Joël Nadeau-Gauthier
Denis Lahaie
Vincent Perron
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Samantha Lynch
Thomas-Bernard Kenniff

Inquiry

Time

Tiphaine Abenia
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– in Drawing

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Dialogue

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—in Drawing. Inquiry, Time, Dialogue and Materiality

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Introduction

THOMAS-BERNARD KENNIFF
CAROLE LÉVESQUE

> "Architects do not draw to illustrate their works [...]. *Real* drawings are works in themselves, not illustrations of works."[1]

While drawing is an integral part of architectural and design practices, where it is used by designers to develop their ideas, translate them into projects and communicate with colleagues and clients, drawing is, before any building or object may come to be, a practice of representation and exploration that carries meaning. Drawing—taken broadly as the representation of an idea—is then not simply integral to design but may be understood as its defining practice.[2] Independent of their enabling technologies or technological context, whether executed by hand or using computational tools, drawings are the result of a practice of representation, one that inquires, explores materiality, establishes its own time and dialogue.

In continuation with this understanding of drawing, Tim Ingold points out in his *Brief History of Lines*, that drawings are projects in their own right. That is, drawings, in the context of design disciplines, achieve a status above words or other forms of communication, signification and intellectual reflection. They are no mere illustrations but works in themselves. They call upon established conventions and languages shared by others as well as idiosyncratic forms of expression that locate them within communities of practice. Beyond its communicative task and its links with the professionalization of architecture and design, drawing can be understood as a performance within a practice: a reflexive, coherent and systematic exercise, in which the application, research or exploration of a method conditions disciplinary commitment. As such, and when understood within design disciplines, drawing achieves autonomy from an anticipated object. It becomes, as Robin Evans has argued, a tool for investigation of things outside drawing as well as inside. For it to become such a thing or "an agent in the design", he wrote, drawing has to be liberated from the constraints of exact representation.[3] He identified the narrow understanding of the architectural drawing whose job would be to "propagate a completely defined idea, not to test it or modify it."[4] On the contrary, drawings should not have such responsibility toward direct edification and signification. Far from the production of drawings whose sole function is to accompany contracts between designers and their clients, the drawing practice outlined by Evans is one that turns the mechanisms of representation onto themselves and achieves the status of an investigative tool. This form of drawing, Mark Dorrian writes, is a "site where things are encountered and found, and an oscillation set in motion between discovery and invention."[5] It is, he continues, a "zone of inquiry, discovery and exploration that entails risk and uncertainty."[6] Understood and undertaken within such premises, drawings become the means with which to investigate, explore and gain a better understanding of an idea, a condition or a phenomenon, and, as such, engage a form of research. It thus becomes reasonable to think of drawings as antithetical to direct representation and absolute reciprocity with the yet-to-be-built.

The drawing practices this book brings together are situated between investigation, drawing as a research method, speculation and drawing as a projective practice. Within their own processes, each practice attempts, tests, validates and provokes ideas. They conjure and reflect on social and material conditions and are defined by their dedication to better understanding and surpassing the ways in which they reflect on and contribute to the world we inhabit. Situated and contingent on material, spatial and temporal conditions, such practices of drawing are both the means and the end of a production of knowledge and investigation.

In the wake of digitization, a heightened sensitivity to the artifactual and material conditions of drawing and its complex histories has developed over the last twenty years or so. The role of drawing within and beyond the discipline has been questioned and reassessed. This is evident in the profusion of activities dedicated to it: scientific conferences,[7] scientific and archival initiatives,[8] publications,[9] competitions,[10] and exhibitions.[11] Interest in the practice of drawing has grown to the point that it now extends beyond the field of design disciplines. Beyond the obvious links with visual arts practices, more and more disciplines are taking an interest in drawing as a tool for reflection and projection in the sciences, the humanities, economics and management to name but a few. It is in this context of expanded scope and disciplinary exchange that issues of drawing practice in design need to be addressed with greater precision, particularly in the case of design research, where creation is not in itself the outcome of the research process, but rather its means of investigation.[12]

Motivated by a desire to understand and act upon the world, design research is a process of interrogation carried out on our environments to reveal their contemporary issues, make visible their strata and the interrelations that shape them, and put in place knowledge that is anchored in both the real and the projectual. This knowledge develops partly through representation, and it seems necessary, in light of the growing interdisciplinary interest in drawing, to question and deepen our understanding of the role that drawing can play in design research with respect to spatial, temporal and material assemblages of varying scales, and in the discovery of new avenues of research linked to contemporary issues. Drawing, as the principal method of a design research project, makes it possible to combine knowledge and know-how in a single research endeavour to explore, understand, explain, question, propose and act. Questioning the ways in which we read the places we inhabit, drawing sheds light on spatial, urban, territorial, social and cultural dimensions whose interrelationships would otherwise remain hidden, to reveal the links they forge with the processes that shape our built environment, as well as the influences they exert on our ways of being together.

This position raises challenges with regards to drawing, practice, and research: How do we talk about the ways in which different modes of engagement with drawing resonate with specific subject matters as well as with the discipline at large? How can we identify common denominators and differences between practices so that their encounter and dialogue become meaningful? To answer these questions, this book brings together 23 authors who represent 18 critical and reflexive practices of drawing in design. Through these practices, the ways in which the act of drawing organizes and structures time and space and the ways in which drawing makes certain material conditions tangible, become apparent. By situating it in this way, this book intends to frame drawing as a research practice, one that is both deeply rooted in the disciplinary practice of drawing and openly challenging its limits and conventions. The assembled texts engage drawing aesthetics (spatial, temporal, and material) and drawing ethics (investigating and making sense together) as well as four overarching themes: inquiry, time, dialogue and materiality —in drawing. Taken as a collective conversation on drawing practice, this book offers a shared reflection on the agency of drawing, on its potential to explore issues raised by our built and cultural environment, and on the ability of drawing to support and contribute to design research.

The book is structured around the four themes of inquiry, time, dialogue, and materiality. Inquiry in drawing investigates, digs further into ideas, and seeks to decipher given conditions. Time in drawing may be measured in the time required to produce a drawing or a series of drawings but it may also be measured in the time evoked in a drawing, a marker of time or of practice. Dialogue in drawing takes place between methods, between drafter and observers, between reality and speculation. Materiality in drawing defines a context of production and explores material conditions of the world we inhabit. Each theme is a key with which to link its associated chapters and as such, allow us to consider these groups of chapters as engaged in an ongoing conversation where inquiry, time, dialogue, and materiality act as reference points from which to enter drawing practices.

Inquiry—in Drawing

Drawing within design disciplines, whether undertaken as autonomous processes or as part of a larger project, is a practice of investigation, anticipation, and speculation. As such, drawing explores, attempts, tests, validates, and provokes ideas, develops proposals (formal or discursive), and ultimately contributes to our understanding of our practices and our built environment. Drawing is an inquiry, incremental and iterative, that engages intuition, hypotheses, objectives, and reflection. It cycles back on itself in ways that challenge initial intentions and premises, that destabilize and invite uncertainty and skepticism as productive positions. What hypotheses are being investigated and what discoveries are made possible through drawing? How does a single drawing or a set of drawings explore or convey an idea, a question or a way of thinking? How does inquiry take shape and move forward in drawing through intent, serendipity or chance?

1 Tim Ingold, *Lines: A Brief History* (New York: Routledge, 2007), 162–63.

2 Alberto Pérez-Gómez, "Architecture as Drawing", *Journal of Architectural Education* 36, no. 2 (1982): 2–7, https://doi.org/10.2307/1424613; Alberto Pérez-Gómez and Louise Pelletier, *Architectural Representation and the Perspective Hinge* (Cambridge, MA: The MIT Press, 1997).

3 Robin Evans, Translations from Drawing to Building and Other Essays (London: Architectural Association, 1997).

4 Robin Evans, "Architectural Projection", in *Architecture and Its Image: Four Centuries of Architectural Representation : Works from the Collection of the Canadian Centre for Architecture*, ed. Eve Blau and Edward Kaufman (Montreal: Centre Canadien d'Architecture/Canadian Centre for Architecture, 1989), 19.

5 Mark Dorrian, "Talking Drawing", in *Drawing Architecture: Conversations on Contemporary Practice*, ed. Mark Dorrian, Arnaud Hendrickx, and Riet Eeckhout (London: Lund Humphries, 2023), 14.

6 Dorrian,"Talking Drawing",15.

7 *Drawing Futures*, UCL Bartlett School of Architecture, London, UK, 2016; *Drawing Millions of Plans*, The Royal Danish Academy of Fine Arts, School of Architecture, Denmark, 2017; *Embodied Drawing*, Drawing research Network Conference, Loughborough, UK, 2019; *Thinking Through Drawing*, Brewdrawing, London, UK, 2021; *Promenades dans Rome. Assembly practices between visions, ruins and reconstructions*, EPFL School of Architecture and Istituto Svizzero di Roma, Italy, 2021; *Forum. Festival of Drawing*, OmVed Gardens and Glasshouse in Highgate, London, 2021; *–in Drawing*, UQAM School of Design, Montreal, Canada, 2022.

8 Drawing Matter, London, UK, www.drawingmatter.org; Tchoban Foundation, Berlin, Germany; Canadian Centre for Architecture, Montreal, Canada; TRACEY and Drawing Research Network, Loughborough University, UK, www.lboro.ac.uk/research/tracey; Drawing Architecture project, KU Leuven, Belgium.

9 Bloomsbury's *Drawing in* series, www.bloomsbury.com/us/series/drawing-in; Bartlett Design Research Folios, www.bartlettdesignresearchfolios.com; *Drawing Architecture: Conversation on Contemporary Practice*, ed. Mark Dorrian, Arnaud Hendrickx and Riet Eeckhout (London: Lund Humphries, 2023).

10 One Drawing Challenge (2019–2022) and Vision Awards, Architizer; Architectural Fairy Tales (2015–2020), Blank Space.

11 Drawing Architecture Prize yearly exhibition, John Sloane Museum, London, UK; *Drawing Conversations | Autour du dessin*, Centre de design, Montreal, 2022; *Chercher hors les mots, la recherche à l'épreuve du dessin en architecture*, École Nationale Supérieure d'Architecture, Lyon, 2023; ArchiVision, Museum for Architectural Drawing, Berlin, Germany, 2023.

12 Lysianne Léchot-Hirt, *Recherche-Création En Design. Modèles Pour Une Pratique Expérimentale* (Genève: Métis presses, 2010).

How are doubts, hesitations, errors, or dead ends managed in drawing? In this section, chapters reveal the investigative nature of drawing in design, in pedagogical experiments, in the reading of sites across time, in the re-interpretation of historical architecture and in the idea of drawing as a thought process in its own right.

Tiphaine Abenia presents a pedagogical investigation into technical drawing through the result of a course taught at the École Polytechnique Fédérale de Lausanne (EPFL). The *tomography* approach questions established conventions by which technical drawing enables strict power relations between architects and builders. In the development of a *convivial* mode of drawing, students work together on highly detailed section drawings that are assembled in fold-out *leporello* books, challenging the exactitude of drawing, the possibility for technical representation to touch on spatial complexity and the individual agency of drafters.

Bihter Almaç and Bilge Ar reinterpret Byzantine architecture from a contemporary standpoint. Through a series of drawing inquiries, the authors offer an alternative reading based on recent concepts and theories such as "minor architecture" and gendered space, a resolutely asynchronous reading of spatial relationships and possibilities found in the Chora monastery in Istanbul.

Alfonso Giancotti's series of drawings, *Nuovi mondi*, point to the power of the architecture drawing as an autonomous form of imagination. He suggests that drawing is a way of capturing thought processes, representing objects that may seem spatially and constructively impossible, but are architectural nonetheless. Drawing, in his case, is a poetic stance toward reality, a way of investigating paradoxes, contradictions and conceptual ideas free from the constraints of architectural conventions.

In search for the origin of the expression *terrain vague*, commonly used to name derelict, abandoned and unused urban sites, Carole Lévesque's *wasteland-scape* drawings investigate Rome as the city where she argues the first terrain vague might be found. She sees in the Roman Forum a possible archetype, a site where landscape and terrain vague coincide. Her drawing process is methodical: long hours spent walking and documenting to analyze every nook and cranny so that she may find and draw what is left of the original terrain vague amidst the current archeological site.

Time—in Drawing

The act of drawing is heterochronic, its time stands in distinction to everyday temporal measured dimensions. Lost in drawing, intensely focusing, practice sets forth its own time, duration, and temporal considerations of medium and drawing instruments. Drawings are ultimately chronotopic objects. They embed a specific time and space, those of their production, as well as the drawing's own projected time and space, those of its representational intentions. These chronotopes (act and representation) overlap in a way that renders the space and time of what it is we seek to draw indissociable from the space and time of the practice of drawing itself. How is one chronotope embedded into the other? Does one mirror, distort, extend, or compress the other? How does the time and space of a drawing practice influence what takes place within the drawing and vice versa? How do drawings act as temporal markers for a practice or for historical events? In this section, drawing practices address memory and remembrance, historical transformations and morphology, the slippery nature of time as well as time as a parameter in the representation of movement and its experience.

In Joël Nadeau-Gauthier, Denis Lahaie and Vincent Perron's chapter, drawing bears witness to the disappearance of architectural artefacts and heritage. The act of drawing becomes a ceremonial rite that captures the passing of time or the passing of the artefact into memory. The drawings address our perception of places that are, or seem to be, uninhabited or forgotten to question our ability to engage with such places either through physical forms: an archive, or in building a collective value: a memory.

Memory is also at the centre of Jerome Tryon's contribution in which he documents the passage and distortion of an object as it is configured and reconfigured by recollection. Drawing becomes the site of memory, a place for capturing what he calls the *eidetic object*. By considering memory as a site, drawings become tools to expose the thin line between memory and invention.

Carla Aramouny's chapter further argues for drawing as a site of memory. Whereas the eidetic image of the previous is fleeting and personal, hers bears the weight of history and the collective as she carefully reconstructs the timeline of Beirut's Martyrs' Square. Drawing gives matter to time and, with precision, reveals past instances of the Square and gives presence to its transformation, touching on the political.

Samantha Lynch's chapter explores the slippery nature of time in drawing, in which a linear process over time as seen from the outside collapses into a non-linear, inward-looking experience through drawing. She moves us beyond a static view of images to engage with multiple times and the heterotopic nature of drawing as process and as temporal play.

Thomas-Bernard Kenniff explores the spatial and temporal dimensions of rest areas in the province of Québec, Canada. Starting from a historical overview of roadside amenities, he establishes a series of *chronotopes*, or time-place markers, tied to architectural types. These are then investigated through a series of "accelerated" axonometric drawings whose configuration establishes relays between the static and the ecstatic, questioning how movement, and therefore time, unfolds a relative spatial experience that can be reconstructed through drawing.

Dialogue—in Drawing

Drawing is a dialogue. It is a dialogue that takes place on the page, where different methods, strategies and tactics, different events, whether planned or serendipitous, are used to bring forth conversations between drawn elements, between drawings, between drawings and investigation, between drawings and speculation. It is a dialogue that takes place outside the page, with other people and other work, in conversation and collaboration. As such, drawings make use of conversational gambits to move themselves, subsequent drawings and the project forward. Non-linear paths of inquiry, uncertainty and productive tension between conventions and deviations, orientation and disorientation, completion, and incompletion, are intrinsic to a drawing practice which investigates rather than illustrates. What are the internal and external dialogues of a drawing practice and how do they affect its process? How is a conversation set up and allowed to develop? How does drawing engage with the world and change the way we perceive it? This section presents dialogues between two people over the construction of sites from conversation and exchanges, and in the generation of geographical and architectural figures from the encounter between two systems of notation. It also presents an imagined conversation across time and an internal dialogue undertaken by a single person concerning memory and architectural education.

Anca Matyiku and Chad Connery (MOTE projects) set up their practice as a conversation between them in which drawing acts as a mediator between two remote sites and their interpretation. Both sides of the conversation, from two different geographical positions, work their way iteratively towards the other site by drawing over transparencies and contaminating each other's side, a process of *adjective construction*.

The geographical underpinning of dialogue, that two voices cannot be simultaneously located in the same point in space and time, is also found in Anne Romme and Jacob Bang's practice of drawing islands. Islands are the subject of their collaboration, its expression and pretext, its operative *field*. They take turns modifying each other's work, adding and erasing as needed, shifting mediums between drawing and model and from two to three dimensions. Their work is intended to produce a clash of drawing languages as their different notations combine and bring forth the work's polyphony.

Penelope Haralambidou's work moves away from a live collaboration between two people to an imagined dialogue across time between herself and the medieval author Christine de Pizan. Hybrid forms of drawing and representation, moving between historical and contemporary techniques, are used to engage and to bring to life de Pizan's conception of a *City of Ladies*. This asynchronous collaboration highlights the ways in which drawing can participate in historical research at the same time as it responds to a present condition and projects better futures.

Ozayr Saloojee's drawings set up a dialogue between the author, memory, and education. Starting from a personal reflection on his Eurocentric architectural education, he uses drawing as a way of displacing knowledge and as a mode of travelling through one's recollection of places. The dialogue taking place on the drawing sheet focuses on the reformation of subjectivity as it is tied to finding one's place locally, within architectural discourse and knowledge, and historically.

Materiality—in Drawing

Whether physical or virtual, drawings are ultimately objects. Their production implies a person's physical presence, in a room, on a given day, under certain lighting conditions, on a chair, over a table, using diverse tools and media: mouse, screen, scanner, printer, camera, pen, pencil, eraser, ruler, paper, etc. Drawing is made possible through or because of these tools, media, and circumstances, which, in turn, give drawings their specificity. In this sense, drawing is a situated material practice whose conditions, from the (drafter's) drawing environment to the socioeconomic reality of its means of production, become embedded in the act of representation. How does the physical environment influence a drawing practice, and vice versa? To what extent do tools, media space and circumstances define, extend, or limit one's practice? In what ways does drawing explicitly and implicitly set up and/or engage critically with material conditions? The practices in this section touch upon the definition of material conditions between the digital and the spatial, the agency of drawing instruments, the materiality of drawn surfaces and their transgression, drawing as an embodied performance and as a collaboration with site-specific non-human actors.

Samuel Bernier-Lavigne's work explores the tension between the simplicity of Japanese one-room spaces and their resulting spatial complexity. Using a digital model, a series of simulations dematerializes the architecture of one-room spaces or, rather, rematerializes it into the digital realm. The result is a series of representations that move toward complex and visually saturated fields. Finally rendered onto paper using a drawing machine, Bernier-Lavigne's drawings point to seemingly opposite material conditions: a physical-digital space and its intangible *aura*.

Charlotte Erkrath's work investigates the way our tools affect the process and result of drawing. In this sense, the design of bespoke physical drawing tools becomes a method for exploring constructive analogies between drawing and architecture. Based on land survey instruments, Erkrath's installations engage the drafter's body in the act of perception and in the space of the drawing itself.

There is a deep fascination in Konstantinos Avramidis' chapter with the materiality of surfaces. His drawings reconstruct in precise detail the graffitied surfaces of three significant Athenian sites of conflict and resistance. His work traces an original transgressive drawing, made directly on the surface of a building, then proceeds to draw a second one, this time using the normative language of technical drawing. Both the

drawing surface of the building and the drawing surface of Avramidis' computer drawing are suggestive of transgressive practices that question the materiality of drawing, architecture, and language.

Izabel Amaral's chapter turns drawing into a performance. Here, the body moving through space, acting out geometry, drawing lines on the ground, constitutes the drawing environment. The geometry of architectural icons and ornamentation becomes enmeshed with the moving bodies, spanning the gap between drafting and dancing, between architecture and choreography.

Whereas for Amaral the drawing generates the environment, in Kirsty Badenoch's work it is the environment that generates the drawing. Working from a legacy of landscape drawing, she sets up steel plates in specific locations so that the plates' materiality combines with the elements found on site. The result is part recording, part non-human drawing, a collaboration between her and non-human agents, drawing as an *environmental activity* that is as much the setup process, the duration of exposure and the agency of elements, as it is the final photograph of the transformed plate, on site.

Acknowledgments

The 18 practices presented in this book were selected from participants in the *–in Drawing* | *–en dessin* international conference held at the UQAM School of Design in September 2022. The two-day colloquium was held in person within the *Drawing Conversations* | *Autour du dessin* exhibition at the Centre de design, a major international event that brought together architects, artists, critics, and design researchers over the shared objectives of discussing, sharing and ultimately advancing drawing research. We felt privileged, as fellow researchers, to share this time with the ever-growing drawing research community as we are now to share the space of this book with 21 drawing colleagues from Asia, Europe and North America. *–in Drawing* is the second book published by the Bureau d'étude de pratiques indisciplinées (BéPI) on design research, our design research lab at the UQAM School of Design in Montreal.[13] It adds to a continuing conversation on design research methods and the ethics and aesthetics of representation that was started in 2019 with the *Inventories* conference. It is our hope, as editors, that this book will further establish and confirm the significance of drawing as a legitimate mode of inquiry across design disciplines and beyond.

This book owes a debt to the work and support of many. Most importantly, we would like to thank the authors included here who have agreed to share their practices. The open-access publication of academic research benefits from the generosity of its protagonists. It is a labour that requires genuine commitment. We acknowledge the financial contribution of the UQAM Arts Faculty toward the publication of the book. The exhibition and the conference that led to it were supported financially by the Social Sciences and Humanities Research Council of Canada, the UQAM School of Design and the Design Centre. We thank Louise Pelletier, Perry Kulper, Michael Young, Nat Chard and Mark Dorrian for their respective contributions to the *–in Drawing* conference, Riet Eeckhout, the instigator of the Drawing Architecture project and her colleague Arnaud Hendrickx, co-organizer of the project and who co-curated the *Drawing Conversations* exhibition with us, as well as the entire team at the Design Centre. We were fortunate to have exceptional student assistants over the course of the entire process, including Anne Despond who assisted with the organization and running of the conference, Emmanuelle Bergeron and Joelle Kelzi who helped during the event and assisted with online publications when it was over, and Laurent Daignault and Mia Rochon Bissonnette who skilfully designed and put together this book.

13 It was preceded by *Inventories. Documentation as a Design Project*, in 2021. All projects of the BéPI can be found here: www.be-pi.uqam.ca

Inquiry

Tiphaine Abenia
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Bilge Ar
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Architectural Tomography
Paths toward a convivial socio-technical drawing tool

TIPHAINE ABENIA

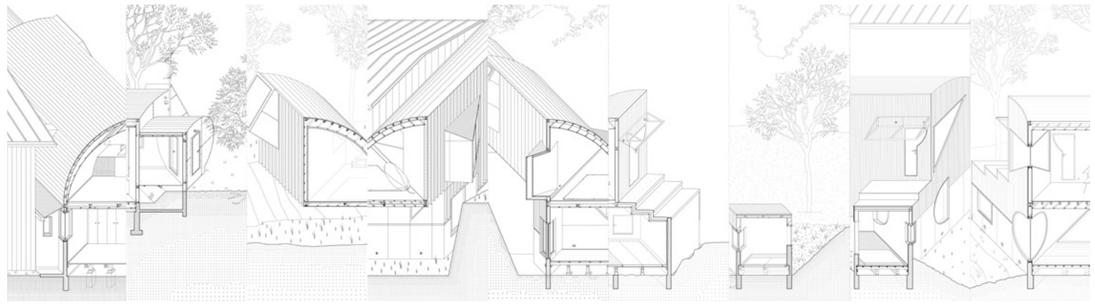


Fig.1 - Leporello of the House in Yokohama (architect Kazuo Shinohara), Fall 2020.
Enseignement AR-129-Tomographie Architecturale, EPFL, LIF laboratory, credits: CC by Licence - https://livingarchives.epfl.ch/projects/5069 architectural-tomography-house-inyokohama/.

The entanglement between the tools and techniques we use and the types of actions they support, enable, dismiss, censor, or restrain has long been observed and discussed in architecture. From the most archaic artifact[1] to the most advanced digital tools,[2] what we choose to surround ourselves with is not neutral; therefore, our relationship to these tools must be intentionally constructed. In that sense, the philosopher Ivan Illich put forward the idea of "tools for conviviality."[3] As an alternative to technocratic disaster, he proposes a vision for a convivial society: "A convivial society would be the result of social arrangements that guarantee for each member the most ample and free access to the tools of the community and limit this freedom only in favor of another member's equal freedom."[4] In such a society, "convivial tools are those which give each person who uses them the greatest opportunity to enrich the environment with the fruits of his or her vision."[5]

For a tool or a technique to become convivial[6] and support emancipation, one must actively understand the tool, its structure, its development, and the system in which it operates. Only then can we actively engage with it, positively control it on multiple levels and avoid tech solutionism. Only then can the tool augment the potential of our actions in an ethical way and be a conductor of meaning and a translator of intentionality.

In pedagogical situations, this entanglement is even more significant since the development of new know-how by students or the introduction of specific tools is often directly at stake. In architecture, the practice of technical drawing is particularly fertile ground for questioning. The teaching of this mode of representation, which has a central place in the education of future architects, also has a lasting effect insofar as it feeds the professional practice of tomorrow. Orienting education toward specific tools and techniques of representation comes with a level of responsibility. Through a reflexive journey conducted from a particular teaching experience,[7] this article will discuss some pitfalls of this technique and will explore ways of expanding its conventional understanding towards a more convivial use.

Technical drawing as a prescriptive tool

Unambiguous vector of communication

What are the technical, cultural, and human histories of our tools of representation?

In the history of architecture, technical drawing appeared and developed to describe and precisely communicate dimensional and constructive characteristics so that a building could be erected accordingly. The technical drawing then relies strongly on communication and has an operative dimension: it must convey necessary and sufficient technical information to be understood by all the different actors on the construction site. In keeping with that purpose, technical drawing is founded on principles of rationality, measurability and precision.

Tracing the history of technical drawing in architecture takes us back to the rise of Descriptive Geometry[8] (18th century), allowing us to point out some characteristics of this technique. Technical drawing is first characterized by conventional graphic and geometric procedures such as orthogonal and parallel projection. In concise language, those procedures create an image of a three-dimensional object on a two-dimensional surface plane. Another central feature of technical drawing is the use of norms, standards, and conventions of representation. To support communication effectively, technical drawing relies on specific codification and uses standardized conventions such as symbols, units of measurement, notational systems, detailed page layouts, hatchings, etc. These conventions are recorded in normative guides such as ISO 128-1:2020[9] or the norm SIA 400,[10] frequently reviewed and updated. Finally, technical drawing is based on principles of unequivocal communication, the absence of ambivalence being a criterion for evaluating the quality of a drawing. As Deforge states: "The technical drawing avoids ambiguity. Ambiguity can only come from a violation of the rule of necessary and sufficient information or an incorrect presentation."[11]

Challenging hylomorphism

All these key features converge towards the prescriptive function[12] attached to the technical drawing. This function "implies a relation of order from the one who defines the work to the one who realizes it. [The prescriptive technology] is not relation, but writing, mediation."[13] This prescriptive logic is object-oriented and produces descriptions that aim to control the appearance of the finished object. In this logic, describing means and processes is considered secondary, even unnecessary.

Technical drawing, understood as a prescriptive technique, played an essential role in the hierarchization of knowledge and the social and labour stratification of the architectural project. It is the primary source of the split we observe to this day between matter and form, between thinking and making, or between architect and crafts·wo·man, and it supports a paradigm of domination.[14] These binary oppositions are attached to a dominant paradigm called "hylomorphism" (with reference to the work of Gilbert Simondon),[15] for which technical drawing played a decisive role in subordinating the builder (operational actor) to the architect (abstract thinker and decision-maker). Through it, the artisanal labour of construction and the intellectual work of designing were divided. In her article "Casting operations and the description process,"[16] Katie Lloyd Thomas argues that in order to challenge hylomorphism and overcome its limitations and structure of domination, it is crucial that the visibility of form-taking processes be restored. In particular, she sees in technical drawing a possible medium to unveil the building processes by implementing active re-description of means beyond the representation of a fixed and inert object. Lloyd Thomas's hypothesis is enlightening in that it does not entirely dismiss the technique but instead invites us to question the frameworks of its use to subvert and expand its definition from within.

To support this expansion, I would argue that technique (and a fortiori technical drawing) is never purely technical. On the contrary, it is socio-economic and eminently cultural. Therefore, the teaching of technical drawing in architecture should both address the hylomorphic foundations that have led to its development and explore possible ways of emancipation towards a convivial socio-technical drawing tool.

1 André Leroi-Gourhan, *Milieu et technique* (Paris: Albin Michel, 2018 [1945]).

2 Daniel Estevez, *Dessin d'architecture et infographie. L'évolution contemporaine des pratiques graphiques* (Paris: CNRS Editions, 2001). Nadja Gaudillière-Jami, "Automatiser l'architecture ? Savoir-faire et calculabilités dans les pratiques des courants computationnels en architecture, 1965-2020" (Ph.D., Université Paris-Est, 2022).

3 Ivan Illich, *Tools for Conviviality* (New York: Harper & Row, 1973).

4 Illich, *Tools for Conviviality*, 25.

5 Illich, *Tools for Conviviality*, 34.

6 Constructlab, *Convivial Ground. Stories from Collaborative Spatial Practices* (Berlin: Jovis, 2023).

7 The Architectural Tomography course is a technical drawing course at the Ecole Polytechnique Fédérale de Lausanne (EPFL) for all first-year students entering the architecture section. The course, launched in 2020, is hosted by the LIF laboratory (Laboratoire Imaginaire et Fabrication) directed by Prof. Jo Taillieu. https://edu.epfl.ch/coursebook/fr/tomographie-architecturale-AR-129.

8 Alberto Pérez Gómez, *L'architecture et la crise de la science moderne* (Bruxelles: Pierre Mardaga, 1988).

9 https://www.iso.org/obp/ui/#iso:std:iso:128:-1:ed-2:v1:en.

10 https://ia601202.us.archive.org/21/items/NormeSIA400/Norme%20SIA%20400_text.pdf.

11 Yves Deforge, *Le graphisme technique son histoire et son enseignement* (Macon: Éditions du Champ Vallon, 1981), 13. Author's translation: "Le dessin technique évite l'équivoque. L'équivoque ne peut provenir que d'une faute contre la règle du renseignement nécessaire et suffisant ou d'une présentation incorrecte."

12 Alain Dupire et al., *Deux essais sur la construction* (Bruxelles: Mardaga, 1995).

13 Dupire et al., *Deux essais sur la construction*, 18. Author's translation: "La prescription implique une relation d'ordre de celui qui définit l'ouvrage vers celui qui le réalise. [La technologie prescriptive] n'est pas relation, mais écriture, médiation."

14 Julien Lafontaine Carboni, "Chapter A. Architectural Hylomorphism. Spatial (hi)stories of the Brick Molders", in *(from) The Repertoire: An Architectural Theory of Operations. Oral and Embodied Knowledge in Architectural and Spatial Practices* (Ph.D., EPFL, 2022) 53-98.

15 Gilbert Simondon, *L'individuation à la lumière des notions de forme et d'information* (Grenoble: Millon, 2005).

16 Katie Lloyd Thomas, "Casting operations and the description of process", *The Journal of Architecture* 20, no. 3 - The meanings of concrete (June 2015): 420-444.

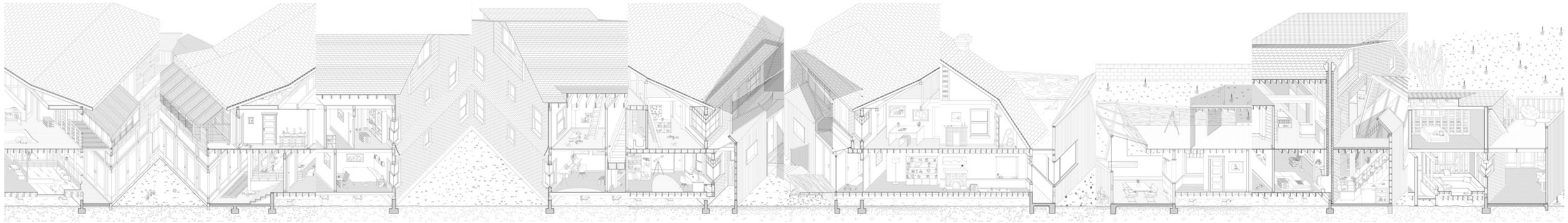


Fig.2 - Leporello of the Gehry Residence (architect Frank Gehry), Fall 2022.
Enseignement AR-129-Tomographie Architecturale, EPFL, LIF laboratory, credits: CC by Licence.

Tomography as a forensic tool

In 2020, I was invited, in close collaboration with Jo Taillieu, to imagine a technical drawing course at École Polytechnique Fédérale de Lausanne (EPFL): an ideal pedagogical ground to conduct these explorations and question the possible expansion of the frameworks of technical drawing.

A spatial investigation technique

The course is built around the concept of tomography. Going back to the etymology of the term, we learn that tomos means "section, piece cut off" and graphia means "to write, record, represent by line drawn". The word tomography is used in various disciplines such as geology, archaeology and, most famously, medicine.[17] In all these disciplines, tomography is an investigation technique used to detect and analyze internal spatial structures through iterative sections. In series, it makes possible the reconstruction of the spatial entirety of an organism or object.

The rise of tomography in medicine, along with other body imaging techniques, has had a direct impact on the formation, representation, and reception of architecture. As Beatriz Colomina argues in her book *X-Ray Architecture*,[18] this new vision in medicine has also nourished architecture: "each new instrument of medical diagnosis implied new positions for design and new systems of architectural representation."[19] X-rays created a new kind of vision where "the invisible rays are described as a 'medium' that penetrates objects and is revealed on screens. A technical surface acts as the most intimate witness of the otherwise hidden interior."[20] From this quotation, connections between medical diagnosis and technical drawing can be made shifting the function of technical drawing from a purely prescriptive function to an investigative act. Against the visual dimension too often attached to architectural representation, this investigative ontological dimension positions the sheet of paper (or the drawing window) as a dissecting tool, as a technical surface engaging the forensic capacity of drawing.

The introduction of the conceptual and operational notion of tomography holds promise. It has the capacity to optically penetrate areas previously invisible, reveal the spatial and constructive anatomy of a building, give access to its gravity-fed morphology, and make visible inner spatial structures otherwise inaccessible to vision. Beyond revealing a built form, tomography makes it possible to go beyond the narrow limits of architecture read as an object and investigate its relational setting within a broader environment. Just as it does in geology and archeology, sectional drawing in architecture provides the means for a connection to the ground in all its thickness (natural topography, networks, underground infrastructures, etc.).[21] Finally, tomography could reconnect drawing with a certain degree of intimacy, revealing the otherwise hidden interior and giving access to how architecture is inhabited, experienced, and lived on a daily basis.

Working protocol

To truly and intensely learn to draw as an act of investigation, and thus to think and reconstruct through drawing, while developing a critical understanding of the tools used, requires a specific learning situation. Therefore, rather than tutorial classes, the teaching format is based on research sessions (four hours each week, for 12 weeks, in the studio spaces) accompanied by cultural and socio-technical inputs. The students (about 280 each year) are divided into 11 groups; each group will build its trajectory of investigation based on a specific case study.

17 The computed tomography scan is a medical imaging technique used to obtain detailed internal images of the body.

18 Beatriz Colomina, *X-Ray Architecture* (Zurich: Lars Muller, 2019).

19 Colomina, *X-Ray Architecture*, 55.

20 Colomina, *X-Ray Architecture*, 119.

21 For another pedagogical experience based on the potential of the section as a tool for investigation, see Françoise Fromonot, "Eloge de la coupe, ou l'enseignement de Rotterdam", *Criticat* 20 (Spring 2018): 40-63.

Each year a corpus of 11 unconventional houses is selected before the beginning of the semester; each situation is chosen for its rich spatial features, its strong link to its environment, and its ability to question the heteronormative framework attached to the single-family home. At that point, an extensive process of documentation begins. In addition to the traditional architectural plans, texts (from the architect's notes to newspaper articles), photos (documentation of the construction site and daily life following the move into the house), drawings (from the preliminary sketch to the as-built plans), and videos (amateur documentary and fictional staging of the house) are compiled. For each situation, the documentation collected is extremely rich and heterogeneous but also inevitably partial and incomplete. This fragmentary collection is the primary material used by the students to conduct their investigations.

From then on, the semester is organized around four acts and varies between periods of production carried out individually (acts 1 and 2), in pairs (act 3), and collectively (act 4). In the first act, each student produces two cross-sections of the entire house and its deep surroundings, the two analogous sections being drawn in relation to each other. In the second act, an in-depth constructive investigation of a junction is conducted on a 1:1 scale. For this act, students are free to choose the medium and techniques used to draw, the only criteria being the precision and intelligibility of the drawing. This liberation from conventional representational techniques leads to discussions recasting conventions and codifications as cultural constructs that should be constantly questioned and reinterpreted. This act also introduces subjectivity in the act of drawing, pushing students to bring their skills, their desire to test techniques, and their interpretation into the investigation. The aim of the third act is to produce an impossible-to-experience drawing of an inhabited house drawn through the deployment of two 45/45 axonometric projections on either side of the cutting plane. Like a book that opens along its binding, the constructed profile brings together the house's interior and exterior, disjointed realities colliding in a dynamic act. Finally, in act 4 all the individual contributions are assembled, creating a collective walk around each house, following the movement of a section plane around it. The investigations of the semester are then crystallized in a leporello, an accordion book, which is more than a simple additive collage of individual pieces (fig. 1-4).

I would like to dwell on this final act, the convergence of all the investigations of the semester, to identify specific avenues for broadening the conventional understanding of technical drawing towards a more convivial reading of this tool.

Paths of transgression

Each leporello produced in the Architectural Tomography course is the repository of the collective investigations conducted by each group during the semester (25 students). Drawn at a 1:33 scale, the length of each drawing varies, depending on the situations, investigated and can exceed four meters.

Anexact yet rigorous

As the information available for each house is always partial, students must develop precise, albeit uncertain, scenarios to progress through their investigation. These scenarios are generative strategies: they gradually accumulate and overlap on the surface of the drawing and are as concerned with the context of the house as they are with its spaces or structural and constructive logics. Elaborated individually in acts 1 and 2, these scenarios are then put on the table for group discussions in the last two acts. A question often arises: "Are my hypotheses true or false?" The aim is to shift this questioning towards a profoundly different formulation, focusing students' attention away from the determinism of a single technical solution and toward the rigour of their working process: "are my hypotheses rigorous, faithful to the investigation, or not?". This tension between a rigorous protocol of investigation and the uncertainty regarding the as-built reality of the situation is crystallized in the notion of anexactitude introduced by Edmund Husserl[22] and further developed by Jacques Derrida.[23] Whereas exactitude speaks of fixed and reproducible geometric systems and inexactitude



Fig.3 - Leporello of the Upper Lawn House (architects Alison and Peter Smithson), Fall 2020.
Enseignement AR-129-Tomographie Architecturale, EPFL, LIF laboratory,
credits: CC by Licence - https://livingarchives.epfl.ch/projects/5077/
architectural-tomography-upper-lawnhouse/.

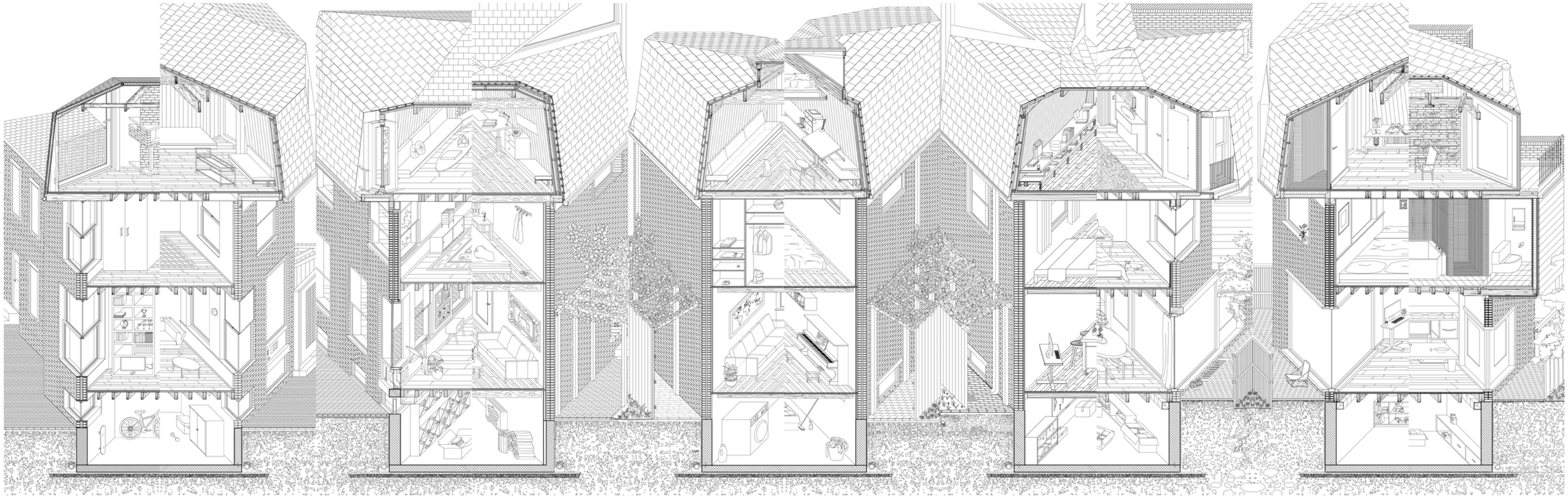


Fig.4 - Leporello of the GAE House (Atelier Bow-Wow architects), Fall 2020.
Enseignement AR-129-Tomographie Architecturale, EPFL, LIF laboratory, credits: CC by Licence - https://livingarchives.epfl.ch/projects/5068/architectural-tomography-gae-house/.

lacks both rigour and precision to allow for measurement, anexactitude designates that which can be described with great precision, but which is irreducible to an idealized, fixed, and convergent solution.

Rehabilitating room for debate

When assembling the students' drawings, different hypotheses coexist that are relevant to the same technical question. It is not a matter of settling on a single solution (prescription) or converging towards an average answer (smoothing). On the contrary, in an anexact approach to technical drawing, the coexistence of a plurality of solutions—even contradictory ones—is expected: "the anexact highlights the expressive capabilities of difference; it alleviates the tendency to smooth out difference."[24] These differences are scaffolding for collective discussion, opening each group's space for debate. While certain conventions of representation are left free (fluctuating from one portion of the collective drawing to another), others are fixed collectively (reference levels, for example) to ensure that the drawing can be read as a whole. In elaborating these scenarios, particular attention is paid to the dynamic operations that would occur during construction and after occupation. Through the drawings, the assembly of the bricks, the pieces of wood joining the structural elements, and the operations leading to the pouring of concrete become perceptible. The raw concrete walls, for instance, are not drawn as a homogeneous and coherent mass but express the way they were poured, revealing the board marks, the bolt holes that held the rigid formwork, the imperfections, and the cavities of the texture. The passage of time is also perceptible in some drawings: traces of life, signs of occupation, patina, weathering, and gestures of maintenance fill the drawings of the houses.

22 Edmund Husserl, "Die Frage nach dem Ursprung der Geometrie als Intentional-Historisches Problem", *Revue internationale de philosophie* 1, no. 2 (1939): 203–225.

23 Jacques Derrida, "Introduction", in *L'Origine de la géométrie* (Paris: PUF, 1962), 3-171.

24 Miguel Paredes Maldonado, "Anexact but Rigorous: The Territorial Delimitations of Sejima and Nishizawa", *Drawing On - Journal of Architectural Research by Design* (March 2018): 48-49.

Active reader

The format of the leporello ensures both a continuous unfolding of the drawing and a sequential reading by portions. In this final act, students must agree on a narrative structure reflected in the order in which the drawings are assembled. This order corresponds to the route that will be taken to complete a virtual walk around the house. The choice of a beginning and a direction is not trivial and contributes to the construction of a particular narrative. One group will, for instance, choose to place the giant oak tree that bent the house's geometry in the centre of the leporello to make it the main character of the drawing. Others will give a prominent place to the context, choosing to end the walk by revealing how the house is powerfully anchored in its maritime setting. As continuous and ambiguous narrative systems, the leporellos echo the emakimono, Japanese illustrated horizontal drawings of hand-painted scrolls that date back to the Nara period (AD 710-784). Not only do they both reflect an everyday art, but—crucially—they both actively engage the reader in an interpretive journey. Drawn or stamped on very long rolls of paper, measuring several metres, they engage readers in the physical manipulation of the drawing, a close contact that leads them to unfold the story little by little. The rhythm and the amplitude of the unfolding are also adjustable; only certain parts of the drawing are unfolded at a time, giving a different and partial vision of the story with each manipulation. Thus, the reader reinterprets the story as it unfolds.

Through a reflexive journey, this article explored paths of transgression to expand the conventional understanding of technical drawing toward an investigative and cultural ontology of drawing. Going beyond its prescriptive function and following an anexact and convivial approach, technical drawing, as introduced in the Architectural Tomography course, goes beyond its capacity to describe, measure, and prescribe to explore its ability to interpret and imagine complex spatial situations. By supporting the expression of more than one intended meaning and by introducing space for collective negotiation, the two-dimensional surface of architectural drawing becomes a field of operations for challenging the hylomorphism paradigm from within.

Unveiling Chora
Kariye through the looking-glass

BIHTER ALMAÇ, BILGE AR

Looking-glass

Kariye through the looking-glass is an inquiry into the intricate space and immaterial qualities of Byzantine architecture explored through the well-preserved katholikon of the Chora Monastery (Istanbul, Turkey).[1] This research is done through and in the form of drawings. Here, the act of drawing is an inquiry into the intricate Byzantine spatial making and the ephemerality of Chora's architectural endeavours. These drawings articulate a synthetic gathering of details in a method of exploration of the not-so-present-day[2] visitor, recalling her past visits, starting at the smallest scale and building up the whole as an aggregate of these close-up views. The title comes from Lewis Carroll's book, *Through the Looking-Glass*,[3] in which Alice steps into a mirror in the drawing room of her house to find herself at home again, but with a reversed logic. The following quote resemble our enthusiasm within this work where the words aligned can be imagined through all their meanings and connotations.

> "...You can just see a little peep of the passage in Looking-Glass House, if you leave the door of our drawing-room wide open: and it's very like our passage as far as you can see, only you know it may be quite different on beyond."[4]

Like Alice, we are intrigued by the prospect of stepping through the passage to something "quite different on beyond". In an analogous way, we use the act of drawing like a looking-glass to create the delineations that we believe the situation of Kariye demands. Looking-Glass House creates eerie reconfigurations that might be invisible at first sight; an encounter with its logic is experienced when you dwell on it—look further. While our drawings might resemble what is already there and use standard conventions, such as orthographic drawing sets and axonometric projections, the work is a situated critical inquiry[5] inspired by feminist architectural theory; a minor architecture[6] consisting of drawings that offer spatial manoeuvres. Accordingly, it lacks constructed physicality but enables an ephemeral slip through[7] its interstices. Therefore, the drawing set should be treated as a juxtaposition of explorations for the spatial making of an intricate architecture with its perpetual programmatic changes and ephemeral existence. At the same time, the act of drawing aims to bring the established structures of architectural representation to gather its situated critical inquiry of Kariye. Therefore, the drawing set is a minor architecture, a singular record of Chora within its ongoing history.

1 Though well known for its Late Byzantine/Palaeologan era extensions and decoration (14th c.), the material evidence on the structural layers of the *katholikon*, or the main church of the monastic complex, of the Chora monastery goes all the way back to the 6th century. In the historical peninsula in Istanbul, it was located within the uninhabited areas outside the Constantinian walls (4th c.), but within the Theodosian walls (5th c.); thus, although it is *intra muros*, the meaning of its name refers to the rural character of its location. It had been subject to multiple structural changes, including subsidiary additions introducing different functions during the Byzantine era. It had been repurposed to serve different functions during its afterlife as an Ottoman and later a Republican monument. Throughout its adventurous shifts and conversions, Chora has been wrapped with unique layers, both structural and immaterial, for each temporary program. Every layer enables unprecedented associations with its articulated discrepant narratives, thus redefining this architecture's immaterial spatiality. Throughout the text the word "Chora" will refer to the church building and will not be used in its literal meaning. In the afterlife of the building as an Ottoman and later a republican monument it has been called "Kariye mosque" and "Kariye/Chora museum". The text will refer to the building as both "Chora" (meaning the church and the museum) and "Kariye" (meaning the mosque).

2 Kariye has been undergoing program changes for over seven years and it is not possible to visit the place as it is under restoration.

3 Lewis Carroll, *Through the Looking-Glass and What Alice Found There* (New York: Dover Publications, 1999).

4 Carroll, *Through the Looking-Glass*, 10.

5 Jane Rendell defines *critical spatial practice* as a situated form of research where the gap between the designer and the researcher closes. In this research, we believe that the drawing inquiries and the act of drawing disrupt the common method of exploration to invite imaginative delineations for critical spatial inquiry. Jane Rendell, "A Way with Words: Feminists Writing Architectural *Design Research*", in *Design Research in Architecture: An Overview*, ed. Murray Fraser (London: Routledge, 2016), 117–36.

6 Jennifer Bloomer defines *minor architecture* as an "architecture of desire" that operates in the interstices of architecture, "not opposed to, not separate from, but upon/within/among." Jennifer Bloomer, *Architecture and the Text: The (S)Crypts of Joyce and Piranesi* (London: Yale University Press, 1993), 6.

7 For Jill Stoner, minor architectures are spatial manoeuvres that emerge from the bottom of power structures, always ready to slip through their cracks and take them apart. Jill Stoner, *Toward a Minor Architecture* (New York: MIT Press, 2012), 2-6. Stoner roots her discussion on Deleuze and Guattari's concept of minor literature. Gilles Deleuze and Felix Guattari, *Kafka Toward a Minor Literature*, trans. Dana Polan (London: Minnesota Press, 1986).

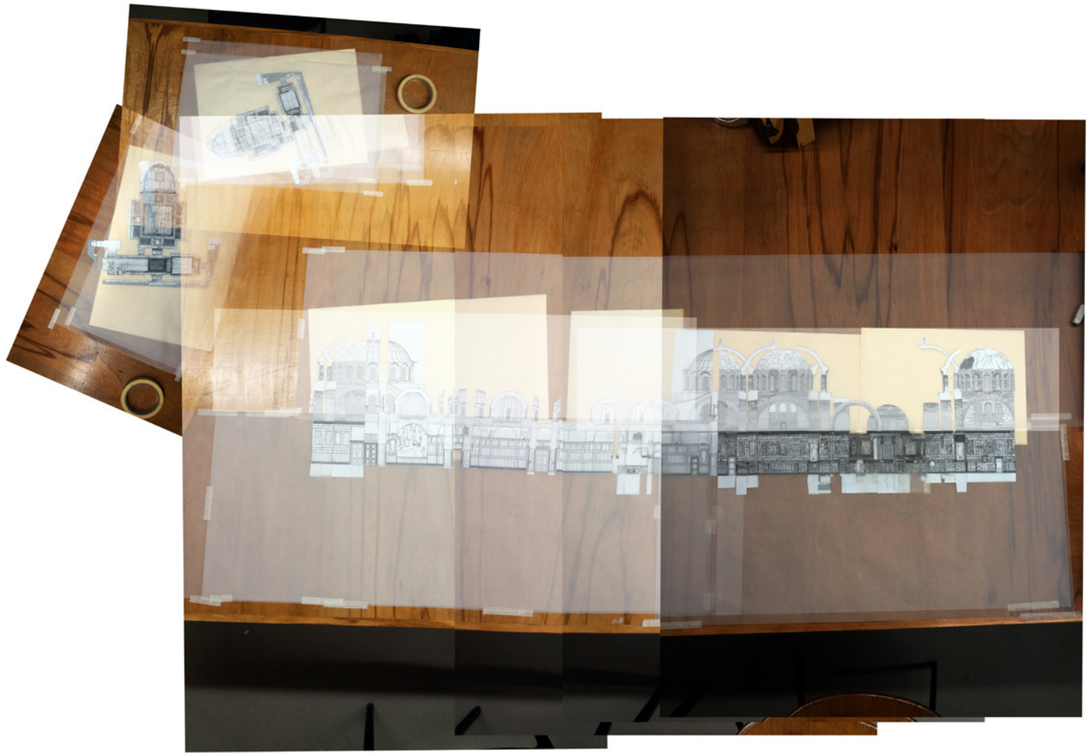


Fig.1 - The Drawing Table, 2021.
All collages and drawings by Bihter Almaç

> "And here I wish I could tell you half the things Alice used to say, beginning with her favourite phrase 'Let's pretend."[8]

This work starts with the meeting of two researchers whose encounter brought together the methodologies of architectural history and drawing research. The combined approach was designed in contrast to conventional methods of architecture history, to emphasise the necessity to include the human element in the development of architecture of the eastern Mediterranean, proposing the human scale as its starting point. In this sense, the methods of drawing research and the historical point of view seemed complementary. Some of these ideas are raised by a recent experiment in which architecture students' responses to Hagia Sophia, using specific keywords, were evaluated. The students' responses were very similar to those of contemporary visitors to Hagia Sophia, raising questions as to how the experience of the present user could serve to reconstruct the perception of users of these buildings in earlier periods.[9]

From the perspective of our approach, intuitive individual explorations such as this one that are not subject to the dictates of current scholarship on the mediaeval eastern Mediterranean built environment—especially explorations that have been conducted by people who have grown up in the region—could be considered in future studies aimed at reconstructing the architectural composition of medieval buildings. There are two disparate objectives here. The first is to use drawing to get closer to the construction process of the Byzantine church through a close examination of architectural details and gain a thorough understanding of how ornamentation is integrated within the architecture. Several drawing explorations are drawn throughout the research project to capture the intricate and complex spatiality of Chora. Meanwhile, the second objective is to use the same drawing process to invite imaginative delineations for critical

8 Carroll, *Through the Looking-Glass*, 8.

9 Bilge Ar, "Perceptions Then and Now: The Aesthetic Features of Byzantine Architecture", *sITA - studies in History and Theory of Architecture* 8 (2020): 167-84.

spatial inquiry to characterize Kariye at a single point in its long history when an abrupt spatial change has occurred. This research is thus intended to be an exploration into an "outer-disciplinary", intuitive, critical communication.

This chapter presents four such explorations, each of which amplifies the intricacy of the structure: unfolding; cosmic floors, marvellous marbles; pneumatic surfaces; and spatial narratives.

Kariye through the looking-glass

In contrast with the structural clarity and plainness of the outer façades, the interiors of Byzantine churches are more articulated and richly decorated. While this multi-dimensional character of the inner space provides various viewpoints, a direct perception of the whole interior is impossible. The spatial complexity of the interior functions with the ornamentation of its surfaces. A Byzantine church cannot be fully understood by looking solely at plans and sections as was conventional in earlier scholarship. Such an approach disregards one of the main characteristic features: the three-dimensionality of the Byzantine church.[10] The reliance on assessments of the formative processes involved in the building and decorating of the Byzantine church building—the conventional methods used in its understanding, especially in 20th-century scholarship—did not result in any theoretical achievements in the field of Byzantine architecture, but rather created more obstacles to be deciphered. These approaches have already begun to be questioned, especially in the past two decades, with a great deal of research focusing on sensorial regimes and human experience to understand the building.[11] Therefore, an interstice opens between common architectural representation methods and Chora's spatiality. As a response, *Unveiling Chora* becomes a series of explorations of the reconfigurations of drawings that enable us to encounter the complexity of this structure.

The approach in this study suggests a change in the initial scale used when assessing the architecture of Chora. Instead of starting at a larger scale, we start from the scale of the details of the ornamentation that the present-day visitor experiences when closely examining them. This is related to a realisation of the importance of human movement and experience in forming spatial relations. However, there was another crack in the ordinary method for a drawing based on experience: this drawing is produced as a result of the three-dimensional experience of the not-so-present-day spectator exploring the surfaces at every angle. Throughout the process of drawing, the structure was closed to the public. Therefore the act of drawing started by imitating a previous visit to Kariye, from many years ago, in the form of a collage inlaid to the drawing table (fig. 1). Although the research was conducted in Istanbul, throughout the process, the drawing inquiries relied on archival photos, drawings, books on its mosaics and books on Chora. Using the act of drawing in the manner of a spatial experience required several manoeuvres; it was a visual exploration and mimicry, articulated from various surfaces.

This exploration follows an inductive method that starts from the level of details, which are brought together in a flexible, vivid manner to form the whole. Byzantine architecture requires an abundance of examinations at a small scale before any synthetic image can be provided, thereby inviting further inquiries and projects. Using drawing as its method of inquiry, *Unveiling Chora* is an intuitive attempt at understanding that takes into account the human element and the minor narratives of human experience to explore the spatiality of Byzantine architecture.

Inquiry no. 01: Unfolding

One of the striking memories I have of visiting Kariye as a child, and later as an architecture student, was the eye-level marble surface enwrapping the interior. This surface contrasted with the sacred narrative depicted on mosaics and frescoes above. The aesthetics of pure materiality and the spatial poetics present in the texture of a natural element contrasted with my expectations of a historical monument.

Therefore, the first inquiry starts with the idea of extending the lateral marble surface that accompanies visitors inside Chora. The aim is to create an endless, consistent marble surface where all the niches and corners of the interior unfold. The resulting flat surface alters the common expectations of an orthogonal drawing by inverting the interior-exterior relationship. The drawing uses the familiar tools of sections and elevations but uses them in a different angle, adjusted to the viewpoint of the visitor as they move in and around the compartmentalised space, allowing a reconstruction of the continuous perception of a current-day visitor.

The surface simulates a particular visit[12] to Kariye that starts (from right to left) at the southern wall of Naos and moves counterclockwise (fig. 2). The sequence of the visit embeds the section and elevation sets of the structure in a montage of disparate fragments where the multi-dimensional compartmentalised character of the inner space is reconfigured. Now Chora unveils itself as a single wall with strange spatial implications. It suggests an architecture of accumulated fragments and multifaceted surfaces; a synchronous gathering of the interior and exterior.

10 Robert Ousterhout, *Master Builders of Byzantium*, (Philadelphia: University of Pennsylvania Museum of Archaeology and Anthropology, 2008), 12, 15-16.

11 New scholarly attention intuitively realised the need to assess human experience in order to gain a better understanding of Byzantine architecture. Recent studies using these approaches include: Spyridon Antonopoulos, Sharon E. J. Gerstel, Chris Kyriakakis, Konstantinos Raptis and James Donahue, "Soundscapes of Byzantium", *Speculum* 92 (October 2017): 321-335. Bilge Ar, "Perceptions Then and Now", 167-84. Susan Ashbrook Harvey and Margaret Mullet, eds., *Knowing Bodies, Passionate Souls, Sense Perceptions in Byzantium* (Washington DC: Dumbarton Oaks Research Library and Collection, 2017). Nicoletta Isar, "'Χορός of Light': Vision of the Sacred in Paulus the Silentiary's Poem Descriptio S. Sophiae", *Byzantinische Forschungen* 28 (2004): 215-242. Bissera V. Pentcheva, *Hagia Sophia: Sound, Space, and Spirit in Byzantium* (University Park, PA: Penn State University Press, 2017). Nadine Schibille, *Hagia Sophia and the Byzantine Aesthetic Experience* (Farnham: Ashgate, 2014).



Fig.2 – Unveiling Chora, detail; Inquiry no. 01 and Inquiry no. 04.

