

D R A W I N G
M I L L I O N S
O F
P L A N S

CONFERENCE

1 - 3 November 2017

EXHIBITION

1 - 21 November 2017

The Royal Danish Academy of Fine Arts
School of Architecture

DRAWING MILLIONS OF PLANS

Conference

1-3 November 2017

Exhibition

1-21 November 2017

The Royal Danish Academy of Fine Arts
Schools of Architecture, Design and Conservation (KADK)
School of Architecture
Philip de Langes Allé 10
1435 Copenhagen K
Denmark
www.kadk.dk

Organizers/curators

Anna Katrine Hougaard

Martin Sjøberg

Jacob S. Bang



The Royal Danish Academy of Fine Arts,
Schools of Architecture, Design and Conservation
School of Architecture

DANISH ARTS FOUNDATION



15. Juni Fonden

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CONCEPT

The Drawing Millions of Plans conference and exhibition invites scholars and practitioners to investigate and discuss contemporary architectural drawing and, in particular, the drawn plan. We will consider various types of drawing ranging from the sketch to the working drawing as an epistemic and/or generative device, and look at the role of drawing in relation to 3D techniques and drawing in the spectrum between representation and simulation. What types of contemporary plan drawing practices do we know exist today – or should be developed – in relation to architectural education, as well as to design work and actual building practices situated in professional offices?

“A plan calls for the most active imagination,” wrote Le Corbusier in *Towards A New Architecture*. To Le Corbusier, the plan was essential to any architectural project and its agency comparable to that of a generator. Indeed, historically speaking, plans, whether they are floor plans, site plans or others, have been of unquestionable importance to the discipline of architecture. Yet, what is the agency of the plan today? May we still consider it a generator, a promotor of our imagination, or with the advent of digital design possibilities, has it merely lost its previous status as a privileged tool for developing and communicating about architecture?

Traditionally, the architectural plan was executed through the process of analogue hand drawing supported by geometrical tools. What are the implications for drawn plans and the processes of design and conceptualisation connected to plan drawing given that many professional architects today consider

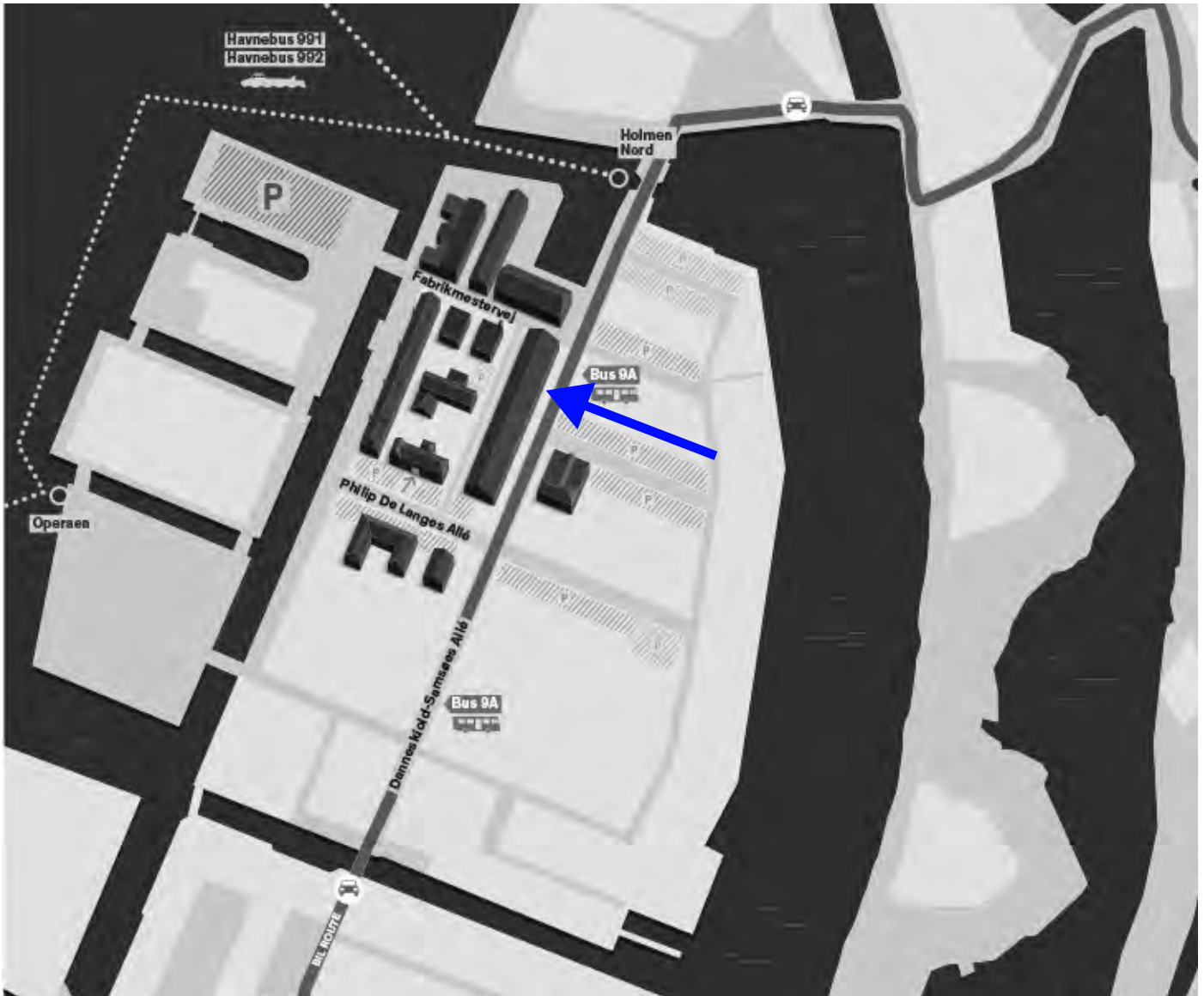
computers their privileged (drawing) tools? Do architects still use tracing paper (or napkins!) for sketching, and has the role of the sketched plan become purely diagrammatic, or turned into prototyping?

In a digital context, how have architectural offices changed their practice of drawing plans? What new kinds of drawing have been developed, and do they still possess the same aspects of ambiguity often associated with the hand-drawn sketch? Moreover, architects look at buildings orthogonally through plans. This projective way of looking is closely linked to traditional geometrical drawing tools. Yet, when tools change and projections persist, as with a lot of design software today, what are the consequences?

Drawn architectural plans may be considered as aesthetic objects worth contemplating and even exhibiting. They may be described as *beautiful*, which would imply that the plan possesses certain graphic and/or organisational qualities. This points to the plan as an object of meaning and imagination, and apt for interpretation, as stated by Le Corbusier. Such immaterial, almost existential aspects of the plan were emphasised by John Hejduk, who argued, “the plan shows the death of the soul of architecture. It is an X-ray of the soul.” Just as actual X-rays require skilled interpretation, what sort of hermeneutic measures does the drawn plan call for?

Anna Katrine Hougaard & Martin Sjøberg

VENUE



CONFERENCE AND EXHIBITION

The Royal Danish Academy of Fine Arts
Schools of Architecture, Design and Conservation (KADK)
School of Architecture, Philip de Langes Allé 10
Copenhagen

Auditorium 2 (A2)
Auditorium 5 (A5)
Auditorium 6 (A6)
Exhibition Space H

The entrance to all auditoriums and the exhibition space is marked by the blue arrow.

CONFERENCE DINNER

LaLaLa Restaurant
Strandgade 98, Copenhagen
<http://www.la-la-la.dk/>

PROGRAMME

WEDNESDAY 1 NOVEMBER

16:00-17:00 Registration

17:00-17:15 Welcome (A2)

Anna Katrine Hougaard & Martin Sjøberg

Lene Dammand Lund, Rector, KADK

Irene Alma Lønne, IBD

17:15-18:45 Keynote Lecture (A2)

Martino Tattara
Large-Scale Plan

18:45-20:00 Vernissage

THURSDAY 2 NOVEMBER

08:30-09:00 Registration

09:00-09:30 Introduction (A2)

Anna Katrine Hougaard & Martin Sjøberg

09:30-11:00 Presentations

1: Scanning (A5)

Bernadette Devilat & Felipe Lanuza
*Drawing (on) the Context: Scanning,
Designing, Building*

Maya Lahmy
Survey < > Creation

Natalie Koerner
Clouds: Beyond Millions of Plans

Moderator: Anna Katrine Hougaard

2: Drawing and Writing (A6)

Alejandra Celedón Förster
Alphabet Architektur

Marian Macken
Passage: The Temporality of a Plan

Kristine Annabell Torp
*House of the Tragic Poet: From Pompeii to
Brønshøj as a Diagram*

Moderator: Fredrik Torrison

11:00-11:30 Break

11:30-13:00 Presentations

3: Body and Movement (A5)

Sony Devabhaktuni
*Making Plans: The Notations of Merce
Cunningham and Architectural Drawing*

Helle Brabrand
Drawing Millions of Spaces

Sean Griffiths
*Architecture without Plans: Design
Strategies Based on Chance Operations*

Moderator: Robin Schaeffer

4: Time and Utopia (A6)

Katica Pedisic
*Lines Made by Walking: On Conceiving the
Invisible*

Sophia Banou
*Drawn Utopias: From Language to
Experience*

Fredrik Torisson
The Plan in the Age of the Protocol

Moderator: Henrik Oxvig

13:00-14:00 Lunch

14:00-15:00 Presentations

5: Cartography (A5)

Sayan Skandarajan
*Drawing Parallels: Representation and the
Political Gaze in Early Edo Period Kyoto*

Guro Sollid
Drawing Connections

Moderator: Natalie Koerner

6: Taxonomies (A6)

Jinjoo Yang
*Orthogonal Collages: Generative
Architecture*

Branchesi & Reiner-Roth
Plans for Others

Peter Rasmussen & KKA
*75 Apartment Plans: Social Housing Project
at KKA*

Moderator: Kristine Torp

15:00-15:30 Break

15:30-17:00 Presentations

7: Social Matrix (A5)

Raúl Martínéz
*Drawing Architectural Experience:
Diagrams of Gaudi's Palau Güell as
Contemporary Models*

Elif Hant
*Transduction of Plan Drawing with
Everyday Life*

Athanasίου Geolas
*Manners of Working: Robin Evans, the Plan,
and a Theory of Practice*

Moderator: Kristine Annabell Torp

8: Drawing As Environment (A6)

Carole Lévesque
*A Vague Precision: Architectural Drawing
and Other Stories*

Kassandra Nakas
*SANAA's Playtime: Communication and
Interaction in Sejima's and Nishizawa's
Architectural Drawings*

Rachel Hurst
*A Million Hours of Plans: Exploiting Time
and Transparency*

Moderator: Anne Romme

19:00-22:00 Conference Dinner

FRIDAY 3 NOVEMBER

08:30-09:00 Registration

09:00-10:00 Presentations

9: The House (A5)

Robin Schaerverbeke
10000 Drawings and a Model or Two?

Mette Hübschmann & Matthew Philips
Plans of Ideas/Possibilities

Moderator: Morten Birk Jørgensen

10: Figure (A6)

Joseph Altshuler & Julia Sedlock
Pump Up the Volume: Drawing Participation with Planimetric Figuration

Daniel Wilkinson
The Gestural Plan: Resisting Architectural Imperatives

Moderator: Martin Sjøberg

10:00-11:00 Presentations

11: Negotiating (A5)

Olivia Valentine
Drawn Prospects: Metropoliz Future Forest

Kirsty Badenoch
New Lohachara: A Dialogue Between Man and The [Super]Natural

Romme, Houser, Torp, Menger & Aagaard
Ten Plans of Negotiation

Moderator: Maya Lahmy

12: Generative Operation (A6)

Carolina Dayer
Behind Lines: A Genetic Approach to Plan Drawings

Tomas Skovgaard
Staatsbibliothek zu Berlin

Maja Zander Fisker
You Wouldn't Have Known Her

Moderator: Anna Katrine Hougaard

11:00-11:30 Break

11:30-13:00 Presentations

13: Projections (A5)

Paul Emmons
Change of Plans

Min Kyung Lee
Drawing Squares from Triangles: On the Surveys and Plans of 19th-Century Paris

Firat Erdim
Satellite Monuments and Peripatetic Topographies

Moderator: Martin Sjøberg

13:00-14:00 Lunch

14:00-15:30 Keynote lecture (A2)

Penelope Haralambidou
The Veiled Matrix of Architectural Representation

15:30-16:00 Break

16:00-16:30 Conference Closing (A2)

Anna Katrine Hougaard & Martin Sjøberg

Penelope Haralambidou

Bartlett School of Architecture, UCL

The Veiled Matrix of Architectural Representation

Even in its recent digital phase, architectural drawing is still under the hegemony of orthographic projection, the matrimony between the drawing of the plan and the section, instituted during the Renaissance. Orthographic projection is a potent and often unquestioned, underlying syntax of visual thought, an efficient, but also unavoidably limiting instrument for organizing space: it constitutes an invisible 'matrix' dominating spatial thinking throughout the Modern period and up to today, not only in architecture, but also fine art and cinema. As it is intertwined with all modes of representation in the form of the page, the drawing surface, the computer and the cinema screen, it is very difficult to break through and see beyond it. So how can this veiled matrix be exposed and questioned?

In my work, I have tried to define the limitations of the matrix of architectural representation by using the drawing itself as a method. In this talk, I will present three drawings that deal with forgotten, implicit, or taken for granted aspects of orthographic projection: the other eye, the lost surface and time. To break through the assumptions of architectural representation, I look at disciplines and methods beyond current architectural practice: in fine art, filmmaking and the drawing techniques of the past.

The first drawing, *The Act of Looking*, 2007, is an architectural analysis of *Given: 1. The Waterfall, 2. The Illuminating Gas...*, 1946–66, a built diorama by French artist Marcel Duchamp. Inspired by Duchamp's work it studies the omission of 'the other eye' in monocular projection, which still underlies orthographic representation. My drawing is the culmination of research leading to the book, *Marcel Duchamp and the Architecture of Desire*, 2013, which examines the link between architectural thinking and Duchamp's work.

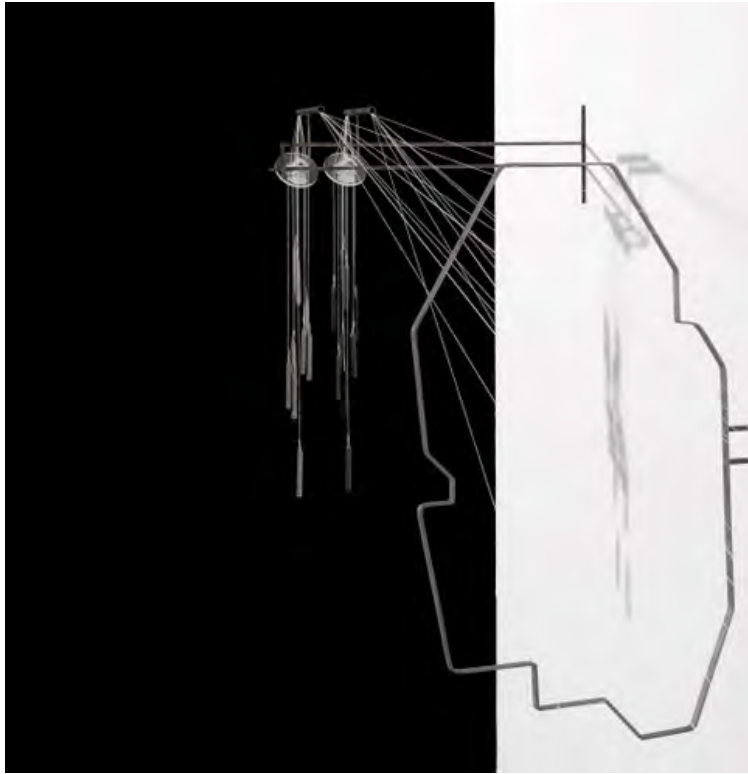
With-drawing Room on Vellum, 2016, is a two-fold drawing that reflects on the recent vanishing of the architectural drawing surface, physically and notionally. Drawn on vellum, the piece is informed by historical examples of medieval architectural working drawings, as well as illuminated manuscripts, and is matched by a digital back projection. By bringing together: vellum – as the forgotten, visceral past – and digital projection – as the uncertain evanescent future of architectural drawing surface – *With-drawing Room on Vellum* aims to probe and challenge the current tendency for drawing to withdraw from the skin of the world.

Finally, *Déjà vu: Restaging Resnais's Last Year at Marienbad*, 2009, is drawing/model/film that performs an analysis of French filmmaker Alain Resnais's enigmatic film *Last Year at Marienbad*, 1961. The drawing attempts to

disrupt the singular picture plane by splitting it. It creates a topographical rather than chronological incarnation of the plot, while exposing architectural representation's difficult relationship with the dimension of time.

Reflecting on the future of architectural representation, the talk will conclude with a brief discussion of the work I do at the Bartlett with Unit 24, a group of architectural storytellers employing design, film, animation, drawing, VR/AR who find inspiration in the dialogue between film and architecture, study their intertwined histories and seek the magical possibilities arising from their merger.

Dr Penelope Haralambidou is a Senior Lecturer at the Bartlett School of Architecture, UCL. Her research lies between architectural design and theory – with a focus on drawing and the relationship between architecture and film – and has been published and exhibited internationally. She is the author of *Marcel Duchamp and the Architecture of Desire* (Routledge, 2013) and has contributed writing on themes such as allegory, figural theory, stereoscopy and film in architecture to a wide range of publications.



Penelope Haralambidou, *The Act of Looking*, 2007.
Photograph by Andy Keate, 2007.

Martino Tattara

Dogma & Faculty of Architecture, KU Leuven

Large-Scale Plan

Within architectural research, drawing large-scale, diagrammatic, interpretative, or conceptual plans have become common practice. Yet, some of these plans cannot be confined within the framework of representation. While representing a certain condition, by drawing a plan an architect is forced to select, reduce, and interpret available data, engaging therefore in nothing less than a projective process. Although the making of plans has often been criticized for being a neutral and unending process of production of drawings, some large-scale plans go beyond the field of representation and contain an implicit projective dimension, overcoming thus the threshold between mapping and design and revealing themselves as powerful design tools for the project of the city. My lecture will discuss the history and meaning of the large-scale architectural plan through a series of canonical examples and by relating them to some of recent Dogma's large-scale plans.

Martino Tattara is a practicing architect and co-founder of the office Dogma. He is Assistant professor of Architecture at the Faculty of Architecture, KU Leuven (Belgium). Between 2012 and 2015 he was the Head of Research and Teaching at ETH/Swiss Federal Institute of Technology, Studio Basel: Contemporary City Institute (Switzerland). Previously, he has taught for several years at the Berlage Institute in Rotterdam (the Netherlands). His theoretical work focuses on the relationship between architecture and large-scale urban design and he has widely published and lectured on topics related to the project of the city. Since a few years, he investigates through projects and writings the condition of domestic space.



Detail of Aldo Rossi's plan of the center of Zurich, 1:1000, ETH 1973.

Pump Up the Volume: Drawing Participation with Planimetric Figuration

Over the past ten years, architectural figuration forged an unabashed comeback. Since Ron Witte declared its return in his 2005 essay “Go Figure,” a new generation of designers has been testing the boundaries of figural propriety and potential.¹ The return of the figure in section or elevation explicitly advances contemporary practitioners’ investment in building new audiences for and with architecture through symbolic representation. While this communicative potential of the vertically oriented figure warrants attention, planimetric figuration offers another means of audience building, by developing an architectural plan whose organizational logic is participatory and democratic.

If the sectional figure of Venturi & Scott Brown’s duck shouts loudly to the world, “I am a duck!” in order to solicit attention and facile comprehension, then the planimetric figure dials down the volume on legibility and communication. The plan generally communicates instructions to a builder on how to construct and to the bodies of its inhabitants on how to occupy a space. However, this latter communication occurs at the volume of a whisper, if audible at all. Through a rational correlation between drawn lines and the activities and bodies they contain, the plan as generator permits an architect to impose an unseen or unperceived set of rules upon its audience in order to influence behavior and coerce relationships. Alternatively, a figural plan gives away some of its secrets by turning up the volume of its instruction loud enough to prompt a conversation with its inhabitants. As an organizing tool, figuration in plan allows for a loose fit between form and program where the two are in dialogue, pushing and pulling without alignment, thus making space for interpretation and improvisation in its occupation.

This paper explores two modes of operation that define a spectrum of architectural effect generated by planimetric figuration: on one hand, the two-dimensional supergraphic applied to the ground plane, and on the other, the volumetric extrusion of a figural footprint.

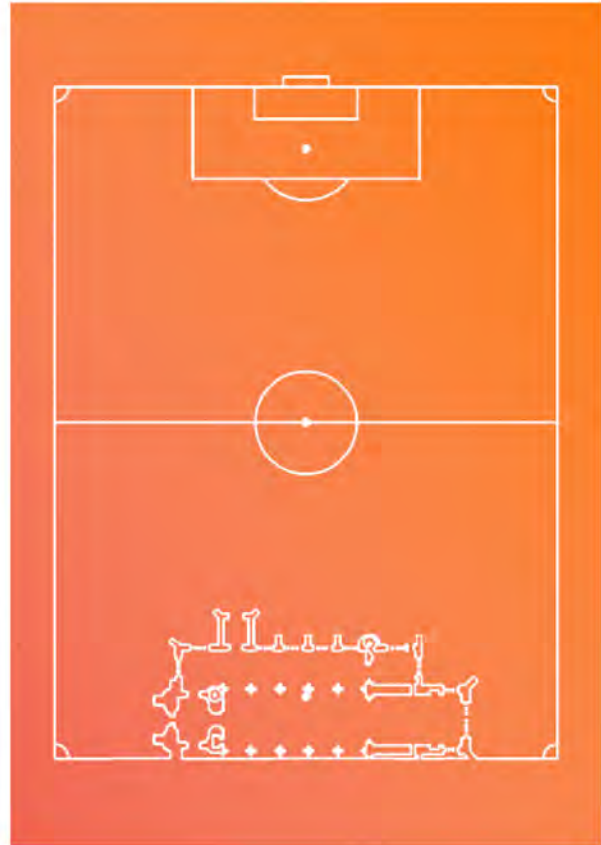
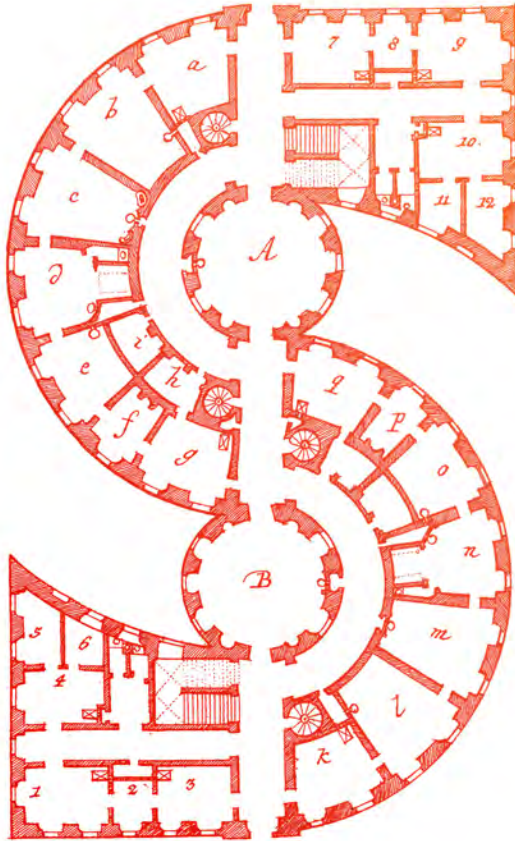
On one end of the spectrum, Johann David Steingruber’s 1773 *Architectural Alphabet*, offers an extreme example of the latter. Steingruber creates drawings for palatial buildings generated from letter-shaped floor plans corresponding to the twenty-six letters of the Latin alphabet, each essentially a giant extrusion of a letterform figure. This curious compendium might appear as an abstract academic exercise or even an architectural joke; however, the seriousness with which Steingruber resolves his typographically-generated plans suggests the creative potential and cultural capital that planimetric figuration may instigate.

On the other hand, sports fields express the (literal) lines of plan configuration optically on the surface of the ground. The resulting 2-D supergraphic creates a field of possible human behaviors within a given set of rules, but does not determine the final outcome. Sam Jacob redraws the lines of standard football pitches to exaggerate the behavioral power of plans and to suggest alternative narratives of participation. Whether adjusting the outline of the field, the shape of penalty areas, or the orientation of the halfway line, the edited sports field suggests the plasticity of human rules, roles, and behaviors that plans make possible and that literal lines on the ground amplify. The selection of contemporary case studies explored in this paper is positioned along this continuum, combining the 2-D and 3-D potential of planimetric figuration to produce architectural results that expand the relationships between architecture and the city, public and private space, and subject and object.

Joseph Altshuler is co-founder of Could Be Architecture, a Chicago-based design practice, and the founding editor of SOILED, a periodical of architectural storytelling positioned between a literary journal and design magazine. He teaches architecture at the School of the Art Institute of Chicago and the Illinois Institute of Technology. Joseph recently curated The Unsolicited Sideshow at the Chicago Architecture Biennial. Journals publishing his writing include Log, MAS Context, CLOG, Pidgin, and PLAT. His winning entry to the international Fairy Tales competition is published in the book *Fairy Tales: When Architecture Tells a Story*. Joseph holds an M.Arch from Rice University.

Julia Sedlock is a founding partner of Cosmo Design Factory, an upstate New York design practice that executes projects that straddle the reality of this world and the possibility of an alternate one. In addition to several houses nearing completion, their work leverages architectural practice as a form of community development by working with neighbors and government to transform their village into a model for a post-capitalist society. Journals publishing her writing include PLAT, MAS Context, Soiled, Conditions, and Log. Julia teaches at NJIT and holds an M.Arch and M.A. in Design Criticism from the University of Illinois at Chicago.

1: Ron Witte, “Go Figure,” *Log* 5 (2005).



Kirsty Badenoch

New Lohachara: A Dialogue Between Man and The [Super]Natural

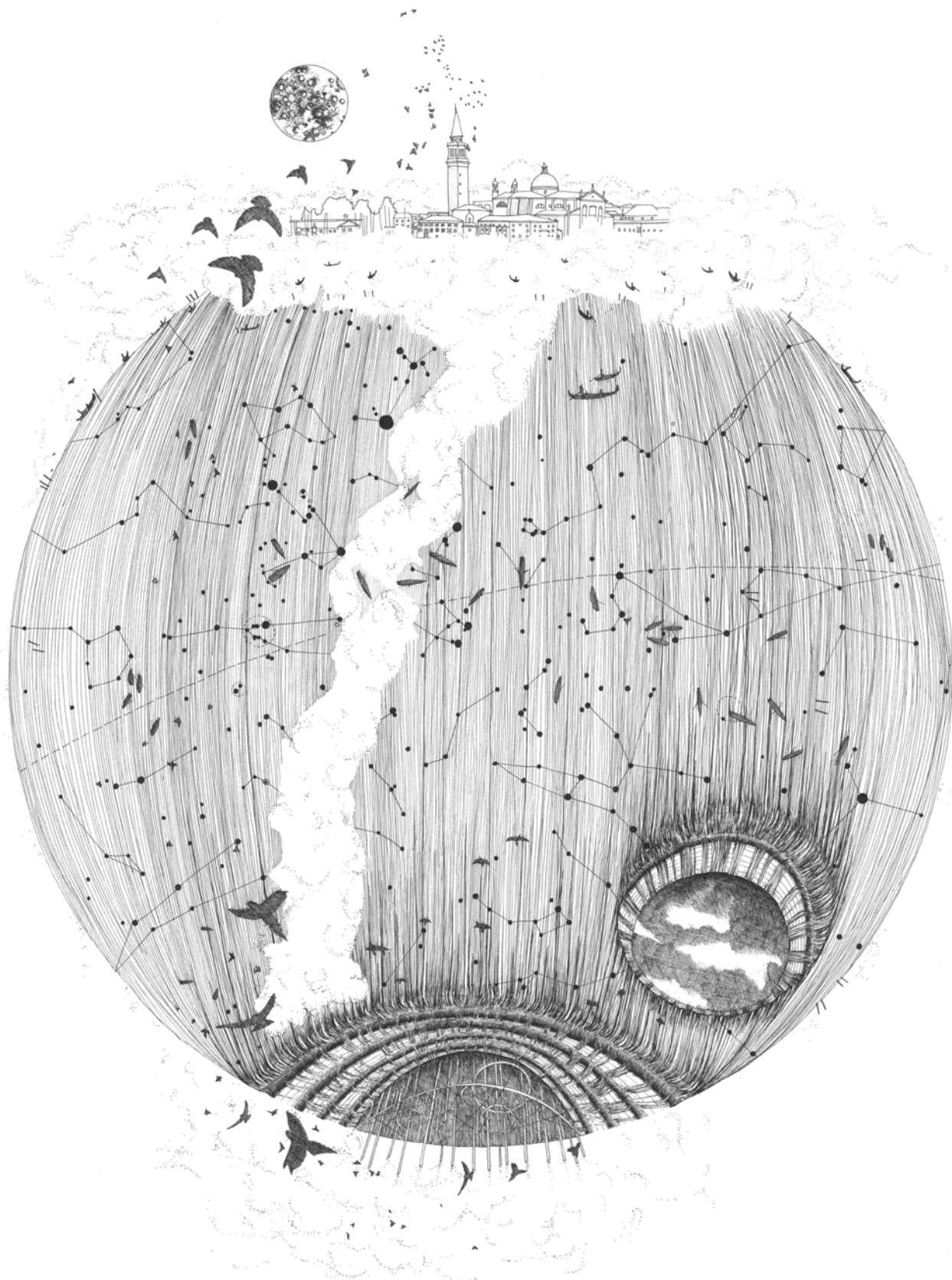
New Lohachara is a masterplan for a new sustainable hydro-city, centered around the preservation of disappearing lands and cultures in the face of rising sea levels. The project explores an architecture of wonder through the augmentation of nature: an architecture of [Super]Nature. Speculating on future potentials that embrace our changing climate rather than defend against it, the project re-engineers the water cycle as a series of great water-processing Wells. Inspired by the stepwells of India, the megastructures operate as cities, driven by the manipulation, processing and celebration of water in its (un)controllable and (un)predictable states. The project is sited in Venice - both born from and increasingly doomed by water, and a context for the extraordinary and miraculous.

