

**Vibratory Lines; Experiments  
in Expressivity**

by

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## ABSTRACT

All matter is expressive.

All matter, animate or inanimate, sentient or made, is filled with the infinite potential for difference and articulation. All things, all bodies, are equal.

In this context of absolute horizontality, expression is the innate desire for difference and qualitative distinction between things. It is the desire to shape matter and expresses the identity of a body: what it can do, how it can affect and how it is affected.

An Expressionist, as defined by the research of the thesis, is one that extends expressive desire by intentionally shaping their surroundings. As architects, this intentional propagation of difference is second nature. We draw lines in space and create expressive territories. A composer might draw this immaterial line through song, but architecture draws these fine lines through space and condenses them into matter. Into brick-lines, or border-lines or atmospheric-lines. These lines are tools that sever and re-construct space, they oscillate between self-definition and the definition of their surroundings. They are vibratory in the nature.

In this thesis, the Vibratory line and how it engages in expressionism becomes the basis for a set of experiments in writing, painting, modelling, curation and full-scale Installation. All works comprised in the thesis engage in an extended territorial refrain of this line.



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For Ray and Raymonde



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<https://thefunambulistdotnet.files.wordpress.com/2010/12/jeanrenaudie-ivry-photoslc3a9opoldlambert28229.jpg>

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[https://upload.wikimedia.org/wikipedia/commons/6/68/Gottfried\\_b%C3%B6hm,\\_pilgrimage\\_church,\\_neviges\\_1963-1972\\_01.jpg](https://upload.wikimedia.org/wikipedia/commons/6/68/Gottfried_b%C3%B6hm,_pilgrimage_church,_neviges_1963-1972_01.jpg)

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[https://c1.staticflickr.com/5/4113/4985495558\\_2f5fcb0352\\_b.jpg](https://c1.staticflickr.com/5/4113/4985495558_2f5fcb0352_b.jpg)

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[https://www.architecturefoundationbc.ca/wp-content/uploads/gravity\\_forms/4-746a1df76d8f57211836d85616df3535/2014/08/erickson-museum-of-anthropology-775950.jpg](https://www.architecturefoundationbc.ca/wp-content/uploads/gravity_forms/4-746a1df76d8f57211836d85616df3535/2014/08/erickson-museum-of-anthropology-775950.jpg)

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[https://haribololz.files.wordpress.com/2010/12/pompidou\\_centre.jpg](https://haribololz.files.wordpress.com/2010/12/pompidou_centre.jpg)

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<http://www.santuariodemeritxell.com/wp-content/uploads/2014/01/patio-abiertomeritxell.gif>

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<https://radicalfrontiers2013.files.wordpress.com/2012/06/dobogoko-imre.jpg>

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[http://images.adsttc.com/media/images/520e/5134/e8e4/4e4b/f900/00f4/medium\\_jpg/e.jpg?1376670000](http://images.adsttc.com/media/images/520e/5134/e8e4/4e4b/f900/00f4/medium_jpg/e.jpg?1376670000)

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<http://wrensnest.org/blog/wp-content/atlanta-fulton-central-library.jpg>

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[http://40.media.tumblr.com/tumblr\\_lw2czzgO2h1r3n6rlo2\\_1280.png](http://40.media.tumblr.com/tumblr_lw2czzgO2h1r3n6rlo2_1280.png)

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<https://upload.wikimedia.org/wikipedia/commons/a/a4/09-02-06-Thorn-crownChapel1.jpg>  
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[http://djcarhitect.com/museum/lessc\\_good02.jpg](http://djcarhitect.com/museum/lessc_good02.jpg)  
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[https://formandwords.files.wordpress.com/2011/04/murcutt\\_bingie-house\\_photo-glennmurcuttap.jpg](https://formandwords.files.wordpress.com/2011/04/murcutt_bingie-house_photo-glennmurcuttap.jpg)  
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<http://www.arc1.uniroma1.it/saggio/conferenze/Phila/Ito.jpg>  
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<https://globalinfo4all.files.wordpress.com/2012/10/bolwoningen-houses-hertogenbosch-netherlands.jpg>  
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[http://farm4.staticflickr.com/3289/2986055406\\_7d994e6961\\_o\\_d.jpg](http://farm4.staticflickr.com/3289/2986055406_7d994e6961_o_d.jpg)  
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[http://images.adsttc.com/media/images/5038/0c17/28ba/0d59/9b00/0b3b/medium\\_jpg/stringio.jpg?1414088478](http://images.adsttc.com/media/images/5038/0c17/28ba/0d59/9b00/0b3b/medium_jpg/stringio.jpg?1414088478)  
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<http://en.wikiarquitectura.com/images/thumb/5/56/HSBC0.jpg/300px-HSBC0.jpg>  
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[http://photo.iennelopez.net/gallery2/main.php?g2\\_view=core.DownloadItem&g2\\_itemId=23814&g2\\_serialNumber=2](http://photo.iennelopez.net/gallery2/main.php?g2_view=core.DownloadItem&g2_itemId=23814&g2_serialNumber=2)  
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[https://c1.staticflickr.com/7/6240/6343994288\\_3a9dc130a1\\_b.jpg](https://c1.staticflickr.com/7/6240/6343994288_3a9dc130a1_b.jpg)  
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[http://i.yf7ic1oqf704bytwz45ub151.wpengine.netdna-cdn.com/wp-content/uploads/2014/10/Eric-Owen-Moss\\_Culver-City\\_LA\\_Untapped-Cities\\_Bhushan-Mondkar-024-2a.jpg](http://i.yf7ic1oqf704bytwz45ub151.wpengine.netdna-cdn.com/wp-content/uploads/2014/10/Eric-Owen-Moss_Culver-City_LA_Untapped-Cities_Bhushan-Mondkar-024-2a.jpg)  
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[https://upload.wikimedia.org/wikipedia/commons/c/c1/Guggenheim\\_Bilbao\\_may-2006.jpg](https://upload.wikimedia.org/wikipedia/commons/c/c1/Guggenheim_Bilbao_may-2006.jpg)  
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[https://archimedes.files.wordpress.com/2009/05/img\\_0073.jpg](https://archimedes.files.wordpress.com/2009/05/img_0073.jpg)  
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[https://fougeronarchitecture.files.wordpress.com/2013/04/1281455643-american\\_folk\\_art\\_museum.jpg](https://fougeronarchitecture.files.wordpress.com/2013/04/1281455643-american_folk_art_museum.jpg)  
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<http://acdn.architizer.com/thumbnails-PRODUCTION/cel7dlce7d75a-f0af2053d80fbb4a71c35f7ea.jpg>  
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[https://farm1.staticflickr.com/95/278146329\\_9cba3b10ca\\_o\\_d.jpg](https://farm1.staticflickr.com/95/278146329_9cba3b10ca_o_d.jpg)  
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[http://www.arcspace.com/CropUp/-/media/251091/jubilee\\_church\\_2.jpg](http://www.arcspace.com/CropUp/-/media/251091/jubilee_church_2.jpg)  
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[http://cdn.lstatic.com/2009/November/LM743800\\_942long.jpg](http://cdn.lstatic.com/2009/November/LM743800_942long.jpg)  
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[http://www.visitcascais.com/dynamic-media/entity/paula\\_rego\\_museum-tourism.jpg](http://www.visitcascais.com/dynamic-media/entity/paula_rego_museum-tourism.jpg)  
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*by author*

### Field Making

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[https://www.japlusu.com/sites/default/files/news/Events/Junya%20Ishigami%20-%20deSingel%20Antwerp/JAU\\_Junya-Ishigami-JA7901.jpg](https://www.japlusu.com/sites/default/files/news/Events/Junya%20Ishigami%20-%20deSingel%20Antwerp/JAU_Junya-Ishigami-JA7901.jpg)

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<http://www.christies.com/lotfinderimages/d47000/d4700088r.jpg>

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*by author*



## DEAR READER,

This thesis contains 18 folios that are each experiments in expressivity. Generally, the thesis is a single large experiment - an investigation into the vibratory line. Each folio acts as an exploration of this line and the discourse of expression. There are three types of folios: written works, archive works and experiments in matter. In the production of the thesis, these separate territories evolved simultaneously and are therefore dispersed throughout the thesis to challenge and mutually reinforce each other.

The written folios attempt to confront expressivity in architecture through research. They pull precedents from philosophy, art sculpture and architectural theory to establish a conceptual territory that the material experiments and archive can draw from. Occasionally the text will draw specific attention to the links between folios in order to better illustrate the line of thought that connects them. Two books comprise the philosophical backbone of this research: *A Thousand Plateaus: Capitalism and Schizophrenia* by Gilles Deleuze and Felix Guattari and Deleuze's book *Expressionism in Philosophy: Spinoza*.

The material experiments directly address the vibratory line. This line is drawn on a two-dimensional surface in *Experiment 1 (lines)*, pulled into space in *Experiment 2 (Field)* and thickened with matter in *Experiment 3 (Casting)*. Light is allowed to enter in between these striations and participates in their definition. Once separated from the two-dimensional surface, the lines are employed in a storefront site as a full-scale installation called the *Field Laboratory*. These artefacts remain non-discursive counterpoints to the written folios.

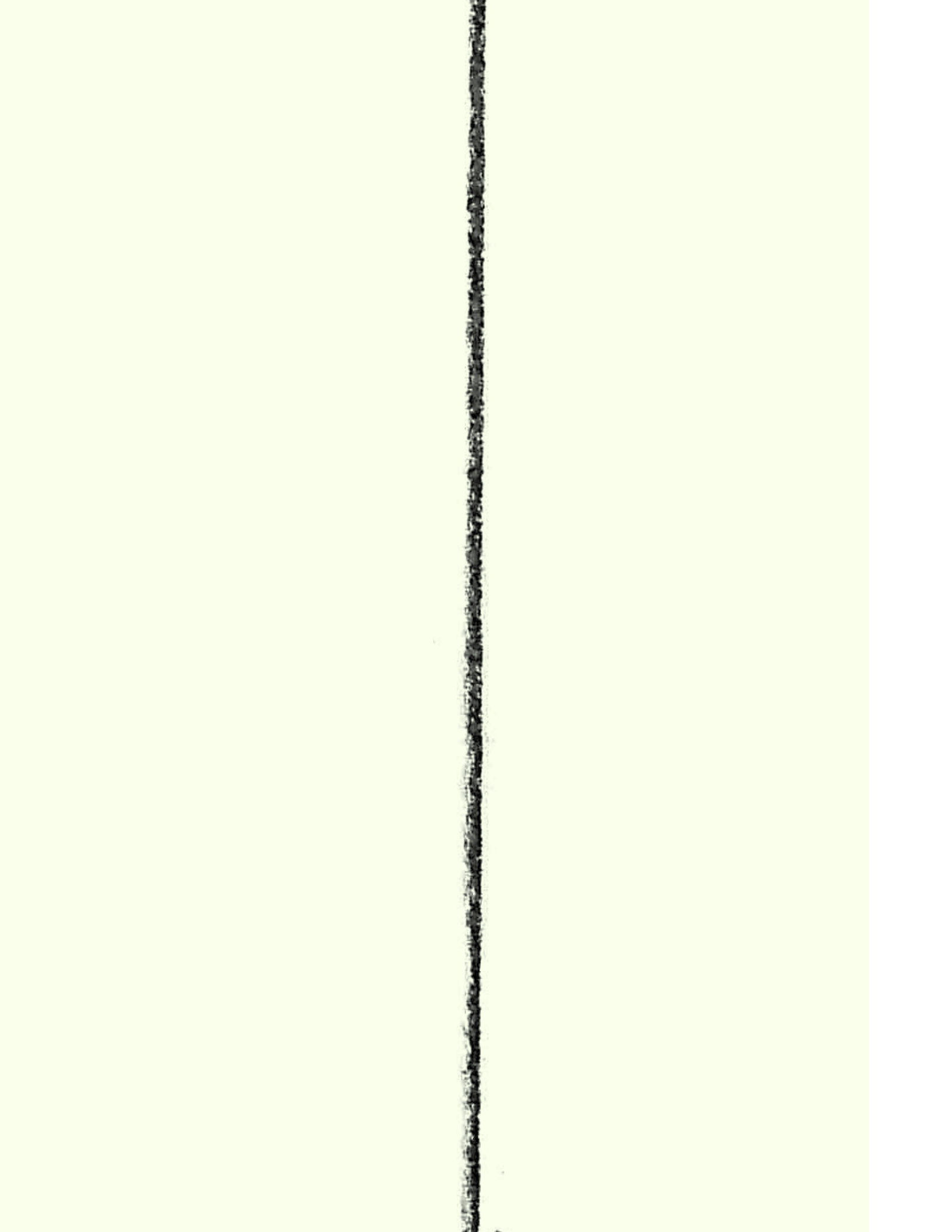
The Archive experiments are analytical exercises that provide a select architectural index of expressivity in the 20th and 21st centuries. It acts as an accounting of expressive modes and refrains. In curation, the archive links these expressive motifs through time and space and challenges existing notions of style. These relationships are spatialized in two curations of the Field Laboratory, *Archive 2(Nodes)* and *Archive 3(Strings)*.



“I draw a chalk line on the board. This discontinuity is one of those brute acts by which alone the original vagueness could have made a step toward definiteness.”<sup>1</sup>

1        Massumi, Brian. ‘The Diagram as Technique of Existence’ in *ANY 23 Diagram Work*, New York: Anyone 1998. 23.45

## 1. WHAT IS A VIBRATORY LINE?



## What is a vibratory line?

A single line drawn on a page acts as a first division, an introduction of difference, a clear demonstration of intent and an act. The line acts. It draws tension out of the page, divides it into two bodies (three, including the body of the line itself). From the homogenous surface of the page there is now a singularity – the line - and a duality – two surfaces.

Brian Massumi would call this line a discontinuity: a flattened oval body<sup>1</sup> composed of two edges pressed against each other, the force of which both connects and separates the continuous space of the page.<sup>2</sup> Visually therefore, the figure of the line oscillates between defining itself and vanishing to define two edges of the surface on either side. It flickers from positive to negative. It also constructs; the infinite expanse of the page has been severed into two distinct wholes: “A perceptible difference has emerged from vague potential. The continuity of the virtual whole of be-ability has fed forward onto the plane of actual being-different.”<sup>3</sup>

Two more lines drawn in parallel to the first extend the phenomenon: they separate the page into zones. The lines continue to flicker – vibrate and resist combining. From the sequence of lines emerges a rhythm of continuous surface – break – surface – break – surface – break – surface. Visually, each line’s hold as an object (rather than a double edge) remains tenuous. This phenomenon, a vibratory line, is an actor that divides space while remaining imperceptible: a double articulator of difference and homogeneity, of connection and severance that acts both conceptually as well as physically.

1 Massumi calls this a oval body to refer to the way the line itself is an object. It has its own thickness and border around it. Think of it as a very flat oval with the smallest radius at the top and bottom of the line.

2 Massumi, Brian. ‘The Diagram as Technique of Existence’ in ANY 23 Diagram Work, New York: Anyone 1998. 23.45

3 ibid

According to Deleuze and Guattari, the first act of architecture is the line-in-space that defines the territory of the house.<sup>4</sup> This territorial limit is also a vibratory line: a primitive division without substance that defines a sanctuary in the midst of undefined chaos. Architecture complicates the issue of expression in this gesture by defining one space as sanctuary and the other as chaos. One space as constructed, and the other as undefined. Following that first mythical separation, these lines and the qualities of space on either side develops further as design lends them material presence: the wall of the city materializes in stone, architectonic language builds lines into planes -walls, roofs and floors coalesce around these borders into rhythms.

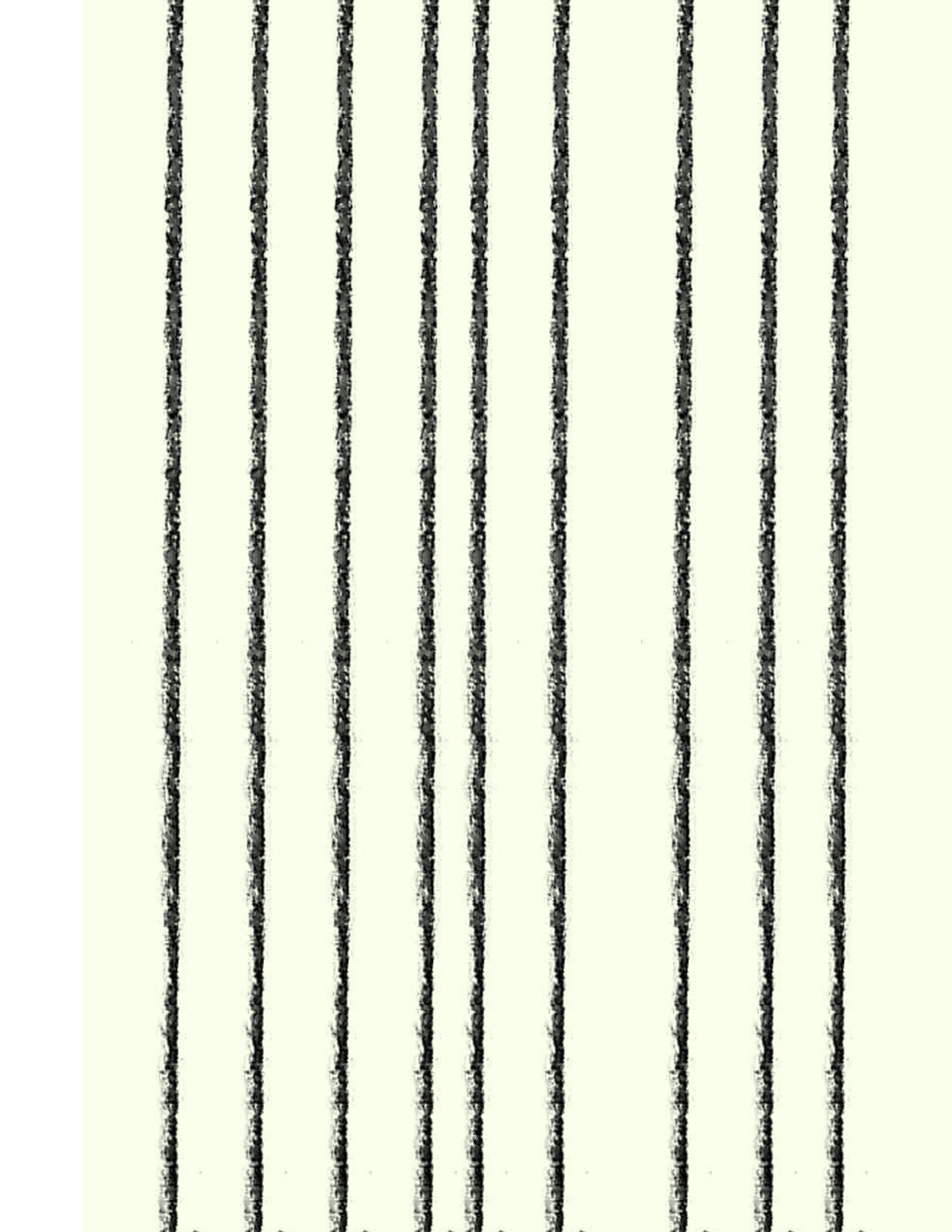
The force of expression is an innate desire for rhythm- for difference. Present as a building block in all fields, in genetics it is the minute variations that occur in DNA<sup>5</sup>: the separation of one cell from another, the articulation of a stem cell to an organ cell or blood cell. In art, it forces continual development towards new realms of sensation<sup>6</sup>. In architecture, it is the combination of the will to define space and the potential of those spaces to become different. Expression is manifested in the sketch of the vibratory line in space and its condensation into matter. This line therefore, is the first act of explication, a manifestation of the force of expression at its most fragile.

The exercises in this thesis seek to explicate the force of expression in architecture at its edge; at this immaterial line that exists before the full actualization of a border. This is the territory of the Vibratory line, the basic architectonic tool that severs, re-constructs space and creates rhythm.

4 Deleuze, Gilles, and Félix Guattari. *A Thousand Plateaus: Capitalism and Schizophrenia*. Trans. Brian Massumi. (Minneapolis: U of Minnesota, 1987), 311

5 European Graduate School Video Lectures “Manuel DeLanda - The Philosophy of Gilles Deleuze. 2007 1/5.” YouTube. YouTube, n.d. Web. 15 January 2015.

6 Deleuze, Gilles. *Francis Bacon: The Logic of Sensation*. Minneapolis: U of Minnesota, 2004. 102







Organic and inorganic bodies, natural and cultural bodies (these distinctions are not particularly salient here) all are affective.... I will emphasize, even overemphasize, the agentic contributions of nonhuman forces (operating in nature, in the human body and in human artifacts) in an attempt to counter the narcissistic reflex of human language and thought<sup>1</sup>

1 Bennett, Jane, 1957-. 2010. *Vibrant matter : A political ecology of things*. Durham; Durham N.C.]: Duke University Press. xii-xvi

## 2. HORIZONTALITY



## Horizontality

Expressivity is the force of difference- a kind of desire-driven phenomenon that both material, and immaterial concepts engage with. It is an essential building block that evolves from a same-ness of substance, to minute differences to the evolved identity of a body.

All matter is expressive. To discuss expressivity is to engage in an ethics of equality. Material, or immaterial, ephemeral and transient or bodily and stable; Geography, weather, facial expressions, dance, ideas, architecture and light – all are expressive. Spinoza's *Ethics* explains: "What conceals also expresses, but what expresses still conceals"<sup>1</sup> Both conditions explicate some form of identity, engage in some manner of expressive communication. In lieu of expressive hierarchies, real distinction can only emerge as a qualitative study of difference between bodies.<sup>2</sup> There can no true evaluation of one expressive being over another. In this way it resists Cartesian hierarchies and operations, there can be no sorting of more expressive, or less expressive. Rather, expressivity engages always in complete *wholes*, infinitely complete identities that cannot be subdivided. Rather, borrowing again from Spinoza, each body is host to a triad of expression: substance, attribute and essence. "Substance expresses itself, attributes are expressions and essence is expressed."<sup>3</sup> Substance can be thought of an infinitely malleable material filled with an equally infinite potential to define itself, attributes are those definitions (specific qualities of the now defined material) and essence is the expressed identity of this newly explicated body. Together, these qualities create an essence or haecceity that is a whole image of a thing as expressed through the physical combination of the substance with its

1 Deleuze, Gilles. 1990. *Expressionism in Philosophy : Spinoza*. New York; New York : Cambridge, Mass.: New York : Zone. 53

2 *ibid* 38

3 *ibid* 27

attributes. This irreducible building block of identity is the haecceity of a thing – often referred to as the thing-ness<sup>4</sup>. Haecceities vary in scope from the individuation of single objects to temporal and sensational haecceities such as the identity of an entire season such spring, winter, summer or fall.



### Scales of Expressivity

Expressivity in matter registers at a variety of scales and affects. According to Manuel DeLanda, at the most basic scale it registers as information, DNA or chemical patterns.<sup>5</sup> He draws a vibrant picture of matter: “Instead of a matter that obeys laws, and obedient stuff that is shaped by godly commands (“let there be light”), [consider] a matter inhabited by immanent singularities is active and morphogenetic.”<sup>6</sup> For example, weather patterns are expressive mixtures of moisture and heat. The carbon levels in a stone express the age of the rock - the colour expresses the type of minerals present and is continuously evolving as it is exposed to bacteria and elements in the air. In animals it begins to manifest in territorialisation, colour, gestures and song. A type of Bowerbird for example, covers its nest with bright blue objects that both express a territorial boundary as well as appeal to potential female mates. Deleuze and Guattari write:

4        A haecceity as described as : (1) That property or quality of a thing by virtue of which it is unique or describable as ‘this (one)’ or (2)The property of being a unique and individual thing e.g:‘The haecceity of a thing is what makes this particular thing what it is in particular’ Citation: Haecceity. Oxford Dictionaries. Oxford University Press. <http://www.oxforddictionaries.com/definition/english/haecceity> (accessed June 30, 2015).

5        DeLanda, Manuel. 2006. Matter matters material expressivity. Domus Issue 893. June 2006. 26

6        Curti, Corrado. Material(ism) for architects: A conversation with manuel DeLanda. 2010 [cited May 4 2015 2015]. Available from <http://www.cluster.eu/2010/10/08/materialism-for-architects-a-conversation-with-manuel-delanda/>.

*What defines the territory is the emergence of matters of expression (qualities). Take the example of colour in birds or fish: colour is a membrane state associated with interior hormonal states... [it] becomes expressive...when it acquires a temporal constancy and a spatial range that make it a territorial, or rather territorializing, mark: a signature.<sup>7</sup>*

Expressive qualities act. In animals (humans included) therefore, expressive markers are irrevocably tied to the mating and behaviour of a species and affect these processes. Some of these qualities are fixed, such as colour, and others are transitory like song, or the particulars of nest making. Through encounter with new environments, weather, other species etc. expressive qualities morph, adapt, become obsolete or emerge. These nuances take on evolutionary significance and are in constant flux.

It is present in the branches of the nest- the plumage of the bird- the form of the den- the predator – the prey.

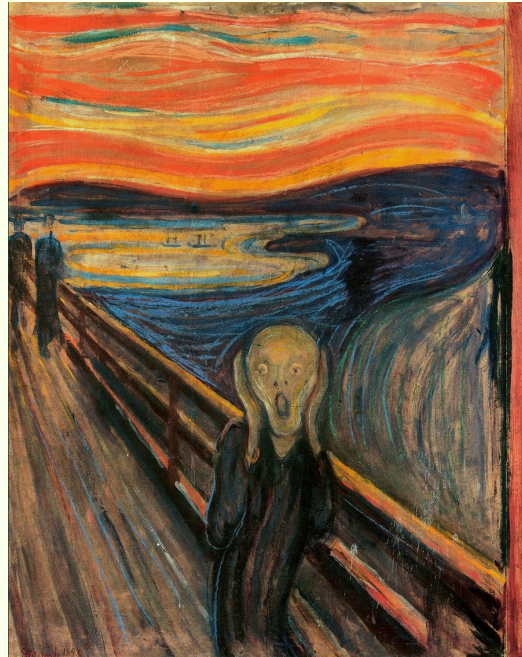
### The Body

Spinoza calls all these expressive entities bodies. In architecture we are familiar with a vague shape of the body, primarily the human body. We draw the human figure again and again – it is measured and purified to suit our orthographic drawings. This figure is the Neufert man; the Corbusier man, the graphic standard no-man and all *real* men are bigger or smaller, or rounder or less agile than he is. Painting doesn't know this man, nor does poetry or dance or film – he's a figment of architectural fantasy – a lie, a stand-in. To design for this fantasy to design for approximation of the human body that ignores the senses. Deleuze and Guattari call this phenomenon the facialization of the body<sup>8</sup>, a subjectification of the human figure by a pan-optican viewpoint that smoothes over difference and instates a *correct* form.

Expressivity, and therefore many of the arts stand in direct confrontation with this operation through the relentless propagation of

7 Deleuze, Gilles, and Félix Guattari. *A Thousand Plateaus: Capitalism and Schizophrenia*. Trans. Brian Massumi. (Minneapolis: U of Minnesota, 1987), 315

8 *ibid* 178

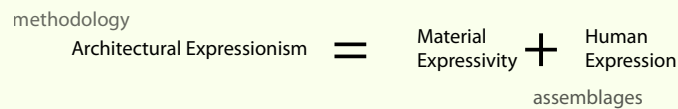


*Fig 1. Screaming Pope Francis Bacon  
1953*

*Fig 2. The Scream Edvard Munch 1893*



or power to affect; a child hiding in a bush becomes a body with an extended ability to camouflage. Extending this concept to art and architecture poses a fascinating image of what we would define as the role of cultural artefacts. These artefacts are made to be encountered by our own bodies, they can extend or limit our ability to affect, they affect us in particular ways. It is this potential that requires a re-framing of the body in architecture through a composite materialist-humanist lens. The extended reality of our bodies, and the bodies of architecture we assemble and occupy are actors that cannot be simplified.