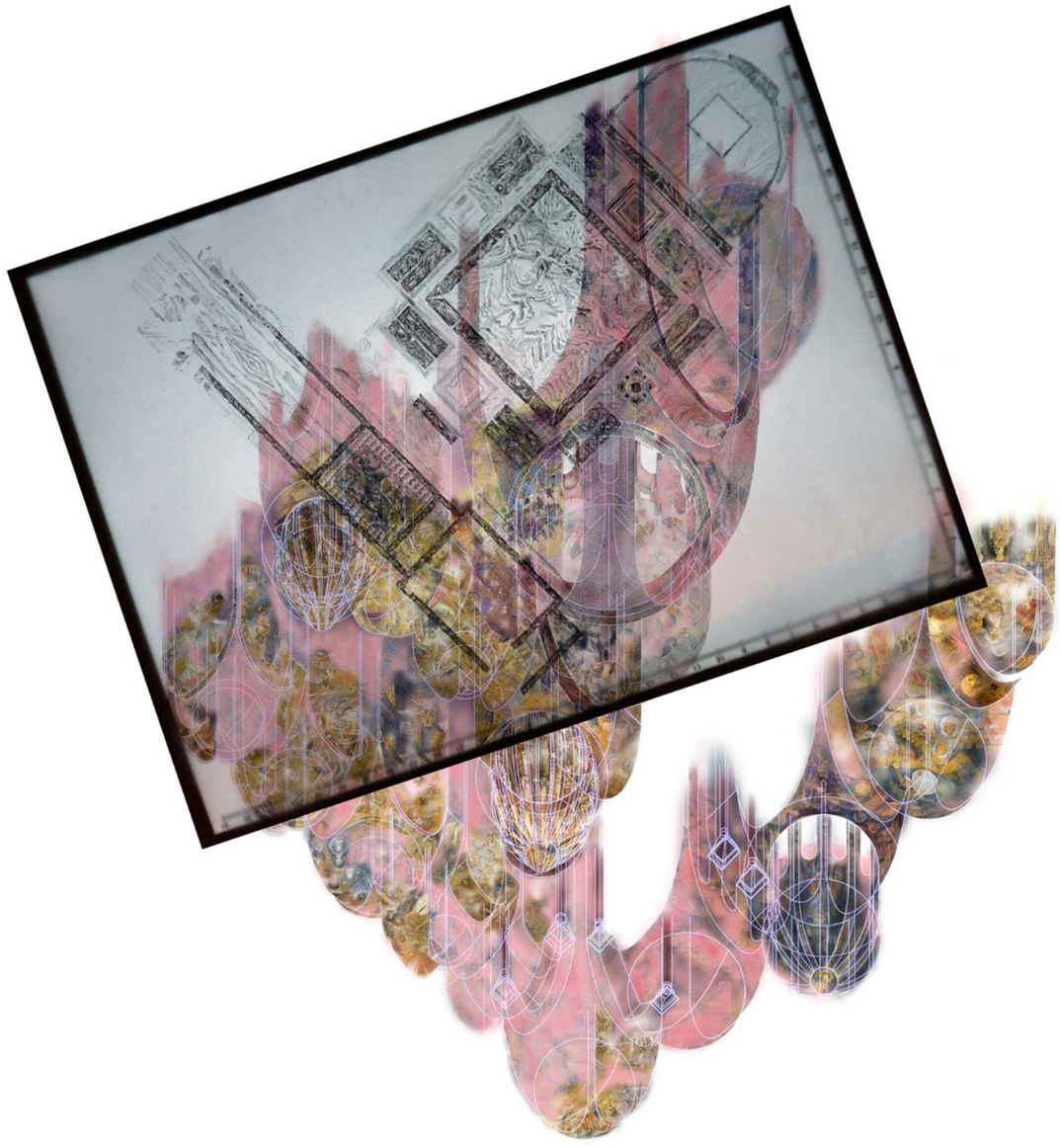


Fig.3 – Unveiling Chora, detail; Inquiry no. 02 and Inquiry no. 03.

This synchronous gathering allows the viewer to go through the looking-glass. It dissolves the compact mass of the building as it is perceived from the outside into the vastness of the interior which the viewer perceives through its compartmentalised formation. Unfolding is the starting point of the drawing; positioning an extended orthogonal configuration at this point makes possible the inquiries that follow.

Inquiry no. 02: Cosmic floors, Marvellous marbles

The second act is about the psychedelic, inkblot-like motifs of the marble surfaces. The use of this precious natural stone as veneer sets highlights the value given to the building. The plates are arranged in book-matched panels forming symmetrical and continuous lines on each page. Art historian Fabio Barry, focusing on the use of Proconnesian marble plates for floor veneer, remarks that they carry cosmic connotations and would make visitors feel as if they were walking on water.[13]

This inquiry is embedded in the previous drawing act, *Spatial Journeys*, and explores the spatiality of the multi-coloured marble surfaces of the structure. The drawing starts by tracing the veins of the marble surfaces, layering and configuring the marble veneer plates. Retracing the act of building through hand drawing is a form of mimicry, a thought process that allows us to go beyond the experience of a 21st-century visitor. The visual data for this inquiry was collected from archival materials since the building has been under restoration for years and closed to the public.[14] Therefore, hand tracing of the veneer sets is both an inconspicuous and a magical act; at first glance, it is an exploration seeking to discover the making of space, yet it is also a trespass disguised in the form of lines and shadings. It places the draughtswoman in a closed-off zone and allows her to perform a tactile, spatial drawing. The painstaking inquiry, premised on tracing every line by hand, took six months of intensive drawing sessions. Each session involved looking at the archival materials, copying them, understanding their location, fitting them within the spatial reconfiguration, and tracing their lines. This process was a way of occupying the closed space, using the material at hand as a prop to recreate its spatial experience and wander within its memories: a return visit to a familiar space with unfamiliar imageries.

Inquiry no. 03: Pneumatic Surface

The next drawing inquiry aims to decipher the complexity of the interior upper surface through a worm's-eye view axonometric projection that dissects the layers of Chora (fig. 3). The variation in the interstices between its three fragments is intended to imitate the visitors' route. The marbled surfaces of Naos and the inner narthex join the two fragments as spatial journeys and delimitate the two separate places. The spatial narrative of the inner narthex continues at the outer narthex and Chora unfolds towards its parekklesion, or funerary side chapel, as the latter would be accessed through the outer narthex during a typical Kariye visit. The delineation of the upper surface emerges only at the places where visitors are currently allowed; the rest is excluded from this inquiry. The exclusion of several parts of the building thus responds to the minor narratives of the place, making it possible to create situated knowledge[15] that follows the 21st-century visitor. The projection of the upper interior then creates a veil-like surface, an enfolded and sometimes inflated cover, that hovers above the spatial wanderings of the marble surface. The resulting "pneumatic surface" is a distorted representation of the upper surface of Chora as it displaces its rich details to an imagined aerial space and invites further work on its narratives.

The compact mass of the Byzantine church is composed of various elements including domes and various vault types. Choices are made during the construction process based on various factors such as the specific desires of patrons, available materials, or the compatibility of the architectural components with the designated ornamentation program that is being made at the same time. The building process is organic, and alterations are constantly being made to the design throughout the construction process.[16] Although the completed building has a common language, making the Byzantine church easily identifiable, no two individual specimens are identical because of the potentially limitless variations and choices that mark the process. In order to understand the roofing system, we need to focus on its details. The worm's-eye view axonometric drawing made here does this by dissecting the unity of the roofing system into its components and examining the relationships between these components and their ornamentation.

12 The visit passes by the mosaic of the Virgin Hodegetria, the *minbar*, the apse, the *mihrab* niche, the mosaic of Jesus Christ, and leaves Naos by its main entrance, passing under the mosaic of Christ Pantokrator to visit the inner narthex anticlockwise, first towards the dome with the mosaic of the genealogy of Mary, then moving to the dome with the genealogy of Christ with Christ Deesis beneath and ends by entering Naos once more under the Koimesis scene (Dormition of the Mother of God) stopping at its western wall.

13 Fabio Barry, "Walking on Water: Cosmic Floors in Antiquity and the Middle Ages", *The Art Bulletin* 89, no. 4 (2007): 627–56.

14 The structure had been functioning as a museum since 1945 and has recently been reconverted into a mosque in 2020. Its restoration and refitting for the new function will possibly require interior adaptations. "Legal Gazette", August 21, 2020, https://www.resmigazete.gov.tr/21.08.2020; *The Legal Gazette* no. 31220, dated 21 August 2020, published the decision of the Council of Ministers dated 29 August 1945 regarding the allocation of the Kariye Mosque, located in the Fatih District of Istanbul, to the Ministry of National Education to be used as a Museum and Museum Warehouse, 10th Chamber of the Council of State, dated 11/11/2019 and E: 2019/11776, K: Cancelled by Decision No. 2019/7680. The management of the Kariye Mosque was transferred to the Presidency of Religious Affairs in accordance with Article 35 of the Law on the Establishment and Duties of the Presidency of Religious Affairs dated 22 June 1965 and numbered 633, and it was decided to open it for worship.

15 When Donna Haraway discusses situated knowledge, she emphasises that the feminist approach is about an existing location through situated, perspectival knowledge in contrast to the subject-object duality—not a transcendental approach inclined to obscure the complex relations of things. Donna J. Haraway, "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective", *Feminist Studies* 14, no. 3 (1988).

16 Ousterhout, *Master Builders of Byzantium*, 64.

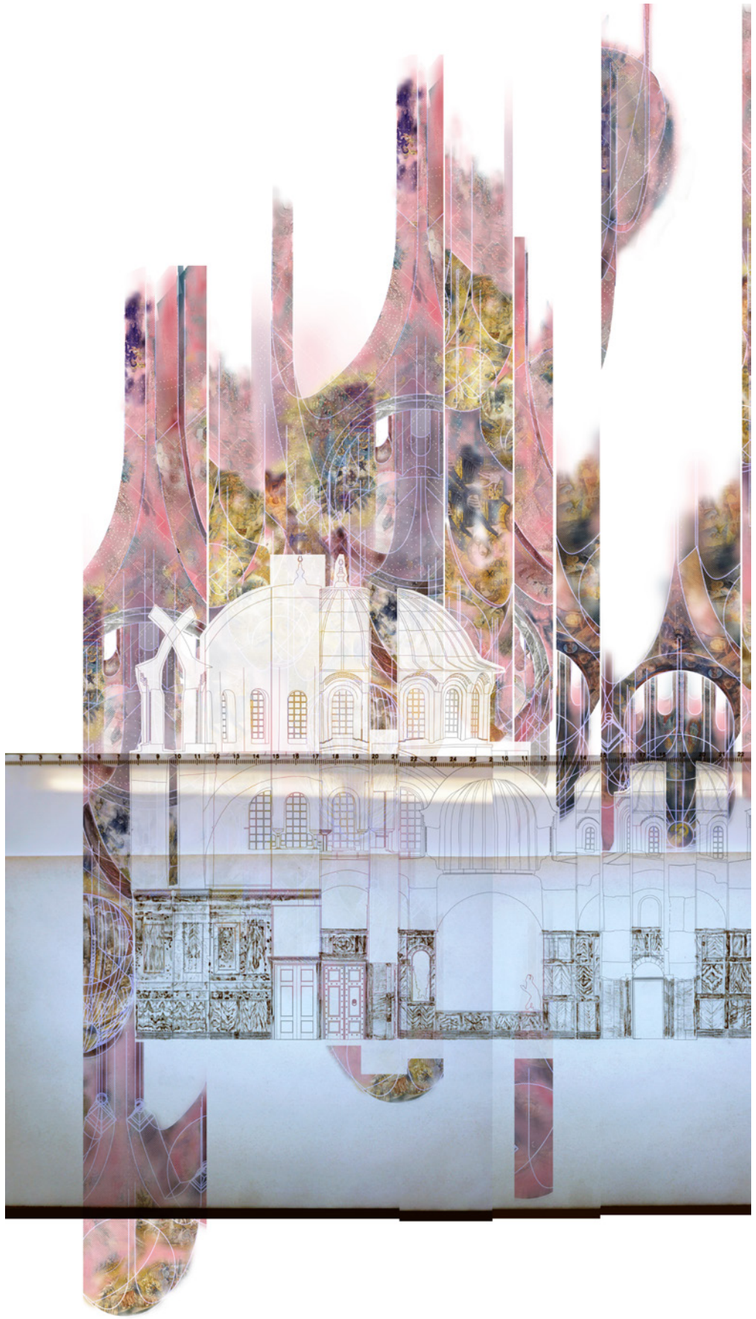


Fig.4 – Unveiling Chora, detail; Inquiry no. 03 and Inquiry no. 04.

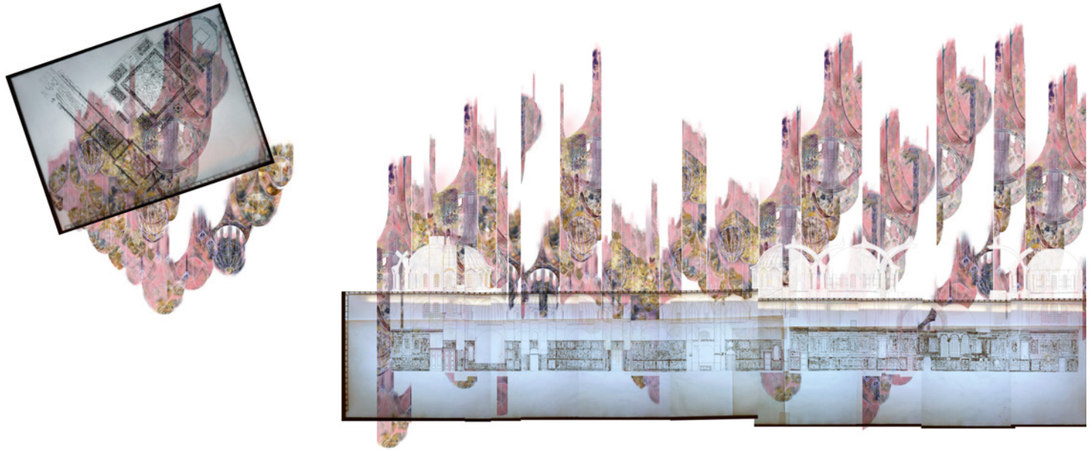


Fig.5 – The gathering of drawings; Unveiling Chora. Hybrid drawing, hand drawing, digital drawing, photo and drawing collage.
Dimensions: (H) 86cm(W) 208cm, 2022

Inquiry no. 04: Spatial narratives

The final inquiry builds from the "pneumatic surface" (fig. 4) to create a "spatial narrative". Chora is wrapped in unique layers that are both structural and immaterial for each temporary program.[17] Each layer enables unprecedented associations with its articulated yet discrepant narratives, thus redefining the immaterial spatiality of this architecture. This exploration aims to create a consistent and embedded narrative layer, that is not rooted in the figurative liturgical scenes. Here, the depiction of ornamentation—mosaics and frescoes—are montaged and merged according to their locations on the surface. Yet the act of drawing in this inquiry does not work on the liturgy of the structure—the interest here does not lie in what the liturgical narrative is. Controversially, it embeds the mosaics and frescoes in the infinite pneumatic surface to articulate both its material (dye, paint, mortar, coloured stones, etc.) and its immaterial (iconography, for example) narrative making. This explores the integration of ornamentation into architecture and how this process may be used in creating the sacred connotations of a space.

Unveiling Chora

All our drawn inquiries are gathered together to form a liminal juxtaposition that suggests an open, flexible, and imperfect mode of spatial making (fig. 5). Here, the abundance of details and the articulated explorations are guided by situated knowledge. This knowledge is acquired from memory—the memory of a female visitor to a museum, a historical sacred space, and a currently inaccessible space. It is a minor architecture that only exists on the surface of the looking-glass of Chora. This exploration, with its individual and idiosyncratic endeavours, does not claim wide-reaching results of broad historical significance, neither for the study of Byzantine church architecture nor for the specific case of the Chora monastery. That is not its aim. Minor architectures gain significance through their liminal curiosities that can lead to speculation within their exploratory spatial contortions. The multiplication of such explorations might lead to broader conclusions based on their own premises or remain singular critical situated inquiries of this architecture.

> "'It's no use talking about it,' Alice said, looking up at the house and pretending it was arguing with her. 'I'm not going in again yet. I know I should have to get through the Looking-glass again—back into the old room—and there'd be an end of all my adventures!'"[18]

In this work, we bring together various discourses tied to imaginative design explorations and scholarly research. Their venturous negotiations are made possible through the act of drawing. The inquiries are juxtaposed and overlaid to create a choreography of lines and textures that diverges from a static representation of historical architecture, one that is at risk of overlooking the contemporary user and the past maker. Therefore, they do not resemble Chora: Kariye, yet presumably, they are a version of it in the realm of drawing—through the looking-glass. These inquiries are an initial set of explorations, rooted in a now-past version of Chora, which are there to invite further drawing inquiries and architectural wanderings.

17 See note 3 for an overview of the functional changes and temporary programs of the building.

18 Caroll, *Through the Looking-Glass*, 27.

New Worlds
The absolute power of imagination

ALFONSO GIANCOTTI

An architectural project is, by definition, a process operating through the instruments of vision and imagination. As such, the following drawings, part of a research project entitled *New Worlds (Nuovi mondi)*, can be considered as what Jean-Paul Sartre called *analogons*, i.e. mental images of organisms, objects, and inventions that are acknowledged to be unreal. These analogons are never to be built. They are an objectification of the imaginary.[1] They show "structures" elaborated on the principles of immediacy and improvisation and are witnesses to a desire to transpose to the level of representation what we can only grasp on an affective level. By remaining "open", they invite us to consider space from a different point of view, to reinvent it, to give it meaning, to imagine a future projection that has yet to find or never will find a place in reality.

By questioning our contemporary understanding of architectural images, the *Nuovi mondi* drawings seek to offer a chance to reach beyond our preconception of what architecture is or should be. They also aim to stimulate an understanding of place as an opportunity for the construction of narrative and the unfolding of spatiotemporal events. Similar to Bernard Tschumi's proposition in his *Manhattan Transcripts*,[2] transcribing a space through drawing makes it possible to hypothesize different ways of understanding the relationship between perception and imagination. If, as Jean-Paul Sartre states in *The Imaginary*, perception can be identified with the act of intuition about a physically present reality, an act that allows us to recognize its discernable content, imagination can consider itself free of this constraint and therefore move beyond the simple evidence of the traces that memory has allowed us to detect.[3] The atmosphere of an existing space, expressed as a mental image, while still referring to a clearly experienced space, can then open up to different levels of knowledge. The atmosphere offered by the drawings presented here exemplifies what Sartre defines as a flow of inexpressible subjective qualities, allowing the usual relationship of consequentiality between perception and imagination to be overturned.

One of the starting hypotheses of this work was to envision the contemporary city as a palimpsest and to consider its inhabitants incapable of astonishment and wonder at what they see. That is, to express the blasé attitude of the "Simmelian metropolis," where inhabitants are anaesthetized by the constant bombardment of signals and consequently incapable of developing the sensitivity needed to perceive the difference between things and objects, which appear grey, uniform, and opaque.[4] The construction of these imaginary spaces is splintered, intangible, and unmeasurable, without privileged viewpoints. They are open to sensitive experience, for which the involvement and active participation of the observer is indispensable. The drawings mediate spaces that are evidently impossible but they demand that we adopt an inductive method rather than a deductive one as a means to understand the complex system of laws that regulate real spatial transformation. In other words, to paraphrase Maurizio Sacripanti, the drawings shift the axis from the field of probability to that of the possible.[5] Like a design project meant to translate an ideal into a concrete construction, possible places of the mind play the role of a filter. They become a tool to keep alive the contradictions that are necessary in order to overwrite—in the real world—the palimpsest of the contemporary city.

A second hypothesis behind these drawings is to consider the contemporary city as a sequence of fragments as if it were generated by strategies lacking a perspective of the future, a contemporary condition prophetically described by David Harvey in *The Condition of Postmodernity* in the late 1980s. This book, where the British geographer takes note of how the shift of emphasis from ethics to aesthetics, from the collective dimension to the "leaderistic", and from the supremacy of reasoning to that of the futility of images, has sanctioned the end of grand narratives in contemporary society. Consequently, "micrology" is identified as the only modality of elaboration and communication.[6]

1 Jean-Paul Sartre, *The Imaginary* (London: Routledge, 2004).

2 Bernard Tschumi, *The Manhattan Transcripts* (London: Academy Editions, 1994).

3 Sartre, *The Imaginary.*

4 Georg Simmel, "The Metropolis and Mental Life", in *The Sociology of Georg Simmel*, trans. Kurt H. Wolff (New York: Free Press, 1964).

5 Maurizio Sacripanti, *Città di Frontiera* (Roma: Bulzoni, 1973).

6 David Harvey, *The Condition of Postmodernity: An Enquiry into the Origins of Cultural Change* (Oxford, UK; Cambridge, MA: Blackwell, 1989). In this book, Harvey argues for the need to stop pursuing the great topics of modernity, and rather to reflect on a process of transformation that is achieved as a sequence of micro-stories.

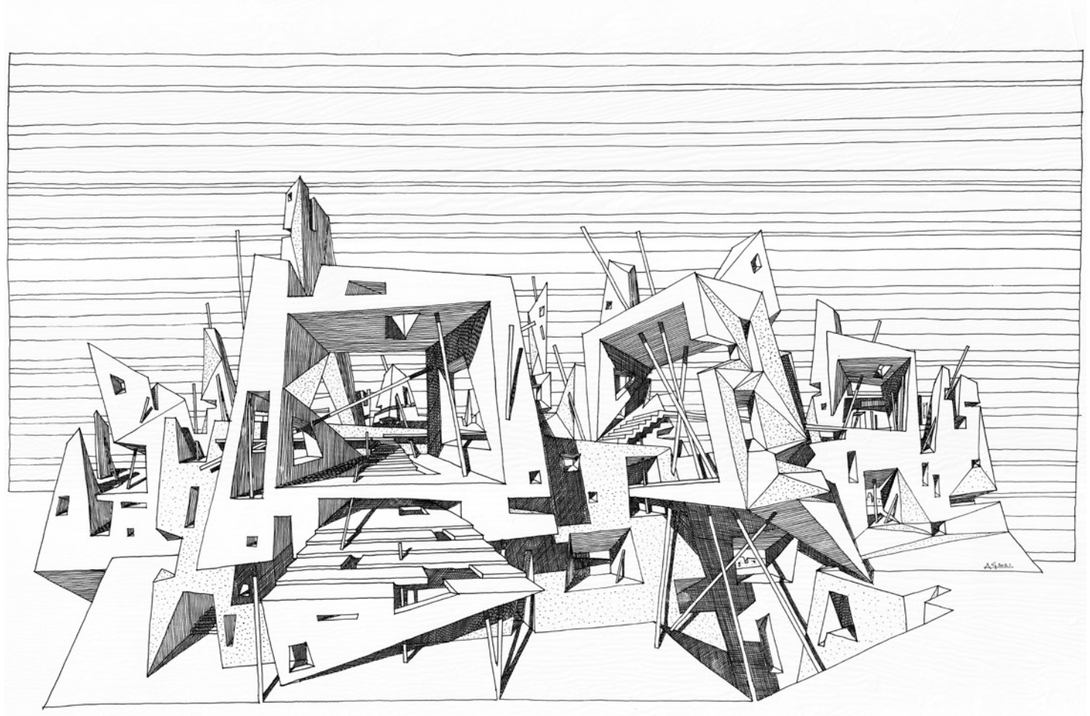


Fig.1 - Nuovi mondi I, 2021,
[Ink drawing on glossy paper, 910x580mm].
All drawings by author

In light of Harvey's thought, the *Nuovi mondi* drawings can be read as a form of narrative micrology: an opportunity to understand, through the analysis and transformation of very small and problematic elements, the rules that determine the modes of change of much larger and more complex realities. This suggestion is also indebted to the Michel Foucault's analyses of the concept of dispersion, which refers to the absence of any systematic structure and the difficulty of producing solutions capable of restoring a sense of totality and unity.[7] Through design, it is still possible to recognize the value of minimal, fragile and intangible spaces. While these spaces escape habitual analysis, they remain the object of continuous and meticulous monitoring so that they can be identified and, through design, finally celebrated.

As stated previously, the drawings perform the function of analogon by depicting a set of unreal spaces that are based on an awareness of absence as opposed to the more likely potential presence of the imagined space. The spatiotemporal experiences they propose thus become opportunities to restore centrality and foreshadow "open" spaces, understood through Umberto Eco's concept of the *open work*, that can change in character in relation to the events that take place in them.[8] The character of immediacy adopted in the making of these drawings highlights the reference to rapidity that Italo Calvino speaks of in his *Six Memos for the Next Millennium*.[9] In the words dedicated to the relationship between physical speed and mental speed, Calvino specifies how mental speed cannot be measured or, again, how it in no way claims to exclude the opposite value that he identifies in delay. Indeed, Calvino argues that speed is fundamental in providing rhythm to a narration, by moving through space and time—as I try to do in my drawings. Thus, these drawings seek to connect elements far apart in space and time in a form that is anything but consequential but is no less agile and casual.

There is an evident attempt in the drawings to visualize limits, barriers, openings from which to view the spaces. The image of the frontier that they evoke here is indebted to two of Italo Calvino's invisible cities. Thecla, a city in which destruction never begins since it is in a state of perpetual construction, and Ersilia, defined by its web of relationships and intricate relations in search of a form.[10] Thus, the drawings frame

7 Michel Foucault, *Madness and Civilization: A History of Insanity in the Age of Reason* (London: Taylor & Francis, 2006).

8 Umberto Eco, *The Open Work* (Cambridge, MA: Harvard University Press, 1989).

9 Italo Calvino, *Six Memos for the next Millennium*, *The Charles Eliot Norton Lectures 1985–86* (Cambridge, MA: Harvard University Press, 1988).

10 Italo Calvino, *Invisible Cities*, trans. William Weaver (New York: Harcourt Brace Jovanovich, 1974).

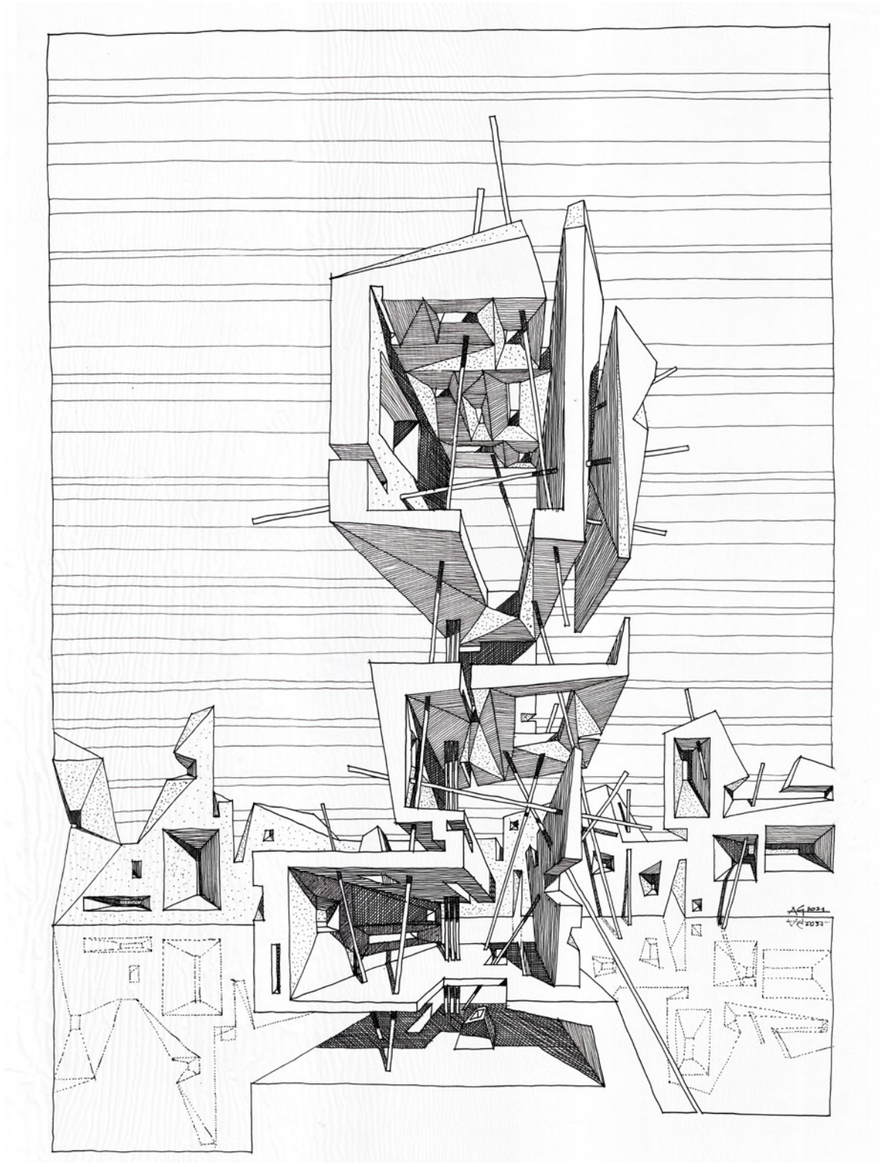


Fig.2 - Nuovi mondi 2, 2021,
[Ink drawing on glossy paper, 590x800cm].

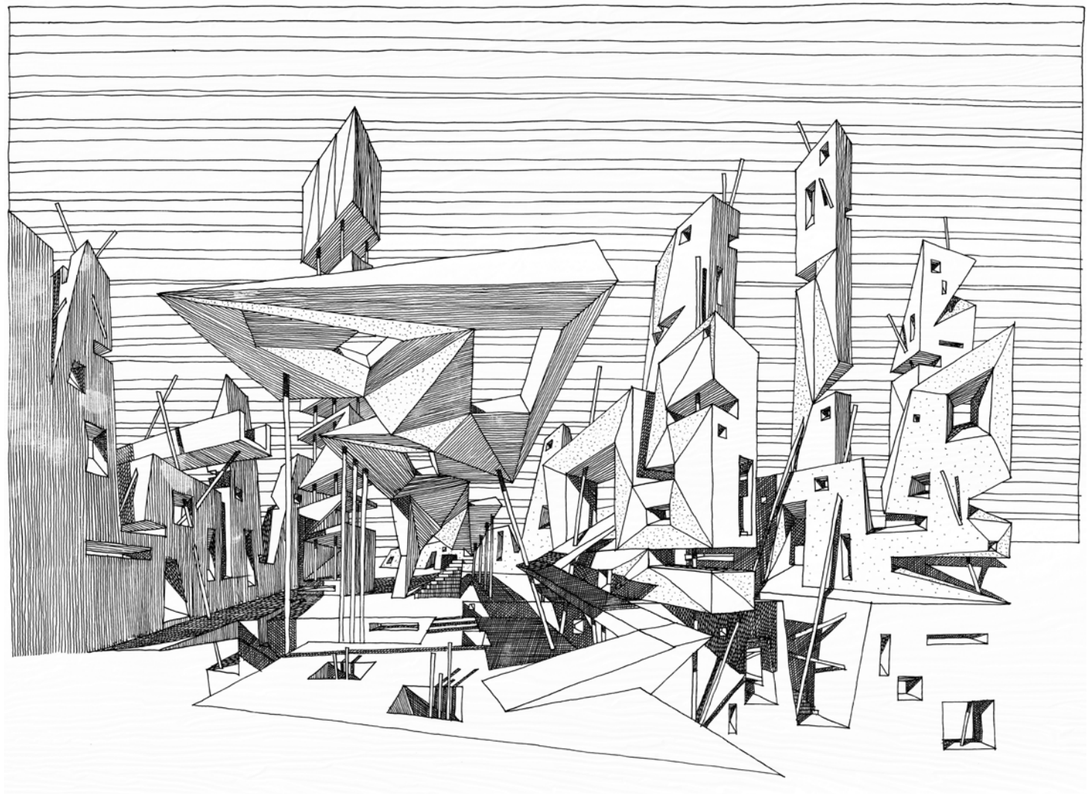


Fig.3 - Nuovi mondi 3, 2021,
[Ink drawing on glossy paper, 780x580cm].

openings that invite the viewer to go beyond and recover the pleasure of discovery. They are an invitation to restore the idea of the path, of crossing, of the rite celebrated in architecture when time and movement become the necessary conditions to feel spaces as our own. It is also possible to find in their heterotopic dimension a reason to read the drawings as thresholds, fractures of space that divide two dimensions, crossing between the private and the public (or political).

Finally, within this series of drawings there are two recurring and related elements. The first is the exaggerated asymmetry of the spaces. The second is the presence of the accident, understood in the sense of the creative error. Gianni Rodari ingeniously defines the accident in his *Grammar of Fantasy* as a necessary error which opens up the opportunity to tell new stories, to conquer new, unexpected and surprising spaces.[11] Many of Rodari's poems are in fact created from the syntactic errors that can be found in written texts. The accident turns the drawing into an event, which, following from Gilles Deleuze in *La logique du sens*, acts as a stance towards reality through the use of language.[12] This proposed reasoning on language does not provide any privileged direction, but rather, in refusing any act of validation, intends to emphasize the need to restore equal dignity to the most diverse references, suggestions, or sources. The drawings here presented indeed incorporate suggestions that do not come from architecture, but from the arts, literature and music. In this sense, Maurizio Sacripanti's point of view may also be helpful. He invites us to read the poetics of an architect as the reason for the survival of language, pointing out, however, how we must clearly consider the fact that architecture speaks of language and not with it.[13] The language of these drawings is far removed from languages that can be used as a guide for the construction of schemes and prefigurations. If it were otherwise, it would constitute a limit within which architecture would be dangerously caged. Rather, it is a tool through which to question the sense or non-sense of space, to try to interpret, in depth, the plural dimensions and conceptual contradictions that characterize contemporary society.

11 Gianni Rodari, *Grammatica della Fantasia* (Torino: Einaudi, 1973).

12 Gilles Deleuze, *The Logic of Sense* (London: Continuum, 2011).

13 Maurizio Sacripanti, "Sulla Linguistica Architettonica", *L'Architettura. Cronache e Storia*, no. 230 (1974).

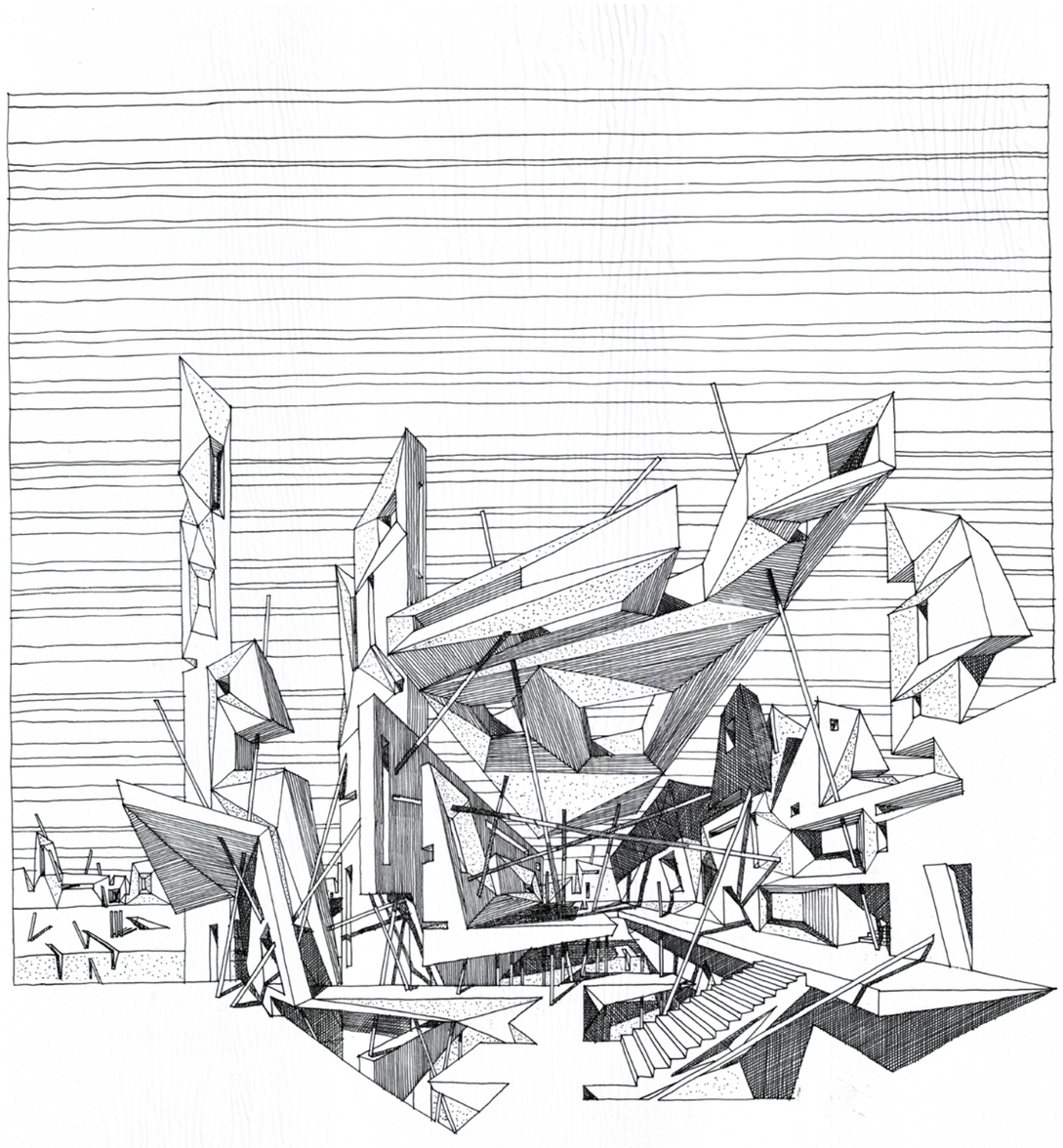


Fig.4 - Nuovi mondi 4, 2021,
[Ink drawing on glossy paper, 620x620cm].

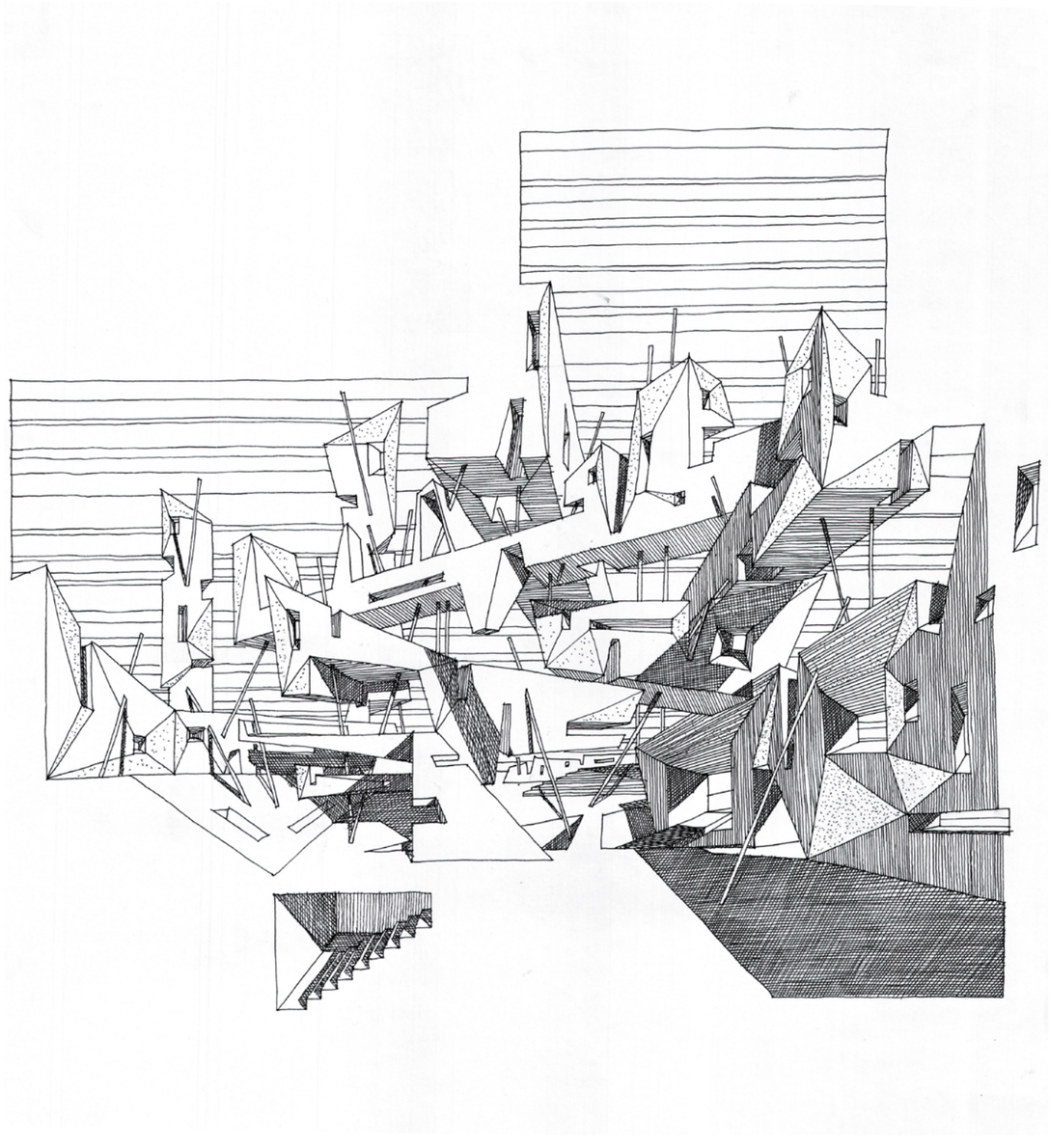


Fig.5 - Nuovi mondi 5, 2021,
[Ink drawing on glossy paper, 580x580cm].

Wasteland-scape
In search of an archetype

CAROLE LÉVESQUE

It is generally agreed upon that what we commonly refer to as wasteland, or *terrain vague*, is an empty place devoid of meaning, activities, construction or determination. It is a place in waiting, whose nature and purpose are ambiguous, and where memory and nostalgia seem to hover above its present state of abandonment. They are places withdrawn from productivity, allowing vagrancy and strange encounters to take place. Whatever their nature, size or precise location, these places appear as counter-images to the ideal city, dotting any urban territory with uncertainty. This is a common description through which the idea and presence of the wasteland is thought about, usually placed outside of "real" urban considerations, as if they were unworthy, dislocated from the main body of the city. Yet, terrains vagues form a territory simultaneously produced and denied by the economic forces that act upon the city, in direct link to its development. If they are not detailed on maps,[1] if they may seem like simple stretches of green grass from afar[2] or if we have not granted them an official role in the proper use of the city,[3] they nevertheless form a unity that could be described as alternative, a landscape to which the dictionary's definition of territory as "a whole forming a coherent unit" could be applied. While it is tempting to think of wasteland as nothing more than voids in the urban fabric, an in-depth study of the landscape they outline paints a detailed portrait which challenges the illusion of a total and controlled hold on urban territory by normative production. As such, their careful study calls into question the processes that led to their neglect as well as the processes that may now be used to take advantage of their apparent availability. It also reveals a landscape where spontaneity, wilderness and uncalculated transformations force two seemingly unreconcilable discourses—the informal and the normative—to accept their coexistence and co-dependence.

While terrains vagues are most often avoided in our daily experience, their condition has been a subject of interest in many fields, from urban studies and design to citizen-led appropriation and artistic practices. The deindustrialisation of European and North American cities from the 1980s on, which left large swaths of industrial lands empty but to a scale and in such a state that their rehabilitation would prove quite difficult and lengthy, surely played a role in sparking this interest. One of the major voices in the critical discourse on terrain vague is Ignasi de Solà-Morales who, in 1994, presented at the Canadian Center for Architecture in Montreal, during the 4th Any conference,[4] a contribution that would be published the following year in *Anyplace*, titled "Terrain Vague".[5] He proposed that terrain vague was the best expression to name abandoned areas in the post-industrial city and that terrains vagues formed an urban condition that reflected our discomfort with strangeness as if it showed our incapacity to complete our relentless efforts to build the perfect city.

Many authors, architects and artists followed and paid close attention to the terrain vague, trying to better grasp, define specificities and seek, in a way, its "true" nature or definition. While most contemporary authors and practitioners interested in terrain vague reference Solà-Morales as the initiator of the discourse and naming of the condition, Solà-Morales did not invent the expression, nor was he the first to see within it a place from which to question or analyse urban conditions and development. However important his contribution may be in anchoring the contemporary discourse on terrain vague, a pivotal point perhaps, looking back, beyond 1994, we find that the condition described by Solà-Morales not only existed but was talked about in similar terms in literature, philosophy, urban studies, cinema and photography, i.e. as a physical witness to more abstract urban processes from which to reflect on the rise and fall of the city. The 1960 film *Terrain vague* by Marcel Carné or Man Ray's 1932 photograph titled *Terrain vague* are well known examples of works that address desolate urban conditions

1 Philippe Vasset, *Un livre blanc: récit avec cartes* (Paris: Fayard, 2007).

2 Alan Berger, *Drosscape: Wasting Land in Urban America* (New York: Princeton Architectural Press, 2007).

3 Gil Doron, "The Dead Zone and the Architecture of Transgression", *City: Analysis of Urban Trends, Culture, Theory, Policy, Action*, 4, no. 2 (2000): 247-263.

4 The Anyone Corporation, founded in 1990 by Peter Eisenman, Cynthia Davidson, Arata Isozaki and Ignasi de Solà-Morales Rubió, sought to stimulate a new theoretical discourse at the dawn of the new Millennium. Amidst their various activities, 10 conferences were held in 10 different cities from 1991 to 2001 and the conference themes were derived from compound words formed with the prefix "any": Anyone, Anywhere, Anyway, Anyplace, Anywise, Anybody, Anyhow, Anytime, Anymore and Anything.

5 Ignasi de Solà-Morales Rubió, "Terrain vague", in *Anyplace*, ed. Cynthia Davidson (Cambridge, MA: MIT Press, 1995).



Fig.1 - Roman Forum, photocollage seen from the Tabularium, 2019.
All photocollages, sketches and drawings by the author

and, accordingly, reflect upon the state of urban areas and the conditions that may have led to their state. The earliest use of the expression terrain vague in literature might be from Châteaubriand in *Génie du christianisme*, published in 1802, where he describes a fallen monument in Greece.[6] For their part, French dictionaries give examples as early as 1250 where the use of the term, or in some variation, describes derelict houses, land that should be built on or land that is not in the care of a landowner and is left to poor farmers for their cattle to graze. Research in other languages would most likely show similar expressions describing similar conditions.

The Rome project shown here started off on the idea that if it might be possible to pinpoint the earliest occurrence of the expression, there might also be a possibility to pinpoint the very first terrain vague, a first condition of urban abandonment that might have slowly blossomed into our contemporary interest of the derelict, the source of all terrains vagues, an archetype.

While literature and dictionaries are of good help to demonstrate the long use of the expression in its multiple variations, it is unclear whether the terrain vague was seen, let's say in the Middle Ages, as a place from which to build a critical reasoning about the city. An incursion into paintings, drawings and etchings becomes necessary to achieve a visualization of this reasoning as these works of art are evidence of the interest sparked by dereliction beyond descriptions found in dictionaries and other texts. The first evidence of terrain vague arguably appears within the development of European landscape painting in the 16th century. Without going into details about the emergence of landscape paintings, it is largely agreed upon that landscape first appeared through the windows of Flemish paintings, to eventually become a genre of its own in the 16th century.[7] Initially painted as the backdrop of various scenes, whether religious or pageant, landscape was eventually developed as its own object of representation and most often included ruins overtaken by vegetation, uninhabited land and other such manifestations that might share similarities with today's terrain vague. While the word *paysage* was initially included in 17th century dictionaries to name a painting representing a natural scene as opposed to the scene itself as it might have existed for the painter to paint, Diderot's encyclopedia of 1751 defined it more precisely as a representation that included

6 "Most concessions made to monasteries in the early centuries of the Church were vacant (vague) lands, which the monks cultivated with their own hands." Author's translation: "La plupart des concessions faites aux monastères dans les premiers siècles de l'Église étaient des terres vagues, que les moines cultivaient de leurs propres mains." François-René de Châteaubriand, "Génie du christianisme", in *Essai sur les révolutions/Génie du christianisme* (Paris: Gallimard, 1978 (1802)), Livre 6, 1054.

7 This emergence of landscape painting is relative to the Occidental tradition. Other cultures have a longer tradition of landscape representation, in China for instance, though the motifs are quite different. For more details about the Chinese tradition, see James Cahill, *Chinese Painting* (Geneva: Albert Skira, 1960).

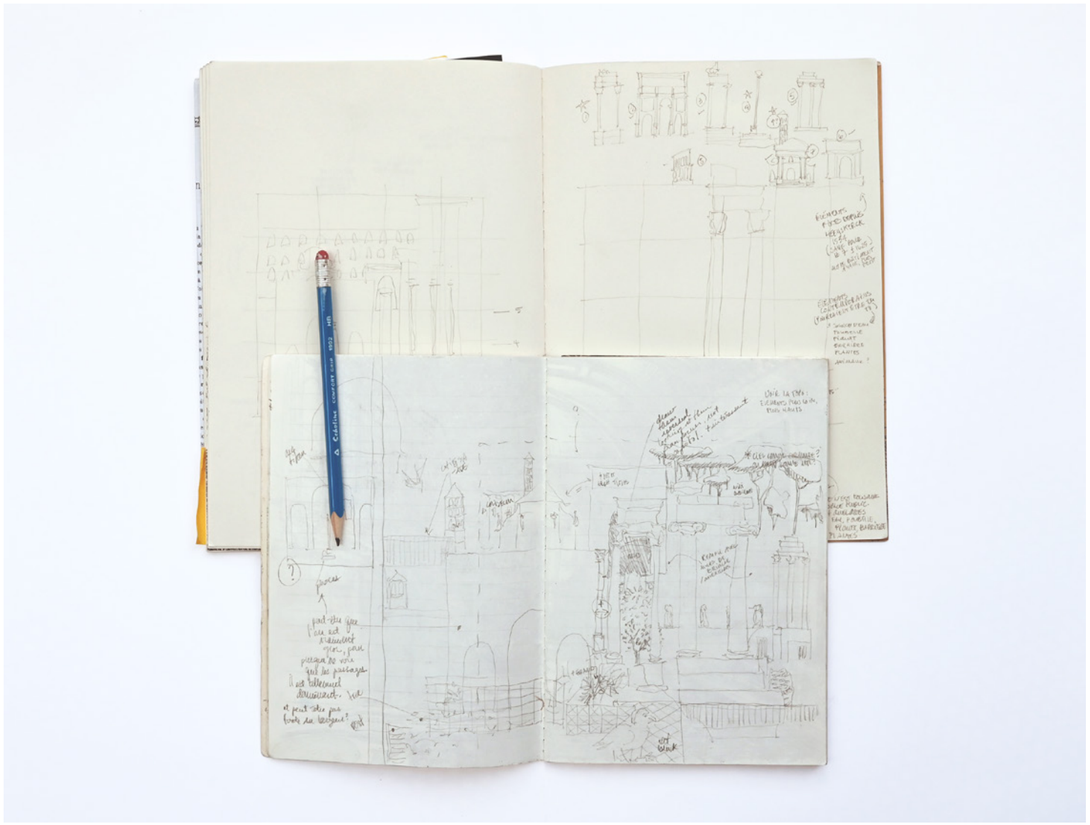


Fig.2 - Foro Romano. Par la force des choses.
Ink on paper, 120cm X 120cm. Initial sketches.

uncultured and uninhabited land.[8] There thus seems to be a very close connection, a reciprocity, even, between what we consider to be a landscape, generally one that is based upon a harmonious composition and other aesthetical characteristics that help us, still today, to collectively agree on what might be considered a "good" landscape and the terrain vague.

At the time when landscape painting was emerging as a pictorial genre, young aspiring artists would travel to Italy to learn from the masters and would eventually find their way to Rome. The city they found was much different than its glorious past of Antiquity. Indeed, Rome had drastically reduced in size and in population, most of which was settled around the bend of the river, leaving a large section of the once thriving inner-wall city to what had become known as the *disabitato*. This vast area, described as abandoned and unworthy of occupancy, a land wasted by conflicts, famine, illness and in some parts, repeated floodings, was filled with vine-covered ruins and was home to thieves and vagrants.[9] Tucked between the city and the disabitato as a gateway or safe transition between these neighbouring worlds, the Roman Forum was the perfect location from which to reminisce on the lost ideal of Antiquity and build a critical stance from which to reinvent an urban and landscape archetype. In 1448, after the Forum had been abandoned for nearly 700 years, Poggio Bracciolini described it as "deserted, a wasteland, victim of the malice of fortune."[10] Another century would pass before the first significant revival of the Roman Forum and so for 800 years,

8 "Landscapes sometimes depict uncultivated and uninhabited sites, to give us the freedom to paint the bizarre effects of nature left to its own devices, and the confused, irregular productions of an uncultivated land." Author's translation: "On représente quelquefois dans des paysages des sites incultes et inhabités, pour avoir la liberté de peindre les bizarres effets de la nature livrée à elle-même, et les productions confuses et irrégulières d'une terre inculte." Citation from the entry "*paysage*" in Denis Diderot and Jean le Rond d'Alembert, *Encyclopédie ou Dictionnaire raisonné des sciences, des arts et des métiers* (1751-1772).

9 For a more detailed description of the *disabitato*, see Richard Krautheimer, *Rome, Portrait of a City, 312-1308* (Princeton, NJ: Princeton University Press, 1980).



Fig.3 - Foro Romano. Par la force des choses.
Ink on paper, 120cm X 120cm.Graphite under-drawings.

the Forum would be left to ruin, in times inhabited by various families and their clans or by religious groups providing for the poor. From the early 16th century and well into the 18th century, the Forum was also known as the *Campo Vaccino*, or the "cow field", a well-suited name for a field now at the edge of the city where cattle would be taken to graze, a terrain one would have qualified as vague during the Middle Ages.

It is gripping to think that what was once the centre of the Roman Empire, a public place in its truest sense, could be left to ruin for so long, its monuments pillaged and turned into a quarry. This odd situation, where a self-defining landscape had become the most telling witness to the rise and fall of an empire, surely played a role in attracting painters from all corners of Europe to paint the Roman Forum. The converging of landscape and its representation with the receding of Rome and the decrepit state of the Forum now on the outskirt of the city, appeared to me as the archetype I had been looking for, as an important demonstration of the collaboration between what would become our appreciation of a good landscape and what we name terrain vague as two inseparable elements.

To test out this hypothesis, I inventoried an important number of drawings, engravings and paintings of the Roman Forum from its earliest representations in the 16th century to the mid-19th century when serious excavations began. Through making this inventory, a group of representations began to gather, representations where artists, aspiring as well as established ones, over 300 years, drew and painted the Forum from a very similar point of view, that is from the Capitoline Hill looking towards the Colosseum and the disabitato. In accordance with my hypothesis stated above, a good number of artists were indeed engaged in thinking about what makes for a good landscape while sitting at the edge of the city, looking towards the uninhabited and over the fallen centre of the Roman Empire.

I travelled to Rome in the fall of 2019 to draw the Roman Forum in its current state. Of course, one would not call the Roman Forum a terrain vague anymore, but I wanted to find its "terrain vagueness" through drawing and place myself in dialogue with these artists who sought to find a good landscape amongst a wasteland. I inventoried the monuments and their location in the different paintings[11] and went on the Capitoline Hill to draw the Forum in its current state.

I always begin a drawing by spending long hours walking on site, taking the necessary time to understand what is at play, how the light travels, what animal life may be present and so on. Walking and close observing are intrinsic to my way of drawing: the idea of the drawing is formed as I walk and observe. I also photograph just about everything, from monumental façades to fallen stones, plants and insects, textures, markings, etc. All the gathered evidence becomes the material with which the drawing is filled. Initial sketches are made on site and subsequent sketches, larger each time, are done off site, but subsequent visits allow to confirm certain drawing decisions.

I work on my drawings free hand and in compositional terms, in the same way as I would a building façade, i.e. seeking a balance between masses, voids, openings, density and proportions. I like the drawings to be large enough to require stepping back to see the whole and detailed enough to require coming almost nose-to-nose with the drawing to grasp the smaller elements of the composition. It becomes a matter of looking at the drawing as if walking in the real world, between near and far. This movement is also found in the very construction of the drawing: details accumulate, accidents occur, and I try to find how the drawing can finally build an experience similar to that of wandering.

I also draw in elevation, avoiding any perspective. It is only through the change of scales and density of ink that depth appears and that the illusion of looking through a landscape becomes apparent. By eliminating the perspective, I also eliminate the ideal point of view, leaving the viewer to wonder what might be behind, or what might be revealed if one looked sideways. In this way, the site is flattened into a two-dimensional composition in which monuments, flora and

10 Author's translation: "Contemple tour à tour les collines de la ville : tout, tu le verras, y est vide d'édifices et rempli de ruines et de vignes. Le Forum, l'endroit le plus fréquenté de la ville (…) (le) voilà désert, en friche, victime de la malveillance de la fortune : (il) abrite des porcs et des bœufs, [le Comitium] est voué à la culture des légumes." Poggio Bracciolini, *Les ruines de Rome. De varietate fortunae. Livre 1* (Paris: Soc. d'éd. Les Belles Lettres, 1999 (1447)), 38.

11 It must be pointed out that the inventory showed that monuments were not always represented in the same location, some monuments were sometimes omitted or changed scale from one painting to the next.

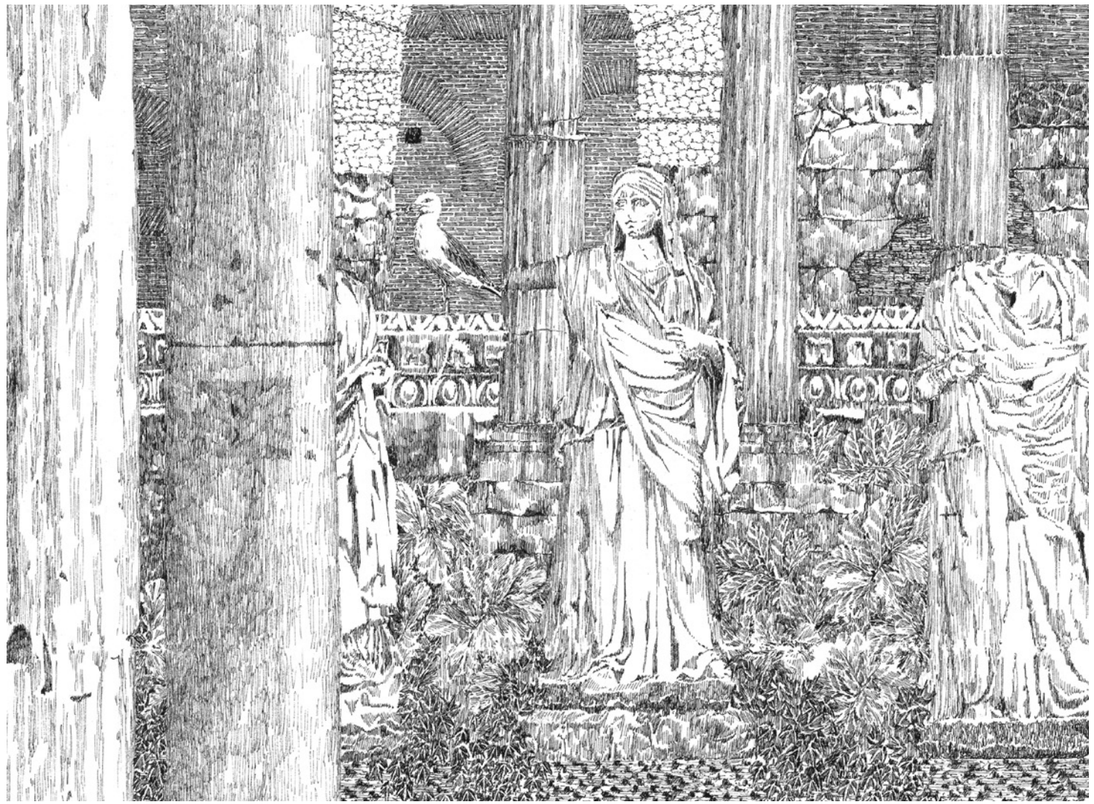


Fig.4 - Foro Romano. Par la force des choses.
Ink on paper, 120cm X 120cm.Detail.

fauna take on various scales, producing a view unreconcilable with the Forum's current state as an archeological site and touristic destination. The resulting collage-like drawing allows to view once again the Roman Forum as a place from which to engage a critical reflection on the rise and fall of cities—this time in our contemporary situation—on the places we wish to control and on those we demolish and work so hard to fill again. The drawing, as the archetype, becomes the site from which to draw out other terrains vagues and to better understand the characteristics that define their truest sense.