The masterplan explores a strategy for the re-engineering of the water cycle, expressing the varying states and processes of water as the predominant architectural material of the city. The masterplan is drawn from a cosmic-perspective, a fish-eye blueprint that incorporates time and fluidity within the dance of the natural and augmented water processes. Floodwater is drained from the Venetian lagoon into the great Well below, in cycle with the lunar tides and the dancing of boats upon the waters' surface. Venice hovers precariously just above the waterline, its magic amplified by the shrouding mist exhaled by the water processing. With reference to Italo Calvino's *Invisible City, Isaura – City of 1000 Wells*, "an invisible landscape conditions the visible one, everything that moves in the sunlight is driven by the rock's calerous sky".

Traditional architectural drawing conventions and perspective viewpoints are played with within the imagery, mixing engineered dimensioned plans with experiential perspective and an element of the surreal. Unexpected perspectives explore abstracted and surprising angles – challenging and plunging the narrative through play and delight. Through iterative plans from 1:20 000 000 down to 1:50 , the drawings explore varying level cuts, questioning the impact of rising sea levels on the datum of cartographic standards, as "zero" becomes increasingly ambiguous.

Through its intricate hand-drawings, *New Lohachara* weaves a fantastical narrative exploring an architecture of wonder and the miraculous. Within our contemporary context of increasingly hyper-digitalised architectural representation, analogue methods retain a direct physicality and an intrinsic engagement with poetic narrative. Through utilising analogue methods, the drawings look to re-instil the imaginative wonder associated with bygone narrative architectures of metaphor, motif and folly, and bring this forward into the imaginative realms of future possibility.

Kirsty Badenoch is an architect operating between the realms of landscape, territory and drawing. Working in practice and through speculative research and art, her work centers around the dynamic relationship between the natural and the manmade, exploring fluid geographies and the interplaying forces that shape a place. Focusing on analogue drawing methods, her pen and ink hand-drawings have won numerous awards including the RIBA Presidents Medal Sargeant Award for Drawing 2013 and been exhibited worldwide. Alongside working in practice at BIG Landscape, her current projects include investigating the cartography of memory through drawing. Her favorite animal is the pufferfish.



Drawn Utopias: From Language to Experience

Goodbye to Language (*Adieu au Langage*, 2015), was the first film by Jean-Luc Godard to make use of 3D filming techniques. Its title suggests a conflict between the word and the image while it can also be considered to refer to the concept of *langage* (Saussure, 1959): not a systematic convention of signification (*langue*) but the innate faculty of speech that manifests between the systematic and the individual enunciation (*parole*). Godard revisits both the formal language and the narrative structure of film considering language as a whole. The film is an essay on the crisis of representation as a crisis of communication and the recurring commentary is on the 'spectacle', exposing the inadequacy of language as a mediative means of representation.

The questions that *Goodbye to Language* raises about the medium have been respectively tormenting architectural practice over the past sixty years. This has been brought to the fore in the persistent challenging of the convention of orthographic drawing by the accessibility of a simulative iconicity. In other words, the representational virtuality of parallel projection, is increasingly substituted a virtuality that can be considered as deriving from the televisual and cinematic (Beller, 2002) 'Spectacle' (Debord, 1994) and its digital descendants. The image is no longer 'the territory' (Corner) when it poses as its simulation. If the transition from drawing to modelling signifies, through the fixing of meaning, a loss of spatiality, how is this spatiality expressed in architectural drawing as a language of representation?

The oscillation between simulative figuration and abstract ideation is not a recent phenomenon. While perspective pursues the virtual through the simulation of a visual/emodied experience (Lynn, 1993), geometric delineation attains a virtuality, internal to the drawing as a system of signification. Considering the digital ascendancy of the image in our wider visual culture (from 3D renderings to Instagram) and of the informational model in our architectural practice (BIMM), what is left of architectural drawing when either of its two expressions is pushed to the extremes?

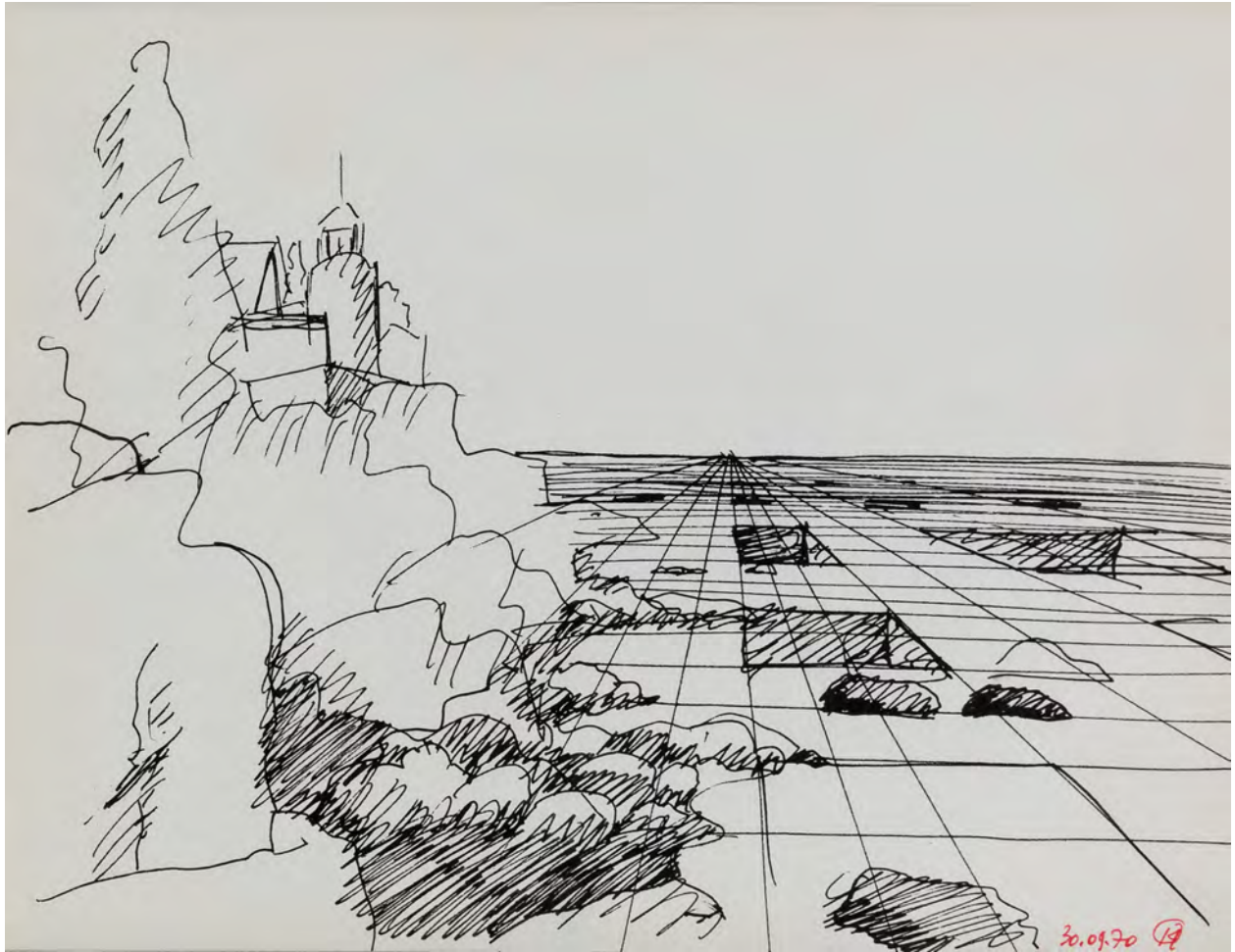
This paper traces the origins of this shift from the operative abstraction of the plan to the visually accessible displacement of simulation (Mario Carpo, 2011). Although this crisis of representation can be traced in the ongoing social and technological developments that were accelerated by the advent of modernity, it was only theorised at the intersection of a linguistic (post)structuralism and an emerging focus on spatiality of the 1960s (Lefebvre, 1991). This paper considers architectural drawing through an understanding of language as a spatial condition of

subjectivity rather than a purely referential representation, considering the architectural virtual through the idea of the utopic text: a signifying spatial practice that negates both reality and mimesis (Marin, 1984). The paper will refer to drawn and 'visualised' precedents, drawing connection between drawn utopias of the 1960s and recent architectural visualisation.

Sophia Banou has studied architecture in Athens (NTUA) and Newcastle (SAPL) and Edinburgh (PhD, ESALA 2016). She has previously practiced architecture in Greece and currently teaches architectural design and theory at ESALA while she is an editor for the journal on architectural research by design *Drawing On*. Her doctoral research engaged with installation as a means of exploring questions of architectural representation, in relation to the concept of space as a temporal and kinetic condition. Her wider research focuses on the semiotic and technological challenges posed for architectural drawing in the context of a digital visual culture.

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Helle Brabrand

KADK, School of Architecture

Drawing Millions of Spaces

My project *Drawing Millions of Spaces* takes up some recurring questions about drawing and perception, stating that kinesthetic perception alone is a decisive force in drawing architecture. The assertion is that awareness of produced sensuous effects is a core issue of drawing, framing the way we see and imagine.

Affective tonality attaches to proprioceptive and kinesthetic experience, being the mode of experience that transverse the senses. Movement is always there; you have to make distinctions between kinds of movement and experimental dynamics, questioning what difference they may create. *Drawing Millions of Spaces* looks for ambiguous and resonant body-space articulations, preparing for a use of AR (augmented reality) as an additional creation approach. For instance, working with combined projections, using a flat surface in actual space for projection of line-, photo-, and video effects, and then, out of this surface-context, provoke a participator to move and extract different atmospheric perspectives. Presently, the work is presented as a video.

In *The Art-Architecture Complex*¹ Hal Foster criticizes what he calls the image-making of today's architecture. A central chapter is *Building Contra Image*, a dialogue with the sculptor Richard Serra seen as an 'activator' of ambient space. Engaged with dance, in terms of movement and equilibrium, stasis and balance, Serra dissolves sculpture into a field of process - movement - time. Asking very basic architectural questions, his focus is on elevation, on what happens to your body when the elevation is shifting: how do you cut into space, gather the land in a volume, and hold that volume? Serra's concern is moving body-space experiences: 'when you face a concave shape, the whole breadth of the curvilinear volume opens up in front of you; but once you walk around the edge, it changes to an opaque convexity that reveals itself only through walking – you can't see the openness of the field or how the volume sucks into it. Just turning the corner opens up another world. That interests me, and it didn't appear to be critical in architecture'.

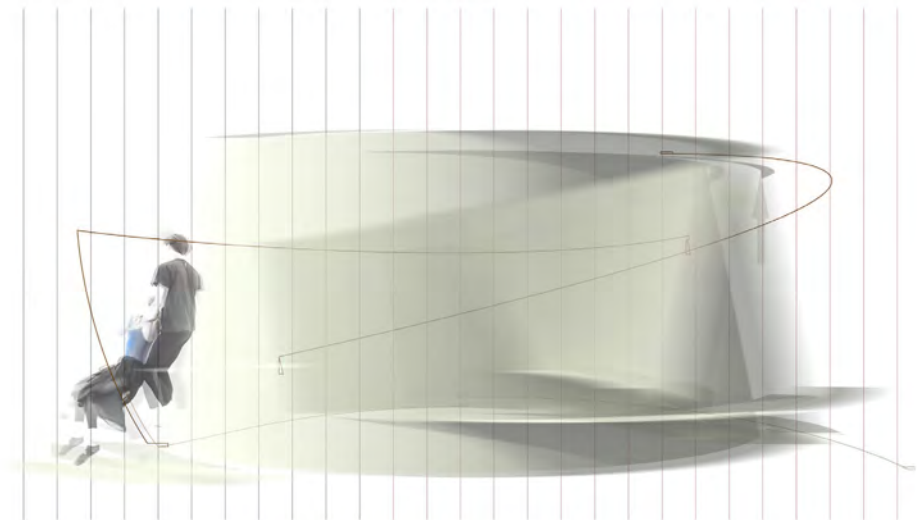
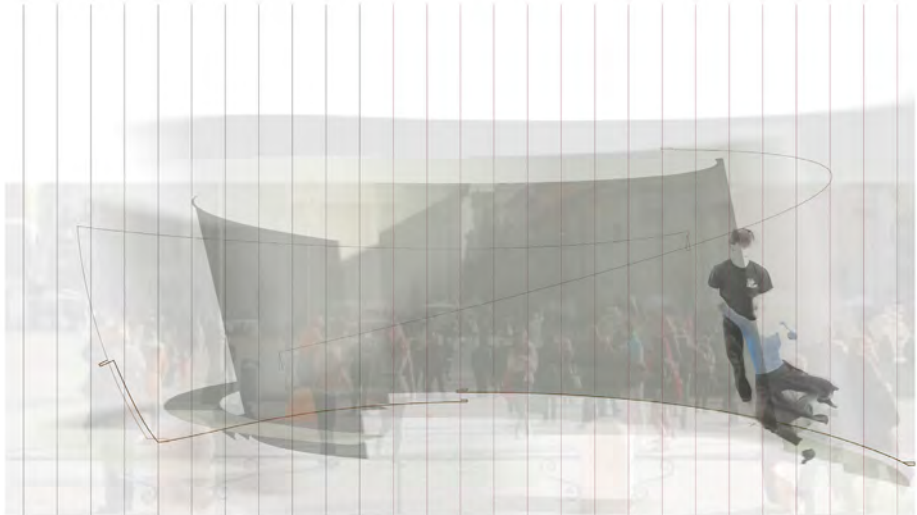
Drawing Millions of Spaces deals with such questions, as they emerge and may be reflected in the making/mediation of architecture – i.e., sketching concave and convex configurations and forces. Unlike Serra, though, my work 'faces' spatial imagination by making dynamic deformations and camera movements confronting the participator's own moves.

The conference asks what is the agency of the 'plan' in architecture today. May we still consider plan a generator, a promotor of our imagination? Or, with the advent of dig-

ital design possibilities, has the plan merely lost its previous status as a privileged tool for development and communication of architecture? My project takes up these issues and suggests that plan-drawing be challenged as the major generator in development of contemporary architecture. Concurrently it suggests a shift related to aspects of generating ambiguity, traditionally associated with hand-drawn sketches. Although continuously making use of projective ways of looking at and working with geometrical drawing, the work as well incorporates diverse digital editing dynamics potentially widening spatial imagination.

Helle Brabrand, associate professor emerita, KADK, School of Architecture, Copenhagen. My work questions architectonic space-making as a field of artistic research, a discipline and practice of artwork in exchange with communicated reflections. The work consists of different space-configuring projects, all engaged with body-movement and interface interactions. As a cross-media practice the artwork links to website, conference presentations, articles, interviews, i.e., dialogs between 'drawing' and 'writing' that constitute my didactic as well as my teaching praxis. Main projects: *Architecture and embodiment* 1988. *Spacebody actual virtual*, 2005, *Mixed movement in the composition plane*, 2005, *Spacewalking: normal and aberrant movement*, 2010. *Body_space_interface*, 2016. Work-in-progress: *Space Gesture*.

1: Hal Foster, *The Art-Architecture Complex* (London, Verso, 2011), 215.



Plans for Others

The gap between the discipline required to produce an architectural plan and the ease by which it is made discernible to a wide audience is vast. An architectural discipline is required to produce the maps of Disneyland that visitors keep in their back pockets as they navigate from Tomorrowland to Troubadour Tavern, just as an architectural discipline is required to draw the topographic maps of Mount Whitney hikers depend on for traversing its many switchbacks.

The discrepancy between the two spheres of knowledge - those of the architect and the non-architect - is set in motion in the floor plan, for there lies most clearly the desire to communicate; that is, the reduction of needless information and, oftentimes, the embellishment of accurate measurements in favor of a seemingly undisciplined legibility.

The typical map for an amusement park, for example, features its attractions as primarily axonometric on top of a slightly tilted plan. The walkways in between the attractions are scaled up, yet the markers designating zones in the physical space are kept intact in the drawing to allow for easy cross-referencing. Unnecessary details are omitted; points of interest are amplified.

If the plan is a tool for communication, what information is drawn out by the mediator (the architect) for the sake of the mediated (the non-architect)? If the general public understand plans as maps, what will be the future of plans?

Through text and images, our intention is to make visible the rift between these two disparate groups. A series of drawings, each abstracted from their source, each imply a mode of engagement tied to their method of representation. Through imitation, they allow us to dive into the conventions that define their sources.

Kyle Branchesi and **Shane Reiner-Roth** are the founders of TALL. They are both graduate fellows in architectural design at the Massachusetts Institute of Technology (MIT). Kyle has worked as a designer for Neil M. Denari Architects in Los Angeles, and for the Office of His Highness The Crown Prince of Dubai in the United Arab Emirates. Shane is a writer that has lectured on architecture at institutions including Harvard University, the University of Iowa, and the University of Manitoba. Together, Shane and Kyle have published their work in Log Journal, Mas Context, and the Drawing Futures conference at the Bartlett, University College London.

DISNEYLAND

Find your way in the
PARK

OPENING TIMES
Monday - Friday : 7:00 - 22:00
Saturday - Sunday : 9:00 - 24:00



<p>Adventureland Attractions include Jungle Cruise, the Indiana Jones Adventure, and Tarzan's Treehouse, which is a conversion of Swiss Family Robinson.</p>	<p>New Orleans Attractions: Pirates of the Caribbean and the Haunted Mansion, with nighttime entertainment in Fantasyland. This area is the home of the famous Club 33.</p>	<p>Frontierland Entertainment and attractions include Big Thunder Mountain Railroad, the Mark Twain Riverboat, the Sailing Ship Columbia, Pinac's Lair on Tom Sawyer Island.</p>	<p>Critter Country Today, the main draw of the area is Splash Mountain, a log-flume journey inspired by the Uncle Remus stories of Joel Chandler Harris.</p>	<p>Fantasyland Attractions include several dark rides, the King Arthur Carousel, and various family attractions. Fantasyland has the most fiber optics in the park.</p>	<p>Mickey's Toontown Toontown features two main attractions: Gadget's Go Coaster and Roger Rabbit's Car Toon Spin.</p>	<p>Tomorrowland The Tomorrowland attractions have been designed to give you an opportunity to participate in adventures that are a living blueprint of our future.</p>
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1319 Disneyland Dr. Anaheim, CA 92802

Brian Cantley

Form:uLA

Topography Scanning and the Taxonomic Drawing

Topography Scanners: The plan has archetypally been the initial instrument for calculating, projecting, testing, and documenting shadows as an architectural stimulus/response. Shade is an interesting phenomenon in the architectural drawing. Many, if not all entities in this typology, are meant to show 'what is/will be there' ... *there* being an incredibly elusive and metaphysical place [where is the *there* in a plan?] Shadows, however, represent 'that which is *not* there', or at least that which is partially absent. The removal of light through the synthetic assembly of a construction hypothesis. The architectural shadow is the result of the failed journey of light rays traveling 92.2 trillion miles, only to be denied their finis at the last moment of their journey. However tragic, it provides one of the most poetic devices of the plan. The transitory nature of the shadow is typically suppressed and condensed into a singular moment of time, instead of the durational aspect that transcends the static nature of the archetypical depiction. In my first drawing, *Trajectory Residues* [uBrossv], the experiment was established to serve as a metric for the constant shifting between horizontal and vertical hybrid moments of the shadow's mutable paths. The device [the Urban Brothel, or *Whorechatta*,], as well as the drawing, both establish, accept and record the factual condition that shadows are indeed scanners of the surfaces of site and context. The plan-based graphic system establishes the condition that it is a topography scanner. The bird's-eye view was selected because of the easily recognizable tracking of shadows as an object delineator, as well as for the *Whorechatta*'s condition of program driven movement- it rotates based on physical/fiscal functional conditions. Here, the drawing tracks the significant program positions and uses the distortion of the residue found between said positions to deposit planometric reservoirs of ink, the architect's device for demonstrating the prevention of environmental illumination. Both the building and the drawing serve as multiplicitious circumstances of chronologies and loci- each framing the temporal nature of both [typically] segregated subjects. The experimental and hermeneutic nature of this drawing typology allows for these entities, that normally exist while in tandem, to be isolated graphic commands and imprints.

The Taxonomic Drawing: The result is a *drawing of a drawing* (device)- the artifact classifies its own ontology. The document additionally becomes a systemic metric of interiority. Shadow casters and planes of light-blocked impregnation are recorded and mapped over changes of chronological markers. *Drawing as a function of surface*. Thus, I have established the *Taxonomic* typology, a graphic system of classification and nomenclature that not only serves as a method of drawing/tracking itself, but additionally catalogs the situation and its individual

eventspaces as it unfolds. *Trajectory Residues* [1], as well as *Sur-Face Excavators* [2] and *Fleas + SurFace Applicants* [3], expose not only a drawing [system], but an architecture that scars/impregnates surfaces in the context of the /machine that is drawn. This architectural device records itself constructing the structure and categorization of its own prolonged evolution and development, drawing on its own taxonomy.

Bryan Cantley [Form:uLA] has lectured + exhibited at architecture schools internationally [Bartlett, SFMOMA, UCLA, and SClarc], and was visiting faculty at SCI-ARC and Woodbury. His work is in the permanent collection of SFMOMA. He received a Graham Grant [2002]. He has shown work in a number of institutions, including SFMOMA, UCLA, and SClarc. Cantley had a solo exhibition at SCIARC [2014], and has been featured in AD's "*Drawing Strength From Machinery*" [2008], and "*Drawing Architecture*" [2013]. He is a recipient of a KROB Citation for the Memorial Delineation Competition [2016], included in the *Drawing Futures* Conference and Publication, and was featured in *Surrealism and Architecture* [2016]. His first monograph is entitled *Mechudzu* [2011].



Dominique Cheng

Drawing Futures: Deconstructive Cartography

Maps express varying interpretations of the land around us through figuration and colour; they convey spatial information by organizing and categorizing symbols and codes into comprehensible diagrams. The lines we see on maps may vary in weight to describe both the hierarchy of borders between regions, and variations in topography. While some maps can be ambiguous, they are more often than not carefully curated, and occasionally themed, to impart a particular understanding of reality. But to the extent that maps are constructed, they can also be deconstructed: by combining the discursive, linguistic and visual conventions of cartography with architectural drawings, one can try to subvert what is known about a place in an effort to evoke a different awareness of that place, one that is collectively intertwined through the sharing of memories and experiences of a foregone urban phenomenon – in this case, a spectacular landing approach into a city. What happens when the relationship between symbols and codes on a map are blurred or removed entirely? Can maps be utilized to describe the procession of time and movement – a fourth dimension?

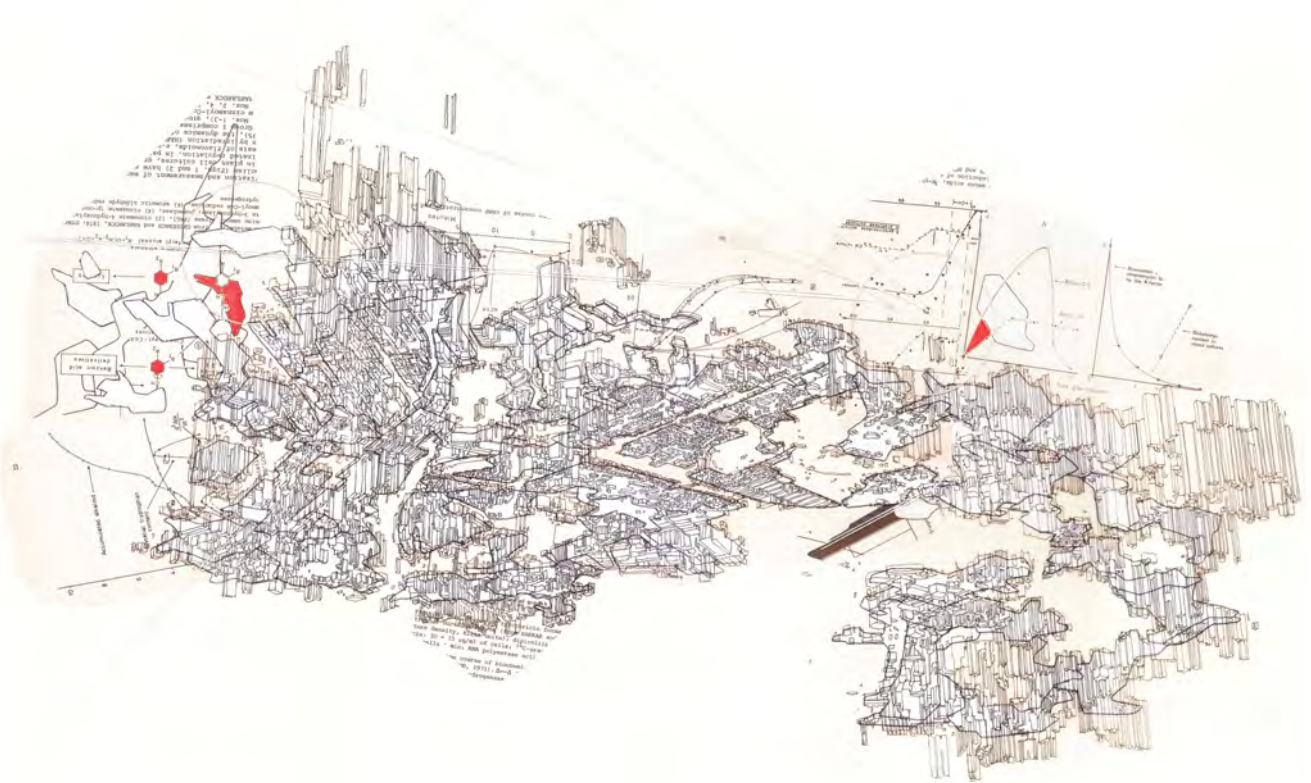
The '1331' Series, which began in 2013, belongs to a larger study of deconstructive cartography; more specifically, it refers to the purposeful reduction of a map to one of its aspects, through the erasure of known information and bricolage. The series was created to trace the inextricable relationship between the growth of a city and its airport – in this case, South Kowloon and (the now defunct) Kai Tak International Airport:

“When Kai Tak Airport (former Hong Kong International Airport) was officially retired in July 1998, plane spotters who frequently watched the spectacle of commercial aircraft sweeping across South Kowloon at dangerously low altitudes before making their final approach onto Runway 13/31 were beset by feelings of loss. The landing approach, in particular, left an indelible impression on the urban fabric, virtually inscribing a path of distinct low-rise buildings along its trajectory as a result of aviation clearance requirements. The relationship between the city and the landing approach was a constant negotiation of space—urban space to aerospace.” (Excerpt from “Planespotting”, 2013)

The “map” is stripped of any reference to a specific geographical location – no text or borders are indicated. Instead, the architecture of the city is represented as a dense network of signs and shapes that are tentatively held together by a unifying stroke – the flight path. The physical drawings themselves are multilayered in composition, comprising transparent Duralar sheets on which the line work is imprinted and clippings of printed media

superimposed. Each formal layer could be seen to signify a specific point of view or perspective of the city. The resulting drawing becomes more than just a static two-dimensional articulation of space; rather, it formulates a much more complex narrative about the history and memory of a place through the superimposition of disparate layers of information about the city.

Dominique Cheng (b.1979) is an architect (by training) and illustrator/installation artist (by choice). His illustration work stems from an incurable obsession with the world of cartography and aviation that began in 2007 with a project entitled Planespotting. The multi-layered illustrations (typically ink on transparent Duralar sheets with mixed media) combine the factual language and visual conventions of maps with information mined from aviation logs. He is the recipient of the OAA Architectural Concept Award (2016) and was a finalist for the prestigious Arte Laguna Prize in Venice (2016).