## Power

The power to affect, and the manner of affection is described by Spinoza, and clarified by Gilles Deleuze as a increase or decrease in the power to act. According to Deleuze, these encounters are either joyful or sad passions and the intensity of the passion varies with the particular combination of bodies. A joyful passion can be described as a symbiotic relationship or evolution (as in the example of the child-plant) while a sadpassion involves a restriction of power, for example a rat-poison encounter. Architectural design occilates between these two poles in a variety of ways: A jail's encounter with an inmate is a sadpassion while a panopticon typology is a further intense mutation of this relationship. A school might be engaged in several joyful passions as well as some sad passions depending on its access to stimulating environments or sunlight. A joyful passion in this case is described by an increased ability to learn, as affected by the environment of the school:

*As soon as I see a plan which tries to sell me spaces without light, I simply reject it with such ease, as though it were not even thoughtfully rejected, because I know that it is wrong. And so, false prophets, like schools that have no natural light, are definitely un-architectural.<sup>10</sup>*

10 Kahn, Louis I. Silence and Light. Tokyo: U, 1973. Print



Louis Kahn in the above quote hints to the way a school without natural light would impact the students, and the learning that takes place within it on a basic level. The typology itself can pose as a restriction of joyful encounter between child and sunlight and the stimulation that affective exchange can provide.

The subjective element of this philosophy relies on continuous encounter with difference. A typology that in isolation engages in a joyful relationship may become repressive through repetition - neutralized through machinic duplication. There is therefore, no new architectural paradigm that is a solution to the “problem” of expressivity. This dynamic system is one to listen to, to consult and ultimately propagate.

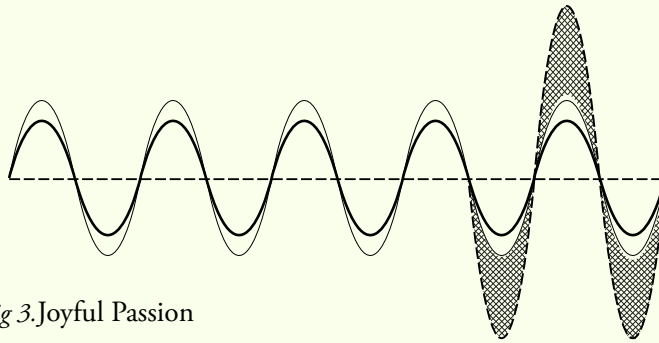


Fig 3. Joyful Passion

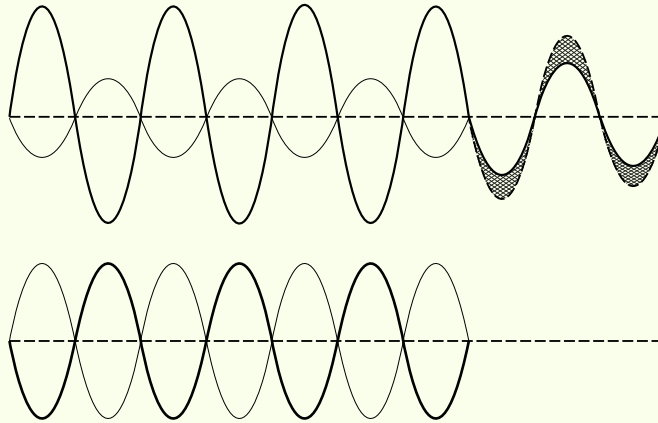


Fig 4. Sad Passion

*The above diagram illustrates joyful and sad passions as a wave pattern. Joyful passions combine to become more affective while sad passions either reduce the power of one way or result in mutual destruction.*

It says the language of man is art. It stems from something which grows out of the needing, of the desire to be, to express, and the evidence of the promise of the material to do it. The means is somehow there

- Louis Kahn *Silence and Light*

### **3. MEMORIES OF EXPRESSIVITY**



*Fig 5. Nest of the Bowerbird*

*Fig 6. Cave at Lascaux*

Expressionism as defined by the research of the thesis, is the intentional propagation of difference by a body in its surroundings.

This desire results in diverse and vibrant landscapes of encounter between expressive entities. In human beings this is art, home, voice etc., in animals it is nest, dance, song etc. It emerges as a desire to tap into the force of expression, to cultivate it and to produce affective relationships between artefact or event and body. Like music, these relationships can become mirrors of one another, or syncopated rhythms like the case of an animal and its nest. These counterpoints can provoke new forms of occupation or event and evolve into great refrains of building and unbuilding as the system constantly refreshes itself through encounter.

It is important to note that conventional use of the term Expressionism as a style of art and architecture therefore, is only a small portion of the expressionist oeuvre. Rather expressionism encompasses all works, all styles. All expressive artefacts and spaces are expressionist endeavours.

The first expressionists according to Deleuze are the first artists: the birds. In their songs they form territorial motifs, in their nests, felt, weaved branches or grass are brought together in complicated assemblies that define these territories.

Similarly, cave painting, song and dance were the expressive media of early human communities. Cave paintings in the cave at Lascaux merge the sinuous curves of the cave wall with the sketched bodies of moving animals. In these early works, animate and inanimate bodies begin to reflect one another through patterning, repetitive motifs and often-anthropomorphic forms. What emerged was a kind of mirrored vitality between human and non-human. This is an example of expressionism that resulted in the production of vibrant motifs that existed independent of authorship. The works maintain their own expressive autonomy.

These motifs contain a self-sustaining vitality that Susan Langer

and Brian Massumi call a semblance<sup>1</sup>. A semblance is a play on seeing what is not readily apparent in a stationary artefact. In the act of seeing, we perceive objects in our environment by virtually completing them in our minds; we see-feel the weight of an object and we can infer its volume abstractly. Typically moving through and around space and the ability to 'verify' these virtual constructions completes this act of perception and feeling. In art, architecture and sculpture, this concept is extended to the idea of a semblance: a semblance is the intentional augmentation of our ability to feel what we do not immediately perceive. The galloping herds of cattle on the walls of the cave at Lascaux appear to be mid-run, they transfer this sensation to the viewer. These racing bodies overlap and move in the flicker of firelight.

This primitive expressionism and notion of semblance remains present in all works of art and architecture, it is a basic mechanism that communicates the expressivity of a work to the viewer. It is the provocative vibrancy that allows art to engage in encounter with bodies. It renders perceptible the dynamic force of expression.

### Six Cases

The following cases describe a territory of expressionism in six moments of particular affective and expressive intensity. Each work described, engages directly with the notions of expressivity examined in the previous folio; Horizontality between bodies, human expressivity, materialism, encounter and affect are discussed in each case. This qualitative and intensive study investigates the manner in which each work constructs semblances in order to unpack expressionism in making.

In lieu of stylistic divisions, this chapter proposes a radical scrambling of art and architectural works that is also explored in the written folios and the archive experiments. This scrambling is present in the selection of the case-studies. These works are laid out in an equal field and new lines of connective expressivity jump rhizomatically through time from case to case. This processes challenges existing notions of style. Therefore, while the singularity of each of project is of interest, the periodization, or typological analysis of these case-studies is irrelevant to the research of the thesis.

1 Massumi, Brian. *Semblance and Event: Activist Philosophy and the Occurrent Arts*. Cambridge, MA: MIT, 2011. Print. 52

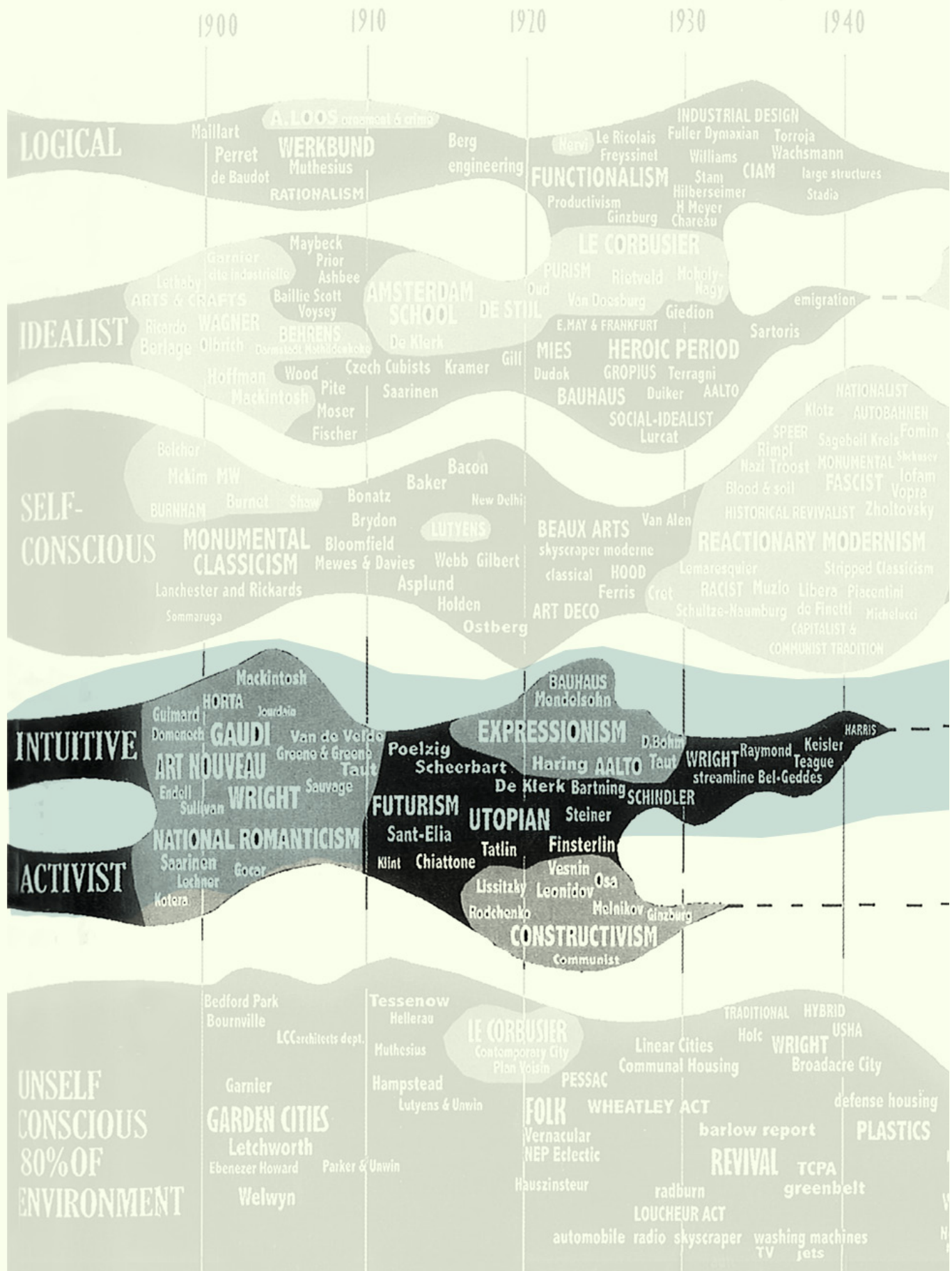
## Methodology and Charles Jenck's Evolutionary Diagram

The evolutionary diagram of Charles Jencks (see Fig 8) is a precedent for this re-framing of projects. In this diagram, Jencks divides the architectural history of the 20th century into streams of intent: Logical, Idealist, Self-Conscious, Intuitive, Activist and UnSelf-Conscious. The UnSelf-Conscious is the built work that was set outside of the profession: the emergence of Las Vegas, New Towns etc... The Logical stream trends towards ideas of Utility and functionalism. The Idealists produced notions of monumentality and the Self-Conscious is characterized by revivalism. The merger of the Intuitive-Activist line is of particular interest to the discussion of expressionism. As characterized by Jencks, these are works that do not rely on history, though they may be enriched by it, but rather seek out new forms of encounter. Often, these works operate with an ethical or political agenda. In this merger, this stream of the diagram echoes the ethics of expressivity explored by the thesis. It acknowledges the close relationship between ethical practice and aesthetic exploration. This convergence sets up a ground of joyful passions.

In light of this affinity, Jencks' diagram will act as a contextual backdrop for the reader to situate each case-study as well as the archive experiments. A blue zone has been super-imposed over the diagram to indicate the line of interest.

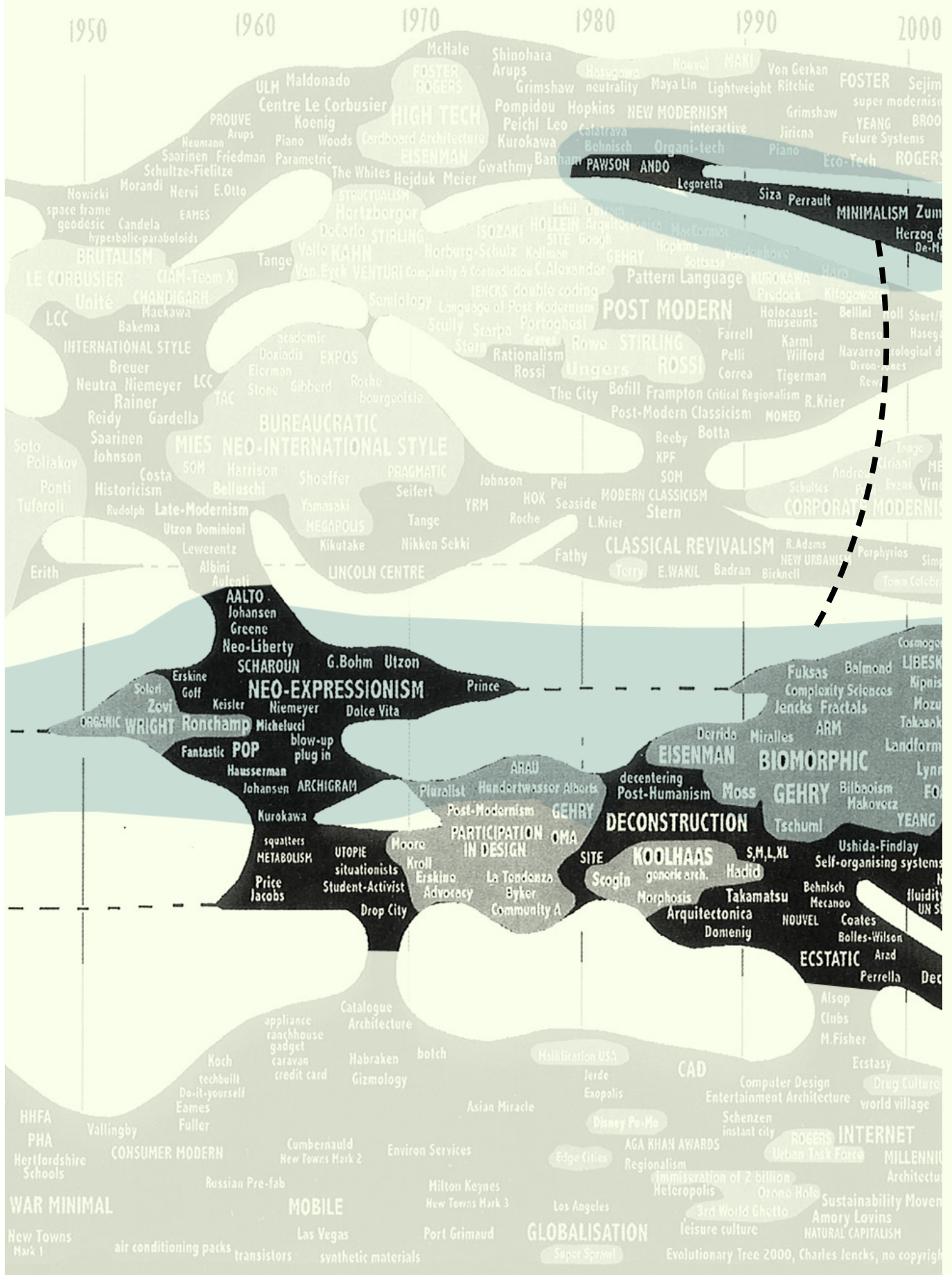
The final two sections of the chapter, Abstract Expressionism and the sculpture of Eva Hesse are the destination of a line of flight that deviates from the established trajectory of Expressionism as discussed by Jencks or Deleuze. This territory deals more directly with the vibratory line and the expressionist ambitions of the thesis itself. Both sections engage directly with notions of haecceity and making through encounter. These areas of study are the context for the thesis's experiments in matter.

Expressionism does not move down a determined line of progress. It leaps and looks back before moving side-ways down a new avenue of sensation. And so the work contained in this thesis attempts to slip into rhythm with this force. It seeks new trajectories through history.



The blue highlight denotes the territory of the archive.







*Fig 8. Interior of Cologne Cathedral*

Gothic motifs are a particularly vital manifestation of expressive intensity, as noted by Deleuze and Guattari in *A Thousand Plateaus*, as well as Susan Langer in her book *Feeling and Form*. These forms and the spiralling lines that pull and guide them create a mirrored vibrancy between human and non-human bodies. The motifs are neither representational models of nature, nor anthropomorphic, rather they an expressive mixture of the two. In the gothic, stone becomes a material imbued dynamic motion. Wilhelm Worringer in his book *Form in Gothic* explains the experience of entering a Gothic cathedral, as akin to the encountering a great whirlwind:

*There a whirlwind, as it were, is formed which rises irresistibly upwards; any one at all sensitive to the impressions of space can never enter the great Gothic cathedrals without experiencing a dizziness caused by space. It is the same dizzy feeling set up by the chaotic intricacy of line in early Northern ornament.<sup>1</sup>*

In these interiors, the eye becomes trapped by the illusionary power of innumerable semblances; it begins to feel the articulation of the stone as a force that pulls the body upwards. In the haptic encounter with Gothic motif, perception is suspended.

1 Worringer, *Form in Gothic* [*Formprobleme der Gotik* (Munich:piper, 1911)], authorized trans., ed., and with an introduction by Herbert Read (London: Alec Tiranti, 1957) 159-60.



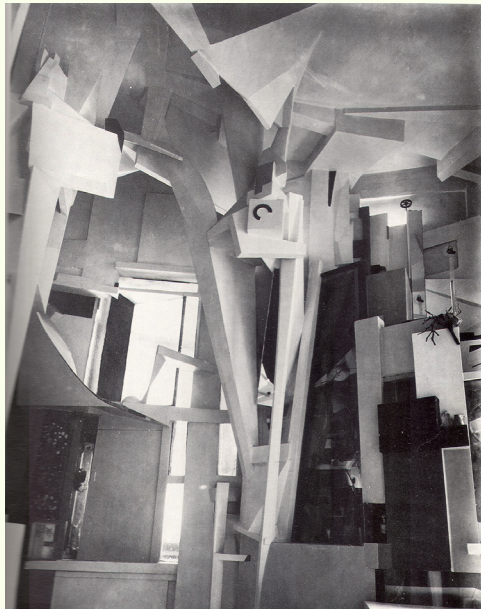
*Fig 9. Casa Batlló Antonio Gaudí*

At the mouth of the Intuitive Activist Stream on Jencks' diagram is Gaudi. Consider his project Casa Battlo in Barcelona as a masthead of this mode of expressivity: Built in 1904, Gaudi's project is coated with a shimmering skin of glass tiles that imbue it with a latent vibrancy. They catch light, and change in colour as they are affected by the light of day. On this façade, curvaceous forms yawn around each window and fold into the interior. The project reaches back into the gothic with its mixture of representational and abstract forms. The stone columns that stretch to the bottom floors simultaneously recall memories of piled bones and growing trees while the balconies at times appear as a set of masques. In regards to these surfaces, Salvador Dali remarked:

*[Gaudi's] brain was very much in touch with the tips of his fingers. As a result, he fabricated goose flesh whenever he found it to be necessary; every surface has a bristling texture; his architecture is a tactile erogenous zone that bristles like a sea urchin<sup>1</sup>*

The Casa batllo, in its shifting forms and sensitivity to light appears to be continuously forming and re-forming like a live organism. The material of the façade is hyper-articulated and sensitive to nuanced changes in perspective and light. The project also had a political mandate. The great blue roof swoops dramatically and is skewered by a turret as a representation of the great battle of St. George and the Dragon. Here, the myth embedded in the project is one of Catalan Nationalism, the figure of St. George stands as a cultural icon for the people of Barcelona. In the work of Antonio Gaudi, notions of materiality and expressivity are employed to express the territory of his nation. Representational forms coexist with abstract geometries to create a new language of expressive motifs that communicate a set of ideals.

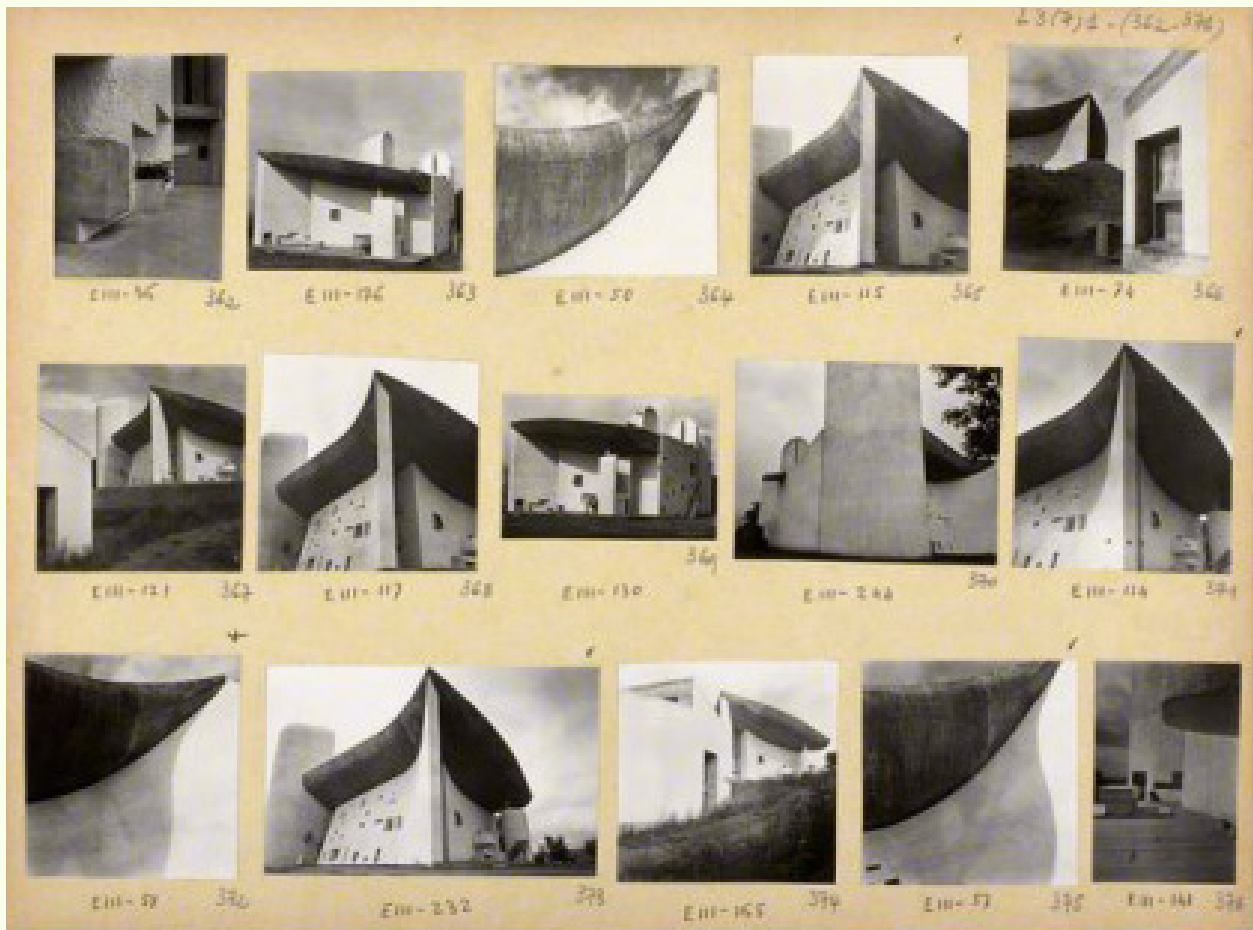
1 Gaudí, Antoni, 1852-1926. 1978. Casa batllo, barcelona, spain, 1905-07 ; casa mila, barcelona, spain, 1905-10. Tokyo: A.D.A. EDITA.



*Fig 10. MerzBau Kurt Schwitters*

This next jump is to the Merz Bau of Kurt Schwitters which was privately built over many years before being destroyed in 1933. In this work, he turned his home into a total personal reflection of himself. While less materially intensive than the Gothic and Gaudi, The Merz bau of Kurt Schwitters extends a different kind of vibrancy into its surrounding by acting as reflection of the memories and desires of Schwitters himself. This personal crystallization of will translates into physical manifestations of disjunction. Non-discursive, fragmenting geometries break apart the space of the home and embody churning emotions. The Merz Bau was a Curio cabinet of personal artefacts that stand in equal opposition to the artist himself.

It is in striving for emotional realism and authenticity in the physical world that this project establishes itself as a joyful passion.



*Fig 11. Chapel at Ronchamp*



In contrast to the Merz Bau, consider the expressivity of Ronchamp: The project is situated on a hilltop that was the site of an existing chapel called Notre-Dame-du-Haut. A fire destroyed the original chapel during the Second World War and ten years later Le Corbusier was commissioned to build a new chapel on the same site. In building, the memory of the existing chapel was preserved in the walls of the new chapel. Its forms carved out a new expressive territory.

The walls of Ronchamp are great sweeping curves that recall the soft curvature of the hill-top. These great masses become instruments of light, shadow, filtering and explosive motifs. The granular plaster surface of these walls registers nuances of time, light and season as shadows cling to its surface. The pressure of a great sweeping roof pushes travellers into the cracks where one wall meets another and into the great belly of the interior.

Within the chapel, ecclesiastical ritual is mirrored by the expressive refrains of light and colour that become charged with the revolving light of the sun: In the east chapel, the slow warming refrain of the morning leaps into a burning red of divine light. In the space of the church hall, the nested wall in the south is host to a complex narrative of apertures and stained glass assemblages; narratives of earth and divinity that glow and move with intensities of sunlight.

The chapel of Ronchamp occupies a milieu of continuous movement and variation of form-light and intensity. The territory is that of the revolving cosmos; the dynamic expressivity of the sun is always present as a form-maker that mirrors the events of the chapel.

The intense mingling of human event and non-human expressivity is palpable in the work of Le Corbusier at Ronchamp. They dance against each other in the occupation of the chapel. Materialist vitality mingles with the semblance of the revolving cosmos.



*Fig 12. Number 31 Jackson Pollock  
1950*

From the swirling of the gothic motif, to the gooseflesh of Gaudi, to the embodied emotions of the Merz Bau, to the expressive ritual of Ronchamp, a line of flight is taken through disciplines to the work of Jackson Pollock and Eva Hesse. Human, or other representational forms are no longer apparent in the work nor are any direct ontological questions. Rather what emerges is the treatment of the canvas as a body itself. The body of architecture as examined in the previous cases is now the body of the canvas. In making, the Pollock encounters the material of the surface and paint, he lends his own gestures to the viscous texture of the medium and the painting is the result of the mixing of these two bodies:

*At a certain moment the canvas began to appear to one American painter after another as an arena in which to act rather than as a space in which to reproduce, redesign, analyze or "express" an object, actual or imagined...The painter no longer approached his easel with an image in his mind; he went up to it with material in his hand to do something to that other material in front of him. The image would be the result of this encounter<sup>1</sup>*

The act of painting in these works became an event much like the rituals at Ronchamp. In his drip paintings, canvas was laid directly on the floor while he moved and gestured over it with a dripping paintbrush. The abstract line that emerged is swirling and restless. The entire painting is treated with the same nomadic vectors of paint. Each new line of colour overlaid the one before it until they linked together in a net with no clear beginning or end. The scale of paintings became large and

<sup>1</sup> Rosenberg, Harold. 1971. *The tradition of the new*. Freeport, N.Y. : Books for Libraries Press, 1971:

architecturally scaled. One could walk up to the paintings of Jackson Pollock and become totally immersed.

What is striking about the work was the overlay of enamel paint with oil. The gloss of one medium and the matte texture of the other added a greasy depth to the canvas that asserted the power of the medium as more than just 'applied' colour and line. The form of this line, in its passing over and through itself steps back through time to the methods of the gothic - to the idea of a semblance - with this vitality. They became autonomous from any reflection of the artist himself. Jackson Pollock's drip paintings are an example of horizontality between bodies. In this way abstract expressionism comes closer to an aesthetic exercise of expressivity as described in the previous folio; the vibrancy of the material, its weight and viscosity, are engaged with as a body capable of acting, and mobilized by the arm of the artist.