What can be derived from this exercise is that despite our efforts to produce or represent what might be thought of as an acceptable landscape, wasteland is never far behind. In fact, terrains vagues are palimpsests where the derelict seeps through our idea of a good landscape. As if imbued with agency, they challenge the normative views we construct about urban appropriateness by showing that control is not always in our hands. The drawing of the Roman Forum attempts to make this challenge visible by engaging a close and continuous dialogue between a site that is revered, maintained and protected, and the indications that its state of dereliction is still lingering. Between wasteland and landscape, the bridge is not very long to cross.

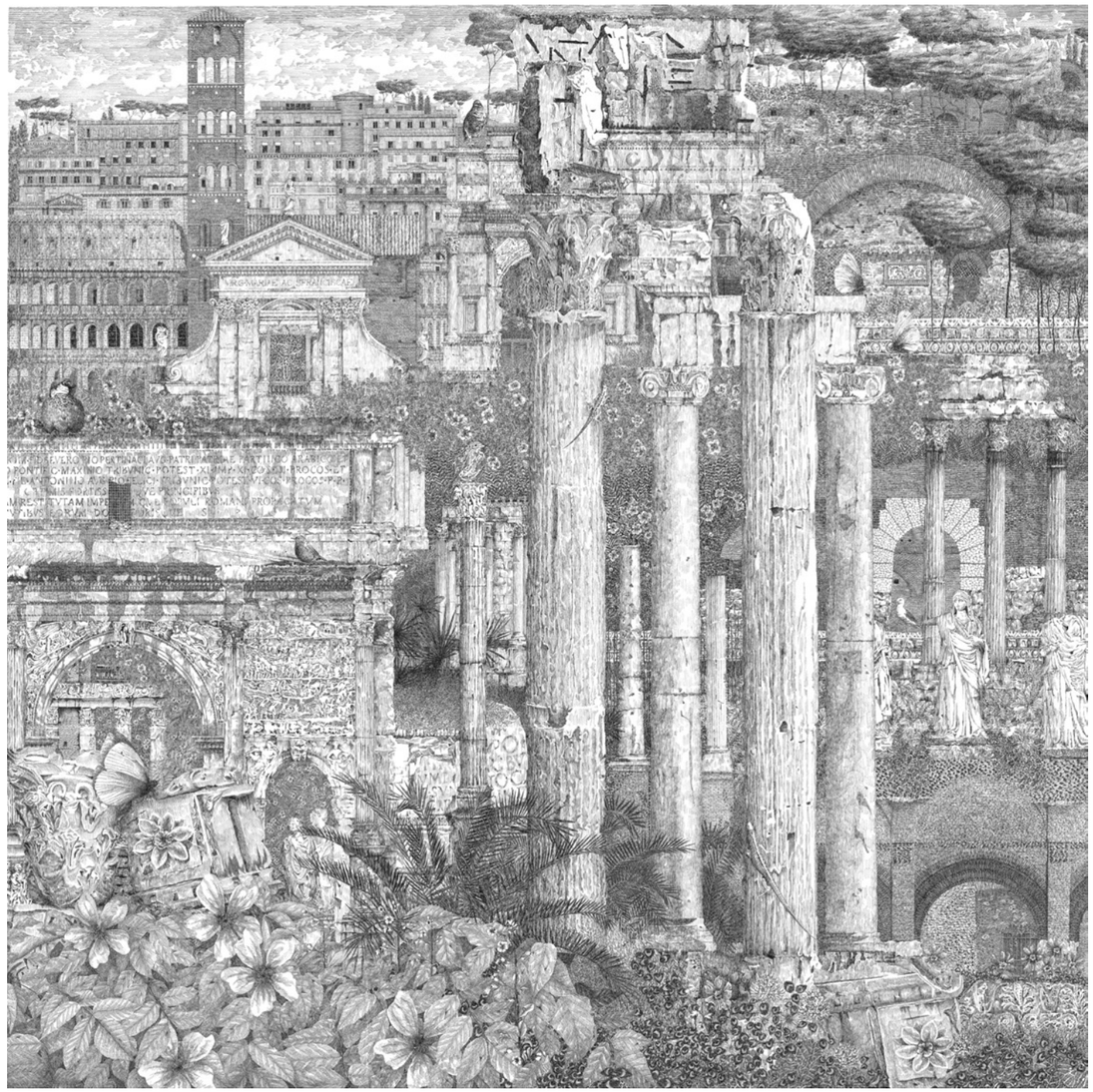


Fig.5 - Foro Romano. Par la force des choses.
Ink on paper, 120cm X 120cm.

Joël Nadeau-Gauthier
Denis Lahaie
Vincent Perron
Jerome Tryon
Carla Aramouny
Samantha Lynch
Thomas-Bernard Kenniff

Time

Inquiry

Dialogue

Materiality

Les Pleureuses
Drawings of territorial ghosts

JOËL NADEAU-GAUTHIER, DENIS LAHAIE and VINCENT PERRON

> "Ed: Do you own a video camera?
> Wife: No, Fred hates cameras
> Fred: I like to remember things my own way...
> Ed: What do you mean by that?
> Fred: How I remember them... not necessarily how they happened."[1]

In May 2020, our collective began a research project in the Bas-St-Laurent region of eastern Québec. We wanted to document and experience the territory, the inhabited as well as the built environment, to lay the foundations for a consideration of the ways in which we apprehend the territory: How do individuals identify with the territory and, conversely, how do these individual identities forge a regional one?

We turned our attention to buildings that dot the landscape: barns, factories, silos (fig. 1). The familiarity of these structures—static witnesses to a changing landscape—has relegated them to mere banal objects, to the point that they have become invisible to most. Despite their invisibility, they point toward a collective imagination. Disused for decades, but present in our minds, these architectural objects became the graphic laboratory of our obsessions. Images conjured in their presence awaken feelings of nostalgia, an attraction to the untouchable. Considered as cinematic and poetic entities, they are bearers of untold stories.

Like urban wastelands or industrial ruins, these regional buildings are the scene of a specific space-time. They place before us a sense of eternal presence, reminding us both of something long gone and of something waiting to happen. Lingering in this everlasting present, they call for slowness, giving importance to places where nothing ever seems to happen. More than symbols of a past way of life, they require us to consider them as true objects of research.

> "Perhaps the observation of things has remained my most important formal education: for observation later becomes transformed into memories. Now I seem to see all the things I have observed arranged like tools in a neat row; they are aligned as in a botanical chart, or a catalog, or a dictionary. But this catalog, lying somewhere between imagination and memory, is not neutral; it always reappears in several objects and constitutes their deformation and, in some way, their evolution."[2]

The ambition of this study was not simply to create an inventory or interpretation of these buildings but to capture the intangible and celebrate their death. As their inevitable demise approaches, time is running out to capture their last breath. As if in a funeral ritual, we sought to create a collective event, one that would symbolically root the territory's history in place. By celebrating this loss, could we generate new ways for appropriating them? Could we define ritualization in such a way that it could be integrated into a drawing process?

> "Many anthropologists see funeral rites as one of the clues, if not the only clue, of the passage from animality to humanity. Making death not a spectacle, but a codified social and collective event, enables us to root our own history and that of the deceased in a generational chain; in the same way, the institutional structures of rituality, without which the rite would be no more than a personal rambling or an intimate ceremonial, turn death into a story that can be shared, and thus inserted into a history in which humans have their place."[3]

1 *Lost Highway*, dir. by David Lynch (Ciby 2000/Asymmetrical Productions, 1997), 24:17–24:43.

2 Aldo Rossi, *A Scientific Autobiography* (Cambridge, MA: MIT Press, 1984), 23.

3 Philippe Di Folco, *Dictionnaire de la mort* (Paris: Larousse, 2010), 807. The original French reads: "Nombre d'anthropologues font-ils du rite funéraire l'un des indices, voire l'indice à lui seul, du passage de l'animalité à l'humanité. Faire de la mort, non un spectacle, mais un événement social et collectif codifié, permet en effet d'enraciner sa propre histoire et celle du défunt dans une chaîne générationnelle ; de la même manière, les structures institutionnelles de la ritualité, sans lequel le rite ne serait tout au plus qu'une élucubration personnelle ou un cérémonial intime, permettent de faire de la mort un récit que l'on peut partager, donc insérer dans une histoire où l'humain a sa place." Translation by the editors.



Fig.1 - Grange abandonnée, St-Gabriel-de-Kamouraska.
Photo par Joël Nadeau-Gauthier, 2021

The physical interventions on an abandoned building and the representational work with photographic collages of Gordon Matta-Clark's 1975 *Conical Intersect* offer an avenue for reflection. All that remains of this ephemeral intervention is its documentation, which both represents and misrepresents reality. Through this balancing act, memories of the place and the intervention are transposed into the present. Does this work come close to a form of ritualization, to a passage from an experienced reality to a reconstructed memory? Could drawing, like Matta-Clark's collages, become a form of ritualization and claim to enrich collective memory? The idea here is to use drawing to initiate the creation of rituals to enrich our heritage. Given that the intervention informs reality, and reality in turn informs the drawing, what realities should be entertained? What are the limits of the territory represented?

After two years of surveying the territory, we moved into a studio for three months during the summer of 2022. To highlight the disappearance of these regional buildings, we engaged in a dialogue between memories, places and stories to develop a polyphonic pictorial work. We wanted to explore how blurring the spatial boundaries of the drawing, the studio and the territory could provoke a new interpretation, a new reflection. This chapter highlights three different forms of drawing through which we attempted this exploration: real or imagined histories, individual interpretations, and views of the landscape as they collide, contaminate and dislocate each other (fig. 2). The drawings present an altered reality while evoking and questioning the real relationship between these architectural archetypes and their designs.

The documentation of places is not tangible

> "One of the purposes of representation is to edit the contingencies of reality in order to produce a clear ideogram of it."[4]

> "Reality is what our imagination perceives it to be. In a general sense, an image describes a set of facts in such a way that the same visual perception is connected with the conditions as with the image itself."[5]

Many reports, inventories, directories, articles and censuses of agricultural heritage exist, highlighting its possible disappearance or the desire to preserve it. But when it comes to producing a typological enumeration and counting, a problem arises: the dichotomy between the objective documentation, which may well lead to a form of museumification, and the human experience, which most often leads to a form of nostalgic preservation, renders the definition of a collective heritage difficult to achieve, if not impossible. Confusion between purely aesthetic characteristics of buildings and the memory of past events associated with them creates a divide within the documentation effort.



Fig.2 - Workshop, St-Pascal.
Photo by Joël Nadeau-Gauthier, 2022

4 Yeoryia Manolopoulou, *Architectures of Chance* (Farnham, UK: Ashgate, 2013), 170.

5 O. M. Ungers, *Morphologie: City Metaphors* (New York: Walther König, 2011), 10.



Fig.3 - Mourning 1/3, 34" x 48" black pigment on bituminous wood fibre board.
Drawing by Denis Lahaie, 2022

Our exploratory performance began with the confrontation between the documented buildings and our imagination, in a form of reinterpretation of history where the vagaries of our more or less faithful memories could play. Within the limits of the tangible, the drawings seek to demonstrate that the materialisation of variations between real and imagined is just as meaningful and evocative as reality. The result is not intended to freeze buildings in their exact representation, nor to recall their use. Rather, the drawings aim to present these objects of the landscape in relation to temporality, vestiges, and materials, and to accept their inaccuracies and chronological errors. By appropriating conventional architectural representation, they highlight the tension between fiction and reality.

Representation and the loss of data

Representation: The depiction of an object or an abstract thing by means of an image, a sign, etc.; an image or sign that represents.[6]

> "The consciousness that catches the reality through sensuous perception and imagination is the real creative process because it achieves a higher degree of order than the simplistic method of testing, recording, proving and controlling."[7]

> "Photographic culture is now an integral part of consciousness. Not only is the gaze, as a gesture, formed by the photographic image—I look at a place and see a photograph or a photograph and see a place—but the notion of place is now conditioned by the photographic process."[8]

To integrate these buildings into the drawing process, as a metaphor for funeral rituals, is to underline their disappearance while acknowledging their existence and their history. How do you remember something if the vagueness of a memory becomes the only projected reality?

A memory is something that belongs to a past experience. The precision of this experience largely depends on the space-time granted between the body and the place, the wandering of the gaze and the experience of an event associated with it.

A first observation emerges from this research. The appropriation of the landscape by the automobile has altered the physical and memorial experience of the territory. Its scale rarely, if ever, gives pedestrians the opportunity to wander in it and thus creates a more rapid space-time relationship. This dissociation of the body from its surroundings produces a fragmented pictorial memory, in which imprecise images are superimposed on each other. Over time, mental maps and the imprecise reconstruction of architectural archetypes take shape in our failing memories and intuitions, leading to a form of reconstructed absence.

What might happen if this failing was willingly integrated within a representation? Our drawings attempt to capture such a fragmentation of memory as single images remain in our heads the instant we blink: drawing a whisper, a blurred impression that slowly dissociates from what we have just glimpsed. The drawings evoke the uncontrolled loss of information (fig. 3) and call for their own disappearance. The distinction between the presented and the represented is materialized as drawings no longer have spatial or temporal references. Drawings fade away, leaving all the space to the observer to recreate his or her own conception of reality in an elusive sensation, a sense of something strangely familiar. Drawings evoke more than they dictate as they deliberately attempt to fade away so as to allow for an even more subtle impression of slow disappearance to take place. It is the expression of an unattainable event, a mirage, a breath, an ethereal reflection.

Territory and immediate context

> "The viewing subject of architecture is not just the observer of an object focused as an image and arrayed before him or her on the plane of perception. Rather, the subject is also produced by the architecture, in the moment of encounter, inasmuch as the architecture [...] exerts a defining, identifying force back on the subject."[9]

The tools used for documenting, such as maps and photographic archives, are a form of "absolute reality". They are the references with which we forge both our memory and present experience. We scrutinize these familiar tools slowly, preciously: they are references, but they also are objects of discovery, of fundamental proof that the world exists beyond the everyday landscape. Transgressing the tangible value of these tools becomes interesting. As such, drawing on official maps of the studied territory allows us to bring into juxtaposition the scale of the territory and the disappearance of the fragments that produce it, engaging in a dichotomy between the absolute and its interpretation (fig. 4).

> "According to Bergson, intuition is knowledge in action; the direct and willed perception of reality, and a method of doing and thinking in tune with the flow of events. This intuition resists abstract intellectual concepts which tend to simplify reality and fix reductive meanings about it."[10]

6 *Dictionnaire Français Larousse*, ed. 1995, "Représentation". The original French reads: "Fait de rendre sensible (un objet, une chose abstraite) au moyen d'une image, d'un signe, etc.; image, signe qui représente." Translation by the editors.

7 Ungers, *Morphologie*, 8.

8 Pierre Landry et al, *Melvin Charney*, (Montreal: Musée d'art contemporain, 2002), 126. The original French reads: "La culture photographique fait maintenant partie intégrante de la conscience. Non seulement le regard, comme geste, est-il formé par l'image photographique - je regarde un lieu et vois une photographie ou une photographie et vois un lieu -, mais la notion de lieu est maintenant conditionnée par le processus photographique." Translation by the editors.

9 K. Michael Hays, *Architecture's Desire: Reading the Late Avant-Garde* (Cambridge, MA: MIT Press, 2010), 63.

10 Manolopoulou, *Architectures of Chance*, 116.

In combining and intersecting lines, contradictions between space, time, reality, subject and scale form a new narrative framework. The drawings enter into conversation with the map, while common references are pushed to the background yet allow the observer to maintain a bridge between the imaginary and his or her own position in the world. The elements drawn create a tension between the codified complexity of the landscape and the representation of these fragments. Vanished, crumbled, non-existent, they are the result of the transposition of body and frame, an expression generated by the imaginary. The entire mapped territory creates a new territorial narrative in which history, architecture and imagined narratives are brought together with rational, conventional representation.

Buildings as analogies

Does it matter if the drawing of a building came from an image, a memory—ours or someone else's—or from the imagination? What if a drawing had no specific intention other than to lose itself in its own representation? Drawings in figure 5 document regional archetypes and were informed by the context of the authors and of the studio in which they were produced. Systematically confronted with past interventions, their production slowly moved away from uncertainty, as the production context slowly became the drawing itself, increasing in clarity as it took shape. The continuous process of drawing became the only real context. The act of drawing turned into a reflection on itself. Following our wanderings in the territory, and drawing without any stated intentions, we reached a combination of experience, memory and reality. Our process began with a vague intention and left space for time to act, line by line, and to define what would come next. Since the drawing was guided by the author's intuition and attempted to represent a moment in the surrounding territory, the drawing is not a mere representation; it is part of the territory. As Peter Eisenman explains of Aldo Rossi's drawings in *Analogous City*:

> "The analogous drawing embodies a changed condition of representation; it exists as the record of its own history. Thus, Rossi's drawings of the city, giving form to their own history, become part of the city, not just a representation of it."[11]

Once one's obsessions are materialized in a drawing and intertwined with memories, territory and buildings, the drawing renders its author's intuition in an abstract representation, a place where there is no end, no beginning, only the desire to remember, to anchor oneself in the territory, and to create a ritual. There are no more demarcations between what is fiction and what is real. One must accept the accidental, incomplete and informal aspects of the drawings, and see them as a temporary aim. It sometimes seems that such drawings draw us in so convincingly that we are tempted to accept them as perhaps more real than what we know or perceive as reality.



Fig.4 - Fragment 1/9, 19.5" x 27.5" Ink and black pigment on printed map.
Drawing by Joël Nadeau-Gauthier, 2022

Conclusion

> "It is rather that drawing is the necessary vehicle of imagination, symbolization, and self-reflection in architecture, analogous to writing in language; drawing is perhaps the necessary medium of critical architecture."[12]

Claude Gauvreau, a Québec poet writing within the Automatism movement of the 1950s and 1960s, developed his own form of language for some of his poems and plays. Distorting and deconstructing the French language to breathe new meaning into it, he defined his language as *exploréen*, a term that expresses a firm conviction that words can be invented if they enrich a language.[13] This statement resonates with the purpose of our work. It also restates our intention (or claim) to create stories around buildings, ruins, our territory, in an attempt to enrich our collective history. Drawings ritualized in this way generate new ways of giving meaning to territorial considerations. The durability of memory, in terms of built heritage, rests on the representations created, ready to be distorted and reinterpreted. It is a question of appropriating the territory, giving it meaning and, to a large extent, reaffirming our attachment to the places and people who inhabit it.

11 Aldo Rossi, *The Architecture of the City* (Cambridge, MA: MIT Press, 1982), 10.

12 Hays, *Architecture's Desire*, 63.

13 *Claude Gauvreau - Poète*, dir. Jean-Claude Labrecque, (Montreal: National Film Board of Canada, 1974), 15:40 to 15:51.

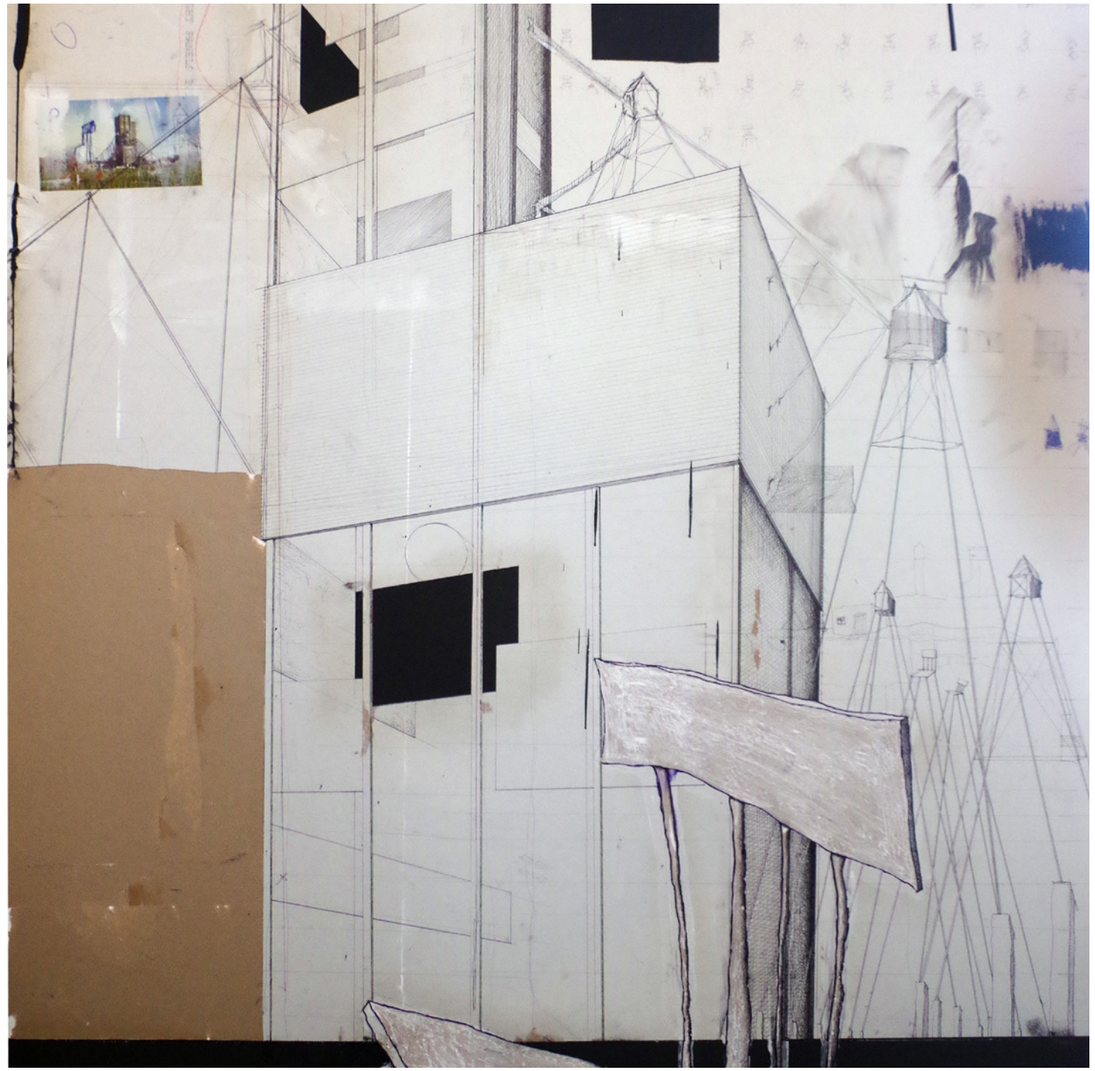


Fig.5 - Fantaisies 1/3, 48" x 96", Ink, black pigment and collage on gypsum board.
Drawing by Vincent Perron, 2022

Sites of Memory
Explorations into the relationship between drawing and memory

JEROME TRYON

Memory and the act of drawing have a complex relationship. Associating drawing and memory often evokes vague assumptions about nostalgia. However, the subject of memory is broader than the act of remembering. According to contemporary neuroscience, memory, along with sensory input, actively shapes real-time perception.[1] If the act of drawing is added to the mix, memory shapes the perception of what is being created in a drawing as it is created. For the designer who draws, memory is present in the design process and actively influences creative imagination.

This chapter outlines a speculative drawing process meant to engage memory and explore a new approach to drawing as a generative approach in a design process. For this process, drawings are the method of research; however, they are only half of the object of study. Drawings are the site of memory—where memory is used to generate perception and ideas in the drawing process, but memory itself remains in the mind. Therefore, the drawings can only be partial evidence. Even though drawings are translations of memory, drawing remains one of the most reliable means of recording this translation as the path from mind to hand to paper requires minimal mediation.

Although ideas about what memory is and how it can be defined vary greatly, the paraphrase of Aristotle's position by Helen S. Lang most closely describes my approach to memory in this work. "Memory relates a present image to an absent object of past experience."[2] According to this Aristotelian description, memory can only take place in the mind. Neither drawings nor texts nor photos are memory; they are instead mediums used to convey knowledge or cue memory, but they are not memory itself. Memory can be used to create these types of media, but the use of memory does not cause their creation to become memory. However, the act of cuing memory by drawing quickly transitions into an active use of memory in idea generation.

In the process of drawing, it is important to note that the ambiguity at the start of a drawing is an activator of the brain's complex modes of perception. In his classic book, *Art and Visual Perception*, Rudolph Arnheim asserts that lines have inherent 3D readings.[3] The 3D reading of lines on a page is often especially apparent at the beginning of a drawing. These lines will have independent and conflicting spatial frameworks associated with them which allows a myriad of possible readings of a drawing. However, as the subject of the drawing is worked out, an overall spatial framework will typically subsume most elements in the drawing. The mind of the beholder of a drawing not only processes the subject matter of the drawing, but also associates all elements of the drawing with their own memories and experiences. The art critic and historian Ernst Gombrich noted that every viewer completes the images they see according to their memory and experiences, famously naming this phenomenon "the beholder's share." According to Gombrich, the brain makes use of memory to shape expectation and perception so that the beholder's brain finishes the work that they view.[4]

As Gombrich proposes in his description of the beholder's share, every time a drawing is viewed, it interacts with the memory of the beholder; this does not mean that the drawing itself contains memory, rather it triggers and orchestrates the memory already present in the viewer.[5] The image becomes the framework by which the viewer's memories operate to complete the image. For the purposes of my work, I call this moment of memory orchestration a *site of memory*. A site of memory is created at the moment when a viewer focuses on a work and their memories are called forward to complete their real-time perception of the work. In this instance, site is defined as a meeting point of entities rather than a fixed location, so that the site of memory takes place in perception, regardless of geographic location. Furthermore, although a site of memory can be passively observed, as when a viewer looks at an image, it can also be actively created, as when an artist creates an image. The drawing is the critical framework that holds the site of memory together.

1 Eric R. Kandel, *The Age of Insight* (New York: Random House, 2012), chap. 14-16, Kindle.

2 Helen S. Lang, "On Memory: Aristotle's Corrections of Plato", *Journal of the History of Philosophy* (October 1980): Periodicals Archive Online, 379.

3 Rudolf Arnheim, *Art and Visual Perception* (Berkeley; Los Angeles, CA: University of California Press, 1974), 218-303.

4 Kandel, *The Age of Insight*, chap. 11, 24.

5 Kandel, *The Age of Insight*, chap. 11, 24.

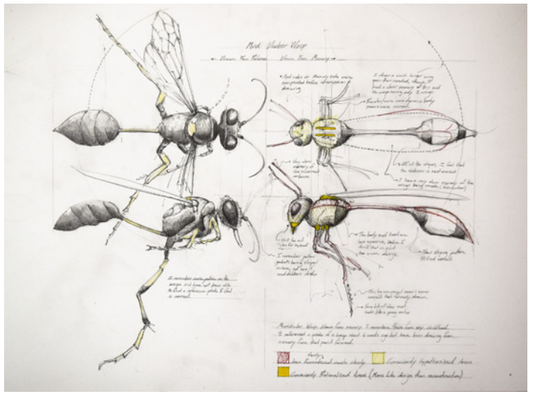


Fig.1 - Contrasting approaches to the use of architectural conventions as the system by which memory is translated to the framework of the page. The drawing above was completed at the end of an initial series of drawings in which the wasp was iteratively drawn from memory without a reference. The compilation of those drawings is shown on the right while a drawing from the actual reference of a wasp is shown on the left.

The site of memory is a two-fold entity. One part is the creator of the drawing, the other is the drawing itself. As Gombrich describes, the beholder's share completes an image,[6] and according to Kandel, the more art one looks at, the more robust this beholder's share becomes, allowing one who studies art to have a more robust capacity for the beholder's share and the ability to ascribe meaning to more abstract works.[7] It would seem to follow that designers, who use drawings as a means of expressing and finding their ideas, would have the ability to see deep into their drawing, exploring the ideas they intend to express and also allowing the drawing to become a framework for their memories. This depth infuses their work with the unexpected possibilities brought out by the drawing process.

Although the brain is actively engaged in the process of perception in almost all circumstances, what makes drawing unique is the way in which it unfolds. Elements are created in real-time and generate shifting possibilities for the association of memories. Lines, surfaces, and shadows are at once 2D marks on a page and seen as 3D elements within the pictorial space of the page.[8] This makes drawings dynamic when they are viewed and substantially more so when they are created. A drawing process that embraces the generative influxes of memory moves away from the separation of ideation and creation and attempts to merge both processes into the single act of idea creation through drawing. In the process of creating a drawing, the designer can steer the reading and content of their work. When a drawing is understood as a site of memory, it becomes a search for what can be seen, what can be remembered, and what can be imagined rather than the rote documentation of an idea.

My explorations into using memory as a generative tool in design are tied to a drawing series of more than sixty images created by a process of iteratively drawing from memory and incrementally checking the drawings against a reference. Through this series, the tensions and contradictions present in the drawings from memory were noted, and a speculative approach to reshaping the memory associated with the drawings was developed.

To draw from memory is to engage eidetic memory. Eidetic memory is a type of working memory. It is defined as the memory image that is preserved for a short time after observation.[9] For example, most people who see a physical object will have an image preserved in their memory of what the object and its surroundings looked like. This image may disappear after only a few seconds or be preserved for up to a few weeks. The image is stored in short-term memory, where it will eventually be discarded unless special significance is attributed to it, causing it to be retained in long-term memory.[10]

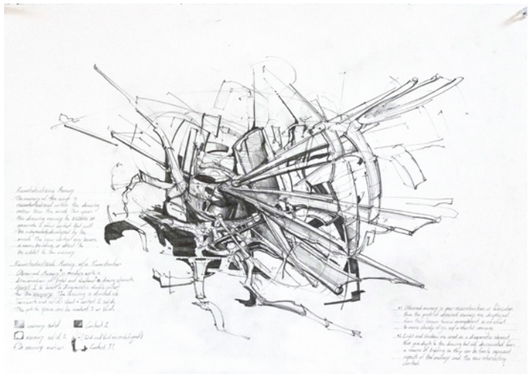


Fig.2 - This drawing was once again completed at the end of a secondary series of drawings, in which a wasp was referenced and then redrawn without a reference over a number of weeks. Through this series, the slippage of the original eidetic reference is apparent as the drawings became simultaneously more inventive and uncertain. The drawing was completed at the apex of uncertainty in the process yet still maintains a type of adherence to architectural drawing conventions.

6 Kandel, *The Age of Insight*, chap. 11, 24.

7 Kandel, *The Age of Insight*, chap. 17.

8 Arnheim, *Art and Visual Perception*, 234-235.

9 Leonard W. Doob, "Eidetic Imagery: A Cross-Cultural Will-O'-The-Wisp?", *Journal of Psychology* (May 1, 1966): 63, 1; Periodicals Archive Online, 13.

10 Kandel, *The Age of Insight*, chap. 14, 17.

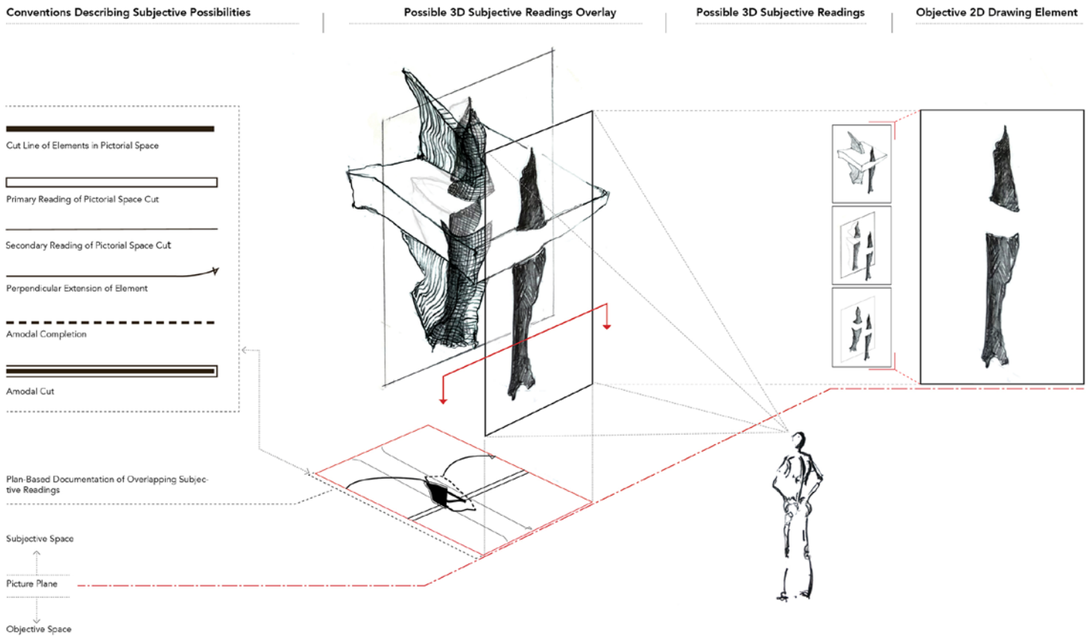


Fig.3 - Convention Establishment

In my work, I am proposing that making a series of drawings of the same object can be an action that not only forces that object into long-term memory, but can actually change the way that memory is perceived, used, and recalled. Drawings from memory record one translation of a memory image. However, the act of drawing and the drawing itself are also committed to memory when the drawing is produced. This cyclical process leads to the creation of a multi-faceted memory object which I call an eidetic object.

In my working process, an eidetic object is more than a simple memory image; it is made up of at least three parts. 1) Images, the visual translations of the object; 2) the intuition of what the object ought to be; and 3) movement, the ability to move around the object in the mind's eye. The eidetic object is an object of memory that defines a concept, event, location, object, idea, etc. Eidetic objects cannot be described by a single drawing. Instead, just as the individual lines of a poem can be combined in their reading to evoke an image that is greater than what has been written, so a series of drawings can work as a means of describing an eidetic object that exists as more than the sum of the drawn parts.

The description and manipulation of eidetic objects is nothing new. Because the vast majority of eidetic memories are forgotten within a few minutes of their entering short-term memory,[11] the art of redesigning eidetic memories to form eidetic objects so that they are retained in long-term memory has a long and rich tradition. In her book *The Art of Memory*, Frances Yates details the classical art of memory. Though the art form has spanned millennia and has many different manifestations and techniques, central to most methods is a redesign and re-contextualization of the eidetic image to add a memorable site and event-specific symbolism to aid in recall and interpretation.[12] The redesigning of eidetic images naturally works with the brain's process of ascribing significance to eidetic images and ensures that they are stored in the long-term memory.

To paraphrase Yates, who quotes from *Ad Herennium*, mnemonic images designed for memory recall should not be common or boring; instead, they should be made to be comical, frightening, beautiful or extraordinary in some manner so that they will be easily called to memory and not blend into the monotonous events of everyday life.[13] When considering an object of memory to study through a series of drawings, I found that from my own memory and experience the mud dauber wasp met Yates's criteria. Wasps can cause pain and evoke fear, but upon examination, they are also exquisitely beautiful. As real-world creatures, they are too tiny to be seen in detail unless one is dangerously close, thus opening up the imagination to what they look like, even when one is directly observing them. Furthermore, as insects with exoskeletons, they are arguably architectonic without being architectural. Lastly, they were plentiful in my childhood, and their stings ensured that they reside as a solidified object of my memory that was well established before I started the drawing process.

Drawings act as frameworks by which aspects of the eidetic object can be translated onto the paper. Drawing with standard architectural conventions is the system by which the drawing framework is formed. So if a complex memory image of the wasp is present, it must be manipulated and reconfigured to make it fit into the framework of an elevational drawing, inevitably conveying some information about the wasp while editing and disregarding other information present in the eidetic object.

Similarly, drawing in perspective or axonometric, or abandoning convention altogether still results in the drawing being a framework for the translation of the memory image. However, this translation is doubly complex. Not only is the eidetic object being translated into the framework of the drawing, but the brain is simultaneously reading into the creation of the drawing, giving rise to ideas and creations based on the beholder's share during the process of drawing.[14] Due to this complexity, it is important to note that the typical description of a drawing as a snapshot or a lens is a faulty one. The drawing can only translate some of the visual aspects of the eidetic object during the drawing process, but visual aspects brought to mind by the beholder's share will inevitably make their way into the drawing too, so that the act of drawing is not a pure record as would be implied by calling the image a "snapshot" of a memory image. It is instead a translation of memory that mediates between memory and invention.

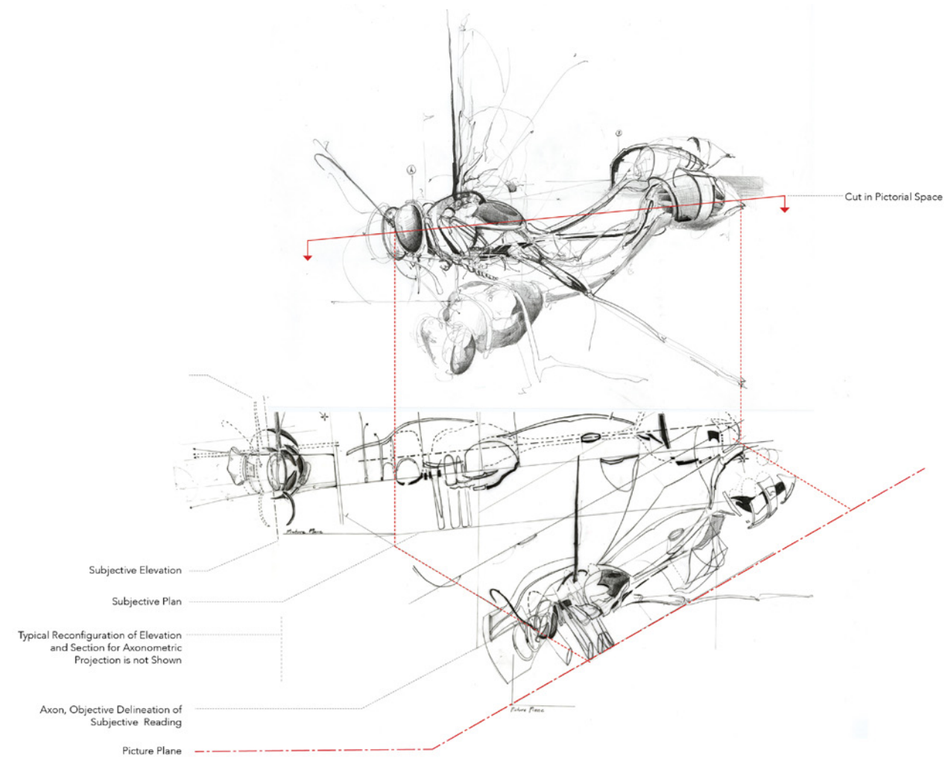


Fig.4 - Wasp Section Cut. The drawing of the wasp that is being conceptually cut into in the above drawing was completed a number of weeks after last viewing the reference. The uncertainty of positions present in the line work allows for a multiplicity of readings. It was this subjective multiplicity that the section cuts endeavoured to capture. Only one of the 9 cuts is shown here.

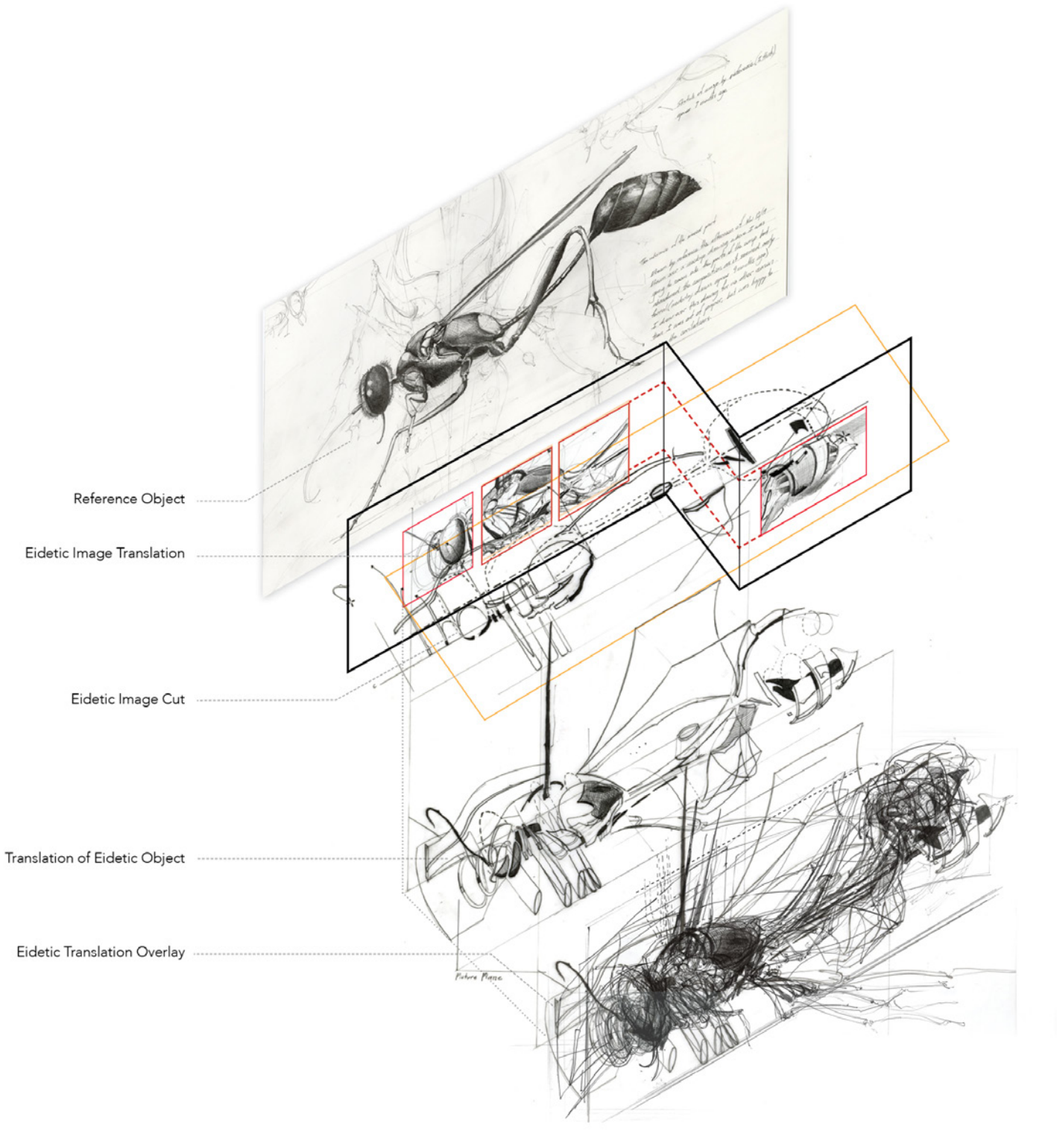
11 Kandel, *The Age of Insight*, chap. 14, 17.

12 Frances A. Yates, *The Art of Memory* (New York: Routledge, 1999) Kindle.

13 Yates, *The Art of Memory*, chap. 1.

14 Kandel, *The Age of Insight*, chap. 17.

15 Yates, *The Art of Memory*, chap. 5.



Reduction to a Translation of the Eidetic Object

Fig.5 - Eidetic Reduction

As designers draw, they are actively creating the framework by which their mind will project a myriad of readings of the work that is being produced. Lines are at once ink, graphite, vectors, or pixels on a surface, while simultaneously being perceived as something like wires floating in a shallow 3D space.[15] Architectural drawing conventions are used to describe and locate 3D geometry using sets of two-dimensional drawings. However, architectural drawing conventions can also be turned back on themselves as a method of self-description, not describing real-world 3D conditions as they typically do, but instead the perceived space behind the picture plane. With this type of use, architectural drawing conventions can become a means of self-description within a drawing. When orthographic drawings are used as self-describers, the picture plane becomes the critical threshold between the subjective and objective potential of a drawing.

Conventional orthographic drawings operate by touching the picture plane. In this type of projection, the distance between lines can easily be measured and scaled to correspond to objective reality. Perspective drawing recedes deep behind the picture plane into subjective space. If a portion of the perspective image touches the picture plane, it can easily be measured using orthographic means and compared to objective reality. Elements drawn in perspective beyond the picture plane must be re-projected back into an orthogonal drawing convention in which measurement can take place. However, the visual difference between a correctly projected perspective and one that only partially adheres to a perspective system can result in similar readings of subjective depth. Furthermore, abstract compositions often carry in them spatial frameworks leading to a subjective reading of depth within an image. Even though the apparent depth within images is subjectively variable, architectural drawing conventions can be used to objectively describe a range of possible subjectivity.

Figure 4 is one example from a series of nine subjective section cuts projected from the same location on the referenced wasp drawing. Each sectional drawing was different as there is no objectively correct reading, only readings that are more or less likely. The likelihood of possible readings and the existence of double readings are accounted for with the conventional annotations noted in figure 3. Each section was then used to project an elevation, and finally an axonometric drawing based upon the expectation provided by the section. The compilation and overlay of these axonometric drawings in figure 5 represents an objective reading of subjective possibilities. Like the image produced through this drawing system, an eidetic object is a compilation of subjective memory experiences resulting in a complex object of memory.

Even though the axonometric compilation of a wasp does not capture an eidetic object, it is a step toward the description of eidetic form through a drawing process. Like the image produced through this drawing system, an eidetic object is a compilation of subjective memory experiences resulting in a complex object of memory. Furthermore, the eidetic object of the wasp was inevitably shaped by this drawing process. At the moment of drawing, when the drawing becomes a site of memory, the drawing and the eidetic object become codependent, each feeding into the other. Of course, this cannot be seen in its totality, but the drawings are one half of the process and serve as evidence for the formation of invisible memories.

Drawings can describe invisible realities. Architectural drawings have been used for hundreds of years to describe what does not yet exist. The architecture described by construction drawings remains conceptual and invisible until construction begins. The vast financial sums, legal responsibilities, and construction logistics that are interwoven with drawing sets serve to validate the potential reality that the drawings describe. In a similar way, the drawing process that I have described as a site of memory has the potential to describe the invisible. However, rather than describe a conceptual object that will be built, the drawings feed, influence and change an eidetic object that can only ever exist in the mind. The drawings from the process are the evidence.

It is easy to believe that typical architectural drawings are evidence for buildings because buildings exist. However, drawings as evidence for an eidetic reality seem to be on less stable conceptual ground. Once again, referencing the classical mnemonics described by Yates, it is apparent that the vast palaces and theatres of memory developed by mnemonists through history have perished with their creators, yet the legacy of their accomplishments remains. Similarly, drawings developed as sites of memory offer the evidence of action in the realm of eidetic design, a design process that can be implemented to shape thought, memory, and ideation before they are called upon to design the built environment.

Drawing as a Temporal Investigative Practice

CARLA ARAMOUNY

Prologue

In her 2001 documentary *Alone with War*, film director Danielle Arbid tries to make sense of the destructive Lebanese civil war in Beirut by visiting the main areas of conflict that witnessed various atrocities.[1] While roaming the city's spaces, she probingly asks people she meets about the existence of a war memorial, one that could recognize the war's futility and unify collective healing by memorializing martyrs from all sides. The war memorial she alluded to was never actually built. The civil war in Lebanon ended in 1990 with a cease-fire, a national agreement that instituted confessionalism, a general amnesty for all involved, and a taking over of power by all faction leaders. With this shift came an approach of "forgive and forget", folding all memories, guilt, and war associations into the past, resulting in a broadly recognized social amnesia.[2] This collective amnesia was reinforced by a deliberate erasure of the city's landmarks and structures during the reconstruction process, one that privileged real-estate development over the city's urban integrity, collective memory, and healing process. One of the main spaces in the city that was lost during this process was Martyrs' Square, a central space lying at the boundary between the eastern and western parts of the city on an artery that links Beirut to Damascus. Martyrs' Square, first destroyed during the civil war, was further effaced through the reconstruction that followed, which completely disfigured this iconic centre. Left to the vestiges of memory, the square is now only recognizable as a road junction, its public and cultural history lost to high-end residential speculation. The iconic aerial photograph of the Square taken in the early 1970s is an image that remains engraved in many locals' minds to this day (fig. 1). When the Square is mentioned, it is this image that typically surfaces. The image is a timeless construct representing what has been lost and a crucial apex of Beirut's golden age before the onset of the civil war.

As a local citizen who never knew the Square when it resembled its iconic image, I have always been deeply affected by the violent and forced disappearance of this once vibrant node, and by the loss suffered by Beirutis of older generations who can never recover the space where they once lived. At the same time, I have been equally intrigued by the persisting capacity of this square to retain a symbolic value for the Lebanese, and to become, at every charged political or social event, the main collective space that draws thousands to its centre.

These aspects of the Square's lost urban memory, its deliberate political erasure and persistent symbolism as a collective ground, provided the impetus for the investigative research that I have pursued as an act of resistance against lost memory.[3] This research aims to understand, reconstruct, and narrate the multiple dimensions of this rich urban node. Its main objective is to negate the Square's single iconic image by giving form to its disappeared history, thereby fostering a deeper evolutionary and visual understanding. In this work, drawing is used as a tool for recording and reconstructing, and with the juxtaposition of archival and photographic artifacts, it conveys the square's temporality, its shifting symbolism, the varying functions, and activities that helped shape it as a national symbol, and, ultimately, its clearing to create a road junction that is yet open to spatial reclamation.

The Square in time

The area that eventually became Martyrs' Square began to materialize as a public space around 180 years ago, as the city of Beirut expanded beyond its walls. In its heyday, the area was a node outside the eastern city walls along a main artery connecting Damascus to Beirut and its historic seaport. As it developed over time, its functions shifted: it became centralized as a public space fulfilling a variety of transportation, commercial, cultural, and leisure functions. Samir Khalaf notes that the square acted as a common space that unified various sections of society, with various cultural, social, and political uses.[4]

1 The Lebanese civil war lasted 15 years from 1975 to 1990 and was triggered by entrenched sectarian divisions in Lebanon. Initially a conflict between Muslims and Christians, it expanded to involve internal battles within each sect's militias, and the involvement of several foreign entities including Palestinians, Israelis, and Syrians. The war ended in 1990 with the surrender of the Lebanese army and then self-proclaimed president, the taking over of Lebanon by Syria, and the onset of a new post-war era that established all previous militia heads as new government leaders.

2 Hashim Sarkis, "A Vital Void", in *Two Squares*, ed. Hashim Sarkis (Cambridge, MA: Harvard University Press, 2006).

3 The research and drawings of this work were initially developed as part of the Beirut Shifting Grounds project (Temporal Lens of investigation), which was presented in the Co-Habitats section of the 2021 Venice Architecture Biennale. The Beirut Shifting Grounds project was co-curated by Sandra Frem, Boulos Douaihy, Carla Aramouny, Rana Haddad and Nicolas Fayad.

4 Samir Khalaf, "The Bourj as a Cosmopolitan Public Sphere", in *Heart of Beirut: Reclaiming the Bourj*, ed. Samir Khalaf (London: Saqi Books, 2006).

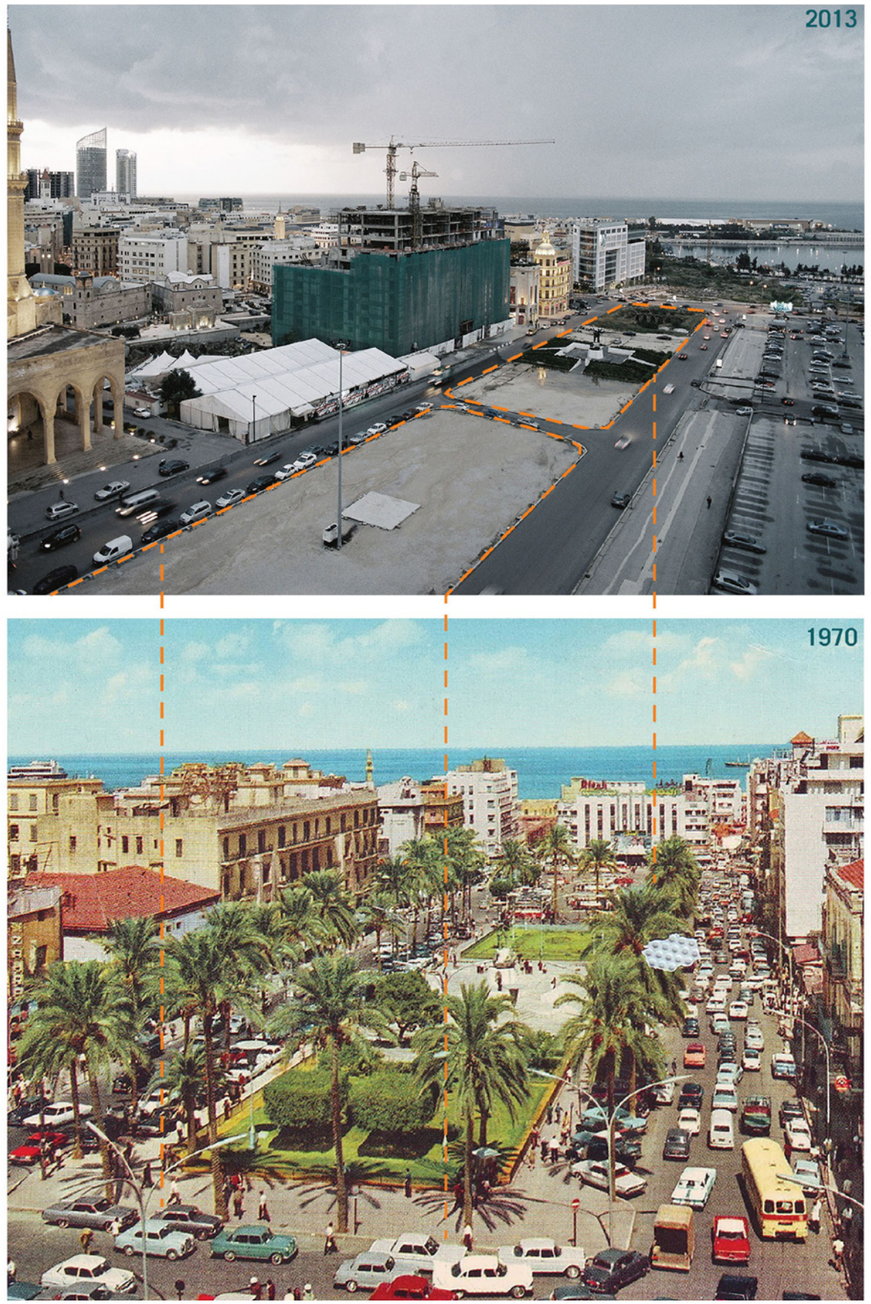


Fig.1 - The iconic 1970s image of the square with a photograph of the same location as a road junction in 2013.

Image: online source https://galeriemagazine.com/beiruts-art-scene-returns-full-force/, 2013 Image: courtesy of Solidere



Fig.2 - The spatial metamorphosis of the square's ground over time.
All drawings by the author

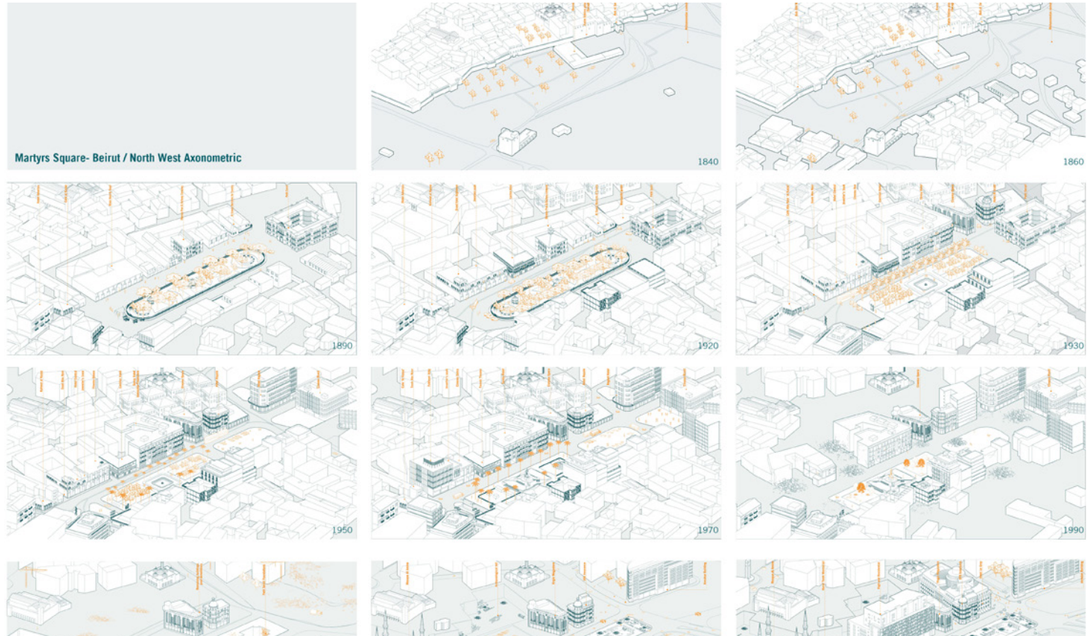


Fig.3 - Northwest axonometric series showing the square's mutation over time.

In its beginnings in the early 1800s, the square functioned as a maidan, an open field utilized as a meeting spot for merchants and travelers. It was bounded by the Bourj al Kashef tower on its southeastern edge, giving it its name, and a cemetery on its northern side. In the maidan and the adjacent gardens within the city wall stood tall, lush trees.[5] As the city grew rapidly after the influx of refugees from sectarian strife in Mount Lebanon in the 1860s, the maidan developed into a bustling area with accommodation for travelers, markets, and lodges, many of which were run by French orientalists.[6]

Around the year 1880, during an Ottoman period of urban reform,[7] the maidan was developed into a structured urban node with a central enclosed park, the Muntazah,[8] lush with trees and free-standing pavilions. The Petit Sérail, an administrative building, gave the area a political dimension in addition to its leisure and commercial functions, while the construction of the tramway furthered its role as a transportation hub. In 1916, the area witnessed the execution of Lebanese nationalists by the Ottoman Wali Jamal Pasha, giving it a symbolic significance as a unifying site of martyrdom.[9]

Following the establishment of the French Mandate after World War I, the French held an international fair in 1920, completely reshaping the Muntazah into a fairground with large country pavilions. They eventually remodeled the area into an open plaza with a fountain in the central square flanked by two landscaped areas. In 1930, the French and Lebanese governments inaugurated the first monument to commemorate the martyrs of 1916, giving the area the name Martyrs' Square.[10]

5 As can be seen from 1876 Loytved map and from photographs taken by French photographer Louis Vignes in 1861.

6 As described by Baptistin Poujoulat in "La Place du Canon en 1861", in *El-Bourj. Place de la Liberté et Porte du Levant*, ed. Farès Sassine and Ghassan Tueni (Beirut: Dar an-Nahar Editions, 2003).