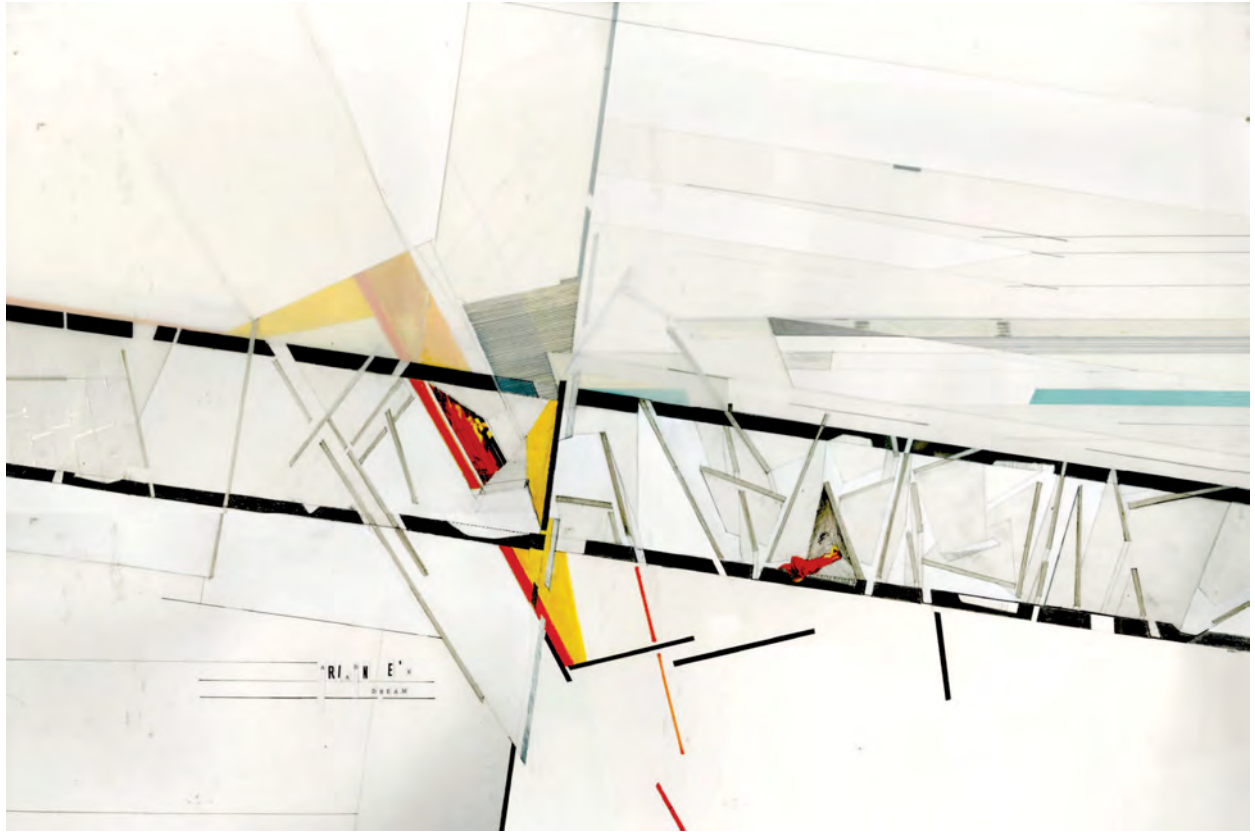


Carolina Dayer

Behind Lines: A Genetic Approach to Plan Drawings

Genetic processes in design can create continuities that generate unexpected outcomes. Departing from the story of Daedalus' labyrinth, the *chora* or floor plan where the foundation for imaginative architectural beginnings originates, this drawing project was constructed as a process of genetic translations. The plan drawing, understood as the Vitruvian footprint—*ichnographia*—of the building, is a mark metonymically connected with the reality of architecture. Through a process of multiple methodological transfers and translations, the plan drawing operates as a continuum in flux that subsequently transforms as it becomes imprinted. The drawings of this project seek to uncover what lies behind the lines of an architectural idea through a series of plan drawings. Resisting the idea of a *tabula rasa*, *Behind Lines* explores the agency of one idea that evolves as it is perceived differently from page to page.

Carolina Dayer, PhD currently teaches at Aarhus School of Architecture in Denmark and is the Associate Editor of Design for the Journal of Architectural Education in the USA. She is a licensed architect in her native country, Argentina. Her research, teaching, and original work centers on theoretical and experimental forms of architectural representation, as well as cultural, political and material practices. She recently published her co-edited book entitled *Confabulations: Storytelling in Architecture* (Routledge) and she is currently working on her latest co-edited book *Activism in Architecture: The Bright Dreams of Passive Energy* to be published in 2018. Her personal design work has been exhibited in Argentina, United States and Denmark.



Sony Devabhaktuni

University of Hong Kong

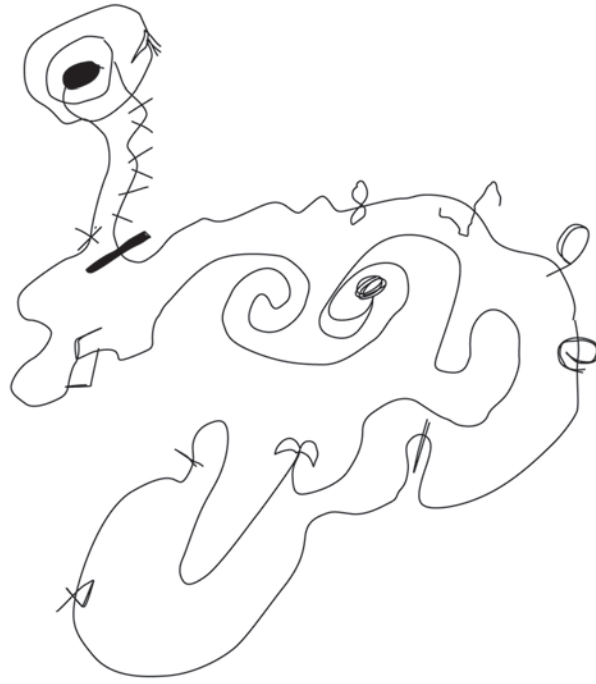
Making Plans: The Notations of Merce Cunningham and Architectural Drawing

Throughout Merce Cunningham's career, dance notation served as an important generator of choreographic ideas. Cunningham used notation to consider a vast range of issues: from groupings of dancers, to bodily positions, to movement across the stage. Rather than codify this practice into a rigid, repeated system, his notations constantly evolved: as if new ways of drawing were an important precursor to new ways of dancing. The paper considers the implications of Cunningham's dance notation, and specifically his use of plan view, for the way we think about the plan in architecture. The work is based on research with the Merce Cunningham Dance Company Choreographic records at the Jerome Robbins Performing Arts Library in New York City where the author redrew several hundred examples of Cunningham's notations from his choreographic notebooks. Where dance notation is often used as a documentary tool to maintain a completed work into the future, Cunningham saw his "paper work" as a form of personal note-taking projecting possibilities for as yet unmade dance-works. The notations were not destined to be read or interpreted by others, but rather served as a kind of heuristic for the creation of movement, a tool that Cunningham used to set tasks for his dancers. This made them markedly different from the musical scores of John Cage -- Cunningham's collaborative partner - which functioned as latent texts whose direct interpretation by performers would activate and open their potentials. Cunningham guarded his notations to himself and dismissed their value when the resulting dance proved uninteresting or impossible: bodies often pushing against their own limits when confronted by the notational combinations. Cunningham saw the space between his notations and the final work as a necessary and useful distance of negotiation and possibility, such that the notes needed to be confronted with the physical, material and tectonic work of bodies in the rehearsal room.

The paper introduces the different types of drawing that Cunningham used in his choreographic notes with a brief summary of the results of the archival work in New York. Looking more specifically at the use of plan view drawings, the paper considers the role that chance operations played in the development of these drawings and the ways in which these notations organized possibilities of position, sequence, speed and groupings within a variously delimited or defined spatial field. Thinking about Cunningham's notes in relation to architectural plans leads to a productive and specific interrogation of architectural drawing itself: in terms of drawing's relationship to time and space, agency and authorship, and drawing's mediating role in the generation of the "work" of architecture. That the built-work of architecture is generally

understood to be radically different from the dance-work of choreography makes Cunningham's notes and their implications for architectural drawing even more intriguing: a potential reconsideration of the projective process that links thought to building through the making of plans.

Sony Devabhaktuni teaches architecture at the University of Hong Kong (HKU). With Raffael Baur and Patricia Guaita from the Swiss Federal Institute of Technology in Lausanne, he founded the Building Cultures/Open City Research Platform to investigate local construction techniques and spatial knowledge; for the past four years they have tested open-ended design strategies on a construction at the Open City in Ritoque, Chile working with Pr. David Jolly Monge from the School of Architecture and Design in Valparaiso. With John Lin at HKU, he is currently studying informal alterations to vernacular houses in three Chinese villages. His research on Merce Cunningham was supported by a grant from the Graham Foundation for Advanced Studies in the Fine Arts.



Undated drawing from notes for "Sixteen Dances for Solist & Company of Three"; 1951: redrawn after Merce Cunningham

Drawing (on) the Context: Scanning, Designing, Building

To survey existing sites and structures is probably the starting point of almost every architecture project aimed to be rooted in a specific place. Physical dimensions, vegetation, traces of use and prior constructions are incorporated in drawings as long as they are deemed relevant for the design and depending on the time available. Thus, a drawing of the context is, usually, a selective representation of reality. However, what if all physical features and every detail of the site can be drawn accurately and comprehensively in a short time? What if that information can be retrieved at any time without visiting it?

3D laser scanning recording technology can provide this type of information through a measurable three-dimensional digital model of the reality. Architects can draw upon it or use it as a basis for images, technical drawings, and videos, among other applications. Would the fact of conveying such amount of information affect the way architects design and draw?

To reflect on the impact of this technology we look at the project of a house near Santiago, Chile. We designed it remotely from London upon a 3D laser scan record of the site made in 30 minutes. The new construction was carefully positioned within the existing elements, which determined its geometry and vistas.

Out of this experience, we can outline three key themes to reflect upon.

First, the relation between design and context. There was no need to measure and draw the existent site. Our design process was done directly on the 3D model as if we were drawing on the real site. Our critical assessment of the context information shifted from drawing what seemed relevant at the beginning, to select and emphasise the most important aspects from the 3D data while designing. To draw became to withdraw: to erase or hide unnecessary information so to focus on what was relevant by editing and manipulating the 3D laser scan model and its visualisations.

Second, the time within the design process. The accuracy and comprehensiveness of 3D laser scanning evidence the narrow time slice it captures, in contrast to traditional drawing due to its level of abstraction. There is a distance between the 3D model and the actual site as it is now, the latter being a place subject to use and change, determining the 3D model to be modified by both the design and the update of on-site transformations.

Third, the shifts from drawing to building. Like other construction processes, the house was not built as accurate-

ly as the drawings were, producing gaps and deviations, which added to a few changes in the project within the construction. The design became dynamic; its existence in the real site being different from its existence in the 3D model. A second scan of the finished house would offer the possibility to measure and observe these differences, assessing their potential as design inputs for future projects.

Bernadette and Felipe are founders of Devilat + Lanuza Architects (www.devilat-lanuza.com), an architectural practice based in London, focused on the critical understanding and use of 3D laser scanning.

Bernadette Devilat is a practising architect and Master in Architecture from the Catholic University of Chile (PUC). She has been studying re-construction after earthquakes in Chilean heritage areas since the 2005 earthquake when she co-founded Tarapacá Project and worked subsequently in the Heritage Reconstruction Programme at MINVU Chile, after the 2010 earthquake. Bernadette has presented and exhibited her work widely. She is currently a PhD in Architectural Design candidate and leads BScan —a 3D laser scanning cluster— at the Bartlett School of Architecture, UCL.

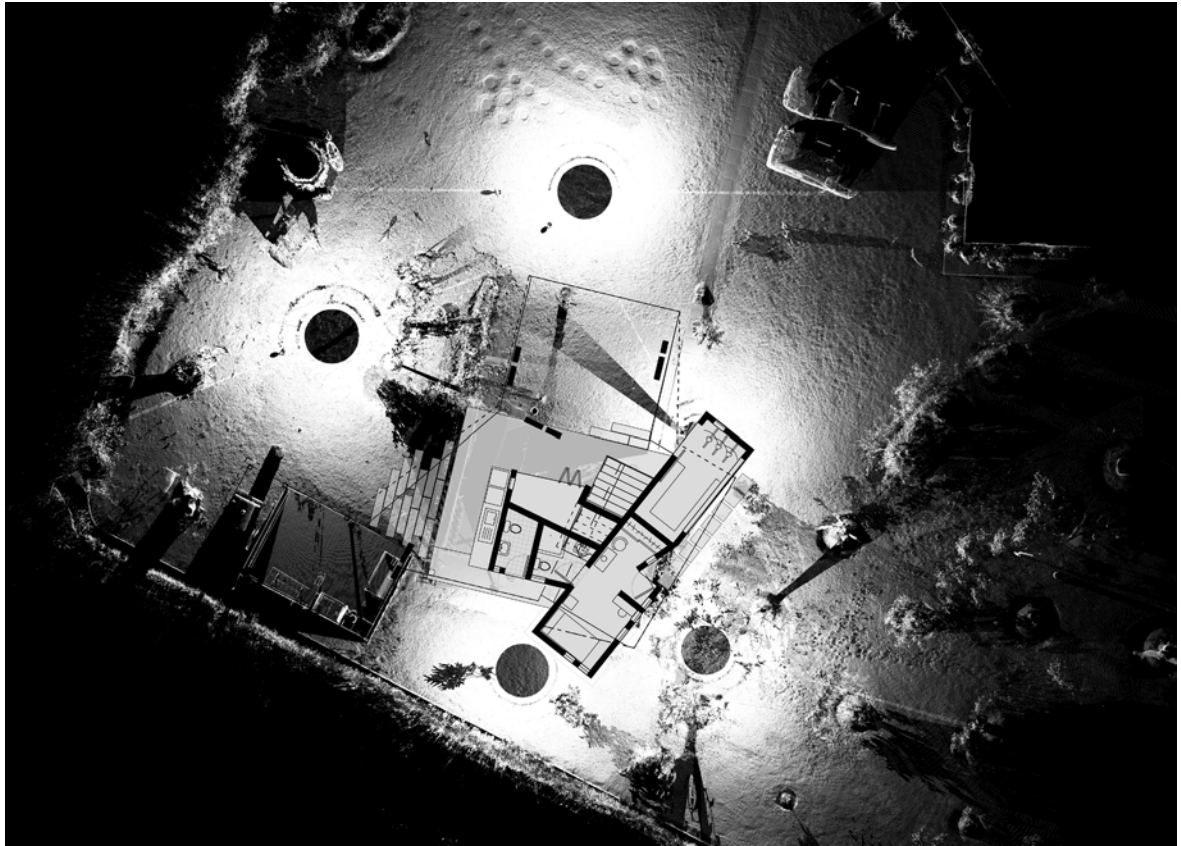
Felipe Lanuza is a practising architect, researcher and educator. He holds a PhD in Architectural Design from the Bartlett School of Architecture, UCL. Through his investigations on the notion of absence in urban leftovers, he explores processes of design and representation as a way of prompting new understandings and alternative interventions in the built environment. Felipe has taught and exhibited internationally, is an active member of Urban Transcripts (<http://urbantranscripts.org>), and is currently a post-doctoral researcher at the UCL Urban Laboratory and the Bartlett School of Architecture.

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Paul Emmons

Virginia Tech, Washington-Alexandria Architecture Center

Change of Plans

Comparing a modern architectural plan with one of the oldest known plans in human history from the 21st century BCE, one sees that these two drawings, made over 4,000 years apart and separated by an enormous gulf of cultural, technological and stylistic change, nonetheless follow remarkably similar practices. The cuneiform writing is unreadable for most of us but the ancient plan is still quite legible. This suggests that plan drawings are not merely conventional symbols, that there is something indexical about architectural plans. And yet the basic conceptions of plan does change over time.

This paper examines one critical shift in the nature of plans: from the footprint to the horizontal section. The contemporary understanding of plan as a horizontal section was first introduced by J.N.L. Durand at the beginning in the 19th century for teaching military cadets. This notion based upon Cartesian space was derived from the descriptive geometry of Gaspard Monge, who also hired Durand to teach at the *École Polytechnique*. This sort of plan without gravity and tends to be extruded into three-dimensional space.

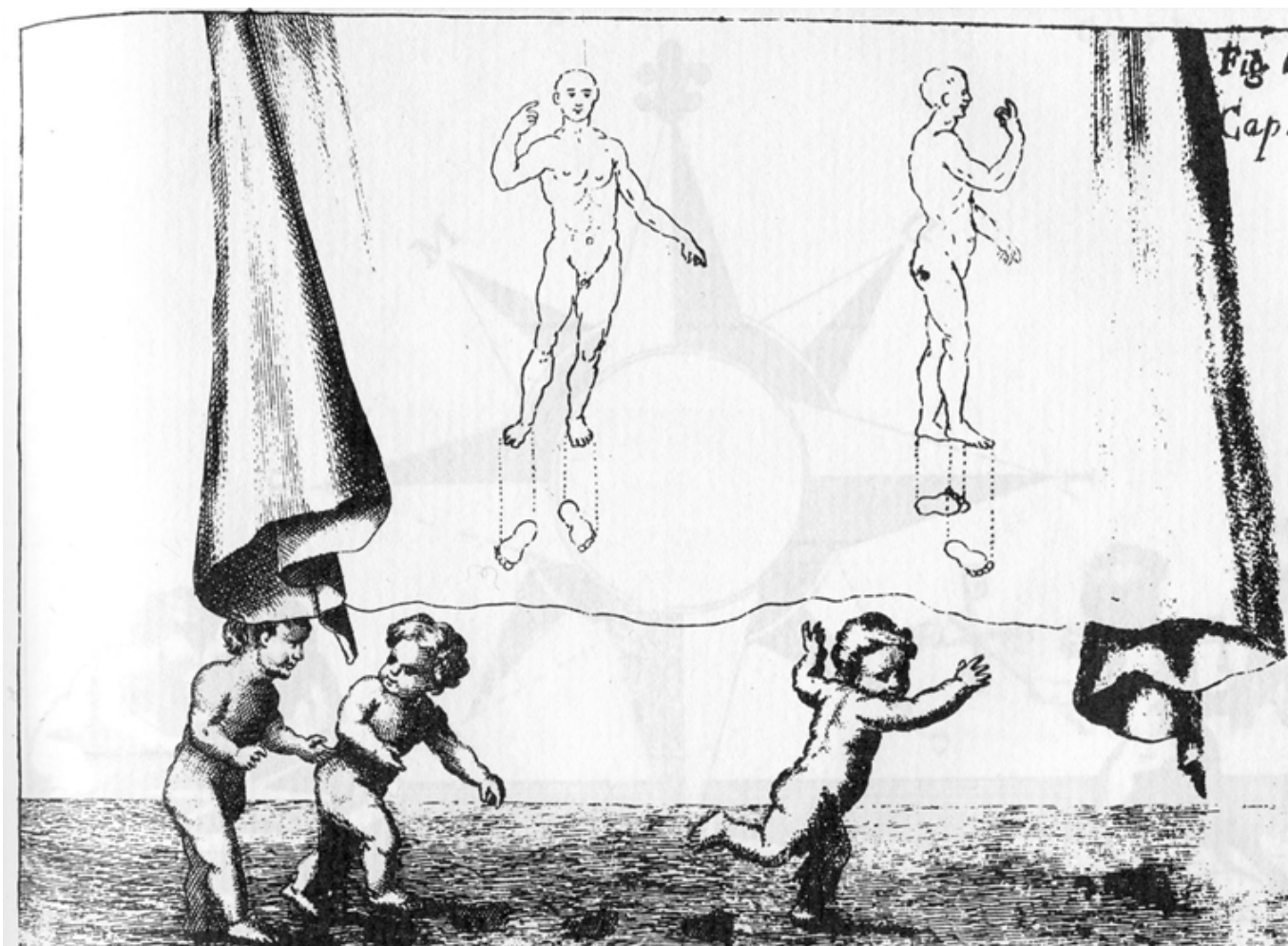
Previously, in the Renaissance, the plan was understood as *ichnographia* (taken from Vitruvius) – literally meaning ‘foot print’. The foot print plan confronts the weight of the building pressing down into the earth with a direct orientation of plan and earth with the body. Raphael wrote that as the sole of the foot supports the human body, so does the *ichnographia* support the building.

In practice, the *ichnographia* was drawn full-scale directly on site as a preliminary act of construction. In the Renaissance, modern architectural drawing began as architects left the construction site for the drawing board in the scholar’s study. Practices at the construction site were adapted to drawing and the drawn plan was an index of stretching ropes on site to layout the building. Florentine architect Filarete elaborating on this analogous condition in the late fifteenth century wrote that just as a site must be prepared for building, so must the paper be prepared as a site for drawing. The drawing board became the horizon of the work and as the architect would pace out the plan on site, now the compass would walk the measure of the plan on paper. In this way, architectural plan drawing as a foot print promoted embodied imagination in design.

Architects ought not to look at plans as objects, it is often said, but should imaginatively inhabit them, to project what it would be like to walk down the hall, view out the window, feel the sunlight, and so forth. With the modern change to horizontal sections, plan drawing practices remained much the same, but their conceptualization was

radically altered. As a result, when new practices were introduced with BIM modeling, where the plan is merely a section generated from an already existing model, there is little opportunity for the play of the architect’s embodied imagination.

Paul Emmons is a registered architect and Professor at the Washington-Alexandria Architecture Center of Virginia Tech where he is Director of the Ph.D. program in Architecture + Design Research. He earned a Ph.D. from the University of Pennsylvania and an M.Arch from the University of Minnesota. His research on the history and theory of architectural practices has focused on drawing and representation. This work has been presented around the world at conferences and in numerous publications. He recently co-edited *Confabulations: Storytelling in Architecture* (Routledge, 2017).



"Architectural drawings are derived from the plan, face, and profile of the human body." Giovanni Amico, *L'Architetto Pratico* (1726), Vol I, Ch. I, Fig. 1.

Satellite Monuments and Peripatetic Topographies

In *A Scientific Autobiography*, Aldo Rossi described architecture in relation to the term “apparecchiare la tavola, meaning to set the table, to prepare it, to arrange it”¹, regarding architecture as “the instrument which permits the unfolding of a thing”². At the time, this definition had a physical analogue in the drafting table as the archetypal ground of architectural unfolding. Today, as the instrumental links between design and fabrication are streamlined through digital modeling and CNC tools, the instrumentality of projection in architectural production and thought is increasingly questionable. This paper presents two projects, by the author, that suggest how projection, liberated from its conventional role, may unfold new, critical spaces in the architectural imaginary.

The paper is based on the premise that orthographic projection, rather than rotating an object to reveal different views, instead enables the navigation of a nomadic subject around a sedentary object. The projects presented utilize methodologies derived from plane table surveying, which utilizes the principle of binocular vision to survey space. A plan is constructed through extending the visual sense of the body to the measure of architecture. The drafting table, made mobile, becomes a literal vessel of navigation. The nature of a plan delineated through such a stereotomy of sight lines is situational, depending on the order of movement and duration of time between station points along a journey. Both projects use these means to unfold a dialogue between the nomadic and the sedentary, or smooth and striated space. This dialogue encodes how the significance of monuments is continually re-activated or transformed by the occupation of their territory through processions, marches, pilgrimages, and parades.

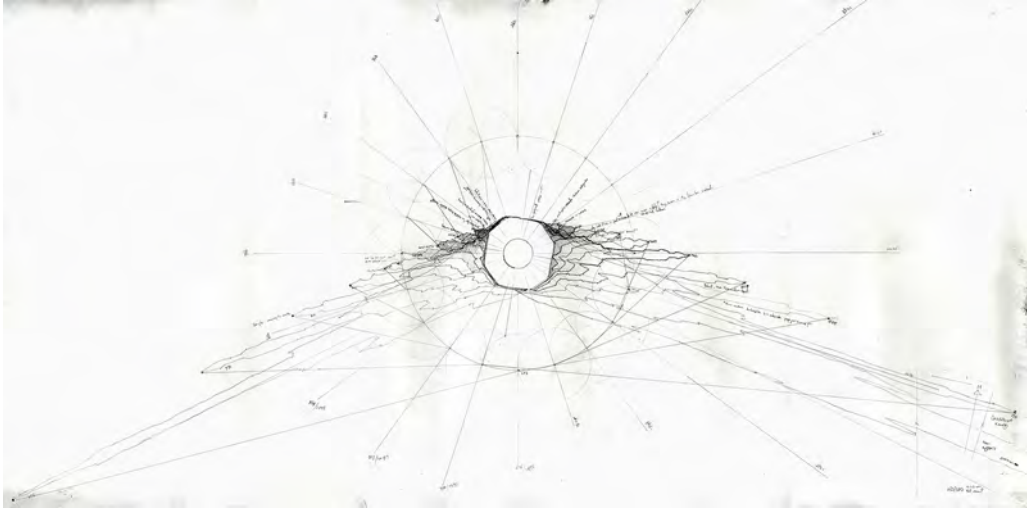
Yeryüzü+Gökyüzü took place in İzmir, Turkey, during the Gezi Park Protests of 2013.³ The Standing Man form of protest, emerging in response to police brutality, was emblematic of the tension in public space at that time. Whether there was one, five, or a hundred people at the plaza, each individual stood apart from and did not speak to others. By standing upright, still, and silent in the plaza of a monument, each person made themselves a part of the space of that monument. *Yeryüzü+Gökyüzü* took on this idea of becoming a “satellite monument,” with a drafting table circling the Konak Clock Tower and surveying its shadow, while also documenting conversations with undercover cops, journalists, passersby and fortune-tellers in the plaza, on the Summer Solstice of 2013.

Peregrine Projections was initiated in Segovia, Spain, where, in the incessant cycle of parades and marches, the numerous bell towers act as navigation points across the city, structuring routes of procession, while the bells count time through day and night.⁴ The project documents the solitary processions of an outsider, each walk circumnavigating a single

tower from beyond the city walls. Each drawing generates an “automatic cartography” of the city, an accumulation of horizons traced from photographs taken at regular intervals during each walk.

Firat Erdim has a B. Arch. Degree from the Cooper Union, and a M. Arch. Degree from the University of Virginia. Erdim’s work has been exhibited internationally, including at the Roy Boyd Gallery, Urban Institute for Contemporary Arts, the Museo dell’Altro e dell’Altrove di Metropoli, the American Academy in Rome, The Windor in Madrid, as well as 49A and Maquis Projects in İzmir. His awards include the 2014 Founders Rome Prize in Architecture from the American Academy in Rome, and the 2016 Santo Foundation Award for Individual Artists. He is an Assistant Professor of Architecture at Iowa State University.