Abstract sculpture also engaged with this new materialism. In the work of Eva Hesse, the instability of latex adds a semblance of precariousness to the figures modelled in the work. For example, in the Installation Contingent, the painterly nuances of the hanging latex, with their delicate wrinkling texture infers a virtual experience of melting. The work is one of simultaneous formlessness and constraint: Each scrim is pulled tight by the textile of the cheese-cloth and yet the almost-liquid waving of the latex is in a constant state of decay. The overlay of two translucent materials - their binding together - and their separate aging processes produces a work that operates at its own molecular level independent of metaphor or personal intention. This expressionism relies heavily on the autonomy of materiality and so the forms and representational content of the previous expressionists vanishes. The artefacts become non-discursive and are set on an equal playing-field with the bodies that few it.

This mode of expression is a type of minimalism and is the mode employed by the experiments of the thesis. It is expressionism with extreme discipline and focus. In it, nuances of time, light and matter become calibrated through experimentation. Much like the work of Eva-Hesse, this type of minimalism comes very close to conceptions of haecceity. And so we return to the Vibratory Line, to the first act of explication before the various modes and agendas of these few memories of expressivity explored in this investigation. The thesis employs this line as a force in itself.



*Fig 13. Eva Hesse Contingent*



An intensive trait starts working for itself, a hallucinatory perception, synaesthesia, perverse mutation, or play of images shakes loose, challenging the hegemony of the signifier.<sup>1</sup>

1 Deleuze, Gilles, and Félix Guattari. *A Thousand Plateaus: Capitalism and Schizophrenia*. Trans. Brian Massumi. (Minneapolis: U of Minnesota, 1987), 15

## 4. DIAGRAMS





## Diagrams

Line, (lines)

1. A long narrow mark or band  
'a row of closely spaced dots will look like a continuous line'
2. Mathematics: A straight or curved continuous extent of length without breadth *(line as object)*
3. A direct course
4. A furrow or wrinkle in the skin, especially on the face  
'laughter lines' *(line as mapping)*
5. A contour or outline considered as a feature of design or composition  
'crisp architectural lines' 'the artist's use of clean line and colour'
6. (On a map or graph) a curve connecting all points having a specified common property *(line of connectivity)*
7. (the Line)  
'The equator'
8. An area or branch of activity
9. A direction, course, or channel *(vector line)*
10. (lines) A manner of doing or thinking about

something

‘We both seemed to be thinking along the same lines’

*(line of thought)*

11. verb Mark or cover with lines

‘a thin woman with a lined face’

‘lined paper’

12. (draw) a line in the sand

*(line of territory)*

13. in (or out of line) with

14. etymology a Middle English merger of Old English line “cable, rope; series, row, row of letters; rule, direction,” and Old French ligne “guideline, cord, string; lineage, descent;” both from Latin *linea* “linen thread, string, line,” from phrase *linea restis* “linen cord,” from fem. of *lineus* (adj.) “of linen,” from *linum* “linen”<sup>1</sup>

A line is both a conceptual thing and a physical thing. It begins as a vector, or some show of force and then quickly translates into a border, or diagram. Marks on the face from laughing are laugh-lines, paper is striated with lines to write on. Lines of thought connect discourses, lines of force act on a situation. Lines are mappings of intention.

The origin of the word line derives from cable or string; it is drawn out from a bundle of undefined wool and given a vector. Conceptually we draw lines between things. Lines of thought from other disciplines converge in architecture: aesthetic lines, cultural lines, and economic lines, social and political lines.

In architecture we draw lines and build along them. We place vibratory lines in space - draw them on the ground and pile material on them - make brick lines, or wood lines, or fabric lines. At first these lines are drawn small and describe only a figment of an idea, very soon they are drawn at full scale and sever, connect and explicate space.

It is the form of the lines drawn that determines the effect these

1 Line. Oxford Dictionaries. Oxford University Press. <http://www.oxforddictionaries.com/definition/english/line> (accessed June 29, 2015).

relationships will have in a given situation - its the manner of drawing that determines the affect the line will impart once condensed into matter.

Paul Klee's Pedagogical sketchbooks (see page 40) illustrate the athleticism of the line as he takes it for a walk: He describes active lines, circumscribed lines, lines limited in movement by set points, lines of force and repeated lines. He finds them in drawing but also in matter:

Bone matter is cellular or tubular  
Ligament structure is a sinuous-fibrous web  
Tendons are continuous with the connective tissue of the  
muscle, strengthened by cross-grain. <sup>2</sup>

In the final chapter he describes the arrow as a line of will: A vector that holds within it a whole realm of possibility - a physical representation of humanity's ability to make great leaps of thought and then pursue them through physical means and gestures. The book's pursuance of the line exalts it to a level of infinite potential that is only partially realized in the pages of the document.

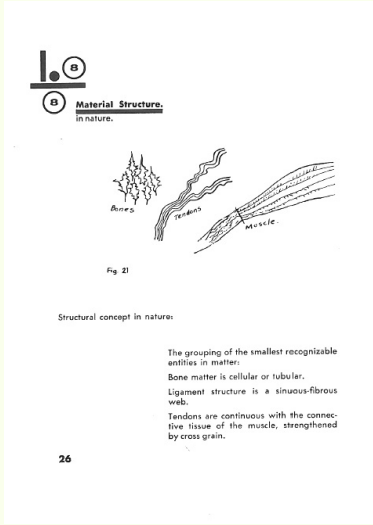
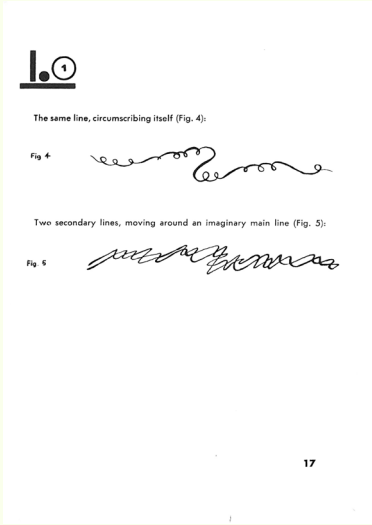
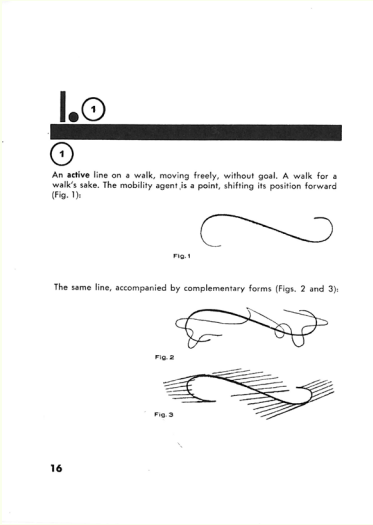
### Conceptual Lines

Many of the Diagrams of thought in Deleuze and Guattari's Thousand Plateaus, take the form of lines.

(1) The Rhizomatic line<sup>3</sup>: a connective and rupture prone line of flight . This line scrambles arborescent structures by laying all things on a plane of consistency and leaping feverishly between them. The form of this line is fleeting - named after rhizomatic plants that have no clear beginning or end, the rhizome pre-supposes an expansive field that this connective line can weave through and create new relationships. Politically this line endeavours to cut through class-structures, expressively it links disparate encounters together in a zig-zagging chain.

2 Klee, Paul. Paul Klee; Pedagogical Sketchbook. New York: Frederick A. Praeger, 1953. Print. 26

3 Deleuze, Gilles, and Félix Guattari. A Thousand Plateaus: Capitalism and Schizophrenia. Trans. Brian Massumi. (Minneapolis: U of Minnesota, 1987), 11



*Fig 14. Paul Klee Pedagogical Sketchbooks*

(2) The Nomadic or Gothic line<sup>4</sup>: a romantic line that traps within it a semblance of free-moving vitality that continuously swirls upwards. This line is a line of sensation. In its nomadic context it expresses movement while remaining in place.

(3) The Line of Striation<sup>5</sup>: that longitude-and latitudinal line that creates limits and quantifies matter. These are lines drawn across site, material that defines one zone as different from another. In a way this line is the line of production, in another, it is a line of restriction and entrapment. Paper is striated with lines to write on. Maps are striated with latitudes and longitudes.

And so we return to the vibratory line; that basic element at the root of expressivity before atmosphere, or emotion. The first experiment in matter seeks to employ this line and its ability to create difference. These exercises, like those of Klee's look more closely at the agency of the line itself, as a line of materiality or a line of connectivity, or a line of ordering and unordering. As an immaterial vector, or as an object itself.

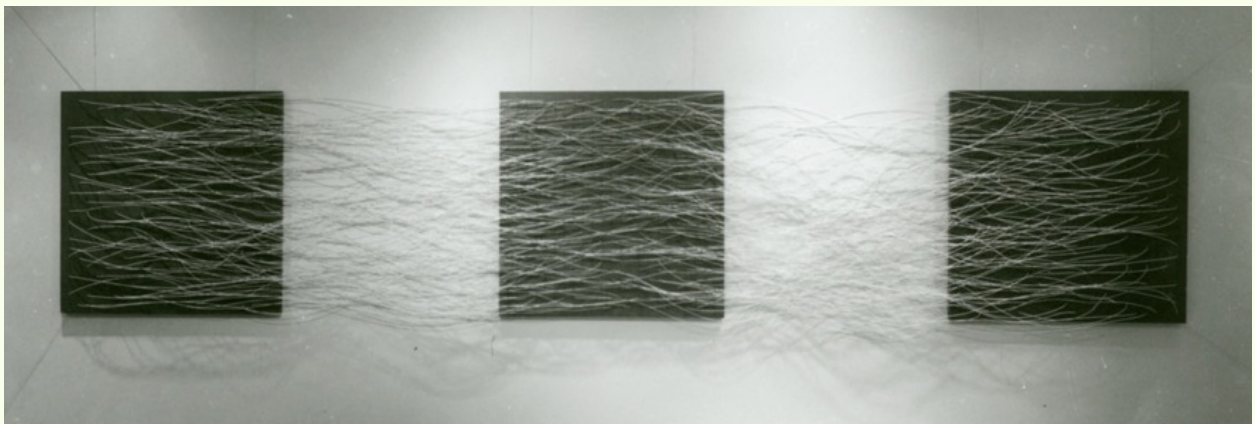
These lines form a conceptual basis for the first experiment in matter that is found in the following folio. The following paintings act as diagrams. Diagram in this sense refers to a germ of order or rhythm that is explored through making<sup>6</sup>. These diagrams attempt to lend material to the conceptual frame-work of the vibratory line, they are carved by this line and made expressive. They establish a territory of soft-movement and careful divisions in space.

4       ibid 498

5       ibid 479

6       Deleuze, Gilles. Francis Bacon: The Logic of Sensation. Minneapolis: U of Minnesota, 2004. 102

Memories of a Line:



*Fig 15. Eva Hesse Metronomic  
Irregularity II*

*Strong wires move across canvases like nerve endings.  
They emerge from both sides to converge in the middle -  
to intermingle. This tangle of hairs is almost a rhizomatic  
diagram as it nets together.*



*Fig 16. Cy Twombly Untitled 1970*

*Cy Twombly's line is an overlapping scribble. The relentless continuity of the line carves out a smooth territory of light-ness that fades away towards the edges. Twombly's line has the nomadic quality of the Gothic line as it travels across the surface - and yet it remains locked in place.*



*Fig 17. Robert Ryman Untitled 1965*

*Fig 18. Agnes Martin Untitled #11  
1988*

*The canvas is striated by line after line. They determine zones (stripes of thickened paint, or soft blue). Ryman's are thick bodies of matter, Agnes's are soft divisions.*



### *7 paintings*

All the Maquettes to follow are an investigation of the expressive qualities of a shivering, vibratory line. The lines vanish as easily as they define – they vaporize matter as well as striate it. At times the lines are crisp shadow makers and at others they connect into a light shimmering scrim.

## **5. EXPERIMENT 1 (LINES)**



Set 1: Vibratory Lines



*Fig 19. Diagram 1. Striation Front*

white acrylic (mixed colours), wellbond glue and white  
cotton thread on canvas

The first diagram deals specifically with the line of Striation; an existing abstract painting was first blanked out to reveal a varied and fluid texture with rough and smooth patches- a sky and cloud-line landscape of white and less white. Then, soft lines of white thread were bound around the canvas to striate the image. The taught lines of thread pull against the edges but separate from the canvas surface in the middle and vanish when hit by soft daylight. One moment the image is segmented, map-like, and the next moment the smooth fields of white regain their prominence and move softly on the canvas.



*Fig 20. Diagram 1. Detail*



*Fig 21. Diagram 1. Striation Back*

*On the back, these lines of striation over-lap with the grain.*

We can't approach the Whole except by way of detail. We can only approach by little bits a certain totality which isn't even one. We can become aware of the whole only by the tiniest bits. This grain of sand makes us aware of the sand; this handful of sand makes us ever so slightly aware of the desert. But the desert- you can't embrace the desert in its entirety all at once. You can only enter it through the grain of sand.<sup>1</sup>

1 Edmond Jabes and Bracha Lichtenberg Ettinger, *A Threshold Where We Are Afraid*, (Oxford: Museum of Modern Art, 1990), 9.

The second diagram again took its beginning from the canvas – this time it was blank. The stretched fabric was a homogenous surface of small dots that striate it into a smooth, homogenous surface. Delicate pencil lines were drawn onto these dots in an attempt to segment the image into zones and depict vertical lines of force. Then layers of white paint were drawn in lines across these zones. The paint itself is combed through to continuously reveal the grain, which shivers with movement because of the thin relief of paint.

The making of this diagram then becomes the construction of a light-modulating instrument as lines of clear wire are wound around the frame mere millimeters from the surface. A second layer of white thread underscores these lines and cuts the distance between each wire in two while a new abstract line of glue moves transversely across the striated canvas. Relentless overlay of line over line over invisible line produces a diagram of restless-ness. The image shakes free of striation and moves into a new version of the gothic or expressive line – the Vibratory line.





*Fig 22. Diagram 2. Grain*

titanium white acrylic paint, pencil, light textured  
acrylic medium, welbond glue, fishing line and white  
thread on canvas



*Fig 23. Diagram 2. Side*  
*Fig 24. Diagram 2. Detail*



*Fig 25. Diagram 2. Light*

*Light plays across the instrument in fits and starts,  
jumping from one to the next.*



*Fig 26.Diagram 2. Process 1*

*Fig 27.Diagram 2. Process 2*

*Fig 28.Diagram 2. Process 3*



*Fig 29. Diagram 2. Traces*

*After layers of vertical lines are applied to the canvas, the transversal line of glue is thick.*

Moving forward, the next exercise works to define a limit between the geological stacking of lines and their total dissolution into in-between vibration by lending more mass to each line. Layers of wax, plaster, gel and acrylic build up in depth and width on a much larger canvas.



*Fig 30. Diagram 3.*

wall paint, titanium white acrylic paint, dry-dex  
space paste, light textured acrylic medium, welbond  
glue, self-levelling acrylic clear gel, parafin wax and  
clear fishing line on particle board

Here, the vibrational qualities of the treads break and dissipate. While each stripe of white plays gently on the next, the force of the tensioned wire is muted and neutralized by the scale of the image.





*Fig 31.Diagram 3. Detail*

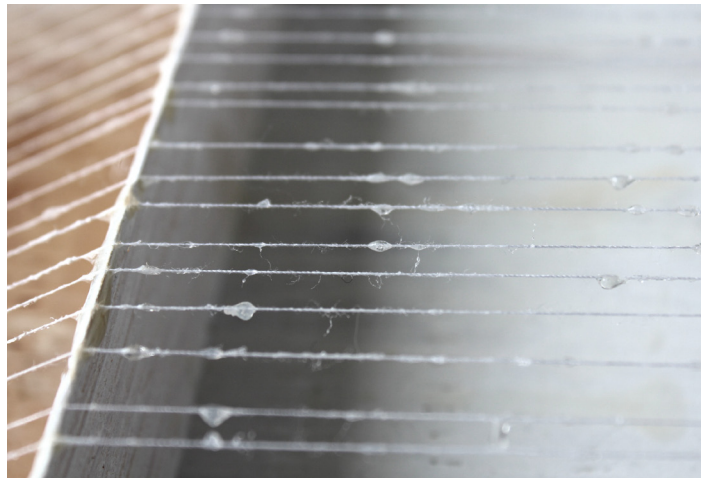
*Fig 32.Diagram 3. Detail*

In conclusion a fourth diagram was constructed. This new maquette pulls the binding lines of thread away from a plane of consistent white. Each line is host to a myriad of translucent beads that coalesce into sheets of waxy material caught in the web of the instrument. The line that vanishes and re-emerges becomes a series of lines of force that gather dew from the air itself. The line elevates in intensity – it becomes an entrapping line – a vibratory line that condenses into beads of matter.



*Fig 33. Diagram 4. Depth*

titanium white acrylic paint, self-leveling clear gel,  
weldbond glue (as solid sheets and small globules) and  
white cotton thread on plywood with balsa wood  
frame



*Fig 34.Diagram 4. Detail*

*Fig 35.Diagram 4. Detail*



*Fig 36. Diagram 4. Detail*

## Set 2: Tracings

The next experiment became an exercise in traces - traces left behind by the force of the conceptual lines. This first diagram has been raked through rather than built up. Fine lines, and harsh cuts cleave through the surface of the image.

Rather than drawing the line, or drawing-out the grain, the surface acts as a registration of that act.



*Fig 37. Diagram 5. Depth*

Drydex spacle, light molding paste, titanium white  
acrylic paint, titanium white oil stick, neutral pale  
grey oil stick on plywood

*Traces: aluminum aircraft cable, threaded rod, plastic  
comb.*



*Fig 38. Diagram 5. Detail*

*Fig 39. Diagram 5. Detail*



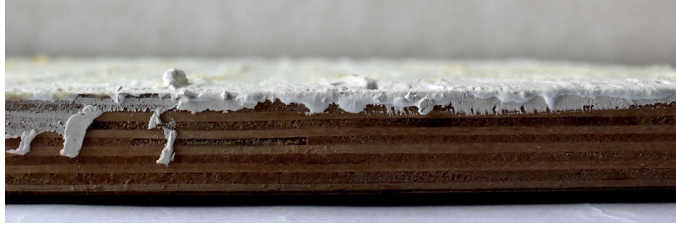


*Fig 40. Diagram 6. Latex*

Drydex spacle, white wall paint, natural rubber latex  
and clear gel on plywood  
*Traces: Paintbrush, Coin and knife.*

The second painting pulls that raked relief forward in space across the entire panel. Layers of latex are painted on in rubbery strips that cling to the white surface beneath it. Brush strokes overlay the lines of the relief to create a fine-ness. A new grain realized in a manner far more determinate than the scrim of the other diagrams. This grain is thick.

A knife is drawn over the surface in line with these strokes, it breaks the latex. Bubbles of matter pull and curl into balls. A layer of gloss seals them in place.



*Fig 41. Diagram 6. Profile*  
*Fig 42. Diagram 6. Relief Detail*  
*Fig 43. Diagram 6. Relief Detail*

The final line diagram begins on a plywood sheet. A first coat of white paint reveals the texture of the surface. Then, lines of pencil trace a grain onto the plywood in line with the grooves of the wood.

Light layers of latex, pencil and white chalk pencil striate the surface continuously until the entire canvas is molecular - light catching and host to a rhythm of paint-line-latex-line-chalk-line-wood-line. White acrylic paint overlays these lines again in a light wash.

The overlay of material, the slight relief of each traced diagram continues the exercise in difference that began with the vibratory line. The thickness of these final works draws definition farther and farther from the space of the canvas, light enters between the lines and introduces shadow.



*Fig 44. Diagram 7*

white acrylic, pencil and latex on plywood



*Fig 45. Diagram 7. Detail*

An archivist or historian here would try to work out a timeline, separating subjects, assigning categories. In our condition as architects, almost always more seduced by form than by content, we make no hierarchies. Everything is placed on a horizontal table plan.<sup>1</sup>

<sup>1</sup> Moura, Eduardo Souto de, 2012. Floating images : Eduardo Souto de Moura's wall atlas. Zürich, Switzerland: Lars Müller Verlag. 18

## 6. BUILDING THE ARCHIVE



*Fig 46.Noemie Goudal Observatoires*



The archive works as an accounting of 173 works of architecture that each establishes its own territory of difference and articulation.

In the study of expressivity it becomes clear that expression is autogenetic and cyclical. It has a self-movement towards difference and yet it repeats. Gestures, patterns, intentions and musical tendencies re-occur in time while continuously responding to new territories. Architectonic language and intention is continuously deterritorialized and reterritorialized in new sites and time periods.

The archive contained in these pages is a small sampling of these moments, expressive desires that have condensed into complex spatial-material organizations. In gathering them together lines of connectivity can be formed across the traditional barriers of time or location. To facilitate this, the vast territory of this collection of images has been pulled from their contexts and cut. Cut from any sense of scale, programmatic description or history. These images are left to communicate all these attributes by aesthetic power alone. Each image is autonomous, a complete haecceity. In cutting, they encounter each other on an equal field – an anachronistic reunion that results in new lines of expressivity.

Noemie Goudal completes a similar exercise with her *Observatoires*. In this project, architecture from several European countries was photographed - removed from its context and placed as a cardboard cut-out on a beach landscape. These false architectures are photographed in their new context and labelled *Observatoires*. Separated from their existing use and given expressive autonomy, each building is re-experienced as a pure formal and material object; left to be evaluated solely on the basis of its own intrinsic value.

Another precedent for this work is the art of Geoffery Farmer. In his work *Boneyard*, he cuts out images from art and history and re-presents them as figures in a round arena. As one travels around the display surface (read: theatre) these images overlay and re-frame

each other collapsing the space between each piece. The work re-contextualizes each figure in relation to one another and allows the viewer to infer expressive narratives between each body.

Tracing the line around each form becomes vital to the success of both the Goudal piece and the work of Farmer. Without the frame of its existing background the figure becomes more pronounced. Objectification allows for a common ground between each project. The operations performed on each image allow them to become mobilized into a archive of joyful expressivity.



*Fig 47. Lina Bo Bardi Installation at the Museum of Art Sao Paulo 1957-68*  
*Fig 48. Geoffery Farmer Boneyard 2013*  
*Fig 49. Boneyard Detail*

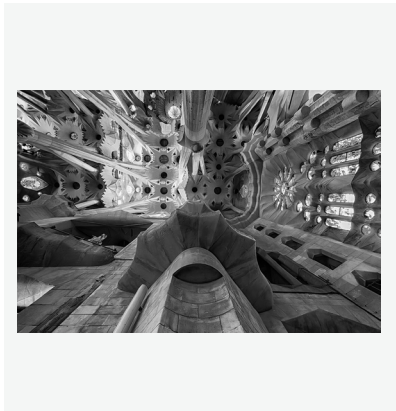


*173 Plates Comprising an Archive*  
*152 Architects*  
*133 years*

What follows is a laying-out of architectural moments arranged in chronological order as a baseline to reference. Cropped from their context and program each work stands on its own as an expressive body - as pure aesthetic object awaiting curation.

## **7. ARCHIVE 1 (COMPENDIUM)**

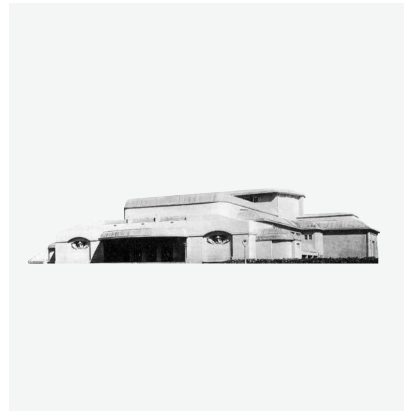




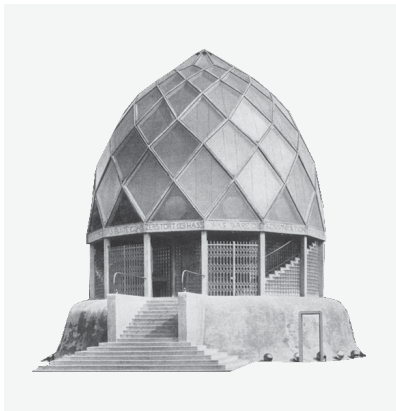
*Fig 50.*Sagrada Familia (1882)  
Antonio Gaudi



*Fig 51.*Casa Batllo (1904 Antonio  
Gaudi



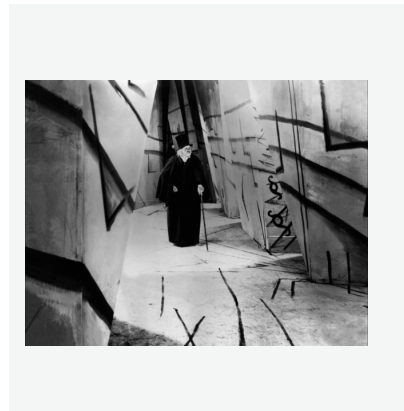
*Fig 52.*Wekbund Theatre (1914)  
Henry Van de Velde



*Fig 53.*Glass Pavilion (1914)  
Bruno Taut



*Fig 54.*Goetheanum (1919)  
Rudolph Steiner



*Fig 55.*Cabinet of Dr. Caligari  
(1920) Robert Wiene



*Fig 56.*Monument to the March  
Dead (1921) Walter Gropius



*Fig 57.*Einstein Tower (1921) Erich  
Mendelsohn



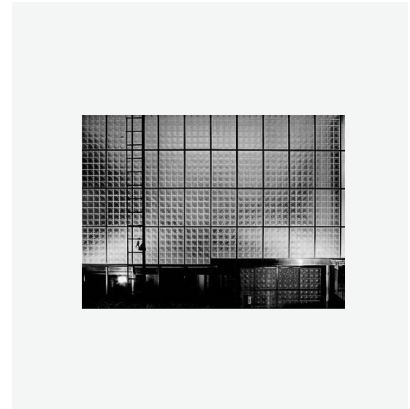
*Fig 58.*Millard House (1923)  
Frank Lloyd Wright



*Fig 59.*Metropolis (1927)  
Fritz Lang



*Fig 62.*Villa Muller (1930)  
Adolf Loos



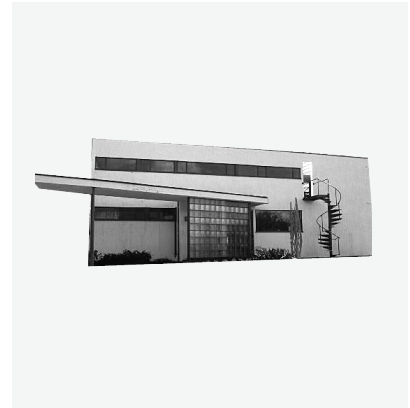
*Fig 64.*Maison de Verre (1933)  
Pierre Chareau



*Fig 60.*Dymaxion House (1933)  
Buckminster Fuller



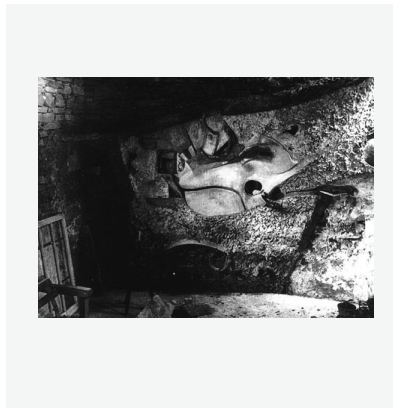
*Fig 63.*Merz Bau (1933)Kurt  
Schwitters