7 Particularly the 1839-1876 Tanzimat reforms to modernize the Ottoman empire ending with the writing of the constitution in 1876.

8 Which translates into "leisure park" in Arabic.

9 Lucia Volk, *Memorials and Martyrs in Modern Lebanon* (Bloomington, IN: Indiana University Press, 2010).

10 This period also witnessed the urban planning proposal of Plan Danger for Beirut and the production of surveyed cadastral maps of the city by the French army.

After the country gained its independence in 1943, the square continued to be a central hub and an area for political demonstrations, commerce, transportation, and leisure. While it was losing its status as an elegant hotel district and administrative centre,[11] it became an increasingly popular leisure area with the addition of bustling motels, theatres, restaurants, and cinema halls. During this period, the original monument to the Martyrs was vandalized and removed, and the government redeveloped the square into its last pre-war design as a raised platform with a new monument to the Martyrs in its centre.[12]

The square's centrality, which had allowed it to act as a unifying space shared by different groups in the city, eventually precipitated its demise. During the civil war that broke out in 1975, the central part of Beirut was one of the first areas to witness heavy fighting, and with it the square became a front line of conflict along the demarcation line between East and West Beirut.[13] By the end of the war in 1990, the square had lost the vast majority of its built fabric, and during the early post-war years it remained in limbo, with occasional visitors and local vendors selling souvenirs of its lost history. The war severely disfigured the urban fabric of the square and its adjacent neighbourhoods. However, an equally defacing reconstruction process that began in 1994 completely changed its identity with the deliberate erasure of all but two of its remaining structures, turning it into a road junction. The establishment of Solidere, a private company entrusted with the reconstruction of downtown Beirut, brought about a process of real-estate development, with the company buying out old proprietors and proposing a new high-end development in the city centre. The bullet-ridden Martyrs' monument was removed from the square for restoration and replaced by popular markets, concerts, and art installations in an effort to make the war a distant memory.

11 With the rise of other centralities such as the Place de L'Etoile and the coastal hotel district by the St. George as noted in: May Davie, *The History and Evolution of Public Spaces in Beirut Central District* (Beirut: Solidere publication, 1997).

12 The square's redevelopment was among city-wide planning initiatives under the patronage of president Fouad Chehab, which perpetuated an urban masterplan by Michel Ecochard for creation of new centres in the suburbs, while proposing to open the square to the sea.

13 Samir Khalaf, "Reclaiming the Bourj", in *Two Squares*, ed. Hashim Sarkis (Cambridge, MA: Harvard University Press, 2006).

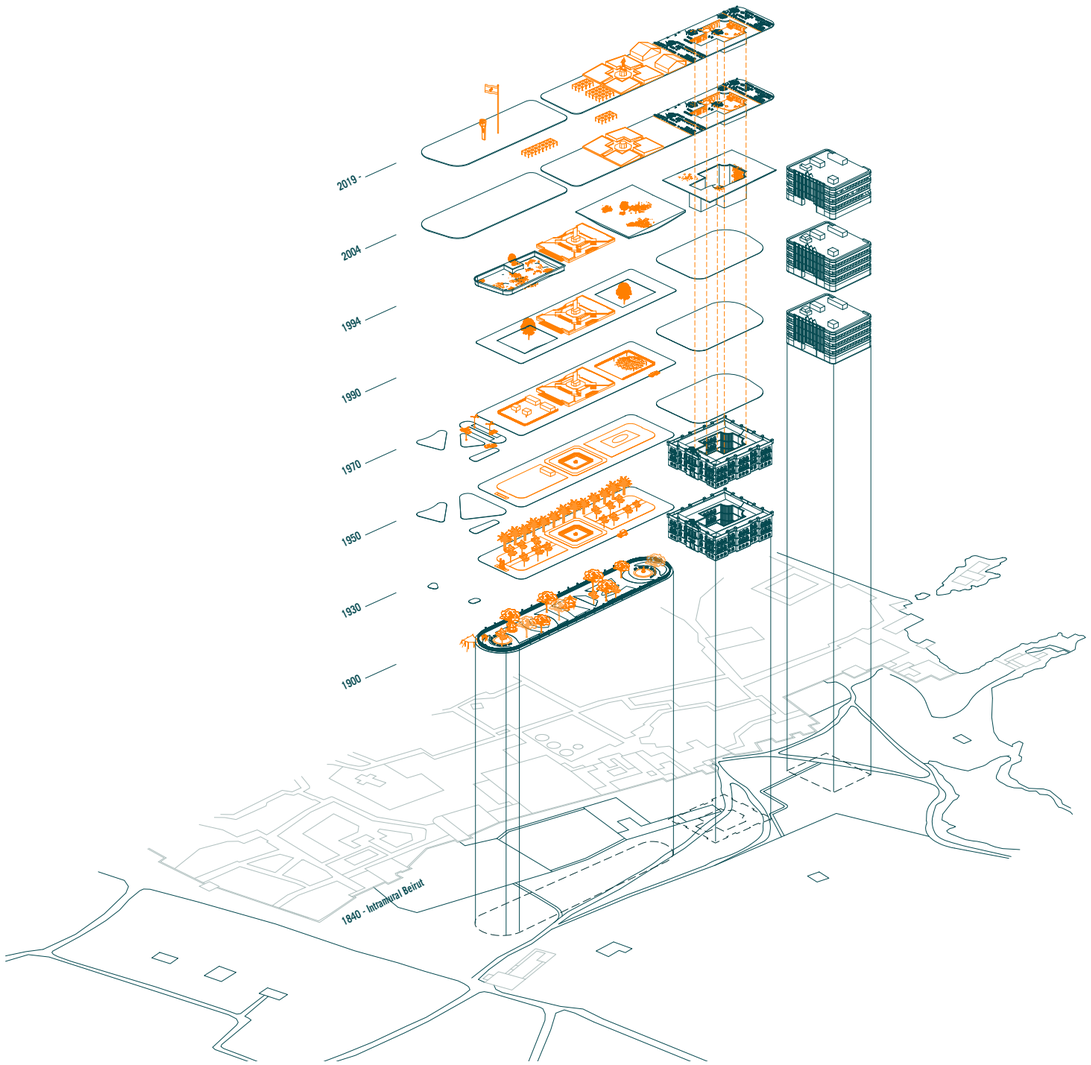


Fig.4 - Exploded axonometric for the square's central public space over time.

The Martyrs' monument was reinstalled in 2004 as Solidere launched an international competition for the redesign of the square. Following the assassination of Prime Minister Rafik Hariri in 2005, the Cedar Revolution drew millions of people to the square, which was renamed Freedom Square, reaffirming its role as a political symbol of resistance. The square continued to be a node for rallies during every political event, with various groups using it as a space for sit-ins and demonstrations, escalating in 2015 with the garbage crisis. Despite continued tensions during that period, New Year's Eve celebrations were hosted for several years on the square.

Today, the square remains an open road junction, still waiting for the promised redesign project to become a reality. Several buildings have been built around the square, but they remain functionally and formally detached from the ground. However, during the 2019 October revolution, the square was reclaimed as a central gathering place. People called it Al Saha and took advantage of its field-like condition for a variety of uses.[14] Grassroots groups and civil society activists set up bases and tents on the square for debate, donations, and sit-ins. The demise of the revolution following the government's violent crackdown on demonstrators and the 2020 explosion at the port of Beirut brought the square back to its present condition, a road junction surrounded by parking lots.

The history of the square suggests that it has always had the capacity to be a free space, a collective ground that is continuously reclaimed and reimagined by the people. Its process of transformation from the 1800s until today has come full circle: it has metamorphosed from a free open space to an open field that can be appropriated by the people. The reading of the square as a field is facilitated not only by its openness but also by the disconnection between its ground plan and the adjacent buildings that stand as monumental enclaves, functioning separately. Thus, it operates as an empty surface detached from its surroundings, except for a few markers that occasionally serve as communal meeting points—the Martyrs' monument, the monumental Mohamad Al Amin Mosque and adjacent Hariri memorial, and the excavated foundations of the Petit Sérail—that remind people of the square's obscured history.

On space, memory, and drawing

The square's transformation through the ages, however, was not as radical as the systematic clearing of the square that resulted from the war and reconstruction periods. The disfiguring of the square that ensued cemented the social amnesia. Of course, memory has a spatial association. We remember through objects, spaces, and landmarks. Sandy Isenstadt associates architecture as "a memory-extending invention, capable through its presumed permanence to preserve memories and past events."[15] The loss of an essential city space creates a rupture in our visual perception of the city and our ability to navigate and connect with it.

Kevin Lynch discusses the imageability of city spaces, and gives an important role to form in the production of a public image of a city, not only in giving a distinct identity to a place but also in producing meaning.[16] According to Lynch's categorization of city elements, the one Martyrs' Square most closely resembles is a node: an intensive focal area with a landmark and name giving it its meaning. This aspect of the square and its symbolic meaning have shifted greatly over time, from a *maidan* to a *muntazah*, a political centre, a martyrs' memorial, a transportation hub, a demarcation zone, and finally a road junction. Maurice Hawlbachs further indicates that collective memory inserts itself into a spatial framework. Space is a reality that endures and, through its physicality, makes it possible to reconstruct the past in thought and imagination.[17]

The reconstruction process in Beirut weakened the collective memory of war atrocities by demolishing the space that most represented the front line of conflict, as the new image of the city it needed to project was one of progress and development. However, that loss of urban space also created an incentive for reimagining and safeguarding the symbolic relevance of the square. Hashim Sarkis proposes that this presented a tabula rasa that allowed a collective impetus for reconstructing what was lost in a process of reflective nostalgia, in contrast to restorative nostalgia that fetishizes the past.[18] According to Sarkis, this disruption of the urban fabric resulted in a shift towards a reimagining of the city from the grassroots in contrast to top-down strategic planning.[19]

Seen from this perspective, the work presented in this chapter tries to examine how the memory of a place can be retained through the process of drawing, by producing an accessible visual archive in a reflective rather than a nostalgic process. Here, drawing is seen as an essential tool in visualizing the physical and spatial attributes of the square, as a way to visually fix its fleeting history, break its association with the single image prominent in popular photographs, and move past what has been lost. Rather than fetishize the past, the aim of the work is to reflect on the square's rich and multi-layered urban relations, recreating its different historic stages while opening up the opportunity for new interpretations.

The drawing process

The work creates a time-based visual archive of the square using interpretive and composite drawings. Initially presented at the Venice Architecture Biennale in 2021, its objective is to continue to develop as an active archive and visual database

14 Al Saha translates roughly as "the square" in Arabic and implies a meeting place.

15 Sandy Isenstadt, "The Interpretative Imperative", *Harvard Design Magazine* 3 (1997), Accessed on November 1 2022, https://www.harvarddesignmagazine.org/articles/the-interpretative-imperative/

16 Kevin Lynch, "The City and Its Elements", in *The Image of the City* (Cambridge, MA: MIT Press, 1960).

17 Maurice Halbwachs,"Space and The Collective Memory", in *The Collective Memory* (New York: Harper & Row, 1980).

18 In reference to Svetlana Boym's concepts of restorative and reflective nostalgia.

19 Sarkis, "A Vital Void".

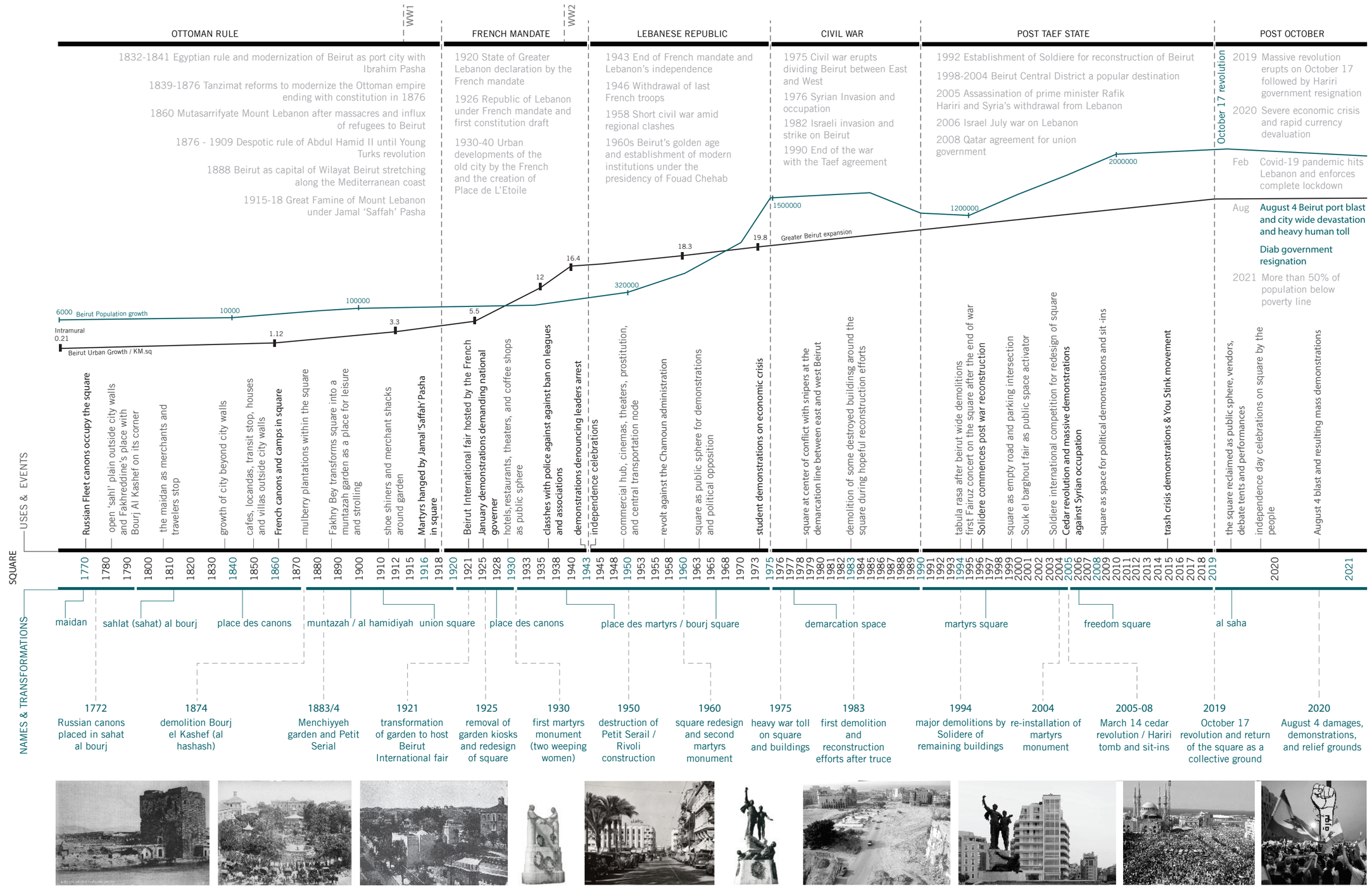


Fig.5 - Timeline of the evolution of the square showing its uses and significance with political, social and cultural indicators.

accessible to the general public. The project traces the Square's effaced history by restructuring its 180-year timeline through an investigative visual process, reconstructing its buildings, infrastructure, and landscape. In addition to creating an archive of its urban evolution—one that has until now been lacking—part of the interest is to catalogue the events, ground-level spaces, and programmatic permutations that shaped it as a public space.

Drawing on private archival material including maps, photographs, postcards, and scholarly writings, with the support of local experts and collectors, the work dissects the square's historical evolution through photographic observation, comparative visual analysis, map overlays, mapping, and 3D modelling.[20] A large online collection of old photographs and videos was also extremely helpful in tracing the formal evolution of the square, while recording and identifying the buildings and programs of the different time periods.

One of the main endeavours was to draw a precise set of maps of the square in time, using key historic references, and to use visual observation of photographic archives to verify its urban form through the ages as well as its past events, uses, and cultural significance. For this latter purpose, the process relied on visual data, photographs, old postcards, publicly available old videos, and literary works that describe the square and its events. As a process, the work started with overlaying and retracing to scale selected reference maps from different time periods to trace its different phases along the 11 time periods.[21] By overlaying these different maps, using the two buildings that remained after the reconstruction process as reference points, the resulting drawings allowed for a more accurate alignment of urban grid and form, and thus created a clearer visualization of the square's central space and its metamorphosis (fig. 2). Such unified documentation of all these periods together did not previously exist at this level of detail in any known scholarly work.[22]

Then, extensive photographic data, from popular photographs to rare finds from various archives, was collected and catalogued in folders organized chronologically. This allowed each time period of the square to be modelled in detail, using the base plans that had been created, and analyzing multiple photographs for scale, building features, and façade details. The photographs were also used to understand the different uses and functions of the square, particularly at street level, as well as cultural and environmental aspects in each time period (from landscape features to clothing style, transportation modes, monuments and urban signage). Crosschecking through various literary sources confirmed the histories, uses and functions, as well as the year of construction and demolition of each building. [23]

Different types of drawings were central in producing a rich chronological reading of the square's metamorphosis and significance. The axonometric drawing is foregrounded as a visual mode that displays a holistic and anatomized reading of the area with proportional precision. The drawings of each period included axonometric drawings taken towards the northwestern and southeastern corners (fig. 3), supported additionally by various street-level perspective views depicting street life and locales. An exploded axonometric further detailed the various time layers in juxtaposition to reveal the sequential unfolding and spatial metamorphosis of the square, particularly its central public area (fig. 4). Another key drawing, an evolutionary timeline (fig. 5), was essential for understanding and comparing changing political, cultural, and social factors that affected the square's development and their repercussions on its changing names and significance. The timeline also made it possible to identify key indicators that had a major impact on its urban transformation, such as the Tanzimat reforms and the demolition of its Bourj, the inauguration of the Petit Sérail during the late Ottoman Period, the declaration of Greater Lebanon, and the French fairground of 1920, to name just a few. It further marked the Square's symbolic role as a locus of collective memory, through its shifting meanings, monuments, and public areas.

In addition to the metamorphosis plans comparing the stages of spatial transformation of the square (fig. 2), detailed small-scale plans, using the inverted figure ground technique, were presented during the Biennale in video format, to visually contrast the urban form with the street, showing its gradual transformation over time. Each plan was paired with a visual timeline for the period and accompanied by rare photographs and axonometric views in a sequential slide narrative.[24]

The resulting work thus consolidates a rich multi-layered visual history, where the drawing process itself yielded several new findings and readings, including more accurate dates for the construction of buildings and formal typological transformations through time. The visual analysis and data comparison, in addition to the recording of observations through precise drawings and scalar grids, allowed for a systemic verification of the urban fabric. This process is still ongoing, with the aim to gain deeper understanding of the transmutations and associated political and social factors for a few select urban blocks.

Epilogue

> "That's true," Calvino said, but added, as Marco Polo says, "memory's images, once fixed in words, are erased."[25]

In an attempt to draw Italo Calvino's *Invisible Cities*, Massimo Scolari endeavoured to reveal the images that the writing had erased.[26] However, Calvino's answer to the resulting drawings differentiated them from his own invisible cities and established "a gap that could not be filled between representing and describing… between the elusiveness of visual imagination his cities refer us to and the overflowing wealth of pictorial representation."[27] An inherent question of the work on Martyrs' Square probes this idea. Could drawing provide the tool for the reinvention of what has been erased, when literary descriptions and photographic records become insufficient to capture embedded meanings and events? Since a local reconciliation memorial that could recognize the war's mistakes and atrocities has never been built, as Arbid laments in her lucid documentary, Beirut's past has not been acknowledged and could be repeated. By highlighting the square's multi-layered historical imagery, could a new archive serve as a way to acknowledge the past? And could it offer a space for a collective reimagination and memorialization of its multi-faceted history? The work thus recognizes the current state of the square as a moment of opportunity, as a collectively formed common space that has the capacity to be redefined and reimagined.

Given the square's proximity to Beirut's port, it was severely affected by the immense explosion that took place in August 2020. Today, the city faces yet another political attempt at enforced amnesia, as the government plans to demolish the silos where the explosion occurred, in an effort to erase its guilt and transform the site into another tabula rasa. The significance of this work can thus be further situated at a critical juncture in the country's history, at a time when we must recognize the importance of retaining collective memory as a vital record for acknowledging past faults and moving forward.

20 Archives that were consulted and used in collecting maps and photographic records include Sursock library and Museum (Debbas Collection), Arab Image Foundation, AUB Jafet Library collection including Rosenburg, Alemian and Doxsee Archives), Solidere archives, private collections of Fadi Ghazzaoui, Camille Tarazi, Michael Davie, and Antoine Atallah, and online resources such as the Library of Congress.

21 The main time periods selected and mapped were: 1840, 1860, 1890, 1920, 1930, 1950, 1970, 1990, 1994, 2004, 2019. The key reference maps used include a Russian army map of 1773, a British army map of 1841, an 1876 map by Loytved, a French army map of 1922 and a detailed cadastral plan of 1930, a 1964 cadastral plan, and 2004-19 Solidere CAD plans. Plan information on other periods were taken from historical aerial views, particularly during and after the war, as well as the reconstruction phase.

22 The work of Michael and May Davie includes a study of plan overlays of the area but focuses more on urban planning growth rather than typological and spatial manifestations of the square and its street-level functions.

23 Some key images and photographs used include an 1862 etching "Prince of Wales Visit to the East", an 1890 Canedi etching of the square, 1860 photographs by Louis Vignes, mid- to late-1800s Bonfils studio photographs and André Terzis postcards.

24 This visual timeline in addition to more detailed visualizations for each period can be viewed on the project webpage, which serves as the current digital archive for the work: https://beirutshiftinggrounds.com/Temporal

25 Massimo Scolari, "Representations", *Log* 26 (Fall 2012): 106-117.

26 Scolari, "Representations", 106-117.

27 Scolari, "Representations", 114.

The Slipperiness of Time
Collapse and enfolding in the architecture drawing

SAMANTHA LYNCH

> "... Thought proves to be that of a desire always opened up again..."[1]

Any of us who are engaged with the process of drawing are familiar with this provocative condition. We can (perhaps must) believe in what arises as we draw, even as it is coupled with the threat of eventual transgressions or malformations. We make sense of moments and territories in the drawing as we do of the world—with intuitions of context and the promise of intrigue. This is the life of the drawing, and what awakens when observed—not a static condition of image but the attuning of events. Too often this motion is overlooked by a desire to wrestle an object out of the opening—and interrogation of the work misses the mark. The drawing does not just draw into the surface, along the folds and on through the ink, but draws into us. This we remember in our own practice, and this is what we aspire to be activated in the sharing of what we draw out. Thus the body of work (rather than any one static image) is the ground for an unfolding potential too often overlooked. In this chapter, I explore the process of drawing not as a set of events frozen in time but as a dynamic conversation that expands and connects marks made—drawing as a body beyond the image. I contextualise this through a discussion of the slippery, non-linear nature of time as investigated in the dynamic of my own drawing process. The collapse and enfolding of a multiplicity of times give rise to an alternative reading that actively challenges drawing as image.

In the contemporary West we are generally operating with an outmoded understanding of our relationship to the world(s) we inhabit, long considering humanity as separate and in control of "nature" itself. This dominating approach has affected how we conceptualise time, which in practice, as in daily life, is often still assumed to be a linear, sequential and measurable condition. The hubris displayed in how we relate to the world may be similarly reflected in the tendency to value the static "result" of drawing rather than its making, limiting more holistic modes of understanding. The slippery nature of time—the struggles we face to relate our experience of it—renders it one of the most elusive dimensions to discuss.[2] Yet time is very much at the heart of drawing practice (think of the emerging transformations that fundamentally motivate the creative act). In the architecture drawing there is a particular temporality at play, as the architect by nature predicts and inhabits future possibilities. Yet even within the temporally rich discipline of architecture, drawing is often discussed in static terms. This does not help to reflect either the content architects are engaging with or the process of that engagement. Understanding "drawing" as "image" plays a similar trick.

Motivated by a desire to push against drawing as image and find a more sympathetic approach to the design process, my own drawing practice critically conflates the multiple temporalities at work as I draw. The slipperiness of experiential time, as poetically mirrored in the passage from Nabokov's *The Eye below*, becomes a medium for this investigation:

> "In the meantime voices carried from the hallway – those of the two sisters and that of Khrushchov. They were saying goodbye to Mukhin. Wouldn't he come in for a minute? No, it was late, he would not. Late? Had my disincarnate flitting from room to room really lasted three hours? Somewhere in the theatre one had had time to perform a silly play I had seen many times while here a man had but walked through three rooms. Three rooms: three acts. Had I really pondered over a letter in the parlour a whole hour, and a whole hour over a book in the dining room, and an hour again over a snapshot in the strange coolness of the bedroom?... My time and theirs had nothing in common."[3]

1 Jean- Luc Nancy, *The Pleasure in Drawing*, trans. Philip Armstrong (New York: Fordham University Press, 2013), 25. The full quote provides a more detailed context for those readers interested: "Formed form summons a new formation; the idea makes demands on itself beyond its identifications; thought proves to be that of a desire always opened up again...to present it–to form it–is already to remove a part of its own capacity for opening, forming, transforming, or deforming."

2 Augustine famously wrote: "What is Time?...Who can comprehend this even in thought, so as to articulate the answer in words?...Provided no one asks me, I know. If I want to explain it to an enquirer, I do not know." Augustine of Hippo, extract from the *Confessions* (397-98 CE), trans. Henry Chadwick (Oxford: Oxford University Press, 1992), 230.

3 Vladimir Nabokov, *The Eye*, trans. Dmitri Nabokov in collaboration with the author (London: Panther Books Ltd., 1968), 65.



Fig.1 - Bedroom Drawing 01, 2013.
All drawings and photographs by the author

Nabokov's protagonist adeptly negates the quantifiable measure of time whilst drawing attention to the temporal folds to be found in paper, words, acts, and memories. In my own work the heterogeneity and experience of simultaneous multiplicities of time become essential agents.[4] These times are collapsed into a shared dialogue that dissolves any exactitude in the seams between temporalities; distinction becomes dynamic, allowing temporal disturbances (like the one in the experience of Nabokov's character) to resonate.

When drawing, one ventures and reflects in no particular sequence. In the *Bedroom Drawing* series (fig. 1), I embrace these displacements by allowing the surface of the paper upon the bedroom wall to become the opaque screen through which I gather events beyond. Although initially sited here, these events stray from the present of the bedroom to enfold both past occurrences and future imaginings. The drawings become gathering devices to tune these events, activated by the site and opening conversation across multiple times. The territories that arise between these temporalities are negotiated poetically, allowing neighbouring elements to converse (for example, a childhood drawing of a lake re-emerges here to reflect a chip of paint from the wall, or a distant steeple becomes a perch for the bird I saw yesterday...). The gatherings are caught together in a temporal complexity that begins to erode the traditional surface and boundaries of the drawing.[5] What opens from this is the awareness that the image does not hold the action of the drawing, that it only begins to reveal the complexity of its making.

4 Samantha Jane Lynch, "The Dark Mirror: Engaging Multiple Temporalities Through Drawing" (Ph.D., University of Brighton, 2017), unpublished. In my PhD what I describe as the slippery character of time activates a condition of possibility, a territory in which I am able to sustain differing temporalities simultaneously through drawing. The research questions how the act of drawing might allow one to reflect on things that haven't happened yet.

5 Timothy Morton's "tumbling nullity" is an apt analogy for the kind of movement between times in this work: "To figure out what a relation is means to build another relation. Relations thus contain a nullity that collapses forwards as more relations are built onto them. This tumbling nullity is what is called time..." From *Realist Magic: Objects, Ontology, Causality* (Ann Arboe, MI: Open Humanities Press, 2013), 93-94. Morton's tumbling becomes multiple, non-sequential trajectories between territories.

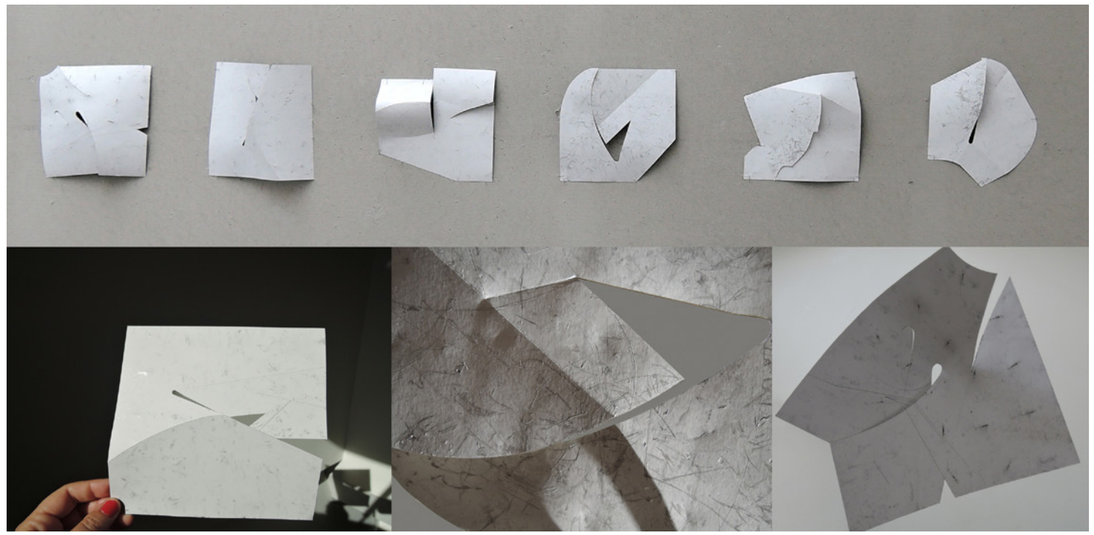


Fig.2 - Selection Of Drawings And Details From Mirror Drawings, 2016.
Work/photography by author

Activating the collapse

Encouraging the temporal disturbances found in *Bedroom Drawings*, the role of the seam—of thresholds that exist between one time and another—begins to dissolve not only the linearity of time, but its sequencing. Through the activation of simultaneous multiple temporalities in my drawing practice, any oscillation of cause and effect becomes ambiguous. The temporalities in the work no longer imply a progression from one moment to another. The writer Jorge Luis Borges evokes the strangeness and pleasure of this new approach in his challenge to causal time:

> "[...] we can postulate, in the mind of an individual (or of two individuals who do not know of each other but in whom the same process works), two identical moments. Once this identity is postulated, one may ask: Are not these identical moments the same? Is not one single repeated term sufficient to break down and confuse the series of time? Do not the fervent readers who surrender themselves to Shakespeare become, literally, Shakespeare?"[6]

Embodying this collapse in the temporal trajectory is a fundamental motivation of the drawings, and its practice becomes a way of sustaining this condition—not as a conceptual position but as an enacted one.

The temporal conversations that occur across seams in *Bedroom Drawings* also find form in the *Mirror Drawings* (fig. 2). Rather than the blind surface of the bedroom paper, these drawings are made on card that already has a content and history; the pre-marked surface offers an unfamiliar trace of events. The drawings begin as esoteric surfaces on which to experiment, developing into territories that, through the form of the hinge and the dynamic of their drawn relationships, act simultaneously as both whole and fragmented temporalities. The method of drawing is as follows: I cut a seam, I allow a hinge (there is a variety of formats) and use the seam to mirror the existing content. I slip the surfaces over each other and mirror the marks.[7] This results in a multiplicity of echoes. There are no fixed positions. The conjuring and unexpected territories that arise come out of a condition that is in flux. The content proliferates as the drawings gather pre-existing marks into the fray of the new and of the fictional. These markings cannot be isolated to one event, to one mirroring. The drawing plane holds the registration of moments and desires; connections and traces are sought out or brought into focus.

In the *Mirror Drawings*, temporal collapse takes form through the re-folding of the picture plane. As the main elements of a site-specific installation, the *Interloper Drawings* (fig.3) continue this, expanding the temporal conditions and questions by engaging with the entirety of the site.[8] Like the *Mirror Drawings*, these are dynamic and drawn in flux.

6 Jorge Luis Borges, 'A New Refutation in Time' in Time, ed. Amelia Groom, (London: Whitechapel Gallery and MIT Press). 151. Original source is Borges' 'Nueva refutación del tiempo' (1944-46); trans. James E. Irby, 'A New Refutation of Time', in Borges' *Labyrinths: Selected Stories and Other Writings* (New York: New Directions, 1964).

7 Mirroring is a method applied in much of the temporal drawing research undertaken in the PhD. See footnote 4 for more information.



Fig.3 - Selection of drawings and details from Mirror Drawings, 2016.

Lines thread the gallery from oriented wooden structures, suspending the drawings where desired. Dark reflections of mirror worlds lie below, occupying both ground and shifting horizon.[9] The drawing surfaces are pre-marked by fragments from a series of collages reflecting the inhabitation of the site over time. Both sides of the paper are worked using the same methods of conjuring as in the *Mirror Drawings*. In being site-specific, the *Interloper Drawings* activate the relationships between site, drawing plane, mirror worlds, content and surface, and ultimately test these out through inhabitation. The experience of the mirror world is like Borges becoming Shakespeare, in one moment it may be night-time, while the other is breakfast. There is an intuitive awareness of multiple times happening at once in the space and the potential trajectories multiply.

Temporalities enfolded

> "It matters what ideas we use to think other ideas..."[10]

In the *Mirror* and *Interloper Drawings*, the dynamic seam is what allows the activation of multiple temporalities. The image is denied by both the form of the drawings (never remaining in position) and the "forgetting" that takes place as marks re-write marks.[11] *Garden Drawings*, the latest series of work, is similarly motivated and takes the engagement between drawings further (figs. 4 and 5). Materially and analogically, each moment—a radish, a line or shadow, a crinkle in the paper—might hold dialogue with its neighbours as I draw out the complexities of the site: a garden allotment in Brighton (UK). The new drawings engage the connections of territories over time and these become the work itself.

Some of the previously established methods are revisited but here the drawings are doubling as a design tool for a future architecture. The site invites the temporalities and unpredictability of living beings to become part of the drawing process, working as a gathering device (like in the *Bedroom Drawings*) and expanding the temporal scope.

Seeds are planted: some inspired from memory, some from experiences later in my life, and some for curiosity—a future unpredictability. Bogbean, black salsify, strawberries, foxglove, and cornflowers take their place among the almost-wild raspberries and continuously sprouting horseradish.[12] The content becomes the particularities of the specific plants as well as elements for inhabitation: a fire pit, hidden places to build reflective pools, conjured engagements with the neighbouring architecture.

8 Interloper was a site-specific installation that I created for the Black Horses Association for Speculative Architecture (Triftstraße 19A Gallery) in Halle, Germany, 2017.

9 Other characters occupied the exhibition space along with these drawings and mirror worlds: thick two-sided gelatinous drawings held further collages (Jelly Drawings) and 1:1 detail photographs of the floor lined two walls, unhinging orientation and activating a multiple awareness of the space. Other details of the room were captured in photographs, darkened with the taint of the mirror world. More dark mirrors inhabited cracks and thresholds. Window cases held apparatus and reimagined reflective maps of the views to outside. Dark mirrors were a critical element in the research, allowing multiple times to be read into the present.

10 Marilyn Strathern, *Reproducing the Future* (Manchester: Manchester University Press, 1992), 10.

11 "Forgetting" seems the most congruous term, as boundaries and seams slip positions in the enfolding of new narratives. The histories of these cannot be fully disentangled from each other.

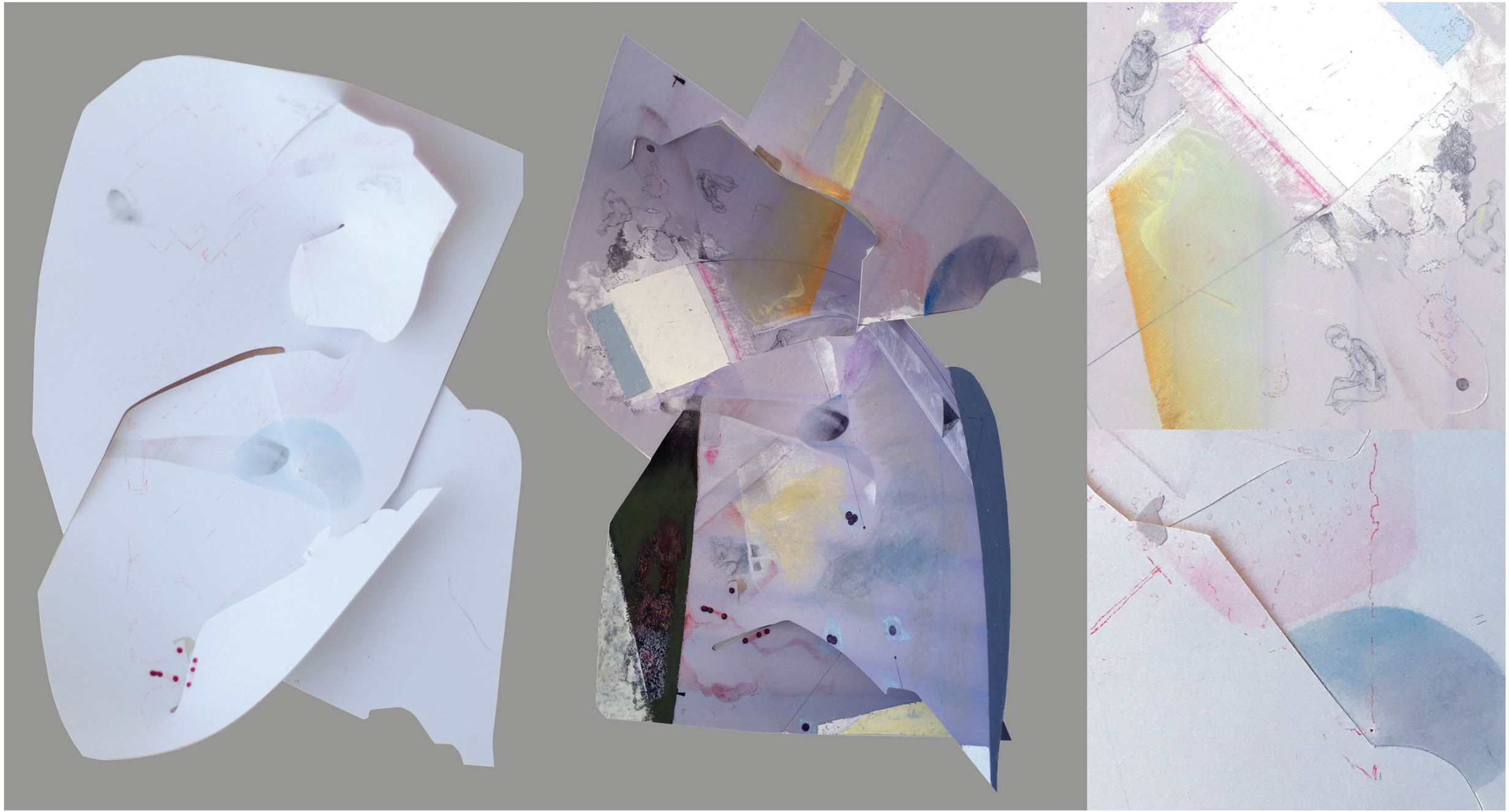


Fig.4 - Garden drawing 1 (left) and 2 (right) with details, 2021.
Drawings are 25 x 40 cm each.

There are other key site characters: the ancient hillfort high on the horizon, the pond, the neighbouring wall that acts as a screen for my thoughts. The garden itself is a gathering device, a way of remembering and projecting. It may become a camera, a particular place to draw from, a territory that coerces these simultaneous differing times to exist in a palpable way. Planting seeds, it is easy to conjure memories of long-ago spaces. The drawings that arise allow me to ask questions about how these disparate times might relate, and how they may enfold future possibility.[13]

The early drawings are dynamic and converse across both sides of the paper. A non-linear set of interchangeable relationships develops; a specific fold in the paper here is an ontological shift there. New plants are registered: encroaching blackberries and dying plums—the seasons pass. The drawings replicate; multiply. What matters in the early drawings is carried through and amplified in the later work, and this transforms the original significance of suggested territories. The same memory populates the site in multiple ways, inviting contemplation on re-remembering memories through formal arrangements: transfers mimesis, iterations and mirrorings. The drawings accrue the qualities of my experience of site. Travelling between ideas becomes jungle-like as hidden perspectives emerge. Engaging the occlusions reveals other lives—the history of layers in the layers; a poetic rediscovery of what lies under the surface of the pond, for example.[14] The veil of the earth and what arises is considered, as are other densities: the thickness of oil pastel the colour of russet apple, the black skin of salsify. Already sensitive and changeable, some of the *Garden Drawings* have the capacity to draw—to leave marks. There is an expectation that other seeds can be cast from each and they too can plant other versions.

The further my practice enfolds and collapses a multiplicity of times, the more the nature of the drawings resonates beyond any image. The body of work exists as a shared flux of inquisitive practice, bearing forth an indeterminate temporal multiplication of created trajectories. The attuning of events that is the act of drawing is here intensified by the embracing of time's slippery nature, and this brings an acute awareness of the limitations of the static image to communicate that which is at stake in drawing practice. Encouraging the slippery character of time and poetic possibilities to flourish sustains a place where the imagination moves in multiple trajectories simultaneously, reflecting a temporal complexity that both challenges the dominating narrative of a linear, measurable time and encourages the rethinking of the relationship between architecture, drawing and image.

12 There is a garden shed built from the century-old wood of the Lectern Pub nearby, with little steps up to its front door, built by colleague and plot-owner Lucy Ann-Gilbert. Much like at the cottage where I spent my summers, the steps become the place to sit and take in the activity of garden life. The memories of these summers begin to inhabit the site and drawings, as characters from these spaces find themselves enfolded into the work; Lucy, my mother, an old friend, and the fictional future of myself...

13 In thinking of the all-at-once of these temporalities enfolded together, I am reminded of the work by physicist Karen Barad. She writes: "Time can't be fixed. The past is never closed, never finished once and for all... There is no erasure finally. The trace of all reconfigurings is written into the enfolded materialisations of what was/ is/ to-come." From "Quantum Entanglements and Hauntological Relations of Inheritance: Dis/continuities, SpaceTime Enfoldings, and Justice-to-Come", *Derrida Today*, 3, No. 2 (2010): 264.

14 The lake I grew up on had an old sawmill, so by paddling out over the water one could find all sorts of fantastical constructions beneath the surface (real or imagined) –most often never to be found again. In drawing the pond, I discover again (to my great surprise) this submerged territory.







Fig.5 - Garden Drawing 3, 4 And 6 (Right Bottom, Left Bottom), 2022.
Drawings are 40 X 57cm each.

Chronotopes of Movement and Rest
Drawing roadside architecture in Québec

THOMAS-BERNARD KENNIFF

> "This parallel highway we're looking for perhaps only exists in the imaginations of those who dream of it. But if it exists … it doesn't just involve a different physical space but also another time."[1]

This chapter presents ongoing research into Québec's provincial rest stop network and a drawing exploration of its spatial and temporal dimensions.[2] Based on on-site documentation and analysis, including a photographic survey of each rest stop, the drawings explore the paradoxical quality of the roadside stop as a site that is both static and ecstatic, at the meeting point of rest and movement. The act of drawing assembles geographical data and architectural form together with the sequential movement of travel inscribed in the landscape in order to reconfigure its subject. That is, the drawings capture the events of the rest stop, encounters between an inside—inside the constructed reality of the road network and its specific territorial imaginary—and an outside—a "parallel road" that is another space and another time. The chapter is set in two parts. Its first half traces the temporal complexity that our research reveals and that we are attempting to fold into the drawings. The second presents our drawing process and the drawings that have been made so far.

The rest stop is one element of automobility, which historian Ben Bradley describes as a non-linear, diffuse and enormously complex system that includes the automobile as much as it does roads, the Fordist production system, the oil industry, the tourism industry.[3] To this, we may now add artificial intelligence, "smartness" and, especially in Québec, hydroelectric production. The rest stop, within this diffuse system, is of particular significance because it is both an architecture that is the product of automobility and a device of the state apparatus that takes care of the physiological needs of the traveller. In Québec, this device appears with the creation of a national road programme that sees mobility as the confluence of transport, commerce and industry, tourism, and social and technological advances. Despite this importance, the rest stop—especially here in Québec—is a blind spot of road infrastructure research. Unloved and utilitarian, its architecture is consumed, if at all, in a complete state of distraction—or pressing urgency—or with the same carelessness than sidewalk curbs, sewer grates, culverts and ditches, or highway lamp poles.

In the mid-1960s, the Transport Ministry of Québec launched a province-wide roadside parks program. As part of this program, over 200 rest stops, or *haltes routières*, were built between 1965 and 1980 as the province's road network expanded into Canada's longest (fig. 1). The same years mark the construction of the Québec portion of the Transcanada Highway (a series of highways across all provinces), massive infrastructure projects, and heightened international tourism with Expo 67, Montreal's 1967 world exhibition. With growing tourism and a taste for what Maude-Emmanuelle Lambert calls "antimodern" images of rural Québec,[4] the faux-vernacular architecture of early rest stops directly reflected the emerging national identity of Québec while at the same time feeding the myth of a virgin Canadian wilderness free from conflicting territorial claims.

If the architectural form of the first rest stops elevates heritage to the status of myth, the entire network of roadside parks does the same with nature, constructing an image of vast expanses, of distant but accessible lands. The territory, in this imaginary, is distinct from motoring and the road network which brings us there. The construction of rest stops contributes to this distinction, between the spacetime of daily routine, of work, of the family, of the city, and that of holidays, of travel, of far-away destinations. They are thresholds between the urban, the built, the modern, capitalist society, and an a priori bias towards and existing and independent "nature". Through the road, we reach an elsewhere—not only geographically, but in Michel Foucault's sense of other spaces, or heterotopias: an elsewhere apart from socially

1 Julio Cortázar et Carol Dunlop, *Autonautes de la cosmoroute ou Un voyage intemporel Paris-Marseille* (Paris: Gallimard, 1983), 40. The original reads : "Cette autoroute parallèle que nous cherchons n'existe peut-être que dans l'imagination de ceux qui en rêvent — mais si elle existe … elle comporte non seulement un espace physique autre, mais aussi un autre temps." Translation by the author.

2 The project involves the collaboration of several environmental design students at the École de design, Université du Québec à Montréal.

3 Ben Bradley, *British Columbia by the Road: Car Culture and the Making of a Modern Landscape* (Vancouver: UBC Press, 2017).

4 Maude-Emmanuelle Lambert, "À travers le pare-brise : la création des territoires touristiques à l'ère de l'automobile (Québec et Ontario, 1920-1967)" (Ph.D., Université de Montréal, 2013), https://papyrus.bib.umontreal.ca/xmlui/handle/1866/10353.

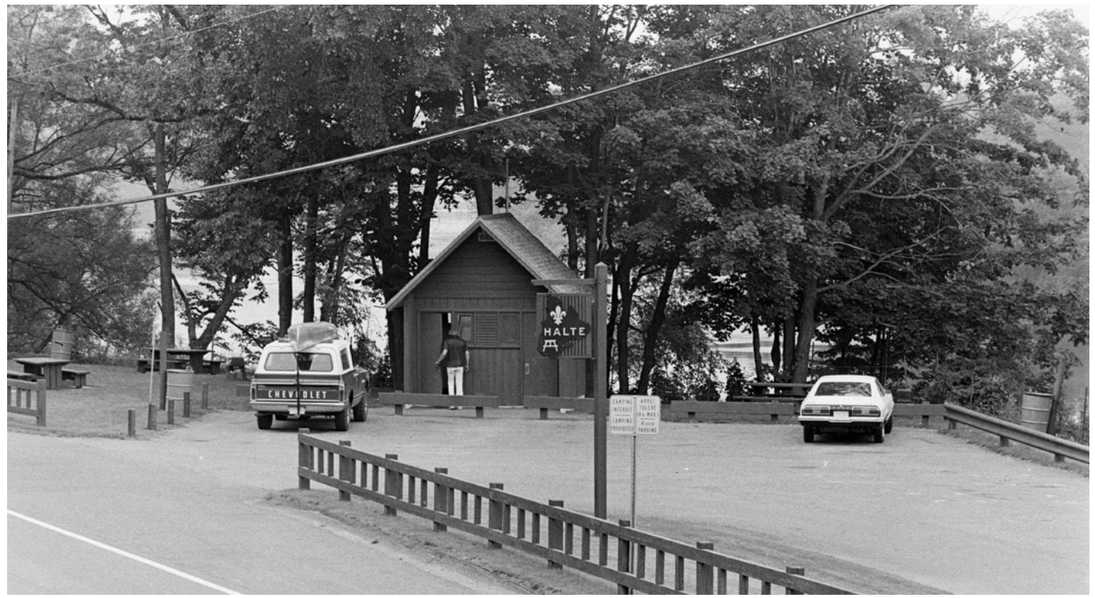


Fig.1 - Rest stop in Richmond on the shore of the Saint-François River, route 243, 1976.
Source: Bibliothèques et Archives nationales du Québec (BAnQ)

produced temporality and spatiality, but which is nonetheless produced through infrastructure, transport, mobility, holidays, or leisure.[5]

The idea of a primordial "nature" accessible through rest areas, or what an official government document from 1970 calls a "veritable Eden", is well documented in photos found in the archives of the Transport ministry, dating from the early 1970s. At a rest stop now demolished, on the edge of trees mistaken for a forest, comforting signs follow one another in a décor that is fabricated from scratch. A child stands watching the forest, toy rifle in hand, as if a bear were about to suddenly emerge. Guard must be kept at the edge of the unknown (fig. 2). Yet, far from taking us to another reality, the road leads us to its own. Ben Bradley calls roads a "cultural infrastructure" that shapes the perception and experience of its users, a "coercive assemblage" that constrains without ever freeing the driver.[6] The experience is collective and is the same for everyone. The road can only take us where it takes us; that is, to itself.

The same is true of the rest stop. It is a place in itself, the product of intentions, conceptions, and normalisations. In the 1960s and 1970s, the intention was to establish the rest stop as a device for visiting an already existing landscape, without thought given to the fact that the landscape was very much a by-product of the road. In our project, rest stops are understood as types, using the definition given by Kim Dovey and Stephen Wood, as a "pattern of repetition of formal configurations incorporating a deeper connection to social and economic functions."[7] Understanding it in this way allows us to see the rest stop as a form of connectivity between automobility and its economic, political, and cultural contexts. It also means that the architectural type inscribes time onto itself and becomes, using a concept taken from the literary theorist Mikhail Bakhtin, a *chronotope*. In his introductory text, Bakhtin gives the example of the road as an archetypal chronotope in literature structuring the space-time of the narrative or, in other words, materializing time in space.[8] In our case it is the roadside stop that plays this role in the cultural landscape allowing us to understand it not as something fixed, but as a narrative in space and time. As a chronotope, it invites us to unpack the temporal aspects of its site, reading its heterochronic qualities—in time, out-of-time, and from a different time—and its heterotopic qualities—in place, out-of-place, and from another place.

5 Michel Foucault, "Of Other Spaces", *Diacritics* 16, n° 1 (1 April 1986): 22-27, https://doi.org/10.2307/464648.

6 Ben Bradley, "Making Canada a Roadside Attraction"(CCA, Montréal, 23 February 2017), https://www.cca.qc.ca/en/events/41704/making-canada-a-roadside-attraction.

7 Kim Dovey and Stephen Wood, "Public/Private Urban Interfaces: Type, Adaptation, Assemblage", *Journal of Urbanism: International Research on Placemaking and Urban Sustainability* 8, n° 1 (January 2015): 4.

8 Mikhail M. Bakhtin, "Forms of Time and of the Chronotope in the Novel: Notes Toward a Historical Poetics", in *The Dialogic Imagination*, ed. Michael Holquist, University of Texas Press Slavic series no. 1 (Austin: University of Texas Press, 1981).

The cultural landscape of the roadside is rife with chronotopic gems. Rest stops from other eras that are still standing carry the time stamp of aborted progress or would-have-been updating. They exist on the same network as their "modern" counterparts, thus creating inconsistencies across the province. Some older installations become temporally layered as they are modified and brought to code. Through these architectural variations, time becomes material and tangible.

The current road network of Québec has close to 330 rest stops. The majority of those, 243, are managed by municipalities whereas 87 are managed by the provincial government. Of those 87, 49 have washrooms. In September 2021, I set out on the roads of Québec with the objective of documenting those 49 rest stops through photographs and drawings. The journey was inspired by Julio Cortázar and Carol Dunlop who, in 1982, travelled the Paris-Marseille route in thirty days with the constraint of stopping at all rest areas without ever leaving the highway corridor.[9] I spent the nights in the roadside parks, driving a rented 1989 Volkswagen Vanagon camper, forced to make the nocturnal experience of the sites, the mechanical anxiety, the watchfulness for any noise, and the fear of leaks, integral parts of the trip. The journey shares with Cortázar and Dunlop's the objective of inhabiting the space-time of the network in order to explore and amplify its heterotopic qualities.[10] In this understanding, the network becomes the territory, as promised by the Ministry of Transport's own rest area map of the province, one that reaches west, north and east between Témiscamingue, Eeyou-Istchee Baie-James, and the Madeleine archipelago in the Gulf of St Lawrence.

Today, the provincial network is composed of architectural types and constructions dating from six different decades whose varied architectures reveal the different times and temporalities of its territory (fig. 3). Across this landscape, issues of provincial politics and bureaucracy, neoliberal policies, the privatization of public goods, cultural and biological identities, public hygiene, illicit practices, personal security, and collective memory all come to rest on the roadside. There are architectural materializations of the antimodern sentiments of the post-war period into 1960s faux-vernacular, the rise of a national identity through architecture during the same period, the 1970s postmodern experimentation on of the Canadian house, the great devolution to the municipalities of the 1980s with the advent of neoliberal policies and the re-engineering of government spending and responsibilities, the northern expansion and land exploitation for resource extraction expressed obliquely through a shabby 1984 dry toilet, the explosion of programmatic diversity in the early 2000s with unique occurrences of modernization, the white elephant of public-private-partnerships from the 2010s inhabiting the eternal present of commercial space, and the latest, better form of modernization of the 2020s, normalized in all aspects.

Although they refer to different space-times, these images are not anachronistic. They make up a network that is heterochronic and non-linear: existing in both the present and the past. What emerges is an expanded but fragmented space-time in which the dynamics of identity, culture, technology, and administration are played out in a perpetual forward movement toward "modernity". The idealized landscapes and their architectural settings meet the impulse of constant upgrading. In this expectation of continuous updating, the interest in customer service overshadows architecture and design, which are sacrificed, permanently playing catch up, and in constant need of modernization—as witnessed in the current wave of closures and demolitions after which their memory can at best become a vestige, or at worst disappear.

There is thus a part of remembering, or preservation in our project and drawings. Our extensive inventory of the *haltes routières* is complemented with a desire to draw all this together. We identified stops across the network whose characteristic "patterns of connection" to architectural form, economic context, and cultural ramifications could amount to a type. Each building type was modelled with a typical site and presented in axonometric projection. The axonometric highlights the strategic intent behind the provincial project for roadside parks. Whereas the cultural intent of the project lends itself to perspectival projection, placing the rest area in a landscape experienced from the point of view of the road user—as was often the case in official documents available to the public—the planned and systematic nature of the overall project is better expressed through mathematically consistent orthogonal projection. Construction documents for the 1960s Canadian house type found in the archives reveal measured



Fig.2 - Halte de Bernières (now closed), Highway 20 (Transcanada Highway), Bernières, a few kilometers before Quebec City.
Source: Bibliothèques et Archives nationales du Québec (BAnQ)

9 Julio Cortázar and Carol Dunlop, *Autonauts of the Cosmoroute, a Timeless Voyage from Paris to Marseilles*, trans. Anne McLean (Brooklyn, NY: Archipelago Books, 2007).

10 Liesbeth François, "Los conceptos de no-lugar y heteropatía en el análisis literario: Propuesta de relectura de Los autonautas de la cosmopista de Julio Cortázar", *Nuevas Poligrafías. Revista de Teoría Literaria y Literatura Comparada*, nº 3 (15 September 2015): 15-32, https://doi.org/10.22201/ffyl.poligrafiasnuevaepoca.2015.3.1673.



Fig.3 - Examples of rest stops presently in operation.
Photos by author, 2021–2022

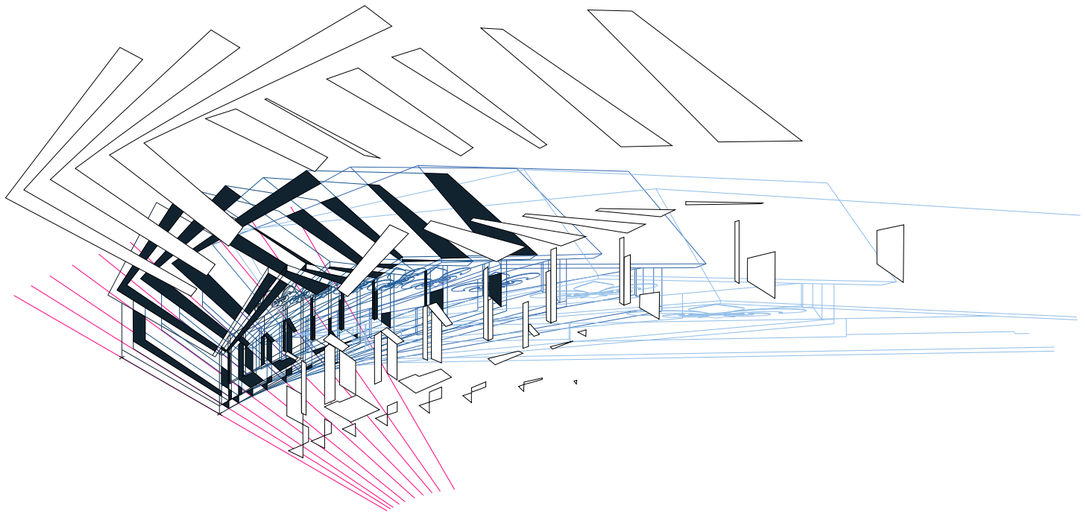


Fig.4 - Shed architectural type axonometry.
All drawings by the author

drawings for repetitive "rustic" elements like picnic tables, shelters, and garbage bins, as well as construction details for fake shutters and the plywood cut-out for the pediment's fleur-de-lys frontispiece. Tracing an oblique line between plans and sections and perspective, the axonometric manages to capture the sense of an overall experience while retaining the constructive aspects of a landscape that is assembled, piece by piece.

To explore ways to fold in time and express chronotopes of movement and rest through the medium of drawing, we go beyond straightforward axonometric projections. With no clear idea of the final result or a well-defined aesthetic objective, the explorations follow simple rules that through iterative transformations increase the drawing's complexity. The major principle at work is the dialogic, or the polyphonic encounter between multiple voices. These voices do not get subsumed or combined to create another, but retain their capacities while generating new ones. However "lost" or disoriented one gets, one can always find the individual voice in the chorus. Each polyphonic drawing of a rest stop is built up using multiple axonometric projections where incremental multiplying ratios—or the scale ratio along the three axes [x,y,z]—and the angles of projection [δ,60-δ] differ on each subsequent layer. They start at [1,1,1] and [30,30] whereafter the multiplying ratios stretch along the y-axis (the road) and compress along the vertical z-axis, and the projection angles shift proportionally as δ increases: [1,1,1; 30,30] ... [1,2,0.8; 39,21] ... [1,7,0.5; 59,1]. The object does not recede in the distance, but relationship between object and viewer through the picture plane gets increasingly oblique as the object appears to stretch out. Ten different drawings are traced in this way and superimposed. The layers are then brought out of phase, translated along a line of movement, as line weights and colours are arranged between the least amount of movement (strongest lines) to the most (faintest lines). The projection is thus stretched as speed picks up, or, conversely, compressed as one comes to rest (figs. 4 and 5). Yet, by aligning the different layers along common vectors, the deformations remain contained within the same architectural figure. They do not, in other words, organize the sequence into discrete parts over time or space, but collapse them to a single moment: all chronotopes into one.