- 1: Aldo Rossi, *A Scientific Autobiography* (Cambridge: MIT Press, 1981) 5.
- 2: Ibid.
- 3: Firat Erdim, *Yeryüzü+Gökyüzü*, Last modified September 30, 2017, <http://firaterdim.net/yeryuzgkyz--zenithnadir>
- 4: Firat Erdim, *Peregrine Projections*, Last modified September 30, 2017, <http://firaterdim.net/peregrine-projections-segovia-rome>



Maja Zander Fisker

KADK, School of Architecture

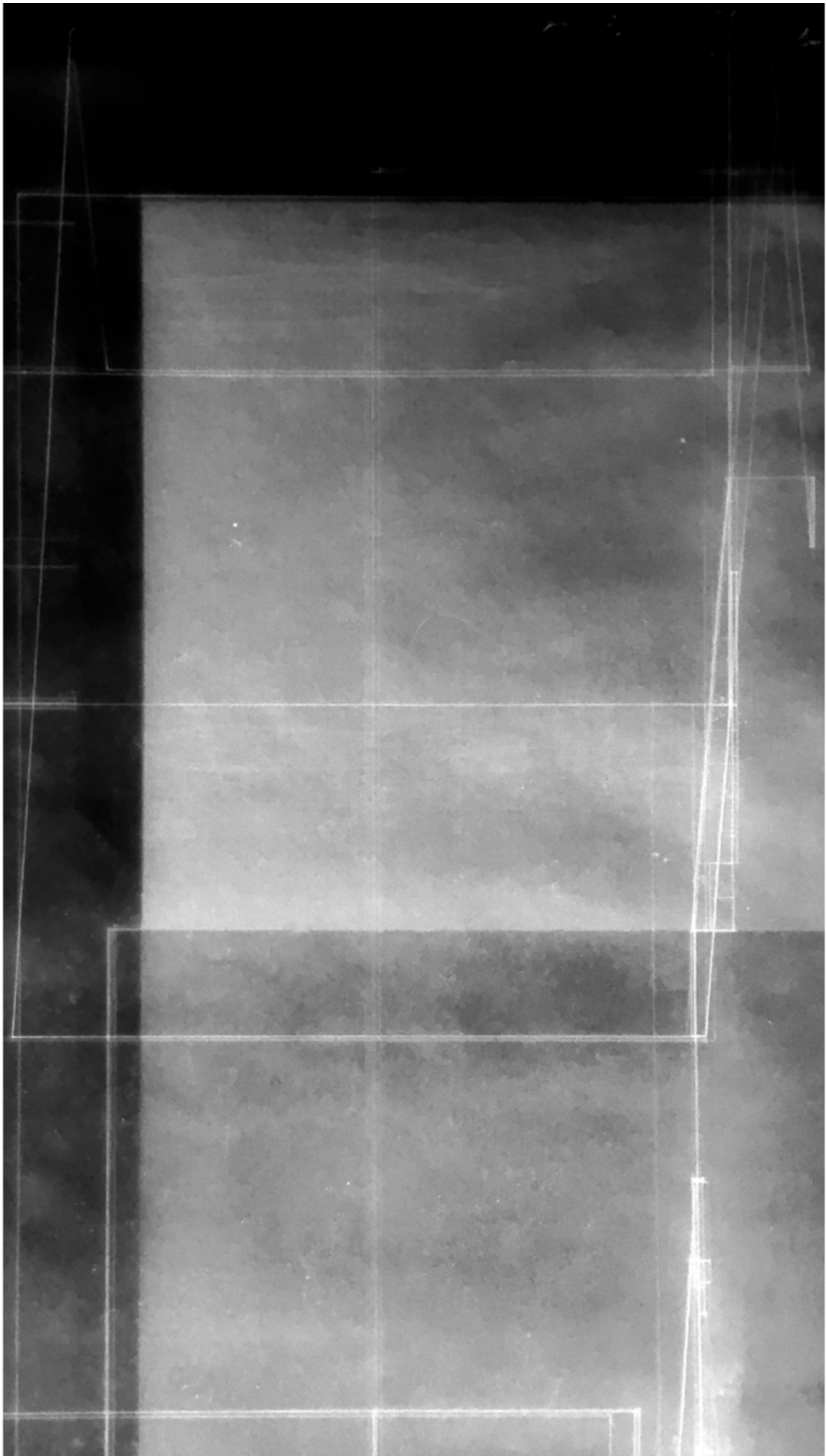
You Wouldn't Have Known Her

The project addresses the architectural drawing as a process articulating spatial thinking. It inquires agencies in architectural becoming through development of operational drawings, deriving from an intermedial practice between text, drawing and photography. Thereby a general question is posed: how can different aesthetic practices inform and challenge each other? The subject of the drawing (the plan) derives from a literary text. The text is the contextual framework; a field of interest. This context is not defined as a geographical place, but as a space of numerous material and immaterial structures, which instigates the focus of the drawing as a relational diagram. The photograph always emerges from a relational encounter. The purpose is here to investigate how the drawing in interaction with the photograph enables a synthesis of heterogeneous topologies, for example social and spatial relations. The investigation is premised on basic, specific medial parameters given the analogue drawing: layers and transparency, and the photograph: framing and light. Based on the process of the analogue drawing and its successive layering this project presents a series of photographic fragments of the drawn plan; the series works as an act of translation, or transformation, bringing new meaning to what is no longer represented as a whole. The series thus explores the initial textual act: the variance of what is experienced and what is experienced through.

A photograph produces a photographic situation, according to Ariella Azoulay. It consists of an *in front of* and a *behind* the camera. The photographic situation states the distinction between 1: the event initiated by the photographer and the object of the photography-and, as importantly, 2: the event encompassing the object of the photography and the spectator. And so it enables an awareness about a complex reciprocity: finding oneself in the world with others. The photographic situation reveals what carries the relations of the image -the difference between the situated event and the representation. This project involves Azoulay's optics, i.e. the relationship between the two sides in the photographic situation that is fixated in the photograph. How can this way of considering photography work in other practices, in this case the architectural drawing? The thesis is that the drawing can open a field of spatial thinking by analyzing the relational – the relations that eventually inform the photograph. By working with photography, this project consequently operates a transition between medial forms of articulation, to incept new experiences of spatial construction. It is the generative logic of the medial differences that sets the work in motion; not by pursuing equalization within uniform appearances, but by acknowledging 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.

Maja Zander Fisker (b. 1978), Architect and Teaching Associate Professor at the Royal Danish Academy of Fine Arts, Institute of Architecture, Urbanism and Landscape + Institute of Architecture and Culture. Her work examines intermedial agencies and processes of architectural becoming, especially the generative properties of the architectural drawing. Her projects are often developed in interdisciplinary collaborations with visual artists, writers, musicians, researchers and architects, documented in numerous exhibitions, book publications and performances.



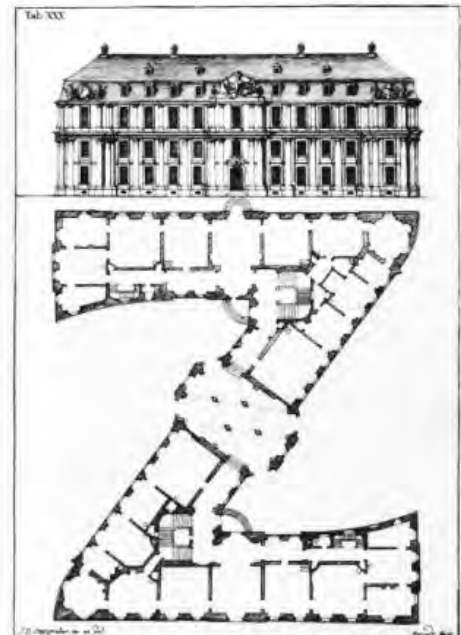
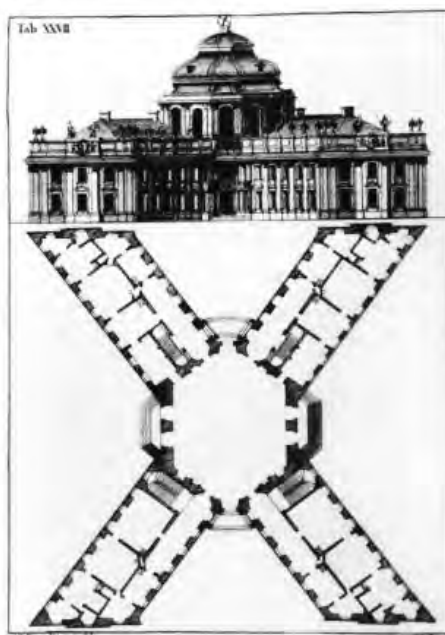
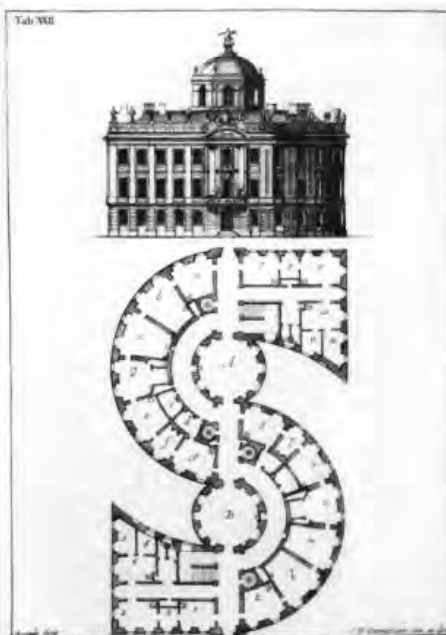
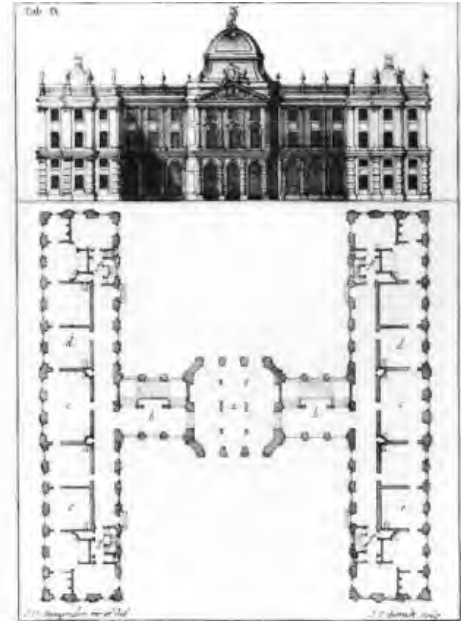
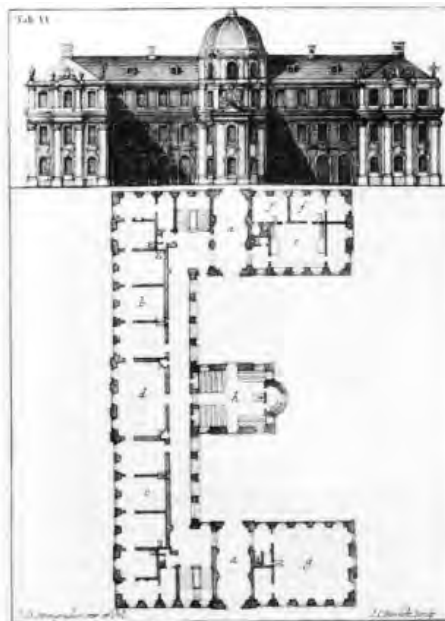
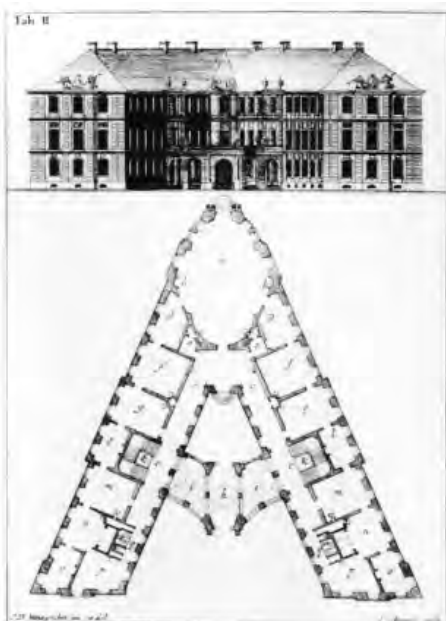
Alphabet Architektur

is a book of an alphabet, published in 1773, in which each letter is made into a plan of a palatial building, and - like most alphabets - exists only in print. Drawing millions (or tens) of plans was the exercise Johann David Steingruber undertook and imposed to himself as a constriction. Behind such enterprise, this paper argues, there is not only an act of professional virtuosity, but Steinburg's effort reveals the agency of an architectural plan. While the task to resolve a functional plan within the limits of an intricate outline puts the plan truly at work, the fact that such limit is an alphabet explains the plan's nature. This is thus an historical enquiry which departs from a question of the present: why the plan today, why the plan again?

A book is both an object than can be held in one's hands as well as an abstraction: an idea of what a plan is, built by a series of unbuilt plans. Steingruber's effort to systematize a group of architectures in equivalently drawn plans or to conceive architecture as typography is not the first. At the time in which orthogonal projections were invented and disseminated Albrecht Dürer published in "Instruction on Measurement" (1525) a whole series of letterforms in the latter portion of the volume. Years later in 1572 Andrea Palladio in the "Four Books of Architecture" drew all his Palladian Villas as a series of diagrams at the same scale and with the same drawing constrictions to allow comparison. Steingruber's book 200 years later is neither a serious proposal of buildings to be raised, nor a novel alphabet to shape a language. By not being a blueprint for construction on one hand, it manages to construct the idea of what a plan is, by not producing a language on the other hand, the series itself is revealed as a discursive device that explains the position on the plan's function and economy held not only at the Ecole des Beaux Arts (and advocated by figures such as Jean Nicolas Louis Durand), but also influential to the narratives of modernism at the beginning of the 20th century.

In its most economical expression, a plan delineates the fundamental distinction between an interior and an exterior, private and public, inclusion and exclusion. In its diagrammatic capacity the plan can also act as a coded, economic, and typological account of a building, anticipating a strong relationship between plan and typological production. The possibility to evolve from footprint diagrams into entire buildings and beyond, allows the plan to perform beyond representation, to produce territorial strategies that transcend buildings themselves. By exploring Steingruber's exercises we're also recovering the drawing and writing of plans as devices through which to look at, represent and thus construct reality, raising the question of the ability to mark a territory with ideas.

Alejandra Celedón Förster (Edmonton, 1979) is an architect, graduated from Universidad de Chile in 2003. She undertook her Master in Advanced Architectural Studies at The Bartlett School of Architecture, in London, between 2006 and 2007. She is Doctor in Philosophy from The Architectural Association School of Architecture (2009-2014 Chilean Government Scholarship). The thesis titled "Rhetorics of the Plan", was supervised by Dr Marina Lathouri and Dr Pier Vittorio Aureli. Her research interests range from the relationship between architectural drawings and the construction of discourses on the city, to the acts of redrawing and collecting as epistemological and critical operations. She has been Visiting Fellow at Universidad de Costa Rica (2014), and part of the Study Centre at the CCA in Montreal (2011). Her latest publications include "Margarita" in ARQ 95, "Footprints" in ARQ 92, "Half-Plan" in San Rocco 11 "Happy Birthday Bramante" and the book chapter "Critical Times, scales and Functions of Art and Architecture" in "Art, City and the Public Sphere in Chile". Since 2016 she teaches and conducts research at Universidad Católica (Conicyt Government funded 2016-2018) on geopolitical, territorial and architectural strategies undertaken during the eighties in Santiago regarding the domestic.



Manners of Working: Robin Evans, the Plan, and a Theory of Practice

In his seminal essay “Translations from Drawing to Building,” Robin Evans emphasizes what he terms a “manner of working.” In his aspirational model for writing architectural history, Evans argues that each drawing attended to by the architect would be “not so much a work of art or a truck for pushing ideas from place to place,” but instead “the locale of subterfuges and evasions.”¹ For Evans, architecture demands a history of political skill and social engagement measured against strategic evasions. In this paper I will argue that Evans’s body of work constitutes a latent theory of practice; and further, that this vision of the architect at work in the world constitutes a significant challenge to the interpretation of plans today.

Manners are not to be confused with methods, that is, with a sequence of clearly articulable tasks. Manners are much more embodied. Any claim for how we ought to conceive of, employ, or make drawings, as Evans would likely point out, is at least as much moral and political as it is technical. Whether an object, a process, or a mode of thought, what is it to say that a drawing is also a way of working; a practice, a habit, a discipline? When we ask about the differences between drawing and recent digital techniques, or representation and simulation, it is not the drawings or even the concepts they embed or communicate, but rather a practice that is at stake.

Michel Foucault and Manfredo Tafuri serve as guides in this re-reading. Only ever addressed tangentially by Evans, Foucault’s analysis in *Discipline and Punish* demonstrates how “manners” of working and believing are trained into the bodies that experience them. Likewise in *Interpreting the Renaissance*, Tafuri linked the foundational theories of architectural practice found in the work of Alberti and Brunelleschi to the contemporaneous political practices of Nicollò Machiavelli and Baldassare Castiglione. Tafuri’s method suggests the potency of what we might call etiquette, that is, of acting in a manner that wields borrowed power. However overwrought Foucault and Tafuri may be and however familiar Evans’s essays, this tri-partite close-reading resurrects them with new critical energy. It is precisely because of their familiarity to us that they will be useful to read across the grain of something so pervasive as a hand-drawn plan.

Re-reading Robin Evans in today’s context insists once more on the often mysterious link between the visual and the social. It remains imperative to unpack the social and political principles presupposed by the work of architects. By shifting our attention from methods and tools to manners, Evans places us in a position wherein what gets to count as practice expands beyond means-ends considerations. This dimension of Evans’s *oeuvre* has largely been

overlooked. While it may seem obvious that it is important to consider the impact of plans on the buildings, environments, and discourses they create, it is less obvious that we investigate the presuppositions about architects themselves and what it means *to work* in a given *manner*.

Athanasίου Geolas investigates the intersection of American institutions and the body of the architect in the nineteenth and early-twentieth centuries. He has written on Cornell’s College of Home Economics and their use of documents to cultivate single-family homes, as well as the legacy of the Shakers and their building practices. Trained at Rhode Island School of Design he has practiced architecture with archaeologists, academics, architects, and the city of New York. A former Fulbright fellow to Greece, he is currently a PhD student at Cornell University.

- 1: Robin Evans, “Translations from Drawing to Building,” *Translations from Drawing to Building and Other Essays*, (London: Architectural Association, 1997; orig. pub’d 1986), 185–86.

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Sean Griffiths

University of Westminster

Architecture without Plans: Design Strategies Based on Chance Operations

The composer, John Cage wanted sounds to be nothing but themselves. Not signifiers, not representations, not components of a formal system, just sounds. Cage wanted sounds to emerge “in accordance with nature in the manner of her operation”. In this, he was not evoking a romanticised, transcendental nature. Rather, he was alluding to the purposeless creativity of nature. To this end he adopted chance as a compositional tool to create music without purpose, denuded of signification and free of recognisable form. In contrast, there is nothing more purposeful, signifying and form-generating than an architectural plan. The teleological ambitions of the plan are perfectly expressed in Le Corbusier’s claim that “the plan is the generator”. Not only does the plan generate the specific project, it determines the very conception and limits of architecture itself. The plan is a projection into the future. Seeking to assert human agency over worldly contingency, it is the instrument of an ambition to control time and space.

The plan, thus, has much in common with the musical score. Plans and scores give the viewer oversight over the entire territory at a glance. They convert processes that are immersive and temporal into singular objects. They encourage preoccupations with concepts such as symmetry, proportion, repetition, language, narrative and formal coherence which lend themselves to transcendental significations. And yet to look at a plan and mistake it for the particular experience of an environment is not unlike looking at a score and mistaking it for the experience of listening to a performance of a piece of music.

For Cage, scores were not the drivers of the compositional process. Chance operations were the creators of scores. Sometimes elements of indeterminacy were included in the score. This permitted performer’s a considerable degree of scope for interpreting the work and allowed for alternative outcomes in its performance. Thus, the score’s traditional role as an instruction or definitive plan of action is undermined. There are correspondences between musicians’ experimental scores and the experimental drawings of architects. Similarly, there are correlations between the roles of composers, performers and listeners in music and those of designers, contractors and users in architecture. It is therefore possible to translate ideas that originated in music into design methodologies which challenge the very basis of architecture, in the same way that John Cage challenged the traditions of Western music. This, with particular emphasis on the implications for architectural drawings, is the subject of my proposed paper.

The paper will be an explication of research into the potential architectural outcomes of design techniques based

on indeterminacy and chance and which raise questions about the role of plans in the determination of architecture. Issues explored will include: plans and the experience of buildings, the primacy of the visual in architecture, the roles of intentionality and authorship, the predominance of contingency in architectural processes and the nature of architectural meaning. The paper will also touch on the correspondences of this research with ideas in contemporary literature, philosophy, and anthropology, as well as music.

Sean Griffiths is a practicing artist, architect and academic. Sean was a founder of the art/architecture practice, FAT between 1991 and 2014. He has practiced as an artist since 2014, working on large-scale installations and public art projects. He continues to practice architecture under the name, Modern Architect. Sean is Professor of Architecture at the University of Westminster in London where he researches the use of “Chance Operations” as design tools. He is also a Visiting Professor of Architectural Design at Yale University.

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James Hamilton

Royal Institute of Technology Stockholm, Konstfack University College of Arts, Craft and Design

Creative Geographies

The *Creative Geographies* drawing series explores the potential syntactical translations between two modes of representing space. The first is cinematic montage, more specifically the montage technique of creative geography, where a discontinuous space is made to appear continuous through the process of editing. The most common example of this technique in popular movie culture is the car chase. Through the process of editing, or the collage of small fragments of film, what is both a discontinuous chronological sequence - a scene is made with many takes, not necessarily in the order that they will appear after editing - and a discontinuous spatial sequence - as the car turns, and a cut in the film is made, the next shot will not necessarily show a street that is intersecting or perpendicular to the the previous shot - forms an apparently chronological representation of space that is not entirely bound by nor entirely free from its geographic and historical locations but the experience of the final representation appears to be true to reality.

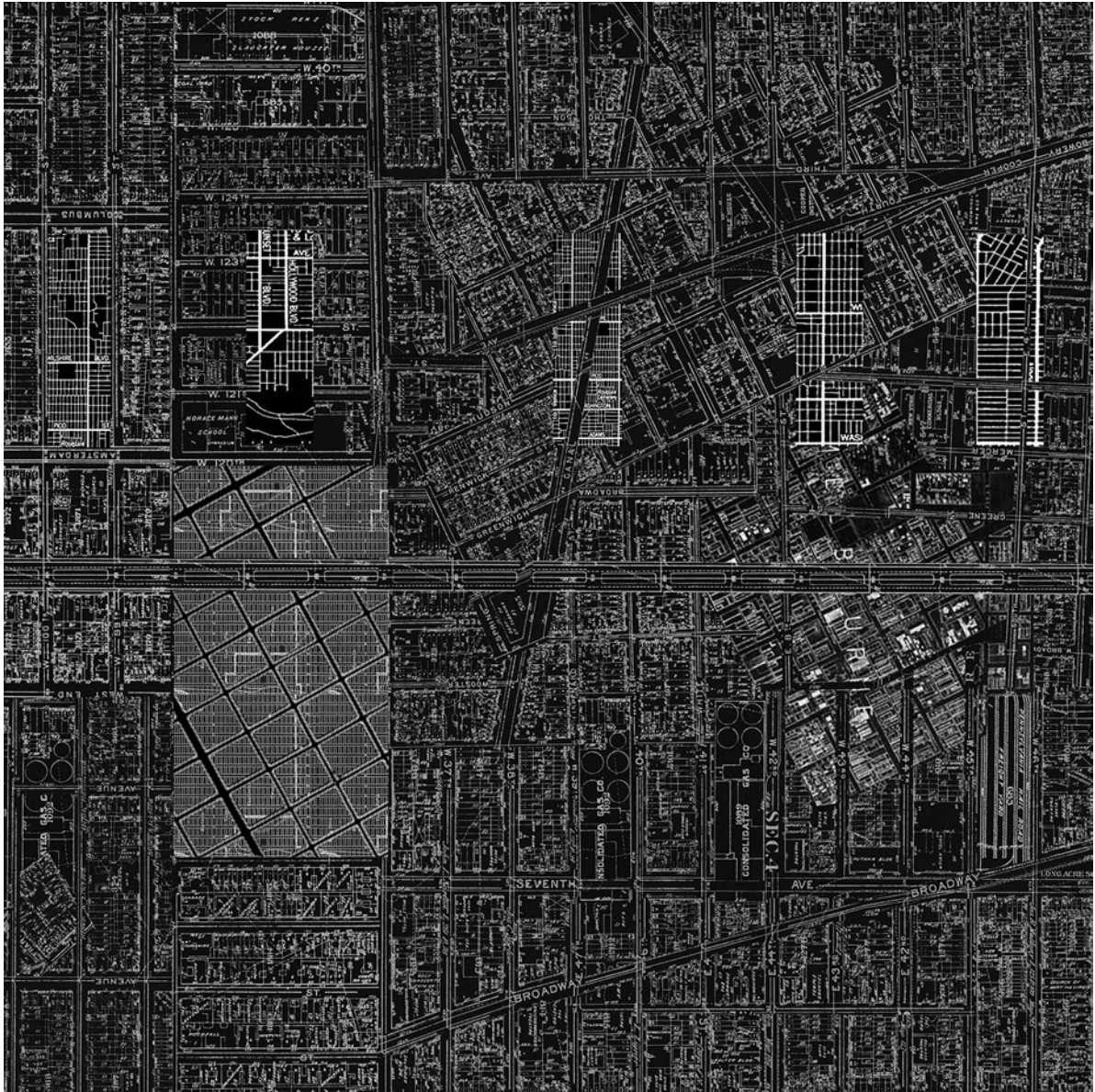
The second is the typical plan representation of cities found in political, administrative and historical documents, namely zoning maps for contemporary cities and the archeological survey plans of ancient cities.

The drawings in the *Creative Geographies* series use collage to compose continuous urban spaces using fragmentary and distorted representations of chronologically and geographically discontinuous spaces, such as New York, Rome, Chicago, Los Angeles, Miletus and Istanbul. They are simultaneously familiar and foreign, using the concrete syntax of bureaucratic and historical plans to create new imaginary paths through urban space.

The drawings were made by collaging inverted black and white prints of pieces of existing plans of real cities in an A4 format, then using a large format photocopying machine – a common tool in the reproduction of construction documents - scanned and enlarged the collages by 214%, enhancing noise in the original prints, homogenizing the tone of the blacks and in an operation analogous to the projection of film, flattening the image, dissolving the hard edges between the layered paper of the original layered collage, making what was once discontinuous continuous.

James Hamilton is an architect and educator practicing in Stockholm. He is a founding partner of the practice AT-HH and the Hannes Meyer Foundation. AT-HH works with built and speculative work realized in publications and exhibitions. The Hannes Meyer Foundation has exhibited at the 2014 Venice Architecture Biennale and was short-listed for the Princeton Architectural Press *Pamphlet Ar-*

chitecture Competition. James is currently adjunct faculty at the KTH School of Architecture in Stockholm where he leads a first year studio with Malin Heyman. Additionally, he is a visiting associate professor at Konstfack's masters program in Spatial Design.



Elif Hant

Faculty of Architecture, Istanbul Technical University

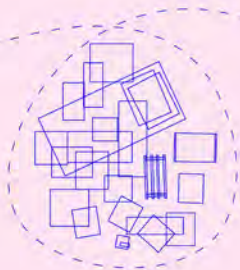
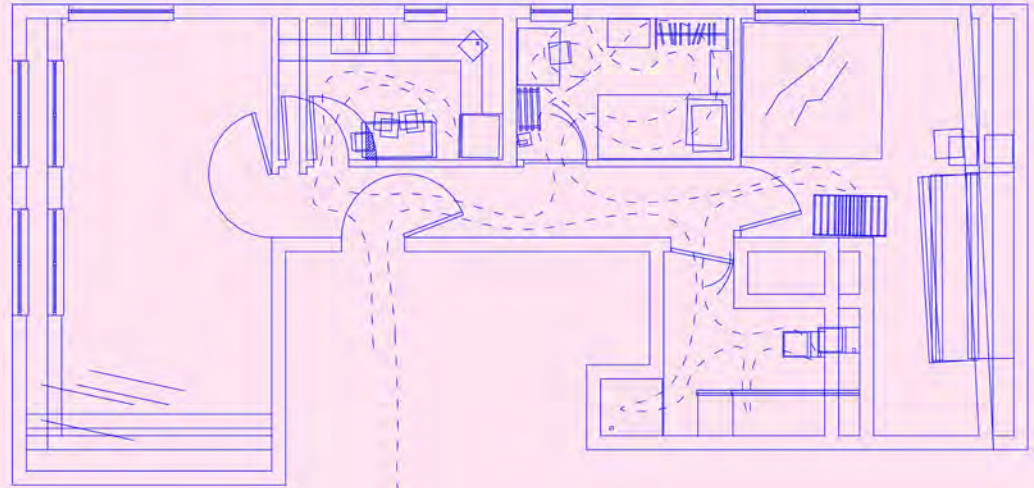
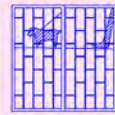
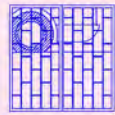
Transduction* of Plan Drawing with Everyday Life

The house, considered as an architectural product before the 18th century, is only accessible to the upper class; After the 18th century, the house starts to be included in architectural discourse with the everyday life. The house defined everyday affairs, vital practices, comfort, efficiency, economicality, the question is critical became an issue. In 20th century, the design of house has begun to be anticipated according to the social positions of subjects. With modernity, housing imagery begins to evolve over how modern people and modern society should be and how they should live. From the 1990s until today, with the housing market driven capitalism, the situation gains another dimension. With the production of “mass housing” that we have seen various examples in the world and in Turkey, people try to maintain their lives in modern cities in a “decent” manner. The architectural practices shows reluctance about these houses which are produced in series, in bulk and typed. Because it is no longer possible to produce a right house for the right person. The mission of the mass housing which turns into an annuity tool in the direction of the economic policies of the state, but which allows seemingly equal opportunities, is differentiated. With mass housing we witness not only the modern individual’s home, but also the lives of the individuals in the “modern home”.