*Fig 65.*Gropius Residence (1938)  
Walter Gropius



*Fig 61.*Danteum (1942)  
Giuseppe Terragni



*Fig 66.*Merz Barn (1948)  
Kurt Schwitters

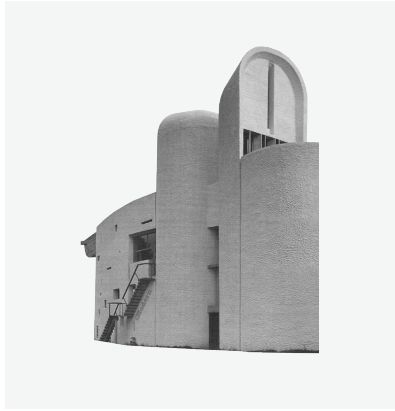


*Fig 67.*Eames House (1949)  
Charles and Ray Eames

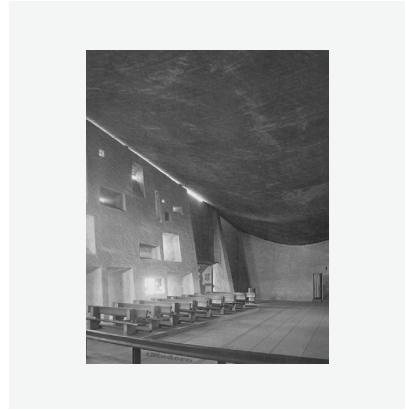




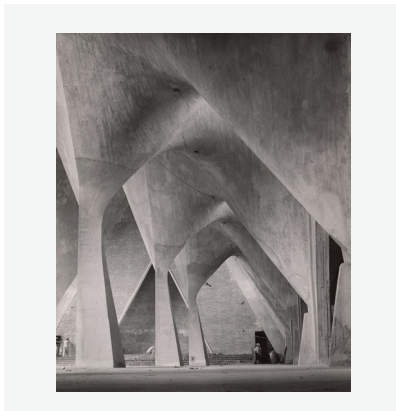
*Fig 70.*Castellaras-le-Neuf (1955)  
Jacques Couelle



*Fig 73.*Notre Dame du Haut (1955)  
Le Corbusier



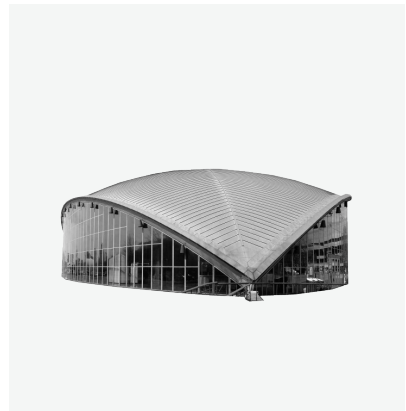
*Fig 76.*Notre Dame du Haut



*Fig 68.*Navarre Church (1955)  
Felix Candela



*Fig 71.*Bavinger House (1955)  
Bruce Goff



*Fig 74.*Kresge auditorium (1955)  
Eero Saarinen



*Fig 69.*Palazzo della Sport (1957)  
Pier Luigi Nervi



*Fig 72.*Villa La Saracena (1957)  
Luigi Moretti



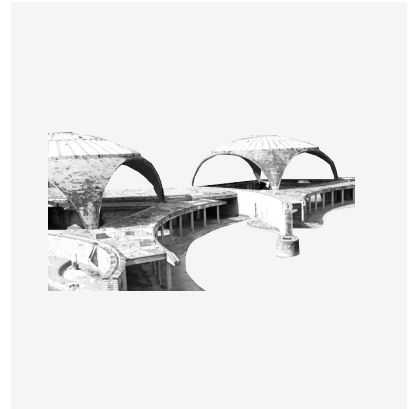
*Fig 75.*Sydney Opera House (1958)  
Jørn Utzon



*Fig 77.*Malin Chemosphere Residence (1960) John Lautner



*Fig 80.*Prairie House (1961) Herb Greene



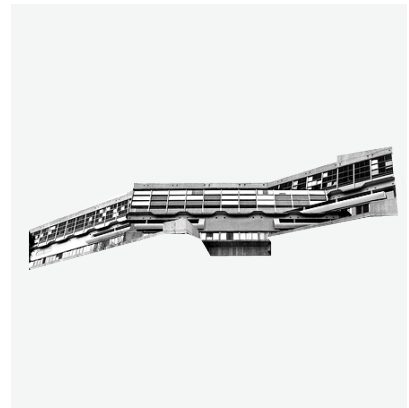
*Fig 83.*National Art School of Cuba (1961) Ricardo Porro



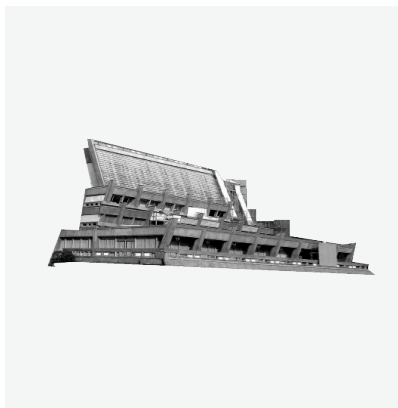
*Fig 78.*Milam Residence (1961) Paul Rudolf



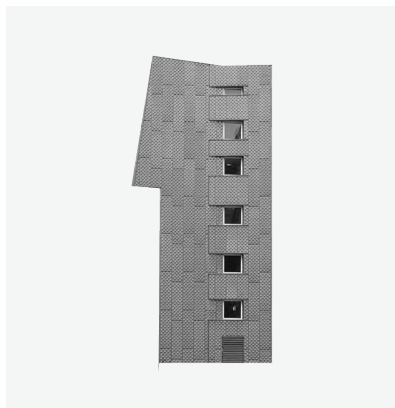
*Fig 81.*TWA Terminal (1962) Eero Saarinen



*Fig 84.*Biblioteca Nacional (1962) Clorindo Testa



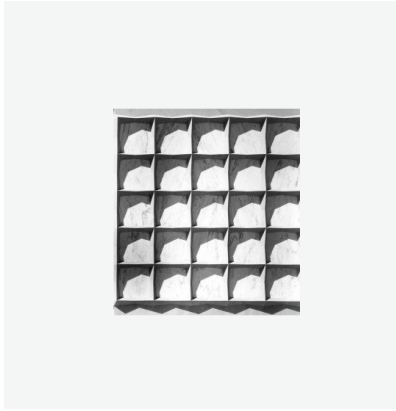
*Fig 79.*Kyoto International Conference Center (1963) Sachio Otani



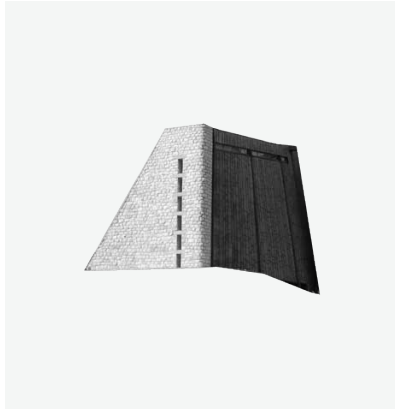
*Fig 82.*Berlin Philharmonic (1963) Hans Scharoun



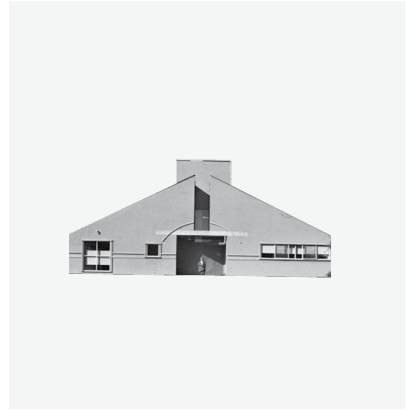
*Fig 85.*Gandhi Smarak Sangrahalay (1963) Charles Correa



*Fig 86.*Beinecke Rare Book Library (1963) SOM



*Fig 89.*San Giovanni (1964) Giovanni Michelucci



*Fig 92.*Vanna Venturi House (1964)Venturi Scott Brown



*Fig 87.*New York State Pavilion (1964) Philip Johnson



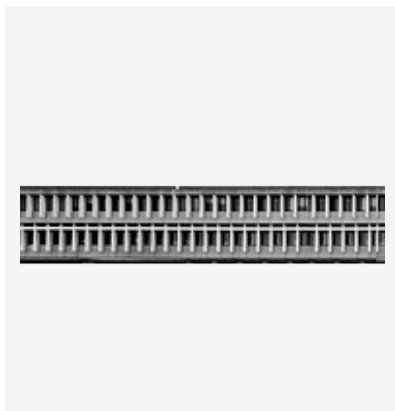
*Fig 90.*Kagawa Prefectural Gymnasium (1964) Kenzo Tange



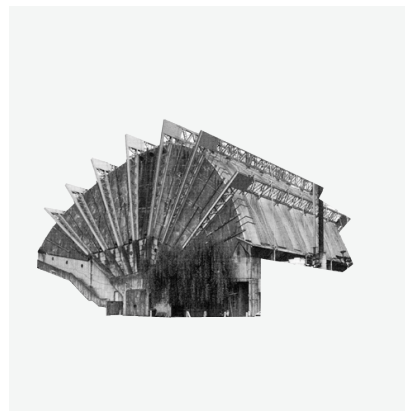
*Fig 93.*Yoyogi National Gymnasium (1964) Kenzo Tange



*Fig 88.*Palais du Gouverneur (1965) Le Corbusier



*Fig 91.*Simon Fraser University (1965)Arthur Erickson



*Fig 94.*Miyakonojo Civic Center (1966) Kiyonori Kikutake



*Fig 95.*Museaumotel (1966)  
Pascal Hausermann



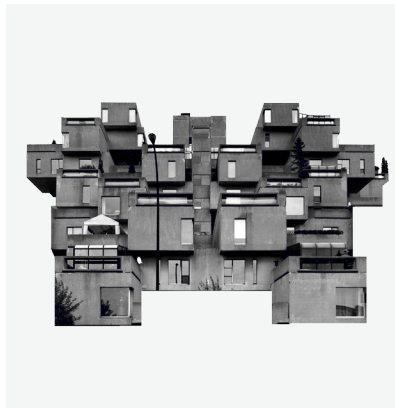
*Fig 98.*Whitney Museum (1966)  
Marcel Breuer



*Fig 101.*London Bank Buenos Aires (1966) Clorindo Testa



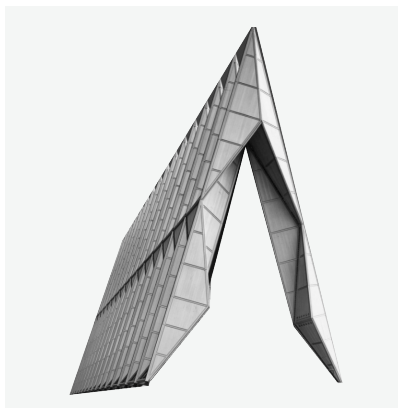
*Fig 96.*Biodome (1967)  
Buckminster Fuller



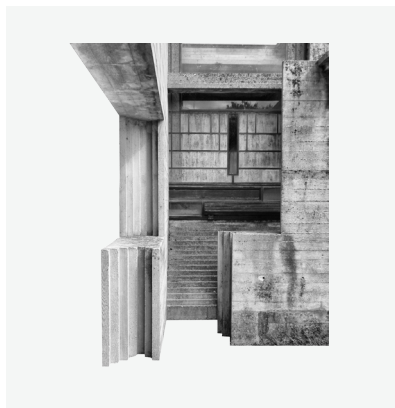
*Fig 99.*Habitat 67 (1967)  
Moshe Safdie



*Fig 102.*Museum of Modern Art Rio (1967) Affonso Eduardo Reidy



*Fig 97.*USAFA Chapel (1962)  
Walter Netsch



*Fig 100.*Tomb Brion (1968)  
Carlo Scarpa



*Fig 103.*Everson Museum (1968)  
I M Pei



*Fig 104.*Mivtachim Sanitarium (1968) Jacob Rechter



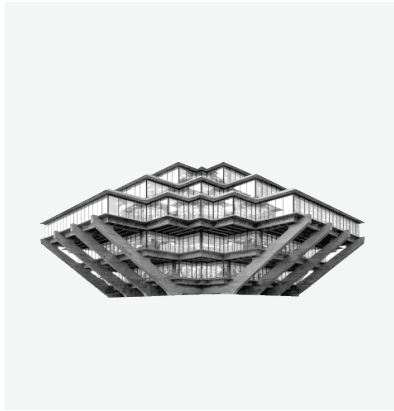
*Fig 107.*St Mary's Church (1969) Douglas Cardinal



*Fig 110.*Byker Wall (1970) Ralph Erskine



*Fig 105.*ArcoSanti (1970) Paolo Soleri



*Fig 108.*Geisel Library (1970) William Pereira



*Fig 111.*Ivry-sur-Seine (1971) Jean Renaudie



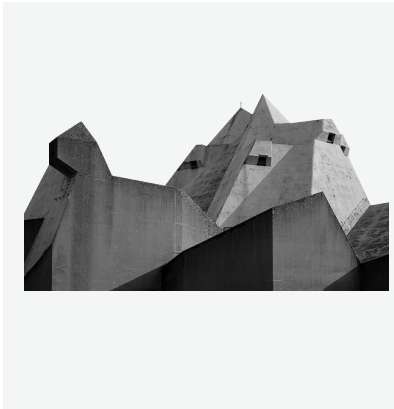
*Fig 106.*College Life Insurance Co. (1971) Roche-Dinkeloo



*Fig 109.*San Cataldo Cemetery (1971) Aldo Rossi



*Fig 112.*Cathedral of St. Mary (1971) Pietro Belluschi and Pier Luigi Nervi



*Fig 113.*Neviges Church (1972)  
Gottfried Bohm



*Fig 116.*Philips Exeter Academy  
Library (1972) Louis Kahn



*Fig 119.*Robarts Library (1973)  
Warner, Burns, Toan & Lunde



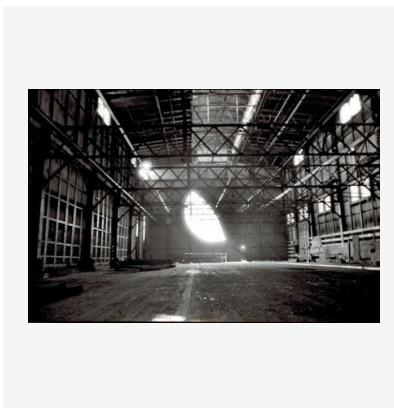
*Fig 114.*Johnson Museum of Art  
Cornell (1973) I.M.Pei



*Fig 117.*Makedonium (1974)  
Jordan and Iskra Grabulovski



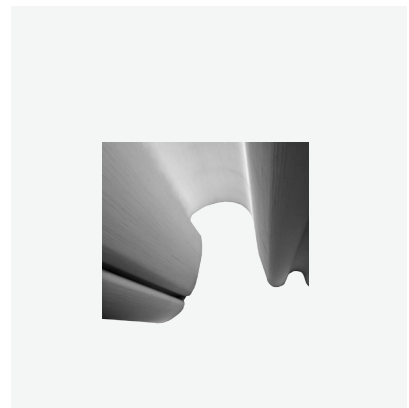
*Fig 120.*Conical Intersect (1975)  
Gordon Matta-Clarke



*Fig 121.*Day's End (1975)  
Gordon Matta-Clarke



*Fig 115.*Prentice Women's Hospital  
(1975) Bertrand Goldberg



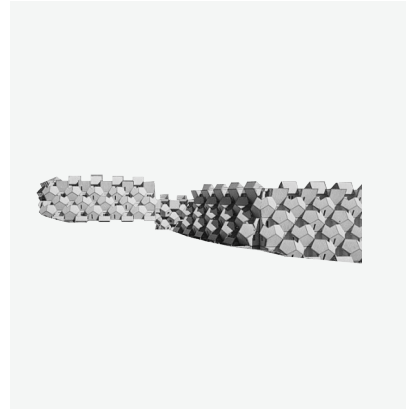
*Fig 118.*Bagsvaerd Church (1976)  
Jorn Utzon



*Fig 122.*Museum of Anthropology (1976) Arthur Erickson



*Fig 123.*Centre Georges Pompidou (1977)Renzo Piano Richard Rogers



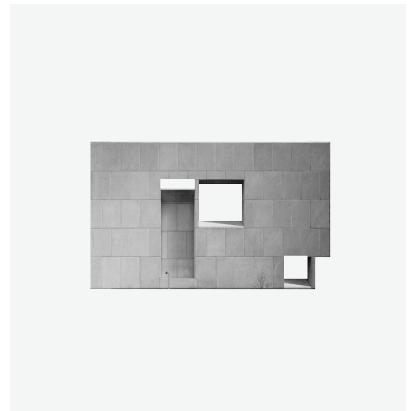
*Fig 126.*Ramot Polin (1977) Zvi Hecker



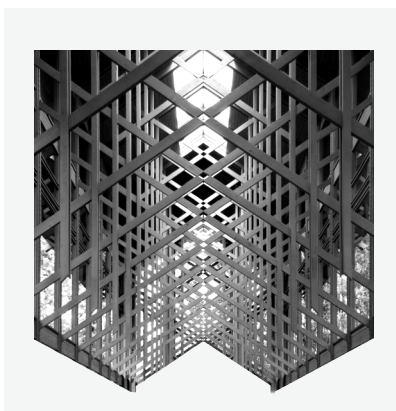
*Fig 129.*Church of Immaculate Conception(1978)Giovanni Michelucci



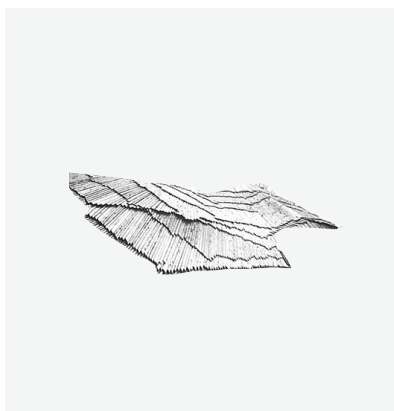
*Fig 124.*Maritxell Sanctuary (1978) Ricardo Bofill



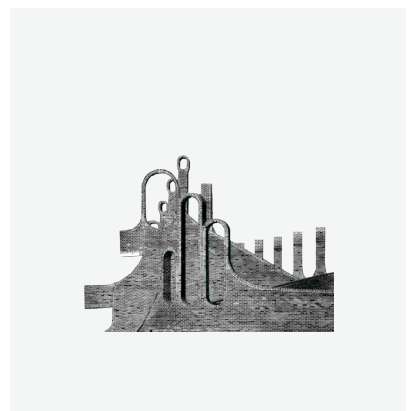
*Fig 127.*Fulton Centre Library (1980) Marcel Breuer



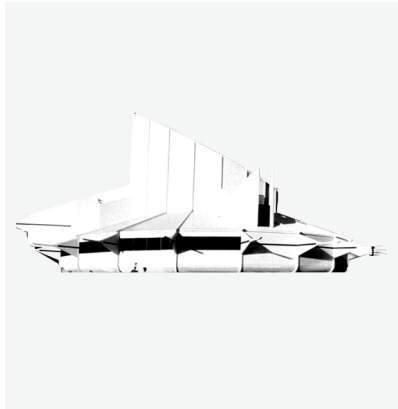
*Fig 130.*Thorncrown Chapel (1980) Fay Jones



*Fig 125.*Dobogoko Ski Lodge (1980)Imre Makovecz



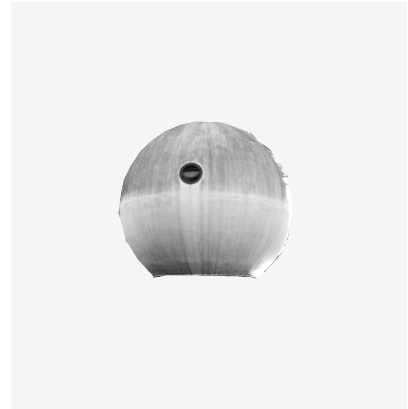
*Fig 128.*Cardinal House (1982) Douglas Cardinal



*Fig 131.*Edmonton Space Science Centre (1983) Douglas Cardinal



*Fig 132.*Xandu House (1983) Roy Mason



*Fig 135.*Bolwoning (1984) Dries Kreijkamp



*Fig 138.*Almere House (1984) Benthem Crowell Architekten



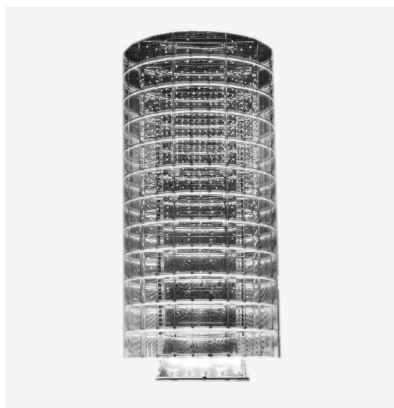
*Fig 133.*House at Bingie (1984) Glenn Murcutt



*Fig 136.*Illoyd's London (1986) Richard Rogers



*Fig 139.*Hong Kong and Shanghai Bank (1986) Norman Foster

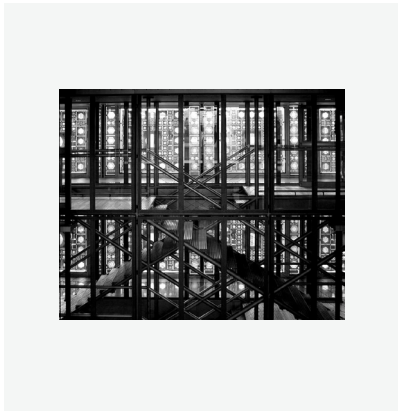


*Fig 134.*Tower of winds (1986) Toyoto Ito



*Fig 137.*Parc de la Villette (1987) Bernard Tschumi





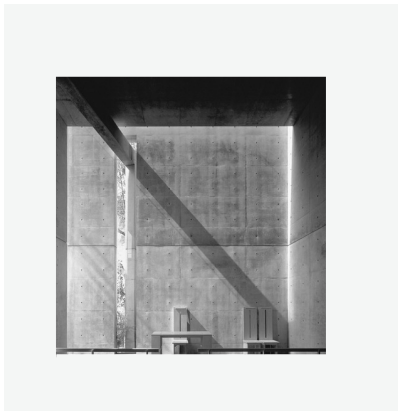
*Fig 140.*Institute du Monde Arab (1987) Jean Nouvel



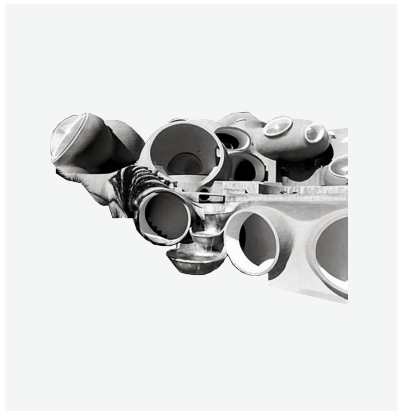
*Fig 141.*Barcelona MOCA (1987) Richard Meier



*Fig 144.*Price House (1989) Bart Prince



*Fig 147.*Church of Light (1989) Tadao Ando



*Fig 142.*Palais Bulles (1989) Antti Lovage



*Fig 145.*House Zero (1991) Takasaki Masaharu



*Fig 148.*Truss Wall House (1993) Ushida-Findlay



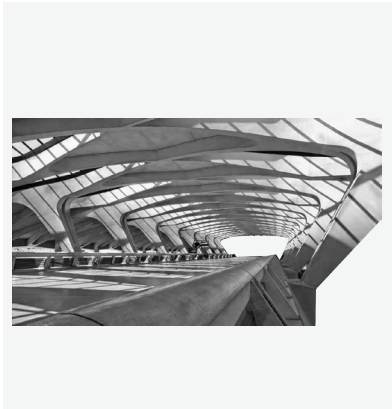
*Fig 143.*Vitra Fire Station (1993) Zaha Hadid



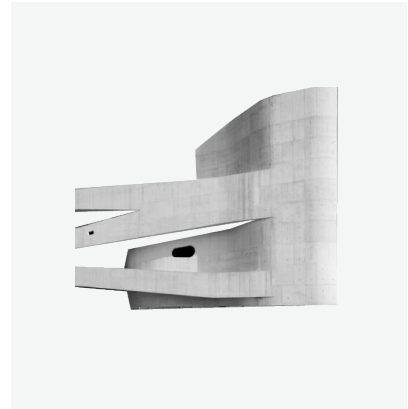
*Fig 146.*Canadian Clay and Glass Gallery (1993) Patkau Architects



*Fig 149.*Earth Architecture (1994)  
Takasaki Masaharu



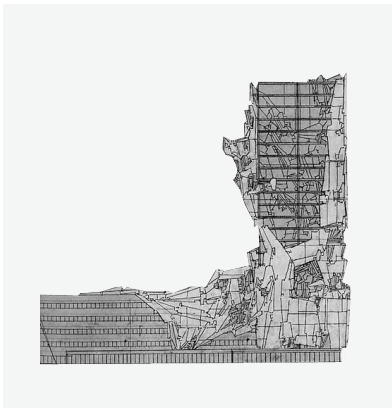
*Fig 152.*Gare de Lyon Saint-Exupery  
(1994) Santiago Calatrava



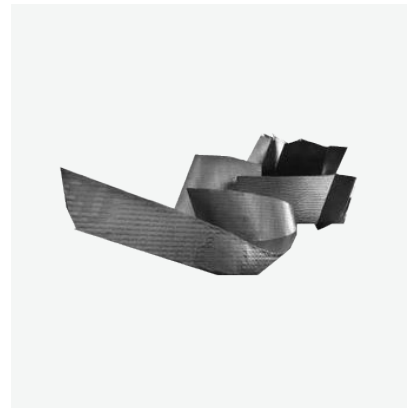
*Fig 155.*Ibero Camargo Foundation  
(1995) Alvaro Siza



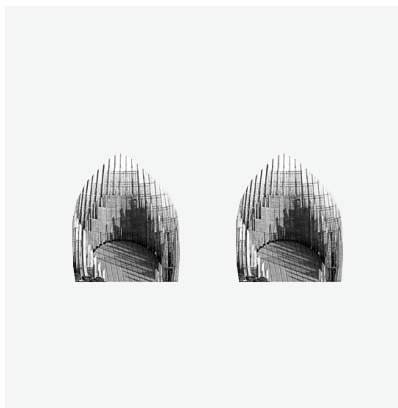
*Fig 150.*Samitaur (1996)  
Eric Moss



*Fig 153.*War and Architecture  
(1996)Lebbeus Woods



*Fig 156.*Guggenheim Museum  
Bibao (1997) - Frank Gehry



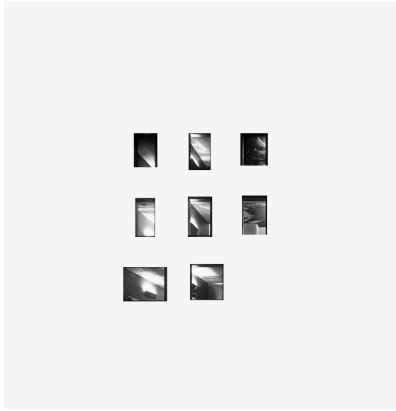
*Fig 151.*Tjibaou Cultural Centre  
(1998) Renzo Piano



*Fig 154.*Korean Presbyterian  
Church (1999) - Greg Lynn



*Fig 157.*Reichstag (1999)  
Norman Foster



*Fig 158.*Hotel Lucerne (2000)  
Jean Nouvel



*Fig 161.*Jewish Museum Berlin  
(2001) Daniel Libeskind



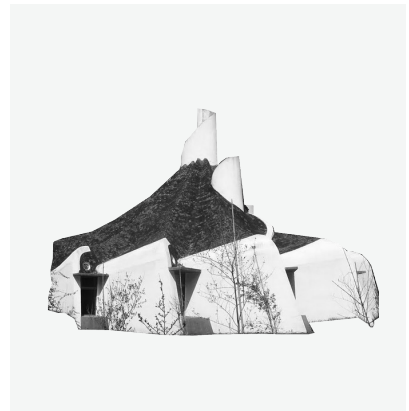
*Fig 163.*American FolkArt Museum  
(2001)Tod Williams Billie Tsien



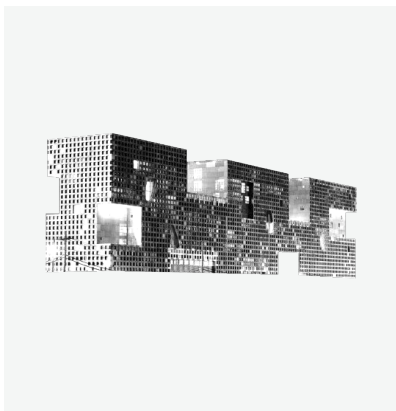
*Fig 159.*Blur Building (2002)  
Diller and Scofidio



