matterial needed to fabricity the tension the stream of the tension tension of the tension of the stream of the tension of the tension of the tension of the tension tension tension tension tension tension of the tension of the tension of the tension of the tension tension

mouses: tuuty for this investigation is a texilie sun-sharing module de weighed into a 11 scale prototype aged of the S-84 Sharing Texilies seminar at the Weissensee Kunsthochschule Berlin. The course was noon in collaboration with the T-cask the Prototyping Last as well as the Sachsische Texilforschungsinstitut STFF in Ohennitz, where the service was manufactured.

2. MATERIAL FORM-FINDING The study uses one of the methods for

SELE-SHAPING TEXTILES /// EXPERIMENTS IN A SMALLER SCALE



✓ Assembly of 9 direar modules, 10m dameter each









Agata Kycia

Hybrid Textile Structures as Means of Material-Informed Design Strategy

Proposed research aims at providing novel applications for lightweight textile structures in the building industry. As construction becomes more digital and design increasingly physical, the objective is to re-introduce craftsmanship and materiality into architectural design.

The need of more eco-friendly and lighter materials, more flexible designs and substantial cost reduction create new possibilities for textiles as construction material. New digital fabrication technologies such as additive manufacturing as well as development of highly engineered, programmable fibers allow for re-introducing textiles into the build environment as lightweight, efficient and sustainable solution.

The study explores potentials of self-forming textile structures generated through 3D printing on pre-stressed fabrics. It focuses on potential architectural applications of that system while looking into modularity, variation and scalability. By introducing hierarchy into the 3D printed elements, various degrees of shrinkage are possible within one printed sample. Variable height and geometry of the printed filament allows local influence on the deformation of the fabric. This method enables precise control over the geometry and aims at minimizing the material needed for fabricating three-dimensional textile modules.

As additive manufacturing becomes more affordable and textiles more and more robust, proposed methodology suggests potential novel applications for light-weight textile structures in the building industry.

ARENA ELA

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Technische Universität Berlin



Aileen Iverson RA, LEED AP

PEP Programm Entwurfsbasierte Promotion,TU Berlin Architecture, Prof. Ralf Pasel Rabbithole Research: Towards a Hybrid Modeling Technique in Architecture



Aileen Iverson

Rabbithole Research (rbt_h0l): Towards a Hybrid Modeling Technique in Architecture

crisis:

This research responds to a perceived crisis in contemporary architecture: the removal of architectural design, specifically modeling, from a tactile process to a digital process and its separation from physical space and its forces (gravity, tension, compression, etc.). Both separations occur as a result of designing (modeling) in the neutral vacuum of digital CAD.

why crisis:

Architects think-through-making and design-process can be understood as conceptual analysis through formal manipulation. Therefore the separation of form-making from haptic workability creates a crisis in design by creating a significant rupture in the thought process of the architect as well as in the ability of form (models) to interact with the complexities of physical space.

goal:

Responding to this crisis, this research seeks to create a hybrid physical-digital modeling technique, effectively creating a tactile engagement with digital objects. Further, the development of a hybrid modeling technique can be seen as part of a post-digital era of contemporary architectural practice - having achieved a high degree of comfort and dependence on digital methods, allows the development of techniques seeking to work more intuitively within digital systems.

contrapposto:

This research is inspired by the technique of contrapposto as found in Classical Sculpture, in which a figure is intentionally placed in an unbalanced relationship with respect to gravity, producing an interlocking relationship between object and space.

hybrid-modeling experiments:

Current experiments presented focus on the development of this hybrid modeling technique: linking a physical model (integrating digital sensors and micro controllers) to a digital model, such that actions performed on the physical model direct the articulation of the digital model.

Further, using contraposto as a guide, both sides of this hybrid process, physical and digital, are placed in non-neutral relationship relative to virtual (digital) and real (physical) gravity. This ensures that in the resulting hybrid modeling method, formal manipulations respond to gravity as well as additional applied forces (tension, compression, material weight and properties) – and seeks to return to architectural modeling as a thought process as well as a formal solution, the ability to address the complexity inherent in 3D space.

CA2RE

Conference for Artistic and Architectural (Doctoral) Research

Ana Kreč

KU Leuven, Department of Architecture, Campus Sint Lucas Brussels Bridging the gap: Architectural practice as a bridge between parallel

Bridging the gap: Architectural practice as a bridge between parallel approaches to similar problematics



CA² RE

Ana Kreč

Bridging the Gap: Architecture Practice as a Bridge Between Parallel Approaches to similar Problematics

Within my practice based doctoral research I am investigating the spatial and social potential of neglected, 'sore', left-over 'in-between' space in educational buildings, by exposing, re-mediating, healing and transforming them into places of events, joy, comfort, interaction, negotiation, seclusion and delight – what we call the 'loaded nooks'. By healing the 'left-overs' and transforming them into 'loaded nooks', we wish to physically improve the existing spatial and social climate of educational buildings from the inside out and at the same time build numerous case studies, that would help us improve the existing social reality and rigid typologies of educational architecture, that is (at least in Slovenia) governed by the strict, non-flexible normative and legislation for designing educational buildings.

The forthcoming presentation at Berlin CA2RE Conference will give an insight into a series of research interviews where I am (as an architect-researcher) acting like a bridge between various groups of people and realms in order to evaluate and position our built work among a wider audience and stakeholders. Interviews with our clients (headmasters) and users (pupils and pedagogical staff) who are experiencing and observing our 'loaded nooks' daily, can help me demonstrate the non-quantifiable notion of delight in our work in a more 'touchable', visible, 'hands on' way, through describing materials, light, colour, positive and negative experiences, their emotions, ... In this way I might develop a common language that all stakeholders: designers, pedagogues, politicians, etc. can understand and work together towards the improvement of the rigid legislation for designing school buildings, that should look beyond the A+B+C formula and mere quantification of space.

Above all, this practice-based research wants to put the material source of our practice (built case studies together with studied documents, strategies, legislation and interviews with our stakeholders) into service of improvement of architectural interventions and help create a political readiness, to support, finance and liberate the context in which we work as architects from a number of constraints.

Anne Mette Boye Aarhus School of Architecture

Younger industrial areas as free zones for urban experiments



Anne Mette Boye

Younger Industrial Areas as Free Zones for Urban Experiments

This article will discuss the potential of urban areas in an uncertain state as free zones for urban experimentations.

The argumentation takes its point of departure in a case study of three younger industrial areas in Denmark. The study is part of the Ph.D. project. These industrial areas are built as enclaves from the 1950s onwards. They represent a legacy of the functionalistic paradigm, which creates the morphology of the urban landscape found in many western countries. They consist of prefabricated storehouses and outside storage spaces, building sites, abandoned buildings, newly refurbished offices and high-end production facilities. They function as isolated enclaves and are not a part of the cultural aesthetic understanding of the city.

However. Case studies created through site-walks, mappings and interviews show they are now more complex. The registered activities are diverse and include e.g. dance projects, karate clubs, senior communities, yoga and massage, a used good marked, a fitness center and a local brewery.

This transformation of areas of production to new kinds of neighborhoods is seen before. Often the changes are initiated by artists, and later the area goes through gentrification establishing it as a new stable area in the city. Unlike these, the younger industrial areas have something else is at stake. It is not attracting artists, but a wide range of local entrepreneurs. A free zone for experiments with everyday dreams.

As these changes can be seen a number of places and it is not just relevant to create a portrait of the current changes, but also to discuss the potential of the areas' current uncertainty and heterotopias character as a valuable part of the urban fabric.

In the article, this potential is discussed through Graham Shanes interpretation of Michel Foucault term heterotopia in an urban setting and the notion of porosity developed by Paola Vigano. The discussion is developed and unfolded through a description of the typology (the role of architecture and the relation to the city), the plannings acts regulation/dispensations (the planners practice) and the atmosphere of the area (the social-aesthetic experience and identity).

The findings are created through maps, diagrams and drawings and the initial conclusion will be presented in a power point presentation, supported by posters with the illustrations.



 Name
 Surname
 Bernardo Amaral

 Home
 Institution
 University of Coimbra

 Research Title
 From the Draftboard to the Building Site:

 how to inhabit collectivelly the architecture project

CA² RE

The current research is centered on the study of architectural practice as a collective process, specifically as a social and labor practice. The selected focus is on architectural practices that embrace a critical revision of its production relations, by adopting diverse participatory and collaborative instruments in the design and building processes, aiming at a social and political agency of architectural practice.

1. Architecture as a practice

Architecture as a practice has been studied by authors such as Robert Gutman (1997), Judith Blau (1984), Dana Cuff (1995) in the USA, and by Albena Yaneva (2009) in Europe, addressing mainly architecture firms of different dimensions, working within the market economy. There are, though, other practices working for non-profit organizations or grassroots movements (in Latin American countries, but also in Europe and in the USA), that experiment collaborative and participatory methodologies, aiming at a more horizontal and inclusive design and building process (Awan, Schneider, Till 2011). Some of these practices have gained a relative media exposure in the last 10 years in architecture publications and exhibitions, linked to the resurgence of the debate on the social and political role of the discipline.

2. Architecture as social and collective practice

The quest for a social architectural practice has been triggered in the 1960's by committed architects such as Giancarlo de Carlo (1969), Lucien Kroll or John F.C. Turner, among others, who developed participatory design processes with the future dwellers of collective housing projects in Europe and Latin America (Jones 2005). In Portugal, following the Carnage Revolution in 1974, the architect and secretary of state Nuno Portas launched an innovative public housing program called SAAL, that promoted the construction of circa 170 housing projects trough participated design processes between architects and local dwellers associations(Banderinha 20007). Similar programs were also launched in Uruguay (FUCVAM) and in Brazil (FUNAPS comunitário e MCMV Entidades), linked to grassroots movements and housing cooperatives, in which architects played a structural role in the participative design processes(Vilaça, Constante 2016). With the objective of bringing architecture closer to the biggest part of the population, architects working in these contexts questioned the discipline, namely its design and communication tools and its production relations. In this realm, the contribution of the Brazilian architect and critic Sergio Ferro (Khoury 2003) and his essay "The Building Site and the Drawing" (Ferro 1976) is of major relevance, shedding a light on the gap between the design and building processes in common architectural practices. Ferro, who analyses architecture from a political economy perspective, will draw a critique of the role that architects play in the precarious labor conditions to which construction workers are submitted. Ferro's position does not end at the revision of production relations in the design process but continues into the building site. In further essays, Sergio Ferro will propose the complete revision of production relations in the design and building processes, where architects, engineers, construction workers and dwellers should work together as a team, as a collective worker.

3. Objectives and research methodology

The primary objective of this research is to question the possibility of renewing architectural practice through the reconfiguration of its production relations and to characterize its consequences in the disciplinary knowledge. What do architects learn from the collective process of decision? What's the impact of this process on the definition of constructive systems and spatial configurations?

Understanding architecture as a social and labor practice, requires the appropriation of research tools from the field of design and labor ethnography. The work of Bruno Latour(2005) and Albena Yaneva(2008) considers the ethnography of a social phenomenon as a network of human and non-human actors with equal relevance, a perspective which I propose to adopt in the analysis of the architecture project by considering a network of human and non-human agents, such as models, drawings, images (Latour, Yaneva 2008).

4. PROPOSED CASE STUDIES

ARENA

The main body of this research is based on the participant observation of ongoing projects of selected practices, with the purpose of characterizing the planning tools and protocols used in the collective design processes. One of the case studies is the collective USINA, based in São Paulo, a group of architects that give technical assistance to housing grassroots movements in the area of São Paulo, and are strongly influenced by the vision of Sergio Ferro. USINA has over 25 years of experience in this field, having planned and built thousands of houses using participatory methods with self-governed workgroups, also called as mutirões. In France, the work of Patrick Bouchain and his office Construire (Bouchair0206) is also a proposed case study, due to the experimental work regarding the building site planning and more recently in rehabilitation projects. And in Portugal, the work of the Portuguese collective from Lisbon Ateliermob will be of relevance to understand the reconfiguration of production relations with public institutions.