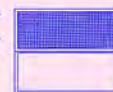
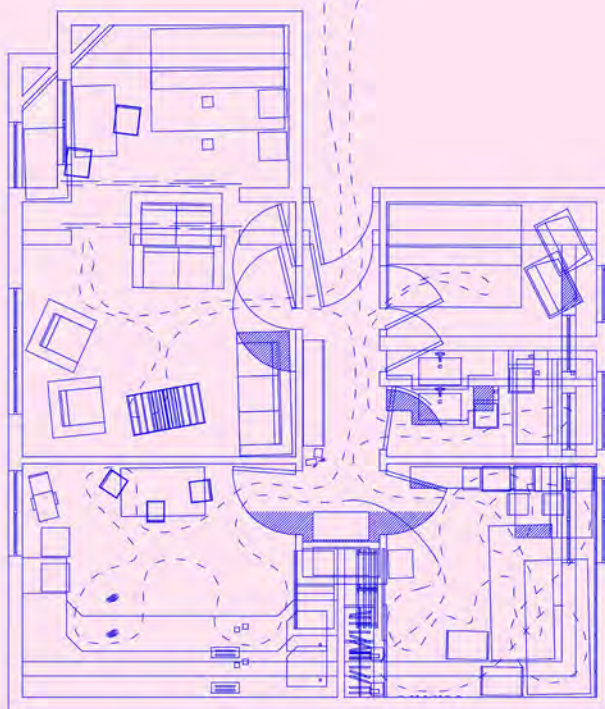
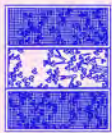
In this context, the study considers the plans of five different “modern houses” built in different urban pattern and time in Istanbul. Some designers of houses are known but some are unknown. Therefore, it is difficult to measure the intention of the architect approaching the house. But what is critical here is the possibility that the life in the above-mentioned “modern houses” does not quite match the prospect of the architect. The process of thinking about these houses evolves over the last 2 years when I have the opportunity to stay at different time intervals and to experience it closely. It is desirable to study the situations in which the use of the house changes, transforms, stratifies, separates, collects and distributes in everyday life. In doing so, a narrative is established with drawing on plan level. The established narrative transduces space planning with other parameters such as everyday actions, personal obsessions, psychological states or roommates. Thus, a historical topography is created through these houses in Istanbul, and a personal historical narrative is established with this experience. The aim of the study is to concentrate on those situations where the account does not participate while drawing the plan in architecture and to think about how the everyday life in the house is getting the place by means of instrumentalizing the plan drawing.

* Transduction: Genetically, it is one of the events that allows a variety of recombinations to occur in a bacterium. Bacterial recombinations have an important place in bacterial life because they help them to adapt more easily to the environment. The metaphor of the transduction in the text refers to the plan established by the drawing of bacterial life. The transduction takes place when the plan drawing involves not only the structural elements but also visible or invisible phenomena in everyday life.

Elif Hant has graduated from the Faculty of Architecture of Gazi University in Turkey in 2015 and started her master’s degree program at Istanbul Technical University (ITU) in the same year. She has also been a research assistant since 2016 in the Department of Architecture at ITU which is one of the most prominent universities in Turkey. Architecture, philosophy and sociology are her main interest areas that she spends most of her time. She has been thinking and working on issues such as commons, permaculture and alternative living rights which she had recently encountered. What she believes is that the essence of the work people did is characterized by their current personality shaped until that time. For this reason, when Elif contributes to something, she feels that what she did represents her voice from where she stands.



hey you!
don't make it bye.



Rachel Hurst

University of South Australia

A Million Hours of Plans: Exploiting Time and Transparency

Architectural plans are autopsies of unborn buildings, slicing through the material and spatial envelope to reveal views and conjunctions never intended to be seen simultaneously. Frascari writes of the dissecting knife of the pen,¹ and, like surgeons, we choose the line of cut to expose the vital innards of the design, the areas most requiring attention, and in doing so each plan becomes a digest of the critical characteristics of a scheme.

And like the forensically flayed illustrations of Vesalius' *De humani corporis fabrica*, architects use superimposed spatial layers in their drawings to deconstruct and reassemble the components of a design into a functioning volumetric whole. Either with transparent paper or digital layers, we are able to simulate X-ray vision through a palimpsest of storeys and structure. Each of these layers remains resolutely orthographic in projection, yet through their compilation it is possible to imagine the three-dimensionality, if not hapticity, of the architecture.

What if this diagnostic drawing tool could be exploited to cross-section time as well as the physical body of architecture? This work-based session is propelled by this possibility, and by the conference title, *Drawing Millions of Plans*. It presents a set of hand-drawings and oil paintings that aim to synthesise a million hours of archived plans into a hybrid rendition of the plan as graphic DNA.

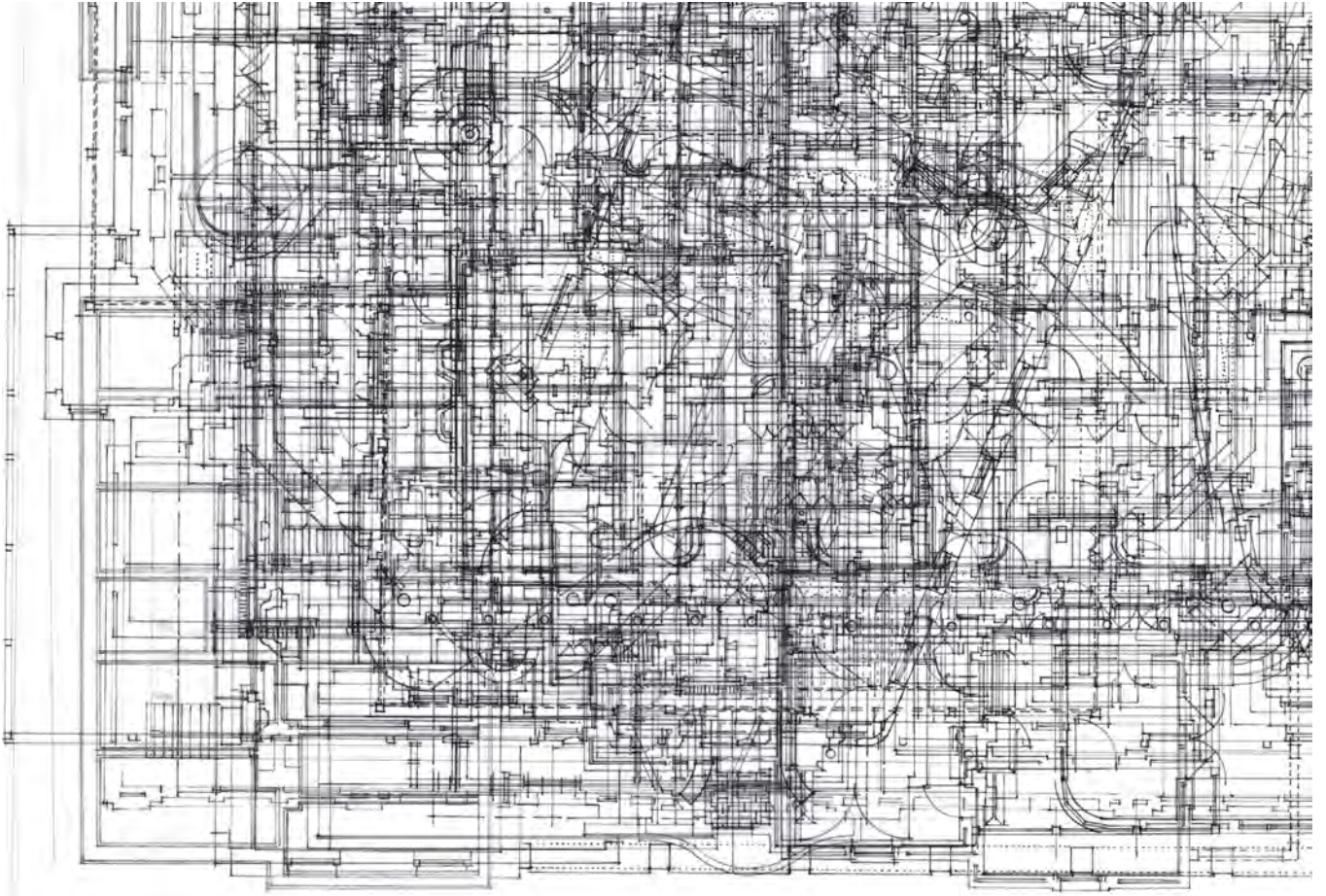
These works use archival drawings from a specialist Australian architectural museum as raw data. Plans produced at approximately regular intervals over a period of one million hours (114 years 56 days and 16 hours), are selected, then collated and reinscribed into single drawing planes. Chosen for architectural significance and draughtsmanship, the plans are ordered chronologically and collaged until each drawing approaches visual saturation, and a new one commenced. The examples begin with a drawing of a university chancellory of 1878 and finish with the last hand-drawn scheme in the museum from 1992.

What do these compressions of type reveal? What do they show not just of the recurrent formal languages and construction of an ostensibly diverse portfolio of buildings, but of the representational habits of the era? In the second iteration of the process, the dense linear melds of plans are translated into tonal, painterly versions that solidify spatial and compositional qualities into a condensed reading across time. Collapsing projects into each other enables an exploration of the tacit codes of drawing, of sheet composition, colour and drawing convention. Using techniques of phenomenal transparency borrowed from Cubism, and cognisant of the latent perspectival qualities of axonometric projections, they amalgamate art and ar-

chitectural techniques into a new fusion of forms. Furthermore, these paintings are commentaries on a threatened heritage of drafting skills, and proposition for the future role for analogue representation. Not only a retrospective collaboration with absent architects, they are used as examples to a current generation of architectural students, suggesting ways in which the lineage of analogue representation can inform a richer contemporary practice.

Rachel Hurst is Senior Lecturer and Design Coordinator in Architecture at the University of South Australia. She has an extensive exhibition and publication background, of over 20 shows and 80 text works. Her PHD at RMIT, *The Gentle Hand and the Greedy Eye*, investigated the everyday, hybrid analogue representation and curatorial practices, through works of diverse media and scale. It was awarded the Pinnacle and Judge's Choice Awards for Publication in the 2016 Australian Graphic Design Awards, and finalist in the NGV Art Book Publishing Prize 2017. Rachel is a contributing editor for *Architecture Australia*, and regular juror in national and international awards and competitions.

1: Marco Frascari. *Eleven Exercises in the Art of Architectural Drawing: Slow Food for the Architect's Imagination*. (London ; New York: Routledge, 2011), 137.



Plans of Ideas/Possibilities

Architecture has worked with many of the same ideas over centuries. The focus of a research project conducted at the Danish Academy in Rome in 2013 and in a research based design studio taught at Kingston School of Art 2016-17 has attempted to decipher ideas inherent in plans of palazzos from 16th century Rome(1). A process of copying, analysing and then re-drawing has allowed one to decipher and understand.

The interest and potential in looking at and learning through plans lies in spatial concepts and ideas embedded within the plan as a figure. The drawings of past architectures are interrogated not for their stylistic and historical significance. Our interest lies in the exploration of the concrete material configuration of buildings and the primary architectural actions evident in the plan, which gives architecture a sense of essentiality.

Published plans of the Cinquecento are repeatedly presented as isolated figures. Disconnected from context they exist in a detached, abstract form where primary figures, formal orders and idiosyncrasies become clear. They offer space for interpretation, rereading and new possibilities. The plans of Letarouilly and Serlio contain sets of rooms, clustered together as a whole. They describe a parti structured architecture, one based on passageways loggias and courtyard(s). An architecture that either embraces a completely ordered classical symmetry nor a loose asymmetrical composition. An architecture which compromises and is almost-symmetrical.

The plans suggest buildings with a strong order which seem to be wrestling with irregular sites. Tensions can be read between the wholeness of the perfected concept and its debts to an invisible yet complex reality. They seem to represent an ideal architecture, one that adapts to or negates the found condition but never ignores it, one whose apparent figural order valiantly stands firm against these external forces. Notched spaces, fractured edges and chamfered perimeters allude to these events that are suggested but never revealed. These incongruous moments are *exceptional inconsistencies* (2) that distort the otherwise consistent order.

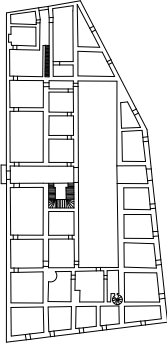
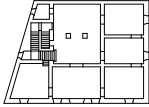
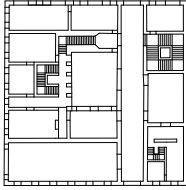
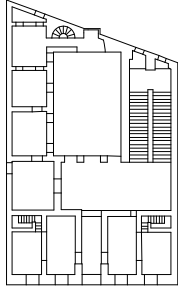
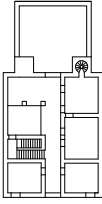
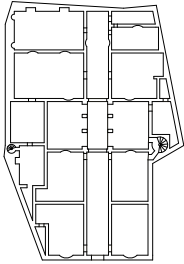
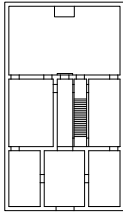
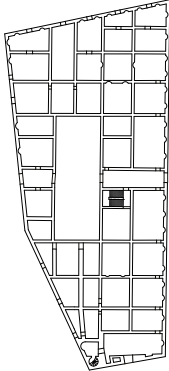
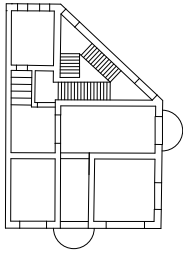
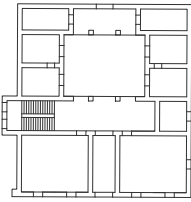
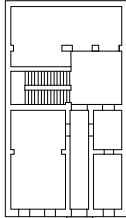
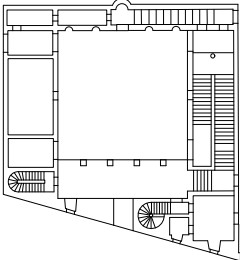
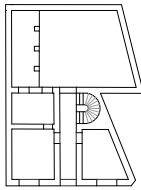
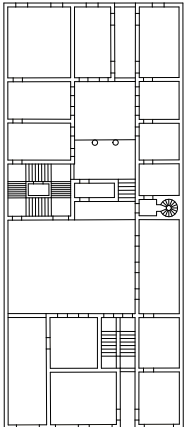
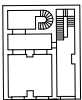
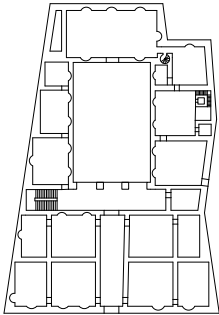
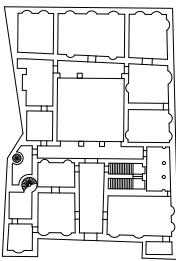
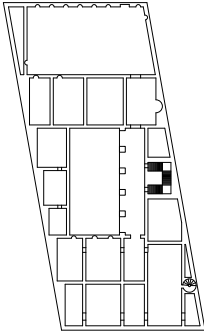
The plans display a dialectic character, a *Both-And* (3) architecture where the apparent irrationality of the part is justified by the resultant rationality of the whole. They reveal an architecture full of *mistakes* (4). These occur precisely where different sets of rules conflict. The errors do not imply a complete refusal of the

rules of the primary order, they suggest an attempt to establish a relationship with the rules. These mistakes are episodes in which the order manifests itself in all its weakness. They suggest a sort of correction, they teach us about the city beyond.

Mette Johanne Hübschmann (1987/Copenhagen) studied at KADK and at the EPFL in Switzerland. She has worked in architectural practices in Copenhagen, Berlin and London (Adam Khan Architects, Pricegore Architects, David Chipperfield Architects). She has been undertaking a research project at the Danish Academy in Rome on the Palazzo of Cinquecento Rome. Mette has been a studio leader at undergraduate level at Kingston School of Architecture and Design. In practice she has led competition winning schemes and has been focusing the last three years in practice in London, on developing designs for cultural and domestic projects. She is currently serving as a teaching assistant at KADK Institute and Architecture and Design.

Matthew Phillips (1981/London) studied architecture at CASS LondonMet and TUDelft. He has worked with international offices in London, Ghent, USA and Amsterdam. He was an Associate at DRDH from 2007-17 and has collaborated with artists, graphic designers, curators and photographers. He has taught at the London School of Architecture, CASS LondonMet, CSM and Kingston School of Art and at KADK. He founded his own practice in Berlin in 2017.

- 1 The following page of redrawn plans by students from Kingston School of Architecture and Design is based on research undertaken on the *Edifices de Rome Moderne*, Paul Letarouilly, Paris, 1840, the *Tutte l'opere d'architettura et perspectiva*. The "*propositions for off-square sites*" republished in Sebastiano Serlios on Architecture, ed. Vaughn Hart and Peter Hicks (New Haven: Yale University Press, 1996), 2:282-309 and *Italian Architecture of the 16th Century* Colin Rowe and Leon Satkowski, 2002
- 2 Robert Venturi, *Complexity and Contradiction in Architecture*, Chapter 7 Contradiction Adapted (MOMA, 1966) 45-56
- 3 Robert Venturi, *Complexity and Contradiction in Architecture*, Chapter 4 Contradictory Levels: The Phenomenon of "Both-And" in Architecture (MOMA, 1966) 23-33
- 4 San Rocco, *Mistakes #3*

	<p>1</p>  <p>Strong figure Exceptional inconsistencies</p>	<p>2</p>  <p>Almost-symmetrical Exceptional inconsistencies Compromised perfection Both-and</p>	<p>3</p>  <p>Strong figure Exceptional inconsistencies</p>	<p>4</p>  <p>Almost-symmetrical Exceptional inconsistencies</p>
<p>5</p>  <p>Almost-symmetrical Exceptional inconsistencies</p>	<p>6</p>  <p>Almost-symmetrical Exceptional inconsistencies Compromised perfection</p>	<p>7</p>  <p>Almost-symmetrical Strong figure Exceptional inconsistencies Compromised perfection</p>	<p>8</p>  <p>Strong figure Exceptional inconsistencies</p>	<p>9</p>  <p>Almost-symmetrical</p>
<p>10</p>  <p>Almost-symmetrical Exceptional inconsistencies Compromised perfection</p>	<p>11</p>  <p>Almost-symmetrical</p>	<p>12</p>  <p>Almost-symmetrical Exceptional inconsistencies</p>	<p>13</p>  <p>Almost-symmetrical Exceptional inconsistencies</p>	<p>14</p>  <p>Strong figure</p>
<p>15</p>  <p>Exceptional inconsistencies</p>	<p>16</p>  <p>Almost-symmetrical Exceptional inconsistencies</p>	<p>17</p>  <p>Almost-symmetrical Exceptional inconsistencies Compromised perfection</p>	<p>18</p>  <p>Strong figure Exceptional inconsistencies</p>	<p>10 Palais Lavalain Via Paolo = V.13, Edifices de Rome Moderne, Letarouilly, Paris, 1840</p> <p>11 Maison via de Falleggrani VIII, Edifices de Rome Moderne, Letarouilly, Paris, 1840</p> <p>12 Maison via S. Maronistrato VII.6, Edifices de Rome Moderne, Letarouilly, Paris, 1840</p> <p>13 Maison pres la Piazza de S.S. Apostoli = II.54, Edifices de Rome Moderne, Letarouilly, Paris, 1840</p> <p>14 Maison Via D'ara Celli = IX.1t, Edifices de Rome Moderne, Letarouilly, Paris, 1840</p> <p>15 Maison pres de l'EGLISE S.M. Della pace. No598, Edifices de Rome Moderne, Letarouilly, Paris, 1840</p> <p>16 Plan III. Tutte l'opere d'architettura et perspectiva, Sebastiano Serlio, Frankfurt, 1575</p> <p>17 Plan IV. Tutte l'opere d'architettura et perspectiva, Sebastiano Serlio, Frankfurt, 1575</p> <p>18 Plan IV. Tutte l'opere d'architettura et perspectiva, Sebastiano Serlio, Frankfurt, 1575</p>

Poul Ingemann

KADK, School of Architecture

Plans for the Future

My first completed project was a small residential housing project. It was completed in 1988 and was the culmination of a long-term attempt to work seriously classical and therefore fairly symmetrical with the floor plans. These plans were mostly cut over the same template, tripartition and preferably right in the middle. My ambition was to maintain a simple floor plan that would unfold together with a variety of spatialities. Vault, long room, short room, two storey room and so on.

It was a challenge to get the classically oriented plans in place within the relatively modest apartment area. I felt that I had to be faithful to the symmetrical classical plan and not to challenge it significantly. Only the site plan, consisting of three buildings, challenged the classical plan's inclination to establish a sort of resting gravity. I'm more or less intuitively got up a sort of rotation and imbalance.

Fumbling and investigating, I began to challenge, as well as I could, the classic and sometimes a little too rigid symmetrical plan. My housing project was harshly classical and stern in the wake of postmodernism's often superficial use of architectural elements and styles.

It was then that my sketching of floor plans really took off. Since I'm neither excessive intellectual nor academic in my approach to architecture, it had to be a silent discourse I started on the paper.

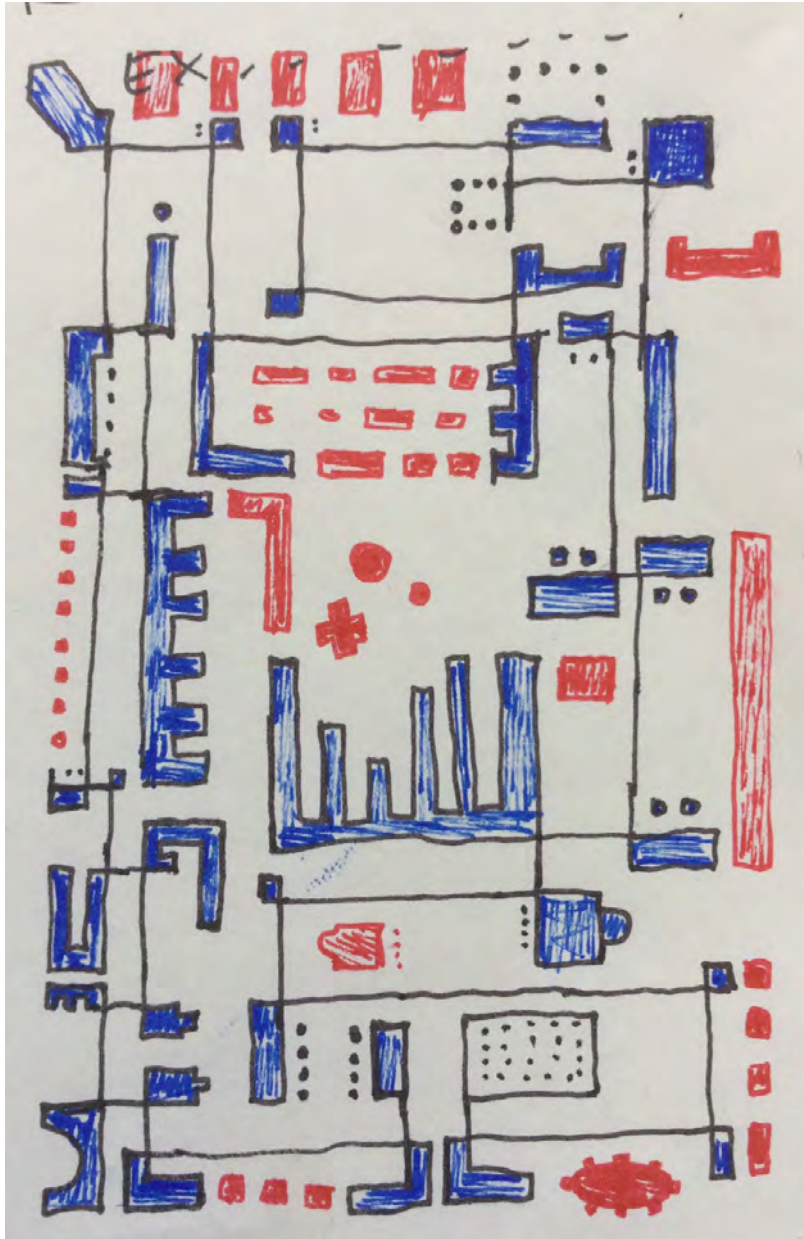
The next project was a museum and here I tried to use shifts and interruptions of axes to bring forth some disorder and labyrinth effect.

The classic plan has become my destiny. My plans always comprise a kind of order, which I can start to relate to as well as I can. Perhaps a duel can be won between the resting plan and the freer one. Perhaps the plan is stupid and naive. Perhaps it is halved, doubled or decomposing and inquiring.

The floor plans presented here are all of actual size and copied from my small sketchbooks. I love to draw more or less the same over and over again. The plans have almost always been accompanied by spatial sketches. In fact, I usually sketch spatially. I even draw plans three-dimensionally.

I draw on a daily basis and consider my floor plans and spatial sketches as exercises just waiting to be converted in relation to a programme. These are my plans for the future.

Poul Ingemann is an architect and Associate Professor at the Royal Danish Academy of Fine Arts' School of Architecture in Copenhagen. He has run his own practice since 1987. Completed projects include: Residential housing in Blangstedgård, Odense; two exhibition buildings at the Johannes Larsen Museum, Kerteminde; Viking Museum at Ladby, Kerteminde; Local History Archive, Kerteminde; Urban renewal at Istedgade, Copenhagen; new building for Rudbjerggård manor house, Lolland; villa in Gråsten; TERMINI, an installation in Ringe; several art-installation objects exhibited in various museums. He is recipient of the C.F. Hansen Medal, the Royal Danish Academy's highest acclaim.



Natalie Koerner

KADK, School of Architecture

Clouds: Beyond Millions of Plans

This paper brings together clouds, drawings and architecture. Clouds have in recent years become an important spatial analogy to describe our digital archives and the space of the internet. In climate discussions they are an essential, still unpredictable variable. Meteorological clouds cannot, so far, be accurately modelled, mapped or drawn, because they are not so much objects in themselves as that they visualize a vast number of atmospheric and material parameters. In this paper, I investigate the limits of drawing in relation to the representation of the cloud—spatial, meteorological, and digital—and how it would in fact take more than millions of plans to approximate any given cloud at any given moment.

As spatial entities of continuous change clouds fascinate architects. I will turn to three architectural projects that incorporate the spatiality of clouds in varying degrees of permanence which in turn affects the role of plan drawings. I will show that the architectural investigation of clouds reveals the limitations and constraints of plans and sections and requires more flexible modes of representation.

The first project is Jørn Utzon's Bagsværd Church, completed in 1976. Initial sketches of the spatial concept show that the interior of the church was inspired by rolling clouds. Comparing the legibility of the cloud idea in the sketch, the plan and the actual building I will describe the translation that turned an ephemeral dynamic conglomerate into a sculptural solid.

The second project I investigate is Diller Scofidio + Renfro's 2002 Blur Building. Conceived for the Swiss EXPO, this temporary structure on Lake Neuchatel consisted of a network of 30000 nozzles that redistributed lake water as a cloud. The plan drawings of this project mostly focus on the infrastructure of nozzles and pipes. The actual cloud is only visible in sketches, collages and, of course, photographs.

The final project I discuss is Swiss architect Christian Kerez' 2015 Venice Biennale project. Incidental Space is a solid cavernous cloud that can be accessed via two holes. The structure was modelled on an "incidental" accumulation of sugar and dust, cast in plaster, scaled up and reproduced using 3D modelling, plotting and milling techniques to create sculpted panels of sprayed fiber cement. In Venice, it was exhibited at the Swiss Pavilion together with large black and white photographs of the digital and hand-crafted models and renderings used—along with models explored in VR—during the design process. Since the project's production relied on comprehensive spatial models rather than plan drawings of flat sections, it had little use for 2D plans.

Drawing on these three projects I show that cloud-space can be explored and sculpted but not flattened. This opens up questions in regards to the limitations of the plan. The spatial imagination of what da Vinci called 'bodies without surface' and of objects that remain in a state of becoming—through exploration and variation—are beyond the scope of finite drawings. Clouds are what French philosopher Quentin Meillassoux would call the 'great outdoors' of architecture: impossible to fully comprehend in drawings, yet fertile ground for the spatial imagination.

Natalie Koerner (DE) is an architect currently enrolled in the Ph.D. program at the Royal Danish Academy of Arts, School of Architecture (KADK), which involves academic and artistic work. She received her bachelor of architecture from Cambridge University (2008) and master degree from ETH Zurich (2011). She has worked for Gigon/Guyer Architects and Knapkiewicz & Fickert in Zurich and for the artist Olafur Eliasson, in Berlin. Her praxis and research revolve around the spatial aspects of memory and archiving. Her Ph.D. project focusses on the spatiality, materiality and temporality of today's digital archives through geological and meteorological analogies.