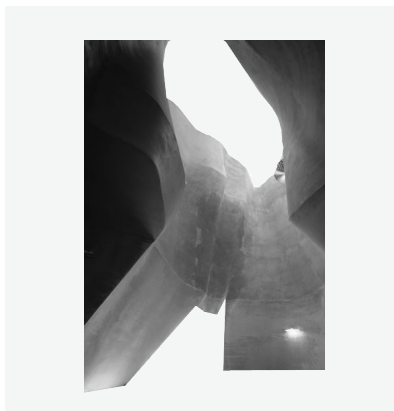
*Fig 162.*Parco della Musica (2002)  
Renzo Piano



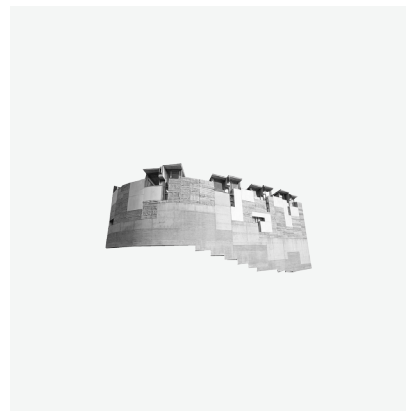
*Fig 164.*Capilla Maschwitz (2002)  
Claudio Caveri



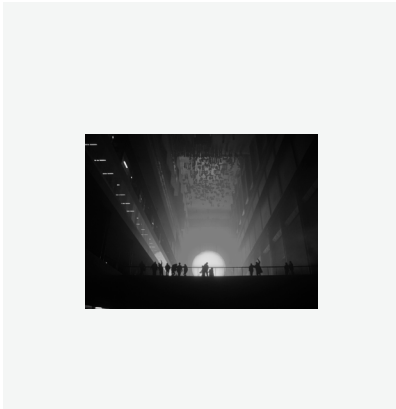
*Fig 160.*Simmons Hall MIT (2002)  
Steven Holl



*Fig 166.*Simmons Hall MIT (2002)  
Steven Holl



*Fig 165.*University of Vigo (2003)  
Enric Miralles



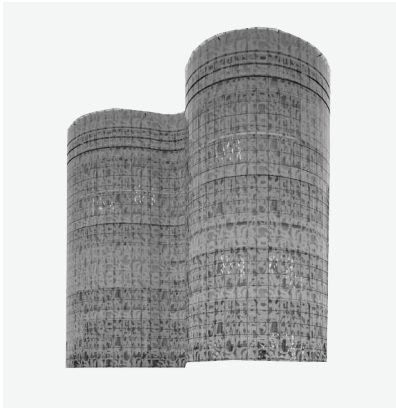
*Fig 167.*The Weather Project  
(2003)Olafur Eliasson



*Fig 170.*L'Oceanografic (2003)  
Felix Candela



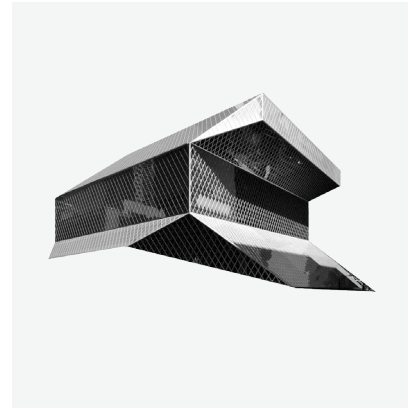
*Fig 173.*Jubilee Church (2003)  
Richard Meier



*Fig 168.*Cottbus University Library  
(2004) Herzog and De Meuron



*Fig 171.*Monastery Novy Dvur  
(2004) John Pawson



*Fig 174.*Seattle Public Library  
(2004)OMA



*Fig 169.*Palau de les Arts Reina  
Sofia (2005) - Santiago Calatrava



*Fig 172.*VM Houses (2005)  
PLOT



*Fig 175.*Museum of Modern  
Literature (2006) David Chipperfield



*Fig 176.* Torrevieja Relaxation Park (2006) Toyoto Ito



*Fig 179.* St Coletta School (2006) Michael Graves



*Fig 182.* Church at Firminy (2006) Le Corbusier



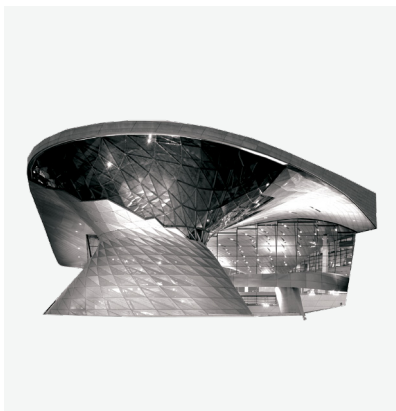
*Fig 177.* Bruder Klaus Kapelle (2007) Peter Zumthor



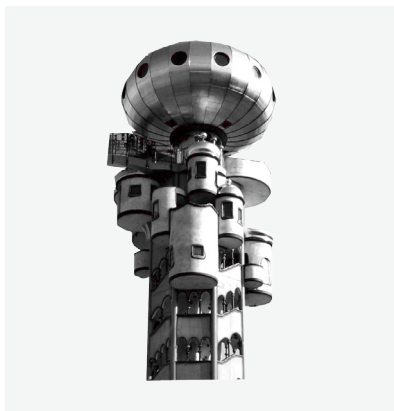
*Fig 180.* Akron Art Museum (2007) Coop Himmelblau



*Fig 183.* Oslo Opera House (2007) Snohetta



*Fig 178.* BMW Welt (2007) Coop Himmelblau



*Fig 181.* Kuchlbauer Tower (2007) Friedensreich Hundertwasser



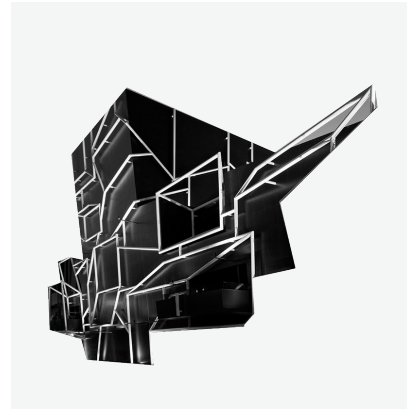
*Fig 184.* Burgo Tower (2007) Eduardo Soto de Moura



*Fig 185.*Nelson Atkins Museum of Art (2007) Steven Holl



*Fig 188.*New Art Museum (2007) SANAA



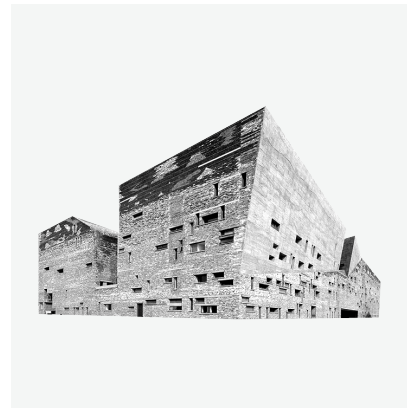
*Fig 191.*Melbourne Theatre Company (2008) Arm Architects



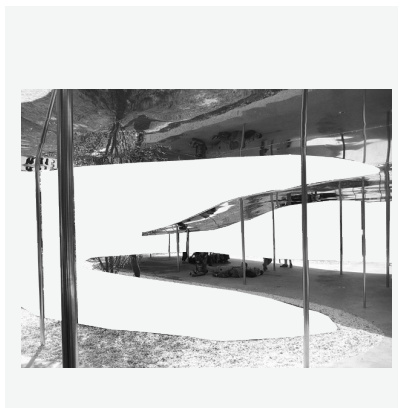
*Fig 186.*Rolling Huts (2008) OSKAA



*Fig 189.*Casa das Historias Paula Rego (2008) Eduardo Soto de Moura



*Fig 192.*Ningbo Historic Museum (2008) Amateur Architect



*Fig 187.*Serpentine Pavilion (2009) SANAA



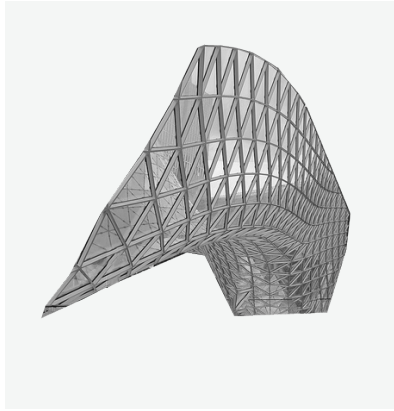
*Fig 190.*Cooper Union (2009) Morphosis



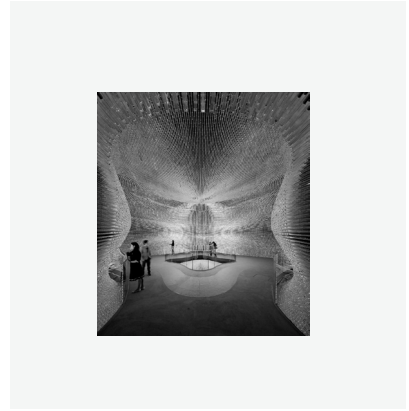
*Fig 193.*Stage at Medea (2009) Fuksas



*Fig 194.* Yas Hotel (2009)  
Asymptote



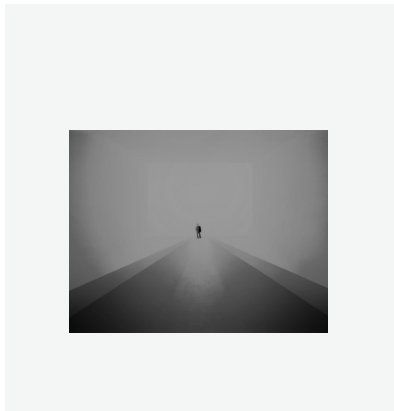
*Fig 197.* MyZeil (2009)  
Fuksas



*Fig 200.* UK Pavilion (2010)  
Hetherwick Studio



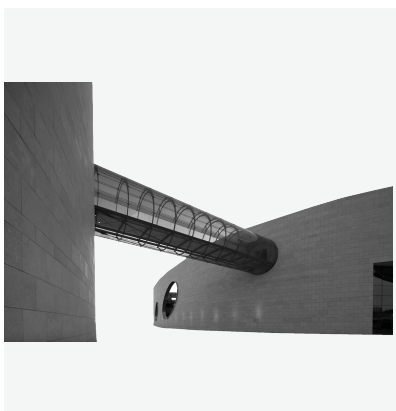
*Fig 195.* Samitaur Tower (2010)  
Eric Moss



*Fig 198.* Wolfsburg Project (2010)  
James Turrell



*Fig 201.* Centre Pompidou-Metz  
(2010) Shigeru Ban Architects



*Fig 196.* Champalimaud Centre  
for the Unknown (2010) Charles  
Correa



*Fig 199.* Truffle House (2010)  
Ensemble Studio



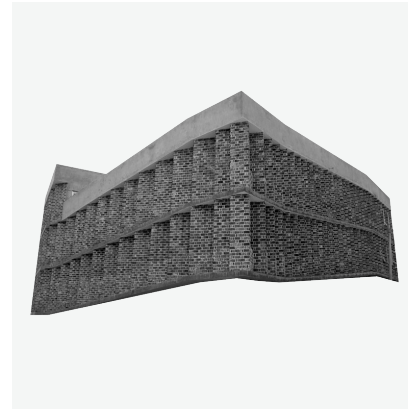
*Fig 202.* Steilneset Memorial (2011)  
Peter Zumthor



*Fig 203.* Ordos Museum (2011)  
MAD Architects



*Fig 206.* The Niemeyer Center  
(2011) Oscar Niemeyer



*Fig 209.* Angdong Hospital Project  
(2011) Rural Urban Framework



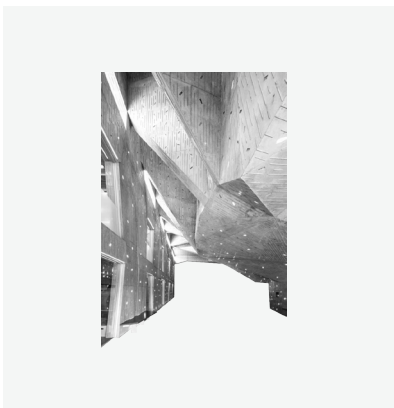
*Fig 204.* Terrence Donnelly Heath  
Sciences Complex (2011) Kongats



*Fig 207.* Artscience Museum in  
Singapore (2011) Moshe Safdie



*Fig 210.* Museum of the History of  
Lungo (2011) Nieto Sobejano



*Fig 205.* Konan Ward Cultural  
Center (2012) Chiaki Arai



*Fig 208.* Museum of Nature and  
Science (2012) Morphosis



*Fig 211.* Hammer Hall (2012)  
ARM Architects

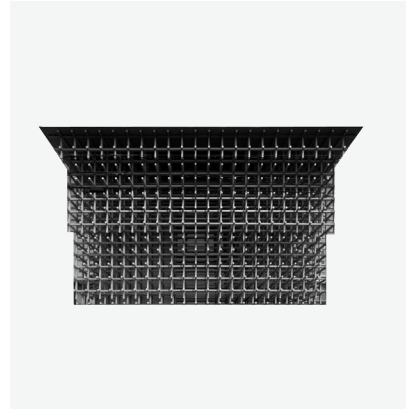




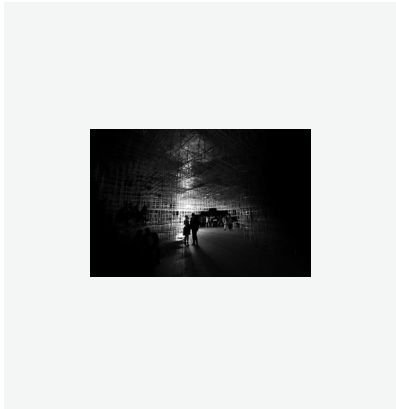
*Fig 212.*Louvre Lens (2012)  
SANAA



*Fig 213.*University of Monterrey  
(2013) Tadao Ando



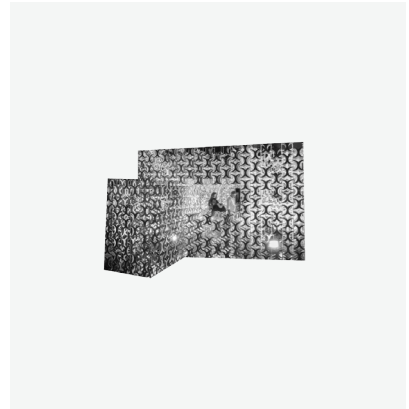
*Fig 214.*Prostho Museum (2012)  
Kengo Kuma



*Fig 215.*Serpentine Pavilion (2013)  
Sou Fujimoto



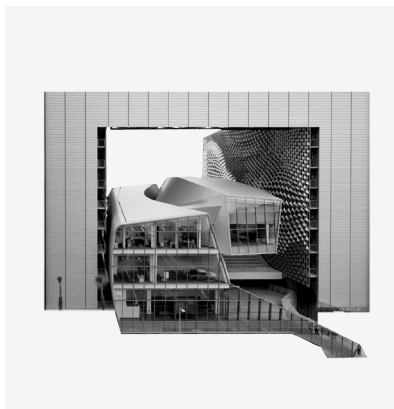
*Fig 216.*JCIT (2014)  
Zaha Hadid



*Fig 217.*Spital Field (2014)  
Cecil Balmond



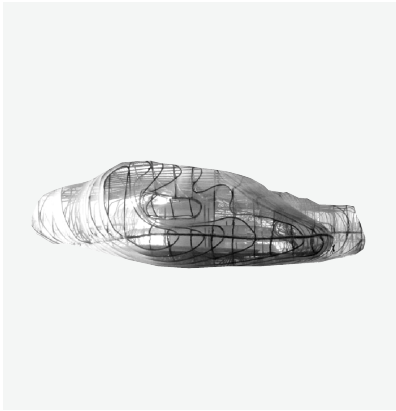
*Fig 218.*Margaret's Space (2014)  
Jesus Raphael Soto



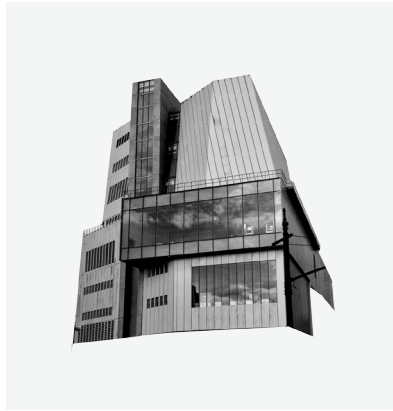
*Fig 219.*Emerson College Los  
Angeles (2014) Morphosis



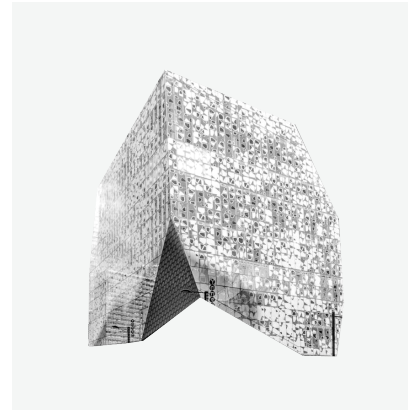
*Fig 220.*Serpentine Pavilion (2014)  
Smiljan Radic



*Fig 221.* Congress Center Rome (2015) Fuksas



*Fig 222.* Whitney Museum (2015) Renzo Piano



*Fig 223.* Ryerson Student Learning Centre (2015) Snohetta



*Fig 224. First View of the site*

## **8. CLEARING THE SITE**



*Fig 225. Installation space Dec. 18  
2014*

**TIME HAD BEEN AT WORK** – had welded and mixed many elements together into a fine powder that coated everything, thick and heavily pigmented. It infused the room. The site is a storefront on Ainslie Street. The space is a single room with tall ceilings. It had been abandoned for nearly a decade and become an incubator.

The window was filled with despondent paper streamers in pink, purple, yellow and white. Lone foam balls floated quietly in a haze of dust as a remnant of an abandoned project. The room behind the storefront was a disaster of lumber and vermin. Decomposing plywood, particleboard and large timbers occupied one side of the space while the other side was host to great panels of peeling paint that yawned towards the floor. A rat had died on the windowsill, above; bird droppings splattered the window. Blacked out by the streamer-display, the space was dark; the winter sun that entered the room was dull amber and reached lazily through the haze. The cacophony of material voices expressed entropy and unbuilding.

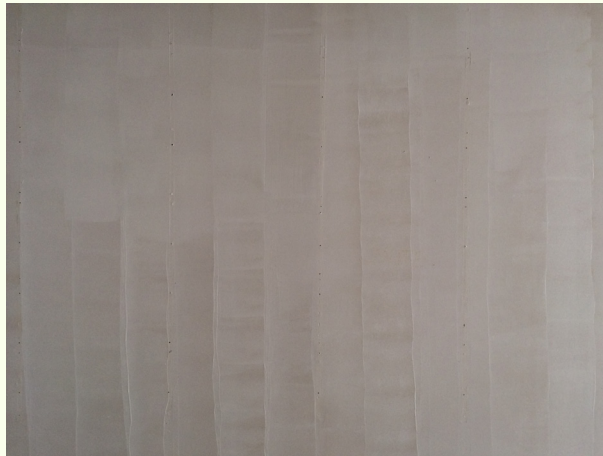
Manuel Delanda lectures often on this kind of expressivity; non-human forces giving rise to a whole landscape of nuanced molecular expression. Jane Bennett in her book *Vibrant Matter*, calls this “Thing-power: the curious ability of inanimate things to animate, to act, to produce effects dramatic and subtle”<sup>1</sup>. The sediment on the floor is a material undergoing physical change with the aid of moisture, bacteria and heat. The taste of sawdust in the air was an expressive marker of this process. In abandonment, these forces were left unchecked, uncorrected by human maintenance.

Rather, these material processes were paralleled with traces of human occupation into a total assemblage of human and non-human

1 Bennett, Jane. *Vibrant matter: A political ecology of things*. (Durham; Durham N.C.: Duke University Press.) 6



*Fig 226. Rusted Ceiling*  
*Fig 227. Peeling Paint*  
*Fig 228. Lumber Pile*  
*Fig 229. Floor Dust*



*Fig 230. Painting the space*

*Fig 231. Wall paint detail*

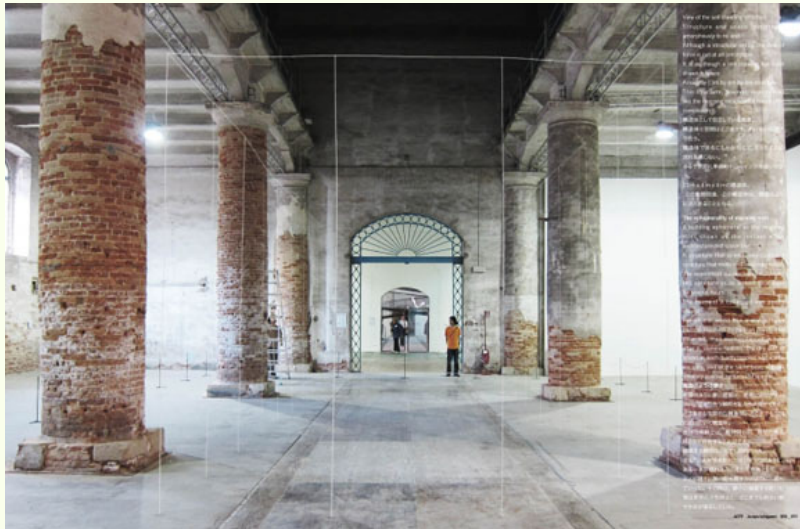
material agency. Someone had eaten a granola bar here, smoked a cigarette in the other corner, walked in with mud on their boots, had torn down old shelves and left them on the floor.

While nuanced, vibrant and arresting, the sensation of unbuilding was overwhelming. New occupation required either a response to, or a removal of debris. Therefore, the decay was documented and removed. The peeling paint was shaved down. Rotting lumber was thrown into a dumpster. The windows re-opened with several hard kicks of a boot: Light entered softly. The window was east facing and the light was simple softness; light, particle catching light. Rendering the yellow colour of the walls gently. The air remained thick with dust.

The room was yellow; the floor a light beige. The suspended ceiling had metal tiles with triangular perforations that had begun to rust. The site in its cleaning became an anything-space, *is* an anything space: a chameleon that adopts a new skin with each use. It was full of past experiments - both human and non-human that had been locked in a capsule to ruminate. I had halted that mutation, reversed the entropic process of time and arrived at a neutral in-between.

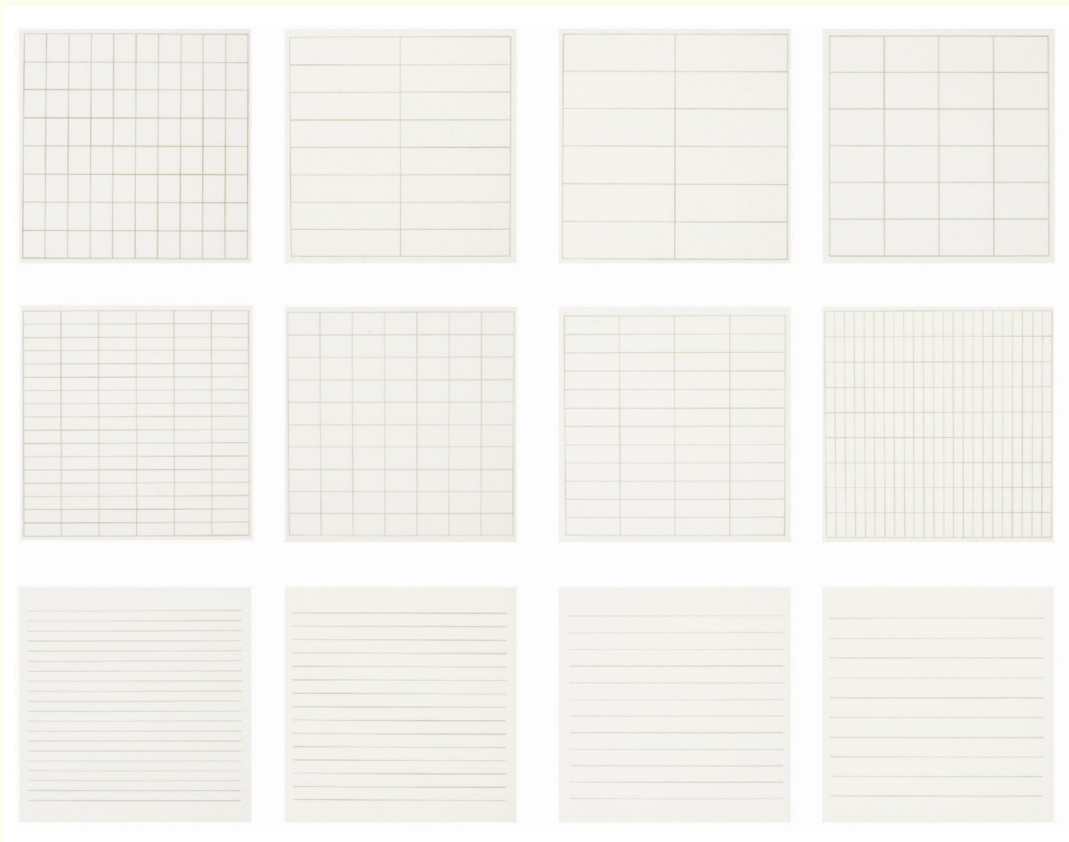
The walls were painted white. Layers on layer of white lines became a slight rhythm on the planes of the walls. The plane of the ceiling and the floor remained untouched and reinforced one another; dust mirroring rust. The space of the room was clear. The air remained thick with dust.





*Fig 232. Junya Ishigami Venice Biennale 2010*

## 9. FIELD-MAKING



*Fig 233. Agnes Martin  
On a Clear Day 1975*

A grid is employed as a tool because of its even-ness. Structurally, it can diffuse loads equally among its parts; aesthetically it reduces spatial hierarchy and gives rise to a kind of freedom of movement. Inherent in the making of the grid is an insistence on the kind of horizontality pursued by the thesis. An absolute grid is also a stage. Markers in space “catch” movement, register it and assign co-ordinates. The criss-crossing elements of the grid create an environment inherently at rest. Each line terminates into another and creates fully defined pockets of space.

Agnes martin speaks of her grid drawings as tranquil. Soft. Works that “express innocence of mind” in their abstraction. The 30 prints that make up “On a Clear Day” are slight variations in the dimensions of a grid, each on a square piece of Japanese paper. Each print tightens or loosens the space of the page. In a way, her striation of the canvas becomes a primal act of mapping; each line sets up a zone of possibility. De-materialized, it translates into a system of rules or guidelines; A set of vibratory cuts in the field of the page. And yet, the expression of the line itself already codifies these new territories. Agnes’s lines are fine lines of pencil, and so the grid expresses softness. There is a balance here in the abstract quality of the geometry and its materiality. The pregnant anticipation of her grids are imbued with delay- they are clear and calm and rested.

A field is a mutation of the grid. Despite its abstraction, the field itself performs as an active element. It “marches” into perpetuity in all directions and is defined by its open-ended nature. The primary distinction here in my own work is the three-dimensionality of a field. While a grid is effectively an abstract two-dimensional “ruling”, the field in this case, maintains three axis. A set of vertical lines at grid points, comprise a field, a three-dimensional matrix or cloud, is again a field of possibility.

In the following folio, a set of field models begin to set up an environment that evokes that kind of possibility. The materiality of the

original line paintings is now employed in three dimensions to activate the air around each line. A precedent for this experiment is the work of Junya Ishigami. In his installation for the Venice biennale a marching sequence of lines travel down from the ceiling as “architecture of air”. The explication of each line in the space of these installations acts to charge the air around it. This architecture of the air is an exercise in extreme architectural minimalism - pre-materiality- pre-architectonics. My own experiments differ in their direct confrontation of the materiality of the vibratory line, that vanishing and re-appearing line that now is pulled from the page and endeavours to shape space. It stretches as affected by gravity and becomes host to suspended debris.

The site of the storefront is the arena for this work.