The resulting drawings attempt to find different architectural figures within the given banality of what at its core is a roadside convenience. Within the accelerated axonometries emerge different forms, patterns, repetitions, rhythms, skewed variations of the original geometry as lines overlap, cross each other, and combine so that the architecture of the roadside expands as it enters the warped space-time of the road. The drawings are meant to disorient but without ever losing the possibility for accurate measure. Because the manipulations follow the mathematical principles of axonometric construction, each individual layer and collection of lines represents a figure that could be translated back to the original projection at [1,1,1; 30,30] and the dimensions of the three-dimensional roadside installation. The drawings attempt to keep the precision of the subject that comes, in part, out the normative mechanisms of the Transport Ministry, while actively seeking defamiliarization to occupy the messy, thick space of the neither here nor now, neither at rest nor moving.

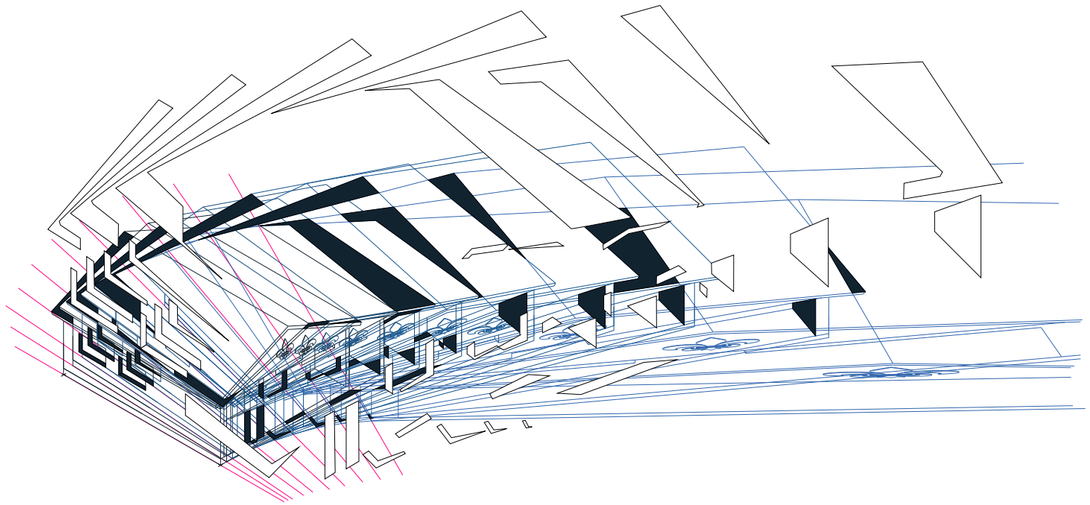


Fig.5 - Canadian house architectural type axonometry.

There is a certain similarity between the individual building drawings (figs. 4 and 5)—especially with the types that resemble each other like the single dry toilet, the *cabane* or shed, the Canadian house, or its postmodern variations. The architecture expands in a way that reveals architectonic relationships that may seem familiar. When the same drawing protocol is applied to the building and its site, however, the result changes. The small details of the building's architectonic translation are obfuscated by the added site information and the multiplication of lines. Yet, the drawing gains clarity as one steps back. What we discern in the overall drawing are figures of organization that parallel the specific characteristics of the road on which the rest stop is found and of the specific type of movement it generates. In the drawing for Lac-à-la-truite (Trout Lake) (fig. 6), we observe the long stretch of the Transcanada Highway, linear, taunt, rude to local topography, and faster. With this type of stop, the architecture is in keeping with the geometry of the road. The building sits on a long off-lane parallel to the highway, its site stretched along the same axis in keeping with the required space for deceleration and acceleration to leave and rejoin the flow of movement at high speed. Travelers coming to rest are still connected to the road, wherever they are on site. In the drawing for Opimica (fig. 7), we note the meander of the provincial road, sinuous, slack, kind to local topography, and slower. With this type of stop, the geometry of the site breaks with the road's as the facilities shed is located further in-site on a meandering path. At Opimica, travelers have to leave their car in the parking area and wander across a short footbridge spanned over a brook (bridge number 11645 in the Ministry's inventory) and follow a curved path to a small clearing among the trees. In this case, compared with the previous stop, the traveler coming to rest is momentarily separated from the road.

In the above examples of exploratory drawings, we see a resonance between the documented phenomenon and its representation. That is, the exploratory drawing achieves a novel form of representation that is unfamiliar while retaining the memory of the original. It does not offer something that is entirely new, or alien, something that has resolutely departed from its subject, but a reconfiguration of the subject.

As we have written elsewhere, the aim of the inventory-as-design-project is to document, or trace, a phenomenon in order to reinscribe these traces into something intelligible that gives them new meaning.[11] Drawing is the practice of this inscription. The chosen drawing parameters respond to the subject, in our case to its technical grounding and precision, its strategic planning, on the one hand, and its experiential qualities on the other. A line is thus made visible between the documented phenomenon and the resulting drawn "other". By assembling the traces of meticulously documented events in this way, the inventory project gives presence to the subject, drawing out something that would have otherwise remained "disjointed, incomplete, incomprehensible, or worse, invisible."[12] The "parallel road" sought by Cortázar and Dunlop does not only exist in the imagination of the person who dreams of it. It is real imaginary, or the mediation of the world through experience, a construction that is as collective as it is individual, as material as immaterial, made of asphalt, wood siding, porcelain, bits, lines, and projections planes.

11 Carole Lévesque and Thomas-Bernard Kenniff, eds, *Inventaires* | *Inventories* (Montréal, QC: École de design; BéPI, 2021).

12 Lévesque and Kenniff, 9.

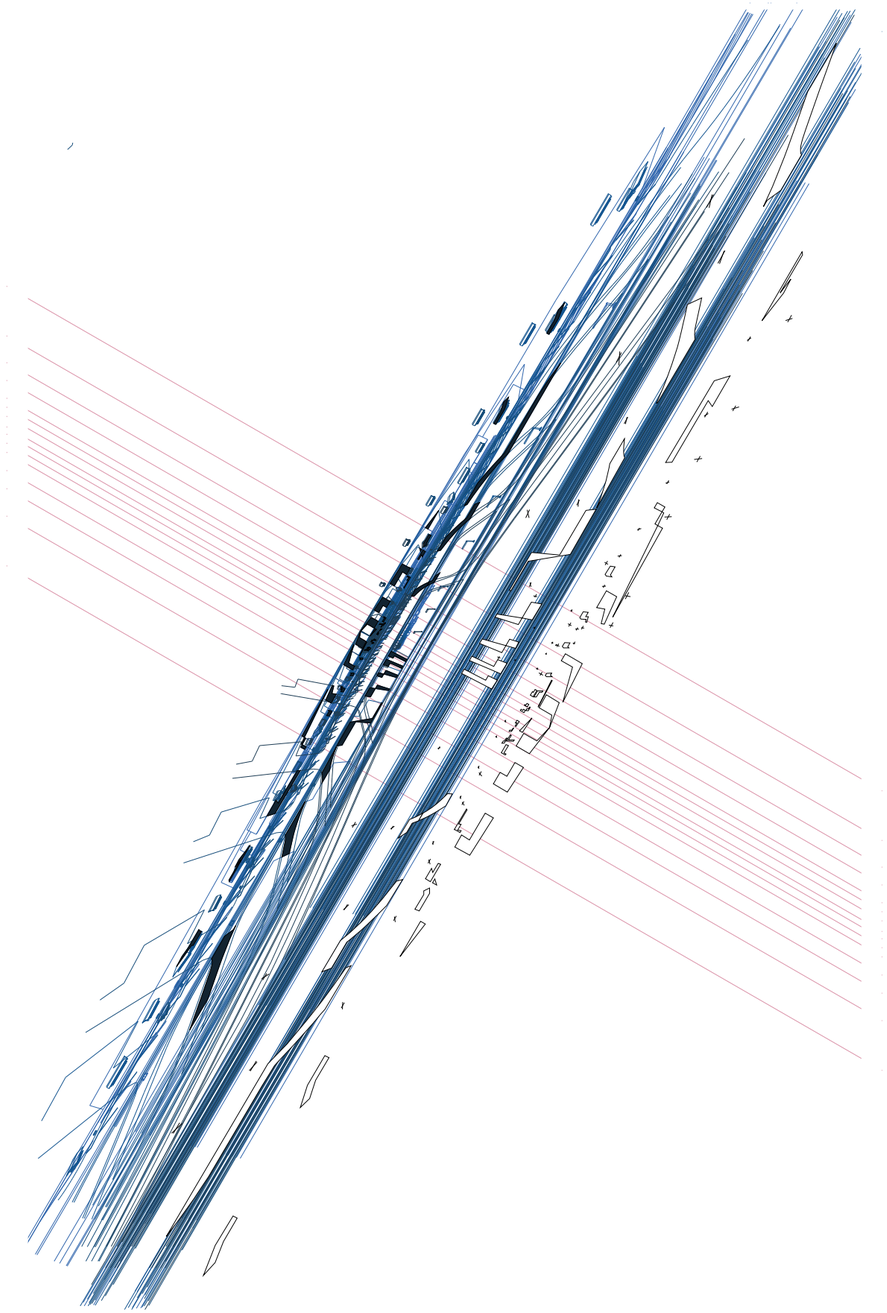


Fig.6 - Halte du Lac-à-la-Truite site axonometry, Highway 20, Centre-du-Québec.

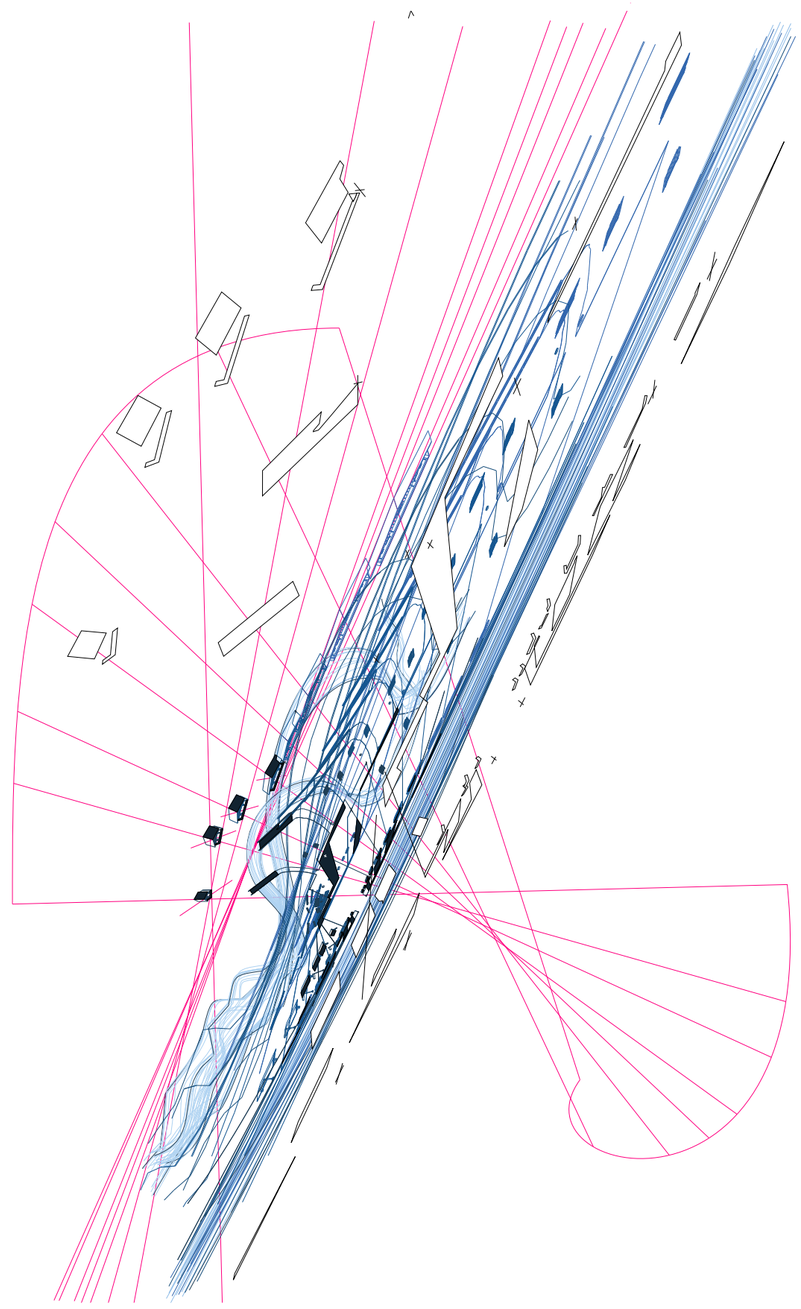


Fig.7 - Halte d'Opimica site axonometry, national road 101, Témiscamingue.

Inquiry

Time

Dialogue

Materiality

Chad Connery
Anca Matyiku
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Penelope Haralambidou
Ozayr Saloojee

Adjective Constructions
A play of drawing together remotely

MOTE PROJECTS
CHAD CONNERY, ANCA MATYIKU

Adjective Constructions is a creative exploration of drawing together at a distance. Our practice has operated remotely since its inception over a decade ago, when we began our collaboration half a continent apart, between Winnipeg and Montreal. The question of how we might draw together would often resurface as we developed tactics for design and production that combined an active reliance on expedited shipments and various modes of sharing and working together in cloud space. When the 2020 pandemic arrived, we were already well-versed in remote collaboration and welcomed the opportunity to re-examine our dialogues across distance through the lens of a drawing process. *Adjective Constructions* is motivated by a desire not only to design together, but also to engage our architect's tools outside their utilitarian function and to draw out ways of playing together at a distance. The project was conceived in the spirit of the speculative, open-ended drawing-as-process that is oriented towards discovery and the nurturing of unpremeditated possibilities. It aspires towards what Marco Frascari has described as "non-trivial" architectural drawings, or the kind of drawings that "are the very condition of architectural experimentations… [and] belong to a specific category of representation that makes architectural thinking possible."[1] Such drawings open opportunities for thinking with and thinking through architectural questions rather than thinking about architecture.[2] Moreover, they are opportunities for projective world-making invested in intimate participation, or what Frascari has called *cosmopoiesis*.[3] As such, they sustain a capacity for fabulation, which, following Frascari's cosmopoiesis, Emmons and Phinney describe as a "crafty" storytelling closer to divination.[4] According to Emmons and Phinney, fabulation highlights the intimate relationship between world-building and the storytelling propensity of our species—*Homo fabula*—in which the fable operates as "a non-analytical speaking in ciphers, requiring the reader to build bridges between the known and the unknown."[5] Similarly, Peter Cook has insisted that a speculative drawing practice is a "motive force" in the discipline of architecture, operating as an "investigative device, a voyage of discovery, a series of glances into the future."[6] Whether such drawings explicitly lead to built architecture is less important than their capacity to propel imaginative possibilities and operate as reinvigorating explorations into the unknown. For us, this act of drawing as speculative practice has been heightened by the condition of distance that has always inflected our collaboration. In making these drawings together remotely, we look to mine this distance for generative possibilities.

Dürer's *The Rhinoceros*: a precedent for mediated distance

Part of our early conversations about translation of information at a distance pivoted around Albrecht Dürer's famous woodcut image of *The Rhinoceros*, made in Nuremberg in 1515 (fig. 1). The print attempts to depict the rhinoceros that was taken from India to the royal court of Lisbon that same year and was the first living specimen to be seen in Europe since the time of the Roman Empire. This print intrigues us because Dürer made it without having seen the rhinoceros—or any rhinoceros at all—but relied on a sketch and descriptions from others. At first glance the print meets our expectations of what we generally know as an Indian rhinoceros. Yet Dürer's image of the beast features a series of strange elaborations. Notice for instance the scaly feet, the additional twisted horn on its neck, and the fact that the skin looks like metal armour. The German text accompanying the image reads:

> "Brought from India to the great and powerful King Emanuel of Portugal at Lisbon a live animal called a rhinoceros. His form is here represented. It has the colour of a speckled tortoise and it is covered with thick scales. It is like an elephant in size, but lower on its legs and almost invulnerable…It is also said that the rhinoceros is fast, lively and cunning."[7]

1 Marco Frascari, *Eleven Exercises in the Art of Architectural Drawing: Slow Food for the Architect's Imagination* (London; New York: Routledge, 2011), 9.

2 This is also something that Marco Frascari has often articulated in his writing.

3 Architectural "cosmopoiesis" underpins Frascari's writing about the practice of architecture and meaningful world-making. Frascari, *Eleven Exercises*, 2.

4 Paul Emmons and Luc Phinney, *"Homo fabula"*, introduction to *Confabulations: Storytelling in Architecture*, eds Paul Emmons, Marcia Feuerstein, and Carolina Dayer (London; New York: Routledge, 2017), 2.

5 Emmons and Phinney, *"Homo fabula"*, 3.

6 Peter Cook, *Drawing: The Motive Force of Architecture*, 2nd ed, AD Primers (Chichester, UK: Wiley, 2014); Peter Cook, "Looking and Drawing", in *Drawing Architecture*, eds Neil Spiller, Helen Castle, Caroline Ellerby, and Elizabeth Gongde, *Architectural Design* 83, No.5 (London: John Wiley & Sons, 2013), 80.

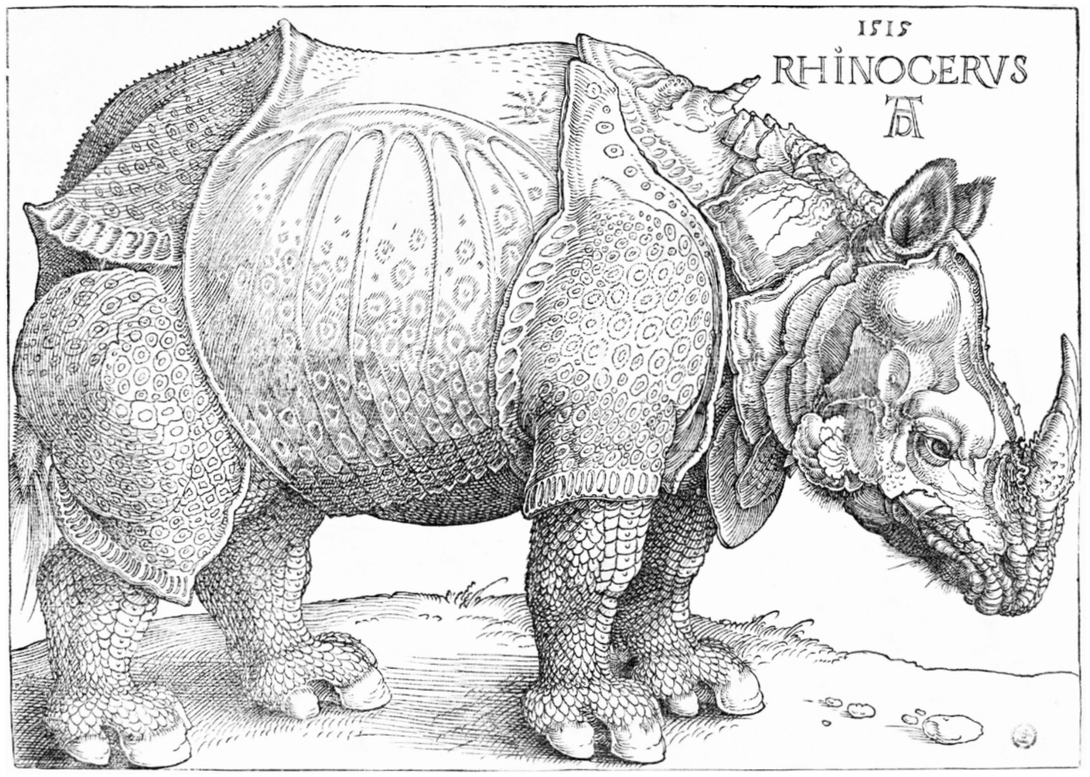


Fig.1 - Albrecht Dürer's The Rhinoceros (Nuremberg, 1515).
Source: Public Domain

When Dürer rendered the rhinoceros' image in Germany, this translation at a distance can be read as a composite of the unknowable, the familiar, the desired, and the dreamed. The lizard-like feet echo the projection of thick scales, perhaps similar to that of a speckled tortoise, that borrow from familiar medieval imagery of dragons and other fantastical beasts. The fabricated swirled horn between the shoulder blades is likewise reminiscent of that of a unicorn. The translation of a rhinoceros's tough skin into decorative metal-worked armour, recalling a horse's barding likewise emerges as a transposition of how Dürer interprets what he can only imagine while relying on the mythic aura surrounding the animal.

The rhinoceros's arrival in Portugal captured the imagination of Europeans who had previously only read about such an animal in Pliny the Elder's classic text *Naturalis Historia*, published a thousand years earlier in the first century BCE. The rhinoceros was not only a wildly exotic creature, but had also acquired a mythic status in the cultural consciousness of the time. In Europe, it only became certifiably real with the specimen that arrived in Portugal. Dürer's fictitious elaborations of the rhinoceros would have gratified this projection of the animal as a fantastical beast, which, combined with the new technology of the printing press, propelled this constructed image of unreliable accuracy to immense popularity. The image was for centuries privileged "in works of natural history… even when more accurate depictions of the rhino later became available."[8]

Overall, Dürer's *The Rhinoceros* encapsulates our fascination with the slippage between descriptions of tangible yet inaccessible things, the variable reliability of these descriptions, and the fictions we compose to navigate or qualify them. *Adjective Constructions* actively leans into this interplay between fact and fabulation, allowing it to inflect our exploration of drawing together across the mediation of distance.

7 Translation cited from Neil MacGregor and British Museum, *A History of the World in 100 Objects* (London: Viking Penguin, 2011), 483.

8 MacGregor, *A History of the World,* 487.



Fig.2 - Re-appropriating the received site fragments: selection of delaminated plates.
Drawings by Anca Matyiku and Chad Connery

Setting up the playing field of mediated distance

To work together remotely is to accept—and even relish—the contamination caused by the gap or slippage between that which is close at hand and that which is relayed by the distant collaborator. In setting up our process for drawing together, we sought to exploit the pleasures of this gap in the translation of information that is physically inaccessible to the distant partner. We developed a ritual of building each drawing from material collected at both of our respective locations. Each new drawing starts with a pair of "chance sites" found through randomly generated GPS (Global Positioning System) coordinates within a 5 km radius of our respective homes. The local collaborator is dispatched to the randomly selected location to collect a set of photographs and construct a short text. This curated package of information is relayed through cloud space. The receiving partner resists the conveniences of contemporary technologies to acquire further information about the distant location and works instead with the mediated fragments. We like to refer to this process of translation and relay as being neither necessarily honest nor maliciously deceptive. The goal is to collect fodder for imaginative projections, which inflects this mediation of distance with a mixture of withholding, mischief, discipline, and playfulness. As far as the chance site, it is important to note that there is no invested attempt to remain faithful to its character—not in the manner an architect is typically trained to respond to the qualities of context and place when designing. Instead, we find pleasure in the juxtaposition of photographs and text as generative fragments that allow us to dream into them more freely. The distant collaborator collapses the photographs into a black and white overlay and then proceeds to delaminate this collapsed image into a series of five to six transparent plates (fig. 2).

The plates are in turn set up along equally spaced parallel lines in virtual modelling space. Each set of plates is arranged back-to-back such that each partner works with their respective end-face of the same shared modelling space. Through this process, images from each of the randomly found locations are flattened and thickened. The spaces and things depicted in the curated photographs become divested of their familiar identity and contribute to a murky territory ripe for creative re-appropriation. Thus, the space for drawing together remotely is essentially a two-faced playing field, or a quasi-theatre for building into virtual modelling space (fig. 3). Through and beneath each of the faces is the depth of its twinned counterpart. In all, the site fragments and the collisions between them are set up to become instigators for spatial re-creations, willingly inoculated by misunderstandings and uncalculated biases.

Adjective agency: to hurl and to make float

The drawings we present as *Adjective Constructions* are the twinned faces of this process of building in virtual modelling space (fig. 4). They are the trace of our playing together with the same architect's tools that we rely on for remote collaboration. This dialogue between us satisfies a desire to creatively reappropriate these tools towards speculation and discovery. We titled the project "adjective constructions" after Anne Carson's understanding of the "adjective" in *Autobiography of Red: A Novel in Verse* where she describes the "adjective" as an appendage that, while seemingly superfluous, has the potential to anchor a work in specificity:

> "What is an adjective? Nouns name the world. Verbs activate the names. Adjectives come from somewhere else. The word adjective (*epitheton* in Greek) is itself an adjective meaning "placed on top", "added", "appended", "imported", "foreign". Adjectives seem fairly innocent additions but look again. These small imported mechanisms are in charge of attaching everything in the world to its place in particularity."[9]

Carson is a poet and a scholar of ancient Greek. She notes that *Autobiography of Red* is a creative interpretation of the very few remaining fragments of an ancient lyric poem written by a minor poet named Stesichoros who was born around 650 BCE.[10] While it claims to be "a novel in verse", *Autobiography of Red* is neither "a novel" nor "in verse" properly speaking, but rather stretches the boundaries of both literary forms.

9 Anne Carson, *Autobiography of Red: A Novel in Verse* (Toronto: McClelland & Stewart, 2016), 4.

10 Carson, *Autobiography of Red,* 3.

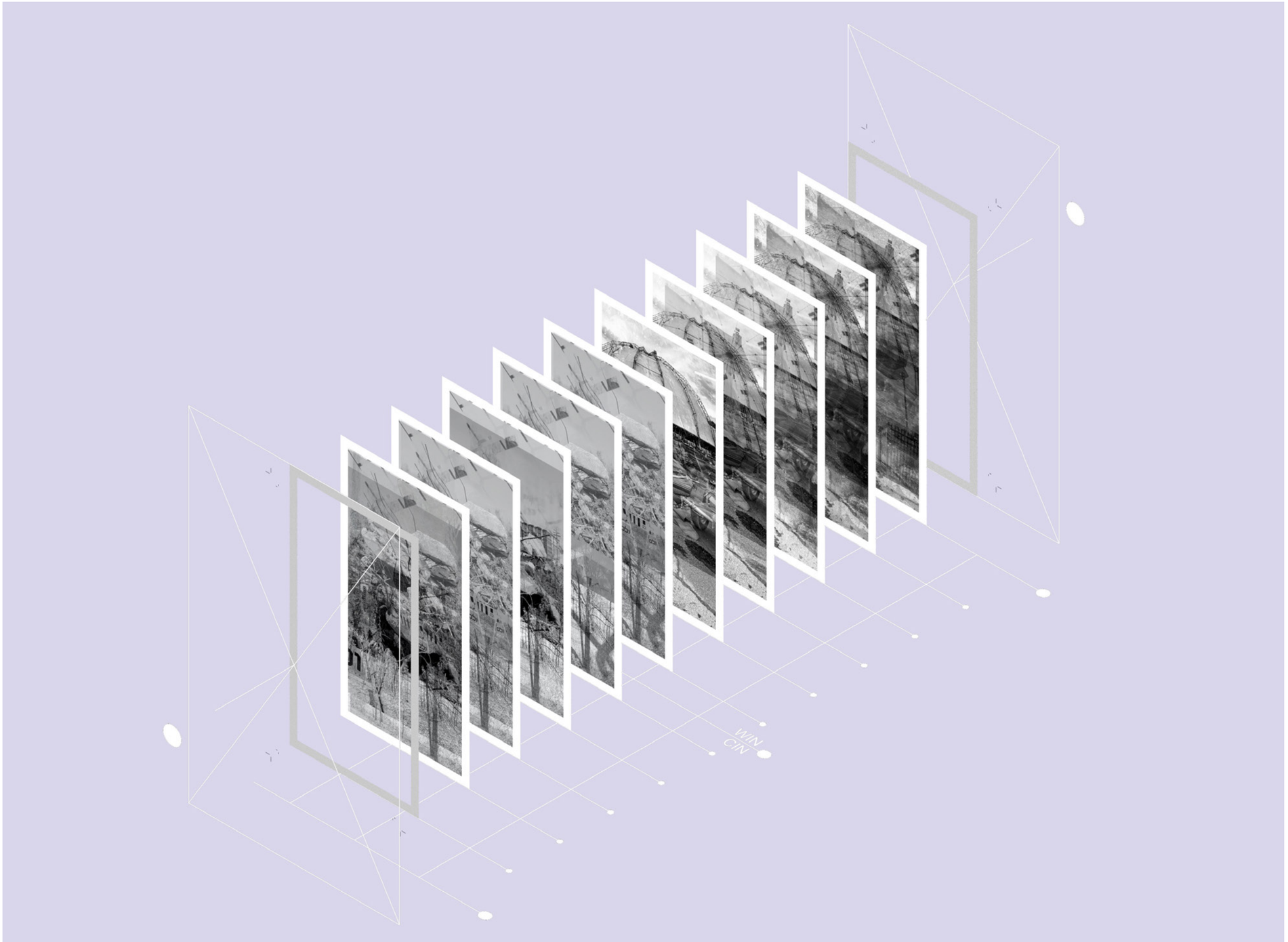


Fig.3 - The digital space of the playing field of Adjective Constructions with delaminated transparent plates between the twinned faces at either end.
Image by Anca Matyiku and Chad Connery

This taxonomical promiscuity resonates for us when we refer to *Adjective Constructions* as "drawings", as in fact they are images of a collapsed three-dimensional virtual play-space. It resonates as well in that, like *Adjective Constructions*—and Dürer's *The Rhinoceros*—Carson's work is a creative mediation of distance, in this case between antiquity and the present.

Carson notes that ancient critics praised Stesichoros for his use of adjectives, which demonstrated a keen sensitivity and a "passion for substances". Adjectives, in Carson's presentation, likewise have the potential to make things float. They tamper with the familiar surface of the world and bring forth new imaginative possibilities:

> "Stesichoros was studying the surface restlessly. It leaned away from him. He went closer. It stopped. "Passion for substances" seems a good description of that moment. For no reason that anyone can name, Stesichoros began to undo the latches... All the substances in the world went floating up."[11]

For us these constructions we call "drawings" are "adjective" in that they may appear superfluous, yet they enable the discovery of relationships and stories enacted through a collaborative drawing process. Furthermore, our process is one in which, like Stesichoros, we wander into the surface of the collapsed-and-delaminated photographs and introduce foreign appendages. While the resulting "drawing" is a side-by-side presentation of the flattened twinned faces, the virtual modelling space in which we work is a thickened drawing plane, heavily textured by the grain of the collapsed photographs taken at the chance sites. The dialogue between us is a process similar to mudlarking and excavation, elaborated by fabulative construction. We draw on the short text sent by the local collaborator to make the first moves, and sometimes revisit it as the play between us unfolds. Some of our tactics involve extracting moments of the thickened virtual space and exaggerating them. We also introduce new "appendages" or "adjective" elements into the playing field that have varying degrees of consequence for the flattened twinned face. While we tend to our respective "face" of the twinned drawing, what we construct at the back of our own side of the playing field also presents itself on the picture plane of the other.

It is in this cross-contamination that the dialogue between us is most fertile towards speculation and discovery. Because we work only with the end views, there is a looseness to how these adjective elements are constructed in the modelling software, essentially engaging anamorphic distortion. The tool is allowed—and even encouraged—to slip, such that various opportunities present themselves in the thickness of the playing field and in how our individual actions affect the other's side. We rely on an arsenal of tactics that include reaching over to the other side; pushing, pulling, stretching, stealing, and re-appropriating each other's constructions; leaving presents on the other's playing field; dropping shadows; and hiding things behind the "adjectives" or "appendages" that show up on the face. In all of this playful exchange between us there is an analogue of "throwing a ball" to the other side, which resonates with the Latin root of "adjective", relating to the verb "to throw" or "to fling" while adding something.[12] The drawing process is thus a performance in which our efforts are directed towards making fertile ground for the other by introducing oblique elements that are outside the direct image. We maintain an active interest in playful cross-contamination of the other's side that results in excitement and anticipation, as well as unapologetic feelings of jealousy towards the other's side of the drawing.

Concluding reflections

Our aim here is not so much to put forward an argument on architectural representation as to contribute to the conversation on drawing practices that are oriented towards speculation and enrich architectural inquiry by cultivating curiosity and nurturing a fertile ground for discovery. Through *Adjective Constructions* we share our exploration of such a drawing practice, one that is specific to us in that it is defined by co-authorship and a condition of remoteness, which has inflected our working process since the inception of our design practice. The question for us has been how we can leverage the distance between us and creatively reappropriate it. *Adjective Constructions* is an exploration of the tools that we use as architects and operates as a dialogue of play between distant collaborators. In the spirit of sustaining a speculative drawing practice, the work is open-ended. While each drawing is instigated by a pair of chance sites, these physical locations are not precious. Our drawing project is not about "place" but is instead located in the distance between us and oriented towards unpremeditated discoveries. We delight especially in the gaps and slippages of information relay, and seek to cultivate the fabulative opportunities of mediated distances that we discovered in Dürer's *The Rhinoceros*. The project explores what happens when we not only work together at a distance, but also play together with our production tools as we wander into the surface, undo the latches of our expectations, make things float, bring forth unstable ground conditions, and project new possibilities. *Adjective Constructions* is a dialogue between distant collaborators as much as it is a dialogue with the work-in-the-making. We play with our virtual tools in the thickened space of our two-faced drawings and our tools play us in return.

11 Carson, *Autobiography of Red,* 5.

12 The Latin *adjectivum* is derived from the "past participle of *adicere* 'throw to, fling at, throw or place (a thing) near,' especially 'add in addition, add by way of increase,' from ad 'to' + combining form of *iacere* 'to throw'." *Online Etymology Dictionary*, s.v. "adjective," accessed August 31, 2023, https://www.etymonline.com/word/adjective. We are grateful to Mark Dorian for pointing out the resonance with the Latin etymology of "adjective."

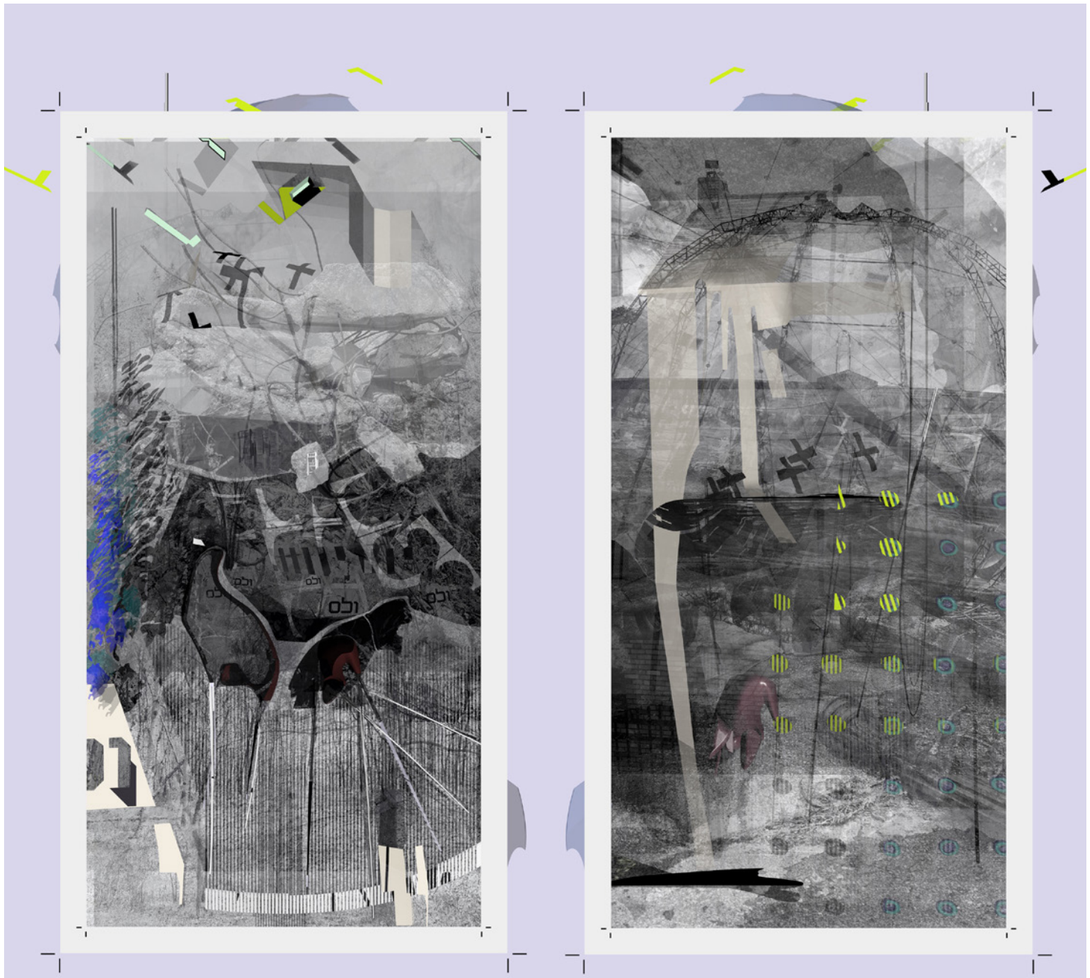


Fig.4 - Twinned "adjective construction".
Drawing by Anca Matyiku and Chad Connery

We Like Both
The collaborative practice of drawing islands

ANNE ROMME, JACOB SEBASTIAN BANG

Background

Islands, in the plural. We instinctively chose that word to describe our artistic collaboration[1] because we both, in our earlier work, had an affinity with series and fields of things. A field of 1001 models, series of geometric explorations of primary forms and polyhedra, to name just a few. The insular condition as a subject called for attention at the time[2]—perhaps it always does—but the possibility of working with it as a plurality placed our collaboration within a specific discourse of drawing and design from the beginning. Drawing many islands, archipelagoes, not only provides compelling subject matter; it also shifts the focus from object to field.

This chapter uses experiences and results from our collaborative drawing practice to account for productive relationships between drawing islands as field conditions and as geological phenomena. We show that the two are not incompatible, but reciprocal and productive strategies for a collaborative practice of drawing islands.

Islands as an artistic subject in general, and as our subject in particular, range from the singular metaphor to the archipelago, from the abstract to the concrete, and from the biological to the geological. And with that, the drawing of islands requires an abundant and flexible toolbox of techniques.

Field conditions

Like many other architects of our generation, we have had Stan Allen's article "Field Conditions"[3] at the very top of our toolbox, readily available when needing to understand and interpret the time we design for, and also as a direct design tool: a tool which favours process-oriented design strategies over object-oriented ones, and which presents a set of directly applicable procedures.

If one favours process over object, a drawing and the act of drawing are always, one might argue, already a field condition. The drawing paper is a field and the marks on it, accumulating over time with less attention to the overall form than to the local neighbouring marks, is a field condition.[4] In our case, both the subject matter, series of islands, archipelagoes, and the act of working together on the same drawings, lead us automatically to process-oriented strategies and fields.

When we began the drawing project *Islands*, two different practices of drawing were combined: two ways of making marks, which were not focused on the same motifs and figures, if they were focused on motifs and figures at all. The composite drawing (fig. 1) shows an attempt to assemble previous series of figures and geometries into the same field.

The drawing corresponds to Allen's fundamental characterization of a field condition: "a formal matrix capable of unifying diverse elements while respecting the identity of each."[5] But it immediately poses new questions: to what degree have the diverse elements become unified, and did it lead to something new and productive? Just as Allen in his essay goes on to discuss examples of higher complexity, our collaborative practice needed to address procedures which go further into unifying our diverse practices.

Contingencies and material effects

Seeking parallels to urban and architectural field conditions within post-minimal art, Allen notes how the post-minimalists introduced change and contingency into

1 Our collaboration begun in 2018 as part of the artistic research tradition at the Royal Danish Academy, School of Architecture.

2 In 2018, the topic of islands had been brought to centre stage in Denmark. Plans were made for the island Lindholm to be turned into a deportation centre for rejected asylum seekers, making it a symbol of isolation and otherness,, and Lynetteholmen was presented as a development plan for a new island neighbourhood to meet Copenhagen's ever-increasing need for urban housing, and an embankment to contain rising water levels.

3 Stan Allen, "Field Condition", in *Points + Lines, Diagrams and Projects for the City* (Princeton, NJ: Princeton Architectural Press, 1999).

4 Allen, "Field Condition", 1999.

5 Allen, "Field Condition", 1999.

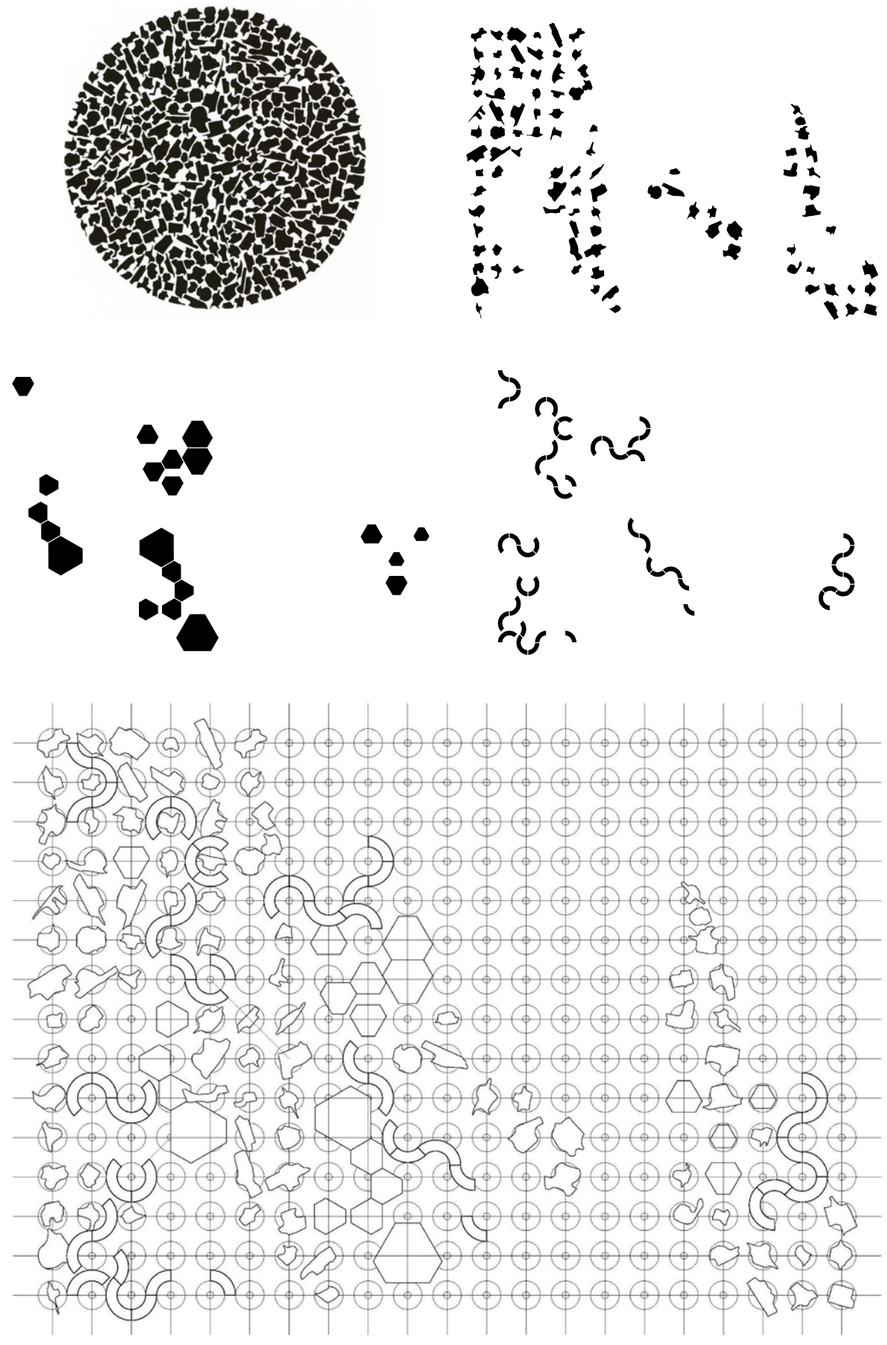
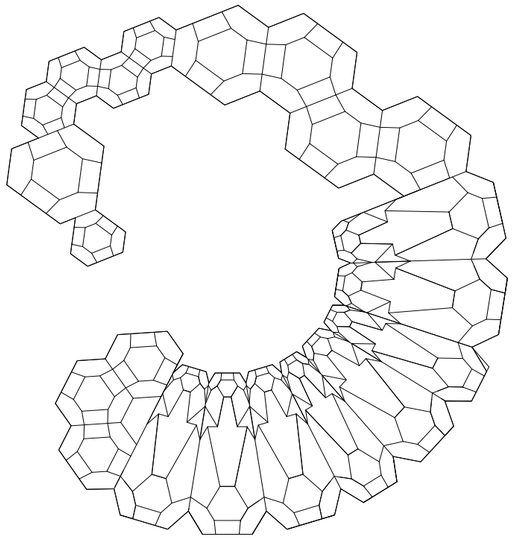
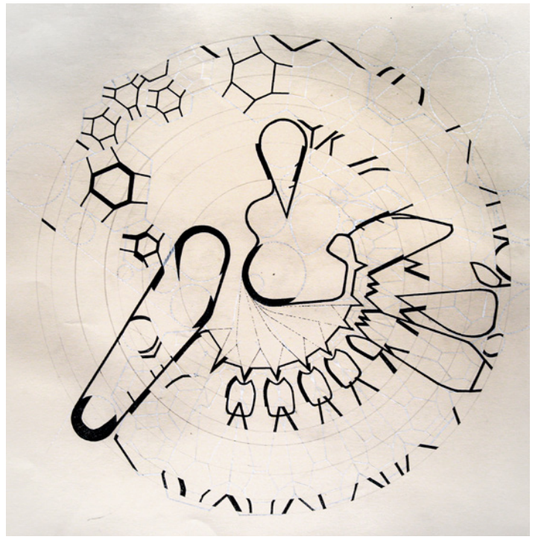


Fig.1 - Composite drawing combining Jacob's earlier work (top) and principles from Anne's earlier work (Bottom).







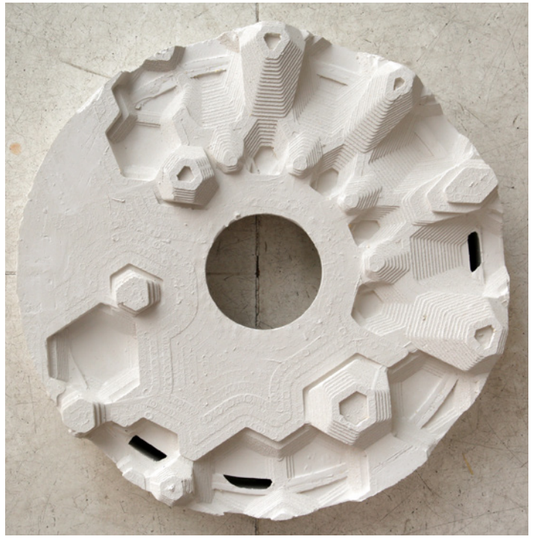


Fig.2 - A drawing in four stages.

the work of art. When unable or unwilling to exercise precise formal control over a material, an alternative is to establish conditions within which the material will be deployed and then direct its flows.[6] While we do not argue that our drawings are post-minimal, or that we treat our material—drawing paper, pens and pencils—as fluid material, the idea of the unpredictable resonates with our collaborative drawing practice. To explain how that is, we would like to describe our drawing practice as a series of actions.

A new drawing always appears as a result of the same procedure: we meet to talk. The conversation ranges from sharing technical matters with regard to drawing tools and techniques to discussing ideas and references from literature, art, music, and the architecture of industrial facilities. Back in our separate studios, we sketch ideas based on the conversation. We then exchange drawings.

Receiving another drawing which originates in the same ideas as your own drawing, you analyze it. Is it possible to add new lines without destroying the other person's work? At first you act cautiously, but after a while the drawing's inner logic takes over. If something needs to be erased, so be it. Nothing new happens without some form of destruction of the existing work done by the other person. Such actions demand artistic courage.

We respect each other's work, yet at the outset of our collaboration we agreed that nothing is untouchable. It is acceptable to destroy each other's drawings if necessary. We saw challenging, provoking and inspiring as synonymous, and to please or to choose the easiest solution is not sustainable in an ongoing collaboration. In this manner, the fear of disrespecting the other person's work disappears and is replaced by curiosity. The desire to investigate the potential of a drawing by transforming it into something unexpected becomes stronger than the hesitation to act and fail.

Moreover, one would like to see the other person's drawing and show that one has understood it, and is now helping to reveal its full potential. The recognition of the other person's work is simultaneously set free and preserved. It might be said that with the deepest respect of another person's drawing comes the courage to alter, erase and, if necessary, destroy it. The elimination of single ownership leads to a more generous understanding and handling of a drawing.

Figure 2 shows an example of our collaborative drawing process in the form of a series of actions. First, a two-dimensional computer drawing is created. After it is handed over to the partner, it becomes a hand-drawing in which large parts of the computer drawing are erased. In its third stage, the CNC router has transformed it into a three-dimensional drawing, and finally it becomes a plaster cast in which the traces of its making are visible.

Some marks and traces are results of deliberate actions; others are unforeseen. In our opinion, this series of drawings is more than a formal matrix capable of unifying diverse elements while respecting the identity of each. With the exception of the first drawing, which is made by just one of us as a starting point, it is obvious that neither of us could have made these drawings on our own. Not only is neither of us proficient in all the techniques required to make them, but also the introduction of contingency requires more than one person. The drawings are aggregates of previously opposing geometrical and organizational logics and drawing techniques. They use different media, alterations and erasures to incorporate chance and contingencies, to make unintentional marks, unexpected figures and material effects that become an integral part of the drawing.

Without going deeper into Stan Allen's essay, we can observe that the processes and techniques suggested have been productive and directly applicable in developing a collaborative drawing practice which goes beyond a simple juxtaposition of previous work. But when trying to describe the composite forms and aggregates that appear as a result of this practice, we come to terms. The forms do not only behave like or appear as field conditions.

Stubborn and less like life itself

To our delight we learned that the eighth issue of New Geographies, published in 2017, is also concerned with islands. In line with our observation that field conditions and islands belong to the same family, the editors, architect Daniel Daou and landscape architect Pablo Pérez-Ramos, identify Stan Allen's essay as essential to the treatment of islands as an academic subject and design strategy. Signaling a shift away from strategies based on the division of wholes and toward strategies based on the aggregation of parts, they characterize the essay as a critical text in architecture theory, "key in discussions around the relationship between architecture and landscape in the years that followed." They use the essay as the theme of their own contribution to the publication, a conversation with Allen called "A Stroll between Fields and Objects".[7]

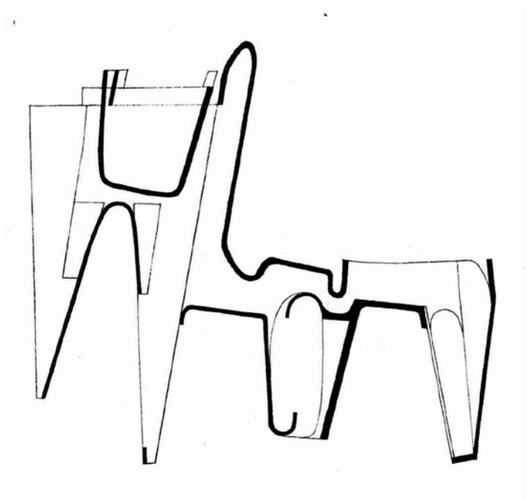
One particular passage in this conversation caught our intention because it resonates with our challenges in describing our aggregate drawings as form. While acknowledging that the essay has played a significant role as a theoretical background for the biological metaphor in architectural design, Allen proposes a shift towards the geological, which involves a stronger notion of permanence and form.

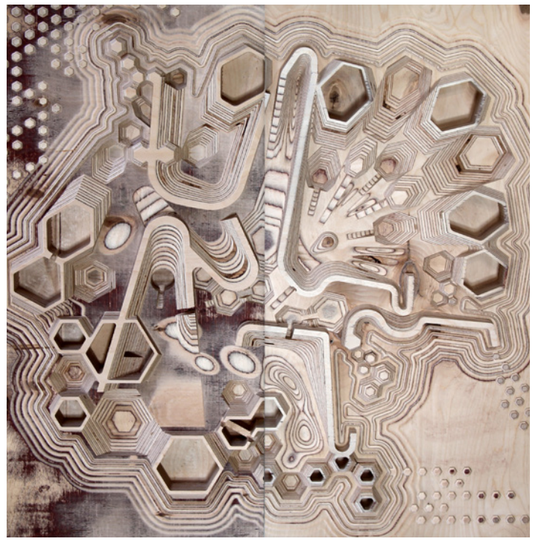
> "My work has never been about that sense if implied or arbitrary movement, and perhaps it is inevitable that I turn to geology. Architecture is hard, stubborn, and mineral. Persistent in time and slow to change. I would say that architecture is less like "life itself" and more like the ground or the platform upon which the dynamism of life unfolds."[8]

6 Allen, "Field Condition", 1999.

7 Stan Allen, interviewed by Daniel Daou & Pablo Pérez-Ramos, "A Stroll between Fields and Objects", in *Island, New Geographies* 8 (Cambridge, MA: Harvard Graduate School of Design 2017).

8 Allen, "A Stroll between Fields and Objects", 2017.





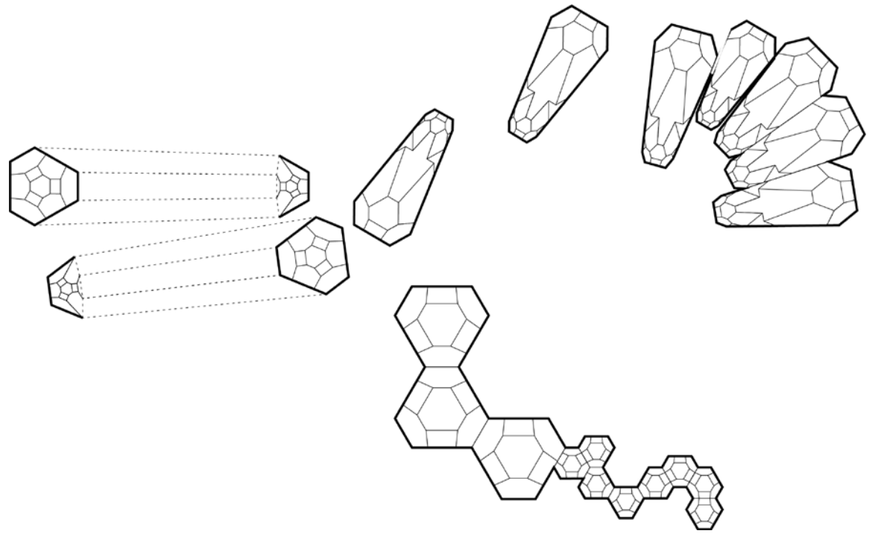


Fig.3 - Plywood drawing (center) which combines Jacob's drawing (left) with Anne's geometrical investigations (right).

Accounting for his personal design sensibilities, aesthetic preferences, and design techniques, he states that "I like flat, faceted surfaces as opposed to curvilinear form."[9] This statement is thought-provoking and refreshing. The architect and writer, who wrote such a significant and precise account of, or even recipe for, the dominant organizational principles of the architecture of our time, uses other tools, design strategies and metaphors himself.

Figure 3 shows a drawing which is the aggregate of a fluid, curvilinear language, and faceted primary forms. The drawing is made by using plywood as drawing "paper" and a CNC router as a drawing tool. The result gives material presence to the negotiation between two ways of drawing, between the digital and the analogue, the repetitive and the unique, and between the faceted and the fluid. When we reflect upon the drawing, it appears as a complex field condition as well as a hard, stubborn, and mineral-like form.

The Montreal drawings

Before choosing between the biological and the geological metaphors—if indeed such a choice is to be made, let us describe the practice that led to the Montreal drawings.

To be within the space of the drawing is a distinctive experience in which the hand, the eye and the mind are coordinated, when it is possible, without reluctance, to add marks, notations, and peculiarities, when all thoughts are dissolved in architectural gestures and notations, when there is a perfect balance between darkness and light, between poché and void, when the drawing becomes autonomous—then one feels happy. But the happiness only lasts for a moment before new crises arise.

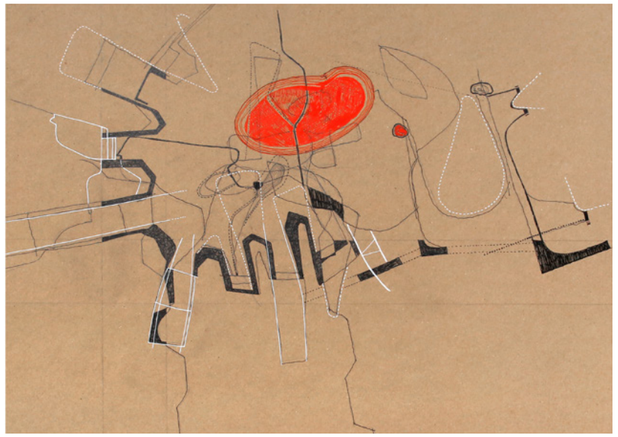
When we set out to produce a drawing, we do not aim to solve problems or imagine functions. We have no hypotheses and we do not know where the drawing will end. We work with the drawing just as a drawing. But something meaningful starts to appear, something recognizable, perhaps a figure. The drawing is made in a flow; we give in, and gradually work into the drawing. We draw, hatch, invent relations, fractures, and overlaps. We translate, relocate, rotate, and elongate to make passages and transitions through the drawing. Some figures attach themselves to larger structures. Narratives appear. Landscapes, structures, buildings. In some places buildings and landscapes are inseparable; they merge. Small settlements appear, in-between spaces and voids. Coincidences and mistakes are unavoidable in such a process. We enjoy them. They can be annoying but inevitably lead to new insights.

Naming the drawing is also part of the process. A name can be the obvious, objective, and straightforward word that everybody understands and agree upon. Or it can be a more personal, poetic, and suggestive word. It can be a working title. In some cases, we name drawings as precisely as possible based on their appearance. In other cases, we invent a name for the drawing to live up to. In other words, if the forms and the relationships of the drawing have not already appeared as something, they become its name.

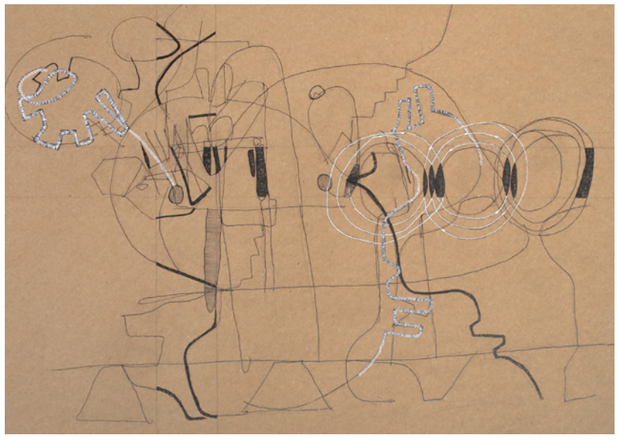
9 Allen, "A Stroll between Fields and Objects".