Survey < > Creation

The project, Survey < > Creation suggests that point cloud models from 3D scans of an existing space can be the source for explorative drawings. By probing into the procedure of 3D laser scanning, it became possible to make use of the available point clouds to both access geometric representation of a space and to simultaneously devise new. The point clouds that were developed into drawings were a quantification of the recorded and thus spatial elements placed under metric control. While quantification seemed to have little meaning to the project, it allowed further examination of the glitches and other imperfections that emerged during the scan process. Thus, developing drawings by sectioning and reassembly of the point clouds triggered alternative understandings of the registered. 3D scanning sparked solidary reciprocity between the two types of drawings; the survey drawing (of the existing) and the creation drawing (of the anticipated).¹

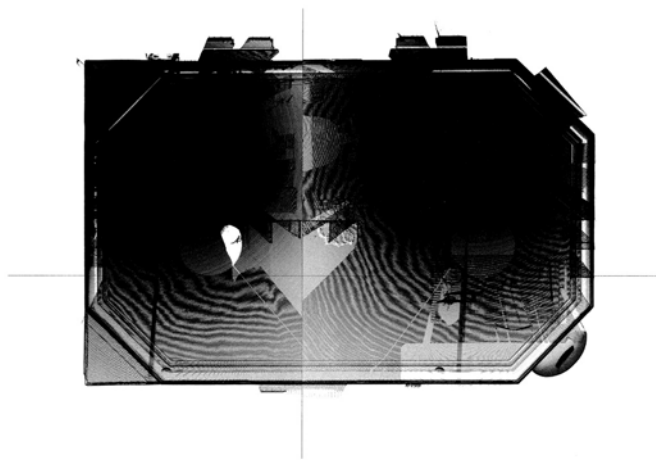
The scanned space was a 20m²-shared office that had three workspaces of which one was mine from August to December 2014. The scanning was performed with a FARO Focus 3D laser scanner, which worked by a controlled steering of a laser rangefinder. The scanner captured information detectable by the reflection of laser beams at the time of scanning and positioned the information into digital representations of the office in the format of point clouds. The scanning procedure was engaged in developing drawings that depicted the office and unexpectedly, enabled the registration of the ephemeral event of motion sequences. I.e., the movements were not registered as a sequence of unique positions, but as a fluid entity that engaged spatially through motion. The imperfections that occurred were either generated by a glitch in the scan process or the result of a motion by the scanned.

Most parts of the drawings were recognisable as an interior space. However, the drawings exposed points amassed into peculiar formations that formed unexpected spatial compositions and destabilised the connection to the scanned. Instead of 'correcting' the glitches or the imperfections, they became the source for further investigations in plan and sectioned axonometric drawings. In the design process, distinctions can be made between models that illustrate and models that explore.² In the project Survey < > Creation the 3D scan was a registration of an existing space; hence an illustrative model of the scanned. However, the sourcing from a 3D scan cre-

ated an opportunity and a foundation for engaging the illustrative model into drawings for exploration. Thus, the division between the illustrative (the point clouds) and the explorative (drawings) became ambiguous. The unexpected glitches and the imperfections that had emerged from the scanning procedure became creative opportunities to explore by drawing.

Maya Lahmy has combined her professional practice in architecture with teaching and research. Currently, she is enrolled as a PhD fellow at Aarhus School of Architecture. Her research is triggered by the translations and negotiations that must take place between the artistic drawing and the processing of materials through digital fabrication. While a drawing for fabrication directs tool operations with mathematical precision, the same drawing can also embody the ephemeral and not yet decided. The research attempts to make a broad use of given digital technologies by suggesting that just as the drawing informs digital fabrication, digital fabrication must inform drawing.

- 1: Belardi, Paolo, *Why architects still draw: two lectures on architectural drawing*, trans. Zachary Nowak (MIT Press, Cambridge, Massachusetts, 2014), 45 - 47.
- 2: Glanville, Ranulph. *Intention and the User in Ayres, Phil. Persistent Modelling: Extending the Role of Architectural Representation*. (Abingdon, Oxon: Routledge, 2012) Chapter 3, e-book.



Min Kyung Lee

Growth and Structure of Cities, Bryn Mawr College

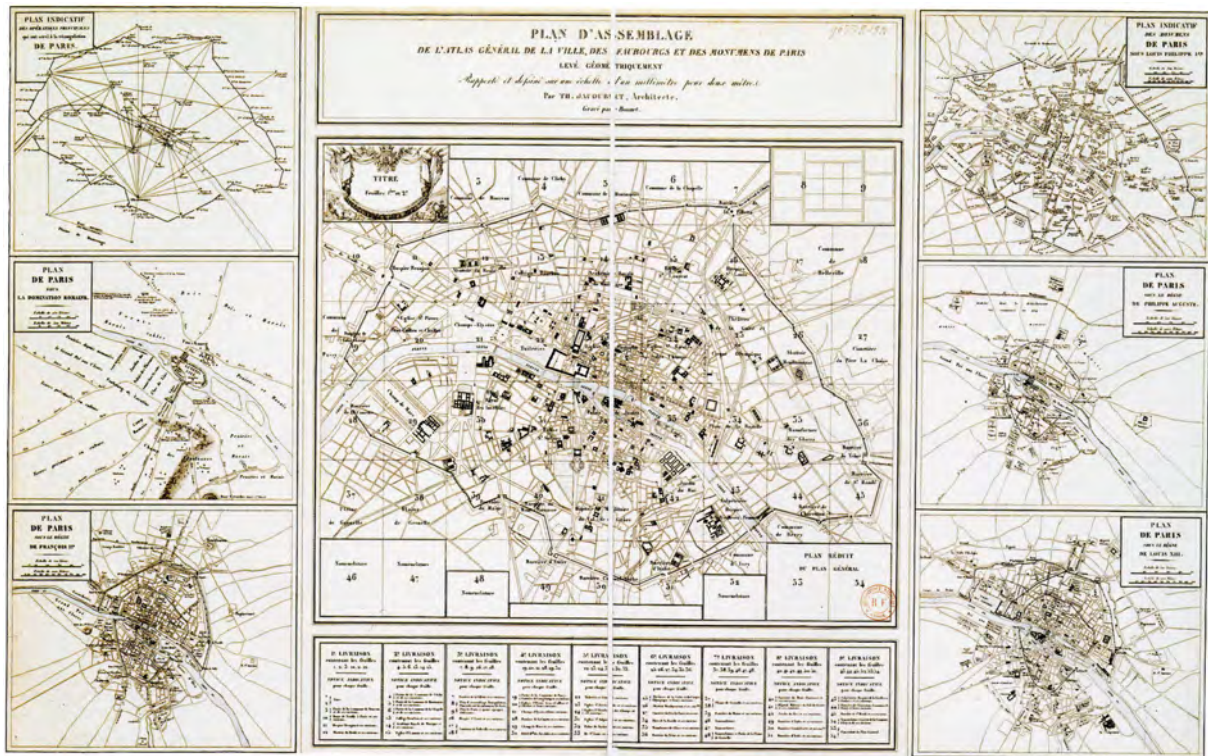
Drawing Squares from Triangles: On the Surveys and Plans of 19th-Century Paris

This presentation addresses the historical development and status of the urban plan and examines the specific orthographic mode of its representation. It outlines how its diagrammatic composition influenced the emergence of urban planning practices during the nineteenth century and that still define the field today.

By the late eighteenth century, all governmental plans of Paris were based on ground surveys using triangulation. An expensive and laborious task that required building towers and hauling heavy equipment, only two surveys of the city were conducted from the French Revolution to the Third Republic. The method consisted of translating the urban terrain into an orthogonal and gridded image through an imaginary chain of triangles. The geometric practice of triangulation and its rendering into a grid replaced literati based practices of representing the city. New planar representations also marked a critical shift from earlier perspectival depictions of the French capital. Unlike perspectival images, orthographic ones were not only descriptive. Through their grids, they equalized space into a totalizing flat surface that valued lines and voids, and allowed for multiple temporalities—what is there (descriptive) and what will be there (projective)—to share a common surface. This quality allowed architects, engineers and administrators to draw their plans on surveyed descriptions by visualizing the city as a coherent and atemporal object.

The cartographic grid, moreover, served as a mechanism of projective composition, by situating, anchoring, and ultimately generating the formation of new spaces in Paris. This presentation offers two historical examples of how the geometric methods of triangulation and the orthogonal grids of plans served to mediate the development of two public spaces—the new quarter of *Les Halles Centrales* and the alignment and opening of the *Place de l'Opéra*—considering specifically the relations of street, building, and block. Additionally, with the increased production and reproduction of plans as the means by which the municipal government communicated among its own newly formed agencies and to the public, this talk will address how the surveying and the drawing of these images as well as their cartographic logic constituted the emergence of urban planning and governance practices.

Min Kyung Lee (Ph.D., Northwestern University) is Assistant Professor in the Growth and Structure of Cities Department at Bryn Mawr College. Her research concerns the relations between cartography and architecture, and the development of visual practices and materials that mediate the production of built environments and architectural knowledge. She has received fellowships in Germany, France and the USA for her work on histories of urban mapping. Her current manuscript is titled, *The Tyranny of the Straight Line: Mapping Modern Paris*, which studies the development of mapping techniques in the building of the French capital during the nineteenth century.



Theodore Jaoubet, "Plan d'Assemblage" in Atlas général de la ville, des faubourgs et des monuments de Paris (1827)

Carole Lévesque

School of Design, Université du Québec à Montréal

A Vague Precision: Architectural Drawing and Other Stories

In his seminal book *L'invention du quotidien 1. Arts de faire*, Michel de Certeau opposed the view of the city seen from above – the view of the plan – to the view seen from within – the view through practice. Though he might not have been thinking directly of architectural representation, the dialectics between plan and practice can certainly be explored through drawing, for drawing can be an active method for forming knowledge about place, space, and use. As the path of a walk draws itself while walking, drawing happens as one draws. As the drawing appears on the page, details gather, accidents occur, and it falls back onto the ability of the drawer to find his way through the drawing to tell the story of the place he set out to draw. Drawing narratively requires an acute observation of what is to be drawn: built forms, shadows, passers-by, the time of day, smells, sounds, distances, memories, encounters and other stories told. The practice of drawing that is telling of stories is one where the path of the hand can be followed and where the presence of place can be felt. While the hand will sometimes take the initiative, narrative drawings can only be shaped after the knowledge of place has been embodied through repetitive drawing, or after repeated encounters with the narratives to be drawn. More than a mere representation, the narrative drawing allows the eye to wander and walk through the story being told.

Following a documentation set within a research-by-design project that questions the space that is made for vagueness within the city, and that led to a 42 hours walk across the island of Montreal, Canada, 150 locations were photographed and surveyed. Working with plans and axonometric drawings, the project seeks to link architectural representation to abandoned or left over areas within the city to show how filled and organised, built, really, these areas truly are. Amongst the different types of representation used in the context of the project (cartography, photography, video, sound, survey drawings, and axonometric drawings) a series of 6 large-scale ink drawings was undertaken to both further the description and inscribe the continuous experience of the vague within the drawing, as would a story line within a series of words. Drawing with acute precision a combination of plan and elevation of these abandoned spaces begins a process of inscription of the vague within the local context and renders plausible the weaving of its own undisciplined narrative within that of the city. Using the tools of architectural representation in a situation where places appear empty implies that the narrative being told be one of the existing condition. The detailed architectural drawing both describes with outmost precision the elements that build the vague and composes, as a story to be told, a different and inclusive narrative of what an urban landscape ought to be.

Carole Lévesque holds a degree in Design de l'Environnement, a Masters of Architecture from UBC and a PhD in the History and Theory of Architecture from the University of Montreal. Concerned with temporary architecture as a means to articulate alternative discourses on the city and as a tool with which to engage architectural education, she published *A propos de l'inutile en architecture* where these issues are explored at length. Her current work revolves around the architectural representation of vague spaces within the city as a means to challenge our acceptance of the derelict in our conception of what constitutes an acceptable urban landscape.



Marian Macken

University of Auckland

Passage: The Temporality of a Plan

Architecture has a history of grappling with time: spatial dialogues and temporality have been entwined for centuries. The writer and architect Jeremy Till cites time's uncertainty, its lack of essence, as framing the difficulty of reconciling time within architecture.¹ Predominantly the discussion of architecture and time refers to built architecture: to the life of a particular building and the effect of time upon it. This is demonstrated through a predominance of writing which concentrates on the life of, and within, the building.

However there is a multiplicity, a plurality, of 'times' that should be included within architecture. Beyond the life of the building, these relate to the architectural design process and representation. An expansion of the temporality of architecture, different from the built work, includes the representation of architecture, the exhibition and archiving of architecture, and the dissemination of it. This expansion includes the time of making, the time of inhabiting and the time of recollecting and repositioning. Proposing an expanded notion of time within and surrounding architecture—through its representation—broadens the temporal territory of architecture and of associated spatial practices.

To examine this expanded temporality, a project which clearly demonstrates an aberrant and unusual temporal sequence is chosen. The multiplicity of times will be examined through the case study of selected plans that document John Hejduk's Wall House 2 (Bye House). This project, originally designed in the 1970s for a site in Connecticut, USA, was built in the Netherlands 28 years later, and one year after the death of the architect. The project reflects Hejduk's theoretical position regarding temporality, but more than this, the aberrant design and construction processes allow for an extension of this thinking. Unshackled from an expected linear process, this case study reveals the multiplicity and expanded territory of architecture's temporality.

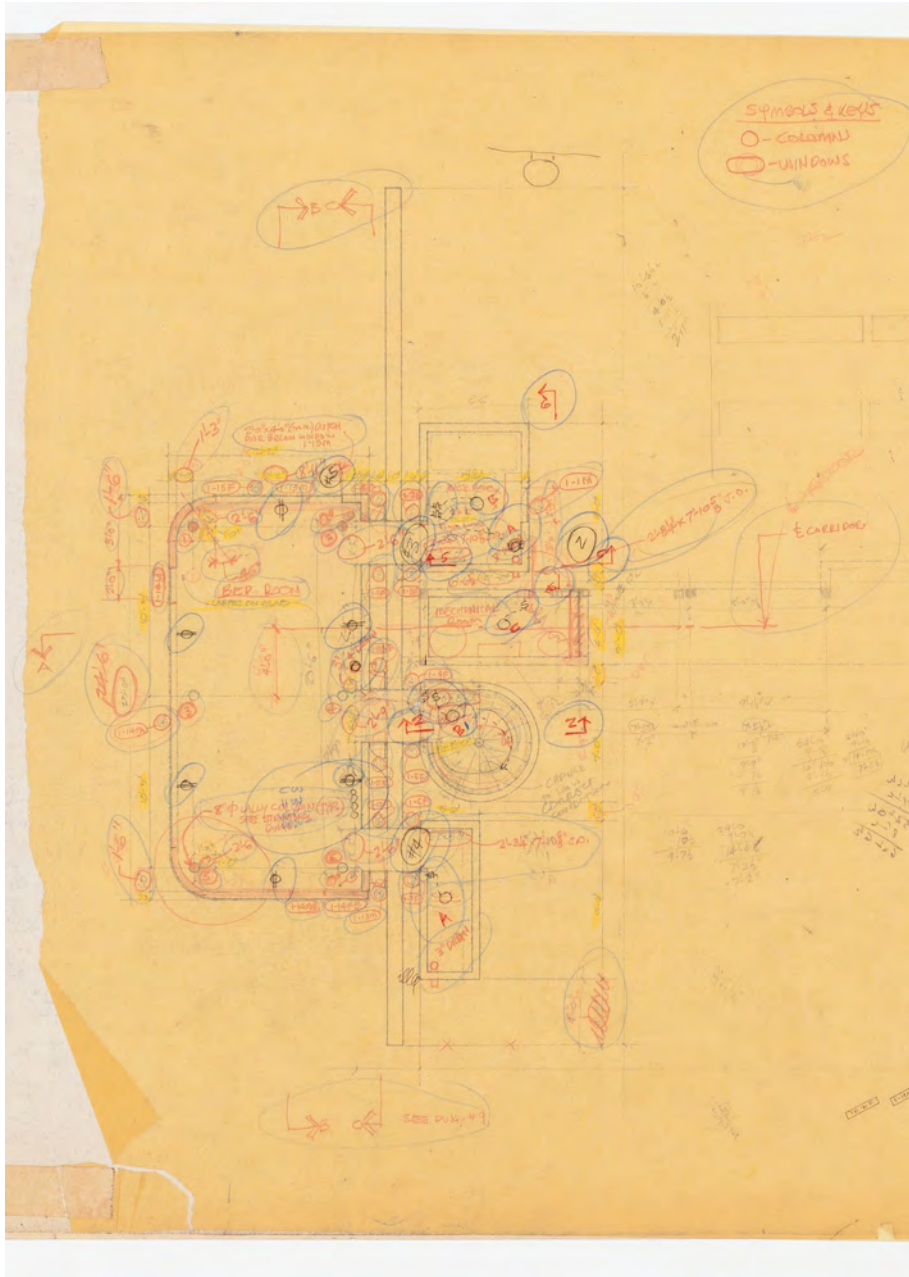
Through examining particular drawings, or artifacts, within different contexts—as a made object, as part of a series of iterations of one scheme, and within the architect's oeuvre, then as an archived, exhibited, published image—Edmund Husserl's notion of a 'thickened' present is examined: rather than looking for evidence of temporality within the frame of one drawing or building, the plan as an artifact demonstrates the passage of time

through different temporal contexts. The relationship between built space, documentation and ramifications for the wider field of spatial practice will also be discussed.

Coupled with this research is my artist's book—titled *Passage*—which operates as a parallel document to the case study as a practice-based outcome complementary to the presentation.

Dr Marian Macken teaches in the School of Architecture and Planning at the University of Auckland. She trained in architecture, landscape architecture and visual art, receiving a PhD, by thesis and creative work, from the University of Sydney. Marian's research examines histories and theories of spatial representation; temporal aspects of architecture; and the book form as spatial practice, with particular interest in the implications and possibilities for architectural drawing. Her work has been acquired by various international public collections of artists' books, including collections at Tate Britain, the Victoria and Albert Museum, UK, and Urawa Art Museum, Japan.

1: Jeremy Till, *Architecture Depends* (Cambridge, Mass.: MIT Press, 2009), 94.



John Hejduk, Bye House (Wall House 2), plan for the first floor, overlaid with sketches and notes (1974); detail. John Hejduk fonds; Collection Centre Canadien d'Architecture/Canadian Centre for Architecture Montréal.

Drawing Architectural Experience: Diagrams of Gaudí's Palau Güell as Contemporary Models

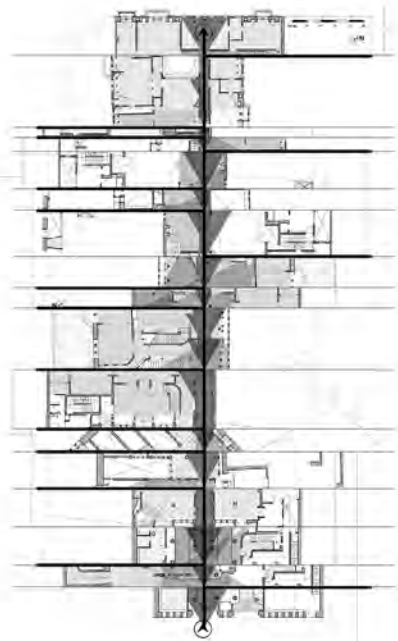
Architectural experience is a term closely linked to aesthetic phenomena. Historians, scholars, connoisseurs, journalists, travelers, or simply architecture-lovers —both consciously and unconsciously— have included subjective descriptions in their professional or non-professional writings explaining personal sensorial experiences caused by their wandering along a particular architectural work or urban space. The description of this individual aesthetic vision of architecture in motion has always been limited to written text, sometimes assisted by drawings or, since the ninetieth century, by photographs.

In the modern era, Le Corbusier promoted the concept of architectural experience with his work and the introduction of the idea of the *promenade architecturale*. After World War II, scholars from diverse fields aimed to objectively conceptualize the subjective experience of the users by proposing a new language based on diagrammatic plans that could depict the trajectory of the body in motion through architectural space. The intent was to improve the conventional graphic tools used to represent architecture —based on plans, façades and sections— by introducing new, complementary drawing systems that could be useful both for design and analysis processes. In the mid-1950s, this discipline developed new mediums of graphic notation that represented a real time sequential description of physical environments as they were experienced in motion along a given path, a methodology that blurred the lines of the architectural discipline with other modern artistic fields such as choreography and filmography, establishing vanguard compositional relationships between ancient and contemporary artistic domains.

This paper aims to analyze and understand a system of architectural notation, which underscores the episteme of the architectural experience, as an alternative way of examining architecture through the lens of bodies in motion. Surrounded by a contemporary, digital environment where computers are simulating desired three dimensional experiences, this method of notation appears as an original, hand-written way to emulate a comprehensive corporeal experience. This alternative way of drawing architecture plans and its ability to depict a space-time graphic sequence proposes a new channel for contemporary drawing practices, both in design and analysis of architecture, and facilitates communication on architecture among professionals and non-professionals. Antoni Gaudí's Güell Palace in Barcelona has been selected as a case study which, in Henry-Russell Hitchcock's words, is "one of the major productions" of "one of the most intensely personal talents that either the nineteenth or the twentieth centuries has produced." The methodological references for this work are Philip Thiel's analysis of Japa-

nese architecture and Pedro Vieira de Almeida's analysis of Alvaro Siza's swimming pools at Leça de Palmeira. The application of these separate methods will instigate the re-reading of this proto-modern edifice from a completely different standpoint and will take us to a deeper comprehension of the modern values of this complex work.

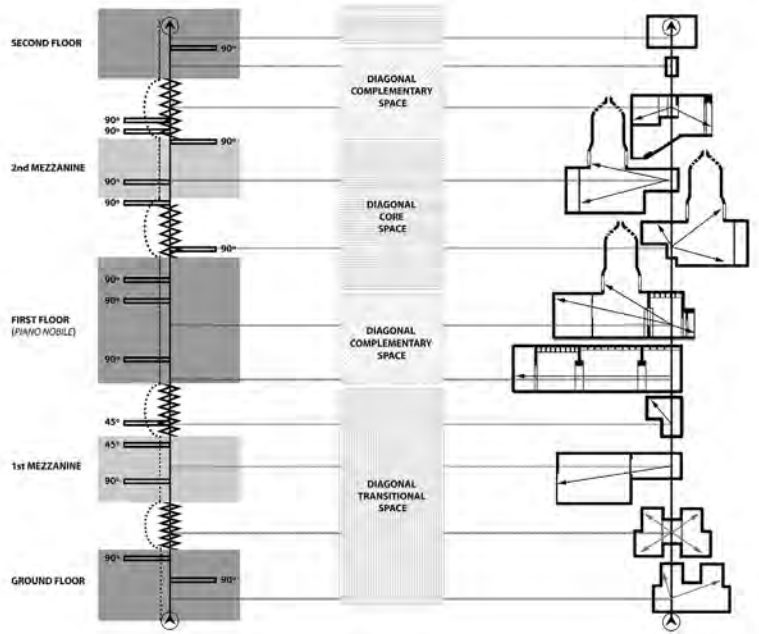
Raúl Martínez, PhD, is an adjunct lecturer at the Department of History and Theory of Architecture and at the UPC School of Professional & Executive Development for graduate studies, both at the Universitat Politècnica de Catalunya-BarcelonaTech. He has been a guest lecturer at the Poznan University of Technology in 2017 and a visiting professor at the University of Illinois at Urbana Champaign in 2014, 2015. Specializing in the historiography of modern and postmodern architecture, he is currently working on publications related to physiological aesthetics applied to architectural and urban analysis methodologies after WWII.



LAYOUT



LIGHT GRADIENT



BODY MOVEMENT

SPACE

DIAGONAL VIEWS

SANAA's Playtime: Communication and Interaction in Sejima's and Nishizawa's Architectural Drawings

While the executed buildings of Tokyo-based architects Kazuyo Sejima and Ryue Nishizawa and their collaborative practice SANAA, respectively, are best known for their formal simplicity and rather casual elegance, their drawings offer a seemingly different approach. These formally reduced sketches and plans reveal a somewhat playful and narrative approach, be it in the detailed hand-drawn rendering of domestic activities in the plan for *Moriyama House* (Tokyo 2005), in the 'soft-system' layout for the *Glass Pavilion* in Toledo, Ohio (2006), or in the sketched perspectives for *De Kunstlinie* (Almere, 2007). Whereas Sejima's and Nishizawa's sketches and plans have so far been situated within a genealogy of Japanese architectural drawing, my proposal takes a different approach. Taking the architects' claim that "Architecture Is Environment" at face value (this was the title of a lecture given by Sejima and Nishizawa at Harvard GSD in 2011), this paper seeks to situate the architects' drawings within a broader understanding of environment. Formally, I argue, these drawings operate on a cartoonish aesthetic level that registers spatial as communicative and interactive qualities. Conceptually, they conceive the idea of environment not as a physical and natural setting alone, but as a social and technological condition as well. Given the playful, non-hierarchical and animated character of these drawings, I ultimately find it worth discussing them within the broader context of architectural strategies of visualisation that reflect the varied modes of communication in contemporary society, such as Bureau Spectacular's or Independent Architecture's cartoonish drawings of imaginative buildings. Against this backdrop, Sejima's and Nishizawa's drawings can be understood as playful yet ambiguous comments on the history of modern architecture and its modes of representation.

Kassandra Nakas currently teaches at the Technical University Braunschweig, Dept. of Architecture, Institute of Media and Design, and the Köln International School of Design (KISD) in Cologne. She holds a Ph.D. in art history from the Freie Universität Berlin and was a guest professor (2015/16) and assistant professor (2007-2015) at the University of Arts Berlin. Recent research topics include the impact of digital communication on architecture as a social and discursive practice and concepts of nature in contemporary art and architecture.

Katica Pedisic

School of Art, Architecture & Design, University Of South Australia

Lines Made by Walking: On Conceiving the Invisible

As the primary mechanism making up an architectural plan, the line can be a potent device. Struck like a tuning fork, it resonates – a tether setting off a trajectory for the future life of that line. Claude Heath observed: “Every uncertain and feathery line you draw represents resource – the sweat, pain and toil of people working in the cold.” Compressed in the line is resource: future incarnations of industry, people working at bringing about built forms, in the cold, the heat; and ultimately, the line guides the everyday toil and prospective joy of occupants as they go about the minutiae of their daily lives... the end-point, perhaps, of the line. Before that – a flashback if you will – to a beginning: the toil of a pencil moving across a surface, someone drawing out a line. We live in drawings. Yet, what do lines on a plan actually represent? Conventionally, they delineate space, describing its boundaries. A condition of edge, the precise spot where a surface changes direction or ends. But point to ‘space’ in a drawing? It’s usually white and almost certainly blank. Lines demonstrate how an interior might be, but they are not that space. A plan attends to space inversely, if space is there, it is there by implication.

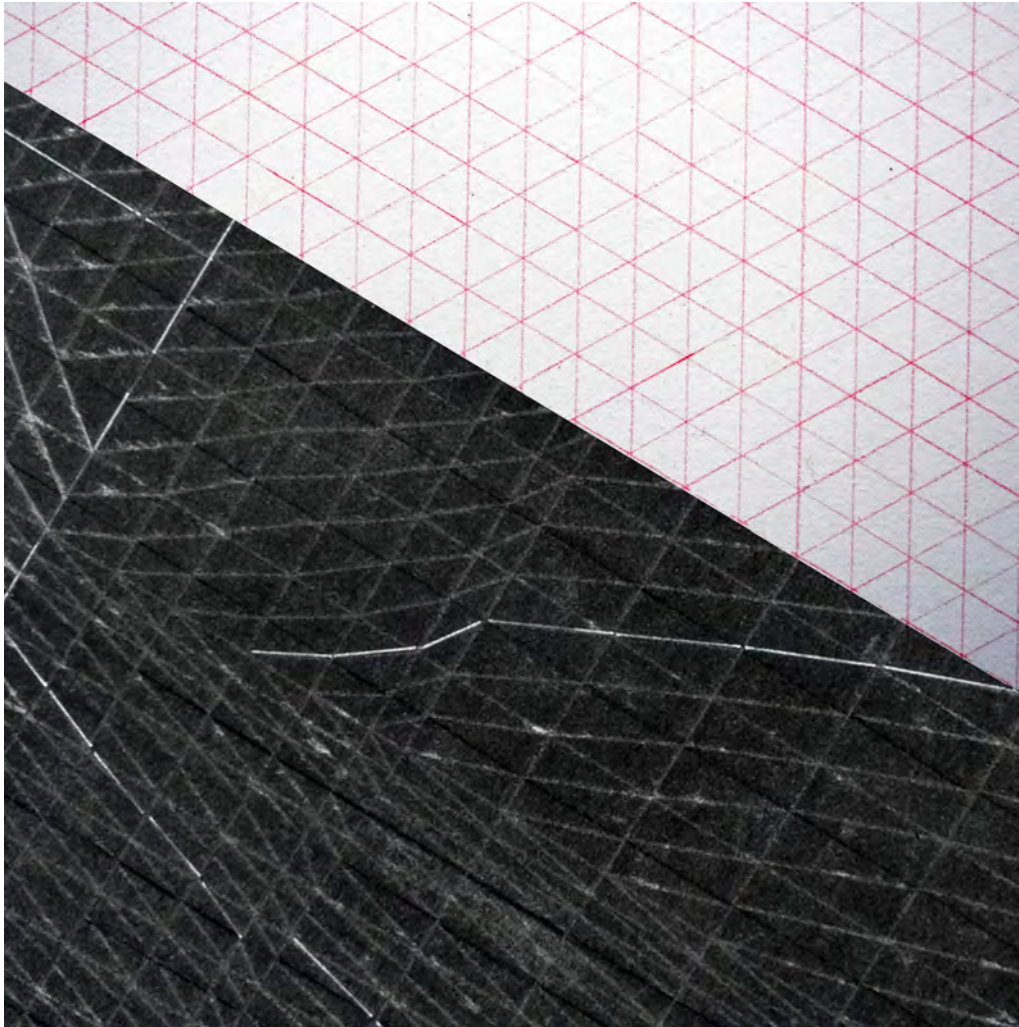
A Line Made by Walking (1967) is a drawing Richard Long made by walking across a field. Long proposed that our occupations of space are perceived by recursive transgression, which ‘draws’ our presence on the world, the spaces we inhabit. Long’s ‘line’ is motive: the trace of occupation. What if the mechanisms of the line could describe, not space as an abstract notion of extent, but as matter fluctuating in relation to the temporal, embodied activities it enables and which ultimately come to define it?