Through the description of the diverse case studies, based on an ethnographic analysis of the working methods, it is my intention to take conclusions regarding its design and building process and its contribution to the opening of the discipline to a broader public, and by consequence to the enrichment of disciplinary knowledge, aiming to prove the relevance of the critical revision of production relations to architectural production.



 Villagio Matteoti, Terni, Italy, 1969 Giancarlo de Carlo © Pinterest http://architectuul.com



 Plenary with Inhabitants from Porto during the SAAL Housing Operations, 1975. Image © Sérgio Fernandez



3. The violent labor conditions of Brasilia's building site were part of Sergio Ferro's critique on architectural practice. Image © Marcel Gautherot



 Construction of Mutirão Juta Nova Esperança, Usina, Sao Paulo, 1994-1999, Image © Usina CTAH

Technische Universität Berlin

PEP

Bernardo Amaral

From the Drawing Board to the Building Site: How to Inhabit Collectively the Architecture Project

The current research is centered on the study of architectural practice as a collective process, namely as a social and labor practice. The focus is on architectural practices which embrace a critical revision of its production relations, adopting participatory instruments in the design and building processes and aiming at a social and political agency of architectural practice.

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Name Surname Chiara Pradel Home Institution Politecnico di Milano , Dastu - Department of Architecture and Urban Studies Research Title Moving Ground, rethinking and recycling earth. Actions and reflections in Landscape Architecture



Chiara Pradel

Moving Ground. Rethinking and Recycling Earth, Actions and Reflections in Landscape Architecture

Exhibition of photos with short descriptive texts

The initial point is a practice-based, empiric observation of an earth-mound placed in the middle of an area for an urban park to be realized in Tessin, during a preliminary site building survey. This encounter constitutes the beginning of my photographic, ethnographic (Yaneva, 2009) and ontological investigation on moving ground actions in landscape, starting from the design experience as landscape architect by considering dropping, mass grading, sloping, contour-bunding, excavating, filling, founding actions and recycling inert waste practices.

Presentation of the research

Earthworks recently enter in our esthetic consciousness, for example as "sculptures in the expanded field" (Krauss, 1979) and thanks to land-art (Smithson, 1969), but since ancient human history the process of re-shaping the land with earth has had sacred, social, ecological, artistic, political, economic implications for metropolitan, urban, rur-urban and agricultural life (Bourdon, 1995).

The reflection investigates on how, nowadays, the act of moving ground and recycle inerts could have a meaningful role in landscape architecture creative process: may recycled earth be functionally used as a living, cultivable resource, improving and supporting diversity, within the global economic and environmental status and the fundamental aims of the 7th Environment Action Program and of the UN Sustainable Development Goals?

Could an earth depot be considered as a transitory step for a temporary project in the continuous flow of events characterizing a site?

And, finally, how earthworks made by recycled inerts could change a still existing negative perception to become part of a landscape practice and of a renewed sublime collective imagination?

Starting from the first, field-based observations and descriptions, the research interlaces theoretical patterns, crossing the borders between a perspective on ecology (Braungart, Mc Donough, 2009; Bateson, 1979), proceeding trough the exploration on new methodologies in designing and representing moving ground in landscape (da Cunha, Mathur, 2001; Girot et al., 2013).

Realized study cases are examined as evidences of increasing innovative and creative praxis, together with a first hand approach of an on-going landscape project, which redesigns the topography of a site by moving and recycling earth.

Chiara Scanagatta **University luav of Venice**

Guidelines for the Co-Design: how to solve Urban Issues



1a. SCOPING

The first stage of the work was the scoping of issues. It helped researchers and policymakers to better understand the perception of citizens, and helped citizens to focus on what are their priorities when talking about urban issues.

Participants are able to create a

what is imp

point of contact with licymakers as they feel that someone is listening to them on ortant

1b. DATA COLLECTION

The co-monitoring stage turned out DATA COLLECTION to be very important as it has been an essential step to reach the codesign and it helped participants to Participants learn feel they are part of the process. how data are In LOOPER the co-monitoring was collected and feel more practical as participants could more in touch with decide where to monitor p ollutants what is happening with both official tools and with tools and which issues are for participatory sensing (qualitative more relevant. and quantitative data).

1c. VISUALISATION

The visualisation stage VISUALISATION helps participants to understand if their thoughts about urban Stakeholders can issues, and amount of see the result of pollutants present in their the work they have neighbourhood, were right done with the data collection. They car or wrong. This is essential to open up their mind about have a complete idea the possible mitigation of the situation.

2a. CO-DESIGN and future stages

The visualisation stage helps participants to understand if their thoughts should urbon icours of	CO-DESIGN		a. INTRODUCTION	b. URBAN CHALLENGES	PART 1 c. CO-DESIGN	
their neighbourhood were correct or incorrect. This means that when the co-design stage will start they will be able to have a complete overview of the situation. To make the most out of the co-design stage it will be possible to use a combination of	Stakeholders already actively participated to previous stages, this means they have all the tools needed for the co-design.			It will be a set of guidelines on good and bad practices seen in the case studies and in the state of the art.	The vademecum can be later implemented (both paper and digital versions) with other case studies	
online and offline tools which can help participants to express what they would like to do to solve issues.	They will be helped in the process to develop ideas.		d. CO-DESIGN and LEARNING LOOP	e. VADEMECUM	f. FURTHER DEVELOPMENTS PART 2	
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Chiara Scanagatta

Guidelines for the co-Design: How to Solve Urban Issues

My research aims to test how co-design can help to solve different urban issues and wants to produce a vademecum with guidelines on how to set a urban living lab to involve stakeholders for a co-design process. To do so I needed to study the state of the art, but I also needed to search for case studies with which to check which were the good and the bad practices.

The cases I'm having the opportunity to work with are two: one is the planning for a City of Sport in the city of San Donà di Piave (Italy) and the other is a European Research Project, funded under the JPI Urban Europe, called LOOPER (Learning Loops in the Public Realm) which will apply the learning loop to the co-design process. To better explain, in the City of Sport of San Donà di Piave the Public Administration decided to activate a simple co-design process which will end with the production of a Masterplan for the area. On the other hand the case study of the LOOPER project has the ambition of creating a new way of decision-making which bring together citizens, stakeholders and policymakers that iteratively learn how to address urban challenges. Here there are three cities involved (Brussels in Belgium, Manchester in the United Kingdom and Verona in Italy) and I'm currently helping with the pilot case of Verona. This is an implemented co-design process as stakeholders in the end are called to evaluate what they have done.

The methodology at the base of my research follows a predefined set of steps, some of which have already been done: study of the state of the art; search for some case studies; application of what have been learned from the state of the art to the case studies; check which practices can be considered as good, and which can be considered as bad, basing on their application to the case studies; cross the data collected from the state of the art and from the case studies; compare the case studies, as they use two different co-design processes.

The expected result of my research is that of creating a vademecum with a set of guidelines which can be used to solve different urban issues, such as planning problems or to air quality problems, using the co-design process applied to urban living labs. Also, using the methodology abovementioned the co-design process will be implemented and explained in a more clear way.



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Eduardo Aguirre

Across Scales

How could a small piece of construction be able to establish a dialogue between the scale of the territory - the big- and the scale of matter - the small- and through this dialectical relationship of both propose an appropriate answer to the question of architecture as a mean to inhabit nature?

That seems the question proposed by the selected works for this text, a selection of 5 small public interventions in the landscape of the Central Valley in Chile.

Each one of them seems to find their own specific answer to that hypothetical question, by mean of establishing a particular way of dealing with topography in its physical, cultural and political dimension: Trilco Viewpoint deals with the issue of the soil, Colbun Lake platform states the topic of architecture as a geographical datum, Laguna Torca Access looks at the problem of the public and the private in natural areas, Boyeruca's pavilion touches the use of the border of river basins, and Rural Platform aims to the construction of landscape as a public value in rural areas.

This works have been developed as a graduation project at a School of Architecture, being part of an academic practice that aspires to complexity by mean of research by design and build.

A critical and detailed analysis of them will depict some principles or premises for an architecture of the territory.

could a small piece of construction be able to establish a dislogue even the scale of the territory - the big- and the scale of anter - the 11- and through this dialectical relationship of both propose an appro-te answer to the question of architecture as a mean to inhabit nature = seems the question proposed by the selected works for this text, = to a structure the control of the contra

School of Architecture, Universidad de Talca, Chile.

Eduardo Aguirre León.

Across Scales

Chile. of them seems to find their own specific answer to that stion, by mean of establishing a particular way of deal y in its physical, cultural and political dimensions Tr. als with the issue of the ecology of soil and water, co states the topic of architectures as geographical datu the prime of the prime o ess looks at the problem of the public and the private in natural yeruca's pavilion touches the use of the border of river basing, d Rural Platform aims to the construction of landscape as works have been developed as a graduation

works nave been developed as a graduation project tecture, being part of an academic practice that as mean of research by design and build. ritical and detailed analysis of them will depict mises for an architecture of the territory.







ARENA ELIA



Technische Universität Berlin

Erika Henriksson Norwegian University of Science and Technology

Exploring Architecture -the archithectural making process as fieldwork and therapy



Fieldwork









Architherapy -An introduction to the concept of architherapy

The research project is carried out as research through architectural practice exploring the potential of the architectural making process itself. The methodology has grown out of (and in unison with) my fieldwork, performed as a collaborative making process, spanning over several years. Through the fieldwork a theme of 'Architherpay' slowly materialised as an umbrella term for concepts and notions explored [1].

Musicologist and psychologist Even Ruud[2], has described how 'the practice of music therapy can be seen as a laboratory, studying how people may change under the influence of music' (Ruud, 2008). My aim with Architherapy is to build up a similar discussion concerning architectural making, and in this sense make a contribution to the discussion of architecture as an important cultural phenomena.

For the ca2re presentation I will present my fieldwork and introduce the concept o architerapy, and what I think this concept can contribute with to the field of

Building a concept on Architherapy

offordances of building

Our feet force their way through the messy and dry spring grass, sun is shining, suddenly there is a thing laying on the ground that captures her attention. It is a metal stair hat has been laid down on the ground so that it looks ike a bridge. Later on in the workshop. She starts to uild. She starts to think; thinking of a bridge that we c

ing more...see what it has to afford.



71



Erika Henriksson

Exploring Architecture: The Architectural Making Process as Filedwork and Therapy

The architectural making process as a therapeutic resource is an unexplored area; examples exist such as the spatial engagements of Carl Gustav Jung and Tressa Prisbrey. Jung used the building of Bollinger tower as a tool to analyze himself. Prisbrey has stated how building the 'Bottle village' from salvaged materials kept her from loneliness and improved her self-esteem. During my research I have explored how a shared process of spatial making that can have similar effects.

As part of my PhD research, I got in touch with two patients at a clinic for comorbid drug use disorders that wished to engage in a building process as a form of therapeutic activity. This process, which concerns the physical transformation of a small building next to the clinic, is the practice based fieldwork through which I, in collaboration with patients at the clinic and other people have investigated the relation between the architectural making process and health.

My work has concerned facilitating an open process that can adjust to the different interests and capacities of participants in the project. The building process has been an exploration of different materials and techniques that allows for intuitive work, and where an un-experienced builder can engage in the making. E.g. cordwood construction, tile making, stone-brick lying.

In addition to research through architectural practice my methods have been interviews (with the participants and professionals within art therapy and psychology), participant observation and photography. The empirical material is used to develop theories, concepts, building techniques etc. concerning different aspects of how the architectural making process can be considered as therapeutic.

For participants the project has promoted meaning and wellbeing; functioned as a stress release; inspired learning and action; added insight of competence and capabilities and provided with symbolic resources for thinking about one's own life.

For the conference I will present a theoretical framework of historical examples where spatial making can be understood as therapeutic (e.g. Jung) together with conclusions from interviews I have done with practitioners (e.g. psychologist and art therapists). From this framework I will discuss the findings of the fieldwork and how they have resulted in the practice I call Architherapy.