Together, the titles of the six Montreal drawings make up an island: *The Fortification*—the historic figure transformed into a new ecology. *The Cultivation Fields*—the sides of the islands where inhabitants produce food. *The Coastline with Drifting Objects*—for the illegal inhabitants. *The Bay*—honouring an inspiring precedent, Kenzo Tange's Tokyo bay project, but also a naturally occurring phenomenon of shifting tides and wetlands. *The Seaweed Farms*—the new sustainable, water-based production facilities. And finally, *The Island* as a whole, potentially containing all the other places.

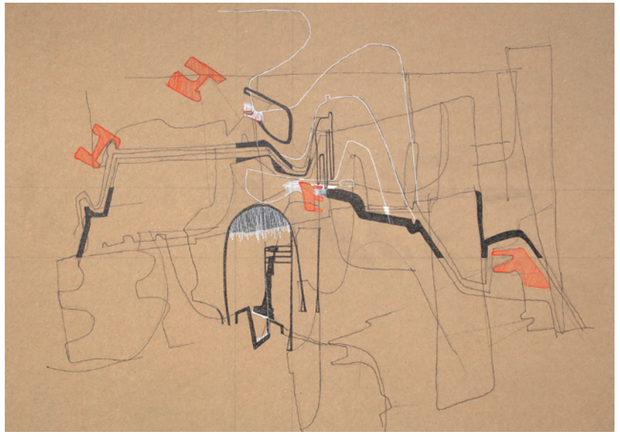
As we see it, the Montreal drawings are both fluid and hard, process—and object-oriented. Their titles underline the fact that they are influenced by both metaphors—the biological and the geological. The process involved in producing them suggests two reciprocal design strategies: a fluctuating one focusing on the coincidental, and an exact, selective one. The drawings contain curvilinear form, dynamism, implied relationships, and movement, but also flat, faceted surfaces, platforms, stubborn and less like life itself. It is safe to say that we like both.



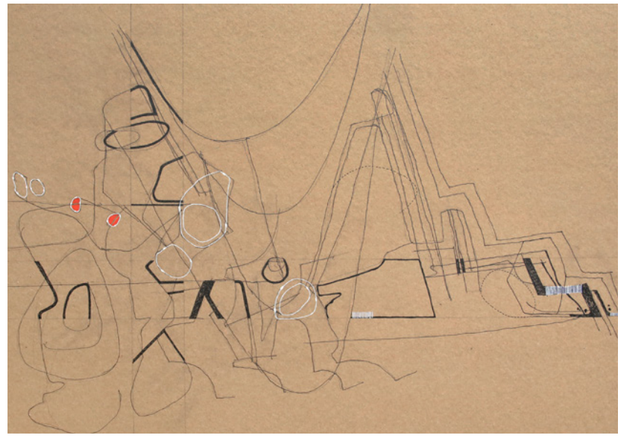
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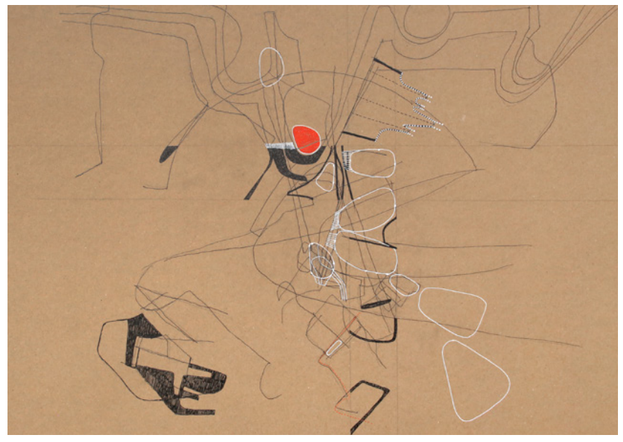
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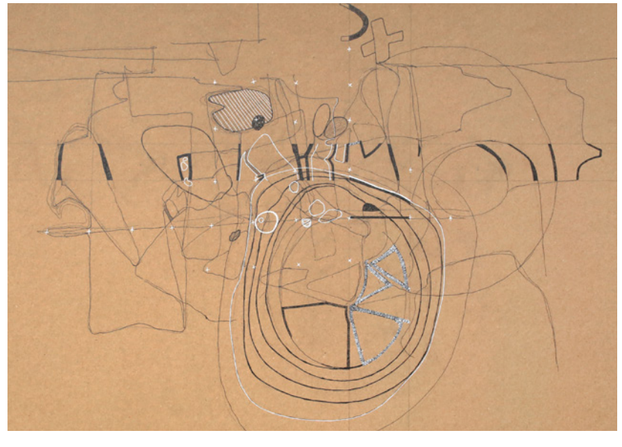
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5.



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Fig.4 - The Montreal drawings.

1. The Fortification (Top) 2. The Cultication Fields (middle) 3. Coastline with Drifting Objects (Bottom).

Fig.4 - The Montreal drawings.

4. The Bay (Top) 5. The Seaweed Farms (middle) 6. The Island (Bottom).

Christine de Pizan
Architecture and the cartography of female imagination

PENELOPE HARALAMBIDOU

Although I am an architect and, therefore, trained to think spatially through architectural drawing, my research practice is removed from the design and construction of buildings. Instead, I am interested in how design through drawing, making and film—the tools of the architect—can be applied as a research method to think through ideas and analyse work not only in architecture, but also in other disciplines, such as fine art, cinema and, most recently, medieval studies. Blurring the distinction between two fields of architectural endeavour—drawing and making in terms of the architect as a designer, and theoretical research, in terms of the architect as a writer—my work explores the potential of design as an embodied methodology performing history and theory.[1] This practice-led investigation method aims to retrieve the tacit knowledge within existing pieces of work, which, I argue, might be inaccessible through pure textual analysis.

This chapter focuses on my recent transdisciplinary research project, *City of Ladies*, which analyses the work of medieval author Christine de Pizan with the objective to introduce and promote it to an architectural audience for the first time.[2] In her celebrated text, *The Book of the City of Ladies*, written in 1405, Christine describes the construction of an imaginary city, a female utopia, built and inhabited by women (fig. 1).[3] Her work has been seen as a proto-feminist manifesto, conflating the act of building with collecting and rewriting stories of notable female figures to erect a thesis against misogyny.[4] After briefly introducing Christine, I will discuss a recent discovery regarding the architectural structure of her book, and finally present my design-led response to her work.

Christine

Born in Venice in 1364, Christine moved to Paris as a young child when her father joined the court of King Charles V as a royal astrologer and physician. She was married happily at the age of 15 but the sudden deaths of her father and husband led a widowed Christine to take up writing professionally to support her family at the age of 25.[5] At first, her writing was devoted to lyric poetry, but in 1401, she instigated a very public literary controversy, "The quarrel of the Romance of the Rose." In a series of letters, Christine protested against the popular French poem by Guillaume de Lorris and Jean de Meun, insisting that it was misogynistic, vulgar, and conveyed immoral views that were slanderous to women.[6] In the illuminations, miniature illustrations, accompanying *The Romance of the Rose*, architecture becomes a means of entrapping women, or even worse an expression of sexual violence.[7] Christine conceived of *The Book of the City of Ladies* as a direct corrective response to this text, but I argue that her empowering architectural iconography is also an antidote to the vulgarity of its offensive imagery.

Her growing notoriety, resulting from this public debate, led to further commissioned work, and hand-crafted copies of the text were gifted to several of her royal patrons. This is beyond the scope of this paper, but Christine's work needs to be understood in the context of the turbulent times of the Hundred Years' War and the inner conflicts of the royal family. Her architectural allegory is not only highly political, but also diplomatic. It has been seen as covert support for queen Isabella of Bavaria and her precarious role as regent, after her husband King Charles VI, the descendent of Christine's benefactor, became unfit to rule due to bouts of mental illness. Christine gifted the most celebrated version of her *Book of the City of Ladies*, currently held at the British Library as Harley MS 4431, but had also prepared copies for the King's uncles and his brother, who were entangled in a deadly dispute over their competing claims to the throne.[8]

1 See an earlier research project, Penelope Haralambidou, *Marcel Duchamp and the Architecture of Desire* (London: Routledge, 2013), where I employ design, drawing and making – the tools of the architect – to perform an architectural analysis of Duchamp's final enigmatic assemblage, *Given: 1st the waterfall, 2nd the illuminating gas…*

2 More information and images of the project can be found on the City of Ladies research project website: https://www.cityofladies.org/.

3 Christine de Pizan, *The Book of the City of Ladies*, trans. Rosalind Brown-Grant (London: Penguin, 1999).

4 After a long period of relative obscurity, interest in Christine has grown exponentially. One of the first feminist writers to mention Christine is Simone de Beauvoir. In *The Second Sex*, 1949, she describes Christine as the first woman to take up her pen to defend her sex in her *The Epistle to the God of Love*, 1399, composed before *The Book of the City of Ladies*. Simone de Beauvoir, *The Second Sex* (London: Vintage, 2011), 120.

5 For more details about Christine's life and work, see Charlotte Cooper-Davis, *Christine de Pizan: Life, Work, Legacy* (London: Reaktion, 2021).

6 Christine McWebb, ed., *Debating the Roman de la Rose: A Critical Anthology* (New York: Routledge, 2007).

7 Guillaume de Lorris and Jean de Meun, *The Romance of the Rose*, trans. and ed. Frances Horgan, based on the French edition by Felix Lecoy (Oxford: Oxford University Press, 2008). The novel was first composed by Guillaume de Lorris around 1230 and completed by Jean de Meun approximately forty years later.



Fig.1 - Illumination.
Source: Christine de Pizan, *The Book of the City of Ladies*, Harley 4431, 1411–14.

Architecteur

Inspired by Dante, Christine's text begins as a "dream-vision" taking place in her study. Distraught by the overwhelmingly negative portrayal of women in books by male writers, she falls asleep and is suddenly awakened by the arrival of three virtues: Reason, Rectitude and Justice. They announce that she has been chosen to build a city to protect women and take turns assisting her with particular tasks. Each of the three tasks is portrayed in a different illumination, a miniature illustration decorated in gold to catch the light—an "histoir" as these images were called at the time—adorning the first page of each of the three chapters in her manuscript. Reason helps Christine to lay the foundations; Rectitude to erect the high temples, palaces and houses; and Justice to embellish the city with gold.

This division matches the definition of the word *"architectus"* as it appears in *Etymologiarum Sive Originum*, Libri XX, c. 560-636, Isidore of Seville's etymological encyclopaedia, which was the standard compendium used by medieval writers.[9] Isidore, paraphrasing and simplifying Vitruvius, defines three parts in the art of building in Latin: *Dispositio*, laying the foundations; *Constructio*, raising the height of the buildings; and *Venustas*, embellishment.[10]

8 Christine de Pizan, *The Book of the City of Ladies*, London, BL, Harley MS 4431, 1411–1414. For a description of the complex legacy of the queen see Rachel Gibbons "Isabeau of Bavaria, Queen of France (1385-1422): The Creation of an Historical Villainess" The Alexander Prize Essay, *Transactions of the Royal Historical Society* 6 (1996): 51–73.

9 Isidori Hispalensis Episcopi, *Etymologiarum Sive Originum*, Libri XX, c. 560–636.

10 English translation from the Latin: "The Greeks assert that Daedalus was the inventor of the building of walls and roofs. For he is said to have first learned the design from Minerva. But the Greeks call smiths or craftsmen τεκτονες, that is, builders. The architects are the masons who arrange the foundations. Whence also the Apostle says of himself: As a wise architect, I have laid the foundation… There are three parts to a building: *dispositio, constructio, venusta* (arrangement, construction, and attractiveness). *Dispositio* is the description of the floor or throne and foundation. *Constructio* is of bricks and height building. *Venustas* is whatever is added to the buildings for the purpose of ornament and beauty."



Fig.2 - Installation.
DomoBaal Gallery London, 2020

The correlation between Christine's portrayal of the building of the city and the etymology of the word "architect" in Latin is not a coincidence. Christine is considered a visual thinker and uses architecture as an underlying structure in her other texts. For instance, in her *The Book of the Mutability of Fortune*, we find her reconstructing France's recent history from the scenes painted on the walls of a grand chamber in the castle of Fortune.[11]

Furthermore, and significantly, during my research, I discovered that German/English architectural historian Nikolaus Pevsner considers Christine the first writer to introduce an early translation of the term in French. In an essay from 1942 entitled "The Term 'Architect' in the Middle Ages" he analyses how Vitruvius's Latin term "architectus", became neglected, forgotten and misused over a long period during the Middle Ages.[12] In this text, he states that "Christine of Pisan appears the first on French soil to write of 'architecteur,' which epithet she applies to King Charles V together with 'deviseur' and 'ordeneur' of buildings."[13]

Christine uses the term *"architecteur"* to refer to the architectural but also artistic merits of her royal benefactor, who was a builder king, not in her *The Book of the City of Ladies*, but in an earlier text *The Book of the Deeds and Good Character of King Charles V, the Wise*, a biography commissioned posthumously by his brother Philip the Bold of Burgundy in 1404.[14] In this book she calls the king a "true architect": *"vrais architecteur"*, and quoting Aristotle, she offers a definition of "architects" as intellectually superior, and wiser, the disposers, who know the reasons behind a project, in contrast to the artisans, masons and carpenters, who work with their hands.

Consequently, it can plausibly be claimed that Christine's conception of both the iconographic programme and the structure of her *The Book of the City of Ladies* is based on an imaginary textual and visual enactment of her reinvention of a word: "architect".

11 Christine de Pizan, *The Book of the Mutability of Fortune*, ed. and trans. Geri L. Smith (Arizona: Arizona Center for Medieval and Renaissance Studies, 2017).

12 Nikolaus Pevsner, "The Term 'Architect' in the Middle Ages", *Speculum* 17, no.4 (1942): 549–562. Pevsner attributes the first translation of the Latin word "architectus" into French to Christine in another essay from the same year, Nikolaus Pevsner, "Terms of Architectural Planning in the Middle Ages", *Journal of the Warburg and Courtauld Institutes* 5 (1942): 232–237.

13 Nikolaus Pevsner, "The Term 'Architect' in the Middle Ages," 561.

14 See Judith Laird, "Christine de Pizan's The Book of the Deeds and Good Character of King Charles V, the Wise" (Ph.D., University of Colorado, 1996).

If Pevsner is correct, the handwritten appearance—most likely in Christine's hand—of the term in a manuscript of this text kept at the Bibliothèque National de France, is the very first instance of the word appearing in French, which I was able to locate by scouring through Christine's digitised manuscripts held at the Vatican and in Paris.[15]

Christine's literary construction in *The Book of the City of Ladies* is unique not only in its embodiment of the term "architecture", but even more so in the fact that the architecture is performed by the exclusively female characters. She deftly uses the term to promote the intellectual superiority of planning a building, while simultaneously claiming the empowering act of physical construction for women. The three virtues become Christine's triple alter ego, with whom she engages in an inner dialogue. Through this allegorical trope, she manages to articulate the complex interplay between self-doubt and her decisive, often polemical, defence of women. Looking more closely at the illuminations, we can see that the figure assisting Christine throughout is an amalgam of the three virtues. Her clothing references the attire of a Queen, but she is also perhaps an personification of "architecture", passing on all knowledge to her disciple, Christine the architect.

City of Ladies

City of Ladies is a research project that aims to reframe Christine's work within an architectural theory and design context for the first time.[16] This work would not be possible without the invaluable contribution of research assistant John Cruwys. Our research builds upon existing scholarship on the relationship between image and text in Christine's work. It consists of a spatial remodelling of the illuminations and an innovative, design-led enacting of the architectural and urban allegory. Through an embodied act of drawing and the construction of a series of interpretive artefacts, we combine medieval drafting techniques—gilding in gold and silver on vellum—with digital craft and film to directly respond to the architectural content of Christine's work through design (fig. 2).

We focus on the underexplored description of the making of the city in the text, but perhaps most importantly on its depiction in the accompanying illuminations. The aim is to establish the significance of Christine's message for the history of architecture and to inspire young architects today, but we are also in search of a way of projecting it into the far future.The first phase of the work was shown in an exhibition at Domo Baal gallery in January 2020, which comprised a table installation and a digital film that reconstructed the manuscript, both spatially and materially, and allowed the pictorial city to blossom from two dimensions into three.[17]

The mirror, the ruler and the vessel

When they first appear, the three allegorical female figures bring Christine three gifts: a mirror, a ruler and a vessel, a triad of measuring devices which they urge her to employ in the design and construction of the city. Through a process of poetic remaking, we embarked on a design interpretation of these objects as material metaphors, a set of guiding principles for a future city (fig. 3).

Reason brings a mirror, a device for measuring self-worth, which Christine will need in order to plan the city. Our translation of this metaphorical mirror portrays binocular vision as an alternative visual matrix embedded in the body, a female vision against the male sharpness of linear perspective. It references the importance of self-knowledge and the value of the female point of view, literally and metaphorically, and Reason's table is a "dressing table".

Rectitude presents a ruler, a yardstick of truth that separates right from wrong, which Christine will use to design the interior of the city. Many distance units are based on human body parts such as the cubit, the fathom and the foot. But these measures are always based on the male body. Our proposed ruler is a direct imprint of female hands. It helps design a city made for female human bodies and their needs, and Rectitude's table is a "drawing table".

Finally, Justice offers Christine a vessel of gold, a container measuring weight or volume, able to calculate and distribute portions of fortune for each individual, to embellish the city. Our interpretation is a complex mouth-blown hourglass receptacle measuring time through mass and promoting long-term thinking, and Justice's table is a "dining table".

Cartography of female imagination

The tables are laid with sheets of vellum. In medieval times before the use of paper, manuscripts were handwritten and illuminated on vellum pages. Vellum is an extremely durable writing and drawing surface made from animal skin; it was also used for architectural drawing. The sheets of vellum in my work become drawing surfaces carrying significant diagrams and markings. I used a painstaking process of gilding, following medieval techniques to mark the pure, white surfaces of the sheets using silver, yellow gold and white gold leaf. The drawings and diagrams select and reproduce important details from the illuminations and define the positions of the artefacts on the tables.

15 Christine de Pizan, *Livre des faits et bonnes mœurs du sage roi Charles V*, 1404, Paris, BnF, fr. 5025.

16 For a detailed analysis of the City of Ladies project see Penelope Haralambidou, *City of Ladies*, Bartlett Design Research Folios (London: Bartlett School of Architecture, 2022).

17 See **https://domobaal.com/exhibitions/112-20-penelope-haralambidou-01.html**. The research was kindly funded by the Bartlett School of Architecture, UCL, Architecture Research Fund.

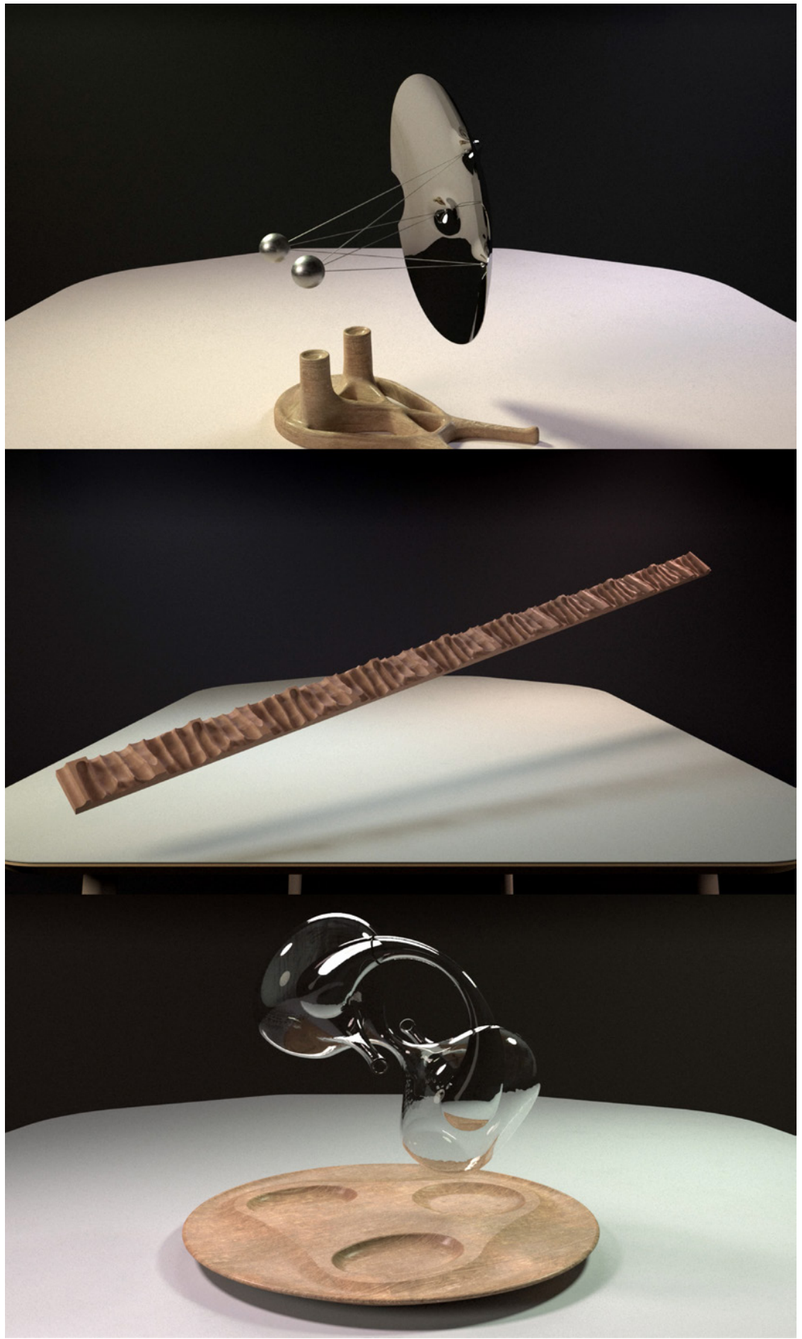


Fig.3 - Three gifts.
Digital animation, 2019

From the start of the project, I saw the sheets of vellum as abstract maps of an ambiguous spatial inhabitation. Geometric diagrams follow the symmetry of the animal, defined by the overall shape and the oily parts of the skin, which derive from the pressure on the spine. In other parts the figuration becomes more organic, following the natural curvature of the skin and reflecting its tendency to curl. Each skin features a circle, a reference point, at the top by the neck, which I used as a pivot to digitally superimpose the backlit images of all three sheets. When overlayed, the composite network of marks becomes an unexpected constellation, a cartography of a yet-uncharted territory: the imaginary city.

After completing this first phase of the project, I was surprised to discover the existence of a precedent that closely resembles my drawing of this allegorical map: examples of the earliest surviving maritime navigation maps known as "portolan charts". Drawn on whole skins of vellum, like the table covers in the *City of Ladies*, they were developed following the invention of the magnetic compass during Christine's time, and feature "wind rose" networks of rhumb lines, representing the directions of the winds (fig. 4).

The composite map became the basis for a new drawing prepared for a symposium and exhibition, entitled *Cartographies of the Imagination* organised by Sayan Skandarajah and Kirsty Badenoch in July 2021.[18] New gilding on a full-scale print, on paper this time, draws out specific marks and patterns, creating contrast with the background. The drawing constitutes a speculative cartography for exploring female spatial imagination and sets the allegorical coordinates towards the future feminist utopian city.

Five manuscripts

The most recent stage of the research focuses on a comparative study of all five known authorial manuscripts of Christine's text containing illuminations, held in libraries in Paris, London and Brussels.[19] All five versions are attributed to a single illuminator, or more precisely, a single illuminator workshop, which is known as the "Master of the City of Ladies."[20] The workshop—noted for its particular attention to scenes of daily city life and domestic interiors and its original approach to colour—was prolific during this period, executing illuminations not only for Christine, but also for other writers and patrons.

The main driver of this phase of the research is the definition of Christine's creative role in the conception and arrangement of the iconography. Due to Covid-19 restrictions, we were unable to visit the actual manuscripts, but instead engaged in a thorough visual "mining" of the high-resolution digitised images. By removing the figures, we tried to bring to the foreground the architectural features and observed how the nearly identical depiction of the female characters suggests the existence of a template, a model book, that Christine might have composed in collaboration with her Master.

This is comparable to the type of figurative drawing appearing in Villard de Honnecourt's thirteenth-century sketchbook.[21]

The sketchbook contains many drawings of architectural details and views, which led many scholars to consider him an itinerant architect. However, more recently this view has been contested, as the drawings in the sketchbook more readily match the work of a manuscript illuminator. The architectural details may have been used for constructing images of buildings, rather than built architecture.



Fig.4 - Cartography.
Gilding on paper, 2021

18 See https://cartographiesoftheimagination.com/.

19 The research was supported by a BA/Leverhulme grant.

20 Millard Meiss has assigned the name Master of the City of Ladies to this particular workshop as they exclusively illustrated all extant copies, and has suggested that Christine supervised the production of the illuminations. Millard Meiss, *French Painting in the Time of Jean de Berry: The Limbourgs and Their Contemporaries* (London: Thames & Hudson, 1974), 34.

21 Stephen Perkinson, "Portraits and counterfeits: Villard de Honnecourt and thirteenth-century theories of representation", in *Excavating the Medieval Image: Manuscripts, Artists, Audiences: Essays in Honor of Sandra Hindman,* eds. David S. Areford and Nina A. Rowe (Aldershot: Routledge, 2004).

The benefit of working with high-resolution digital images is that it allows us to dive into the illuminations and inhabit pictorial architecture. To isolate the architectural details and bring them to the foreground, we engaged in a subtractive form of drawing, replacing the missing figures with flat areas of digital tint that match the adjacent hues of the edifice. This process leaves behind spectral images and colour shadows accentuating a sense of absence. Through this repeated negative redrawing of the different versions of the same theme, the process became an excavation, creating the feeling one might have when discovering a ruin. By superimposing all five versions of the first illumination, we created another ghostly composite image.

Searching for the depth contained in the representation, we performed different displacement map renders. The resulting model thickens the surface of representation, creating an ambiguous terrain, the additive residue of a historical pictorial construction site, hosting Christine's transition from writer to architect and builder. The lack of tactility in the encounter with the manuscript images made us wish we could touch the image. With a determination to use the Bartlett School of Architecture's new colour 3D printer, we embarked on a trial-and-error process of physically printing the resulting terrain of the composite image. As a gift from vision to touch, the resulting relief is enlarged to the size of a tile, or a tablet existing in recto and verso (fig. 5).

Moving between the physical and the digital, the work exists in time and in matter. My research by design is an enactment that makes possible an exploration of history through drawing and making. This methodology allows me to embody Christine de Pizan, the author and illuminator/draughtswoman, and her splitting into fictional personas—the commissioning and guiding virtues of Reason, Rectitude and Justice—which coalesce as a definition of proto-feminist architecture—and Christine, the architect.

The study of Christine's text written more than 600 years ago brings us to a stark realisation: that, even today, her desire for a city by and for women remains unfulfilled. Our cities have been almost entirely conceived and constructed by men, primarily for men. At a time when "humanity" is facing survival challenges, perhaps as a direct result of the unfettered growth of our man-made cities, could Christine's book conceal a prescient allusion? That a solution might lie in the imagination of an underrepresented group that has not yet found itself in a position to conceive and construct its own version of the city, and propose better, more sustainable and visionary urban futures for humanity.

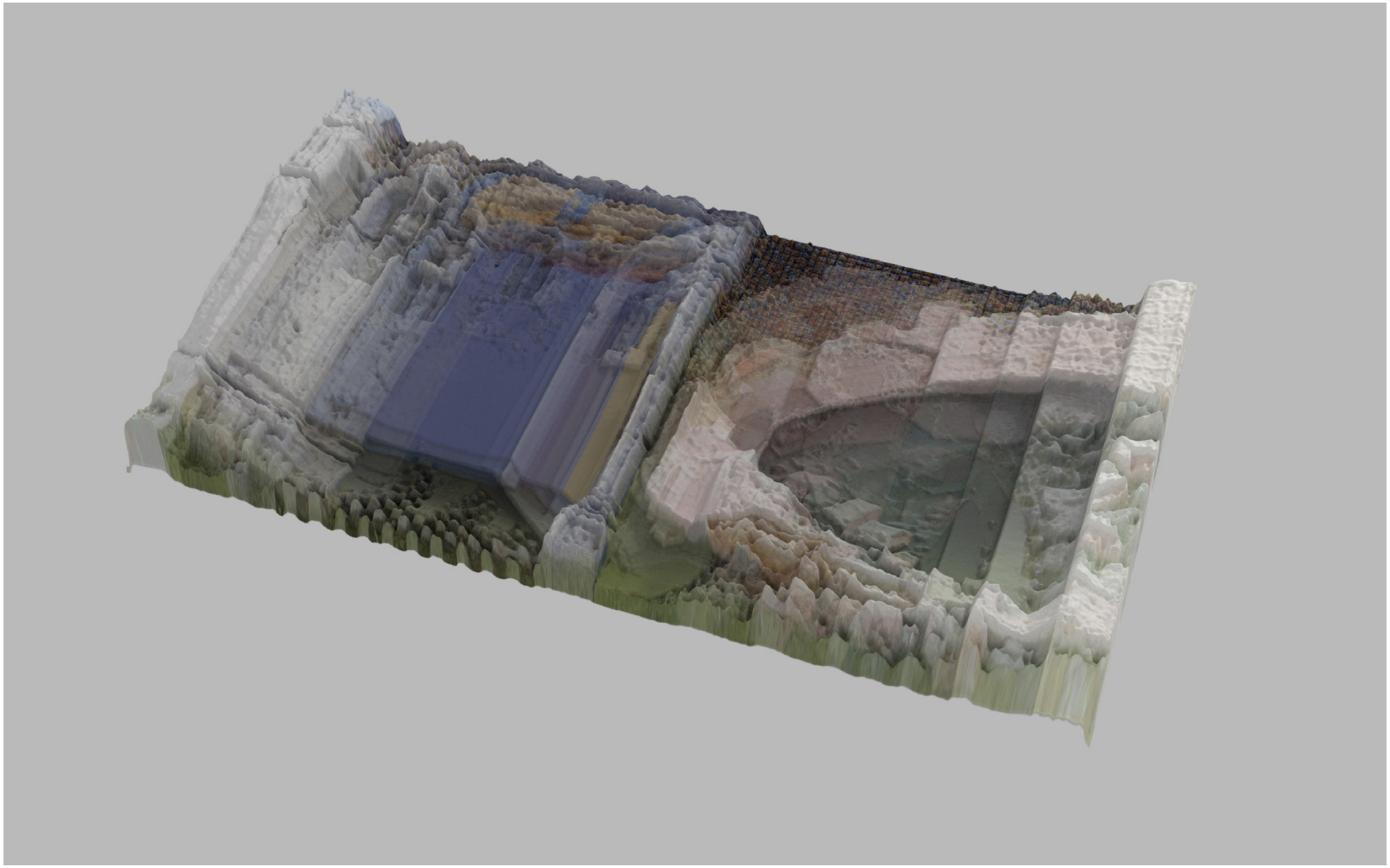


Fig.5 - Excavation.
Digital model, 2022

An Argument for Unknowing
Europe is not my centre[1]

OZAYR SALOOJEE

Prologue / position

This text is an in-progress argument and a work-in-progress: a meditation on how I, with my own particular and local subjectivity, might (just might) enact a practice of otherwise-drawing. What might it mean to draw things—architecture, in this case—in a way that might undo, de-stabilize and shift the canonical history of drawing and representation that I was taught as a student? I learned how to draw and how to think through drawing at a Bauhaus-inspired school, in (so-called) Canada's capital of Ottawa. I learned this in a Brutalist building, with its smooth concrete and board-formed concrete and concrete block, with its intersecting streets and rooms and spaces with names like "the Pit," "the Meat Locker," "the Fishbowl," and "the Morgue." I learned conventions of plan, section, elevation. I learned perspective, and was given, in a way, a perspective about drawing that I held, almost as gospel and holy writ.

Or so, I thought, and believed, for almost 26 years.

I am an immigrant. Brown. South African. Muslim. Bearded (now, not then). A teacher (now, not then). I was born and raised in South Africa, and grew up there, and here, in Odawa/Ottawa. I was taught to emulate and revere Scarpa (whom I still love), Corbusier (not so much), Kahn, Mies, Meier, Gehry—all the usual suspects of the time. Morphosis was in there too, and Greg Lynn was in vogue, and—I think—a moment of fascination with Walter Pichler. I learned, however, about Barragan and Dieste and Lina Bo Bardi and Sinan, and Rasem Badran much later. My Canadian architectural history experience was old-masters (European), and Canadian Content (Arthur Erickson, Moshe Safdie, Douglas Cardinal—a little). My history, as a student, was devoutly European—a single course through the ancient (and non-Western architecture aside, but mostly meso-American) world. I learned rather about Le Duc, Labrouste, Garnier, and spent more time on the Paris Opera House and the French Pantheon that I can remember. I learned an emphatically white (and male) architectural world, and a decidedly Eurocentric grammar of drawing, and ultimately, of thinking. This was a clear episteme that was almost entirely (perhaps about 97%) not contradicted, refused, questioned, or argued against in any way.

The remainder of that percentage (that 3%) was a small, hopeful thread—and though I didn't realize it at the time, it was a lifeline. It might (just, might) even have even been a world-line. This small world-line was, in a sense, what Dilip Da Cunha told me design really was when we sat in the Shawarma Palace restaurant on Bank Street in Ottawa, during a conference break in 2017. Professor Da Cunha (I will never forget this) told me that the point of design was not to see things differently, but to see different things. This small world-line was, while I was a student (in the 90s) a group of likeminded colleagues, a mentor and his coursework. It was, although I didn't know it at the time, a personal history, a local subjectivity, and a nagging disquietude of being out of place, out of time, out of belonging. In little ways since then, I have been trying to liberate myself from that Beaux-Arts and Bauhaus episteme. It would take, in the end, the strange stasis of the pandemic to catalyze a more deliberate start to this initial argument.

The motivation to begin was prompted by lockdown and informed, also, by a number of other pandemic-and non-pandemic-related encounters. In March of 2020, I returned to Canada hastily, from teaching in Madrid. While at Barajas airport, I saw hundreds of American students trying to get flights home on short notice. My taxi driver had a handkerchief over his face, plastic sheeting between the front and rear seats, and asked me to cover my mouth and nose, and to use, liberally, the hand-sanitizer in the cup holder hastily taped to the back of the front passenger seat. A studio back home that I had planned to teach for years was subsequently disrupted by academic shifts to online learning. COVID was working its way through our communities, and my family in Africa was heavily affected. George Floyd was murdered that summer in Minneapolis—a city I know and love and lived in for years. I was (and am) frustrated by the glacially slow response to systemic racism which Mr. Floyd's killing prompted in Schools of Architecture. I was frustrated by the too frequent risk-assessment, "snake-oil" approaches to what we call Equity, Diversity and Inclusion initiatives. All of these circumstances,

1 This text is an expansion of an article published in the December 2022 issue of *AD*. Ozayr Saloojee, "Drawing an Argument for Refusal", *AD: Architectures of Refusal* 90, no. 1 (December 2022): 14-21. "Europe is not my centre" is attributed to the Senegalese filmmaker, Ousmane Sembène. Olivier Barlet, "Interview with Ousman Sembène", in *Africultures: Les Mondes en Relation*, January 1998, accessed November 18th, 2022, http://africultures.com/interview-with-ousmane-sembene-by-olivier-barlet-6843/.



Fig.1 - The site of this argument, and the location for a process of epistemic dreaming.

and more, were motivations for this project. They offered a way to engage with a felt and perceived frustration and hopelessness, to respond to the screeching halts and sudden accelerations of the world around me—and to the necessary and unnecessary denials of mobility and access because of COVID-19.

Argument / process / to be

Drawing was the medium of this response; a way to make sense of the now suddenly abundant time, along with the host of constraints that came with governmental stay-at-home orders. This is not to say that drawing is inherently a sacred, meditative practice—although these works did, eventually, become that for me. And these drawings were not an Evansian[2] abstraction of drawings and buildings, but rather a process of destabilizing and recontextualizaing histories. I learned, in my Brutalist school with my Bauhaus and Beaux-Arts and Modernist curricula, to draw by drafting. Tools (for the trads out there) were those usual and familiar suspects: mylar, vellum, a Borco-lined sheet of 5' x 4' 3/4 inch plywood. A Mayline. Drafting dots, lead holders and pens, mostly Staedtler, some Koh-I-Noor rapido-graphs. Paper was sometimes Fabriano, but usually Strathmore matte, 2-ply, on a small drafting table, in a cramped room, with books and bric-a-brac everywhere (fig. 1).

I established a set of basic constraints, and the promise to myself was that I would try to make a complete and appropriate "set" of drawings over the course of the ensuing summer. Denied the luxury and pleasure (and also dread: Muslim, Brown and bearded) of travel, with this project I chose, rather, to travel internally, with and through my memory, my personal archives, my recorded notes and sketches, my library of photographs. These, and my drawing tools, would become a portal, in the way that Arundhati Roy described it,[3] for entry into a methodological argument for a new world of drawing. I did not want, in Roy's words, to drag the smoky skies and dead rivers of a past world into a new world, even an internal one. I chose rather to revisit things and places that I loved (but was now denied). This process and these drawings are, for me, akin to what Anna Tsing describes as detonators[4] in the chimeric juxtapositions of the *Feral Atlas* project. And the word feral, as used here, is not to be taken with its typical etymological sense of "wildness", but rather its fierceness, and exuberant and hopeful bravery, and its de-tethering from the civilized (read: white) canon. As an

2 Robin Evans, *Translations from Drawing to Building*, (Cambridge, MA: MIT Press, 1997).

3 Arundhati Roy authored one of the texts on the COVID-19 Pandemic. She writes in "The Pandemic Is a Portal" that: "Whatever it is, coronavirus has made the mighty kneel and brought the world to a halt like nothing else could. Our minds are still racing back and forth, longing for a return to 'normality,' trying to stitch our future to our past and refusing to acknowledge the rupture. But the rupture exists. And in the midst of this terrible despair, it offers us a chance to rethink the doomsday machine we have built for ourselves. Nothing could be worse than a return to normality. Historically, pandemics have forced humans to break with the past and imagine their world anew. This one is no different. It is a portal, a gateway between one world and the next. We can choose to walk through it, dragging the carcasses of our prejudice and hatred, our avarice, our data banks and dead ideas, our dead rivers and smoky skies behind us. Or we can walk through lightly, with little luggage, ready to imagine another world. And ready to fight for it." Arundhati Roy, "The Pandemic is a Portal", *Financial Times*, April 3, 2020, accessed November 20, 2022, https://www.ft.com/content/10d8f5e8-74eb-11ea-95fe-fcd274e920ca.

4 See Anna Tsing, Jennifer Deger, Alder Keleman Saxena and Feifei Zhou's Feral Atlas Documentation at the Feral Atlas website, which details their "Anthropocene Detonators". Accessed: July 5, 2023, https://feralatlas.org/archive/documentation.html.

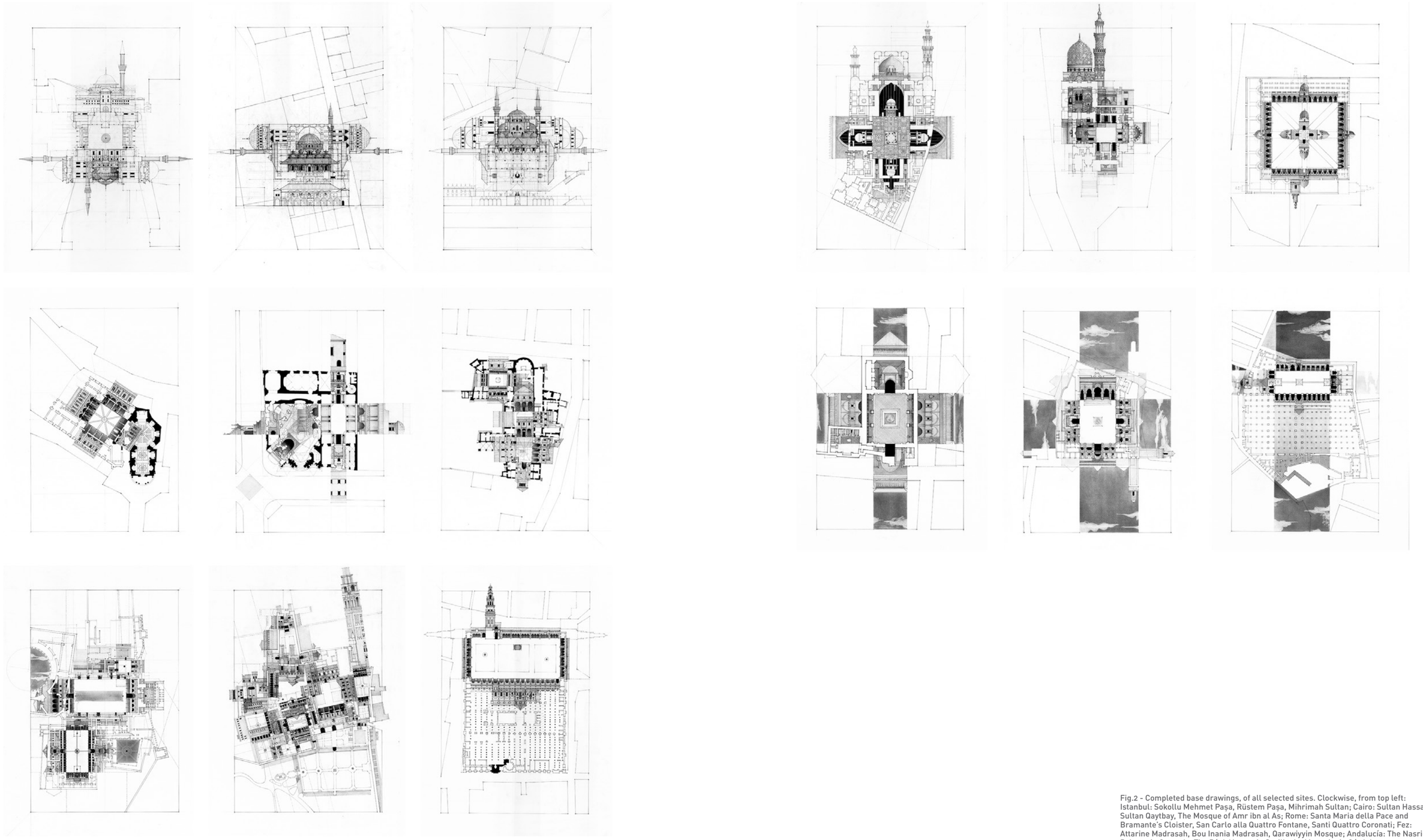


Fig.2 - Completed base drawings, of all selected sites. Clockwise, from top left: Istanbul: Sokollu Mehmet Paşa, Rüstem Paşa, Mihrimah Sultan; Cairo: Sultan Hassan, Sultan Qaytbay, The Mosque of Amr ibn al As; Rome: Santa Maria della Pace and Bramante's Cloister, San Carlo alla Quattro Fontane, Santi Quattro Coronati; Fez: Attarine Madrasah, Bou Inania Madrasah, Qarawiyyin Mosque; Andalucía: The Nasrid Palaces in Granada, The Réal Alcazar in Seville, La Mezquita in Córdoba.

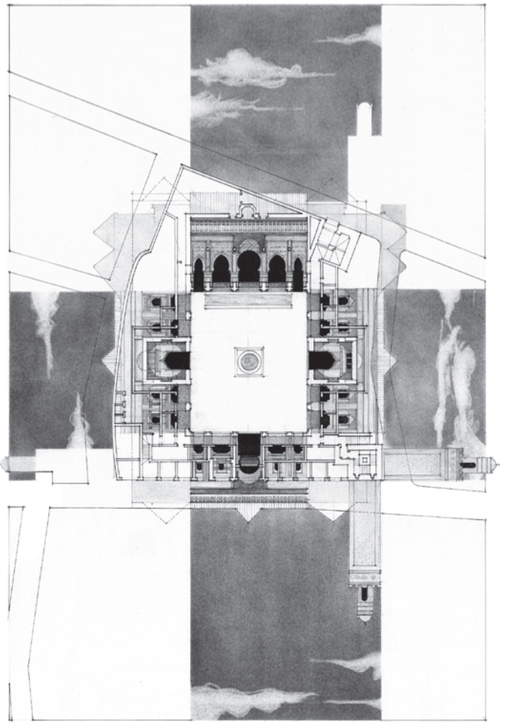


Fig.3 -The Bou Inania.

Off (Rue) Tala'a Sghira, a street in the old medina of Fes, is the Bou Inania madrasa, which was founded in the 14th century and is considered a high-point if Marinid architecture. A river runs through it at the edge of its courtyard—water drawn from the canal of the Oued Fes (the Fez River). To get to the prayer hall, you walk over two small bridges, with the day-lit water of the river, passing beneath your feet. Every surface, here, is a universe. Zellij, plaster, cedar and stone, arabesques and muqarnas, ripple and eddy in a constant stream, echoing the Andalucian craft tradition of the "poetry of knots." The hum of the busy street fades, the textures move, the air brushes across a low fountain. The river is under your heels. The sky, a cerulean blue, silhouettes a minaret with its textured palmettes. A steel finial touches the clouds.

atlas, it was a cartography, too: a re-mapping of intellectual and even, yes, spiritual pathways. This was a map to a door of return.[5] And so, I returned, in a way, to Istanbul, Cairo, Rome, Fez, Granada, Cordoba, Seville, to five countries, and three buildings in each, as I learned, in an attempt to reconstruct and to return home (fig. 2).

The constraints that I established were simple. Each building that I drew would be a place I had visited, documented, studied. Each must have a courtyard, and each must, in a way, be a site of gathering and collecting. Each had to be a location of memory for me, and for broader arcs of locally subjective history. Each had to be a place that I (as a teacher) had taken students to, or visited myself as a student. Each was to be drafted in pencil. The plan (no pun intended) was to begin with a plan, and draw outward, flattening enclosing façades, from courtyard cores; façades essentially overlapping their corresponding edges of the architectural plan. As I drew, I began to write, eventually using drawing and text to complete the reconstruction and (re)reading of each building. While there was little vision for what this project might become, as I drew from site to site, from city to city, the drawings, and their corresponding writings, were becoming an act of pedagogical and personal dreaming.[6] Our lower-level living room became a place of everyday ritual and habit. Paper and pencil were tools of epistemic dreaming, of loving refusal that aimed to reconfigure the artificial genetic curriculum of my schooling and learning.

(Paper margins are the width of the Mayline; draw the border; locate the middle with corner diagonals; centre the courtyard; draft the plan; fold down all interior elevations around all courtyards; write; draw; write; render; write. Repeat)

The first series—Istanbul—were drawings of Mimar Sinan's oeuvre: the Sokollu Mehmet Paşa Mosque, the Rüstem Paşa Mosque and the Mihrimah Sultan Mosque. This set was a warm-up, an attempt to open an investigation, to develop the bones of this process, and to grind off the rust of not having drawn for many years. Each drawing series began to take on its own theme, enacted in part by the evolving image and its paired writing, but also through the forensic archival process of looking through two decades of travel research material, drawings, notes and memory. I began to describe the drawings as "as built" and "as remembered". They became an interplay of fact and fable, precision and (im) possibility. Drawing was not an act of translation into building, but building into translation. Accompanying texts were prosthetic extensions of the drawing and vice versa. Source material—particularly my lived, embodied experience of these sites and their contexts—became a type of counter-canon to conventional sources that would conventionally characterize these works. A poem by Iqbal, for example, becomes as vital a companion to the drawing as a series of defining, drawn lines might be, and perhaps even more so. Poetry, narrative text and my local world become more official footnotes and bibliographies to this effort. It was a generation of a counter-official imprimatur (fig. 3). Other sites and cities followed: Egypt, with its Mamluk and Fatimid spaces and geometries, Rome, with its Nolli and Bufalini pochés, Fez, with its Marinid and Idrisid textures and skies, Andalucía, with its poetry and waters.

5 This is a riff on Dionne Brand's brilliant book, *A Map to the Door of No Return* (New York: Penguin Books, 2002).

6 Dreaming is used here in the way that Jennifer Newsom describes it in an interview with V. Mitch McEwen and Cruz Garcia. She says: "I have trouble with the word 'repair' because I feel like it implies that something was, at some point, whole. We're actually talking about things that were never fully formed in this context – there didn't exist a point where everyone was copacetic and happy about the way things are. I consider repair to be an inaccessible term, whereas dreaming is more open, more about potential... It is not overly romantic. It's not about imagining utopia, but about moving in the face of tragedy." Jennifer Newsom and Tom Carruthers, "Trouble with the Word Repair: In Conversation with Dream the Combine", in *JAE: Reparations!* 77, no. 1 (2022): 156.

Argument / episteme

An exchange on Instagram with Professor Perry Kulper—on the Rome series, and in particular through the drawing of Santi Quattro Coronati—nudged a diaphanous argument into clearer definition. Perry wrote, of that drawing "a kaleidoscopic analytique on steroids Ozayr!!! fantastic!!!!"[7] Perry's exuberant (and generous) comment triggered the critical situating of this in-process argument in the world and theory of the analytique drawing. In his text "The Tell-the-Tale Detail", Marco Frascari describes the analytique—a Beaux-Arts practice—as the means of studying the detail; an attempt, as he writes to "single out the dialogue among the parts in the making of the text of the building."[8] What's interesting to me (although not novel, given Frascari's literary obsession) is his reference to buildings as texts, and a univocal emphasis on the dialogue ("the dialogue among the parts," and so on). My drawings here, of this argument, assert counters and questions. First, rather than the building as a text, it takes the drawing as a world (as a building and building-of, not only an image or image-of). Secondly, whose dialogue is here and whose voices are implicated in that conversation? The interpreter of the building? The Beaux-Arts students who make elaborate watercolour drawings of Gilded Age constructs?

These drawings, slowly coming into being in a suburban house in Odawa/Ottawa, are an attempt to explore an architectural mythos of seeing and knowing through a refusal of the epistemological and ontological structure of the analytique as a way to know. It is a refusal of the unitary "the" in "the dialogue", as well as a refusal of the Cartesian bifurcation of emphatic fragments ("the parts"), rather than an immediate and unapologetic wholeness. As a problem of order, the analytique was a way to frame the world through the Académie Royale d'architecture, the Académie des Beaux-Arts, and their global pedagogical lineages and consequences. The analytique became, as we know, one of the banner pedagogies for North American architectural education. It was rooted at what we would call "premiere" American institutions, with strong and committed proponents: John Harbeson at the University of Pennsylvania and Lloyd Warren, the founder of the Beaux-Arts Institute of Design in New York City (which later became the National Institute for Architectural Education, and eventually the Van Alen Institute). Beaux-Arts trained architects were de-rigueur heads of American schools of architecture: Constant Despradelles led the program at MIT, Jacques-Maurice Prévot at Cornell University, Paul Phillipe Cret at Penn, and so on.[9] Harbeson wrote "The Study of Architectural Design," a key book on the Beaux-Arts which detailed the order problem of the analytique clearly, as a processional ritual, linear and particular.

As I was preparing, composing, studying, rendering, writing (repeat), what was emphatically underlined as the historical "as-built" sources for these works of architecture was not internal to the world of the works themselves. In particular, the Ottoman, Marinid, Mamluk, Fatimid, Idrisid and Andalucían sites that form a cultural, historical and personal world for me (and many others) have been, for a very long time, a series of scholarly subjects guided by Cartesian bifurcation. And therefore, a fairly profound separation of both rational and spiritual faculties. These worlds and works that I love and centre towards, have been enworlded—as an intellectual project (and therefore, professionalized) by a world of research that was, for a long time, outside the

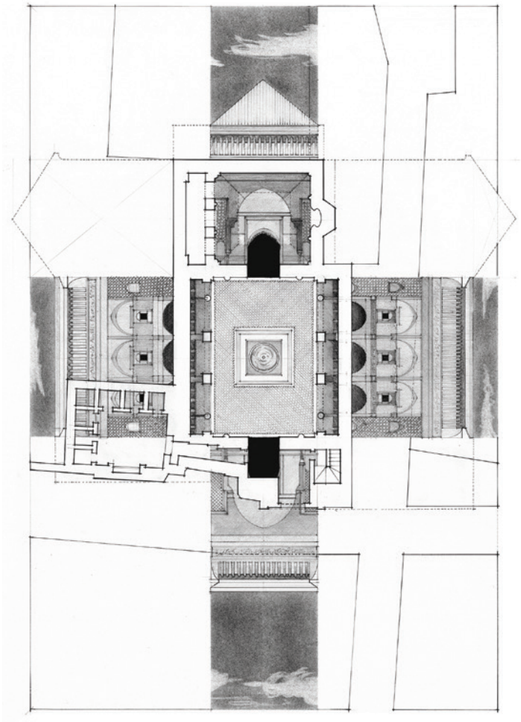


Fig.4 - The Al-Attarine Madrasa.

The Al-Attarine Madrasa, the School of the Perfumers, near the *Souk Al-Attarine* (the Market of the Perfumers), and next to the Qarawiyyin Mosque, is a peak of Marinid architecture, built by Uthman Abu Sa'id in the early 14th century. Immediately adjacent to the great Mosque of the Qarawiyyin, a small "S" turn at the entry brings you off the busy corner of the Rue Rhabt L'Qais, and into the long and narrow courtyard of this exquisite building. Where the Bou Inania is a universe of textures, the Al-Attarine Madrasa is an ocean of patterns: black and white diamond checked floor, bioluminescent, stardust zellij of blue and gold, in "taqshir," the art of peeling away the matte surface glaze, to reveal a shimmer of colour below; to cedar knots of flowers and vines, rivers and streams of plaster carved text. It stops you into silence, blue sky and diaphanous clouds mirrored in a flower petal foutain, tiles liquid, and hot, under your feet.

7 Perry Kulper made this comment on my instagram profile, after seeing an image of the in-progress Santi Quattro Coronati drawing, in Rome. Instagram, May 20, 2020, https://www.instagram.com/p/CAbQEQ4Jwl3/?hl=en. See Image 2. The drawing Professor Kulper is referring to is in the middle row, third from the left.

8 Marco Frascari, "The Tell-the-Tale Detail", *VIA 7: The Building of Architecture* (1984): 502.

9 See, as a quick reference, Basile Baudez and Maureen Cassidy-Geiger, "The Beaux-Arts Tradition", in *Drawing Matter*, April 29, 2021, accessed November 22nd, 2022, https://drawingmatter.org/the-beaux-arts-tradition/.

fullness and wholeness (not just a dialogue of details) of those very worlds. This is certainly not to say that conventional or traditional scholarship has no value, but for a very long time—even today—it is considered unscholarly or unrigorous to assert a Sufi cosmography over a Deleuzian virtuality. Europe's centre is hard to displace. Typically, these European wellsprings give one particular story. Cairo's Fatimid and Mamluk architectural work was known largely only through Napoleon's description "de L'Egypte", or K.A. Cresswell's remarkable drawings, or Maxwell Herz's work, or the spectacular (and highly distorted) paintings of David Roberts. In Ottoman lands, Sinan's works have often—almost always—been looked at through the prism of imperial Ottoman culture and historiographical interpretation, and not through the embodied, experienced world of Islamic aesthetics and spiritual praxis.

As I started to do these drawings, I realised that initial references were almost always exterior to me. They didn't come from me, or from a world that I know. This is why, in reflection, the writing became so necessary and vital as a corollary and drawing partner. That paired process of text and line was a way to thicken the detail and the fragments of these initial drawings beyond what only graphite might—through my hands—be able to articulate. The world of these sites exists beyond what their typically Eurocentric frame can hold. In a way, they are like Mark Danielewski's house from his book House of Leaves—a house three quarters of an inch larger on the inside than it is on the outside (fig. 4).

The completed drawings of this project are the first round of establishing the fullness of this in-progress argument. Each site will include five drawings: a location plan, the accompanying text, the first pass drawing, a crowd-sourced photographic montage/collage (from visitors who have never traveled to these places), and a final chimera-drawing, as the image for the Sokollu Mehmet Paşa Mosque included here hints at; this is the first building I began drawing in the summer of 2020. In this image, you can see, if you are familiar with the world of this context, the Black Stone, found at the "Yemeni" corner of the Ka'aba in Mecca, and if you know it, you recall it as a jewel from Paradise sent as a companion to the Prophet Adam, on his exile. You can see, if you know, Zuleykha chasing the Yusuf—an Islamic embodiment of prophetic beauty, character, courtesy and love, but painted here with the spectacular brushes of Kamāl al-Dīn Behzād, during the reign of Sultan Husayn Baqara of the Timurid Empire in the 15th century. You can see Suleyman, in his Ottoman Miniature guise, and the ubiquitous Turkish tulip across this re-worlded mosque space. Perhaps you can see, if you know, or perhaps not (fig. 5). Europe, after all, is not my centre. I want to use my own mythologies to create my own miniatures, universes, mosques, scholarships, ontologies and epistemologies—and not only someone else's views and interpretations of that world. This project is an attempt, in part, to trouble the analytique as a pedagogical tool of teaching and learning. To destabilize it as a device that ultimately occludes the experience of worlds and architectures claimed by Eurocentric paradigms. It is an attempt to problematize a unitary model of Western modernity and an argument that the analytique's universal sameness forecloses other possibilities of world-building and world-knowing.

These drawings have become a conciliatory and reparative framing of what has been seen as an unusable past, an unrigorous past, an uncontextualized past—particularly if the epistemological and ontological framing have not been European or Western. The drawings of this argument for unknowing take these sites and their subsequent expressions in graphite, text and collage as grounded, embodied, usably present and future-seeking. They are an enactment of a relationality that goes beyond the politics of recognition, but as an emancipatory counter to stasis, frustration and exclusion.

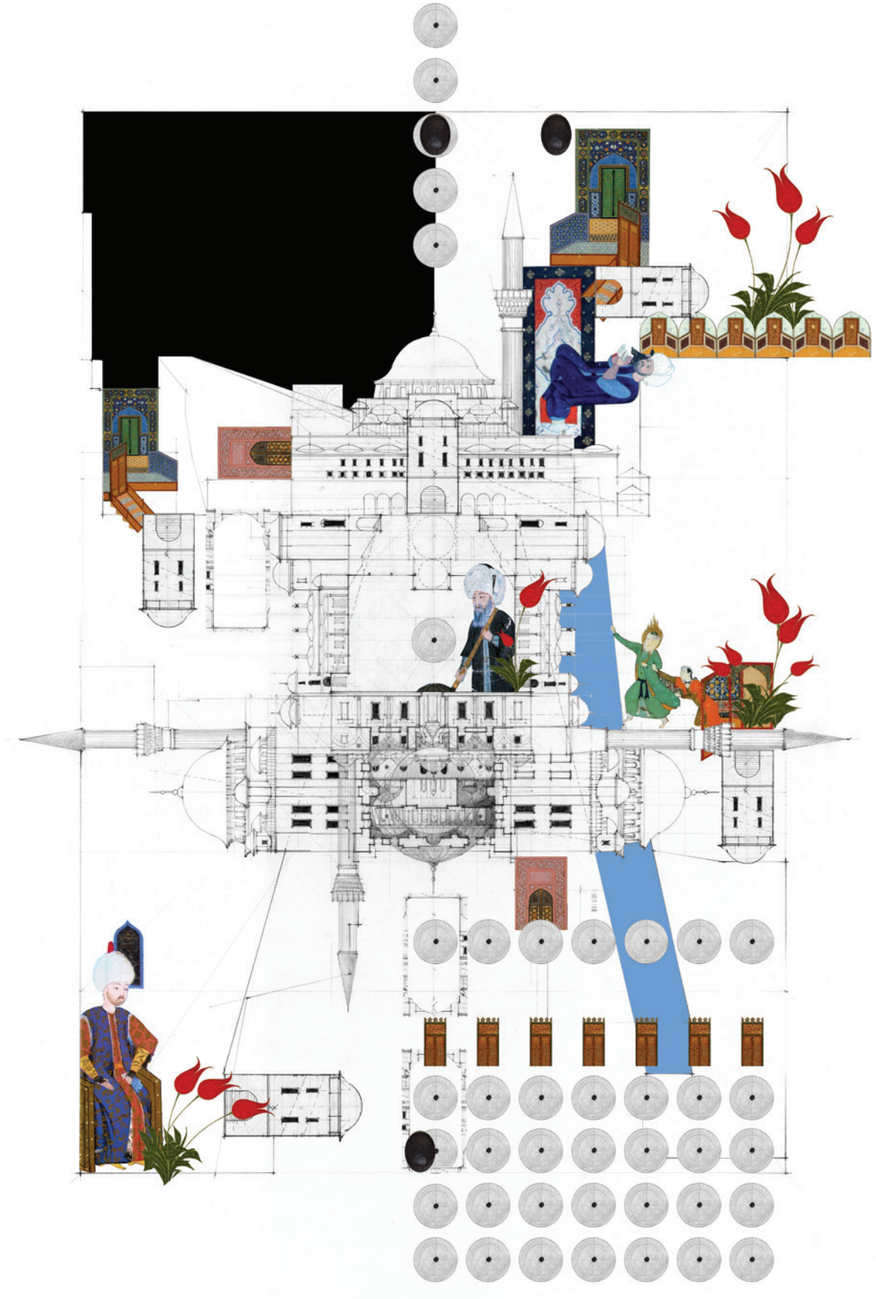


Fig.5 - Final chimera drawing of the Sokollu Mehmet Paşa Mosque.