This work-based session responds to this prospect and the conference title *Drawing Millions of Plans* with new work developed for the conference. Based on the overlapping spatial geometries of two small residential projects, four drawings converge around the central motif of the hearth. Each drawing addresses a portion of the plan and examines the spatial negotiation of the hearth, juxtaposing the similar, yet independent projects. Rather than indicating physical structures, the line-work marks out occupational registers, recurrent details of habitation, presenting a set of drawings proposing an architectural plan in reverse. This compendium of lines accumulates to saturate the plan with a million moments (or thereabouts) of temporal instances, giving a dimensional presence to space.

What could such accumulations of line reveal? What might a plan look like when its space is described, not by its parameters, but the accumulated saturation of occupation?

Defined by a temporal unfolding, this session and the associated drawings suggest alternate ways plans could be explored as unfolding phenomena in flux, as space suffused with time.

Katica Pedisic is a Lecturer in Architecture at the University of South Australia. Her research examines spatial registers through making drawing and digital film works. Her drawings have been exhibited at the Bartlett, UK; SASA, RMIT, KingsAri and Serial Space galleries in Australia and published in the *Royal Society of Arts Journal*, *Blanket*, *Architecture AU* and *Place*. She completed her PhD (RMIT) in 2016, exploring the act of drawing in mediating the perception and emergence of space. With an interest in the dimensional compression/expansion of the drawing, she is presently obsessed with the fourth dimensional possibilities that might be coaxed out of the humble axonometric.



75 Apartment Plans: Social Housing Project at KKA

In the fall semester of 2017, 20 students from the master degree programme Art & Architecture (KKA) are making proposals for a social housing flat in full scale, 1:1.

As a preliminary analysis project these students have drawn plans of 100 apartments. In part referring to Kay Fisker's catalogue of Copenhagen apartment plan types, the collection of plans consists of 50% social housing apartment plans from Copenhagen and 50% international apartment plans of particular architectural interest for the project. Thus the collection, compared with Fisker's collection, reflects a contemporary tendency of global reference and the overall fading of local specificity.

As a part of the analysis, the plans have been divided into five groups according to observations about their typical qualities and characteristics: *'Plans Without Qualities'*, *'Porous Plans'*, *'Intimacies'*, *'Social Matrices'* and *'Rational Plans'*. With attention to these five areas of interest, the plans have been hung in five sections, each section accompanied by a reference photography. It should be noted that many, if not all, of the plans fit within several of the spatial categories. The plans are numbered according to size.

In the further work of the semester, students have been asked to combine three of the above mentioned spatial categories/motives into individual proposals for social housing apartments - whereby a composite, complex and urban nature of dwelling in social housing is aimed for.

Along with this analysis project, students have edited a booklet containing all formal information and legislation connected with the housing type referred to as *'almenyttige boliger'* (social housing). The following definition is given by the Danish social housing association AAB:

What characterises social housing is first and foremost that no one profits from the rent. A home in the social housing sector is free of speculation and the rent is cost-related.

Social housing estates are built by means of public funding. In return, the municipality that has funded the building work can typically dispose over every third vacant home for housing purposes. (...)

Social housing is for everyone, but at the same time it contains a special obligation towards population groups with particular housing needs. For example, young students, the elderly, the disabled, single parents, refugees, and residents in need of rehousing because of urban renewal. (...)

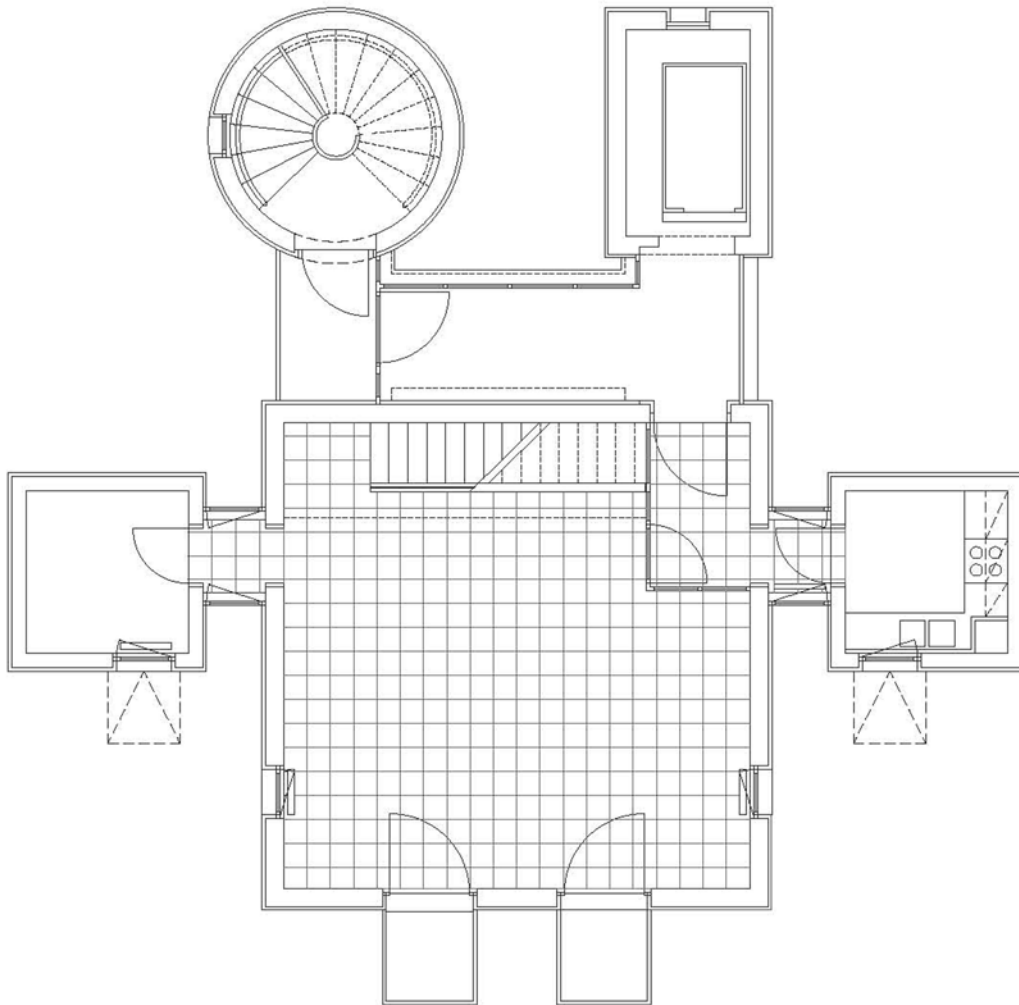
Social housing is democratically structured with a majority of residents in all governing organs. Each estate is a self-sup-

porting economic unit, and the finances of the estate cannot be used elsewhere in the housing association.

As a resident in a social housing estate, you can influence your local housing conditions as well as the direction of the housing association by taking active part in the work of your local estate committee.

(AAB)

Peter Møller Rasmussen has conceptualised the project and supervises the KKA students. The master's degree programme in Art & Architecture (KKA) aims at creating a distinctive pivot and a visible context for artistic research practice in the Royal Danish Academy of Fine Arts, School of Architecture. The objective is to enhance architectural and artistic reflection in the preparation of proposals on the basis of work, which, on one hand, confronts significant issues for the profession and, on the other hand, is more concrete and poetic. The focus of the KKA is the development of graduates, who can practise independently at a high architectural level.



John Hejduk: The Kreuzberg Tower, 1988

Romme, Houser, Torp, Menger & Aagaard

KADK, School of Architecture

Ten Plans of Negotiation

Collaboration between Anne Romme, Jonathan Meldgaard Houser, Kristine Torp, Maria Mengel and Tine Bernstorff Aagaard. All teachers at the B.Arch. program Finder Sted | Taking Place at the KADK School of Architecture. With this submission, we aim to discuss – in drawing – the role of the plan as a negotiator of spatial strategies. In the education of architects, in particular in the first year where predetermined conventions are questioned in order to sharpen the creative and curious mind, a fundamental understanding of the relationship between the individual and the collective is essential. To work directly, pedagogically and aesthetically, with this relationship, we, in our teaching, use the plan drawing as a literal site of negotiation between a group of students, who all participate as single individuals in the common site. Likewise, in this project, the plan is a site of negotiation. Aldo Rossi's plan drawing of the San Cataldo Cemetery is our starting point. In itself a negotiation between different modes of presentation (plan, elevation and axonometric) and between the imagined, complete work and the actual built structures, the plan presents us with a rich field of dilemmas.

To begin, each of the five participants draws two similar plans. One of the plans is passed on between the submitters, who takes turns in drawing further into it, negotiating the marks already made. Simultaneously the other plan is challenged by five new layers made entirely by the original maker of the plan. In the end, all plans return to their origin, and five pairs of plans show evidence of the collective negotiation in parallel to the individual voice. The drawings will be presented as a field of relationships, which can be cross-read vertically and horizontally. All steps of the process have been documented in order to capture the depth of the conversation. The analogue drawing technique ensures that, similar to a verbal conversation, some statements are whispered while others are clear and loud, but none can be unsaid. At the Millions of Plans conference, we will discuss the process and our findings, as well as the actual product.

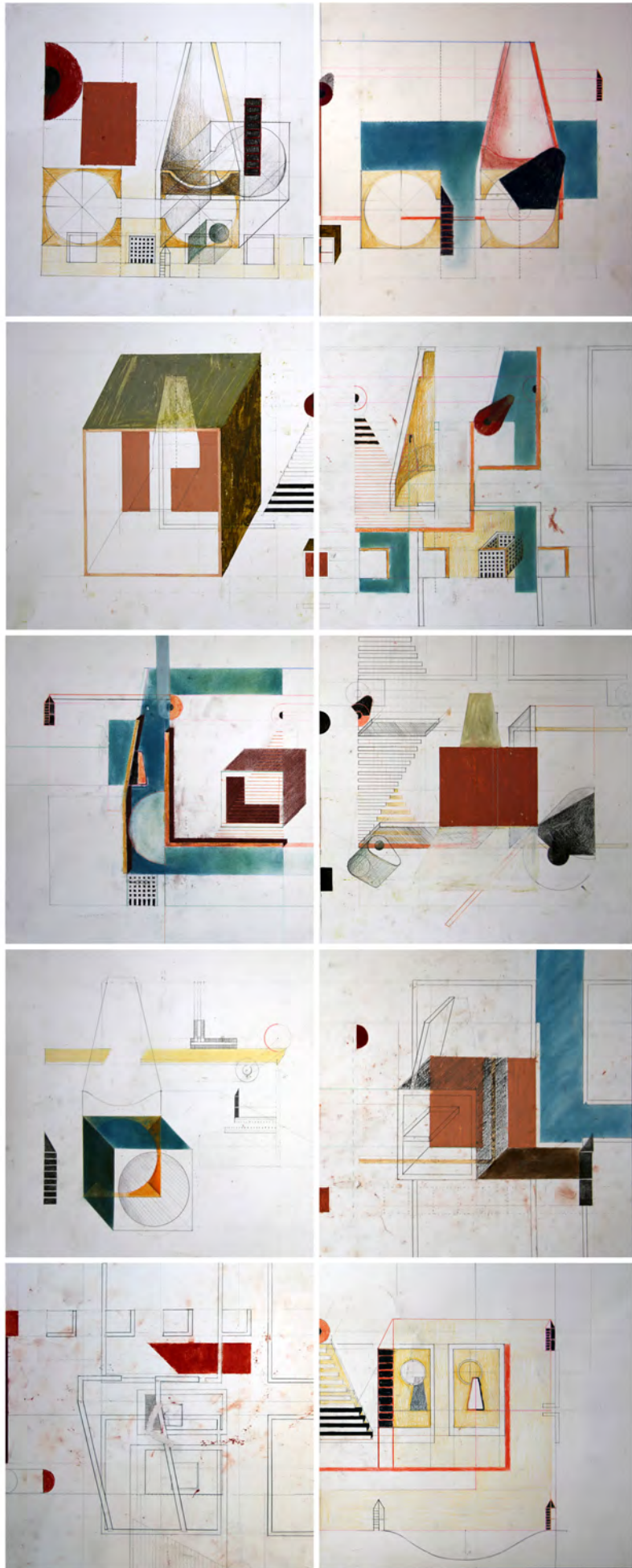
Anne Romme is the head of program at FINDER STED | TAKING PLACE at the KADK School of Architecture. She also runs an independent architecture practice invested in critical, experimental projects. Her work ranges from theoretical inquiries into the commons in architecture to digital fabrication and the development of a building system based on pure plates shell structures. Anne holds a Ph.D. from the KADK School of Architecture, an M.Arch. II from Princeton University School of Architecture, an M.Arch. from The Aarhus School of Architecture, and a B.Arch. from the Irwin S. Chanin School of Architecture at the Cooper Union. She has been teaching, lecturing and exhibiting extensively in Denmark and abroad.

Jonathan Meldgaard Houser is an independent architect engaged with projects ranging from the imaginary to 1:1 realized buildings and architectural competitions. In the spring 2016 he won the competition for a Pavilion at the art museum Gl. Holtegaard that is now erected in their baroque garden. Concurrently he received a one-year working grant from the Danish Arts Council. Jonathan has shown his projects at various censored exhibitions in London and Copenhagen. Most recently he participated in the Biennale in Venice (2016) and had a solo show at Leth and Gori named "VESSELS" (2017). Jonathan has studied at The Irwin S. Chanin School of Architecture at The Cooper Union and holds an M.Arch from the KADK School of Architecture.

Kristine Annabell Torp holds an M.Arch. and a Ph.D. from the KADK School of Architecture. She is a partner in the design practice Freebird & Sunshine, in collaboration with Jesper Rølund, working on furniture and product design. She has been the editor in Chief on Nordic Journal of Architecture. She is a writer for the Danish architecture Magazine Arkitekten. Her written work ranges broadly, from research on the atmospheric, technical and cultural conditions of the double house, to the practice of artistic research, and fiction writing.

Maria Mengel works in the field between academic poetics and the direct and bodily experience of space. Her work typically takes the form of spatial installations, building workshops and 1:1 studies of space, material and structure. Maria has been teaching at the KADK since 2005. She is the co-founder of the independent art and architecture school ANARK, and also the co-founder of the experimental exhibition space 'Modtar Proejcts'. Currently she practices in the architectural studio VAERK>ST-ED together with Ida Flarup. Maria holds an M.Arch. from the KADK School of Architecture.

Tine Bernstorff Aagaard holds an M.Arch from Aarhus School of Architecture. She was part of the founding group who started building 'Arts Letters and Numbers' – a non-profit, multidisciplinary art community and education project upstate New York, in which she was an active fellow from 2011 to 2017. Her independent artistic practice explores the structures and spaces of the body we are and the body we have, and the spaces we access with our bodies. Her work has been exhibited at the Charlottenborg Spring Exhibition – with 'the Dissection of the Anatomy' and in collaboration with Emilie Bergrem, a suspended labyrinth '1:14'. From 2010 onwards she has been occupied with teaching in Aarhus School of Architecture and since 2014 at KADK.



Robin Schaefferbeke

Sint-Lucas School of Architecture

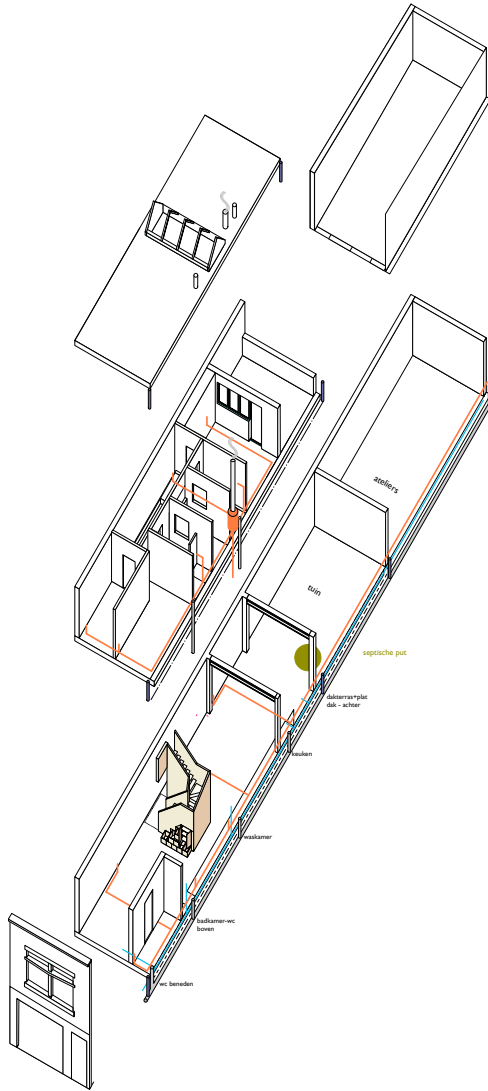
10000 Drawings and a Model or Two?

(a visual (hi)story about the pragmatics of building and drawing a house)

— Does it take, to turn Richard Sennett's well known statement, around 10.000 drawings to become an expert draughtsman – or architect for that matter?(2) Does it take 100.000 drawings to refine a formal or spatial idea? Does it take, as one of my colleagues architect Koen De-prez once suggested, 30 hours to elaborate a drawing?(3) Drawing is research, drawing I intended to write something intelligent about architectural drawing, about drawing's learning and other processes but I had to get back to those drawings I was working on.

My first idea was to use a growing series of sketches and drawings of an emerging structure to elaborate on the creative interaction of different kinds of drawing. From there on I thought about reflecting on the way these drawings can be considered as research or even a valid research method. While building I discovered a different layer - an opportunity even - to reflect upon - what I would like to call - 'improvised building and drawing'.

Robin Schaefferbeke [Bruges, januari 1974]: Got fascinated by architecture through a training as a draughtsman within Beaux-Arts methods of (architectural) drawing at the Academy Of Fine Arts, Bruges. From there on he moved to Ghent and Brussels to take on the study of Master within Architecture graduating in 1998 at the Sint-Lucas School of Architecture. Left Belgium for Rotterdam in 1999 to develop designing and graphical skills within several Dutch offices. From 2004 onwards, he took the opportunity to teach, redevelop and research directions for drawing courses at the Sint-Lucas School of Architecture, Brussels, Belgium. In August 2016 Robin successfully defended his PhD dissertation "Extended Drawing" where-in he explores the concept of extension as valuable way to progress in transformative fields of practice. His active and passive interest in musical improvisation led to a thesis which explores the concept of improvisation in design and drawing processes.



Sayan Skandarajah

Bartlett School of Architecture, UCL

Drawing Parallels: Representation and the Political Gaze in Early Edo Period Kyoto

his paper engages with the 'plan' through close examination of sixteenth / seventeenth century screen paintings of Kyoto entitled *Rakuchu Rakugai zu* (Scenes in and Around Kyoto). Although these paintings commissioned by the government use axonometry, this paper will argue that they serve as both maps and aspirational masterplans for Kyoto. Through theoretical textual analysis of axonometry and a series of my own analytical drawings, I will scrutinise the inherent aspects of power, perfection and timelessness within this means of urban representation.

The potential that axonometry creates for the 'whole' to be viewed from no fixed position – thus alluding to infinity – could be compared today with the view provided 'Google Earth'. In contrast, its inverted political structure - being accessible to all yet under private control - makes study of such urban representation within these screens particularly important.

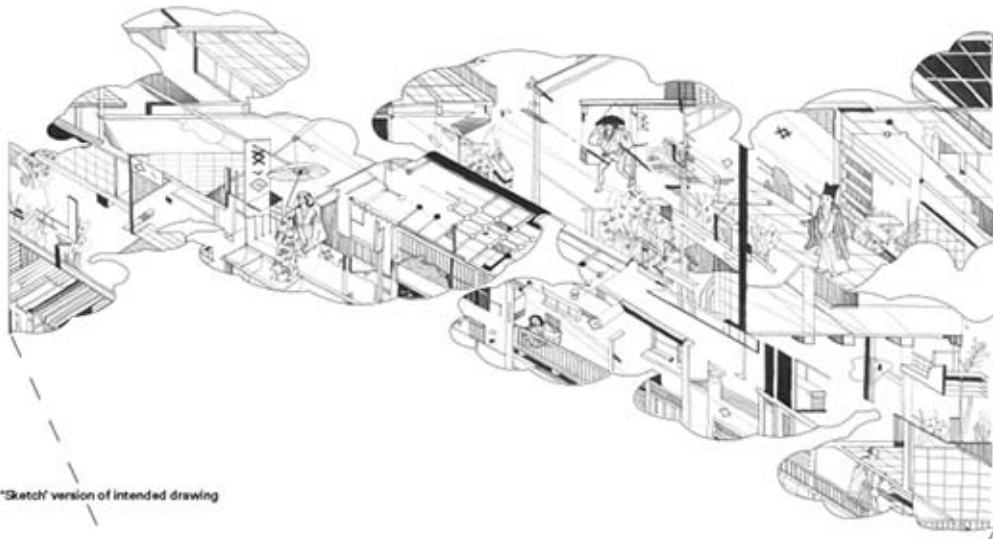
A Map: These screens can be read as maps of Kyoto, as the use of the axonometric enables a depiction of the city that is both singular and seemingly total. This is enhanced by the accuracy and scale that it lends to the depiction of Kyoto's well-known landmarks, palaces and temples. The lack of compositional focus in the viewpoint allows the eye to wander freely across the city, evoking a sense of voyeuristic control. The concept of 'viewing the realm' (*Kunimi*) has been a fundamental part of Japanese visual culture for centuries and these screens acted as exclusive vehicles of metropolitan imagination for provincial generals.

The portrayal of city life through thousands of figures who populate Kyoto allow the paintings not only to be read as maps of urban form but maps of its metropolitan culture - as the lives of the commoners were of intense interest to the socio-political elite. A complete map is denied, however, by strategically placed golden clouds that interrupt our gaze and act as spatial dividers - jumping from scene to scene within the city. Whilst this enables a larger scope of Kyoto, in effect 'compressing' the city, this paper will argue that its compositional abstraction facilitates an element of censure.

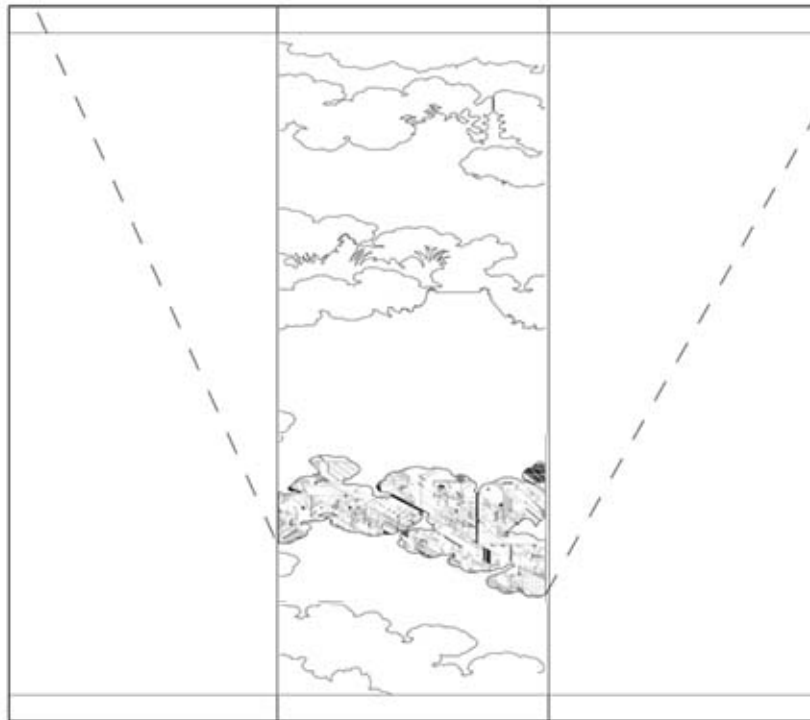
A Masterplan: The paper will build on Matthew McKelway and Marry Elizabeth Berry's assertion that these screens represent an aspiration for an idealised Kyoto, a city in aftermath of civil war chaos. I will argue that the flexible constructional and temporal traits of the axonometric enabled a cohesive assemblage of past and future, and of fact and fiction. The screens are therefore instrumental planning documents and masterplans of a speculative yet nostalgic capital.

The screens also function as literal "master" plans and evoke the viewpoint of a "master" as axonometry has often been compared to a 'God's eye view'. This is enhanced by the compositional choices made by the artists, which reveal the nature of subterfuge undertaken on behalf of the political generals who commissioned them. The use of my own drawings to inhabit and speculate further on the spaces these screens present, seek to subvert these enforced politicised perceptions of Kyoto.

Sayan Skandarajah is a designer and researcher based in London. He currently teaches at both the University of Reading and at the Bartlett school of Architecture, where he is also doing his PhD in Architecture by design. Alongside his academic work, he works in architectural practice with Studio C102. Sayan is interested in the role of spatial representation in the forming and honing of political ideals and the potential of drawing to subvert these processes. By analysing the qualities of the axonometric and adopting such techniques, his work seeks to reveal hidden power dynamics in the image of the city.



"Sketch" version of intended drawing



Staatsbibliothek zu Berlin

The work of the German architect Hans Scharoun was closely associated with the German *Neues Bauen / Organische Bauen* (Hugo Häring), or Organic Building movement, which paralleled the development of the wider known modernist movement in Europe (Gropius, Mies, Corbusier).

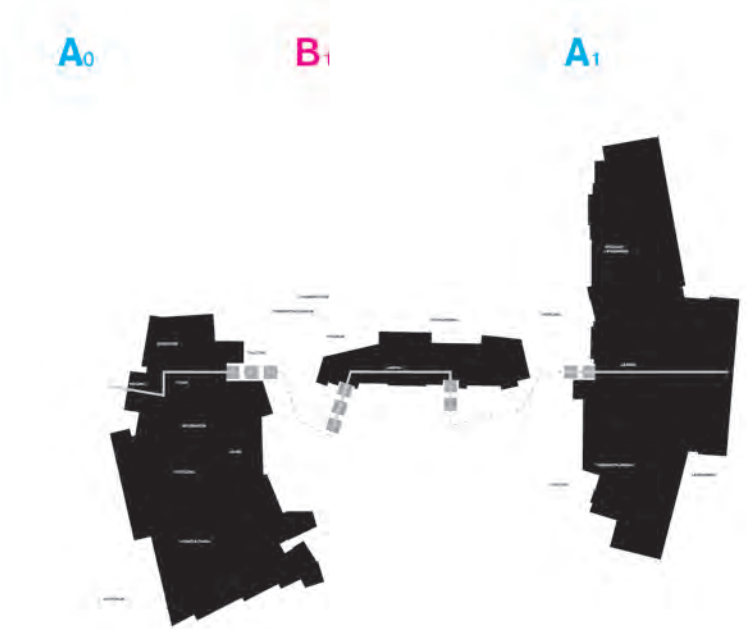
Tomas Skovgaard: Arkitekt +

Häring believed that architecture should not be imposed as a preconceived idea but rather discovered in an exploration of the inner conditions that the building is intended to serve. In emphasising the needs for allowing the internal essence of the building to arise out of the individual elements of the project, Häring's theory of an Organic Functionalism refused any establishment of types, universal conventions, or a priori geometrical or proportional systems. Implicit in his position is the assumption that the performance of the building is already contained within the functional programme, and simply needs to be drawn out by the architect or designer.

A critical point can be raised about Häring's position. Fitting the form directly around the function, or even drawing that form out of the function, assumes that the relationship between form and function will always be stable. Häring's position therefore cannot account for changes in the functional programme that are inevitable in architecture and urbanism over time.

When Scharoun began to write his theories of architecture at a relatively late stage of his career, he adopted Häring's conception of an Organic functionalism. Although the work of Häring and Scharoun are in agreement on the basic principles, there is one important difference between the two. Scharoun differed from Häring in acknowledging irrational aspects in his designs. Granting organic form to just a certain level of artistic autonomy, Scharoun left room for irrational elements that did not simply follow the dictates of function, as long as these elements did not hinder the intended performance of the building. By leaving room for irrational elements, Scharoun's designs hold the potential of accounting for changes in the functional programme over time. I would argue that this is actually the case in Scharoun's State Library in Berlin.

The drawings are an attempt on methodically investigating Scharoun's design. – Granting organic form to a certain level of autonomy, while leaving room for irrational elements where it does not interfere with the building's intended performance. In nine drawings fragments of the building are unfolded in series, representing the different parts of the building you will enter as a visitor. The different fragments of the building are unfolded in sections and plans.