PEP





Technische Universität Berlin







Name Surname Home Institution Research Title

Federico Cioli DIDA – Dipartimento di Architettura, University of Florence Artisans and Craftsmanship. The Florentine historical commercial activities

The research project concerns the documentation of historical commercial activities through an investigation of the social and cultural background of craftsmanship in Florence city centre. The historical identity of the city, which was included in 1982 in the World Heritage List, is closely related with these activities but it is increasingly being put to the test because of the changes occurred in recent years.

The city has faced the Flood of 1966, the crisis and globalization that have influenced its current urban fabric. Furthermore, under the great pressure of the era of mass tourism the main streets are slowly turning into stereotyped scenes where everything can be consumed. The disappearance of commercial activities and crafts related to the social and cultural structure of the city for the benefit of multinational business activities, are transforming the historic center into a Renaissance-themed mall. The city preserves its physical structure but it is losing its anthropic heritage that constitutes, with residents and artisans, a fundamental controller and catalyst of urban reality. The social dynamics and the relationships established between the seller and the client. between the artisan and the citizen are the same that define the neighborhood identity, which in turn represents a microcosm of the city.

In order to develop a plan of intervention and enhancement, the Municipality's Economic Activities and Tourism Department has stipulated in 2017 an agreement with the joint research laboratory "Heritage_CITYLab" of the Department of Architecture of the University of Florence (Scientific Director Prof. Stefano Bertocci) for the development of a documentation program for the historical commercial activities in Florence city centre.

The first phase, which led to the drafting of a new urban planning regulation, concerned the census of all activities (Fig. 1) through a structured census system taking into consideration the architectural and historical-artistic features and the relationship with the urban context (Fig. 2). Following a preliminary phase of study of archival documentation and previous research on the topic, the investigation on the spot has begun directly involving the shopkeepers and artisans, who pass down traditions and skills to date. The census has been matched by a photographic campaign aimed at representing the identity of these activities and by the realization of digital surveys (Fig. 3-4). The latter, implemented using the Structure from Motion methodology, are functional to the understanding and management of the system of relationships between the activities and the urban front and their influence on the image of the city. The research in the following phases envisages the development of virtual instruments for the enhancement and promotion of traditional craftsmanship as intangible heritage



Federico Cioli

Artisans and Craftsmanship. The Florentine Historical Commercial Activities

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ARENA ELIA

4

Technische Universität Berlin

CA2RE

Conference for Artistic and Architectural (Doctoral) Research



Name Surname Hanna Malik - Trocha

Home Institution Warsaw University of Technology, Faculty of Architecture & City of Warsaw Research Title Urban inclusion – city development achieving systemic accessibility in Poland.

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Hanna Malik-Trocha

Urban Inclusion – City Development Achieving Systemic Accessibility in Poland.

Europe is now essentially an urban community, four out of five EU citizens live in cities. Our cities are becoming more and more congested but at the same time, we strive for more inclusive cities. How to achieve systematic accessible urban intervention that leads to a high quality of environments, spaces, objects, buildings? Could a possible impact of socio–spatial interventions address a new challenge, especially to satisfy needs of users? Inclusion is one of the general objectives for urban policies as it promotes creating inclusive spaces that everyone is able to engage with, regardless of their abilities. The aim of this research is to examine the concept of inclusive urban design and formulate a set of conditions towards systemic, strategic and effective accessibility of urban space in Poland. Hospitality, inclusiveness, accessibility, "open to all", can contribute to urban interventions and indeed play a crucial role in urban public spaces. "Design for All" cannot be achieved overnight, it is a continuous process, and the different stakeholders must work together.

For a better understanding of the processes of creating, implementing the universal principles I monitored three Polish cities: Gdynia, Warsaw, and Łódź. In order to improve the accessibility and due to the inconsistent and insufficient national regulations, these cities had to implement own accessibility standards. My analysis suggests that not only the legal policies are necessary but also complex approach, consistent systemic way of implementing the principles of universal design. While carrying the research I used the following research methods: correlation research, field research, photographs; case studies; interviews. The interviews are structured within the Humble method, authors Francesco Aragall and Jordi Montany based on seven interdependent success factors. The concept of "open for all" can be seen as the ability to open up to the users and hear their issues. The important research questions is: What are the urban policies that are more open to the voices of citizens and the end users? In the next research phase the case studies from municipalities such as London, Dublin will be taken into the research. Zintl, Isabel M.A. / Ludwig, Ferdinand Prof. Dr. Technical University of Munich

Vertical Open Spaces



Isabel Zintl

Vertical Open Spaces

Thinking about verticality - A change of perspective expands space and opens up for new points of view. This change also enables a new way of thinking about the future of urban open spaces. Because if we expand horizontal open spaces into verticality, we find new and inspiring perspectives. Considering urgent social problems and climatic challenges worldwide, these new approaches are more necessary than ever: How do we want to live together in the city of the future? We need to find new answers - especially spatial ones.

The basis of this design-based doctoral project is the consideration of the relationship between verticality and open space – in a first step separately with their specific characteristics and in a next step in the spatial combination: as "vertical open space". In a first definitory approach, a "vertical open space" is a layered, accessible "exterior space" with at least two levels.

Till now, a systematic reappraisal of this type of open space has not yet been carried out. For a wider and conscious use of "vertical open space" in design practice, through the professions of Landscape Architecture and Architecture a specialist knowledge is essential. The design-based doctoral project aims at closing this gap and providing an overview of specific features of "vertical open spaces" in addition to basic principles such as categorisation and definition. This knowledge will and has been acquired through the elaboration of a thematic approach, analyses of own design projects and built examples through case studies, test designs and also through the consideration of history.

CA2RE

Conference for Artistic and Architectural (Doctoral) Research

Javiera González Zarzar

Technische Universität Berlin

Architecture, discourse, and work within migrating spaces. Chile 1980-2010









The architecture of migrating spaces has solved work relationships and architectural discourses with its design features. On the one hand with the choice of its materials and details, on the other hand

In the case of flexible spaces the architectural project its shaped understanding work as a productive potential (labor power). Meanwhile, in the exceptional case of constraints spaces, the notion of labor power is suspended with the spatial appropriation or eli-

Javiera Gonzalez Zarzar

Architecture, Discourse, and Work within Migrating Spaces. Chile 1980-2010

The primary objective of this doctoral project is to study the relationship between logistics and building architecture through the guestion: How has logistics redefined the relationship between building and work, building and machinery and between building and city? The thesis will argue that the format of distribution, like the pallet and the single unit, have played a key role by redefining those relations. The thesis shows that the contributions of modern architecture were the free floor and the free facade to accommodate machines for assembly lines. Meanwhile, the contribution of logistics was redefining the relationship between architecture and machinery. This new relation can be seen in two logistics strategies for the organization of pallets, which in some instances have been used together. First using the rack as a load-bearing structure and creating a three-dimensional grid that supported the building. Second, introducing automation in the storage and order picking process. In these cases, when structure and automation merged, the architecture became a machine.

The thesis will explain this argument with the study of two food distribution centers in Chile, built between 2011 and 2018. These buildings were exceptional due to the Chilean logistics and seismic situation. Both buildings did not adopt automation as a strategy for efficiency, but rather as a political decision. In one case, the mechanization was part of a take over by a Mexican company, adopting their business model. In the second case, the mechanization was implemented to face new Chilean labor laws, which made the distribution process vulnerable to strikes.

If the pallet as a distribution unit has redefined the relationship between architecture and machine, the thesis proposes that a new relationship between architecture and cities can be formulated by creating a system that can distribute single items. This is classically known as e-commerce and Amazon has been so far its primary platform. The thesis aims to design a homogenous distribution system based on the study of the patents of Amazon's distribution centers. These buildings as ideas are relevant because they use their own distribution system, based on the use of airspace and dismissing the city as an infrastructural context.



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John McLaughlin University College Cork Constructing a Position - Prototype and Manifesto



CONSTRUCTING A POSITION

At the CA2RE Conference in Ghent in 2017 I presented a paper titled MD by Prior Dutliberd Work - A Case for Appropriation, outlining a PhD that would develop a position between the conservative attitude to research that values explicit knowledge, and the liberal one where researchers reflect on the tack knowledge embodied in their work. In the paper I referenced an essay by Julia Williams Robinson titled The Discipline of Architecture Were she teastors of the Drowledge on drowledge the teastors of the owning, positive an "Integrated Part mutual benefit. She argued for an approach that was more grounded in the social and technical realities in which it operates citing the infamous destruction of the Pruitloge social housing project is 52 Louis, Missouri in 1972 -

"The critical questions that Pruitt-Igoe raised about the discipline of architecture could have served to expand its boundaries to include the social, economic, and political issue of understanding the needs of the poor. Instead, the discipline's boundaries remain the same, with such problems defined as outside its primary domain."

While more recent theoriets have moved towards a social theory of architecture, this movement has generally been at the expense of the technical expertise through which the profession of architecture gains its legitimacy. This paper will draw on the work of Bruno Latour to construct an alternative approach where the social agency of architecture is developed through technology and construction.



PROTOTYPE AND MANIFESTO

In the course of researching a history of modernity in Ireland I studied the technical details of projects over a century of modernisation.

One of the conclusions reached was that the construction detail was an essential component of different statements of modernity at different points in history. Many projects made details as prototypes - bespoke responses to performative aspects of the project that explicitly marking the social and artistic interlutions. This is consistent with a different way of conceiving the architectural detail – not as a linguistic trope – but as the manifestation of a social interion. This realing of technology links construction to wide projects and practices and offers a principle to follow in the expression of architectural detail

Keywords – Architectural detail; Tacit knowledge; Theo retical Position; Explicit Knowledge; Integrated Paradigm

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Revised Disciplinary Diagram After Julia Robinson + Bruno Latour





Technische Universität Berlin

70

John McLaughlin

Construction of a Position. Prototype and Manifesto

At the CA2RE Conference in Ghent in 2017 I presented a paper titled PhD by Prior Published Work – A Case for Appropriation, outlining a PhD that would develop a position between the conservative attitude to research that values explicit knowledge, and the liberal one where researchers reflect on the tacit knowledge embodied in their work. I described this intermediate or hybrid position as an integrated paradigm where the constructed work and the written words act together as a "Dialectical Critical Practice" (Fraser: 2013) in which design is a carrier of knowledge.

At the CA2RE Conference in Ljubljana in 2017 I situated these works within the wider discourse on architecture in Ireland since the 1980s. At the CA2RE conference in Aarhus in 2018 I looked at a house that I designed and built for myself and my family, and the relation that this design has to my education and training. I particularly examined the material quality of this house in relation to the work of my peers and the desire for lightness in my own design process. This quality is expressed and realised through the construction of the projects.

In the next stage of development I will delve into the construction details of a number of projects that I have designed to examine the links between the making of space and the manifestation of ideas in architecture. This exploration will seek to link levels of architectural knowledge across the projects through examination of their agendas and operations. In doing this it will oscillate between the level of explicit knowledge articulated in writings and an exploration of the tacit knowledge embodied at the level of making that satisfies pragmatic and regulatory requirements. These architectural details are considered as prototypes to embody design intentions that propagate across the project as variations on the intended themes of structure, framing, veil, surface, solidity, mobility, ephemerality and nomadism. By bringing this proposal to CA2RE Berlin I hope to continue the process of peer-review that began in Ghent and to help to sharpen the quality of the emerging doctorate. It is intended that the subsequent stages of the PhD would be presented at the following CA2RE conferences in Lisbon, Ghent and Glasgow, as the research

develops, in a manner similar to the PRS.