*2 models 1:50*

*1 model 1:20*

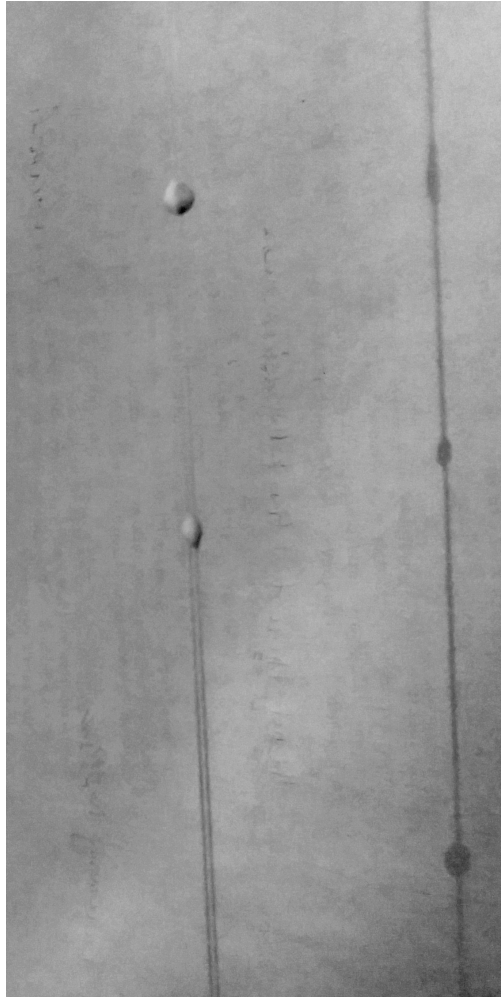
*5 axos 1:50*

*1 painting*

Expression is the love-child of difference. What follows is a series of tests - tests in the fine-ness of difference, the absolute abstraction of a dividing line in space. Small variations in space pull and activate the very air around each line.

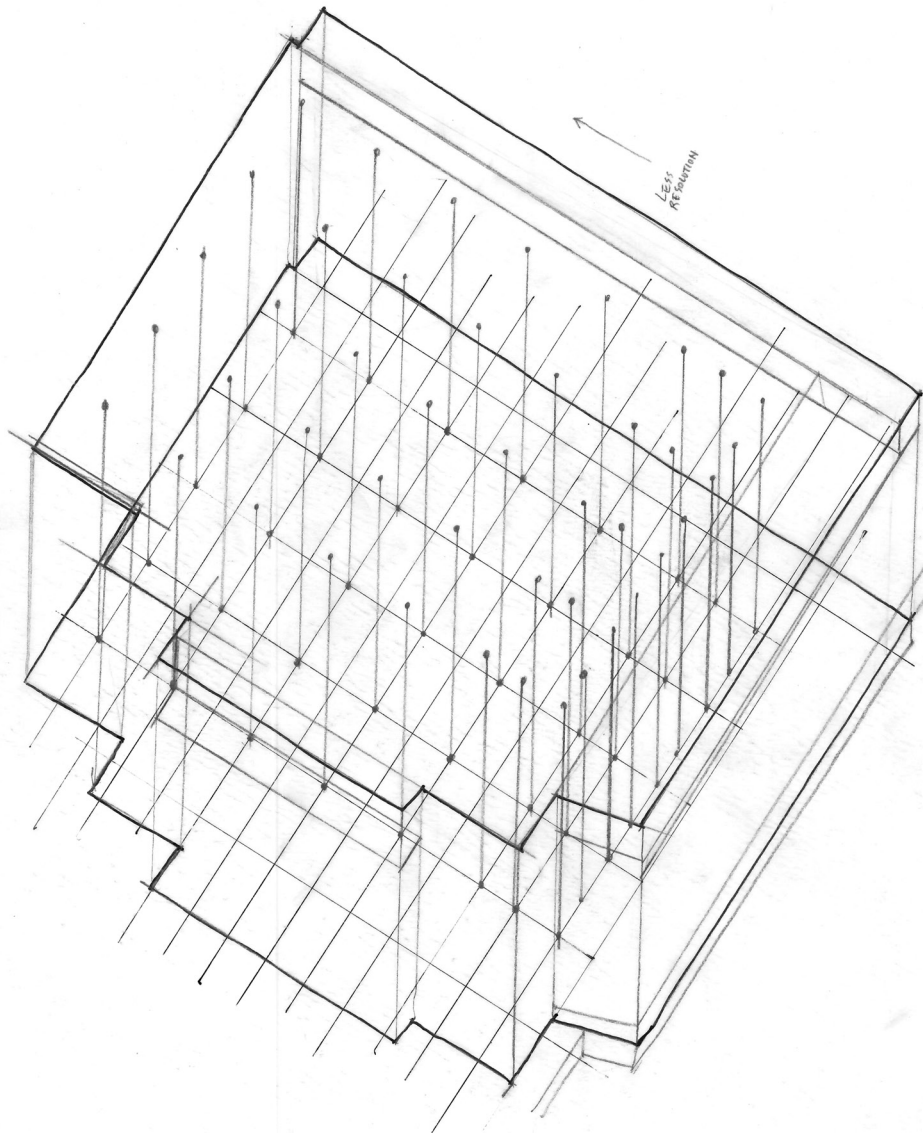
## 10. EXPERIMENT 2 (FIELD)





*Fig 234.*

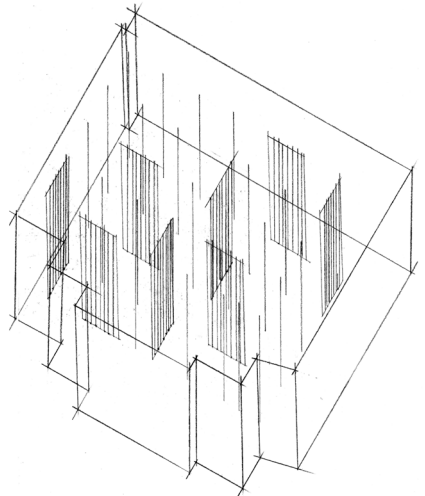
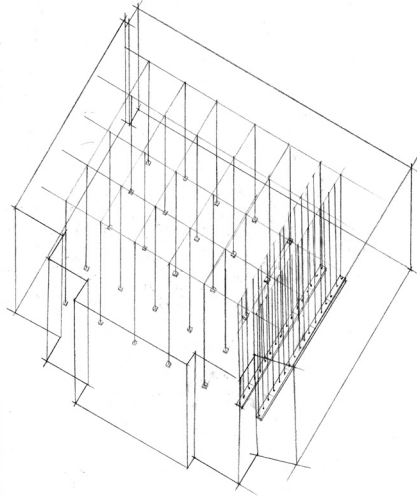
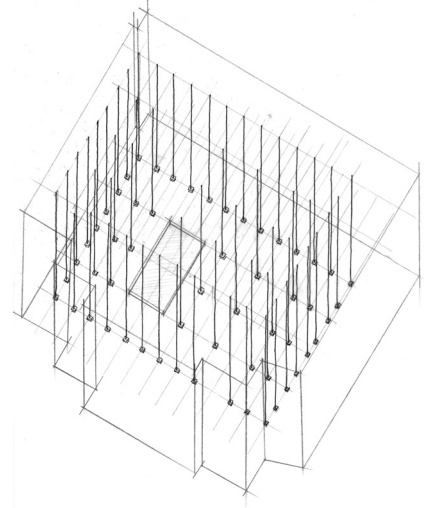
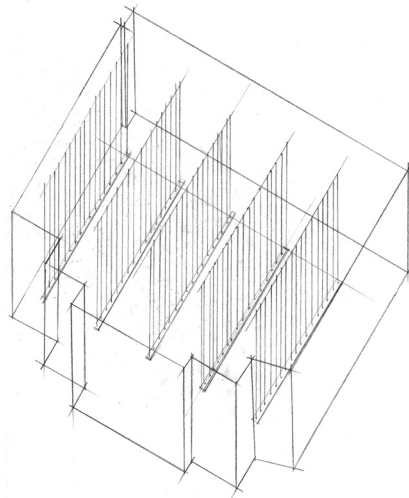
*The vibratory line employed in space*



*Fig 235. Axo pure field 1:100*

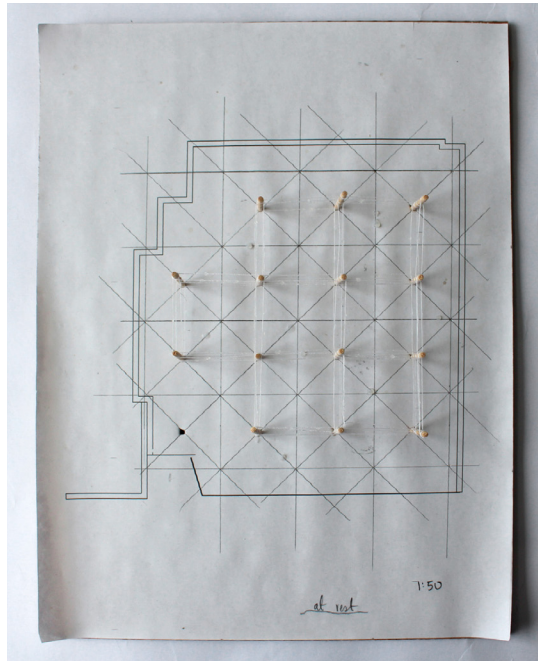
*The field suffuses the room with equal intensity. Axonometric drawings of the space acted as test scenarios, activating the grid as a screen, a clearing, a gradient or the selection of gravitational poles.*





*Fig 236. Option 2: Screens*  
*Fig 237. Option 3: Gradient*  
*Fig 238. Option 4: Clearing*  
*Fig 239. Option 5: Nodes*

Model 1



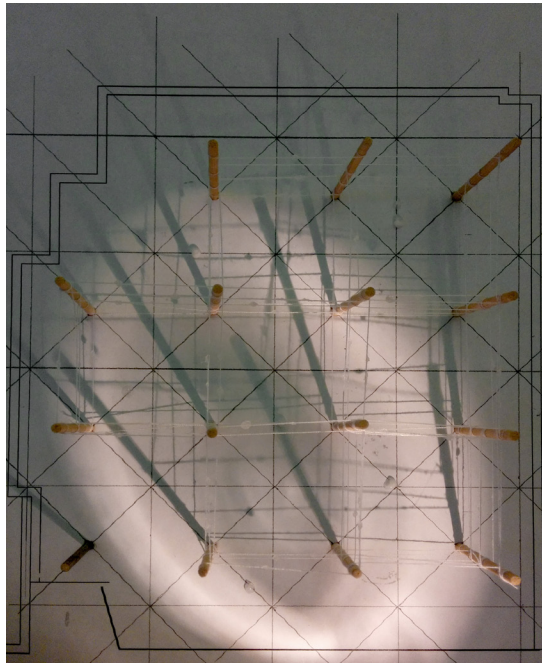
*Fig 240. Model 1. Above 1:50*

*A grid striates the space of the room into equal quadrants that radiate outwards from the centre of the space.*



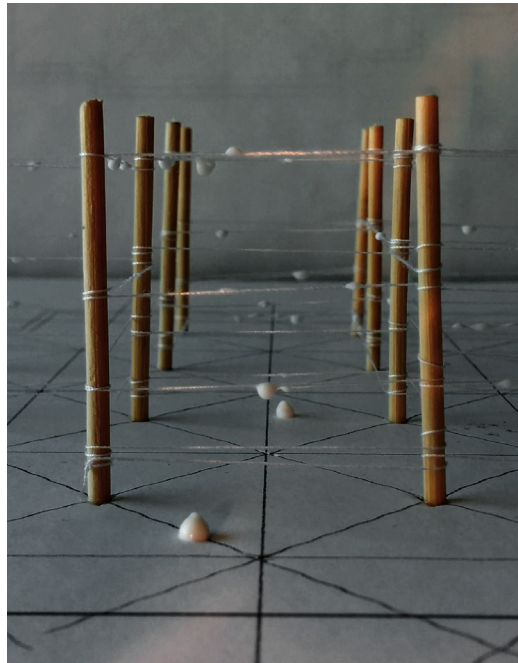
*Fig 241. Model 1. Eye Level*

*Vertical columns sit at each node. Strings of thread wind through the space between each column - segmenting the air between the verticals. These lines bind the space between the columns. An inner sanctuary emerges.*



*Fig 242.Model 1. Light*

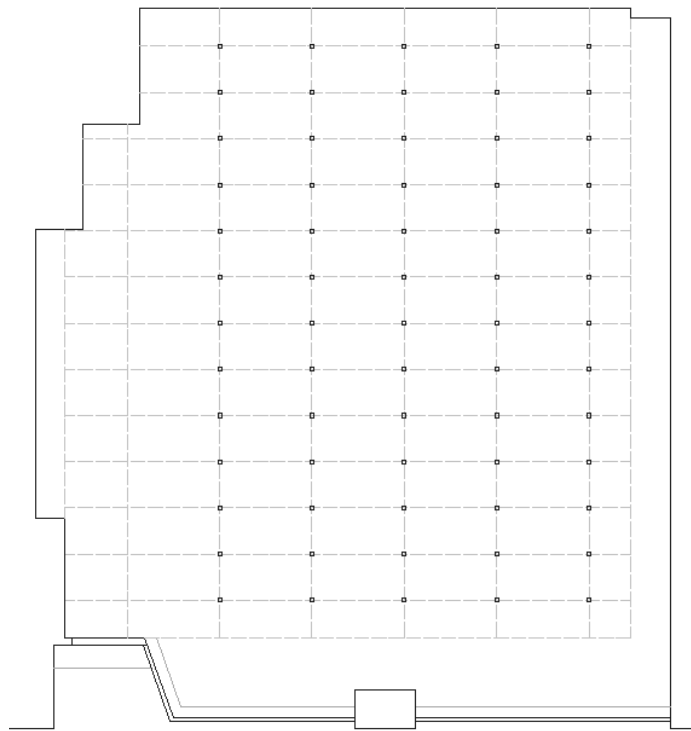
*In the dark, traces of light begin to reveal these shimmering lines and the matter trapped by them.*



*Fig 243. Model 1. Light Detail*

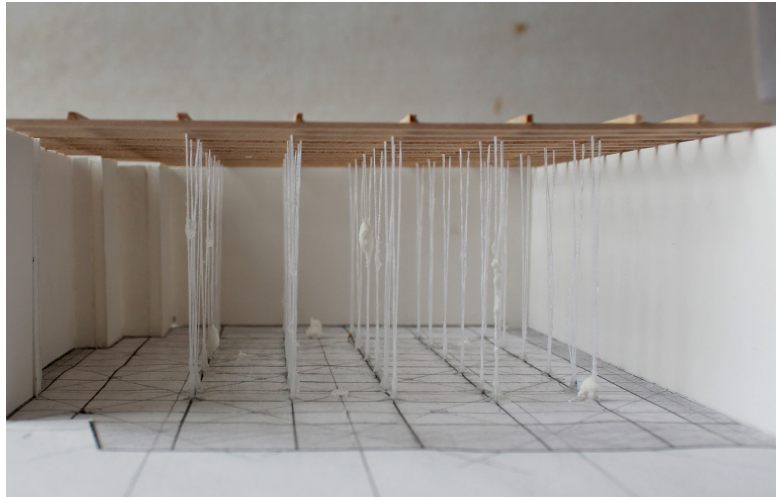
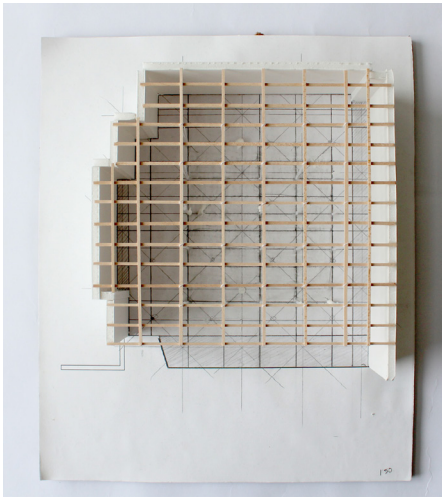
*The lines of the painting exercises are pulled from the canvas. Light and air enter between them and is caught - made stagnant by the gridation. To imagine this diagram realized at full scale is to walk at the periphery of the grid: to look in.*

Model 2

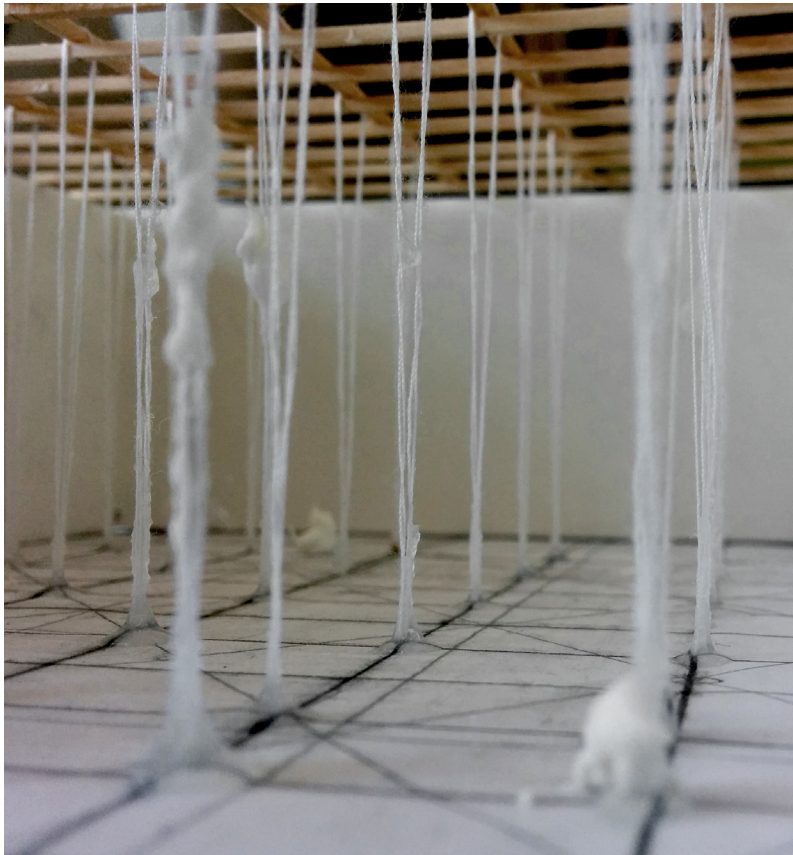


*Fig 244. Plan 1:100*

*The second model borrows the geometry of the ceiling to define the density of the grid. The line striations become vertical rather than horizontal. Each tile is 660mm x 1220mm and so the grid is tighter in one direction than the other.*



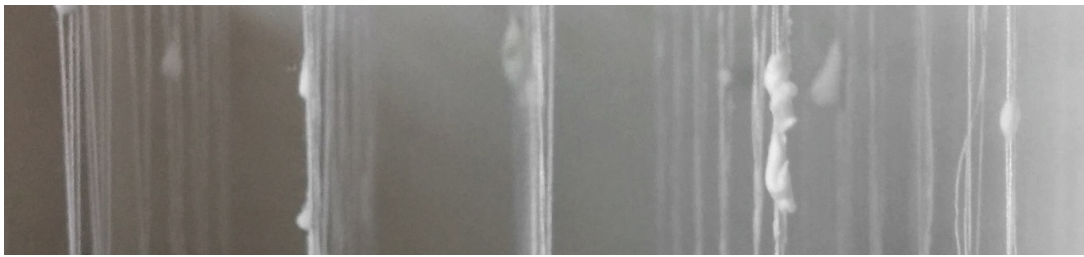
*Fig 245. Model 2. Vertical Strings*



*Fig 246.Model 2. Detail*

*As one travels through the space on the diagonal they experience a constriction and expansion of space. The doubled lines invoke the effort of pulling muscles: The stretching ligaments descend from the grid and wrap into the floor.*





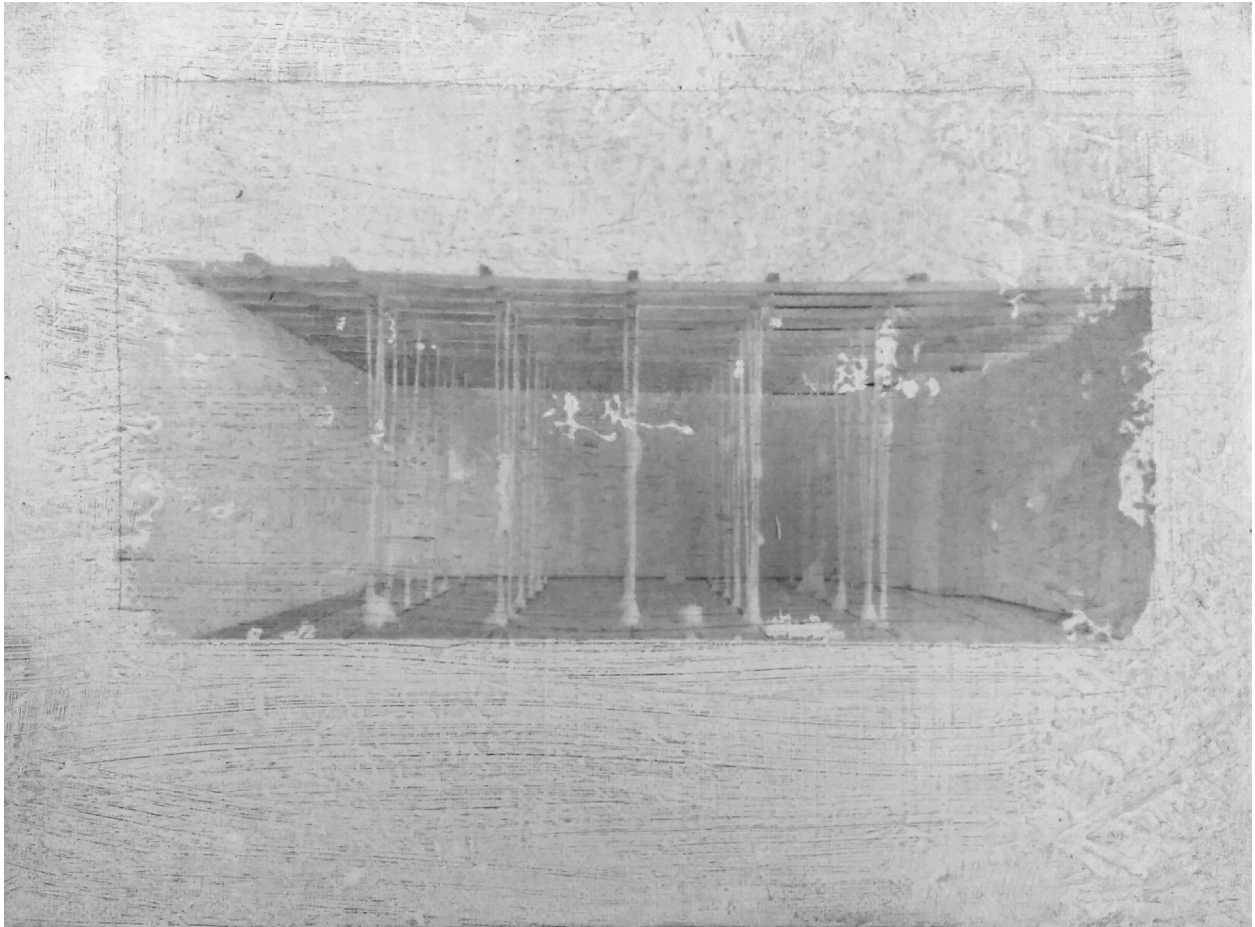
*Fig 247.Model 2. Detail*

*Tissue is trapped along the line and exercised by the vector of each string. The waxen materiality of the model pulls at a primordial sensibility in the viewing of the models. Unformed matter both prompts and resists definition.*

## Vignette 1

### *Weightless-ness and Delay*

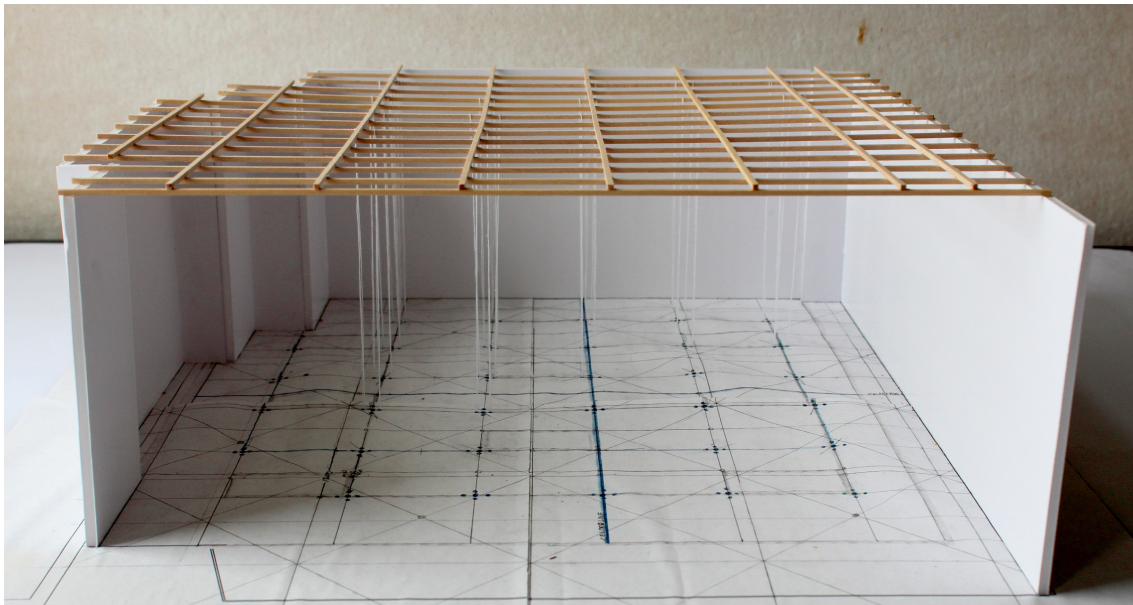
*The expression of the lines oscillates between structural support and supported (pulled tight by the section). The planes of the ceiling and floor work mutually to reinforce one another to confine the grid. The room is a great lung in the midst of expansion and contraction. Pockets of air are filled to capacity with air and held in the space between each string. Time has slowed and paused.*



*Fig 248. Vignette on Canvas*

White acrylic paint, gel photo transfer, black  
watercolor and pencil on canvas

Model 3

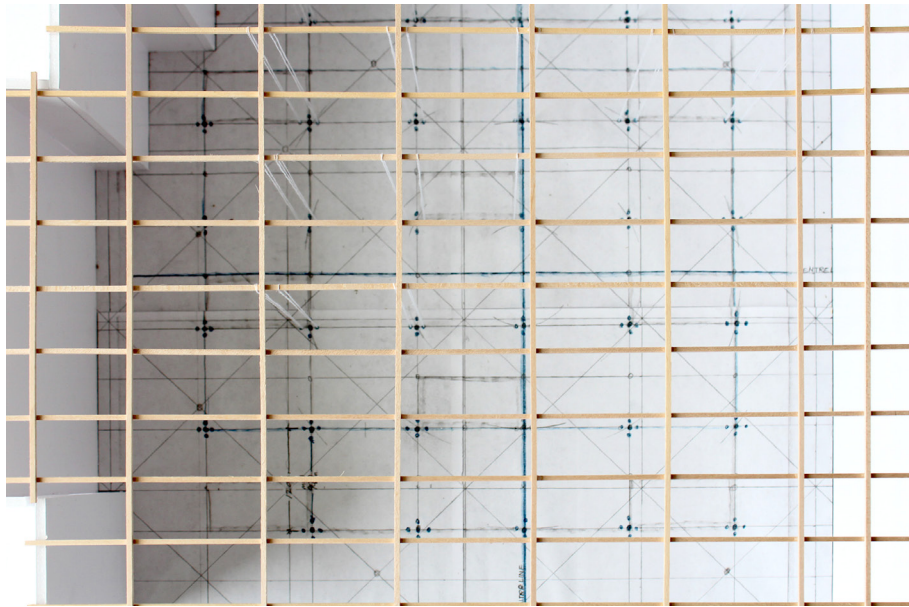


*Fig 249. Model 3. 1:20*

*The larger model increases the space between each line, which is now composed of two or sometimes three separate strands. The background is too pure, entirely white and smooth and expansive.*



*Fig 250. Model 3. 1:20 Detail*



*Fig 251. Model 4. 1:20 Above*

*The lines cease to vibrate in their strict placement. The rigidity is compelling but no longer do the lines act, vanish and re-appear.*



*Fig 252.Model 4. 1:20 Detail*



*Fig 253.1:1 Test*

*The larger scale prompts a return to the site. Ghostly partitions emerge.*



Moments of condensation along each line become defined through the casting process. 240 pieces were cast over a period of 5 days in 40 moulds. Each mould took approximately 15 minutes to re-set, tape and cast.