Guro Sollid

KADK, School of Architecture

Drawing Connections

By challenging traditional architectural tools like *the drawing* and *the diagram* the overall ambition of the project is to establish a practice that can absorb some of the dynamics and complex systems we are surrounded by, and which can exploit and induce potentials in the seemingly intractable. Rather than reducing complexity through unambiguous simulations, the aim is to develop our concepts and drawing tools' ability to operate in a shifting state.

With the extensive use of digital tools in architectural production the basic conditions of representation must be investigated. The project examines the architectural drawing's capability to discuss *virtual* as well as *actual* processes. The mathematical term *topology* is a potential input to address this issue. In a topological survey the qualitative properties of an object stays intact even when being subjected to continuous transformation. The drawings in question undergo various steps of transformation and displacement in search of descriptions of processes and internal connections rather than the outer shape of single elements.

The drawings are developed in an intuitive and analog manner, but with digital tools. The drawings' qualities and limitations are tested in their ability to identify differences and to produce effects as *diagrams*. The diagram is not merely a representation of a reality but is rather self-producing by virtue of its abstraction. The question is no longer *what does it look like?* but *how does it work?*

The survey consists of two cartographic drawings exploring the cemetery island Isola San Michele in Venice. The cemetery, a seemingly static structure, is not an overall descriptive form or a figure yet is rather regarded as a fluctuating model; an artificial landscape where actual and virtual processes are being treated on the same level. Thus, the dynamic interaction between questions of rising sea levels, burial limitations, tourism, artificiality, occultism and heterotopia is manifested in drawings that are both precise and explorative at the same time.

The drawings address different questions of laminar movements. One is mainly constituted by fields of overlapping structures and the adding of layers, the other by the hollowing and subtracting of information. The two drawings can be seen as different positions in the same drawing process, like siblings or mirror images of each other. The mirror, itself a heterotopic model; simultaneously absolutely real and absolutely unreal, has been a useful operative.

The survey is part of an ongoing artistic research practice that investigates the architectural drawing as an essential

tool for creative reflection and recognition. The subject is considered relevant to both architectural practices and educational purposes, and is the foundation of a work that could be continued in other contexts later on.

Guro Sollid (b.1980) is Teaching Associate Professor at the Royal Danish Academy of Fine Arts, Institute of Architecture, Urbanism and Landscape. Her teaching practice and current work is based mainly on artistic research in architecture. She is deeply engaged in challenging the architectural drawing, exploring boundaries between architectural *representation* and architectural *reflection*. For a number of years she has taken part in the research-based summer school *Hydra*, on the Greek island of Hydra. *The Hydra Dialogues* employ cartography, morphology and topology as means of questioning contemporary architectural drawing practice. The research has led to numerous publications and seminars.



The Plan in the Age of the Protocol

Modern urbanism (as a discipline) can, according to French architectural theorist Françoise Choay's seminal *La Règle et Le Model* (The Rule and the Model¹), be considered an amalgamation of precisely the rule and the model. Choay argues that the rule and the model grew together in Ildéfons Cerdá's 1867 *Téoria general de la urbanización*.² If the model defined boundaries and edges defining a stable structure, the rule, on the other hand, can be understood in terms of a protocol that served to define internal relations regardless of the boundaries of the whole, providing a script for future growth. One might say that if the model defined Euclidian form, the rule defined the topological form, and combined they constituted the plan. Cerdá's plan for Barcelona treats the city simultaneously as a container and a living organism.³ This dualism is central to the paper's argument.

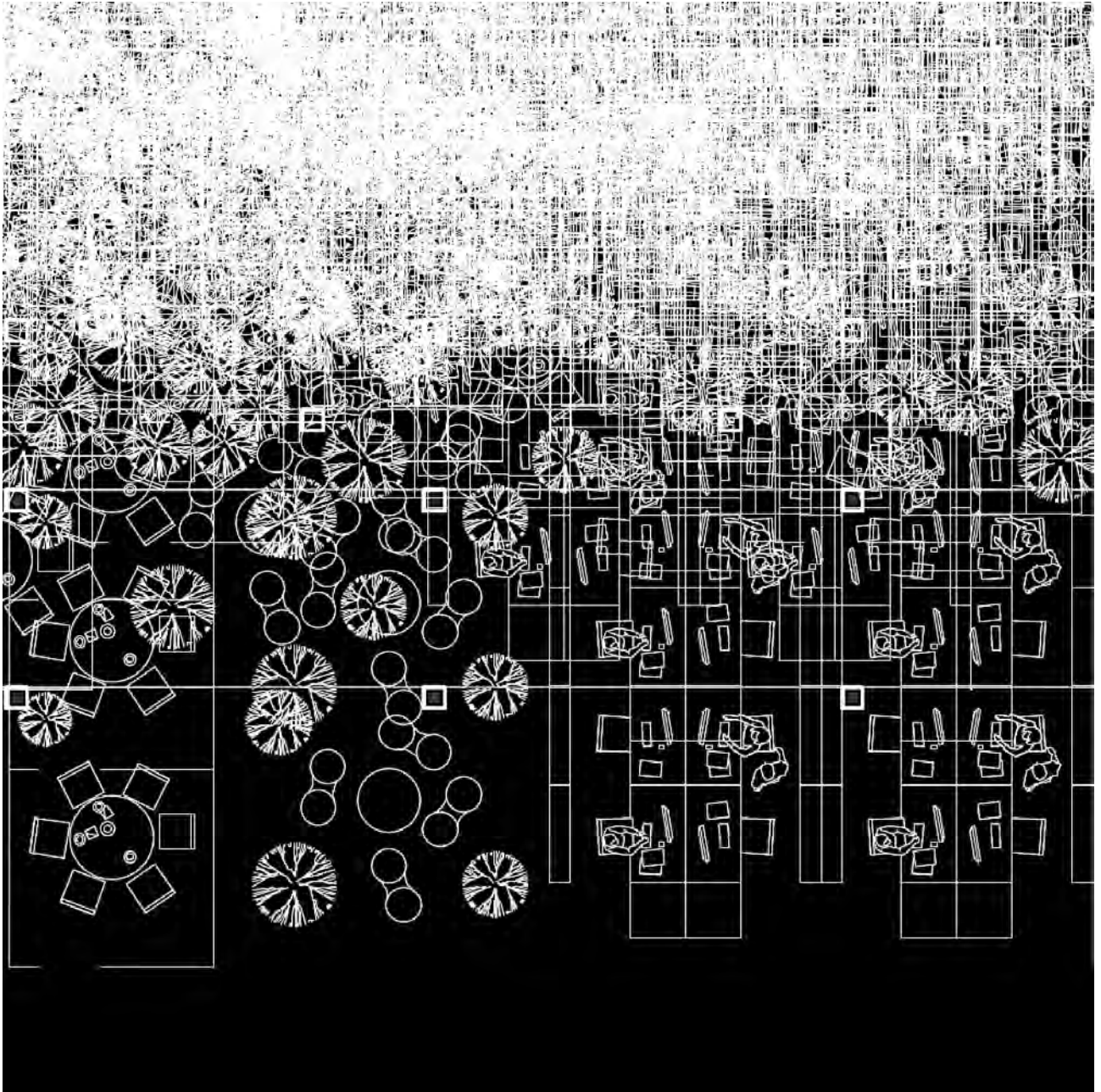
The architect's work in terms of Euclidean geometry has, since the distinction between architect and builder, been represented graphically by the drawing. Boundaries of space are represented in the plan, the 'container' or artifact discussed by Choay. The topological element, the organism, is defined through logic rather than shape, a replicable logic. The rule and the model together constitute the plan, but the crisis of the plan, the crisis of modernism, can arguably be understood in terms of a crisis of the model rather than a crisis of the rule. This can be observed in the utopian projects of the 1960s and 1970s that present no model, only rules. As examples, consider Constant's *New Babylon*, and Yona Friedman's *Spatial City*,⁴ both are works referred to by Larry Busbea as "topological utopias." In many ways, these were cybernetic constructs (second-order cybernetics), rule-based architecture auto-evolving in response to feedback and local conditions. Images and drawings did not represent a proposed Euclidian form, but an example of the form the rules may generate.

The shift from model- to rule-based plans can be observed in the design processes of "postcritical architecture," in "parametric architecture," as well as in much of the architecture generated through programmatic gestures.⁵ However, the shift can arguably also be observed in architectural practices that categorizing themselves as in opposition to a neoliberal societal order working through "participatory architecture" that acquires form in a process aimed at producing a self-generating communities. This shift is by no means unproblematic. I would like to discuss the rule in terms of protocols.⁶ Protocol is here understood as rules of interaction that determine a topological form. French philosopher Gilles Deleuze in his short but influential text "Postscript on the Societies of Control" distinguishes between the factory and the corporation.

Where the factory (a part of the disciplinary society) is a mould, a container, the corporation (essentially a cybernetically influenced neoliberal entity) is a gas, managing the connections between people.⁷ In this paper, I aim to explore the relationship between the rule and the model, including its more problematic aspects. And the question explored is: Where does the shift from model to rule leave the plan?

Fredrik Torisson is a fully qualified architect and a researcher. He defended his doctoral dissertation *Utopology – A Re-Interrogation of the Utopian in Architecture* in June 2017. Currently, he is conducting postdoctoral research financed by the Swedish research framework Architecture in Effect into the role of *projection* in contemporary architectural practice from a "postdigital" perspective, focusing on how digitality reshapes architectural practice and its relation to the social realm (instead of the obverse which is perhaps more well-trodden research terrain), including aspects of scaling, viral objects, immaterial value and other aspects through which digital logic becomes naturalized.

- 1: Françoise Choay, *The Rule and the Model : On the Theory of Architecture and Urbanism*, ed. Denise Bratton (Cambridge, MA: MIT Press, 1997).
- 2: *Ibid.*, at 236.
- 3: *Ibid.*, at 242.
- 4: More details and reasoning around the topological aspects, see Larry Busbea, *Topologies: The Urban Utopia in France, 1960–1970* (Cambridge, MA: MIT Press, 2007).
- 5: This has been argued in Wes Jones, 'Big Forking Dilemma', *Harvard Design Magazine*, Spring/Summer 2010/32 (2010).
- 6: Alexander R. Galloway, *Protocol : How Control Exists after Decentralization* (Cambridge, MA: MIT Press, 2004).
- 7: Gilles Deleuze, 'Postscript on the Societies of Control', *October*, 59/Winter (1992), 3-7.



Kristine Annabell Torp

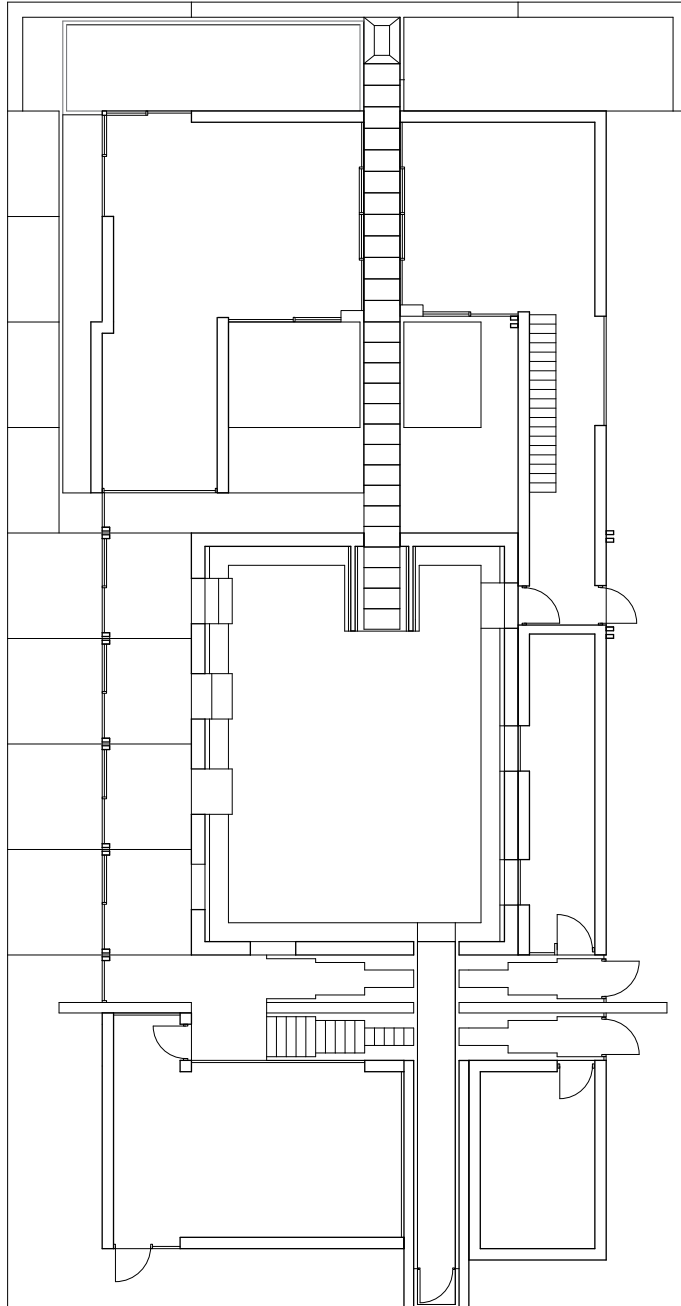
KADK, School of Architecture

House of the Tragic Poet: From Pompeii to Brønshøj as a Diagram

Drawing is usually the first step towards actualisation of an architectural idea – not just in the sense of the to-be build, but as a virtuality becoming actual. Better than language, drawings can absorb pre-reflexive sensations, and be an extended part of bodily movements and actions. The drawing draws the actual out of the virtual; it is the medium in which ideas become, the interspace where the new is produced. However, in the moment of actualisation, a new virtual field is inaugurated. A field from which the drawing can be further developed. One could conceptualise this interaction as a movement between the artistic and the scientific modes of the drawing, or as an oscillating between qualitative and quantitative properties.

In my presentation, I will investigate my exhibited drawing in such a perspective, being the result of and a tool for both analysing and creation. The drawing is a montage of relations, starting from Pompeii and ending in Brønshøj, Copenhagen, while connecting to Carlo Scarpa, Le Corbusier and the nomadic.

Kristine Annabell Torp holds an M.Arch. and a Ph.D. from the KADK School of Architecture. She is a partner in the design practice Freebird & Sunshine, in collaboration with Jesper Rølund, working on furniture and product design. She has been the editor in Chief on Nordic Journal of Architecture. She is a writer for the Danish architecture Magazine Arkitekten. Her written work ranges broadly, from research on the atmospheric, technical and cultural conditions of the double house, to the practice of artistic research, and fiction writing.



Plan, stuen, 1:200

Olivia Valentine

Iowa State University. In collaboration with: Firat Erdim, Iowa State University, Kim Karlsrud and Daniel Phillips, Commonstudio

Drawn Prospects: Metropoliz Future Forest

Metropoliz Future Forest is a 1:1 scale plan, drawn in-situ at *Museo dell'Altro e dell'Altrove di Metropoliz (MAAM)*, an informal immigrant community and art space located in an abandoned salami factory compound on the periphery of the city of Rome. As a plan, this drawn project both predicts and facilitates the growth of a future forest and garden that the drawing and subsequent perforations into this concrete ground create slowly over an extended period of time.

Interruptions, a series of watercolor and graphite drawings based on floor tiles patterns found in Rome became the initial plan for this 1:1 scale site based drawing and future garden/forest. Referencing the tiles in a variety of spaces in Rome, the *Interruptions* drawings act as plans for imagined spaces and landmasses. Using water alongside watercolor and graphite, these drawings are simultaneously improvisational and algorithmic in nature.

Stemming directly out of *Interruptions*, an initial scaled plan for Metropoliz was created in graphite and watercolor. This initial plan takes consideration of drainage, presence of existing flora, and routes of passage across the site, between the different immigrant and Roma communities that call Metropoliz home. This initial plan was then executed on site in chalk and paint, laying the groundwork for a series of perforations to the concrete to facilitate the natural reforestation process along geometric incised lines.

Rather than importing new vegetation for this urban garden and forest, in this project we are collaborating with the existing ecologies that already occupy the site - the grasses, trees, flowers and weeds that have arisen spontaneously in the decades after the closing of the factory. By creating a series of perforations and cuts in the existing concrete, we are helping the seeds of these species take root and continue to transform these spaces over the coming decades.

Olivia Valentine is a visual artist working in drawing, photography and textile construction. Her installations have been exhibited internationally. Olivia received her MFA from the School of the Art Institute of Chicago and her BFA from the Rhode Island School of Design. She is the recipient of a Fulbright Fellowship for Installation Art in Turkey and the Brandford/Elliott Award for excellence in Fiber Arts. She is currently an Assistant Professor of Art and Visual Culture at Iowa State University.



Daniel Wilkinson

Bartlett School of Architecture, UCL

The Gestural Plan: Resisting Architectural Imperatives

The transition of architects from being medieval makers to humanist designers marked the founding of the Renaissance. Integral to this was an absolute reverence for antiquity, within which was an attempt to humanise architecture through a reading of the figure as a proportional system. These ideas were outlined by Renaissance theorists, such as Alberti, who promoted the body as a static relational assemblage and not as a dynamic organism [Wittkower, 1949]. Numerical proportions identified relationships between the parts and whole of the body, with architectural forms, members and proportions then being guided by these. Like the body, architecture was to be understood as an arrangement of distinct and corresponding elements.

Resisting the architectural imperative of his age, Michelangelo Buonarroti is known to have utilised an alternative idea of the body during his career. This was based on his anatomical understandings of the figure resulting from his experiments with dissection and sustained observations of the body as a sculptor. His architectural designs resulted from an intention to re-establish the material unity of the figure, with this intention being interrogated through an integration of clay sketch models and drawn plans. The Albertian prescriptions for figure and plan resulted in a geometric precision marked by an emphasis on individual elements - an exercise complementary to the planar nature of the drawing surface. Resisting this, Michelangelo's approach looked to integrate these elements in a display a tectonic muscularity, his architectural plans being guided by a search for form over a resolution of specifics.

Beginning with his 'organic' 1529 drawings for the fortifications of Florence, this culminated with the 1559 plans for the unbuilt San Giovanni de' Fiorentini, a project claimed by Michelangelo to have surpassed the ancients. Ackerman [1986] identifies the concept of the Renaissance as becoming obsolete at this point through antiquity no longer operating as *the* trigger for design. Now lost, the clay study models which initiated these plans are known to have been preliminary investigations of mass and volumetric complexity, with the drawn plans being a gestural refining of these models reliant on the process of drawing itself. Michelangelo's methods of design, through its effect on his plans, highlights the Albertian mode of architecture as only one possible version of the discipline. This paper examines an alternate model of architectural design through the work of Michelangelo with these observations being considered towards contemporary design investigations.

Daniel James Wilkinson is an architectural designer, educator and researcher. Based at The Bartlett School of Architecture, UCL, his research is centred on ideas of figuration and transfiguration in relation to both architectural history and contemporary design. Within this, history itself is engaged with as a process of contemporary design addressed through acts of drawing.



Orthogonal Collages: Generative Architecture

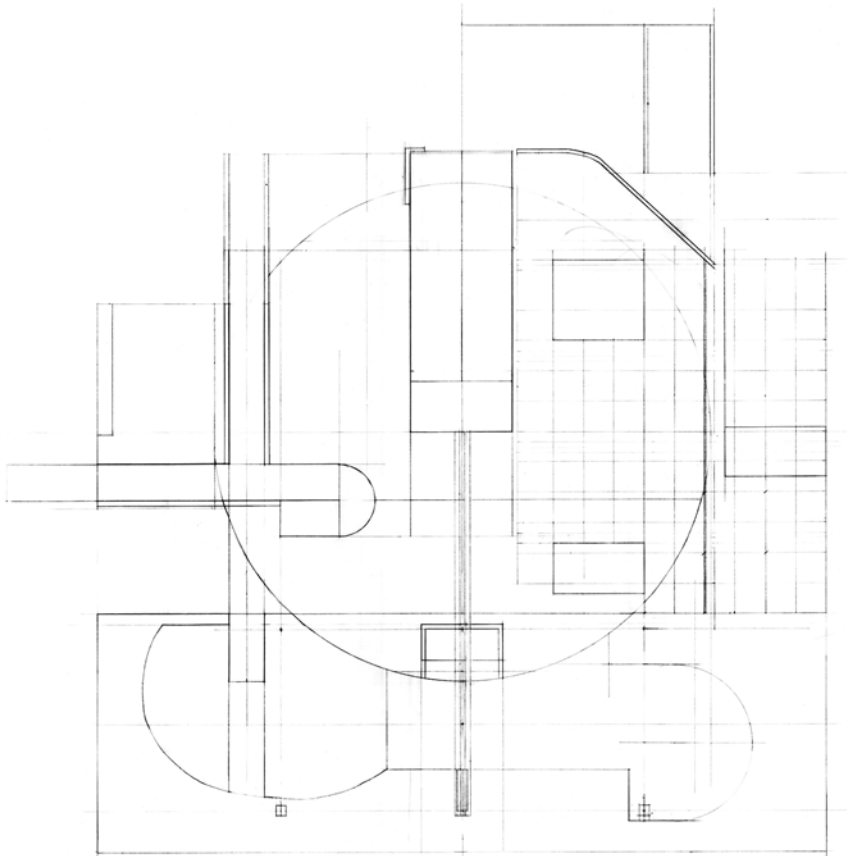
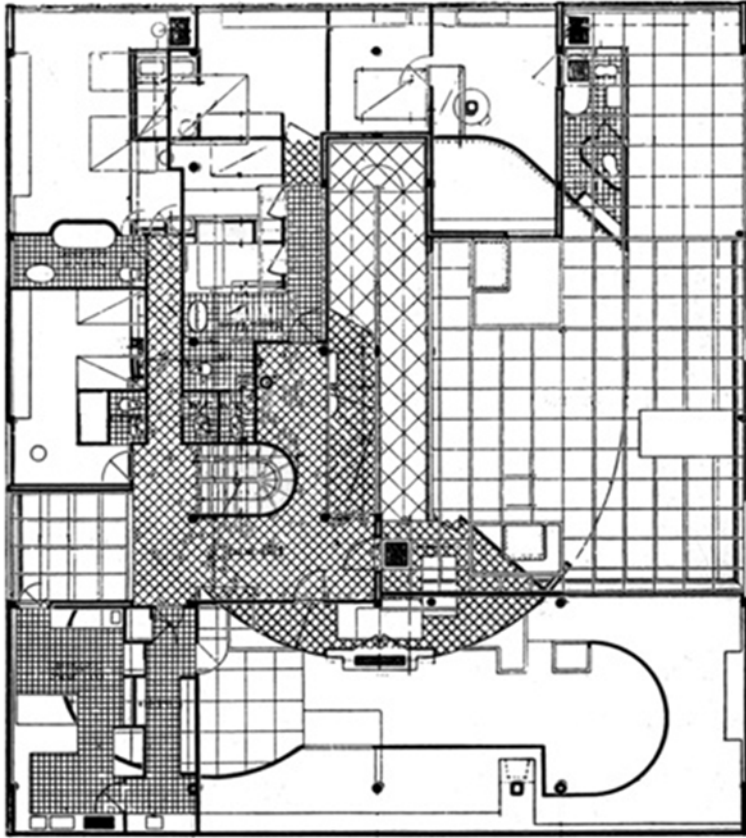
The drawing of the circular architecture in Barbaro's *Pattica della Perspectiva* (1569) appears reconcilable within itself yet subverts the familiar: the architecture is represented by a half-plan, a half-section, and a half-elevation with the graphically overlapped portal and pier at the center appearing as one image. The front half-plan of the symmetric architecture is positioned to be aligned with the juxtaposed partial section and elevation. This arrangement instantly provokes an image of architecture as a whole, a perceivable space rather than fragmented images. It is only the half-section that depicts the space beyond the half-plan. Although the symmetric form generates a preconception of the undepicted space, there is ambiguity present. The half-elevation includes apparent contradictory information that selectively overlaps the main portal with the columns while the ornamental side portal remains hidden, amplifying the presence of subjective eyes beyond a singular picture plane.

The reduction of three-dimensional reality to a system of coordinates is by now familiar with the invention of descriptive geometry in the 19th century. While the relationship of projections was previously understood only within specific instances, descriptive geometry offers a principle that allows the representation of three-dimensional objects into any two-dimensional plane with rational continuity between reality and its representations. With descriptive geometry, orthographic projections became a reliable instrument for precisely representing a building for its material construction. Alberto Perez-Gomez in *Architectural Representation and the Perspective Hinge* (2000) accounts for the current objectified use of the representational system driven by a belief in obtaining rational solutions to the subjectivity of perceptions; in a functionally-motivated world that prioritizes efficiency and economy, architectural drawing is often limited to being a mechanical instrument for the materialization of architecture.

The present work studies the generative aspects of representations driven by both expressive and transmissive properties of architectural drawings. *Generative Architecture* consists of a series of drawings that intentionally misread plans as sections. The three plans of Villa Savoye by Le Corbusier are superimposed to create an image while maintaining characteristics of architectural notations. The project then takes superimposed plans as an identical plan and section of an anticipated space. The plans and sections of a new space are created through the subjective reading of these architectural notations. A similar approach is taken in transmitting the drawings into three-dimensional elements. The methods of orthogonal collage are the recomposition of architectural notations suscep-

tible to other possible dispositions. The given method of drawing without further spatial articulation may not generate meaningful space but fall into subjective expressionism. The work's intention lies within the temporal yet systematic derangement of a given representational framework with a crucial orientation towards consciously locating the self in practicing architecture.

Jinjoo Yang is an artist and architect working on multiple forms of representations with an interest in the unique properties of each representation unfolded in the process of creation. Her drawings and installations have been exhibited in venues including Dumbo Art Center and Jamaica Center for Art and Learning in New York and selected for Public Art for Lujiazui Harbour City in Shanghai. She is also a practicing architect in New York where she works on projects exposed to the increased uptake of technology-driven representations.



CONTACTS

Aagaard, Tine Bernstorff

taag@kadm.dk

Altshuler, Joseph

joseph@cartogram.org

Badenoch, Kirsty

kirstybadenoch@gmail.com

Bang, Jacob S.

jbang@kadm.dk

Banou, Sophia

banous@gmail.com

Brabrand, Helle

hbrab@kadm.dk

Branchesi, Kyle

kjbranchesi@gmail.com

Cantley, Bryan

bcantley@exchange.fullerton.edu

Cheng, Dominique

dominiquecheng0@gmail.com

Dayer, Carolina

cd@aarch.dk

Devabhaktuni, Sony

sonydev@hku.hk

Devilat, Bernadette

bernadette.devilat.11@ucl.ac.uk

Emmons, Paul

pemmons@vt.edu

Erdim, Firat

firat@iastate.edu

Fisker, Maja Zander

maja.fisker@kadm.dk

Förster, Alejandra Celedon

alejandra.celedon@aaschool.ac.uk

Geolas, Athanasiou

ajg355@cornell.edu

Griffiths, Sean

sean@modernarchitect.co.uk

Hamilton, James J.

hamilton@at-hh.com

Hant, Elif

hant.elif@gmail.com

Hougaard, Anna Katrine

anna.hougaard@kadm.dk

Houser, Jonathan Meldgaard

jhou@kadm.dk

Hurst, Rachel

rachel.hurst@unisa.edu.au

Hübschmann, Mette

mettehubsch@hotmail.com

Ingemann, Poul

pinge@kadm.dk

Koerner, Natalie

nkoe@kadm.dk

Lahmy, Maya

mbl@aarch.dk

Lanuza, Felipe

felipe.lanuza.11@ucl.ac.uk

Lee, Min Kyung

minklee@gmail.com

Lévesque, Carole

mnc.levésque@gmail.com

Macken, Marian
m.macken@auckland.ac.nz

Martínez, Raúl
raul.martinez-martinez@upc.edu

Mengel, Maria
maria.mengel@kadm.dk

Nakas, Cassandra
k.nakas@gmx.net

Pedisc, Katica
katica.pedisc@unimelb.edu.au

Philips, Matthew
ab0mrp@gmail.com

Rasmussen, Peter
pras@kadm.dk

Reiner-Roth, Shane
shane_rr@mit.edu

Romme, Anne
anne.romme@kadm.dk

Schaeverbeke, Robin
robin.schaeverbeke@kuleuven.be

Sedlock, Julia
sedlockjulia@gmail.com

Skandarajah, Sayan
sayanskandarajah@gmail.com

Skovgaard, Tomas
tomasskovgaard@gmail.com

Sollid, Guro
guro.sollid@kadm.dk

Søberg, Martin
martin.soberg@kadm.dk

Torisson, Fredrik
fredrik.torisson@arkitektur.lth.se

Torp, Kristine Annabell
kristine.torp@kadm.dk

Valentine, Olivia
oliviavalentine@gmail.com

Wilkinson, Daniel James
d.wilkinson.12@ucl.ac.uk

Yang, Jinjoo
jinjoo.yang@gmail.com