ARENA 🔤 🗋 📋

Name Surname Home Institution Research Title

Kristof Gavrielides State Academy of Art and Design, Stuttgart Spatial Code Lab







The Spatial Code Lab (SCL) is conceived as an open laboratory. It is dedi cated to the fields of architecture, computer science, media arts and design It consists in one part of a dedicated VR / AR design environment wich allow for collaborative design development in 3D VR space and secondly of a small robotic fabrication unit which allows for the materialization of the digital design approaches into a variety of materials through the use of custom made end-e fectors for additive and subtractive fabrication processes. The minimized and mobile setup allows for a flexible, fast and straight forward approach to the thematics of Virtual Reality, Collaborative Design, Spatial Coding, Robotic Fa-brication and Digital Materials. The laboratory can be easily experienced by the visitor in exhibition mode" as well be used professionally by experts. The SCL opens up the disciplinary and technological boundaries of computer science, media art, design, architecture and robotic fabrication to a wider audience and instantly creates a place of production, experimentation and exchange. It th erefore helps to translate the inherent questions of todays technologic desigr approaches into cultural terms for a broader audience. Through the simulta neous development of physical and digital design strategies with the interact on and participation of a broader public the lab allows for a more efficient fee thack process. As digital technologies have already permeated almost every aspect of our daily lives and the advent of deep learning empowered artificial intelligence has added new actors to the scene, the SCL proclaims the need for a more transparent and open handling of these technologies. Often setup as proprietary new digital products, these technologies are thought from the ground up as disrupting and dominant. They are presented and introduced to numanity as being more efficient and beneficent in comparison to past con cepts of industrialization. But the new agency of artificial intelligence has also come to a historic moment, where the decision-making by the deep learning models have become a black box, that is not permeable anymore by human minds. In that sense, if we don't want to prohibit these technologies, the only vay of dealing with it seems to be through a creative and research intensiv nandling of these scenarios, with the inclusion of a broader audience.

The Spatial Code Lab was first presented as part of the participatory exhibition Open Codes at the ZKM in Karlsruhe in 2017-18. It received funding by the Ministery for Science, Research and Art Baden-Wuerttemberg and the ZKM, Center for Art and Media.

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Kristof Gavrielides

Spatial Code Lab

The Spatial Code Lab (SCL) is conceived as an open laboratory. It is dedicated to the fields of architecture, computer science, media arts and design. It consists in one part of a dedicated VR / AR design environment which allows for collaborative design development in 3D VR space and secondly of a small robotic fabrication unit which allows for the materialization of the digital design approaches into a variety of materials through the use of custom made end-effectors for additive and subtractive fabrication processes. The minimized and mobile setup allows for a flexible, fast and straight forward approach to the thematics of Virtual Reality, Collaborative Design, Spatial Coding, Robotic Fabrication and Digital Materials. The laboratory can be easily experienced by the visitor in "exhibition mode" as well be used professionally by experts. The SCL opens up the disciplinary and technological boundaries of computer science, media art, design, architecture and robotic fabrication to a wider audience and instantly creates a place of production, experimentation and exchange. It therefore helps to translate the inherent questions of todays technologic design approaches into cultural terms for a broader audience. Through the simultaneous development of physical and digital design strategies with the interaction and participation of a broader public the lab allows for a more efficient feedback process. As digital technologies have already permeated almost every aspect of our daily lives and the advent of deep learning empowered artificial intelligence has added new actors to the scene, the SCL proclaims the need for a more transparent and open handling of these technologies. Often setup as proprietary new digital products, these technologies are thought from the ground up as disrupting and dominant. They are presented and introduced to humanity as being more efficient and beneficent in comparison to past concepts of industrialization. But the new agency of artificial intelligence has also come to a historic moment, where the decision-making by the deep learning models have become a black box, that is not permeable anymore by human minds. In that sense, if we don't want to prohibit these technologies, the only way of dealing with it seems to be through a creative and research intensive handling of these scenarios, with the inclusion of a broader audience.

CA2RE

Conference for Artistic and Architectural (Doctoral) Research

Maja Zander Fisker

The Royal Danish Academy of Fine Arts, Schools of Architecture, Design and Conservation Agencies in architectural becoming – inter-medial and cross-aesthetical transpositions



Agencies in Architectural becoming - inter-medial and cross-aesthetical transpositions

The presented work is part of an ongoing practice-based research. It consists of two related elements: 1. a recent investigation of inter-medial and erose-seculterical transpositions, and 2. the preparation of a PhD-project based on this material.

The artistic investigation has the working title You Wouldn't Have Known Her:

¹³ Yao mudih hane kamu ber, yand hane und ne meryphere at mar, in e label, in a sente, in et alle, in a sett, in et alle sett, sett

enunciation and scene; for the analogue drawing: layers and transparency; and for the photograph: framing and light. The textual incurities simule the work. They are based on Duras' text and on a reflection mon the text's

The taking inputs since the own. They is closed on source sets, and out a rescend open time exists which includes the set of the se

The subject of the drawing (the pluta) is then drawing from the text, the text is the contextmal framework of the drawing. The subject is a spongrobed pluce, but as a complex situation – a space constituted by a manifold of material and immaterial attractures – which insigness the focus of the drawing is a relational diagram, range of relations between forces. There plonograph energies from a future of the plonograph energies of the drawing is developed herough the boixonal order of the plan, and the contextual net envolves within the vertical graving. That certain as e-establehoment of the hostional order, a corelation of the plan and the contextual set of relations.

The photographic series has the drawing as its object. The photograph is indicion in the world functions as a singular event. The project investigates how assorblings of photographs distributed in montages sent relations and events. Based on the process of the analysed drawing and its successive lapering, the project process a series of photographic forgeneous of the drawn plant. The series works as another and the project process a series of photographic forgeneous of the drawn plant. The series works as molecule and the series of the photograph there works as an incision in the product drawn plant. The series that another time space to an advance of what is experiented and what is experiented through. The series that another time space modulation.

In each medium a new place is revealed, and here 'place' is not a matter of metric sizes, as much as a set of relations. A new situation. It is, however, in the transitions between them the medial affordances become generative as ime-space modulations.

All the phases of this process, within the different media, can be considered consistent in themselves, but there is also a desire to consider them as *nitatul*. The awareness of the medial differences and their interference pennis a return to cach stage of the process, not as a distant rad, but as situations, as a fail through them, and as new constellations of appearance. New spatial constructions.

An article's and a second seco

Asothorie prartices have distingt modes of expression, generated through their particular material attrict, ulations. This means, according to Deleno, that any animation is drawy already engaged in and incepable from in specific mode of expression. Aesthetic practices differ in agency – in media, techniques and technologies; therefore, a concern – a *publia* – can be shared, but it materialmes in different ways when it is treated within different dioplicable. By kinetifying specific media already and public expression, this project explores the importance of the discontinuities that arise in the process due to media list.

The project is based on four theoretical assumptions that are relevant to the inquiries, pertaining to 1st drawing, 2^{ad} mediality, 3^{ad} translation and 4^{th} topology.

Arbitutanal drawing as reflexive, producing multium. The project is based on theories of the architectural drawing as cartography, notation system, and as a diagram relating to its object through operational equality. This is aimed at investigations of the transformative drawing practice, i.e. how the drawing works as a trans-medial translational form and how the translation works back in the drawing.

Madially a glutana. Any photopraph néron back to a photopraphic situation, which is neflexed in the relations of the photopraph, say. Avoids, the photopraphic animation is constituted by the relationship between the event initiated by the photoprapher and the object of the photopraph, and the event encomposing the object of the photopraph and the object. The hypothesis is that this night applies gorealby to the vary in which medial affindances generate significant etations. Thus, is in necessary to investigate how mediad affondances configure events based on different sets of relations.

Translation as a dynamic dwin pausing through different formatic. Architectural becoming in the transformative drawing practice is a process of translation encompassing differences as vehicle for transformation. The translation transforms medial properties and influences the organization of relations and events. In this project, focus is the function of translation between text, drawing and photography.

Rouning an appliquia moveme. The topological process is a defined by operating through a transformation of experiences, rulations and event that transformations through numerical without radke ing it to representations. This also forms a methodological framework for the project, as the transformative drawing practices is addressed as a topological forces that arclineas spatial historial. The topologic through the first field conduction of the anticomposition of a static and the state of the to neer the social challenges fincing the architectura, and creates innovaire architectural popolab.

On this backdrop, the hypothesis is that there is a reciprocity between agencies in architectural becoming and the learning ensued from the creative process: that asthetic practices are imbued with a didactic potential to strengthen the reflexive process of creation. The project aims to contribute to create knowledge of this potential to arciculate an asthetic didactic and develop reflexive methods.

PEP

ToTechnische Universität Berlin



Maja Zander

Agencies in Architectural Becoming – Intermedial and Cross-Aesthetical Transpositions

How can different aesthetic practices inform and challenge each other? This project addresses the architectural drawing as a process articulating spatial thinking. It inquires agencies in architectural becoming through operational drawing.

Through iterative series the project investigates how intermedial and cross-aesthetical transpositions work as an operational resource in the architectural process. This investigation operates a transition between medial forms of articulation to incept new forms of spatial construction.

Aesthetic practices, and the media they deploy, produce relations and events. The project examines how the specific media of text, drawing and photography articulate relations and events, and how the act of translation contributes to reformat time-space configurations.

The investigation is premised on the identification of a set of specific medial parameters. For the text: enunciation and scene; for the analogue drawing: layers and transparency; and for the photograph: framing and light.

The textual inquiries situate the work, based on a literary text, and on a reflection upon its relations to other media. Focus is on the relationships between structuring parameters, and on how the text establishes a contextual situation.

The subject of the drawing is derived from the text as the contextual framework of the drawing, not defined as a geographical place, but as a space of material and immaterial structures. The purpose is to investigate how the drawing as a relational diagram in interaction with the photograph enables a juxtaposition of heterogeneous topologies: social, spatial and temporal relations.

The photographic series has the drawing as its object and investigates how montage of photographs enact relations and events. Based on the process of the analogue drawing and its successive layering, a series of photographic fragments of the drawn plan is presented. The series explores the initial textual act: the variance of what is experienced and what is experienced through.

The project develops this material to inquire how medial affordances configure events based on different sets of relations. The generative logic of the differences propels the process by exploring the different modes and powers of significance imbuing each medium, questions of both temporality and spatiality, matters of time, space and place are at work.

CA² RE





Mania Lohrengel

Eco without "Jute"

The preoc. in PEP1 made it clear to me that my designs have a strong relation to my personal background to a large extent out of my origin. Focused in two aspects: 1. the aesthetics and the Lebensgefühl of the pre-Alpine baroque opulence. I am fascinated by the interplay between seriousness and cheerfulness, gravity and lightness, densification, exaggeration, bright colours, brilliance, beauty and the aspect of artificiality. 2. as a child of the ecological movement, sustainable action is important to me. I incorporate a high degree of eco aspects into my work. Along with this I criticize why eco must always look like eco. With this I mean an aesthetic that is perceived as ecological without being forced to be so. It manifested itself in traditional images of naturalness, without technology, untreated, raw, pure, earthy, etc. and was created in the 70/80s under the impression of acid rain, environmental destruction, etc. by the eco movement. In short, I name this Jute as a reference of the slogan, Jute statt Plastik. In addition, I deal with three other topics that accompany me in my work:

- 1. Impossible plants, to put easy-care plants of the 70s into new contexs.
- 2. Visual arts as a source of inspiration.
- 3. The eco principle of safe sites.

In the analysis of my designs, these references can be found as lines in the work. I develop designs that have a high degree of eco relevance with different focuses .e.g. storm water management, microclimate, biodiversity and places for humans as part of ecology. I implement compact places in the overall design. These differ mostly from their surroundings, playing with design principles of baroque, graduation, abundance, opulence. Designs are created that combine ecological aspects with a wide range of uses and a high plant density. The manifestations of my designs are not accidental but arise from an attitude to design lush, multi-layered aesthetic places that have an eco relevance. In my opinion, in the increasing density of cities, the challenges of climate change and the burdens that confront urban people, it is important to build well-designed open spaces with eco relevance, which, without the traditional expression of ecodesign but with abundance and richness that go beyond an ecological fulfilment of purpose or see ecological projects as a purely engineering achievement separate from a landscape architectural design.



Marta Fernández Guardado TUBerlin

Home: Things and bodies.

This panel is a labyrinth of references and extracted ideas that illustrates the early stage of the research and builds a mind-map of thoughts in order to navigate further. Please come in and get to



Marta Fernandez Guardado

Home: Things And Bodies

My proposal is based on the belief that there is a great architectonical potential not only on the container but also in the content, conceptually detached to the first, and in some cases, essential to emotionally connect us to the space that they define together.