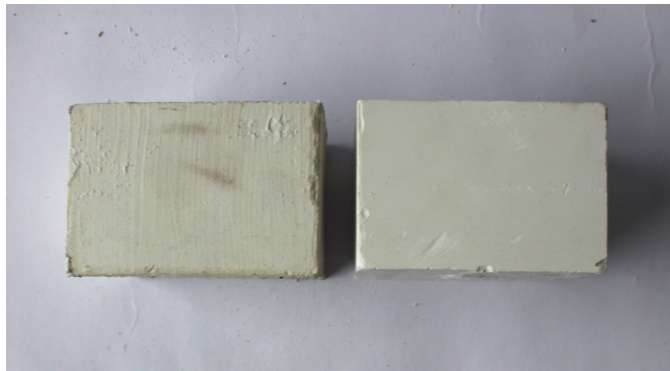
## **11. EXPERIMENT 3 (CASTING)**





*Fig 254. Test 1 side*

*Fig 255. Test 1 top*



*Fig 256. Test 2 top*  
*Fig 257. Test 2 side*  
*Fig 258. Test 2 bottom*

## Casting

The debris of the Field models was an amorphous and viscous material that clung like tissue to the armature of the string. In greater application, highly articulate and unique, these masses pursued at a 1:1 scale would become monstrous, body sized creations. It comes clear that by condensing these forms into moments of intensity along the line a subtle tension between same-ness and definition became the defining factor in the design of the casts. The decision to pursue casting as the medium for these nodes was an exercise in difference and repetition.

The casting process itself is a subtle expressivity machine:

The form of a cast has a precisely defined volume and exterior surface, but the operations of mixing the plaster and its pouring have only minute tolerances. This lack of tolerance causes this transformation from liquid to solid to create infinite variation in the final pieces. Air Bubbles are one marker of variation (often considered a mistake) but the surface of the plaster cast itself is the true registration of difference: a dry mix will imprint very little from the surface of the cast, while a wet mix will weave its way into every crevice of Vaseline or plastic and produce a precise negative of each finger-print present on the mould surface. In the re-use of casts these variations emerge continuously and repeat themselves in new combinations. While an experienced caster may reduce the differences in each pour to a minimum, the experiment in casting contained in this thesis seeks to expose this process as an aesthetic and conceptual experiment in expressivity. Difference is celebrated in the final forms.

## The forms

In line with the minimalism of other works, these moments of condensation were conceived of as thickenings of each line; geometrically this translated into the use of a rectangular prism. The pure rectangular prism allows the minute variances of the casting process to be more

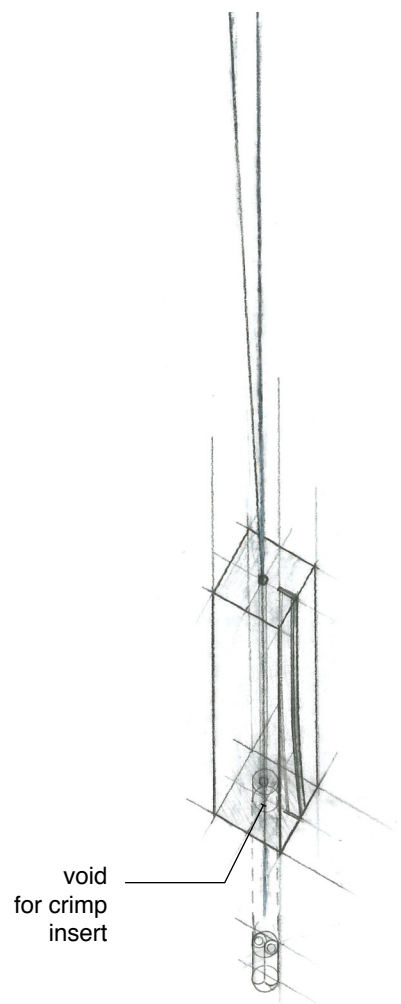
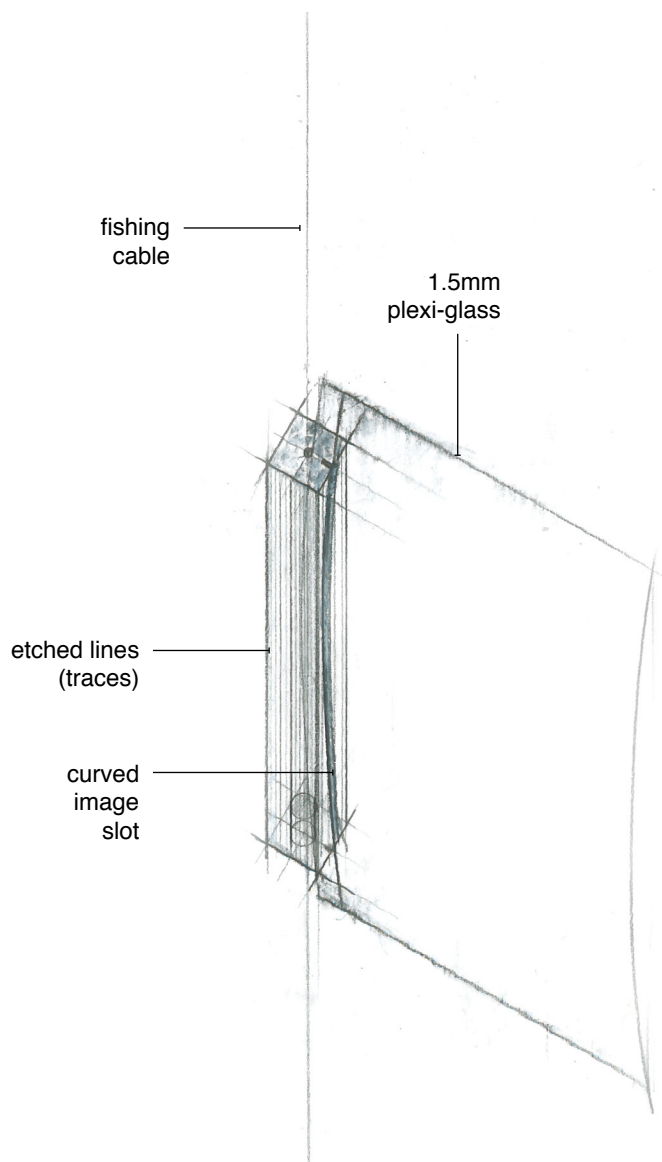
noticeable. Early casts were pure volumes with a void cast through the centre of the form to allow a line to pass through. The weights at the base of each line were heavier mutations of this form. The surfaces were a smooth-white and caught light softly.

Concurrently with these experiments I was working on the set of trace-paintings, attempting to achieve the same vibratory quality in the use of a hard-surface. Fig 251. Test 2 side on pg 140 illustrates an unusual bridging between these two lines of making when lines of latex and paint were drawn on the edge of the plaster surface. As the piece aged over the course of the thesis, these lines became more and more subtle and difficult to decipher - the relief melted into the surface of the plaster as if it, itself was notched by some no-longer-there line.

In future casts these lines were not applied but imprinted. Rather than applying lines to the surface, they were cut into the moulds of each piece. In doing so, they become another marker of the variable casting process. Some lines remain distinct, others vanish into the smooth surface - all lie somewhere on the spectrum between these two poles.

### The Archive

Conceptually each cast piece works to define a whole range of expressivity that is similar to the ambition of the archive. Employed within the space of the installation, they rest at nodes in the three-dimensional space of the field. The linkage between these two experiments resulted in a deep cut into the side of each totem. They now act as an armature for the archive - a place for these moments of expressive explication to be sorted and categorized into different territories. Once the archive becomes suspended these territories gain the potential to be experienced spatially within the site of the storefront.



*Fig 259. Cast axonometric 1:2 thin*

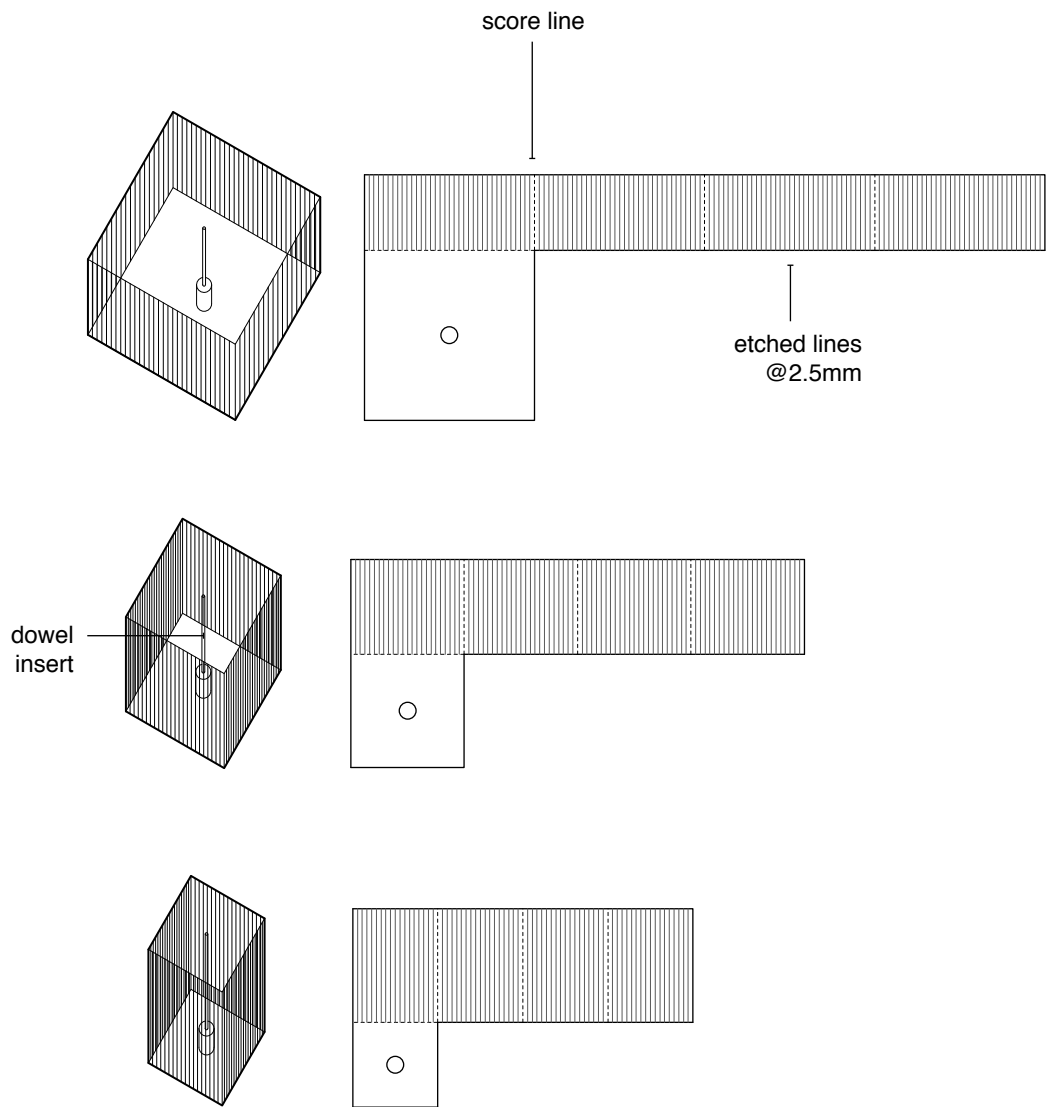
*Fig 260. Cast axonometric 1:2 thick*

## Moulds

Each plaster piece was cast in a plexi-glass mould. These moulds are 2D maps of the cast form that was laser cut out of 1.5 mm plastic. The pieces had to be cut twice: once to score the light lines that would imprint onto the plaster surfaces and once to cut out the moulds themselves.

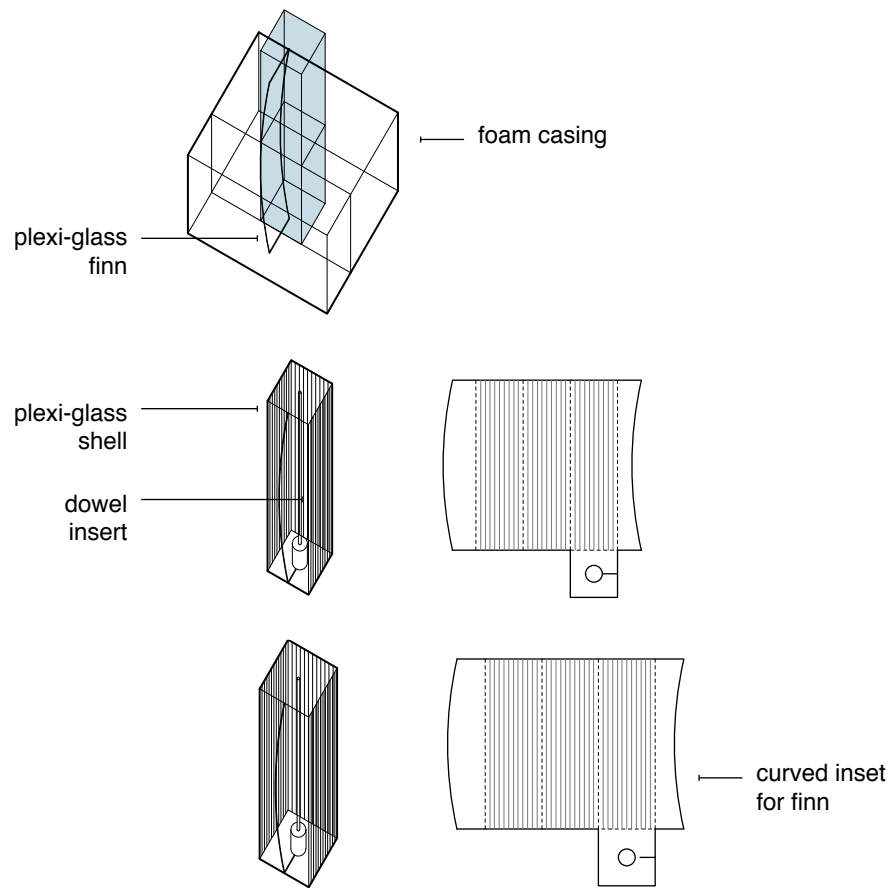
The base weights were simple. A small hole was cut into the base of each mould to hold a dowel piece that was 10 mm diameter by 15 mm tall, just large enough to create a void for the line-sinkers that would hold the weight on the cable. This dowel was attached to another smaller dowel that would form the hole for each line of cable to pass through the piece. The map was folded up, taped and poured.



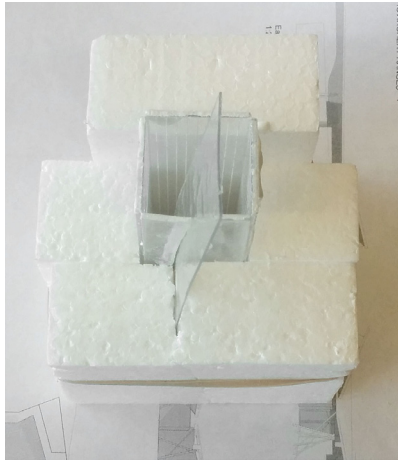
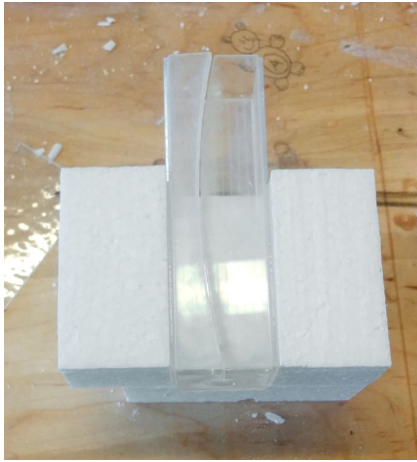


*Fig 261. Weight Moulds 1:4*

The moulds for the markers were more complex because of the curved slot in each one. To reinforce these more delicate moulds blocks of foam were fixed around each plastic sheath to insure each piece would remain steady and square when the pieces were cast. Another thin piece of plastic was inserted into a specially cut curve in the side of the mould to create the void necessary for the archive slot.



*Fig 262. Plexi-glass mould axonometrics  
1:4*



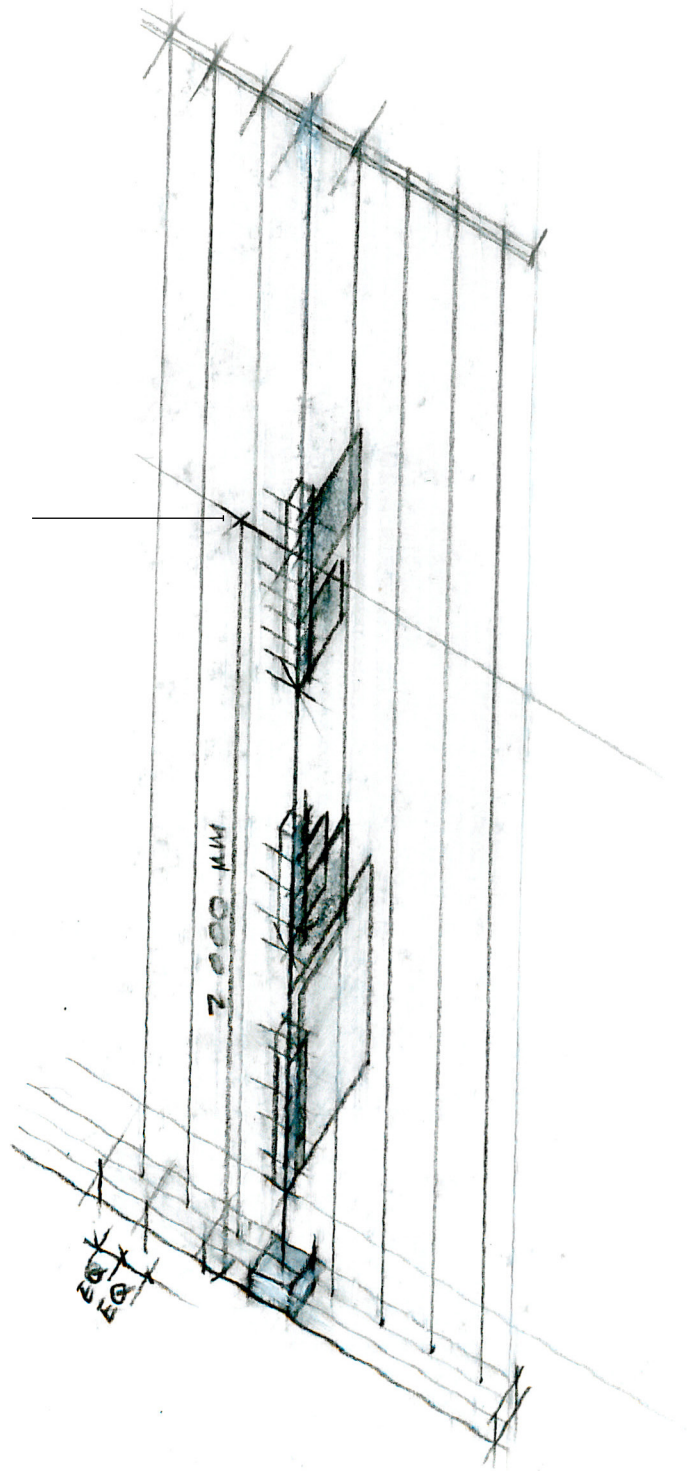
*Fig 263. Plexi-glass moulds*

*Fig 264. Plaster casts*



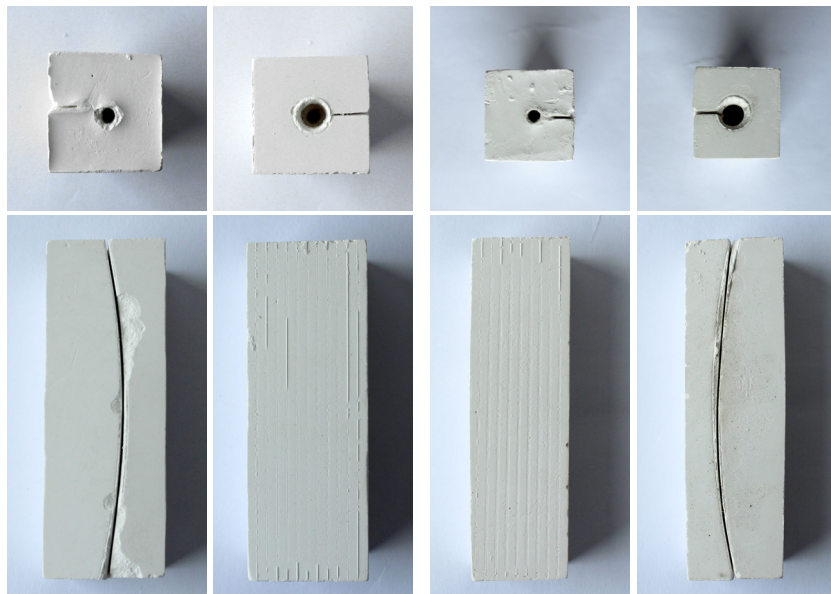
*Fig 265. Variation in the early tests*

Max. height  
2000mm



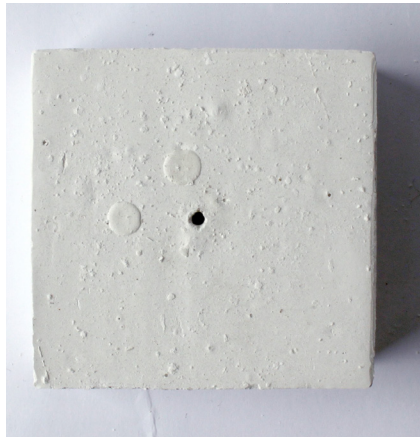
*Fig 266.single string sketch 1:20*

Multiple plaster casts are threaded onto a single string.  
The weight rests millimeters from the floor and keeps  
the entire line in tension.



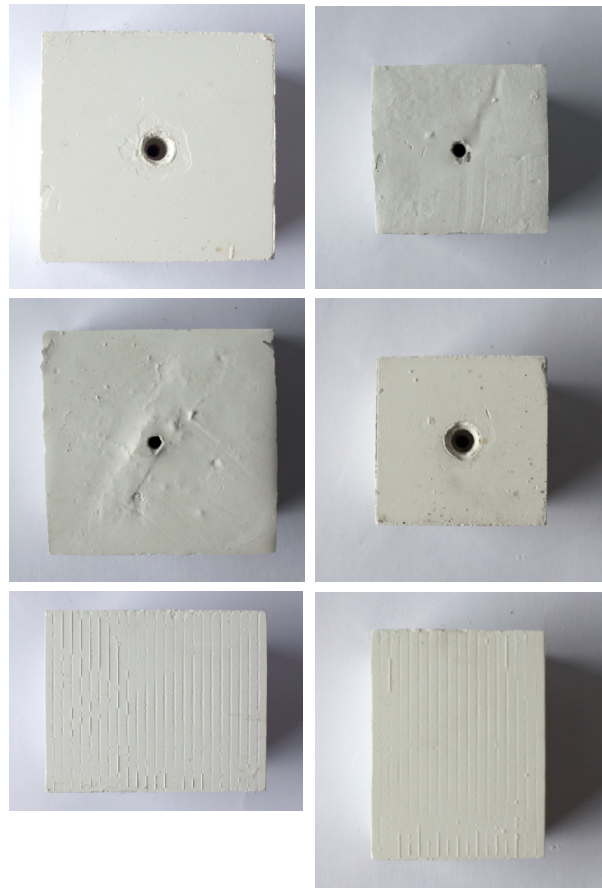
Cast Markers

- Fig 267.t1 top*
- Fig 268.t1 bottom*
- Fig 269.t1 cut*
- Fig 270.t1 side*
- Fig 271.t2 top*
- Fig 272.t2 bottom*
- Fig 273.t2 cut*
- Fig 274.t2 side*

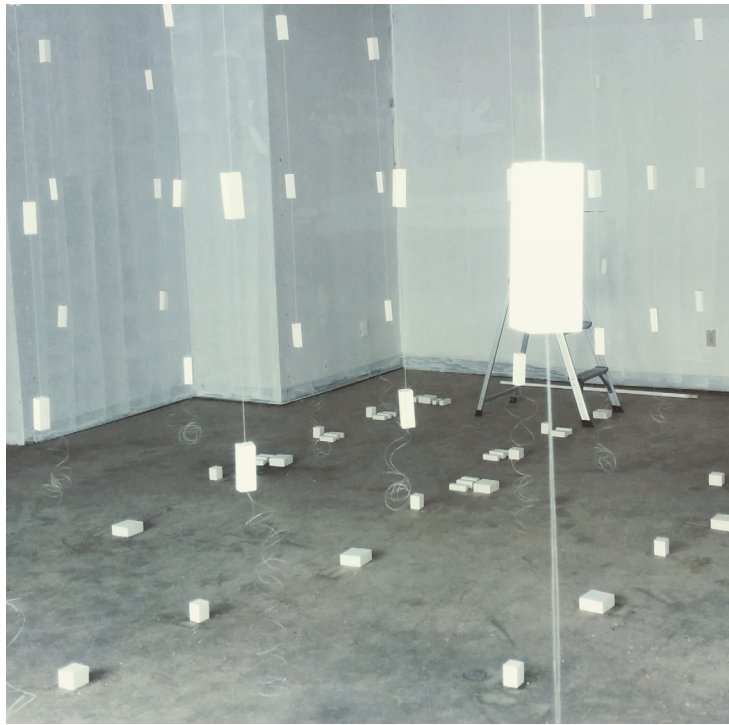


*Fig 275.w1 top*  
*Fig 276.w1 bottom*  
*Fig 277.w1 side*





*Fig 278.w2 top*  
*Fig 279.w2 bottom*  
*Fig 280.w2 side*  
*Fig 281. w3 top*  
*Fig 282.w3 bottom*  
*Fig 283.w3 side*



*Fig 284. Hanging the casts*

Field laboratory is the final test of the thesis, the application of the Vibratory line at full scale. The plaster casts were hung in a field and cast masses weighed down the lines.

## 12. IN -THE-MIDST-OF



*Fig 285. Among the Strings*

A plane of consistency, according to Deleuze and Guattari, is a conceptual plane of total horizontality. It is best described as a table top, or a round arena where there is no start or finish. The plane itself acts as an equalizer and a zone of encounter and assemblage. In many ways this plane represents the philosophical and ethical criteria of expressivity. Matter, concepts and bodies (heterogeneous elements) occupy this plane in fits and starts of intensity. All are equal and different. They group together in milieus of sensation and create territories: Deterritorialization and Reterritorialization - Condensation and Evaporation. This is a field that set things to be re-considered qualitatively. According to Deleuze and Guattari, "Matters of expression must be considered not only in relation to their aptitude to form motifs and counterpoints but also in relation to the inhibitors and releasers that act on them."<sup>1</sup> These relationships come into focus on this plane and self-organize: coalesce.

The final project of the thesis: The Field Laboratory, acts as a testing ground to explore these concepts. In the midst of the cleared site, vibratory lines and the plaster casts are employed in a field condition that maintains spatial equality amongst the pieces. In this way it is reminiscent of the plane of consistency despite its three dimensions. The project becomes a bodily experiment that was designed to facilitate encounter between these material investigations at an architectural scale. A scale that can be inhabited. Notions of encounter re-emerge in this experiment as one moves through the field - become aware of their own body, and through contact, animate the body of the field.