Inquiry

Time

Dialogue

Samuel Bernier-Lavigne
Charlotte Erckrath
Konstantinos Avramidis
Izabel Amaral
Kirsty Badenoch

Materiality

The Multiplicity of the Line
A study of the Japanese one-room space through digital drawing.

SAMUEL BERNIER-LAVIGNE

When we immerse ourselves in the study of Japanese one-room spaces, we immediately notice a discrepancy between the simplicity of their graphic representation and the complexity of the environment they produce. This architectural term, which we owe to Jacques Lucan, characterizes the interior of a "single homogeneous, fluid and continuous space, without obstacles, of an equal and clear luminosity."[1] Because of their monospatiality, only a small number of lines are needed to produce blueprints of these projects. A good example of this would be the Ferry terminal in Naoshima by Sanaa, where only one horizontal line is needed to represent the project.[2] So how can we explain this discrepancy between the simple representation and the complex environment of the one-room space?

Robin Evans's 1986 essay "Translations from Drawing to Building" offers a way in to thinking about this. Indeed, his well-known formula explains the fundamental difference in language between the lines of the drawing, specifically chosen by the architect to express the intentions of a project, and the architectural result, in which space and materiality fill the "gaps" in the initial representation. It is between these two forms that a zone of uncertainty is created, where "the drawing has intrinsic limitations of reference. Not all things architectural [...] can be arrived at through drawing. There must also be a penumbra of qualities that might only be seen darkly and with great difficulty."[3] However, drawings of one-room spaces do not lead to that penumbra; they rather present the white emptiness of an almost blank sheet of paper. So let us turn towards their finality as a building, to measure their spatial experience.

In the one-room space, we discover a kind of architectural island: a framed space with potential to become a dreamlike zone (*une zone onirique* in Deleuze's words) for the occupant.[4] It is a space that creates its own world—an interior world—within the world, as Peter Sloterdijk postulates.[5] One-room spaces present a highly diverse spatial environment, an *Umwelt*, which discloses different information depending on the distance and scale of the analysis.[6] This is due to the multiple yet subtle variations of luminosity and shading that take place in these seemingly uniform buildings. This interior island could also be seen as an areolar space (*un espace aréolaire*), as defined by Augustin Berque in his book *Vivre l'espace au Japon*. It is an inherently topological space, which is "conceived as it appears at the various moments when one experiences it."[7] There would thus be "as many perceptions of space as there are relationships between the subject and the object."[8] Spaces that appear initially as modest and homogeneous tend towards heterogeneity through the way in which they are experienced spatially, an aspect that is simply imperceptible in the orthographic drawings made to represent them.

The spatial particularities of one-room spaces will be qualified here as the aura. This concept, borrowed from Walter Benjamin, refers to the specificity of a given work which can only be revealed in the presence of the original, in its real context. This "strange fabric of space and time"[9] is obviously not the object itself, but rather a specific atmosphere, a subtle but distinct sensation that envelops the authentic work.[10]

1 Jacques Lucan, *Précisions sur un état présent de l'architecture* (Lausanne: Presses polytechniques et universitaires romandes, 2015), 221. Author's translation: "...seul espace homogène, fluide et continu, sans obstacle, d'une luminosité égale et claire."

2 SANAA (Kazuyo Sejima + Ryue Nishizawa), "Marine Station Naoshima", *JA – The Japan Architect*, no. 69 (April 2008): 120.

3 Robin Evans, *Translation from Drawing to Building and Other Essays* (London: AA Publications, 1997), 159.

4 Gilles Deleuze, *L'île déserte, textes et entretiens 1953-1974* (Paris: Les Éditions de Minuit, 2002), 17.

5 Peter Sloterdijk, *Écumes: Sphère III* (Paris: Hachette littératures, 2003), 275.

6 Jakob von Uexküll, *Mondes animaux et monde humain* (Paris: Gonthier, 1956), 59.

7 Augustin Berques, *Vivre l'espace au Japon* (Paris: Presses Universitaires de France, 1982), 123. Author's translation: "... conçoit tel qu'il se trouve aux divers moments où l'on en fait l'expérience." Il existerait donc: "autant de [perceptions] d'espace que de relations entre le sujet et l'objet."

8 Berques, *Vivre l'espace au Japon*, 123.

9 Walter Benjamin, *L'œuvre d'art à l'époque de sa reproductibilité* (Paris: Éditions Allia, 2012), 25. Author's translation: "...étrange tissu d'espace et de temps."

10 Daniel Naegele, "Object, Image, Aura – Le Corbusier and the Architecture of Photography", *Harvard Design Magazine*, no. 6 (Fall 1998): 2.



Fig.1 - "The drawing machine" translating the data of the simulation into a multiplicity of lines.

When applied to architecture, the concept of aura emanates from a fine understanding of space, in dialogue with proximity and distance.[11] The experience of space is thus crucial as it ratifies these immanent qualities.[12] It leads to a sequence of immersion, imagination, and memory, by which an idea of reality is built around the aura, rather than around the 'reality itself' alone.[13] The difficult task ahead is to transpose these observations onto paper, since, as Benjamin rightly notes, the reproduction of the work has the effect of eroding its aura.[14] In other words, the aura of a work is almost impossible to represent. That being said, "the desire which is inscribed in the artistic creation is to force fate, to try the impossible: the expression of the aura. Here is what troubles the uncertain borders of the visible."[15]

In order to explore this potential, Robin Evans's formula needs to be flipped to become "Translation from Building to Drawing." This approach implies the use, as a starting point, of an existing building, which can be studied from the angle of the spatial environment to represent, through drawings, certain aspects of its aura. The first step in this heuristic process is the translation of the one-room space into a digital object. The result is a precise three-dimensional model, behind which lies a large amount of data, mainly formal and compositional, a kind of datification of the original work. As the philosopher Yuk Hui points out: "digital objects take up the functions of maintaining emotions, atmospheres, collectivities, memories, and so on,"[16] related to the original object. The manipulation of the data structure opens access to all the possible modulations of the project, providing an immersion into the "technical operation of the capture of form."[17] as specified by Gilbert Simondon. And so, to access the aura of space, the strategy is to deploy creative simulations in the digital object, using dynamic systems of particles, shadow projections, and algorithmic loops of mesh decomposition. Each iteration of the simulation brings us closer to the desired aura, echoing the memory of the spatial experience, while moving away from the known referents of the initial object.

11 Mark Dorrian, "Atmosphere and Distance", *Journal of Architectural Education* 67, no. 6 (2013): 283-284.

12 Christian Kerez, *Uncertain Certainty* (Tokyo: Toto Publishing, 2013), 276.

13 Berques, *Vivre l'espace au Japon*, 21. Author's translation: "...réalité elle-même."

14 Benjamin, *L'œuvre d'art*, 22.

15 Michel Makarius, *Une histoire du flou – Aux frontières du visible* (Paris: Éditions du Félin, 2016), 134. Author's translation: "le désir qui s'inscrit dans la création artistique constitue à forcer le destin pour tenter l'impossible; l'expression de l'aura, voilà ce qui trouble les frontières incertaines du visible."

16 Yuk Hui, *On the Existence of Digital Objects* (Minneapolis: University of Minnesota Press, 2016), 57.

17 Gilbert Simondon, *L'individu et sa genèse physico-biologique* (Paris: Presses Universitaires de France, 1964), 40. Author's translation: "...opération technique de prise de forme."

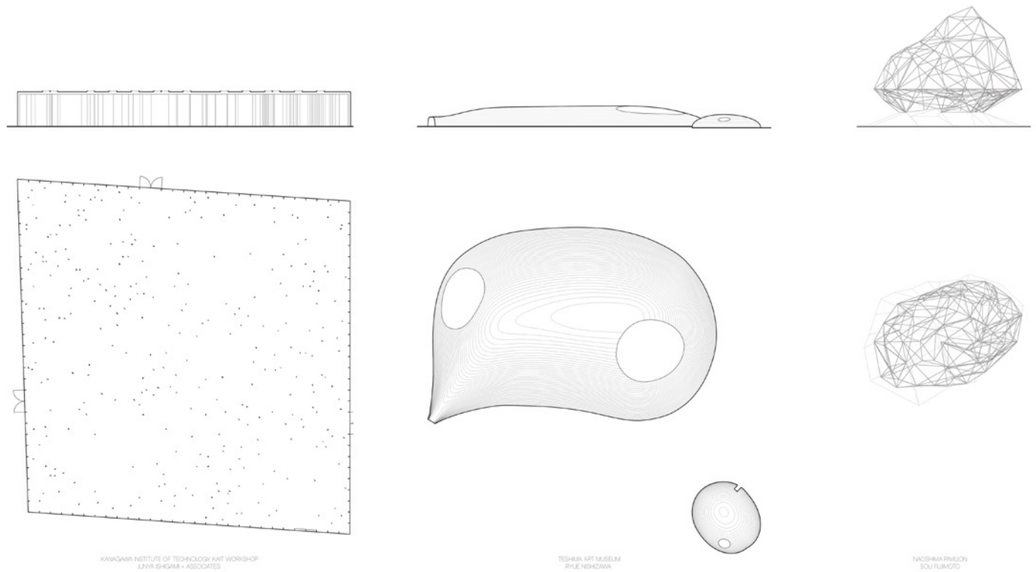


Fig.2 - The orthographic drawings of the three Japanese one-room spaces studied.
From left to right: Kanagawa Institute of Technology Workshop by Junya Ishigami, the Teshima Art Museum by Ryue Nishizawa and the Naoshima Pavilion by Sou Fujimoto (various scales).

The final step in this process is the representation of the aura through digital drawing. We explore the abstract space of the drawings, where lines "no longer [necessarily] correspond to a particular element; but their multiplicity leads to a general expression of the object in its globality."[18] Under these conditions, the drawing exceeds its initial role of communication to become fundamentally speculative, having the capacity to reveal something new. It is the bearer of a poetics of space, and we need to allow the observer to imagine what the drawing is suggesting.[19]

From a technical point of view, the different simulations generated in the digital one-room spaces produce a large amount of information to be processed. A "drawing machine"—or a pen plotter—is used to translate this accumulation of complex data into a multiplicity of lines, dashes and points. What may seem at first glance like a kind of technological ecstasy is rather a way to bring two worlds into dialogue. Firstly, it raises the question of how code can be used for something other than the generation of architectural forms and has something to say about the way it analyzes and represents architecture.[20] Secondly, the use of the drawing machine consolidates the fundamental position of drawing in the digital age, using computational power and automation to draw, with a simple pen, countless lines on paper.[21] The drawing becomes so dense at times that a tension is created with the concept of the printed image. However, when one looks closely and gets lost in the complexity of the whole, one discovers the successive accumulation of graphic signs on the paper, expressing the generative process that led to it.[22] Nevertheless, an element remains disconcerting, that of the ineluctable precision of drawn lines caused by the action of the motors, making the pencil dance in the X and Y axis (fig.1). This preamble leads to the production of drawings that explore the aura of the spatial environment of three Japanese one-room spaces: the Kanagawa Institute of Technology Workshop by Junya Ishigami, the Teshima Art Museum by Ryue Nishizawa and the Naoshima Pavilion by Sou Fujimoto (fig.2).[23] While the existing buildings containing the one-room spaces are presented as is, the digital version of them gives access to their multiresolutions. A low resolution presents their entirety, and consequently, the increase in resolution reveals their details, their intimate features.[24] This gradation in the resolution goes hand in hand with the continuous refinement of the creative simulations, plunging the observer into a universe "below our thresholds of perception"[25] where it is no longer possible to correctly identify the discrete fragments that are evoked. In this way, a triptych was produced for each project, through which the aura emanates gradually, while moving away from the digital object, by means of abstraction.

The KAIT Workshop is clearly the most complex of the one-room spaces studied here, hosting a large fabrication workshop within a forest of 305 pillars. While this multiplication of columns first catches the eye, we instead focused on all that lies between them, where the "spaces appeared and disappeared like bubbles."[26] It could also be seen as a metaphor for wandering in the labyrinthine streets of Tokyo, as Augustin Berques notes: "from this complexity of the paths comes the depth of the space."[27] On the other hand, Ishigami mentions that this space belongs mainly to the concept of environment—rather than architecture—as it seeks to eliminate the boundary between the natural and the built milieu.[28] Above all, he wants to create an "architecture that floats lightly in the air, soft and fluffy like a cloud, transparent and intricate like an airflow, vast and enormous but even then, having no substance."[29]

It becomes clear that the aura of the KAIT is found in these interstices where the pockets of space melt together simply through contact with the ambient air. This fluidity of space is studied in the first series of drawings, while a dynamic simulation of particles runs in the digital object of the KAIT. In this way, each particle projected in this environment ends up revealing the spatial interconnections imagined by Ishigami, following the collisions with its fellow particles and the forest of columns. Through all these movements, the "unseen of lost moments"[30] is revealed, as Paul Virilio expresses it, where the precise form of the space is virtually elusive, even undefinable because of its non-gridded organization, and changes continuously through our experience of the building. This instability is catalyzed by the role that Ishigami gave to the observer, while a simple translation in its positioning changes drastically his reading of the space.[31] The organization of the columns—random in appearance but not in design—creates moments of great visual density. At one point several of them seem to merge to create a wall, but by simply taking a step aside, the gaze pierces the entire project again, and then the viewer realizes that this was only a visual effect caused by the loss of a sense of distance. A similar effect has been transposed into the digital drawings of the KAIT (fig. 3). Through the change of resolution between the second and the third drawing, zooming from the global to the local, what seems like a massive element reveals itself to be volatile, light—a floating point cloud. This characteristic validates the choice to represent the whole with a multiplicity of points, since, as Michael Young points out, "from a distance, these models can have a somewhat disturbingly high degree of realism. As one zooms in, the point cloud disintegrates: points spread, gaps open, and eventually the surface dissolves entirely."[32]

The exploration continues with the Teshima Art Museum, which, when viewed from the outside, is perceived as an island in the topographic sea of the surrounding hills. The architecture of the project is a white concrete shell, encompassing a single space that "seems endless [...] where its exact dimensions and shape remain blurred"[33] to the understanding of the observer. This is due to the paradoxical continuity that this one-room space offers, where our "vision of the space is in all point total."[34] And so, this totality produced by the emptiness of space echoes the famous Japanese *ma*, which is, in an inseparable way, space and time, and creates a permanent association between the museum and the immensity of the landscape in which it is part.[35] In addition, the monochromatic aspect of its materiality, "this white, empty and free, cleared of all clutter, released of all fences and restrictions [allows us to finally see] the immense,"[36] as if submerged in Kazimir Malevitch's white square.

The question now arises as to how to make this emptiness visible. One inspiration is the horizon of silence developed by the artist Georges Seurat, mainly in his drawings. Known for their blurred figures lost in the shadows, his Conté pencil drawings on textured paper create variations in density and gradations of tone. It leads to a kind of "graphic indeterminacy [...] made of black grains clumped together in the drawings that somehow contaminate its ontology."[37] This texture is imported into the environment of the digital object, and projected as vectorial data to generate the second drawing of the triptych. The material presence becomes a crucial element

18 Lawrence Gowing, *Turner. Peindre le rie*n (Paris: Éditions Macula, 2016), 27. Author's translation: "...ne correspond plus à un objet en particulier; l'équivalence s'établit entre la configuration générale et le sujet dans sa totalité."

19 Antonella Tufano, "Dessins et design: représenter l'espace mental de l'architecture: les dessins déconstructivistes de Daniel Libeskind: Micromegas", *Livraisons de l'histoire de l'architecture*, no. 30 (2015): 81.

20 Andrew Kudless and Adam Marcus, "Drawing codes, Experimental Protocols of Architectural Representation", in *ACADIA 2018: Re/Calibration: On Imprecision and Infidelity,* (Mexico City: Proceedings of the 38th Annual Conference of the Association for Computer Aided Design in Architecture (ACADIA), 2018), 49.

21 Carl Lostritto, *Computational Drawing, From Foundational Exercises to Theories of Representation* (San Francisco: Applied Research and Design Publishing, 2019), 92.

22 Walter Benjamin, "Peinture et graphisme – De la peinture ou le signe et la marque", *La Part de l'œil*, no. 6: Le Dessin (1990): 13.

23 All three projects were analyzed in detail on site during a sabbatical year in Japan in 2019.

24 Daniel Arasse, *Le Détail, Pour une histoire rapprochée de la peinture* (Paris: Flammarion, 1996), x.

25 Michael Young, "Paradigmatic Resolution: The Debased Flower Images of Young & Ayata", *Paprika* 3, no. 10: Condemned to be Digital (2018): 2.

26 Junya Ishigami, *Another Scale of Architecture* (Tokyo: Toto Publishing, 2011), 87.

27 Berques, *Vivre l'espace au Japon*, 140.

28 Junya Ishigami, *Small Images* (Tokyo: Toto Publishing, 2011), 29.

29 Ishigami, *Another Scale*, 9.

30 Paul Virilio, *Esthétique de la disparition* (Paris: Édition Galilée, 1989), x.

31 Ishigami, *Another Scal*e, 273.

32 Michael Young, *Reality Modeled After Images: Architecture and Aesthetics after the Digital Image* (New York: Routledge, 2021), 57.

33 Lucan, *Précisions*, 228.

34 Olivier Meystre, *Images des microcosmes flottants, Nouvelles figurations architecturales japonaises* (Zurich: Park Books, 2017), 100.

35 Berques, *Vivre l'espace au Japon*, 62.

36 Jean-Michel Le Lannou, *Voir infiniment, Malevitch, Klein, Soulages* (Paris: Les Éditions Herman, 2019), 53.

37 Makarius, *Une histoire du flou*, 126.



Fig.3 - The triptych drawing of the Kanagawa Institute of Technology Workshop.

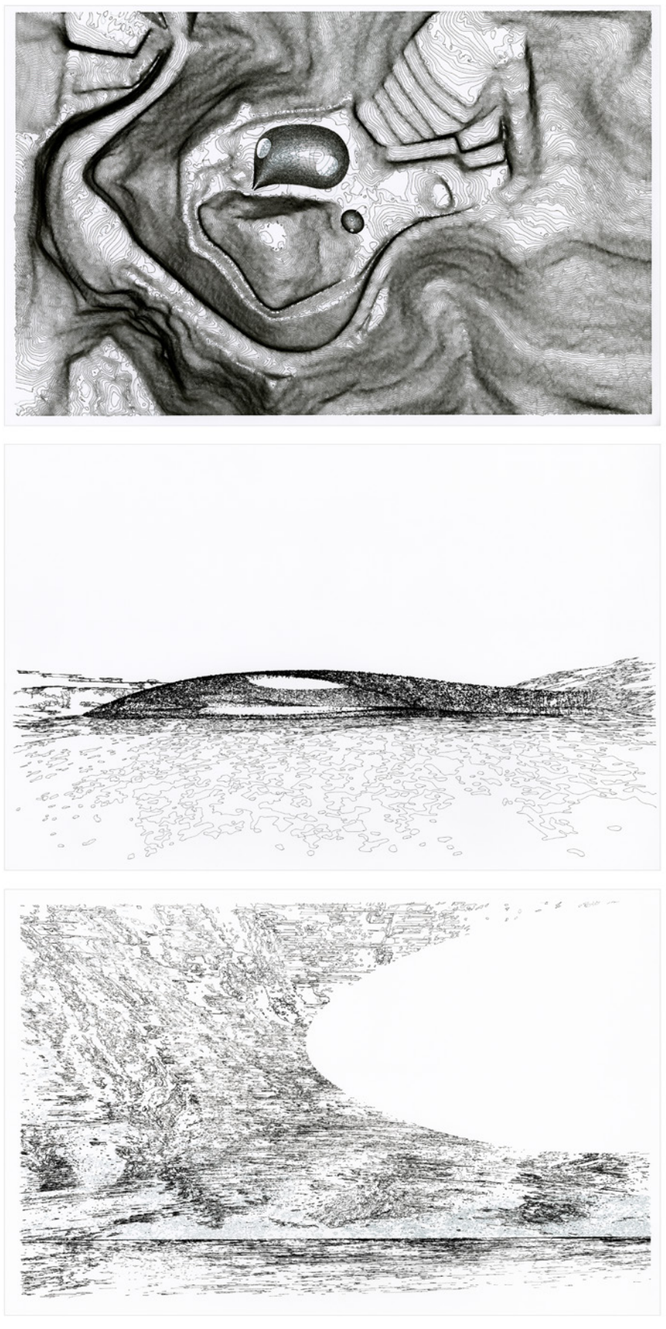


Fig.4 - The triptych drawing of the Teshima Art Museum.

of the drawing, here merging the project with its environment, but as Jodi Hauptman points out, the way we come to read their meaning depends almost entirely on absence.[38] This absence, this emptiness of the space inside the museum for us, becomes, for Seurat, his aesthetic of silence—a theme taken up a century later by Susan Sontag. Silence thus leads us to stare intently into the void, to finally discover all that was missed at first glance. Applied to the Teshima Art Museum, this reveals fine droplets of water trickling to the ground, and the few threads, disarmingly delicate, floating in the wind, both forming the work Matrix by Rei Nato.[39] Next, the observer gets closer to the architecture, in order to explore the fine grain of the concrete composing the shell, in constant dialogue with the gradient of light to shadow. It is then that we realize that a totally empty architectural space simply does not exist. As long as we pay attention, we always find something to see. As Sontag put it, "to look at something that's "empty" is still to be looking, still to be seeing something—if only the ghosts of one's own expectations."[40] This silent emptiness turns out, in the end, to be deceptive. When one is carried away by the details, one discovers the fulness of the void—*la plénitude du vide* (fig. 4).[41]

The last series of drawings focuses on the polyhedral pavilion that Sou Fujimoto created for the island of Naoshima. Seen from the outside, this architectural object has a fascinating spectral quality, generated by an optical effect in which one can clearly read the limits of the form, while everything in its centre is blurred. This is caused by the materiality of the one-room space, composed of a white metallic mesh that overlaps the borders of the object, thus creating a visual density. For the remaining part of the volume, the ambient air constitutes the interior space leading to a completely porous environment, resulting in a loss of boundaries in the atmospheric perspective of the background. To understand this mystery, one is tempted to change one's point of view by moving around the project, only to discover the same milky translucency in its centre, always framed by a material density, which this time traces a slightly different profile of the complex polyhedron. This "ghostly environment"[42] expresses Fujimoto's ambition to rethink the essence of architectural boundaries and may be reminiscent of the characteristics of X-ray images. For Fujimoto, this play of perception arises from an ambition to rethink the essence of the limits of architecture by creating a space with a rich gradient between the inside and the outside; between the 0 and the 1.[43] It is in fact an eternal search for Japanese architects: "when one thinks of architecture's origin, one can imagine it to be a "nebulous field" derived from various densities of chiaroscuro. Whether to be inside or outside was entirely contingent upon the differences in local densities."[44] In the case of the Naoshima Pavilion, this limitless gradient emerges from the material stratification at the boundaries of the object.

Once inside, the perception of the room completely changes. The defined object no longer exists, leading unexpectedly to a complete dissolution of the depth of space. The highly articulated crystalline form now becomes a flattened element: a simple two-dimensional pattern. This effect is accentuated when the white mesh blends with the cloudy sky, but sporadically, some shadows manage to break through and bring back to the space a three-dimensional reading, where the external pattern is projected onto the internal mesh. We encounter once again an areolar space, floating in this gridded world between earth and sky.

Finally, this simple membrane of white mesh forming the pavilion manages to express the idea that "contemporary Japanese spatiality seems elusive and immanent,"[45] and even ambiguous at times. This almost non-existent boundary between the interior and the exterior becomes the last filter that sparks the visitor's imagination. It is the unique feature that allows architecture to exist. Without it, there is only absolute emptiness (fig. 5).

The paradox of the intangible object thus emerges: the autonomous element, with precise and defined contours, becomes gradually blurred by the drastic increase of information in its representation. The drawing of the one-room space's aura, using the multiplicity of lines, leads inevitably to the dissolution of the object.

38 Judi Hauptman *et al.*, *Georges Seurat: The Drawings* (New York: The Museum of Modern Art, 2007), 13.

39 Rei Nato and Ryue Nishizawa, *Teshima Art Museum* (Naoshima: Fukutake Foundation, 2016), 122.

40 Susan Sontag, "The Aesthetic of Silence", 1967, accessed online May 29th 2022, 4, https://www.are.na/block/4700652.

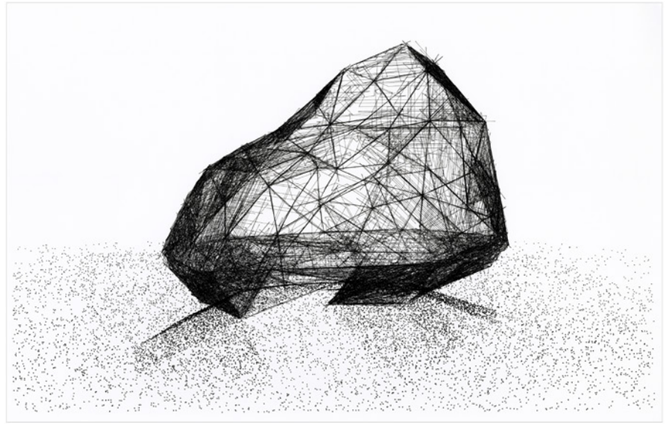
41 Trinh Xuan Thuan, *La plénitude du vide* (Paris: Éditions Albin Michel, 2016), 301.

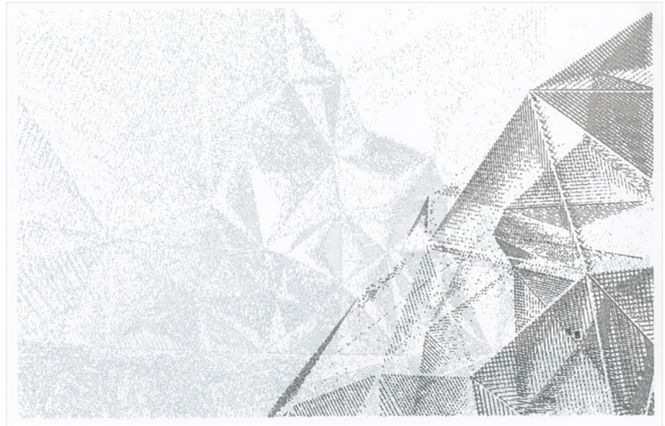
42 Beatriz Colomina, *X-ray Architecture* (Zurich: Lars Müller Publishers, 2019), 154.

43 Sou Fujimoto and Noriko Takiguchi, *Sincere by Design: The Architecture of Sou Fujimoto* (Tokyo: Toto Publishers, 2017), 14.

44 Sou Fujimoto, *Primitive future* (Tokyo: Inax Publisher, 2008), 74.

45 Olivier Meystre, "Images des microcosmes flottants, Nouvelles figurations architecturales japonaises" (Ph.D., École Polytechnique Fédérale de Lausanne, 2015), 233.
It is interesting to note a similarity between Sou Fujimoto's Naoshima Pavilion and Toyo Ito's Pao II: Dwellings for the Tokyo Nomad Woman (1989).





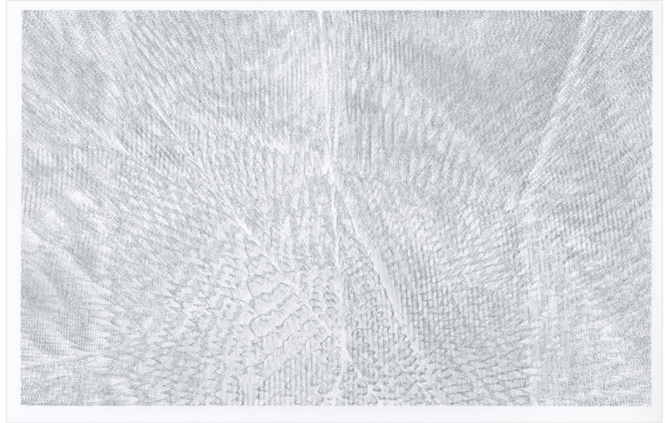


Fig.5 - The triptych drawing of the Naoshima Pavilion.

Ambiguity and the Agency of Drawing Tools

CHARLOTTE ERCKRATH

The application of the drawing tool, meaning any instrument, technique or material that is applied in the process of conceiving architecture, influences our understanding of potential building processes, according to Jonathan Hill.[1] This points to the potential that the tool's specific qualities open up for thinking about the process of drawing as analogous to building, and subsequently allows the relationships it sets up—the tactile and visual experiences of the process that constructs the drawing—to become an integral part of the architecture. From this standpoint it becomes meaningful to rethink the territory of the drawing and open up for carefully considered actions and interactions.

Focused on exploring the potentials for an immersive spatial experience through an expanded idea and application of drawing tools, this work addresses a contradiction in architectural drawing conventions. While the architect strives to construct an embodied spatial reality, the means for drawing rely on orthographic projection, which is based on an abstract spatial model. This chapter takes a closer look at the realm that lies between the inhabited, experienced space and the orthographically projected space, with a focus on its ambiguities and contradictions.

I suggest that specifically tailored drawing instruments may provide important insights on how embodiment and spatial perception engage us in an immersive experience. In particular, the author's relationship with the drawing deserves attention. Since the drawing is always a projection of something outside itself,[2] how can it at the same time have "a direct and phenomenal relationship with us?"[3]

It is this "thick temporality of experience" described by Merleau-Ponty as "the flesh of the world" that is "evident through the primary engagement of embodied being in the world."[4] In sensory experiences such as touch, sound, location of extremities and gravity, the world presents itself to us as an interior condition. At the same time, we experience the visible as something that is necessarily located outside ourselves. This relationship to the world Merleau-Ponty describes as chiasm. The invisible is constituted by the imagination as well as the bodily knowledge that we apply to the depth of the visible.[5]

The concept of our way of being-in-the-world and constructing an understanding relates to the situation of the architect, who conceives space through the use of design tools. It does matter therefore to ask how we can be implicated in the experience of space as we are constructing it. The possibility of inhabiting the same space as the drawing may hold underestimated potential in the interaction with the territory of the drawing.

One concern with the drawing resides in its dimensionality and its multiple ways of projecting space. If the drawing tool is an inquiry into how space is perceived, the drawing itself calls the perception of space into question and transgresses beyond being a mere tool for representation.

I propose the plane table (fig. 1) as a conceptual model for an immersed embodied experience with the drawing. This surveying instrument situates the draftsperson within the space of observation. It is at the same time the drawing plane on which the surveyed landscape is plotted and a horizontal datum and point of reference within the situation. What results in an orthographic projection is a direct translation of the visible, using the principle of the sighting line. What is touched by the eye becomes tangible and measured by the principles of perspective projection.

1 Jonathan Hill, "Building the Drawing", *Architectural Design* 75, no. 4 (2005): 17, https://doi.org/10.1002/ad.98.

2 Robin Evans, *The Projective Cast: Architecture and Its Three Geometries* (Cambridge, MA: MIT Press, 1995), 65.

3 Nat Chard, *Drawing Indeterminate Architecture, Indeterminate Drawings of Architecture*, Consequence 3 (Vienna: Springer, 2005), 35.

4 Alberto Pérez-Gómez and Louise Pelletier, *Architectural Representation and the Perspective Hinge* (Cambridge, MA: MIT Press, 1997), 294.

5 Maurice Merleau-Ponty, *The Visible and the Invisible: Followed by Working Notes*, ed. Claude Lefort, Studies in Phenomenology and Existental Philosophy (Evanston: Northwestern Univ. Press, 1968), 130-155.



Fig.1 - Plane table in the field. All female survey crew - Minidoka Project, Idaho 1918. Photo from the U.S. Bureau of Reclamation, U.S. Department of the Interior.

Image in public domain

Investigations into the history of landscape surveying reveal a multitude of apparatuses that make use of the principles of perspective for plotting maps. One example is the camera lucida which initially "was created explicitly as an apparatus for copying visual appearances. (...) It embodied the first effective synthesis of scientific optics and *perspectiva artificialis*."[6]

Around 1850 Aimé Laussedat made use of this optical device and combined it with the plane table for reverse drafting the perspective view of façades into a mapping of the enclosed courtyard, with the horizon and viewpoint of the perspective meticulously manifested in the spatial structure of the device. It is interesting to note that although the device was designed for surveyors, Laussedat chose as an exemplar a façade situation with clear parallel lines and edges.[7] On the one hand the camera lucida favours the tracing of recognisable outlines[8] and on the other, Laussedat's plane table method required geometries that could be traced back to the cartesian system of right angles and parallel lines. By moving the camera to several stations, comparable sets of images made it possible to circumvent some of these problems.[9]

An apparatus developed on the basis of this concept is the precursor of stereo plotters. In 1895 Edouard Gaston Deville evolved Laussedat's principle further in the Wheatstone Stereoscope (fig. 2).[10] As one of the first to integrate binocular vision, this device makes use of the eye's capacity to measure depth through parallax. The principle behind stereoscopy is our capacity to understand space through the subtle difference in the image perceived in each eye. In measuring this difference, a distance or depth can be extracted. This setup broadens the application to the possibility of surveying landscapes.

The viewer sees each image of a pair of pictures with one eye. The small differences in the location of details produce a stereoscopic image located in front of them. Even though it has an "illusory character, the image allows to [sic] estimate or even measure spatial qualities."[11] In the Wheatstone Stereoscope, the measurement is achieved with a tool that

6 Pérez-Gómez and Pelletier, *Architectural Representation and the Perspective Hinge*, 287.

7 Aimé Laussedat, *La Métrophotographie* (1899), 21.

8 William Henry Fox Talbot, *The Pencil of Nature* (London: Longman, Brown, Green and Longmans, 1844), https://www.gutenberg.org/files/33447/33447-h/33447-h.html.

9 Laussedat, *La Métrophotographie*, 28.

10 Edouard Gaston Daniel Deville, "On the Use of Wheatstone Stereoscope in Photographic Surveying", in *Proceedings and Transactions of the Royal Society of Canada Second Series*, vol. VIII (1902), 63-69.

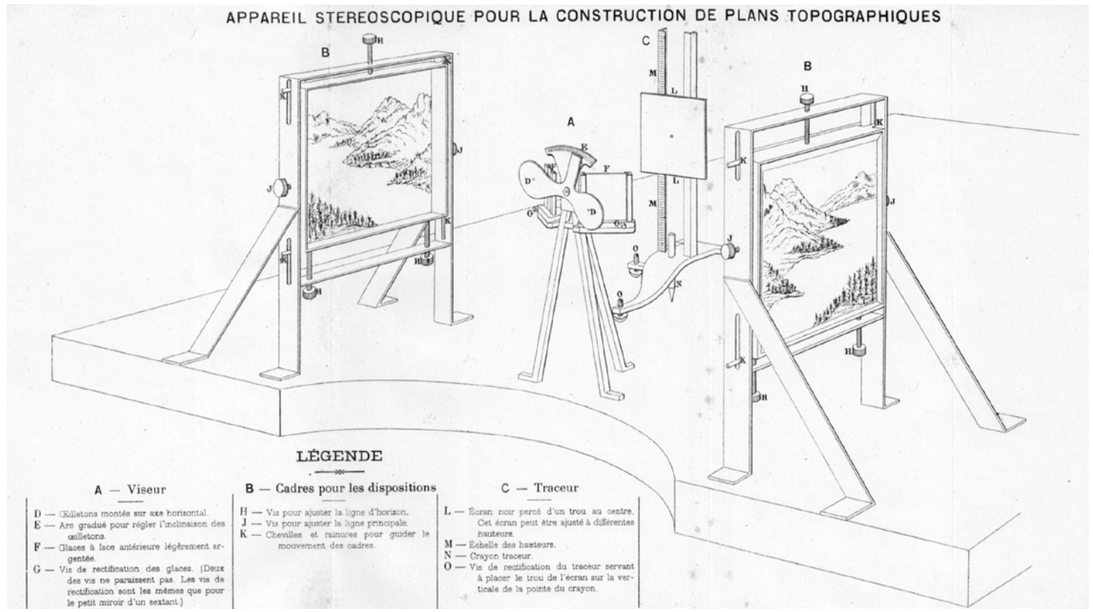


Fig.2 - Wheatstone stereoscopic apparatus for plotting topographic plans. Image source: Edouard Gaston Daniel Deville, 'On the Use of Wheatstone Stereoscope in Photographic Surveying', in Proceedings and Transactions of the Royal Society of Canada, Second Series.
Image in public domain

holds a pencil and a floating mark (fig. 3). The tool is moved inside the stereoscopic image with the mark positioned on the surface of the image. Thus, it traces the topographical contour lines. "The visual sensation of placing the mark can be compared to the certainty of touching. (...) The instruments merge the two views and operate in a stereoscopically deep space, but the outcome, the map, is orthographic."[12]

> As I use the instrument, I know it is my hand that moves the drafting tool over the drawing plane, but what I see is something else. There is brightness and darkness in the scene in front of my eyes, where darkness becomes void and brightness becomes spatial. A visually perceptible veil of tangible light floats above the surface that my arm rests on. I intend to trace a continuous line that may coincide with my expectation of the object in front of me. A bright white spot that I move with the drafting tool horizontally over the plane touches the virtual cloudlike surface with certainty in some moments and uncertainty in others.
>
> I plunge into voids with my marker when the garment disappears into the shadow and now it becomes impossible to bring it into alignment with the surface. While searching for the right depth the line breaks off, becomes discontinuous and uncertain. Folds that disappear behind each other define clear visual cues of strong contrasts, but aiming at them makes evident their paradoxical nature. This edge cannot be identified as being in one place. It is in two places at the same time, I realise. What appears so clear and defined in the photo is in effect untraceable.

Helmut Newton's *Self-Portrait with Wife and Models*[13] shows garments covering the floor. This moment in Helmut Newton's photo is just a sidenote to the composition, but serves as a program for this project. In the image, the pieces of fabric produce an effect that vaguely resembles scattered trees on a lawn in a picturesque landscape garden (fig. 4). Usually arranged to blur the boundaries and staggered to give a sense of a deep space, here they cover the floor and thus negate the spatial depth that we would otherwise appreciate. This impression is underlined by the gap in the backdrop that emphasises flatness instead of layering depth into the scene. This composition emphasises the idea that the interaction of linear and non-linear geometries provides a potential source for perceptual ambiguity.

11 Penelope Haralambidou, *Marcel Duchamp and the Architecture of Desire,* Design Research in Architecture (Burlington, VT: Ashgate Publishing Company, 2013), 150.

12 Haralambidou, *Marcel Duchamp and the Architecture of Desire*, 151.

13 Helmut Newton, *Self-Portrait with Wife and Models*, "Vogue" Studios, Paris (1980), gelatin silver print, 118.1 x 121cm, Helmut Newton Estate / Maconochie Photography.

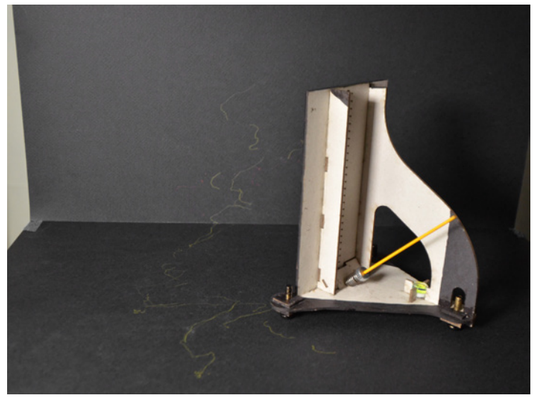


Fig.3 - Image by the author.

Non-linear geometries have been related to perspective (linear) representations since the earliest mention of perspectival drawing: the mirrored clouds in the perspective construction of the Baptistery in Florence by Filippo Brunelleschi, are regarded as constituting an outside to the space of linear perspective.[14]

Andrea Pozzo's *trompe l'oeil* ceiling at Gloria di Sant'Ignazio (1685-94) stages linear perspective construction in an intensive play with non-linear geometries, in some instances, utilising perspective cues like pairs of vanishing lines to enforce depth, and in other places, bringing the space into play with bodies, garments and clouds that seem to float within it.

> I fold up the drawing plane and trace a section of the garment on the upright plane of the drawing paper. In the form of a spatial element, I reintroduce the section to the drawing to engage spatially with the garment. Parts of the section are incomplete, where the folds disappear from view and are therefore subject to my speculation as I adjust them to the visible contours.
>
> I see the drawing space as a stage that encourages me to play with the stereoscopic image in an intuitive manner, seeking out pleasures in the composition of the linearity of the section plane and the painterly qualities of the garment.

The painterly, as Wölfflin describes it, sets the space in movement in that sense, as it never quite allows the eye to settle in a finite experience.[15] The curvatures of the Borromini's plane geometries play out in vaults and dome, veiling their nature in an elliptical form that leaves the beholder uncertain about its spatial depth. This "impression of transformation"[16] relates to the notion of ambiguity.

When ambiguity is constructed through the contradictory and paradoxical potential of its perceptional structure it might hold the promise of a poetic experience. Umberto Eco's study *The Open Work* discusses how the poetic emerges in architecture. He describes the potential of "placing him [the interlocutor] at the focal point of a network of limitless interrelations, among which he chooses to set up his own form without being influenced by an external necessity which definitively prescribes the organization."[17] The construction of an open architecture thus involves a phenomenology of perception and imagination as the basis of recognising spatiality in architecture to bring the subject into relation with the world.

This openness can be achieved as the experience of ambiguity in the construction of a confrontation of precisely articulated concepts.[18] Robert Venturi refers to the paradoxical and ambiguous in his study *Complexity and Contradiction* and underlines the importance of tension between "form and structure, texture and material."[19] Such situations have the capacity to actively engage us with the architecture as their inherent logic is unveiled through mutual engagement and thus opens up for possible spatial interpretations and experiences.

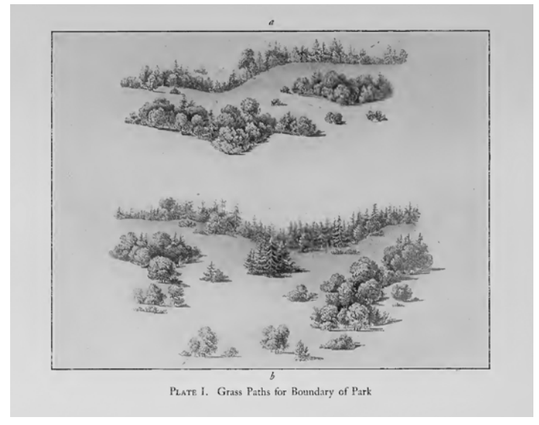


Fig.4 - Grass Paths for Boundary of Park. Hermann Pückler-Muskau and John Hargraves, Hints on Landscape Gardening: Together with a Description of Their Practical Application in Muskau.
Image in public domain

14 Mark Dorrian, *Writing on the Image: Architecture*, the City and the Politics of Representation, International Library of Visual Culture 18 (London: I.B. Tauris, 2015), 112.

15 Heinrich Wölfflin, *Principles of Art History: The Problem of the Development of Style in Later Art*, Dover Books on Art History (New York: Dover, 1950), 145.

16 Wölfflin, *Principles of Art History,* 147.

17 Umberto Eco, *The Open Work* (Cambridge, MA: Harvard University Press, 1989), 4.

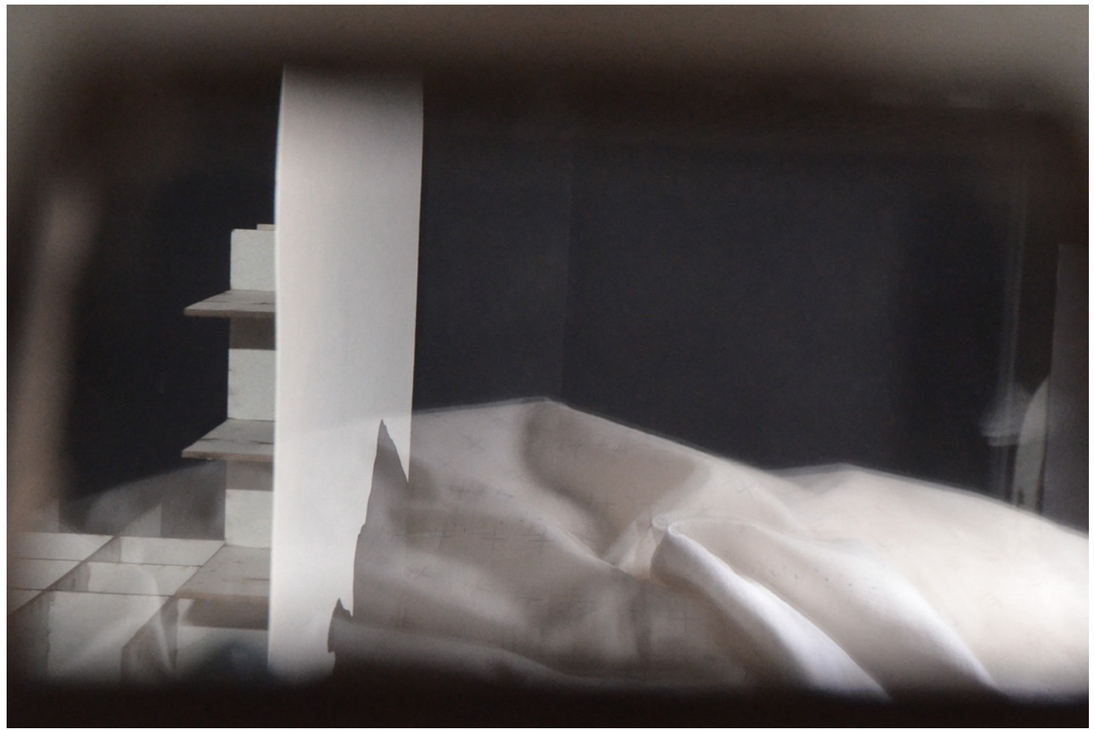


Fig.5 - Stereoscopic image of the cloth seen in the drawing space with paper section.
Image by the author

I observe the light making the folds of the garment like the articulated cornices of a baroque space. This seems to be another way of seeing – the light is painting the depth into the space, while the section plane makes a commentary that in some places supports and in others contradict my visual expectations.

Helmut Newton's self-portrait has a strong reference to the painting *Las Meninas* by Diego Velásquez.[20] The composition of the space in both images involves the viewer within the pictorial realm. It makes use of various concepts of frames in the form of pictorial planes, walls with openings, mirrors and projected views, each of these activated through a new possibility of inhabitation that sets it in relation with another.[21] The spatial relations are transgressing the picture plane in multiple ways to construct an ambiguously deep surface. This makes the space in Velásquez' painting non-heterogeneous. Even though it is a careful perspectival construction of space, it allows us to be embodied beyond the standpoint of a viewer and reveals that an understanding of space as a measurable Cartesian entity alone is not tenable.

I look at the drawing plane through the gaze of the draftsperson and at the same time I am within the space of the drawing in the way Newton engages the viewer with his position in front of the camera lens. My gaze takes on a voyeuristic quality in the framing of the viewfinder lens.

The view through the camera lucida holds a voyeuristic notion.[22] On the one hand the device separates us from the scene, while at the same time it projects us into it. The mirror plays an important role. It reflects what is in front of the camera into the space of the pictorial realm. As a consequence, we are involved in the space that the drawing constructs as both inhabitant and designer.

18 William Empson, *Seven Types of Ambiguity* (New York: New directions, 1966), 5-6.

19 Robert Venturi, *Complexity and Contradiction in Architecture*, The Museum of Modern Art Papers on Architecture (New York: Museum of Modern Art, 1977), 20.

20 Diego Velázquez, *Las Meninas* (1656), oil on canvas, 318 × 276 cm, Museo del Prado.

21 Michel Foucault, *The Order of Things: An Archaeology of the Human Sciences*, Repr., Routledge Classics (London: Routledge, 2006), 1-8.

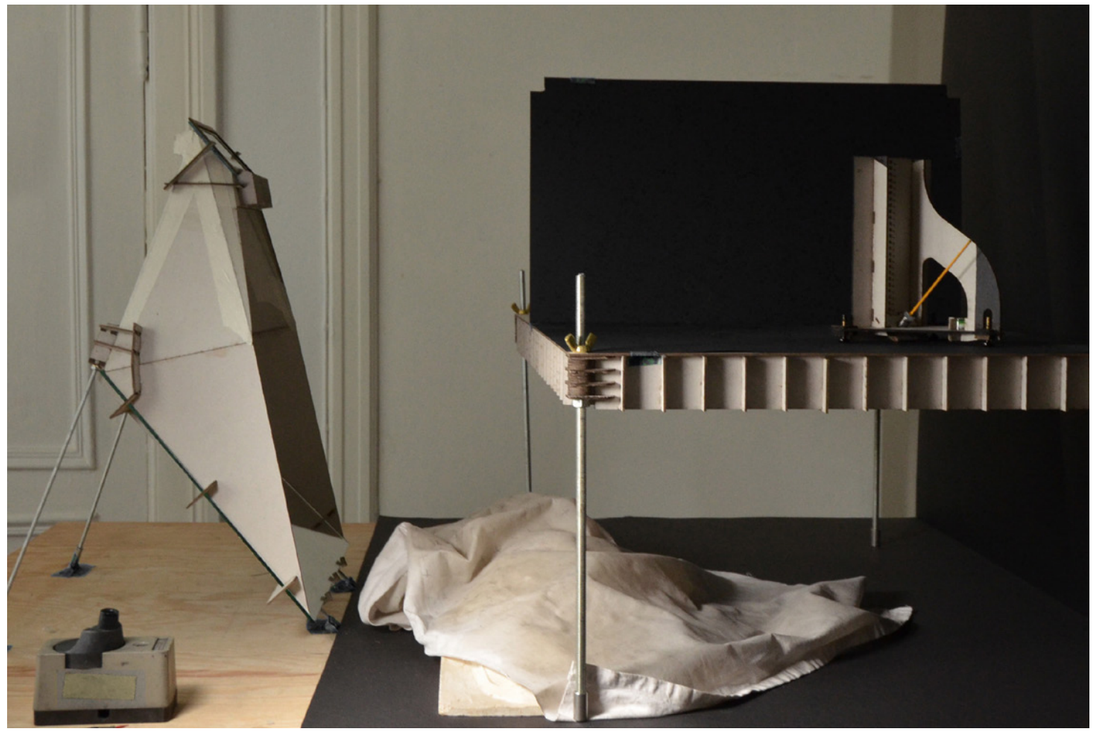


Fig.6 - Stereoscopic drawing device (left) with observed cloth below and drawing table above.
Image by the author

The stereoscopic drawing tool operates as a paradoxical mediator. The viewfinder frame forms a threshold that both connects and excludes. The tactile and embodied experience sets the draftsperson into an immersive relationship with the design space, enabling intuitive engagement with the drawing realm, while at the same time limiting interaction via the physical interface that fixes the body in place (fig. 5).

Duchamp's work *Etant Donné* consists of a series of thresholds that reveal a framed scene of a nude female body in a landscape. The body has a three-dimensional quality with a reduced depth, while the landscape resembles a diorama, where partially real and partially painted elements compose the scene to construct a visually deep space.

Two holes in a door and a further opening in a wall provide a binocular perception of the scene by which a constantly shifting focus calibrates its spatial perception. The light cast by a lamp in Duchamp's work opens up a space of interpretation that is never quite resolved. It remains contradictory and therefore ambiguous.

This exemplifies how the light source is crucial for the pleasure of grasping the spatiality of bodies, garments and clouds, as it holds a perceptual truth and results in a contradictory play of expectation and experience while we make sense of the depth in the spatial boundaries. The similarity of light projection and perspective projection is obvious and delivers yet another cue for a conversation between linear and non-linear geometries in the construction of immersive spatial experience through the use of a stereoscopic drawing device.

22 Pérez-Gómez and Pelletier, *Architectural Representation and the Perspective Hinge*, 289.

Drawing Transgression, Transgressing Drawing
Tracing graffiti traces

KONSTANTINOS AVRAMIDIS

Drawing transgression

Orthographic drawings are primarily used instrumentally: they usually present a single, fixed reality devoid of any potential/existing inhabitants. We know from Robin Evans,[1] however, that drawings are not mere generators of buildings and that the direction of their "projective"nature can be reversed: neither drawings nor buildings should be considered final ends. This conceptualisation allows us to bring the traces of the lived experience back to the drawing.

This chapter addresses drawing through a specific practice of occupying architecture: graffiti. It transfers the transgressive nature of graffiti to architectural representation in order to question the imagined neutrality, objectivity, and truth of drawing, aiming to transform it into a tool of inquiry. Geographer Tim Cresswell argues that graffiti is an example of transgression due to its "out-of-placeness."[2] He believes the act of graffiti is paradigmatic of what he terms "heretical geographies" as it upsets our expectations, i.e. it questions the normative and what is taken for granted. This "taken-for-grantedness" of architectural drawing is used to explore what the conventional modes can reveal about spaces, practices and modes of inhabitation whilst contemplating what the errors or inaccuracies can tell us regarding the relationship between drawing and reality. By drawing transgression, this chapter aims to reveal the potential of transgressing the habitual rules of drawing. The purpose of testing multiple systems for producing survey drawings is to transgress documentation and transform it into exploration.[3]

This chapter focuses on a series of orthographic drawings,[4] documenting three graffitied sites in Athens, that were produced in the context of my design-led doctoral thesis.[5] The three situations studied here, all in Athens' city centre, reflect three important periods in local political history and are emblematic in that they are the epicentres of historical ruptures during which they were extensively graffitied: the former Nazi Detention Centre which operated during the Axis occupation (early 1940s); the Athens Polytechnic, which played a pivotal role in the student uprising against the Greek Military Junta (early 1970s); and the Bank of Greece HQ building, which is a site of recurring political expression in contemporary crisis (early 2010s).

Sonja Neef argues that "strictly speaking, graffiti is handwriting. As such ... [it] is always an eventful action."[6] Further, Beatrice Fraenkel, in her study of the signature, claims that "the graphic trace incarnates the hand and body that produce it, as well as the support that receives it."[7] Thus, graffiti connects the surface environment and the mark-making practice, the material graphism and the performative gesture.[8] By tracing the marks of graffiti, the drawings capture the choreographic orchestration of the body as it manifests itself in the graphic condition of the writing surface.

1 Robin Evans, *Translations from Drawing to Building and Other Essays* (London: Architectural Association, 1997).

2 Tim Cresswell, *In Place / Out of Place: Geography, Ideology, and Transgression* (Minneapolis, MN: University of Minnesota Press, 1996).

3 Thomas-Bernard Kenniff and Carole Lévesque, eds., *Inventories: Documentation as a Design Project* (Montreal: Bureau d'études de pratiques indisciplinées; École de design, University of Quebec at Montreal, 2021).

4 This study traverses a wide spectrum of scales: surface, building and urban landscape. These scales correspond to different series of drawings: the writing gestures, the physical texts and the urban contexts respectively. The gesture drawings, in 1:1 scale, explore the material and graphic expression of the corresponding writings in a characteristic portion of a surface. The texts series explore the placement and, by extension, the spatiality of graffiti, while the context drawings map and weave connections between varied historical and geographical information. All the drawings, regardless of their scale, challenge the distinction between the real and the potential at the city, building and surface level. This chapter focuses solely on the gesture drawings.

5 Konstantinos Avramidis, "An Atlas of Athenian Inscriptions: A Book of Drawings of Writings and Writings on Drawings" (Ph.D., University of Edinburgh, 2018). For more on the atlas as a designed book object see Konstantinos Avramidis, "Buildings as Unsolicited Drawing Surfaces: An Atlas of Athenian Inscriptions", in *Routledge Companion to the Lives of Architectural Drawings and Models: From Translating to Archiving, Collecting and Exhibiting*, ed. Federica Goffi (London: Routledge, 2022).

6 Sonja Neef, *Imprint and Trace: Handwriting in the Age of Technology*, trans. Anthony Mathews (London: Reaktion Books, 2011), 281.

7 Béatrice Fraenkel, "Signatures", in *A History of Writing: From Hieroglyph to Multimedia*, ed. Anne Marie Christin (Paris: Flammarion, 2002), 315.

8 I have previously examined graffiti as a performative mark-making practice in Konstantinos Avramidis, "Public [Ypo] Graphy: Notes on Materiality and Placement", in *No Respect*, ed. Marilena Karra (Athens: Onassis Cultural Centre, 2014).



Fig.1 - Detention Centre, Room V detail, 2018. (Original drawing 1:1, 450x745mm)
All drawings by the author

In the drawings discussed here, every inscription found at each site was documented by adopting an appropriate tracing technique. Ray Lucas, in his study of the discipline of tracing in architectural drawing, argues that traced drawings are not mere replicates but re-performances of an original, opening up opportunities for knowledge production. According to Lucas, copying enabled by retracing "not only [...] introduce[s] inaccuracy, but [...] also allows it."[9]

The series of drawings, in the intimate 1:1 scale, record in each site the performative aspect of the writing and the interpretative potentials of documentation. These drawings suggest distinct graphic "systems" as characteristic of each situation: hieroglyphic, palimpsestic and iconoclastic for the Detention Centre, the Athens Polytechnic and the Bank of Greece respectively. The hieroglyphic is concerned with the peculiar adjacency between image and text, drawing and writing, that graffiti suggest. The palimpsestic is composed of the overlay of writings of different historical and political eras, underlining their mutual "contamination", whilst considering the multitemporal character of the surface. The iconoclastic explores how competing agents—namely, graffiti writers and removers—rhythmically meet on the architectural surface to negotiate power and, in the process, affirm its—often hidden—multivocal and contested character whilst conceptualising writing and removal as supplementary gestures.

Hieroglyphic traces

The air-raid shelter of the National Insurance Company building was turned into a Detention Centre when the edifice was occupied by the Nazis in 1941.[10] The Centre descends six metres below the ground in two levels. It has four rooms on the upper level and three on the lower, the walls of which are covered with numerous well-preserved graffiti written by the inmates: their names and addresses, poems and songs, familiar landscapes and scenes of everyday life, all coexisting on the same surfaces.

9 Ray Lucas, "The Discipline of Tracing in Architectural Drawing", in *The Materiality of Writing: A Trace Making Perspective*, eds. Christian Mosbæk Johannessen and Theo Van Leeuwen (London: Routledge, 2018), 122.