This content includes, in my opinion, elements that have the ability to dialogue with us through events and ceremonies, that require the effort of understanding an unexpected programmatic and/or spatial quality of any kind. They force us to a process that involves our bodies and the architecture, and that changes, once and for all, or over and over, both human body and architecture relative positions. Their main difference with pure equipment and furniture is that their primary reason is not plain comfort – although they can also offer it, but actively and alternatively to assumptions, traditions and standards. They also do not simply serve the architecture by directly equipping its surfaces – although they do program lives that happen in rooms, and not vice versa. They work with us like active bodies, being with us in the space and requiring our participation to fully inhabit it. They react and adapt to the architecture, and open up the possibility of changes and combinations. They are architectural bodies with the ability to relate people to generic or even foreign architectures, and also to other people and themselves.

After analysing the importance of this topic in my work for others during the past years, I start my practice-based doctoral project with an investigation of references and design strategies, in order to produce a series of performative artefacts that question the current domestic environment – understood as an architecture where things and bodies cohabit – and drive me through an exploration of emerging alternative ways of living.

Nafiseh MOUSAVIAN **GERPHAU | ENSAPLV | université Paris viii POROSITY AND PLAYFULNESS**

POROSITY

«THE TIERED CITY

reflections on the urban intensity of the inhabited milieux based on analysis of mountainous villages of Kurdistan, Iran» seeks to find spatial configuration ideas that allow integrating natural and social phenomenon (coexistence with nature, and human interactions) into multi-level dense human settlements.

Coexistence goes with proximity. And proximity, although often appreciated, is sometimes promiscuous. Consistence great multiply commy, and provining, and optioning and option of public and set of the While in this research, the thesis-hypothesis suggests:

To reach this congenial multi-level intensity, To reach this congenial multi-level intensity, more POROSITY is needed in the built space. Through this porosity, new spatial arrangements. new functions, stronger, social relations, and the symbiosis of man and nature can emerge. the symbiosis of man and nature can emerge.

In this regard, « In-between Spaces » - which share, connect, separate, or superpose simultaneously public and private realms - are studied in two ancient villages of Kurdistan villages of Palangan and Awihang.

Because of their mountainous sites, the villages are built in multi-level forms following geographical curves and steeps. In general, each roof serves as the courty and of the upper house. But if we look closely, we'll discover numbers of not-so-known micro-arrangements of the usually-known architectural elements -like steps, ladders, balconies etc.

> After a week of living in these villages. I began to analyze 4.1. 1997 26 them in two parallel but yet distinct directions which pro-vided me with a vocabulary of the tiered city which is evolving consisteantly. First, I started with a phenomenological analysis to reach, discover, understand, and excavate the particular spatial 7. 5.

arrangement. This primary analysis resulted in a series of photo-parrations which revealed some underlying ideas concerning human-nature coexistence in these villages. (This part can be consulted online: https://cargocollective. com/thetieredcity)

Besides, a typological analysis is taking place (work is in progress) to de-complexify the spatial arrangements which are more complicated. This, to achieve a better understan-ding of spatial incarnation of the human-nature and social relations in the villages of study. So, the repartition of functions in different levels and the transition between public and private, interior and exterior could be studied more efficiently.

to pass the air, the rain, the wind, the clouds

RAMPS - URBAN STAIRS - STEPPED STREETS - INCLINED LANES - BRIDGES - PAVEMENTS - LADDERS - COVERED

places of movement of mutation hey are to make connections betwe

In this regard, I prepare a 3-dimension catalog of architectural elements that contribute to the idea of **porosity**. A catalog of all « In-between Spaces » that I've found. They could be either spaces of PAUSE or spaces of PASSAGE.

and birds,

 PASSAGEs are places to come and go, to stroll,

to create the links.

They could be

• PAUSEs are places to come to places to stay, to gather and chatter, to make connections between people to create relationships.

ist of different types of : TERRACES - BALCONIES - ROOES - COURTYARDS - SQUARES - UNDER A TREE - THRESHOLDS -BENCHES AND SO ON

WALKWAY - IMPASSES, FTC. THIS COLLECTION IS COMPARABLE TO A SPECIALIZED DICTIONARY PROVIDING THE VOCABULARY TO SPEAK ABOUT THE TOPIC OF THE TIE-RED CITY How do we make sentences with these words? How do we put them together?

How do we articulate these words so they could make sense?

What do we do when we reach something new, attractive and unknown? As a mother of a young child. I may answer

WE PLAY!

The proposal for CA2RE Berlin concerns part of research that let playing with a series of magnetic 3d prints of these In-between spaces (of PAUSE and PACSAGE) to examine the limits and possibilities for creating Porosity. Here I would like to discuss this playful méthode and how playfulness can contribute to creativity in my research. This is an experimental part and is in progress

YOU ARE SO WELCOME TO PLAY!

PLAYFULNESS

WHY DO WE SUGGEST TO PLAY?

based on researches or developmental psychologies road any on the search shows that ERENT PLAYFULNESS, CURIOSITY, AND WILLFULNESS OF CHILD-REN HAS BEEN HONED BY NATURAL SELECTION TO PERMIT EACH INDIVI-

CURIOSITY PLAYFULNESS

the drive to practice & create SOCIABILITY

Those animals whose way of life depends mostly on learning (and least on rigid ins-tincts) are the most playful

 And, human beings, having much more to learn than do other animals, play much more than do other animals. I may add here, that nowadays, we as adults (and architects) need much more to learn each

THE HABIT OF PLAY MUST BE CARRIED INTO ADULTHOOD

Peter Gray expands upon Groos's theory and proposes a list of universal types of children's play and the relation of each type to basic human survival skills: PHYSICAL PLAY (to develop strong bodies)

LANGUAGE PLAY (to learn to talk): When language play is carried into adulthood, we call it.

EXPLORATORY PLAY (which combines exploration and play, to promote understand and to make sense of the world): Whenever children or adults bring imagination and tivity into their efforts toward discovery, they are combining play and exploration. In adults, CONSTRUCTIVE PLAY (which teaches us to build): It can be with words and sounds as well

FANTASY PLAY (to build our capacity for imagination and to provide a foundation for the development of logical thought): That allow us to consider things that are not immediately present, which is what we all do when we plan for the future and what scientists do when. they develop theories to explain or predict events in the real world. SOCIAL PLAY (to cooperate and to restrain our impulses in ways that make us socially ac-

I suppose POROSITY would be an exploratory, constructive and fantasy play, all at once.

We finish by trying to clarify **"WHAT IS PLAY?"** It is a contradictory concept; It is serious; yet not serious; trivial, yet profound; imaginative and spontaneous, yet bound by rules and anchored in the real world. It is childish

- Is imaginative, non-literal, mentally removed from "real" or "serious" life.
 Is conducted in an alert, active, but non-stressed form of mind.

gest that We don't go further in defining how the POROSITY play should enroll and let

Nafiseh Mousavian

Porosity and Playfulness

My thesis titled: «The tiered city: reflections on urban intensity based on analysis of mountainous villages of Kurdistan, Iran» seeks to find spatial configuration ideas that allow integrating natural and social phenomenon (coexistence with nature - human interactions) into multi-level dense human settlements. Coexistence goes with proximity. And proximity, although often appreciated, is sometimes promiscuous. So the desire to integrate urban and nature in an intense environment requires innovative architectural proposals to incorporate both public and the intimate, nature and artifact.

One hypothesis is: To reach this congenial multi-level intensity, more POROSITY is needed. Through this porosity, new spatial arrangements, new functions, stronger social relations, and the symbiosis of man and nature can emerge.

In this regard, «In-between Spaces» -which share, connect, separate, or superpose continuously public and private realms- are studied in two ancient villages of Kurdistan.

First I started with a phenomenological analysis to reach, understand, and excavate the particular spatial arrangement and the underlying ideas concerning human-nature coexistence in these villages.

Besides, a typological analysis is taking place to de-complexify the more elaborated spatial arrangements. So the repartition of functions in different levels and the transition between public and private, interior and extériorise could be studied more efficiently.

This led me to prepare a 3dimension catalog of architectural elements that contribute to the idea of porosity. They could be either space of PAUSE or spaces of PASSAGE.

* Terraces - balconies - roofs - courtyards - a tree - thresholds - Places to come to, places to stay, to make connections between people, to make relationships.

* Ramps - urban stairs - stepped streets - bridges - ladders - Covered walkway impasses - places to come and go, to stroll, to pass air, rain, wind, clouds and birds, places of movement, of mutation, to make connections between places, to make the links.

The proposal for CA2RE Berlin concerns part of research that let playing with a series of magnetic 3d prints of these In-between spaces (of PAUSE and PASSAGE) to examine the limits and possibilities for creating Porosity. Also, I would like to discuss this playful method and how playfulness can contribute to my research.











Technische Universität Berlin

Name Surname Home Institution Research Title

ARENA

Petra Marguc KU Leuven BE / CRENAU Nantes F Displaced. What is the productive distance to situate oneself as an architect in transversal design?



Displaced. What is the productive distance to situate oneself as an architect in transversal design?

Despite a tremendous amount of knowledge on urban disruptions, divides are proliferating. The present contribution will investigate possible postures to situate oneself as an architect at the interstice of physical, imagined and lived space (Lefevre), where tactics of displacement introduce play into the design process and explore hor to make these gaps productive. Three experiences from professional practice will be put in perspective with examples from critical design practices and performance art.

Petra Marguc

Middle Margins Matter, the Art of Creating Balance in Transversal Design Practice

Despite a tremendous amount of knowledge on urban disruptions, divides are proliferating. In situations involving complexity and uncertainty, where an urgency for intervention is felt and yet a clear response is not apparent, we know that "we cannot solve the problems with the same kind of thinking that created them" (Einstein). Some other levels of perception and understanding need to be mobilised for formulating sensible responses. Our professional capacities to design living together in difference maintaining free spaces are challenged.

The present contribution will investigate possible postures to situate oneself as an architect operating at the crossing between people, realms and scales of intervention. It is part of a practice based PhD project on "Middle Margins Matter, dynamic balance in transversal design". Experience from professional practice will be put in perspective with examples from other critical designs and performance art.

Within the research project space is considered as a perpetual fluctuation putting in relation physical, imagined and lived space (Lefevre). This triadic spatiality can reveal both, a distance and a continuity between what is physically there, what is enunciated and what is being done. In the research project, what might appear as incoherence experienced amongst people, in organizations as well as in each one individually, is taken as a productive gap. From that productive gap containing action tendencies a situation can be put into motion. In this sense, just as any living organism, a city has emotions appearing in interaction with a milieu.

For making a gap productive tactics of displacement introducing play and game into the design process are explored. Such displacements can happen in form of transgression, immersion, situationists' moves or Oulipian methods of constraint. All operate as catalysts for serendipitous encounter and imagination, making essence vacillate and accelerating a change in perspective, prerequisite for breaking habits and learning anew.

Case studies of play and game revealed that transversal design practice is relevant in gathering knowledge, stimulating imagination and raising collective awareness. The risks of a transversal design approach relies on the willingness of the actors to be displaced by outsiders, as issues of authorship power, legitimacy, value and money can be questioned.

Technische Universität Berlin

Name Surname Home Institution Research Title

ARENA

Dr. Petra Pferdmenges KU Leuven (Campus Sint Lucas Brussels) Lived Space



LIVED SPACE HOW TO STIMULATE THE APPROPRIATION OF THE PUBLIC REALM





URBAN TRANSITION IN MOLENBEEK

IN 2017 MY PRACTICE ALIVE ARCHITECTURE - IN COLLABORATION WITH TAKTYK & 51N4E - WON THE COMPETITION OF A MASTERPLAN ON A SITE OF 13HA IN BRUSSELS (MOLENBEEK). OUR ROLE IS TO DESIGN THE SOCIO-SPATIAL PROCESS OF URBAN TRANSFORMATION FROM TODAY UP TO 2040. HOW CAN WE INTRODUCE DURATIONAL LIVED SPACE WITHIN SUCH A LONG TERM URBAN PROJECT?

INCLUSIVE BRUSSELS NORTH

IN 2017 WE MOVED ALIVE ARCHITECTURE'S OFFICE SPACE TO THE PREVIOUSLY VACANT WORLD TRADE CENTER IN BRUSSELS BUSINESS DISTRICT. PRACTICING ON THE 26TH FLOOR AND TEACHING ON THE 24TH FLOOR AT SINT LUCAS ARCHITECTUUR, WE ARE JOINING ENERGIES TO DESIGN AND CO-PRODUCE LIVED SPACE IN THE PUBLIC REALM. HOW CAN WE INITIATE APPROPRIATION OF A BUSINESS DISTRICT THAT LACKS ANY KIND OF IDENTITY ?

EXHIBITION 3 projects - 3 films - 3 territories

ABSTRACT ON EXHIBITION By LOVED SPACE I consider public space that is appropriated by people.

In 2012 I produced LOVED SPACE in Brussels red light district. Based upon the observation of the needs of prostitutes that were asking for better clients, I intended to launch an informal flowershop in the rue d'Aerschot. As no flowershop in Brussels was interested to do so, I offered flowers to the bypassing sex-workers to improve the relationship between them and the sex-workers. As such, unfortunately the project generated only an ephemeral impact.

Petra Pferdmenges

Lived Space

In 2014 I initiated LOVED SPACE as a co-curator of the biennale Parckdesign 2014: Parckfarm. I enabled the local to co-produce and to co-maintain the public realm which lead to an appropriation of the public realm. Since then the community is welcoming the guest in the urban transformation process on the Tour & Taxis site. Because of its success the biennale was expanded from an ephemeral event to a durational urban project that became officially permanent in 2018. The project won the prize for public space 2015 in Belgium.

Since the beginning of 2018 I am researching upon how to launch durational LOVED SPACE in the business district in Brussels North. The area is situated between Brussels red light district and the Parckfarm. Having moved my office space on the 26th floor and teaching at KU Leuven on the 24th floor in the previously vacant World Trade Center 1, our students and the Alive Architecture team are joining energies to reveal and strengthen the identity of the district.

What are the means to generate LOVED SPACE in a business district that lacks any kind of identity? Can the spatial link to the red light district and the Parckfarm be expanded to generate a social link to its surroundings? Could such social link not only generate encounter but also give a durational meaning to the area for people?

By projecting three films - one of each project - during the CA2RE conference at TU Berlin I wish to raise awareness upon a previously forgotten area of Brussels. Further, based upon a couple of urban interventions, I wish to reveal some first hunches of how to inject LOVED SPACE in the district. Finally I will compare the approaches and reveal some means on how to generate durational LOVED SPACE that can be applied in business districts or elsewhere!



PARCKDESIGN 2014 - PARCKFARM

IN 2014 ALIVE ARCHITECTURE INITIATED LIVED SPACE AS A CO-CURATOR OF THE BIENNALE PARCKDESIGN 2014: PARCKFARM. WE ENABLED THE LOCAL TO CO-PRODUCE AND TO CO-MAINTAIN THE PUBLIC REALM. BECAUSE OF ITS SUCCESS THE BIENNALE WAS EXPANDED FROM AN EPHEMERAL EVENT TO A DURATIONAL PROJECT THAT BECAME OFFICIALLY PERMANENT IN 2018. THE PROJECT WON THE PRIZE FOR PUBLIC SPACE 2015 IN BELGIUM. HOW DID WE STIMULATE LIVED SPACE IN THIS CASESTUDY IN THE CENTER OF MOLENBEEK ?

Technische Universität Berlin

Roland Poppensieker Architekt BDA Zeichen und Erinnerung





Research interest is an examination and reconsideration of the significance and potential of sign and image in architecture. My approach is to develop a contemporary and valid strategy of applying sign- and imagebased levels of communication to the architectural. These levels may be of intuitive nature and based on immediate perception as well as of discursive fashion, referring primarily to the intellect.

Even though I don't exclude historic references (just as

little as considerations of modern signs and images)

my idea is not supposed to constitute a retrieval of simplistic historical images.

My intention is more about determining the architectural in

others, from the field of type and topos relevant at the time, so that they finally constitute an

integral part of the architecture

levels of association, which are originating, among



Grabmal F.C. Gundlach, Hamburg (oben) Gedenkstätte Gestapplager Neue Bremm, Saarbrücken (unten)

Roland Poppensieker

Signs and Reminders

With the beginning of postmodernism in the 1960s, the sign was re-thematized and rehabilitated in architecture, which - at least in the form of classical ornament - had largely lost its significance as a means of communication in the context of building at the beginning of the 20th century. Since then, both the examination of and the inclusion of signs, images and representations in architecture have taken place in very different forms. Often, however, a questioning and "revision of modernity" was practiced by means of historical references, in which - up to and including reconstruction - reference was made to "images of memory" in a very superficial manner.

Nevertheless, images and signs are extremely important components of the emotional and partly unconscious human perceptual practice, and in addition they enable and facilitate the mental reception and processing of various, ultimately not only cultural works and values. Their subtle or even surprising use can set very effective cognitive as well as emotional processes in motion.

Even in the area of living and working, signs and images can be a productive component of the building. This is all the more true for buildings in which a cultural meaning is to be communicated or in which the building task itself has as its goal a remembrance or commemoration.

On the basis of my own buildings and projects - some of which are in the context of the culture of remembrance - the meaning as well as a possible and contemporary method of incorporating signs and images into architecture will be examined in the context of the theme of remembrance.

My aim is to develop a strategy for the use of sign and image-based levels of communication in architecture. They can be both intuitive in nature and based on direct intuition, and discursive in nature and primarily assigned to the mind. Although historical references as well as references to modern pictorial and symbolic worlds are not excluded, it should not be a matter of regaining superficially "historical" images. The intention is rather to anchor the architectural in levels of association that have their origin in the relevant field of tension between type and topos and become an integral part of architecture.

(Translated with www.DeepL.com/Translator)

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71



Sara Molarinho Marques (Scholarship by FCT) Universitat Politècnica de Catalunya (UPC), Barcelona. Architectural Design Program

Universitat Politecnica de Catalunya (UPC), Barcelona. Architectural Design Program JUHA LEIVISKÄ. Architecture as a dialogue between body - brain - space



Sara Cristina Molarinho Marques

Juha Leiviskä: Architecture as a Dialog Between Body – Brain – Space

This research intends to establish a phenomenological approach to architecture and how it influences our body and brain. Focus on Juha Leiviskä's work, one of the most important Nordic architects alive of the XX century. Studying his works represent an opportunity to quantify how modern architecture is capable of producing sensory effects on its users, changing their mental, physical and social behavior. Architecture is a physical and mental phenomenon, a body and mental experience. Understanding our body as a biological and cultural organism that is constantly changing, where our building environment and space has a strong impact is why is essential for architecture to understand our body, our mind and the space. Here we present architecture as an answer, a symbiosis between our brain, body and our geographic and cultural places. The link between the man and architecture take us to research about neuronal and corporal reactions and responses based in neuroscience, specifically Antonio Damásio work, Merleau-Ponty theories about phenomenology of perception and Juhani Pallasmaa that defend that architecture needs to mediate our relations with our biocultural past, in his book Habitar. How the buildings we project, where we educate, read, study, pray, model our way of being and our behavior? This means, how does the morphology of this spaces affect human development and behavior, not only on an individual but collective level? These are the main questions this research intends to answer through the study of different representative works project by J. Leiviskä, with different programs, places, contexts and cultures. These projects are analyzed taking into account the phenomenological dimensions established on a theoretical base, in addition to a conceptual, contextual analysis, material behavior is also intended with the use of neuroscience tools, to verify the built environment impact on the users, through interviews or with the measurement of eye movements, among other techniques used to measure architectural experience. Also programs like the Space Syntax, or other tools of morphological analysis of space. Thus, one of the objectives is to understand the dialectic between J.Pallasmaa theory and J. Leiviskä architectural practice.

Şebnem Çakaloğulları İstanbul Technical University

ACCIDENT:Transformative Effects of Organic and Mechanical System Unity in Architectural Space and Time Experiences



Sebnem Cakalogullari

Accident: Transformative Effects of Organic and Mechanical System Unity in Architectural Space and Time Experiences

Space, can be defined as representation of complex mutual relation. Immanent and impossibly definable types of relation is somehow placed our assumptions as a automated reactions. Therefore the developed spatial consciousness, criticized as the static relations in space and time, is transformed into instable unification through dynamic relation. The ambiguity and state of unknowable is built a realm of existence via momentary presences in accident in which is inquirable. Accident transforms meaning of chance in event. While understanding of emergence defines its existential substratum via accidents after dualistic context, the definition of accidentality is transformed and translated into constructible concept incomprehensible and intangible structure of manmade cosmos throughout the complex stimulus.

"Accident" becomes a tool not only defining the complicated and unconsciously developed happenings but also proof of conscious of creative action. Both macro scale transcendent relations and micro scale interrelations come to alive in transformation among different complexity level which is experienced throughout the hidden kinetic apperceptions in system analogy.

Space and time heavily based on moral sense is categorized the accident in different concept such as happy accident, fatal and evil accident etc. In other word unity of mechanistic system and organic assumptions are motives for noticing indefinable relations of space in realm of world. They are bifurcated in the act of two different construction manners. These are questioning as necessities, over new kinds of linkages and new linkages, made possible to apprehension of the porous/ cellular structure. These approaches are reasonable only looking space and time relations through nets in which is not possible to mention about the outside of the net. Therefore it is seen as problematic of contemporary relations.

In this research the accidentality notion is approached from real the accident dimension which is damage its own existence in systemic unity of 21st century. In the scope these new artifacts are distinguished via testimony of porous states of mechanic and organic system unity.

It is aimed to be recognized alternative sides in contradiction and complexity by discovering the corridors and spaces in accidentality to make reveal socially and politically productive and reproducible context of architecture.



CA2RE

Conference for Artistic and Architectural (Doctoral) Research

Sophie Holz TU Berlin

Aesthetic of Climate The Potential of Microc

f we think about research regarding microclimate in landscape architecure, terms like urban heat islands or climate change might come to our mind. In research papers about this topic.open space is often been descried as green infrastructure which offer ecosystem-services. But such func-

tional aims are just one perspective of microclimate-design This paper argues for an additional potential of microclimate-design i landscape architecture; its potential for a design of distinctive and inspiring. To answer this guestion the paper presents a theoretical framework of the places through an aesthetic empowerment of microclimate. Such affective

microclimate-design aims to build projects which offer rich and delightful Microclimate is directly perceived by intimate close-up senses: hot and

cold, dry and wet, windy and wind-still are mainly perceived by the sense of touch, including the sense of temperature. It is through the intensity and

the intimacy of this perception, that it arouses embodied association and imagination

How can landscape architects design with microclimate, an immaterial, dv namic, always unfolding phenomenon?

term microclimate. It argues that the scientifically coined term "microclimate" needs to be supplemented by the perspective of the perceiving human being: Firstly, microclimate can be explained objectively on a scientific basis, by dividing it into weather elements such as air temperature, humidity and wind speed. These can be measured and quantified. Second ly, microclimate is a phenomenon, which is perceived by the entire body

[Leib] with all it's senses and embodied experiences and therefore affects human wellbeing. This perspective acknowledges microclimate as a phenomenon, which strongly influences our perception of a place and our relation with the place

rl my hair and clothes. I am fresh, e little bit cold

shoes. The rhythm of the waves is soothing, at th

on of back flowing wate

The theoretical framework is the base for a field study of microclimate in landscape works in Scandinavia and the Iberian Peninsula, Overlaving sequence graphics bring together both perspectives on microclimate: measurable factors and the qualitative phenomenon. These graphics are a knowledge and experience collage which provide a fused base of qualitative and quantitative information. Based on the collages design principles for an affective microclimate design will be derived

my have feat. I feat the en-

wet feet. I sink into wind air light :

Daniaparken, Malmö

Thorbiorn Andersson with Sweco Architects





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unded by water. Air gets noticeable humid, wind is strongly blowing, gust of wind s



if the wind still blows, it is possible, to get some rest, if I cling very close to vall. Sun shines directly on my face. On my cheeks I sense soft warmth, like a careful touch. I am exhilarated by light, warmth and wind



6

Sophie Holz

Aesthetic of Climate The Potential of Microclimate as Immaterial Element for the Design of **Distinctive Places in Landscape Architecture**

If we think about research regarding microclimate in landscape architecture, terms like urban heat islands or climate change might come to our mind. In research papers about this topic.open space is often been described as green infrastructure which offer ecosystem-services. But such functional aims are just one perspective of microclimate-design.