10 For more details regarding the Former Nazi Detention Centre and the inmates' inscriptions see Konstantinos Avramidis, "Tagging a WWII Detention Centre in Athens: Drawing Biographies on/of the Walls", *Lo Squaderno*, no. 54 (2019): 31-35.

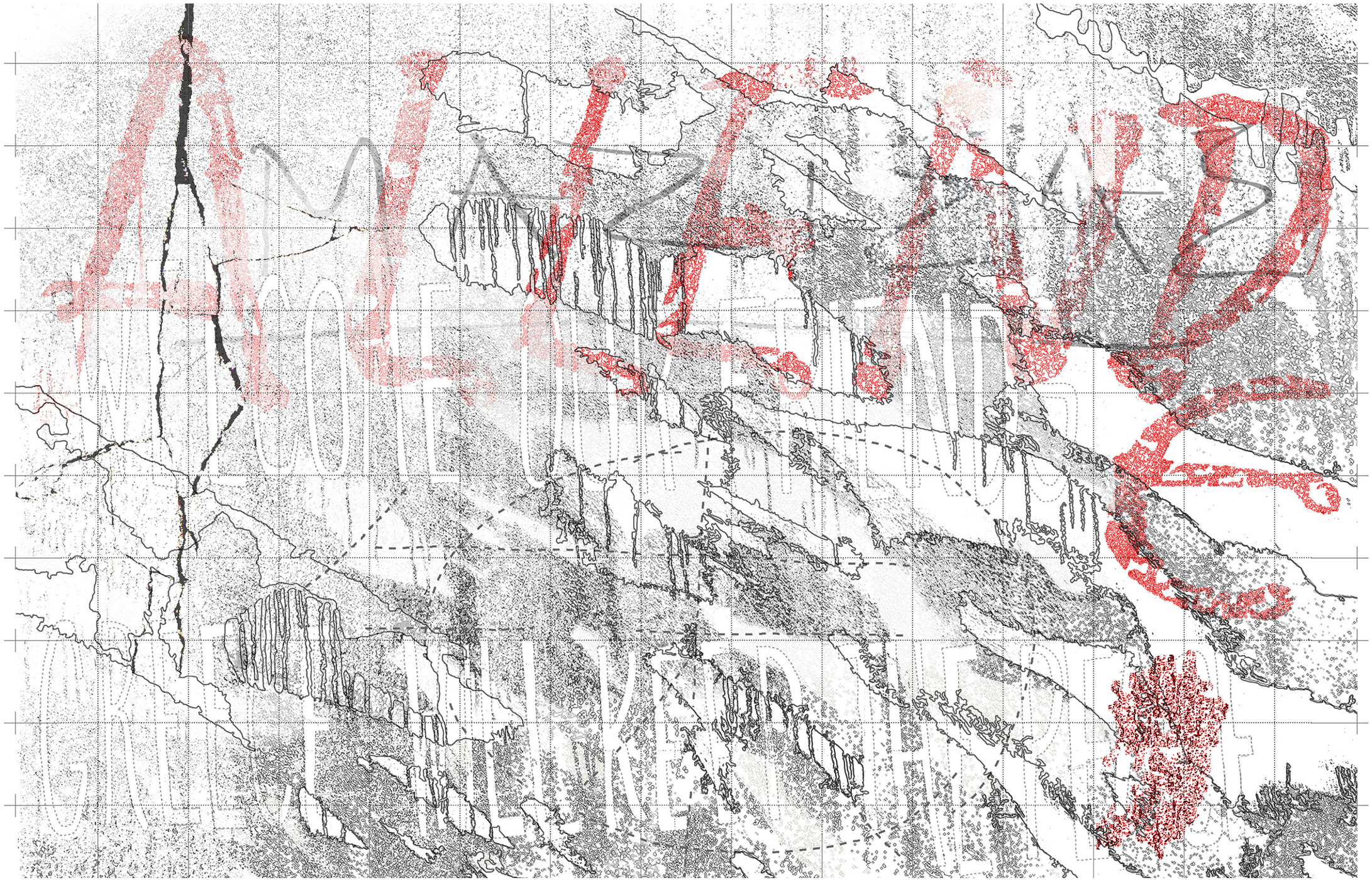


Fig.2 - Athens Polytechnic,
Gate-wall detail, 2018.
(Original drawing 1:1, 450x745mm)

I have chosen to draw part of a wall from Room V in 1:1 scale because it has a high concentration of all sorts of inscriptions, both discursive and figurative, and several other marks. It immediately became obvious that it was impossible to draw the writings without actually drawing the wall itself in its totality, including its materiality and depth, physical decay and lamination, and even the way light hits the surface affecting what I could perceive. The way the graffiti wall is represented gradually reveals a natural landscape. The surface starts looking like the dense contours of an intense and variegated topography. The dynamic crack in the middle of the wall resembles a river while, at a micro scale, the difference between the inscriptions and wall gradually disappears to the extent where the inscriptions look like fjords, where it is impossible to differentiate land from water, unmarked surface from writing. In a sense, what matters is not only what the writings say but also, if not primarily, what they look like.

Regardless of the individual and idiosyncratic character of each inscription, the writings are treated as "glyphs"—i.e. sculpted marks or symbols, material shapes and representations of characters or graphemes—which are integral parts of the surface they occupy. By examining these writings one can challenge the categorical distinction between text and image and understand that the line between them is fine, or even non-existent. If we move beyond the standard reductive conceptualisation and use of the term "hieroglyphic"—in the sense of writing that is hard to decipher—the framing of these writings as hieroglyphs foregrounds the intimate relationship between image and text.

Historian Anne-Marie Christin argues that hieroglyphic graphic systems are tied to "the surface on which they appear."[11] Similarly, these graffiti seem to emanate from the surfaces they occupy. The incarcerated wall writers employ letterforms, or rather graphemes, in a manner that prompt us to experience them as images rather than texts. The images of inscriptions, then, are to be read and seen at the same time. Visual cultures scholar W.J.T. Mitchell sees writing as a "visible language" that can be understood discursively, i.e. as language, and figuratively, that is, as material visual image with aesthetic qualities.[12] To illustrate the antagonistic relationship between word and image, Mitchell refers to the pictorial origins of contemporary alphabetic writing and, more specifically, to hieroglyphic pictograms. In doing so, he highlights the reciprocity of the image-text,[13] or rather, puts emphasis on the possibility of understanding the text as image and of thinking about writing not only in terms of its verbal elements but also in terms of its visual characteristics.

The stylistic crudeness of the writings in these basements and the energy of the gestures imprinted on the surface evoke meanings that the content of the written words or depicted images alone would not be able to communicate. In a sense, it is not the mere written or figural content that is appreciated when one faces these inscriptions but also the act of marking, the gesture of producing these hieroglyphs. Framing the writings of the Detention Centre as hieroglyphs brings to the fore the visual aspects of writing and allows us to move beyond the categorial limitations and binary oppositions of writing as either text or image. As Mitchell argues, word and image should be understood as a "dialectical trope": their relationship, their "difference and likeness", should be seen simultaneously through the notation "vs/as": word vs image, word as image.[14] In a sense, the conceptualisation of inscriptions as hieroglyphics allows us to focus on the interplay between textual and graphic qualities: when encountering the drawing of the inmates' graffiti, one's attention constantly slips from the text to the image and back again.

Palimpsestic traces

The Athens Polytechnic is a monumental neoclassical complex designed by Lyssandros Kaftantzoglou, a famous Greek architect, in 1872.[15] Yet it is primarily known as the epicentre of the 1973 Student Uprising that led—a few months later—to the end of the seven-year military junta. The Polytechnic is the only case study in this chapter where writings from all three historical moments cohabit. As such, its surfaces are the connective tissue between these different temporalities.

The drawing here focuses on the graffiti that appear on a specific part of the gated wall—a symbol associated with the political struggles that took place in and around this building—which have been written, overwritten and rewritten numerous times over the past decades. To prepare the drawing, I use one photograph portraying graphisms on the Athens Polytechnic from each of the three historical moments. Specifically, the first image depicts a graffito from October 1944, immediately after the Axis occupation in the newly liberated Greek capital. The second emblematic photograph captures the damaged Polytechnic's gate a few hours after the 1973 student uprising, at the very site where it was suppressed. The third image is from one of the most gigantic pieces of graffiti of all time, which is related

11 Anne Marie Christin, "From Image to Writing", in *A History of Writing: From Hieroglyph to Multimedia*, ed. Anne Marie Christin (Paris: Flammarion, 2002), 9.

12 W.J.T. Mitchell, *Picture Theory: Essays on Verbal and Visual Representation* (Chicago: University of Chicago Press, 1994), 113.

13 Mitchell is very careful with the typographical conventions he employs to refer to the relationship between image and text. The slash (/) is used to "designate 'image/text' as a problematic gap, cleavage, or rupture in representation" while the hyphen (-) of "'image-text' designates relations of the visual and verbal"; the term 'imagetext' "designates composite, synthetic works (or concepts) that combine image and text". W.J.T. Mitchell, *Picture Theory*, 89.

14 W.J.T. Mitchell, "Word and Image", in *Critical Terms for Art History*, eds. Robert S. Nelson and Richard Shiff (Chicago: University of Chicago Press, 1996), 53.

15 Due to its location in the particular neighbourhood of the city, its political nature and its symbolism, the Polytechnic has attracted graffiti historically and is still prone to it. For a detailed study of the Athens Polytechnic and its graffiti see Konstantinos Avramidis, "Crises and/of Representations: The Sites of Drawings and/of Writings in Athens", *City: Analysis of Urban Change, Theory, Action* 25, no. 3-4 (2021): 526-542. The present section draws freely from that article.

to the crisis era. This close-up photograph depicts the very moment that the graffito is removed—less than 15 days after its creation—and I've chosen this one to underline the contested nature of the surface.

The purpose of this drawing is not to search for or attempt to recover the "original" text(s). Rather, it seeks to graphically represent and examine the multiple texts concurrently, as a single entity. In fact, as I was preparing the drawing, it quickly became clear that I could not separate one graphism from the other. While tracing them together with the writing surface, the inscriptions started merging with, emanating from and being part of one another. This results in "drawing-showing-writings" whose beginnings cannot really be distinguished from their endings. As such, the structure of the Polytechnic's palimpsest is best understood not as a layered structure, but as an interwoven one. In a sense, the drawing makes visible the symbiotic relationship that the inscriptions share with the writing surface and shows that what really matters is not the texts per se but the type of relationships they forge. It reveals the multi-authored and multi-temporal dimension of the "palimpsestic" nature of the architectural surface and, by extension, the need for such a reading.

Literature scholar Sarah Dillon, in her extensive genealogical study of the palimpsest in literature and human thought, defines the palimpsest as "an involuted phenomenon where otherwise unrelated texts are involved and entangled, intricately interwoven, interrupting and inhabiting each other."[16] The key aspect of this definition is the suggested 'involution' of texts. This means that a palimpsest makes sense only when all texts are read and deciphered together, since focusing on a singular underlying textual layer would run counter to its very nature. It is also important to note the words "otherwise unrelated". This means that the texts of a palimpsest might not be related a priori but they develop relationships—or we, the readers, invent for them—once they share the same writing surface.

The nature of the palimpsest suggests a structure that allows the complex co-existence of multiple graphisms to be appreciated, allowing the writings of the palimpsest—and the palimpsest itself—to make sense only when the inscriptions are studied "all present together at all times."[17] In order to achieve this "co-presence" there is a sort of guesswork required that has to do with how one negotiates the complexity of the relationships within the palimpsest: identifying and uncovering previous, partially erased, texts; relating old texts with the more recent ones, and so on. "Since the texts of the palimpsest bear no necessary relation to each other," Dillon argues that "palimpsestuous reading is an inventive process of creating relations where there may, or should, be none."[18] Similarly, there is a certain degree of inventiveness involved in the process of reconstructing the singular scriptural surface in the drawing where all texts coexist. In a sense, the drawing suggests a palimpsestuous reading by graphic means: a reading that not only addresses existing relationships but also creates new ones between the different texts on the surface of the palimpsest.

The palimpsest reveals how time and human agency undermine and animate the seemingly stable and singular character of texts by foregrounding their inherently unruly, ambiguous and heterogeneous nature. Conceptualized as such, the façade ceases to be conceptually simplistic, ideologically or aesthetically monopolistic and becomes multivocal and multitemporal. It is transformed into a contested surface where the past and the future meet (in) the present while dominant ideology is interwoven with its opposition.

Iconoclastic traces

The imposing Bank of Greece HQ building is the cathedral of finance and capitalism in Greece, and it was erected in 1932 based on the principles of neoclassicism.[19] According to prominent historian of Greek architecture Dimitris Philippides, the Bank of Greece building "imitates that of the Greek Parliament," designed approximately 100 years earlier.[20] That is to say that graffitiing the Bank of Greece might be equated to graffitiing the Parliament.

The Bank of Greece has been a continuous graffiti target in contemporary crisis-ridden Athens. Its surfaces have become a meeting point for graffiti writers and removers alike. The actions of the former are considered defacing and destructive, while those of the latter are seen as refacing and constructive. Writing is aggressive while its removal is thought as restorative. To explore the meeting of these two seemingly "opposite" sides, I made a close-up drawing of the epigraph of the portico upon which most the writings and their erasures have accumulated. I outlined the writings as they are shown in specific photographs and traced the contours of their removal as they are depicted in images that captured a particular moment of the "cleaning" process. The reciprocal relationship between the actions of writers and removers couldn't be more emphatic in the moment frozen by the photograph, in which the writing is in the process of being removed.

In that sense, erasure is not considered removal but another layer of writing; or as Bruno Latour puts it, "to erase the writing at the same time you are writing it."[21] For the material surface I used a fibre optic microscopic image of the particular marble on the specific building which was produced in order to evaluate the cleaning procedures employed at

16 Sarah Dillon, *The Palimpsest: Literature, Criticism, Theory* (London: Continuum, 2007), 4.

17 Dillon, *The Palimpsest*, 5.

18 Dillon, *The Palimpsest*, 83.

19 For a detailed study of the Bank of Greece and the graffiti on its walls, see Konstantinos Avramidis, "Reading an Instance of Contemporary Urban Iconoclash: A Design Report from Athens", *The Design Journal* 18, no. 4 (2015): 513-534. The present section draws freely from that article.

20 Dimitris Philippides, *Neoelliniki Arhitektoniki: Arhitektoniki Theoria Kai Praxi* (1830-1980) *San Antanaklasi Ton Ideologikon Epilogon Tis Neollinikis Koultouras* [Neohellenic Architecture: Architectural Theory and Practice (1830-1980) as a Reflection of the Ideological Choices of Neohellenic Culture] (Athens: Mellisa, 1984), 240 [in Greek].

the Bank of Greece.[22] I have also drawn the epigraphs and some other marks that appear within the boundaries of the portion of the wall I chose. The gestural energy captured in the drawing shows how the line between defacement and refacement, destruction and (re)construction, iconoclasts and iconolaters, is fine or even non-existent. If Vilém Flusser is right when arguing that "the gesture of writing does not move directly against an object but rather indirectly, through an image or with the intervention of an image [...] inscription is iconoclastic,"[23] and since removal is yet another layer of writing, both gestures can be considered iconoclastic. Both attack the surface and change its appearance and, in so doing, produce a different one.

Transgressing drawing

The transgressive manner in which drawing techniques are used here—in that they represent architecture retrospectively and document graffiti, which is something that is not normally surveyed—challenges the orthodoxy of orthographic drawings. The drawing techniques adopted here allow inaccuracy. In the "error", there is something meaningful that relates to the impossibility of technologizing and measuring reality that creates this lack of coincidence. The graffiti on the drawings make them very disturbing for the architect, who by definition seeks for precision and wishes to capture the ideal, pristine building or surface. What we are constantly getting from the drawings is a kind of tension between the empirical system of measurement and this would-be reality that we get to understand through it. By challenging the taken-for-granted reality of the drawing, the drawings expose the virtuality of reality.

The series of terms that emerge from the design explorations—and their interassociating nature—is one of the offerings of this research endeavour. These are set up as potential frameworks of criticality that any subsequent reader or practitioner could apply in any (graffiti) situation and site. This is not to say that these terms are correct because I write about them or because they can be found in this work, nor do I claim they are the only ones that characterise graffiti writing. Rather, the contribution lies in the fact that the architectural drawing techniques employed illuminate them in a particular way.

By using architectural conventions to represent graffiti, I have transgressed, and thereby graffitied drawing techniques. What I am doing in the process could, on the one hand, be considered conformist, using "consensual" architectural means to represent graffiti; on the other hand, it is radical, because I am dissenting against those very means by graffitiing my own drawings. The aim of testing multiple systems of enacting survey drawings is to transgress documentation and transform it into exploration and, eventually, interpretation. This survey method allows us to appreciate the critical potency embedded in our conventional modes of drawing, transgressing our disciplinary boundaries by challenging what is shown and how it is shown, embracing multivocality, transferring agency and making room for openness in the process of drawing.

21 Bruno Latour, "What Is Iconoclash? Or Is There a World Beyond the Image Wars?", in *Iconoclash: Beyond Image Wars in Science, Religion and Art*, eds. Bruno Latour and Peter Weibel (Cambridge, MA: MIT Press, 2002), 24.
The visual result in the cases where graffiti is not removed with chemicals but covered with paint impressively demonstrates Latour's point. For example, the film *Subconscious Art of Graffiti Removal*, which examines this covering up process, or books such as *The City is Ours #2: Graffiti Removal* as well as *Nothing to See There*—following graffiti suppression in the context of the recent Hong Kong protests—vividly illustrate how supplementary and iconoclastic both writing and its erasure can be. See *The Subconscious Art of Graffiti Removal*, directed by Matt McCormick (New York, NY: Independent Distribution, 2001); Hans Leo Maes, *Nothing to See There: The Subtle Art of Graffiti Suppression During the 2019 Hong Kong Protests* (Paris: Building Books, 2021); Lorenzo Servi, *The City Is Ours #2: Graffiti Removals* (Helsinki: Other Editions, 2021).

22 Antonia Moropoulou et al., "Evaluation of Cleaning Procedures on the Facades of the Bank of Greece Historical Building in the Center of Athens", *Building and Environment* 37, no. 7 (2002): 753–760.

23 Vilém Flusser, *Does Writing Have a Future?*, trans. Nancy Ann Roth (Minneapolis, MN: University of Minnesota Press, 2011), 14.



Fig.3 - Bank of Greece, Portico-sign detail, 2018. (Original drawing 1:1, 450x745mm)

Dancing Geometry
A phenomenological approach to drawing

IZABEL AMARAL

> "The enigma is that my body simultaneously sees and is seen. That which looks at all things can also look at itself and recognize, in what it sees, the "other side" of its power of looking. It sees itself seeing; it touches itself touching; it is visible and sensitive for itself. It is not a self through transparence, like thought, which only thinks its object by assimilating it, by constituting it, by transforming it into thought. It is a self through confusion, narcissism, through inherence of sensing in the sensed – a self, therefore, that is caught up in things, that has a front and a back, a past and a future..."[1]

The theme of the body's presence in space manifests itself in the foundations of both dance and architecture. The understanding of body movement in space as a geometric construction also brings these two disciplines together, given their need to build a formal geometric vocabulary in their respective pedagogical contexts.[2]

As Bernard Tschumi points out, 20th-century architectural theory and practice give great importance to the sensory aspects of spatial experience, to the point where architects must take into account that spaces should be felt, but also that space is the means of experience as well as the materialization of a theory. The work of the choreographer Oskar Schlemmer is for Tschumi a founding theoretical work connecting architecture and dance in terms of spatial thinking: "dance being seen as capable of articulating and ordering space. The parallel is essential between the movements of the dancer and more conventional means of defining and articulating space, such as walls or columns."[3] For art historian Roselee Goldberg, the artistic exploration developed by Schlemmer brings together painting and theatre as a spatial investigation, viewing these mediums as complementary activities. Oskar Schlemmer's work "was intentionally didactic and at the same time revealed Schlemmer's methodical shift from one medium to another: from the two-dimensional surface (notation and painting) to the plastic (reliefs and sculptures) to the animated plastic art of the human body," highlighting the complementarity of theatre, painting and performance art.[4]

These theorizations describe the relationship between dance, choreography and architecture, and until now very little has been said about the potential of drawing as a means to bring these disciplines together.[5] It appears that a conceptual framework for a practice that links drawing and dance has yet to be developed. Based on these reflections, this chapter presents a critical review of a research-creation project linking architecture, drawing and dance, carried out at the McEwen School of Architecture in 2019 (Sudbury, Ontario), by a research team formed by the author and four architecture students with a background in contemporary dance.
The potential of a multidisciplinary approach combining geometric drawing and dance was initiated by a reading of Robin Evans' work on architectural drawing, which led to a research-creation experiment. Finally, the whole experiment is analyzed through Maurice Merleau-Ponty's phenomenology of perception.

1 Maurice Merleau-Ponty, *Eye and Mind*, 178.

2 According to Steven Spier, collaboration between architects and choreographers has most often been unilateral when architects have designed sets for choreographers, as in the collaboration between William Forsythe and Daniel Liebskind, where choreography influenced by architectural considerations gives rise to a unique dance language. According to Forsythe, "Choreography is about organising bodies in space, or you're organising bodies with other bodies, or a body with other bodies in an environment that is organized." Steven Spier, "Dancing and Drawing, Choreography and Architecture", *The Journal of Architecture* 10, no. 4 (2005): 352. See also: Steven Spier, *William Forsythe and the Practice of Choreography: It Starts From Any Point* (Abingdon, UK: Routledge, 2011).

3 Bernard Tschumi, *Architecture et disjunction,* trans. Jean-Marc Grimaldi (Orléans: Éditions HYX, (1994) 2014), 37.

4 RoseLee Goldberg, *Performance Art: From Futurism to the Present*, World of Art (London: Thames and Hudson, 1988), 104.

5 My thanks to Université de Montréal Ph.D. candidate Paloma Castonguay-Rufino for her survey of the links between dance, architecture and performance art, which helped in the writing of this text. I would also like to highlight Roselee Goldberg's recent work on architectural performance in her book on performance art and Erin Brannigan's essay inviting us to conceptualize choreography as a form of art and knowledge creation. RoseLee Goldberg, "Performing Architecture", in *Performance Now: Live Art for the 21st Century* (London: Thames and Hudson, 2018). Erin Brannigan,"Choreography as Concept, Dancing as Material", *Performance Research* 26, no. 4 (2021).

For Robin Evans, the culture of architectural drawing is mainly characterized by the use of drawings in the form of orthogonal projections: "architectural drawings are projections, which means that organized arrays of imaginary straight lines pass through the drawing to corresponding parts of the thing represented by the drawing."[6] Evans draws attention to the fact that different forms of projection, such as television or photography, have become features of our daily life that have ceased to raise our curiosity or imagination. According to him, projection, as the main property of architectural drawing, connects the image to the thing, fixes it in the form of a drawing, while being able to mobilize the imagination of a person. The drawing has the capacity to act; for example, it can divert and alter the forms of an existing building and reconstruct it elsewhere. Evans reminds us that the ability to activate the imagination is not diminished by the fact that drawing is also a vehicle for communicating an existing truth, a technical facilitator," demonstrating through multiple examples how drawing is the primary "locus of conjecture in architecture."[7]

Despite its objective nature, Evans says, orthogonal projection raises mysterious questions, beginning with the enigma of the conception of architectural ideas and built form. Beyond the imagination of the observer of a drawing, there is active imagination in the drawing itself. As Evans explains, architectural drawing in the form of orthogonal projections has a non-exhaustive character because the whole formed by the plan, the section and the elevation, is never complete, but only sufficient for the realization of the building, which establishes a close relationship between the drawing and the tasks to be carried out on the building site. Over the centuries, the tasks have adapted to the drawing and the reverse is also true. Orthogonal projection somehow forces rectangular shapes to be maintained for buildings since other shapes require additional effort.[8]

My empirical knowledge linking drawing and dance originates from my native province of Pernambuco, a vibrant locus of traditional cultural events in northeastern Brazil, where I grew up participating annually in festive gatherings held in public spaces. Considered part of Brazil's intangible heritage, the ciranda dance brings together hundreds of people to sing and dance in circles hand in hand, with participants of all genders, ages and social classes. The dance begins with one or more circles, which grow as more dancers join in. When the circles become too large, new rounds are created inside. Ciranda organizes the dancers' bodies in a concentric way, defining a geometric shape, the circle, independently of the natural or built environment where it takes place. The only real requirement is a piece of flat ground, be it a beach, an open field, or a public square. In a way, ciranda transforms the ground into a giant sheet of paper where the dancers draw, like a human spirograph, moving in concentric circles. Pernambuco is also home to a tradition of decorated floors, typical of Luso-Brazilian sidewalks and public squares, where the work of artist and landscape architect Roberto Burle Marx finds its ultimate expression. In Burle Marx's work, places are defined through vegetation, of course, but primarily through drawings and geometric patterns that are transposed directly from the artist's watercolours and paintings onto his landscape projects. In my architectural practice, the theme of decorated floors took shape in the Parque das Dunas project, where figurative images of local wildlife punctuate a public promenade (fig. 1). The series of 70 drawings conceived for this work allowed us to realize that floor drawings are a source of interest for users of the site and contribute to the creation of a sense of place and appropriation, an observation that deserved further reflection.



Fig.1 - Parque das Dunas (Natal, Brazil). Project by Nilberto Gomes and Izabel Amaral, 2005.

6 Robin Evans,"Architectural Projection", in *Architecture and its Image: Four centuries of Architectural Representation*, Works from the Collection of the Canadian Centre for Architecture, eds. Eve Blau and Edward Kaufman (Montréal: Centre Canadien d'Architecture / Canadian Centre for Architecture, 1989), 19.

7 Evans, 1989, p. 19-20.

8 Evans, 1989, p. 21-25.

For the philosopher Maurice Merleau-Ponty, the body experiences space because each individual feels space at the same time as he or she is perceived in space. In his work *Phenomenology of Perception*,[9] Merleau-Ponty defends the primacy of perception for the human experience by proposing the hypothesis that perception is not solely a mental activity, but that the experience of the body precedes all perception. According to that view, the spatiality of the body is not a purely abstract positional spatiality, but a spatiality of situation in relation to the body, that is, a body that continually reacts to the world in terms of the projects and tasks it might accomplish, in an interaction that has a preconceptual meaning. In other words, the understanding that accompanies all human thought is primarily bodily understanding. Merleau-Ponty's work encourages us to imagine a phenomenological approach to drawing, with the aim of suspending its mental and visual aspects and focusing on its sensory aspects.

Perspective plays a very important role for both Merleau-Ponty and Robin Evans in that it corresponds to human vision and our way of perceiving the space around us. For Merleau-Ponty, it is about the relationship between the horizon and the depth of objects in space. For Evans, perspective allows for an easier perception of the real world than orthographic drawing. However, as Evans reminds us, orthographic drawing preserves the shape and dimensions of objects, and so is used to build. In short, perspective serves to see, while orthographic drawing serves to construct.[10] For Merleau-Ponty, perspective is the link between seeing and inhabiting the world by considering the multiple possibilities of seeing things:

> "The object-horizon structure, or the perspective, is no obstacle to me when I want to see the object: for just as it is the means whereby objects are distinguished from each other, it is also the means whereby they are disclosed. To see is to enter a universe of beings which display themselves, and they would not do this if they could not be hidden behind each other or behind me. In other words: to look at an object is to inhabit it, and from this habitation to grasp all things in terms of the aspect which they present to it. But in so far as I see those things too, they remain abodes open to my gaze, and, being potentially lodged in them, I already perceive from various angles the central object of my present vision. Thus every object is the mirror of all others."[11]

In the process of developing *Dancing Geometry*, the exploration of the boundaries between drawing and dance offered an opportunity to investigate architectural spatial experience as a bodily experience. Exploring the boundaries of dance and performance art, *Dancing Geometry* consisted of three choreographed drawings entitled *Atom*, *Pentagon* and *Borromini*. These drawings used several operational metaphors: the ground as paper, walking as a straight line, the body as a pencil, ruler and compass, and finally, the architectural plan as choreographed movement. The drawings also took up architectural or geometric motifs: *Atom* refers







Fig.2 - Two stages of the performance Atom.







Fig.3 - Three stages of the performance Pentagon.

to the decorated floor of the chapel of the Château d'Anet, by the architect Philibert de l'Orme; *Pentagon* is an ornamented interpretation of the process for drawing a regular pentagon according to Euclid's method; finally, *Borromini* reconstructs the architectural plan of the church of San Carlo alle Quattro Fontane, by Francesco Borromini, at 1:3 scale. The theoretical reflection outlined in this chapter was made following the empirical experiments.

Considering our work through Merleau-Ponty's phenomenology, we experienced the importance of the "elementary perception" of the relationship between figure and background as the very definition of a perceptual phenomenon. Each point, he writes, can only be perceived as a figure on a background, since "the perceptual 'something' is always in the middle of something else, it is always part of a field."[12] This was particularly experienced through our chalk-line drawings on the ground. We started working with white, pink and black chalk, and quickly realized that we were not satisfied with any of them. Because the polished concrete floor was 50% gray, no colour could create an expressive figure-ground contrast. We had to work within this constraint: white not being pale enough, black not being dark enough, as the paleness and darkness were felt in relation to this gray background which did not offer a contrasting field for our lines. This forced us to wet the chalk before drawing each line, in order to create thick and thus visible drawings. Although we would have liked to create sharper lines on the floor, we were limited by the shade of the polished concrete floor which, no matter how hard we tried, limited the expressive effect of our drawings. This experience made us realize that "quality is not an element of consciousness, but a property of the object."[13]

The performance *Atom*[14] was our first attempt at composing with drawing, dance and music, first through the act of taking the drawing out of its traditional medium and instruments and coordinating the drawing sequence to the rhythm and duration of a song (fig. 2). This piece focuses on defining a point in space around which a rosette is created. The sense of centrality resulting from this drawing is felt by the dancers and by the audience. *Atom* begins with two dancers marking the center by a circle around which the cardinal points will be drawn. A third dancer joins in to draw the lines of the compass points with the help of long wooden sticks. The number of dancers is necessary for precision, as one dancer always stays in the centre, maintaining the reference of the drawing, while the two others pivot around her. The piece then explores the bodily

9 Maurice Merleau-Ponty, *Phenomenology of Perception*, (London: Routledge (1945) 2002).

10 Evans, "Architectural Projection", 21.

11 Maurice Merleau-Ponty, *Phenomenology of Perception*, 79.

12 Merleau-Ponty, *Phenomenology of Perception*, 4-5.

13 Merleau-Ponty, *Phenomenology of Perception*, 5.

14 Izabel Amaral, Kayla Korb, Cassidy Duff and Brianna Lafrenière, *Dancing Geometry: Atom*, January 26, 2019, live performance (3:30 min.) presented at Nuit Blanche, Sudbury, ON.

dialogue between two dancers replicating the movements of a struggle between two human compasses. The drawing continues through the translation movement around the centre, simple and effective but resulting in a complex rosette pattern. On the one hand, the sequence of movements in this piece leads to a similar result as the magnificently decorated floor of the Château d'Anet, underlining how choreographed drawing can be put to the service of experimental archaeology. On the other hand, this piece can be used to explain Merleau-Ponty's notion of space as an individual experience:

> "Space is no longer what it was in the Dioptric, a network of relations between objects such as would be seen by a witness to my vision or by a geometer looking over it and reconstructing it from outside. It is, rather, a space reckoned starting from me as the zero point or degree zero of spatiality. I do not see it according to its exterior envelope; I live in it from the inside; I am immersed in it."[15]

The performance *Pentagon*[16] explores the link between choreography and geometric design, specifically using Euclid's method for the geometric construction of a regular pentagon inscribed in a circle (fig. 3). In broad terms, the piece follows the sequence developed by the Greek mathematician, transposing the geometric construction to a choreography for five dancers. The piece begins with the drawing of two perpendicular lines, then the construction of a circle, an equilateral triangle inscribed in the circle, and finally, the pentagon. Pivoting around, the dancers draw more circles to reinforce each corner of the pentagon and give the final design a sense of ornamentation, while exploring the body as a human compass. This piece taught us that accuracy and precision are natural characteristics of our movements, especially in drawing circles and straight lines. It also forced us to confront the boundary between drawing and performance, in order to arrive at a balance between a relatively well-realized drawing and a dance that was interesting for the audience, a compromise that is neither too drawn nor too danced.

The piece *Borromini,*[17] choreographed by Kayla Korb, addresses Baroque architecture and the plan of the interior space of the San Carlo alle Quattro Fontane chapel (fig. 4). Starting from one of the possible interpretations of the chapel's plan as described by historian Michael Hill,[18] a series of movements was choreographed to reconstruct the interior of the chapel at the scale of 1:3. The piece begins with the drawing of two perpendicular lines and then two equilateral triangles and its bisectors that form the biangolo. Two dancers then draw circles at the geometric centre of each triangle, followed by two others who draw the large semicircles that give the chapel its oval shape. Other steps follow until the complex perimeter created by the architect is obtained. The performance concludes with the four performers reinforcing the lines of this perimeter and then drawing the twenty internal columns by tracing circles around their hands, before finishing by standing in place of the four central columns of the plan, imagining the transition from two-dimensional drawing to spatial experience and construction. In addition to being able to experience through movement the subtlety of this ingenious plan and to understand Baroque space as a geometric construction of sequenced movements that generate dynamic form, this performance led to other interesting discoveries. First, two ropes of different sizes could be used to construct this seemingly complex design. These strings contained knots to mark specific references, such as the median sides of the triangles and a radius for the large circle segments that form the plan. This meant that using a string to mark buildings could have been an effective way to transfer knowledge from one master builder to another, because by learning to dance the choreographed sequence of a plan, and using the same reference strings, it would be possible to build the same plan in multiple locations. We also realized that geometric precision is naturally attainable, both observed and felt, and that through bodily movements we can understand the act of building.

These performances were imperfect but explored a sense of collaboration through drawing. Our ambition to bring drawing into public space invites multidisciplinary collaboration and underlines the importance of developing an interest in drawing as a process and not a product. Considering drawing as a bodily experience lived and perceived in space, these three research-creation works were lived not as a mental experience, but as a bodily and spatial experience. Paraphrasing Merleau-Ponty, "the moment when vision becomes gesture,"[19] for us, becomes the moment when drawing becomes gesture, when the body draws and sees while being seen, while being part of a place and a temporality, of an individual and collective experience (each dancer, the whole group of dancers and the public). When we draw, our performance is both the process and the product, a way of feeling and experiencing an object (the geometric form) at the same time as we communicate through our gestures an idea of human consciousness to describe the regularities of forms. Merleau-Ponty writes that it is "by lending his body to the world that the painter changes the world into painting."[20] Could we then say that it is by lending our bodies to drawing that we can imagine new ways of understanding the world and transforming it? Considering the connections between drawing, dance and choreography, our experience shows that the body is not blind, and drawing is not inert.

15 Maurice Merleau-Ponty, "Eye and Mind", in *The Primacy of Perception: And Other Essays on Phenomenological Psychology, the Philosophy of Art, History and Politics,* ed. James M. Edie, (Evanston, IL: Northwestern University Press, 1964), 178.

16 Izabel Amaral, Kayla Korb, Cassidy Duff and Brianna Lafrenière, *Dancing Geometry: Pentagon,* January 26, 2019, live performance (5:30 min.) presented at Nuit Blanche, Sudbury, ON.

17 Izabel Amaral, Kayla Korb, Cassidy Duff and Brianna Lafrenière, *Dancing Geometry: Borromini,* January 26, 2019, live performance (7 min.) presented at Nuit Blanche, Sudbury, ON.

18 Michael Hill,"Practical and Symbolic Geometry In Borromini's San Carlo alle Quattro Fontane", *Journal of the Society of Architectural Historians* 72, no.4 (2013).

19 Merleau-Ponty, "Eye and Mind", 178.

20 Merleau-Ponty, "Eye and Mind", 162.







Fig.4 - Three stages of the performance Borromini.

Un-choreographing the Drawing
Conversations in, on and with the land

KIRSTY BADENOCH

Landscape architecture has no established vocabulary of its own. It borrows from traditional architectural techniques—plans, sections, elevations—methods that have been developed to depict static, engineered forms and impose pre-determined designs upon the world. Such methods do not incorporate time, flux, chance or change. They do not acknowledge errors, changes of heart, detours, freak storms, financial liquidations or environmental instability. They prioritize artefact over experience, lacking space for unexpected possibilities to emerge. They are choreographed, they are "in control".

Architectural techniques are not sufficient to understand, engage with or intervene in the complexities, intricacies and multiple voices of an ever-transforming landscape. Yet because landscape designers still predominantly rely on architectonic drawing techniques, we continue to approach the land through a structural frame of mind. To engage with the landscape, a new vocabulary of drawing needs to be explored. One that is action-based and multi-authored; one that is open-ended and able to embrace chance; one that is led by the land and interrupted by ecologies; one that transforms across each season and is repeatedly destroyed and re-formed by environmental activity. We need a language that positions designers as one of many participants within our environment, in which systems beyond human timescales are not only acknowledged but aimed towards. We need to develop methods that allow the landscape to draw itself. We need to un-choreograph the way we see the land. We need to relinquish control.

This chapter comprises two parts. Drawing through a history of creative approaches across interdisciplinary practices, part I presents three vignettes for a landscape-led drawing vocabulary—a *Working Glossary of Land Drawing*. Part II tells the personal tale of *Riparian Score*, a drawing expedition I undertook in 2021-22, as an attempt to explore these ideas in practice.

Working glossary of land drawing

> "We make a mistake, if driving down a road between wind and water, overwhelmed by what we see, we assume we will see 'it' better if we stop the car. It is there in the passage."[1]

The root of the Dutch term *landschap*, from which we derive the English word landscape, refers to the "part of the Earth's surface that can be viewed at one time from one place"[2] by a single set of human eyes. In 17th-century Netherlands, these were the eyes of the painter. In architectural drawing convention, these are the eyes of the architect. Yet a landscape is in constant movement, as, on the whole, are we when interacting with it.

Similarly, drawing is an action verb, an experience, a process. Very rarely do we encounter a "drawn"; by implication, drawing is never finished. The act of drawing for its own sake, rather than with the aim of producing an artefact, can be traced far back through cultural history and across creative practices. In ancient China, performance-led drawings combined calligraphy, martial arts and painting in expressively theatrical performances. The drama of their event was in the spectacle and the experience of creation rather than the trace that was left behind. As performance painting grew in the Western art scene through the 1950s, writer and art critic Sally O'Reilly speculated on "the notion that a painting is simply the sediment of the act of making"[3]—forefronting activity, interaction and experience as the principal modes of expression. The same could be said for how one walks through a landscape, as the lines with which we walk are captured between the ephemerality of memory and footprint.

British land artist Richard Long's 1967 *A Line Made by Walking* is one of the most fleeting yet perhaps most iconic lines ever drawn, arguably spurring the entire land art movement. It came into existence through its own making, and has only been experienced by one person—Long himself—as it became drawn on the ground over a period of twenty minutes, then disappeared gradually over the following days. The photograph that evidences it has become iconic, a remnant of an act. But the photograph is a separate artefact from both the walk and the drawing—it is not the core of the work. There exists a certain magic in the knowledge that although we are aware of what the drawing looked like due to the photographic evidence, we will never ourselves be able to see Long's drawing, and we have a heightened awareness of the fact that the drawing is no longer there.

Is there a clue in this intentional temporality both of the act of drawing and the distinct separation of the recording of it, for how to approach landscape drawing as something more temporal? Landscape is in its nature a set of activities, and requires a time-based approach.

> "In normal life, a human body is rarely understood to exist outside its own skin [...] Climate change creates a new language, in which [...] you are always all over the place. It makes every animal body implicated in the whole world."[4]

With the width of Long's feet determining the width of his line, the physical relationship between body, drawing and environment became intrinsically entangled. Action painting and performance art explore this relationship between the human body and its imprints as they *emerge*—the meeting point between animate and inanimate skins. American multidisciplinary artist Carolee Schneemann speaks of her body being the drawing in her 1973 performance *Up to and Including Her Limits*. "My entire body becomes the agency of visual traces, vestige of the body's energy in motion."[5] For Schneemann, the boundaries are blurred between actor, tool and canvas—all are performers, all are connected bodies, and the drawing occurs in the exchange between one and the other. Her body in motion features in the photographs of her works, her figure an invitation for our own bodies to participate in the drawing act. We experience it through her, rather than as an onlooker outside the image.

In her 2017 book *The Second Body*, scientific historian Daisy Hildyard highlights an urgent need to understand our individual bodies as extending beyond the human skins we generally identify with, and see our bodies as extending out into the wider environment. This thought exercise can be applied both metaphorically (asking us to regard the direct environmental impacts of our individual actions) as well as physically (inviting us to feel our wider sensorial connections to the landscape).

Current landscape architecture drawing conventions rarely involve the body, yet our body is the vessel through which we experience the landscape, and through which it experiences us. We tread the hills in our muddy boots, we feel the wind whip our faces, we crouch to grasp the sea-polished pebble and our fingers run over its smoothness—our understanding is visceral. Can our communication with and of the landscape be stronger and more authentic by physically engaging our bodies through our drawing processes?

For Carolee Schneemann, the canvas, ropes and crayons were her collaborators. She embraced chance in the way she used them, but ultimately, she was the one who held the pen and to some degree, projected the image. In American composer John Cage's 1957 essay 'Experimental Music', he urged musicians to "set about discovering means to let sounds be themselves rather than vehicles for man-made theories."[6] Cage proposed a new form of listening, "[n]ot an attempt to understand something that is being said, for, if something were being said, the sounds would be given the shapes of words. Just an attention to the activity of sounds."[7] By the nature of the multiple voices that an orchestra comprises, Cage's collaborative arrangements gave agency to the individual as part of the collective—opening up agency for the player, the instrument, the overlaps and perhaps most crucially, the spaces in between.

This manner of thinking is both deeply ecological and deeply spatial. It links back to early environmentalism and the acknowledgement that humans are part of—not rulers of—the biotic community, that we are co-operative communities. Mirroring Cage's understanding of the artist as a participant in the environment they are working in (be it auditory, tactile or other), traditional Japanese Zen gardening has long defined the gardener's role as becoming part of the garden around which they tend. There is no hierarchical relationship between garden and gardener. All characters play their part: "one must become the way the garden feels."[8] Indeed, much of Cage's philosophy derived from that of the Japanese garden. The Japanese garden was never drawn—depictions were seen as unnecessary, since the essence of the garden was intrinsically held in the physical space it occupied. A measured drawing would provide no relevant information. If a new garden was to be made, it was formed (or performed) via the exchange of knowledge between monks or gardeners, or through a set of instruction manuals that captured the series of actions to be carried out, and the relationships between them. As with Cage's open scores, the depiction of a space through text rather than image allowed for a looseness of interpretation—defined areas of precision and—perhaps more importantly—vagueness.

For such an approach to be translated into drawing practice, the notion of a singular author or a "god's-eye view" must be challenged. If non-human agencies could be incorporated into drawing practice, we would better comprehend and empathize with the environment around us, and be relinquished from the guise of human control. Opening up a drawing process to multiple participants allows for chance encounters, negotiations and conversations to become a fundamental part of the process. Drawing becomes a social and environmental activity.

1 Seamus Heaney, quoted in Elaine Scarry, *On Beauty and Being Just* (Princeton, NJ: Princeton University Press, 1999), 51.

2 *National Geographic Encyclopedia*, s.v. "Landscape".

3 Sally O'Reilly, *Live and Kicking*, http://www.artmonthly.co.uk/magazine/site/article/live-and-kicking-by-sally-oreilly-may-2003.

4 Daisy Hildyard, *Second Body* (London: Fitzcaraldo Editions, 2017), 13.

5 Dan Cameron et al., *Carolee Schneemann: Up to and Including her Limits*, exhibition catalogue (New York: New Museum of Contemporary Art, 1996).

6 John Cage, "Experimental Music", 1957 lecture, in *Silence: Lectures and Writings by John Cage* (Middletown, CT: Wesleyan University Press, 1961), 10.

7 Cage, "Experimental Music", 10.

8 Haraada of Tofuku-ji, cited in Sophie Walker, *The Japanese Garden* (London: Phaidon, 2017).



Fig.1 - Riparian Score: Hebrides Plate 1, 2021.
All photographs by the author

Riparian Score

My mother and I had discussed a driving trip to the Hebrides for years. Finally, the summer arrived in which we would do it, as a belated celebration of her sixtieth birthday. As we passed through the industrial peripheries of Glasgow, humanity slowly fell away and was replaced by vast element-stricken landscapes. Eight and a half hours due north, pausing for a dip in Loch Lomond—my birth loch. My mother did not dive into the womblike waters with me this time, preferring to look on from the shore, her hard work on these banks done long ago. As we drove on again, the land became wilder still, more turbulent, exposed. In this landscape shaped by wind and rain over millenia, time slowed and retreated.

The final leg of our journey took us way back to the oldest geological formation in the world. We swapped our car for a boat, a bus, another boat, and finally continued on foot. It was after dark by the time we arrived at the island of Iona, the birthplace of Christianity in Scotland, and we had to wait until morning before unloading our bags. When we did, my mother was not surprised to discover that the boot was not weighed down by birthday presents, but in fact by many sheets of steel, trowels, gloves and photography equipment. They were communication devices with which to converse with the landscape, I explained to her. She's known my antics all my life, and accepted that we were off on another adventure.

Awkwardly laden, we set out east to listen and record—to hear what the rugged shores had to tell us. She took on the role of health and safety officer, slowly shaking her head at each spot I chose to install my set of large, cumbersome, sharp objects. We walked for another hour before she was finally satisfied with my proposal, convinced that any unwitting pilgrims would not stumble across them at their peril. We installed the first of the steel canvases. I had something of a plan, but really, I had no idea what I was doing. This was my first invitation to the ocean.

After a worried night of my mother trying to convince me that my experiments would need at least six months before anything emerged, we dejectedly hiked back over the hills through the dawn mists to the most remote part of the island. Just 14 hours later, the steel was unrecognisable. Every eddy, flow and flurry, every wind-driven raindrop, every lunar push and pull that had passed across the thin metallic membrane during those hours had become ingrained in it, in colours so vibrant that they had become camouflaged against the beach from which they were made. An etching of every force that had played out through the night, a microcosm of every force that shapes that shoreline. My invitation had been accepted.

Energised by this first discovery, we walked west, this time along the cliffs. We set the second steel canvas into the receding edge between rock and water. This time, the lateral tidal erosions that had slowly been undercutting the rock over 28 000 years, played out in just eight hours, drawing a strong mark across the centre of the sheet that lined up precisely with the cliff behind it. The plate had become a device to expose deep time, making evident eon-scale erosive forces on a human timescale. I retrieved the plate from its location reluctantly—it seemed to make much more sense to leave it there, as a part of the place that had created it.

The Lea Variations

I returned to London. After the wilds, the urban landscape of my current home felt flat, dreary, industrialized. There are few places where you can connect with deep geological epochs in Hackney. However, Hackney is home to one of my greatest friends, the River Lea. So I turned my attention—and my invitations—to the river.

The second set of variations was produced along the lowland stage of the River Lea as it flows through Hackney Marshes. Emerging from its containment within a concrete channel for the last 73 km, this small stretch of naturalised river sings out in low harmony and discordance. It sings of herons, carp and dragonflies; dive-bombing parakeets riding the cool air stream at dusk; the Lea Mermaids (our wild swimming group conceived during lock-down), community dog-walkers chasing up to fourteen leads at once; and summer ravers splashing e-coli into plastic pint glasses at Hackney Beach. It also sings of abandoned trolleys, plastic bags, wrappers and tampons caught in branches, illegal sewage tipping and heavy metal contaminants that ooze a threatening iridescence when disturbed. It sings of these urban and biotic interchanges for three kilometres before re-entering its concrete case for the remainder of its journey to the Thames.



Fig.2 - Riparian Score: Hebrides Plate 1, 2021.



Fig.3 - Riparian Score: Hebrides Plate 1, 2021.



Fig.4 - Riparian Score: Lea Variation 1, 2021.

Over the course of three months, I rode my bike back and forth between my house and the river near on fifty times, lugging my heavy steel canvases, sliding my way down muddy banks and trudging through roots and rubbish in the freezing cold. I installed my steel canvases at various locations along the river, leaving them for periods ranging from 24 to 160 hours. Sometimes the timings of our conversations were pre-determined, as I squeezed my visits into daylight hours. Sometimes the river had its own ideas, as tides rose too high and fast for me to enter the river, or shifted my plates downstream, and I was forced to trawl the riverbanks for hours to find them. Sometimes I never did.

Over the months, my relationship with the river deepened, and I began to speak its language. I understood the speeds of the inner bend versus the outer, understood how, when the weather forecast predicted rain, weirs would be opened upstream, and the lowland stretches would temporarily rise before falling again to allow more capacity for the coming storm. I understood how this connected with the movements of the canal boat community. I understood the bubbling of algae that breeds and breathes around the roots of certain trees and not others. And how the blossoming of Spring slows down the entire flow. I collated twelve conversation plates over the three months.

The *Lea Variations* look towards another form of understanding—one that gives voice and vision to the imperceptible complex riparian processes that lurk within the river, darting too small or too fast or too vast for us to catch. These are collaborative, unchoreographed tracings, imprints of the river's past. The tools are my friends, the river holds the pen.

Like Richard Long's photograph of his line, I too struggle with the communication of the drawings. The resultant steel plates are long exposures of a complex set of actions; they reveal and allow us to empathise with normally imperceptible river processes. I have tried exhibiting them as objects, tried photographing or re-installing them on site. For me, the true drawing lies in the journey to and from the river, the sense of discovery and adventure. The process of wringing my muddy swimming socks out each morning, the cuts on my fingers as I bump my way up and down the bank. That each time I set off, I have no clue of what I might find (or lose) or what the landscape might have been up to, what dances might have been played out. The undertaking of the project provided a drawing out of the river beyond anything the resultant archive of imprints could ever express. Even now, propped up in front of me as I write, the plates keep on eroding with their memories of the river, and mine from that winter.



Fig.5 - Riparian Score: Lea Variation 1, 2021.

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Charlotte Erckrath works with drawing, text and the making of spatial devices. In her work, architecture is discussed as an open territory. Her interests range from visual and measuring devices to descriptive geometry, pictorial exploration and theories of architectural drawing.

Charlotte graduated from The Bartlett School of Architecture, University College London and completed a Master's degree in Advanced Architectural Studies. She has taught architectural design at ALICE/ EPFL Lausanne, at the University of Brighton and the Technical University of Braunschweig. She currently holds the position of Associate Professor at the Bergen School of Architecture, Norway, in the field of DAV ("Den andre verden": The Other View). Most recently she has been awarded a two-year working grant by the Norwegian Art Council.

ALFONSO GIANCOTTI
Facoltà di Architettura
Sapienza Università di Roma

Alfonso Giancotti is Full Professor of Architectural Design at Sapienza Università di Roma, Facoltà di Architettura. He studied at the Ecole d'Architecture de Paris-La Villette and in Rome, at the La Sapienza University. PhD since 2000, he was student and co-worker of Maurizio Sacripanti, and he is curator of exhibitions and author of publications.

He maintains a professional practice and research in architectural planning, and is an editor of books and articles for magazines of architecture. He was Director of Casa de l'Architettura di Roma from 2012 to 2017.

PENELOPE HARALAMBIDOU
The Bartlett School of Architecture
University College London

Penelope Haralambidou is Professor of Architecture and Spatial Culture and Co-Director of the Cinematic and Videogame Architecture MArch programme at The Bartlett School of Architecture, UCL. Her research employs architectural drawing, model-making and digital film as investigatory tools to analyse ideas and work, not only in architecture, but also in visual representation and its politics, art and cinema. Her projects have been exhibited internationally, she is the author of the monograph *Marcel Duchamp and the Architecture of Desire* (London: Routledge, 2013), and she has contributed writing on themes such as architectural representation, allegory, figural theory, stereoscopy and film to a wide range of publications.

THOMAS-BERNARD KENNIFF
École de Design
Université du Québec à Montréal

Thomas-Bernard Kenniff is Professor of Environmental Design at the École de design, Université du Québec à Montréal (UQAM), where he teaches design studios, theory and criticism and research by design. His work addresses the relationship between the built environment, design processes and society with a special interest in public space and architecture. He is the cofounder of the Bureau d'étude de pratiques indisciplinées (BéPI), investigating hybrid and transversal modes of design and research. Thomas-Bernard holds a PhD in Architectural History and Theory from The Bartlett School of Architecture, University College London, and a professional Master of Architecture from the University of Waterloo.

CAROLE LÉVESQUE
École de Design
Université du Québec à Montréal

Carole Lévesque is Professor at the UQAM School of Design, where she teaches design studios, theory and criticism and research by design. Co-founder of the Bureau d'étude de pratiques indisciplinées (BéPI) which investigates hybrid and transversal modes of design and research, and research member at Centre de recherche Cultures-Arts-Sociétés (CELAT), she is vested in slow and lengthy processes, exploring questions related to urban and architectural transformations, particularly regarding the misappropriation and recycling of places, and the transformation of their perceptions and uses. In addition to her research-creation investigations, which have been the subject of international exhibitions and publications, she has collaborated with curatorial teams at the Centre de design and the Maison de l'Architecture du Québec. She is the author of *À propos de l'inutile en architecture* (L'Harmattan, 2011), *Finding Room in Beirut. Places of the Everyday* (Punctum Books, 2019) and co-editor of *Inventories, Documentation as Design Project* (BéPI, 2022). She holds a PhD in the History and Theory of Architecture from the Université de Montréal and a Professional Master of Architecture from the University of British Columbia

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SAMANTHA LYNCH
University of Brighton

Dr Samantha Lynch is a Senior Lecturer at the University of Brighton, UK, where she leads a Postgraduate studio in Architecture. Awarded the Canadian Prix de Rome for Emerging Practitioners following completion of her masters in Manitoba, she has practiced architecture in both Winnipeg and Berlin. She has continued to develop her interest in the temporal complexities of architecture, carrying out funded research at the Canadian Centre for Architecture in Montréal, as well as in Italy, Germany, Denmark and the United Kingdom. In 2017 she completed her practice-based PhD *The Dark Mirror: Engaging Multiple Temporalities Through Drawing* at the University of Brighton, focussing on the role of temporality and prediction in the architectural drawing. Her research continues to experiment with the slipperiness of time, context and multiplicity in creative practice. Samantha Lynch exhibits her work internationally and is co-founder of the Experimental Design Practice Group, Brighton.

MOTE

MOTE projects is a speculative design practice focusing on public space and site-specific interventions, founded in 2012 by Chad Connery and Anca Matyiku. With an emphasis on craft and material investigations, their work often engages storytelling, fiction, and the lives of other species, while seeking to highlight the temporal dimension of mundane and overlooked materials. Their work has won several competitions and prizes and has been generously supported by the Conseil des arts et des lettres du Québec. It has been part of several exhibitions including the 2012 Venice Biennale of Architecture, and has been published in monographs of collected works, web-based articles and academic journals including *Next Home Seoul* (OCDI Press, 2018), *Scroope: The Cambridge Architecture Journal* (2017), and *Drawing Imaginary Places: Reflections on Time, Scale, Site and Narrative* (Bloomsbury, forthcoming).

Chad earned a Bachelor of Environmental Design and a Master of Architecture from the University of Manitoba. He has taught design studios and technology courses at the University of Manitoba and is currently Assistant Professor at the University of Calgary.

Anca earned a Bachelor of Architectural studies from the University of Waterloo, a Master of Architecture from the University of Manitoba, and a PhD in the History and Theory of Architecture from McGill University. She has taught architecture and interior design at McGill University, Louisiana State University, University of Colorado Denver, and University of Cincinnati where she is currently Assistant Professor. Both Anca and Chad have extensive experience in architecture and design practices across Canada and internationally.

JOËL NADEAU-GAUTHIER,
DENIS LAHAIE and **Vincent Perron**
Michel B collective

Multidisciplinary artists from environmental design and architecture, Joël Nadeau-Gauthier, Denis Lahaie and Vincent Perron co-founded the independent research collective Michel B. in 2020, located in the Bas-St-Laurent region of Québec. Their work engages architectural research at the heart of a resolutely contemporary and critical artistic practice on territorial issues. Stemming from the obsesrvation that the built heritage and its landscape are either neglected or misunderstood in the public and political sphere despite the fact that they define part of the territorial, cultural and historical identity, the collective's projects propose avenues to reflect on ways of apprehending the landscape and built heritage. Experimenting with several media including drawing, photography, video, collage, sculpture and music, the collective continues its experiments with the desire to maintain an innovative practice in architectural research.

ANNE ROMME
School of Architecture
The Royal Danish Academy

Anne Romme is Associate Professor and the Head of program at Finder Sted | Taking Place at The Royal Danish Academy, School of Architecture. She is board member at the Danish Institute in Athens. 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 design of a building system based on pure plates shell structures.

OZAYR SALOOJEE
School of Architecture
Carleton University

Ozayr Saloojee an Associate Professor of Architecture at Carleton University in Ottawa, where he is also cross-appointed faculty at the Institute for African Studies and affiliate faculty at Carleton's Center for the Study of Islam. He currently serves as Associate Editor of Design for the Journal of Architectural Education and holds external appointments in Landscape Architecture at the University of Minnesota and at Royal Roads University's College of Interdisciplinary Sciences. His teaching, research and creative practice are preoccupied with finding an architecture enacted otherwise, and of architecture as an emancipatory spatial practice. His research interests focus on politically contested landscapes, geo-imaginaries and questions of tradition and modernity in Islamic art and architecture. Born and raised in Johannesburg, South Africa, he completed his B.Arch and Post-professional M.Arch II (Theory and Culture) at Carleton University and his doctoral research at The Bartlett School of Architecture, University College London.

JEROME TYRON
Yale School of Architecture

Jerome is a critic at the Yale School of Architecture and holds a B.Arch from the University of Oregon and a M.Arch from the Yale School of Architecture where he received the William Wirt Winchester Fellowship, the school's most prestigious award. He has also been recognized by the ICAA with the Rieger Graham Prize for a fellowship at the American Academy in Rome, The Sir John Soane's Museum Foundation Graduate Fellowship as a Soane Scholar, the Cavin Family Traveling Fellowship, and the Olson Kundig Travel fellowship. He has worked in the offices of Olson Kundig, MICA, and Knight Architecture.

Jerome's current work and research focuses on memory's role in shaping perception and the way both memory and perception intersect with architectural space. He operates a practice that explores the adjacencies between art and architecture. His projects encompass work at all scales and media—from drawings to architectural objects.

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Drawing is a form of research, a means to investigate, explore and gain a better understanding of an idea, a condition or a phenomenon. Drawing is a practice of representation, one that inquires, explores materiality, and establishes its own time and dialogue. This book brings together 23 authors who represent 18 critical and reflexive practices of drawing in design. The assembled texts engage drawing aesthetics (spatial, temporal, and material) and drawing ethics (investigating and making sense together) as well as four overarching themes: inquiry, time, dialogue and materiality —in drawing. Taken as a collective conversation on drawing practice, this book offers a shared reflection on the agency of drawing, on its potential to explore issues raised by our built and cultural environment, and on the ability of drawing to support and contribute to design research. It frames drawing as a research practice, one that is both deeply rooted in its disciplinary context and openly challenging its limits and conventions. *—in Drawing* adds to a continuing conversation on design research methods and the ethics and aesthetics of representation. It seeks to further establish the significance of drawing as a legitimate mode of inquiry across design disciplines and beyond.

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