This paper argues for an additional potential of microclimate-design in landscape architecture: its potential for a design of distinctive and inspiring places through an aesthetic empowerment of microclimate. Such affective microclimate-design aims to build projects which offer rich and delightful experiences.

Microclimate is directly perceived by intimate close-up senses: hot and cold, dry and wet, windy and wind-still are mainly perceived by the sense of touch, including the sense of temperature. It is through the intensity and the intimacy of this perception, that it arouses embodied association and imagination.

How can landscape architects design with microclimate, an immaterial, dynamic, always unfolding phenomenon?

To answer this question the paper presents a theoretical framework of the term microclimate. It argues that the scientifically coined term "microclimate" needs to be supplemented by the perspective of the perceiving human being: Firstly, microclimate can be explained objectively on a scientific basis, by dividing it into weather elements such as air temperature, humidity and wind speed. These can be measured and quantified. Secondly, microclimate is a phenomenon, which is perceived by the entire body [Leib] with all it's senses and embodied experiences and therefore affects human wellbeing. This perspective acknowledges microclimate as a phenomenon, which strongly influences our perception of a place and our relation with the place.

The theoretical framework is the base for a field study of microclimate in landscape works in Scandinavia and the Iberian Peninsula. Overlaying sequence graphics (preliminary results see pdf) bring together both perspectives on microclimate: it measurable factors and the qualitative phenomenon. These graphics are a knowledge and experience collage which provide a fused base of qualitative and quantitative information. Based on the collages design principles for an affective microclimate design are derived.





Technische Universität Berlin



UdK Berlin Material Machine Trajectories

Sven Pfeiffer



MATERIAL VS MACHINE TRAJECTORIES

ARENA

t of the design process. The current purely replicative state of rapid proto-PLA or ABS are stable during the printing process, the chosen material (Limoges) will behave differently biological systems in architecture ume. Therefore the production data set has to be adjusted accordingly and the properties of the mauously negotiated with the degrees of freedom of the robotic printing process.

ture is questioned. Whereas their extraordinary material properties make them very an archive of pre-architectural elements, testing the constructive limits of the process and negotiating. Weight: 18,4 kg, Payload: 5 kg, Reach: 850 mm and local production, the handling of ceramics and other earthen materials is information, form and structural properties. Further tests to be conducted will focus on the developnent: +/- 360° an allen Gelenke uming and above all manual process. With a specially designed 3D printing ment and simulation of shape-finding methods and on the integration of structural and material prop- Speed: Joint: Max 180°/Sek setup using a robot arm and a custom printhead the deposition of the material can be automated and erties with various architectural parameters, which are essential for the generation of different spatial Exactitude: +/- 0,1 mm nplex internal structures are made possible. Whereas the common materials in 3d printing such as qualities. The aim is to mirror in the chosen setup the hierarchies across multiple scales observed in Extruder: https://lutum.v Research Partners: depending on the proportion of material to water, the geometry, the printing speed and the discharge The collaborative project is a part of a dissertation on design approaches for localized construction Caroline Hegsbro, Lara Wischnewski, IMD_Institute of Media and Design, TU Braunschweig

Team: Iman Zangooeinia, Ava Sadeghipour, Daniela Krause, Esra Oruc, Rolf Starke, Luisa Buci Futurium Lab, David Weigend

78

Sven Pfeiffer

Material Machine Trajectories

The research project presents an approach for a shared design and fabrication process incorporating humans, materials and machines. An experimental design and fabrication environment for working with the properties and capacities of the material ceramics is created. By exploring the real-time interaction between code, matter, and machine parameters, a direct feedback between making and thinking becomes an integral part of the design process. The current purely replicative state of rapid prototyping in architecture is guestioned.

Whereas their extraordinary material properties make them very relevant for sustainable and local production, the handling of ceramics and other earthen materials is known to be a time-consuming and above all manual process. With a specially designed 3D printing setup using a robot arm and a custom printhead the deposition of the material can be automated and complex internal structures are made possible. Whereas the common materials in 3d printing such as PLA or ABS are stable during the printing process, the chosen material (Limoges) will behave differently depending on the proportion of material to water, the geometry, the printing speed and the discharge volume. Therefore the production data set has to be adjusted accordingly and the properties of the material have to be continuously negotiated with the degrees of freedom of the robotic printing process. Throughout several workshops, various tool-based conditions and parameters (extrusion direction, extrusion speed, extrusion thickness) and the resulting material behavior are evaluated to provide useful feedback for the next iteration of the digital model. Coincidences, repairs and defects are explicitly part of the process.

The resulting objects can be considered as an archive of pre-architectural elements, testing the constructive limits of the process and negotiating information, form and structural properties. Further tests to be conducted will focus on the development and simulation of shape-finding methods and on the integration of structural and material properties with various architectural parameters, which are essential for the generation of different spatial qualities.

Technische Universität Berlin

Teresa Palmieri

Hasselt University - Faculty of Architecture and Arts

'Prototyping Residential Subdivisions. Experimenting with prototyping for collective learning.'

Keywords

Prototyping; Collective learning; Residential subdivisions; Sustainability.

Context



In Flanders (Be), <u>suburban neighbourhoods and particularly residential</u> <u>subdivisions</u> made of single-family detached houses still represent the most common way of living. Supported by long-standing anti-urban policies, economic possibilities and the stimulation of homeownership (De Decker, 2011), the persistent Flemish housing sprawl saw its acceleration after World War II with the establishment of <u>the Flemish 'housing dream'</u>: <u>a private house with a garden</u> <u>in a quiet suburban setting</u> (Bervoets and Heynen 2013).

The focus on a plot-by-plot development and private initiative and life has resulted in the prioritisation of individual dwelling over the collective dimension and context of inhabiting (De Meulder et al., 1999).

Challenges

 economic (e.g. lack of services, costs of infrastructures, space underuse...)
 ecological (e.g. car-dependency, lack of green, high energy demand, impact on natural landscapes...)

• social (e.g. ageing population, housing affordability, increasing diversity...)

Whereas on a macro- and meso-level visions and plans for a more sustainable urban development exist, they have so far failed in having a wide spread impact on the everyday mode of living of the Flemish inhabitants.

Aim

For residential subdivisions to become more sustainable, <u>residents, local</u> <u>authorities and other local actors need to learn from each other to</u> <u>develop their capacities</u> to reach collective objectives (e.g. sustainable urban development). The project investigates and develops <u>design related processes</u>, <u>tools and techniques for collective learning</u> to facilitate the democratic and participatory discussion, envisioning and sustainment of retrofitting alternatives and new meanings for residential subdivisions.

Questions

- How to engage the actors of residential subdivisions in collective learning processes to unlock and develop their capacities?
- Is it possible to trigger collective learning starting from the everyday of residential subdivision and namely by together unveil, evaluate and rework everyday dwelling patterns toward more sustainable alternatives?

What role can design play in collective learning?



Participatory design methods and particularly making and prototyping (Binder et al.,2015; Brandt et al., 2013; Hilligren et al., 2011) are advanced to <u>enable</u> opportunities and challenges to contextually emerge and be discussed and open up and generate new meanings for residential subdivisions.

Prototyping is advanced as: a shared tangible language, a way to make issues experientially available for debate and evaluation, and to develop democratic decision making. To facilitate collective making and prototyping with multiple actors in different contexts and scales, the research is supported by <u>the open source</u> system OpenStrucutres that enables people to design modular objects according to a shared greed.

Case Studies: First experimentation with prototyping

The research developes through two long-term and on-going case studies: 'De Waterstraat' in Lanaken and 'De Witte Wijk' in Vosselaar (Flanders, Be)



A number of inhabitants and few other local actors have so far been involved in interviews during which they visualised and reflected on how they live in residential subdivisions and how they wish to live in the future. The individual sessions have been mediated by a model of an average house of the area and several paper components focusing on the use of the individual plots and their relation to the wider area of the neinbourthood.



The models supported trust and reduced the distance between the participants and the researcher. Their use enabled the sessions to take place in a space where participants felt comfortable. Using the material provided, participants were able to tangibly explain how they live and wish to live. At times, the visualisation helped them to evaluate and reconsider their dwelling patterns leading sometimes to the prototyping of proposals for alternatives. Making alternatives tangible enabled both opportunities and dilemmas about future ways of living to emerge and be discussed. Furthermore, the sessions highlight existing spaces where micro-(inhabitants) and meso- and macro- (municipality, region) visions don't coincide. Finally, the sessions showed that although residential subdivisions are characterised by individualistic modes of living, sharing practices exist with sometimes the hybridisation of individual and collective, private and public spaces

The first experiments with models will informe the further development of prototyping tools and techniques for collective learning in residenatial subdivisions that will be developed using the open source system OpenStructures.

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Teresa Palmieri

Prototyping Residential Subdivisions. Experimenting with Prototyping for Collective Learning

In Flanders, the single-family house remains the most common dwelling form, representing approximately the 80% of the total housing stock (De Decker, 2011). This is clearly distinguishable in residential subdivisions, where privately owned, single-family detached houses and large plots form the typical Flemish residential suburban landscape. Today these environments are confronted with considerable economic, environmental and social challenges. Whereas on macro- and meso- institutional level these challenges are evident and urgent, on the micro-scale of the neighbourhood the inhabitants commonly maintain to live their "housing dream".

The research aims at developing democratic and participatory processes to discuss, initiate and sustain the transformation of suburban residential areas into more sustainable urban ecosystems, starting from the hypothesis that this change can only be durable if supported by capacity building.

To do this the research advances prototyping as a way to involve residents, local authorities and organisations to learn from each other and develop new meanings and capacities for the future of these environments by unveiling, debating and (re) working the everyday contextual dwelling patterns of residential subdivisions.

This paper particularly focuses on the role that prototypes have to initiate and articulate processes of collective learning and future-making. It does this by analysing and reflecting on two case-studies in Flanders where prototypes (e.g. a paper sketch model of an average local house and plot with different paper components, furniture, trees, cars...) have been used and developed with inhabitants and other local actors to unveil, discuss and sometimes reframe and rework contextual individual and collective dwelling patterns toward the development of new meanings and more sustainable alternatives for residential subdivisions. In particular prototypes are analysed and discussed according to four roles for prototypes so far emerged during prototyping sessions: prototypes as language, prototypes as mediators, prototypes as experience and prototypes as technologies of the imagination (Halse, 2013).

The analysis and preliminary conclusions will be presented through a PP presentation and an illustrated poster of the role and potential of prototypes emerged from the experiments so far developed.



Technische Universität Berlin

Tiago Molarinho Antunes ISCTE – University Institute of Lisbon . DINÂMIA'CET . PORTUGAL Proportion and Metric Systems in the Portuguese building Tradition

ARENA



PEP

Tiago Molarinho

Proportion and Metric Systems in the Portuguese Building Tradition.

Since my adolescence, I have a deep interest in architecture and the diversity of the building's materials that create the quality of interior spatiality on architecture. Without a strategic plan, my academic selections have been creating in my sensibility, an eclectic understanding of different aspects in the design and building approaches that architecture has from the initial concept to the scars of is on life.

The actual PhD research on Proportion and Metric Systems in the Portuguese building Tradition on Manor Houses in Lisbon (1640-1755) began in my Degree in Interior Design, but in some way, all my academic interests and projects were I've worked as a scholar, enriched the present research. The principal objective of the PhD is to create knowledge on the study of the metric systems used in the design and construction of heritage buildings between the17th and 18th centuries. To analyse the principles of geometry, in the regularity, order and proportion, contained in the buildings morphometric composition. By analysing this evolution in the architectural structure, we'll have a reflected model of the architectural primitive design, and therefore, useful for the comprehension on the history of construction in architecture. It is our intention that this knowledge may provide a balance in the design and construction for new interventions, as well as is safeguard and conservation, integrated into the architectural built heritage. The principal goal of this research is to understand the relations of proportions between different scales in the interior architecture and create a new harmonic structure for future architecture spatiality.

The methodology chosen for this analysis, takes the buildings surveying are the main source of knowledge. The secondary sources of this analysis are four manuscripts transcribed in this research. Documents of architecture probably copies done in the 18th century, but very important to understand what kind of architectural knowledge would have an architect or a master mason to build a Manor house in Lisbon at that time. The documents whose dates are between 1579 and 1661 are a legacy of Portuguese architects.

Name Surname Home Institution Research Title Tim Simon-Meyer HCU Hamburg The potential of a haptic approach for the perceptible quality of architecture



PEP

Tim Simon-Meyer

The Potential of a Haptic Approach for the Perceptible Quality of Architecture

This research by design results from my practical work as architect. Sine 2012 I have developed several design.build projects that are defined by a creative process that is based on the characteristics of the used materials.

That process starts with the choice of the proper material that can function as constructive as well as spatial structure including the haptic aspects of the surface. Further decisions are made in relation to the physical and sensual characteristics of the material. In order to that the way of working is always dealing with the constructive and creative limits of it – always under the requirement of the design. build project which involves that the project is built by the creator himself.

As architects (not engineers and not craftsmen) we have a limited knowledge of construction and handcraft which means that we also need to go back to an intuitional knowledge about materials and their handling. This intuitional knowledge and the importance of it for the designing process will be also followed in the research.

The considered projects are characterized by a reduced materiality, basic forms and constructive logic.

Nevertheless those "basic" buildings are offering a strong atmospheric and physical experience.

One goal of the research will be the effort to find definitions and descriptions for those qualities that can be perceived.

How can we describe the architectural qualities and the related perception? It seems likely that the working method is leading to a specific atmospheric and architectural quality that can be observed in the considered projects.

What are the specific aspects of that "haptic approach"? The analysis and characterization of the working method will be another goal of the research.

The research started with a reflection of a selection of realized projects by my office. At the moment I'm working together with a group of students on a design. build project which is dealing with the creative potential of dry construction elements. That project will be part of the research. In further stages i will also develop and realize small scale projects within my practical activity. Each project will be comprehensively reflected and cognitions will be involved in new projects.

For the CA2RE conference I consider a small exhibition with prototypes and/or examples of the practical work.





Tomas Ooms Studio Tuin en Wereld, a&t architects and Faculty of Architecture KU Leuven Arrows of Operationality: (Un)Folding the Manifold Work(s)

ARROWS OF OPERATIONALITY: (UN)FOLDING THE MANIFOLD WORK(S)

KEYWORDS: Practice Based Research; Operationality; Artefacts; Taxonomic Landscapes

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1



Technische Universität Berlin

PEP

Tomas Ooms

Arrows of Operationality: (Un)Folding the Manifold Work(S)

The contribution will be a presentation of a Taxonomic Landscape of Artefacts. These 'Landscapes' are a method of reflection and giving the account of the Ph.D. Research 'Between Yard and World: To Draw A Distinction: On the Form of Re-Entry: A Manifold Practice.'. The research examines the manifold that constitutes the authors' practice. This manifold is composed out of 4 'studios': The Faculty Studio, the Office Studio, the Research Studio and the Composing Studio. The manifold is investigated by examining its multiple output and by exploring how results of this investigation feed back into the manifold. This form of re-entry performs operations and contributes to the production of new work(s). In this manifold, 'architecture' is explored as a form of creating distinctions with the right kind of overlap. The work(s) within the manifold practice are investigating a continuous shifting and renegotiating of the enclosure, the distinction between wall and space, between wall and gate, between yard and world.

The CA2RE conferences are integrated as a sequence of milestone events in the Ph.D.: The contribution in Gent focused one the form and place of the Taxonomic Landscape within the research. The presentation at Aarhus reflected on representation as a form of exploring the manifold. The presentation at the CA2RE Aarhus conference failed to deliver. This was mainly because of the dissociation between the manifold research and the way the discourse was constructed. Through participating at the CA2RE Berlin event I would like to address this issue. This will be done through developing an effective way of 'relating' the manifold practice research. The contribution will explore and mark the arrows of operationality as a research and work generating mechanism on the base of artefacts that are outcomes of the manifold. The contribution will report on the form of re-entry that drives the research in the manifold and will give the account of how the stitching together of the different practices of the manifold creates work.

The concrete contribution to the CA2RE will be a set of artefacts as outcome from the manifold that relate how operationality is one of the drivers of the manifold practice research. The contribution aims at raising new reflections, questions and observations that will become advanced arrows of operationality (un)folding the manifold works.



Uwe Rieger

arc/sec Lab, the University of Auckland

Real Time Reactive Architecture - A Fusion of Physical Materiality and Digital Information







computing, digital spatial technologies and mixed reality display devices enable designers not only to make data spatially visible, but also to connect digital information with physical properties. Research institutions such as the Tangible Media Group at MIT Media Lab have been laying the ground for concepts to merge data with matter in order to re-connect the digital world to the multimodal human senses¹. From commercial side the desire to go beyond audio-visual presentation of data finds its reflection in latest gaming technology. The entertainment center, 'The Void' for example, combines VR technology with passive and active physical components to offer a new hyper

Rapid advancements in the sector of real-time

Fig. 2

reality experience². The research on Real Time Reactive Architecture explores architectural applications of these strategies and technologies. The aim is to develop new conditions of buildings, which integrate data as a dynamic construction material. Core principle is the 1:1 calibration of physical and digital design. Both components are interlinked through a feedback loop consisting of three elements: a sensor system to monitor the physical environment, a real time processing system and digital output devices (Fig.4).

The topic is investigated through creative practice. Large-scale prototypes and interactive installations (Fig.1-3) are the driving vehicle for both, the exploration of tactile data and the demonstration of real time responsive environments. The underlying research question investigates functional and aesthetic design parameters for haptic-digital architecture and user interfaces.



Fig. 4

- Fig. 1 LightScale II generates a tactile data experience through projections on multi-layered mesh surfaces. (It combines a virtual environment with a 20-meter long carbon fiber construction, which freely oscillates in space (Photo by T. Mesic) Riveor. U. LightScale II. 2017. Mixed media. 28 x 28 k m. Cathedral Linz, Austria
- Fig. 2 LightTank is an interactive cross reality installation that augments a space frame structure with holographic line drawings using an anaglyph projection technology on transparent screens. (Photo by author) Reiger, U. a Liu, Y. LighTank. 2018. 8 x 8 cm, Ars Electronica Festival, Austria
- Fig. 3 SINGULARITY blends data, dance, music and architecture in an interdisciplinary mixed reality performance. Marked with tracking devices, 3 dancers transform physica movement into mutable architectural volumes of illuminated haze particles. (Photo by K. Simon) Rieser U., Brown, C., Liu, Y., Soudan, J., Socones, R., & Mao, Y. SINGULARITY.

PEP

- 2016. Mixed media, 14 x 14 x 5 m, Q-Theatre, Auckland, New Zealand
- MIT Media Lab. "Group Overview (Tangible Media MIT Media Lab." https media.mit.edu/orups/tangible-media/overview/.

2. THE VOID. "Step Beyond Reality." www.thevoid.com/

Technische Universität Berlin

Uwe Rieger

Real Time Reactive Architecture A Fusion of Physical Materiality and Digital Information

Rapid advancements in the sector of real-time computing, digital spatial technologies and mixed reality display devices enable designers not only to make data spatially visible, but also to connect digital information with physical properties. Research institutions, such as the MIT Media Lab, have been laying the ground for concepts to merge data with matter. Our desire and fascination to re-connect the digital world to the multimodal human senses finds its reflection in latest gaming technology. The entertainment center, 'The Void` for example, combines VR technology with passive and active physical components to offer a new Hyper Reality experience.

With a focus on architectural applications, my research on Reactive Architecture explores concepts for a new condition of buildings, which use data as a dynamic construction material. Specific to my approach is the development of large-scale interactive installations as the driving vehicle for both, the exploration of tactile data and the demonstration of real time responsive environments. The underlying research question investigates functional, programmatic and aesthetic design parameters for haptic-digital architecture and its user interaction.

The presentation for the CA2RE conference will consist of two parts. An oral presentation supported by images will give an overview of my recent experiments, introduce technical principals and discuss the preliminary findings.







CA² RE

Name Surname Viktorija Home Institution Universion Research Title Poem-I

Viktorija Bogdanova, Tadeja Zupančič
 University of Ljubljana, Faculty of Architecture
 Poem-Drawings: Instantaneous Emotive Traces of the Design Process



Viktorija Bogdanova

Poem-Drawings: Instantaneous Emotive Traces of the Design Process

Poem-drawing is a processual tool in holistic reading and re-imagining of places. A composite of two artforms, it exhibits immeasurable spatial merits that cannot be grasped in technical modes of architectural expression. Each time a differently 'spoken' language, its variations are molded by author's inner condition, at a certain place and instant of creation. It is a knot of immersion in the creative process, where threads of the subjective and the objective dimension of spatial design re-establish their dialogue.

The paper (and exhibition) aims to discuss different ways of how poem and drawing work together in few design projects. In each case, the following features are common: 1. by close re-reading of the place in many layers (spatial, culturological, spiritual, emotional), a selection of site-specific elements/names/phenomena is being developed as core metaphor in design thinking; 2. the proposed intervention is never an isolated solution, but a system of architectural acupuncture on a larger part of the landscape, interweaving many physical and metaphysical ties; 3. the intervention contains a story of embodied experience (memories, dreams, desires) flowing through time - from reflections on the past to predictions about the future. Poem-drawings themselves are written/drawn instants of relational thinking, of integrating theoretical references and creational activity itself, resting points along the wayfaring in the design process.

Poem-drawings develop naming of atmospheres seen or imagined; reflections of author's innerness (feelings, readings, experiences) interpreted in the context of the design problem; emotional mapping of meaningful site-specific values through multilogues - discussing and translating them into newly imagined scenarios. The exhibition aims to expose the varieties of interweaving between poem and drawing, in specific instants of the design process.

Wiktor Skrzypczak HafenCity Universität

Introduction to a somatic inquiry of architectural space



Wiktor Skrzypczak

Introduction to a Somatic Inquiry of Architectural Space

A heightened bodily self-consciousness enhances the perception of the environment. How can this correlation be consciously and effectively applied in architectural praxis? An account of the first phase of doctoral research will be presented, including its interdisciplinary theoretical framework (in the fields of architecture and somatics) and introduce somatic inquiry as a spatial research method and explore the concept of architectural design through documentation of experienced spatial relations.

The study's framework draws from body-oriented architectural theory (Einfühlungsästhetik, phenomenology, perception psychology) and exemplary somatic methods (Body-Mind Centering®, Feldenkrais Method®). This study examines the reduction of a spatial experience to bodily felt phenomena - a method used in both somatics and phenomenological analysis. It also discusses how the tacit knowledge of the body 'feeling' itself correlates with explicit knowledge about the environment.

As a field of corporeal practices and methods which mostly developed throughout the 20th century, somatics seeks to heighten body consciousness and relate the body-mind to the environment, by means of perception training (cf. a similar concept in architecture) and particularly through its focus on kinaesthetic and proprioceptive modalities.

This research includes empirical trials of specific bodily practices oriented towards spatial phenomena. Part of its documentation is a first-person perspective record of relational interaction with spaces and places. This kind of documentation of spatial relatedness has properties of architectural design: Despite originating from an ephemeral experience, it is material (non-abstract) because its roots are in the material world. It can define relationships before it addresses structures (cf. Cohen). It has the characteristics of 'construction documentation' because it describes the method and circumstances of spatial experience induction.

This performance lecture provides an account of movement-related architectural thinking. Besides a verbal presentation of the above-mentioned topic, it will include the researcher's movement. It also addresses the audience's direct kinesthetic response and may require seating modification in the conference hall. This contribution can be illustrated with work samples from current research.