1 Deleuze, Gilles, and Félix Guattari. *A Thousand Plateaus: Capitalism and Schizophrenia*. Trans. Brian Massumi. (Minneapolis: U of Minnesota, 1987) 331

“Going out into the field”

What follows are a set of encounters described in five vignettes. Each description focuses on a particular expressive quality of the finished installation.

1

Subtle differences in expression emerge:

Light reveals one string but avoids the next

A breath of air moves a line softly against the backdrop

Parallax rules, then dissipates as one travels from the periphery to the centre

Light white, to black, to red white, to orange white to white.

Beads on each line move slowly, imperceptibly downwards.

White dust drops to the floor.

2

As the eye works to compose the volume of the storefront, the lines decompose it. As each marker in space seeks to register movement, their defiance of gravity confuses them. As the field stretches away in perspective, the space of the room seems infinitely expandable. It neither begins nor ends but remains “in-between”. Bodies are “in-the-midst-of” an continuously expandable arena.

As lines on the wall overlap with lines in space, distances between them collapse.

3

Lines cut into the void of the “space” and charge the air between them. Bodies of the visitors account for a viscosity to the air– they avoid a radius of space around each line. The still room shivers on the very edge of condensation. Caution, Slow anticipation. Delay.



4

Plaster casts hang solemnly as weights on each string. As moments of condensation along each line: still bodies in equilibrium with gravity. Fine lines are engraved on their surfaces. They wait.

These Markers hold a rhythm; a subtle difference and repetition. Their absolute geometry reveals imperfections: clear lines of wire become crooked, sprinkled with plaster dust - some corners are broken, others are sharp and precise. Casting has lent each figure a strong individuality.

5

Air blows through the open doorway and disturbs the vertical lines. The heaviest ones move last. In swinging, the pendulum motion is soft and slow, coming quickly to a halt. When bodies encounter these lines their motion changes abruptly - fast swings and circling gestures turn the vertical strings into diagonal vectors. Visually they intersect with one another.

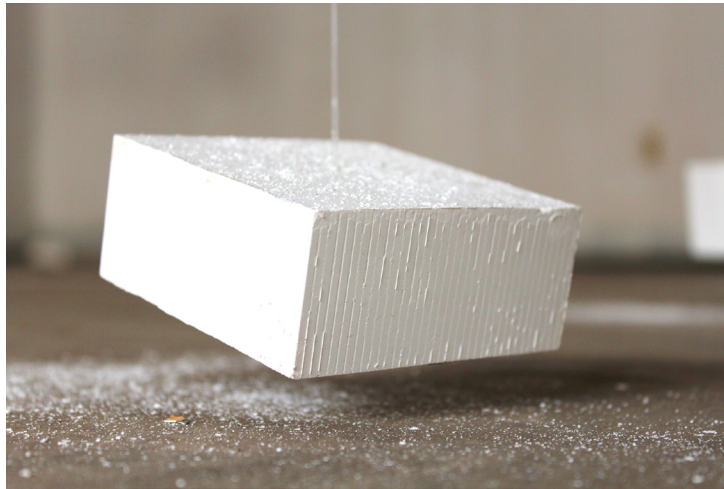
A trace of the encounter of bodies weaves a moving line through the storefront.

*240 cast totems*  
*60 vibratory lines*  
*610 x 1220 mm grid*

An installation of minute differences in space, light and parallax. Fine lines striate the room into an equal three-dimensional matrix. Suspended plaster totems become moments of condensation along each line of the matrix; The contrast between the weights and the thin lines instill the room with a palpable delay and weightlessness.

## 13. FIELD LABORATORY 1

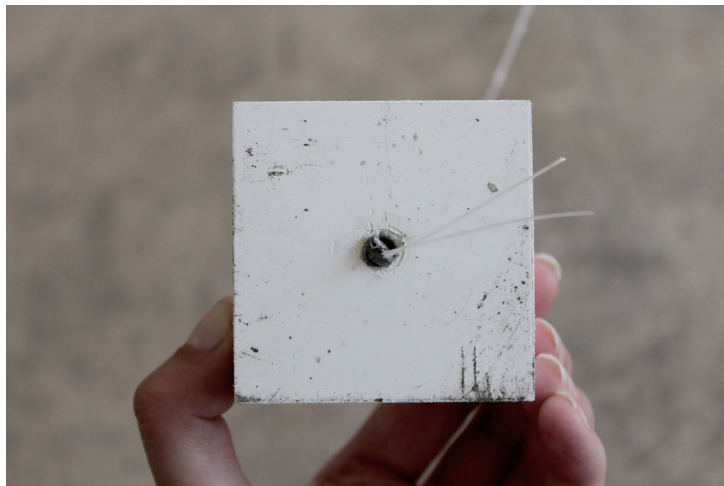
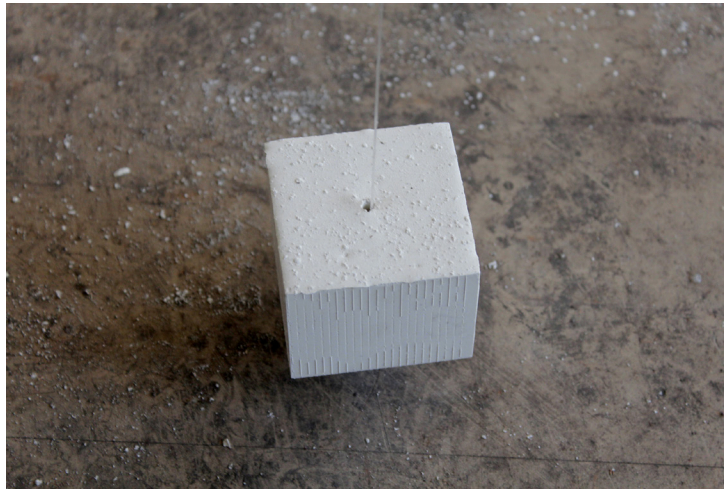




*Fig 286.w1 suspended*

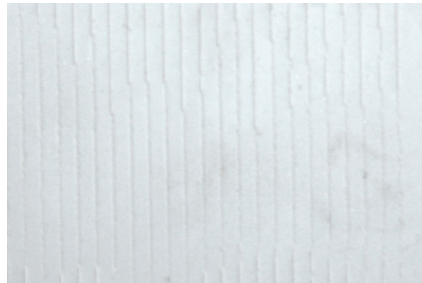
*Fig 287.w1 suspended above*

*The bases hover above the ground. Plaster dust mingles  
with the thick dust of the storefront.*



*Fig 288. w2 suspended*

*Fig 289. View of recessed crimp*



*Fig 290. w2 Imprinted Lines*







*Fig 291. One Thread*

*The string is held taught by the weight at the base. The two halves merge into a single tread that descends from the ceiling*

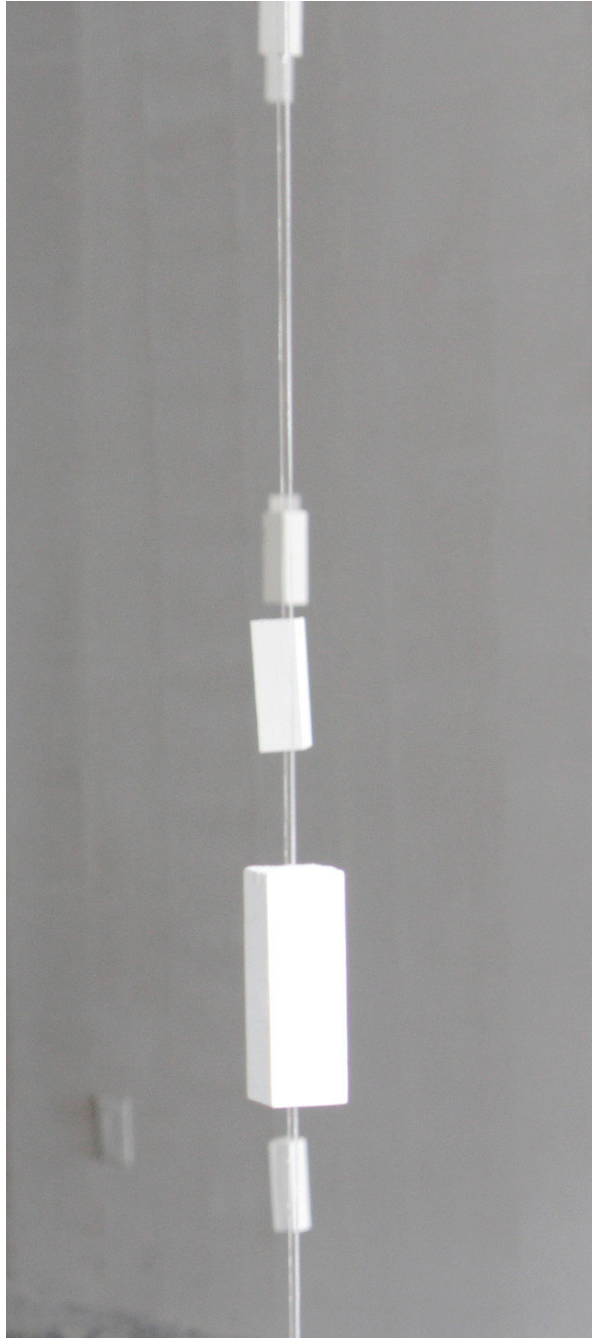


*Fig 292. One Cast*



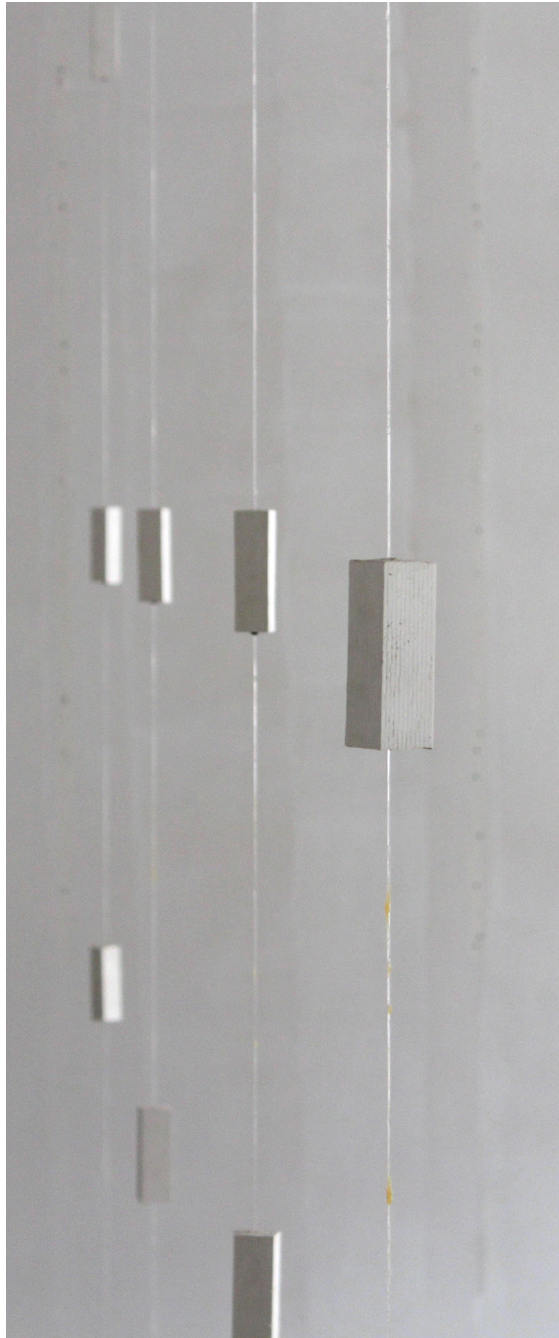
*Fig 293. Three Casts*

*The line sits against a background of thickened paint.*



*Fig 294. Thickened line*

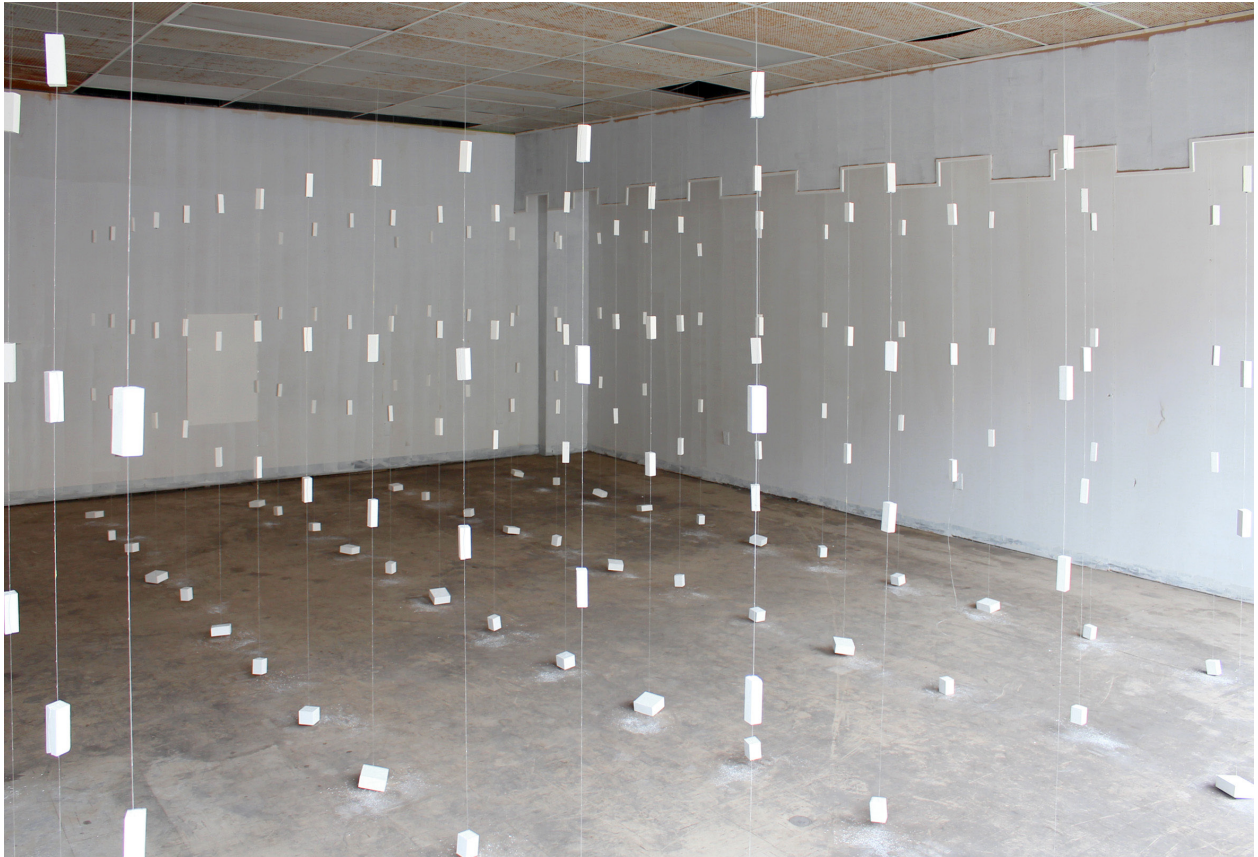
*The lines overlap and combine - or spread apart and repeat.*



*Fig 295. Sequence of Lines*

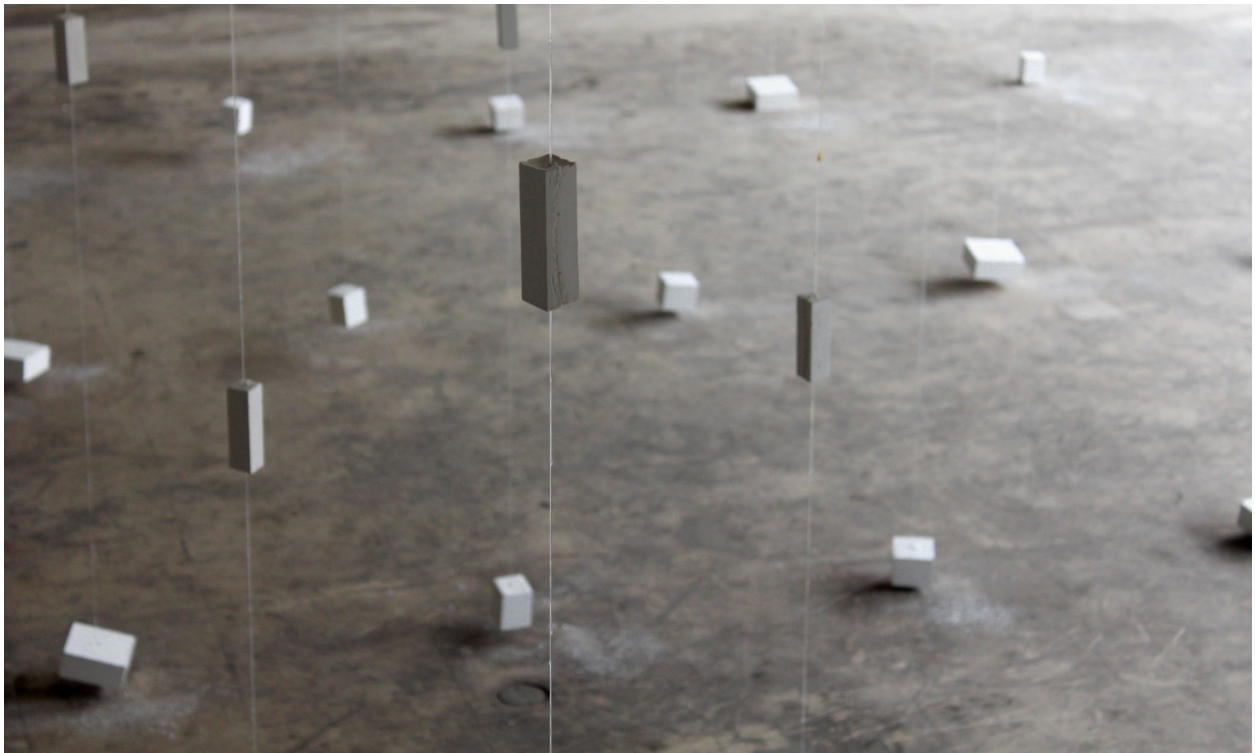
“A plane of consistency peopled by anonymous matter, by infinite bites of impalpable matter entering into varying connections.”<sup>1</sup>

1 Deleuze, Gilles, and Félix Guattari. *A Thousand Plateaus: Capitalism and Schizophrenia*. Trans. Brian Massumi. (Minneapolis: U of Minnesota, 1987) 255



*Fig 296. Field Laboratory*

*The array of the field marches onwards. The room is filled  
with repetition and subtle difference.*



*Fig 297. Light rendering*

*White surfaces turn to black as the totems block light from the window. Each angle of incidence produces another shade of colour on the totems.*





*Fig 298. Floating*

*The denial of gravity sparks an atmosphere of still  
anticipation.*



*Fig 299. Installation view towards the windows*

*The air is thick with dust.*

*4 nodes*

*160 images hung*

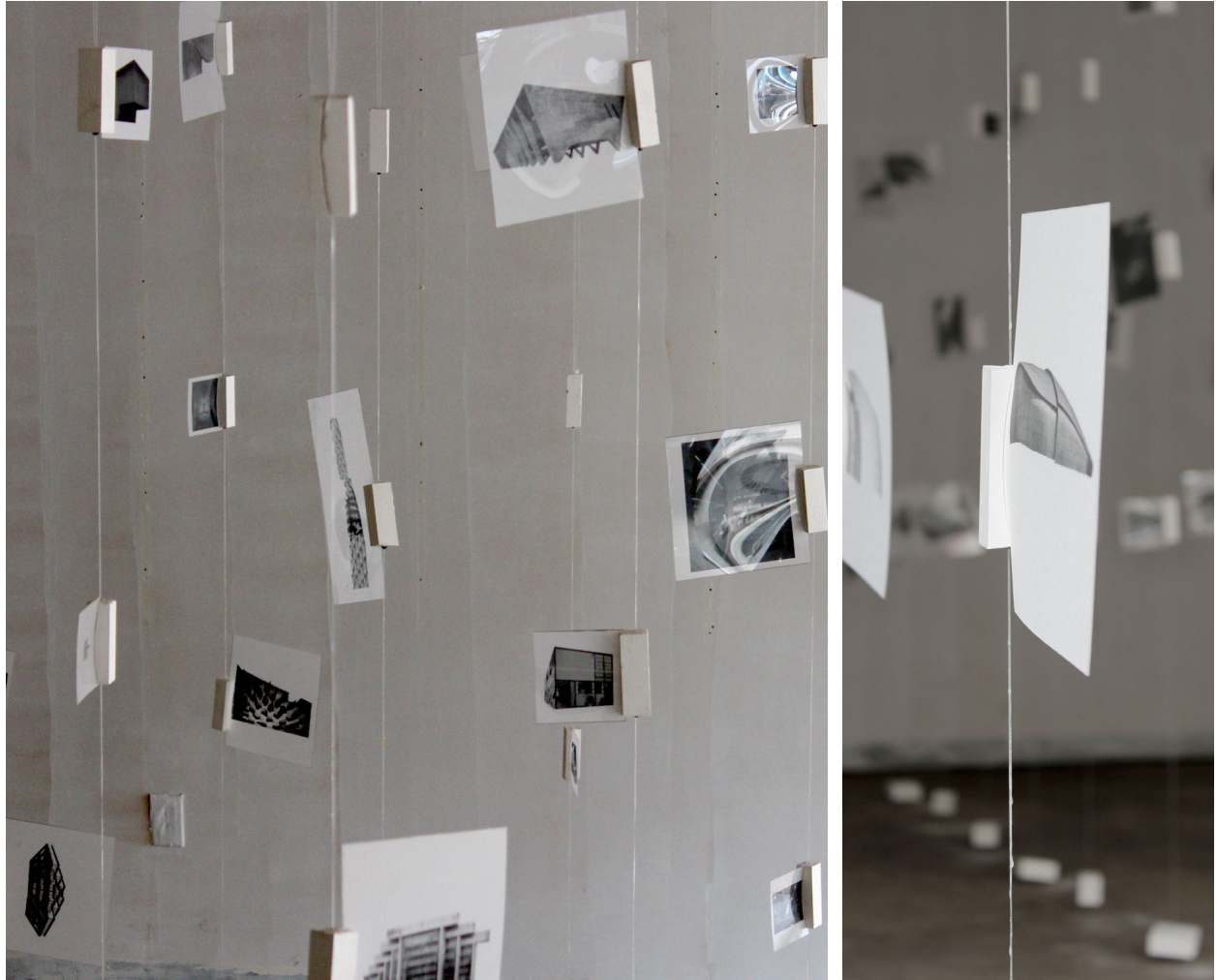
Lines of intention, spatial logics and material affect become defining characteristics that tie together seemingly disparate images in this anachronistic collection of architectural gestures. The making of the archive can be considered as an unpacking of the long uncharted history of expression in architecture and as the condensation of these elements into clusters of expressivity.

## **14. EXPERIMENT 4 (NODES)**





*Fig 300. Curation Process 1*



*Fig 301. Clusters of images*

*Fig 302. Detail of plaster totem*

*The images of the first curation were set on square plates  
that slotted into the plaster casts.*

## Curation 1

The Archive was curated twice with two different strategies. In the first instance, four images were selected to act as nodes that developed into clusters and then a cloud of images that slowly transitioned in modes of expressivity from one node to another.

The four images selected as catalysts were the (a) Castelleras-le-Neuf built by Jaques Couelle in 1955, (b) Saint Mary's Church by Douglas Cardinal (1969), (c) The Barcelona Museum of Contemporary Art by Richard Meier (1987) and (d) Gare de Lyon Saint-Exupery by Santiago Calatrava (1994).

(a)

Castelleras-le-Neuf by Jaques Couelle is a small housing project in the South of France built of free-form concrete shells that defy the rectilinear architecture of early modernism. The organic shape allows the project to slip into rhythm with the landscape and return the space of the home to a primitive connection with the earth.

(b)

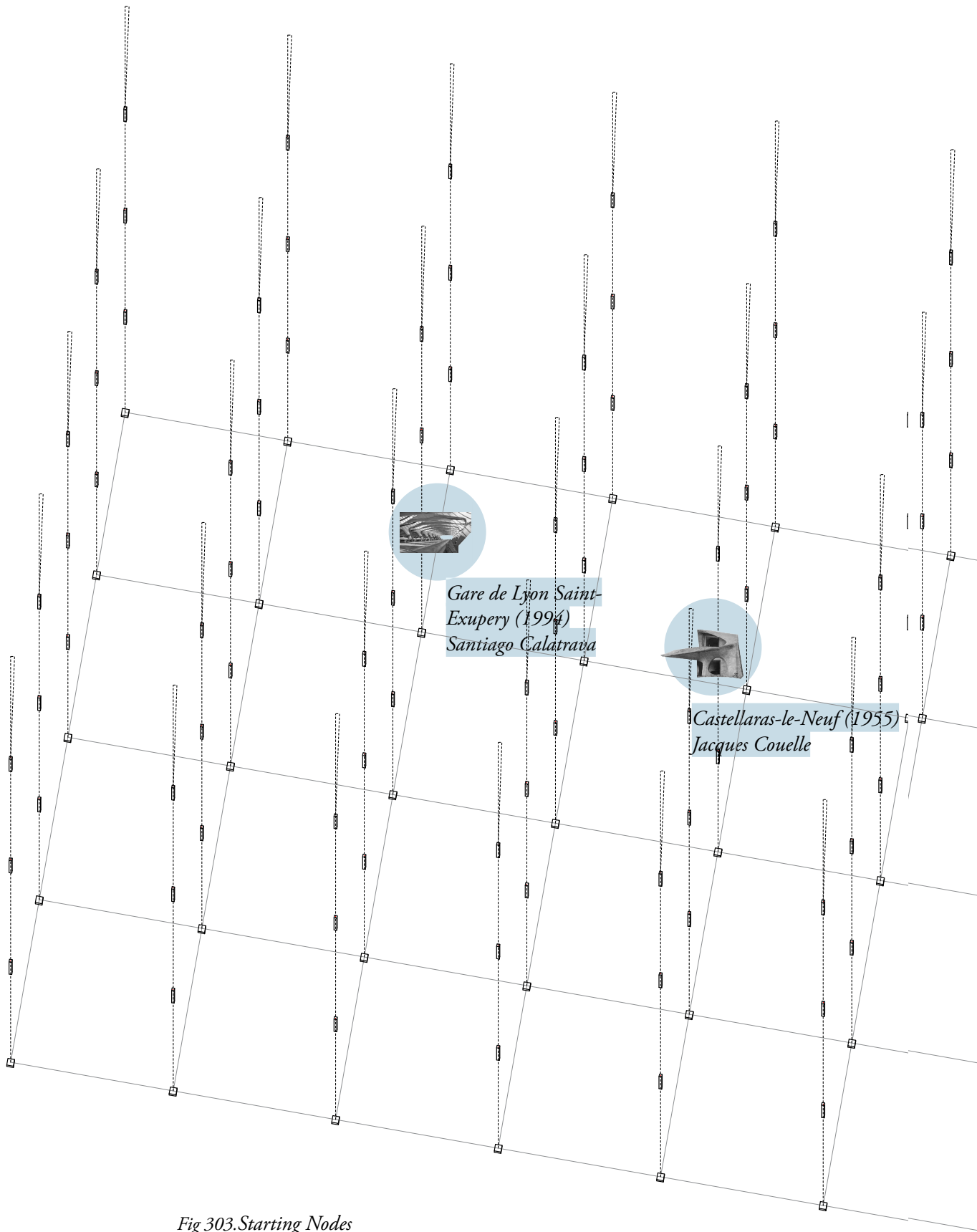
Saint Mary's Church by Douglas Cardinal occupies a site in the middle of the Canadian prairies. The project rises from the ground as a mound of cylindrical towers and a sweeping roof that dips down to open light into the interior. While a church, the form of the project rejects the traditional cruciform typology and provides instead a non-representational language of curving forms and dramatic light.

(c)

The Barcelona Museum of Contemporary Art by Richard Meier is a smooth white building clad in enamelled steel panels. The project continuously shifts from curved volumes to flat planes that slide past or intersect one another. Light dips into each aperture in the minimal facades and creates sharp lines that cut across the surface.

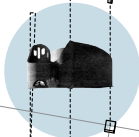
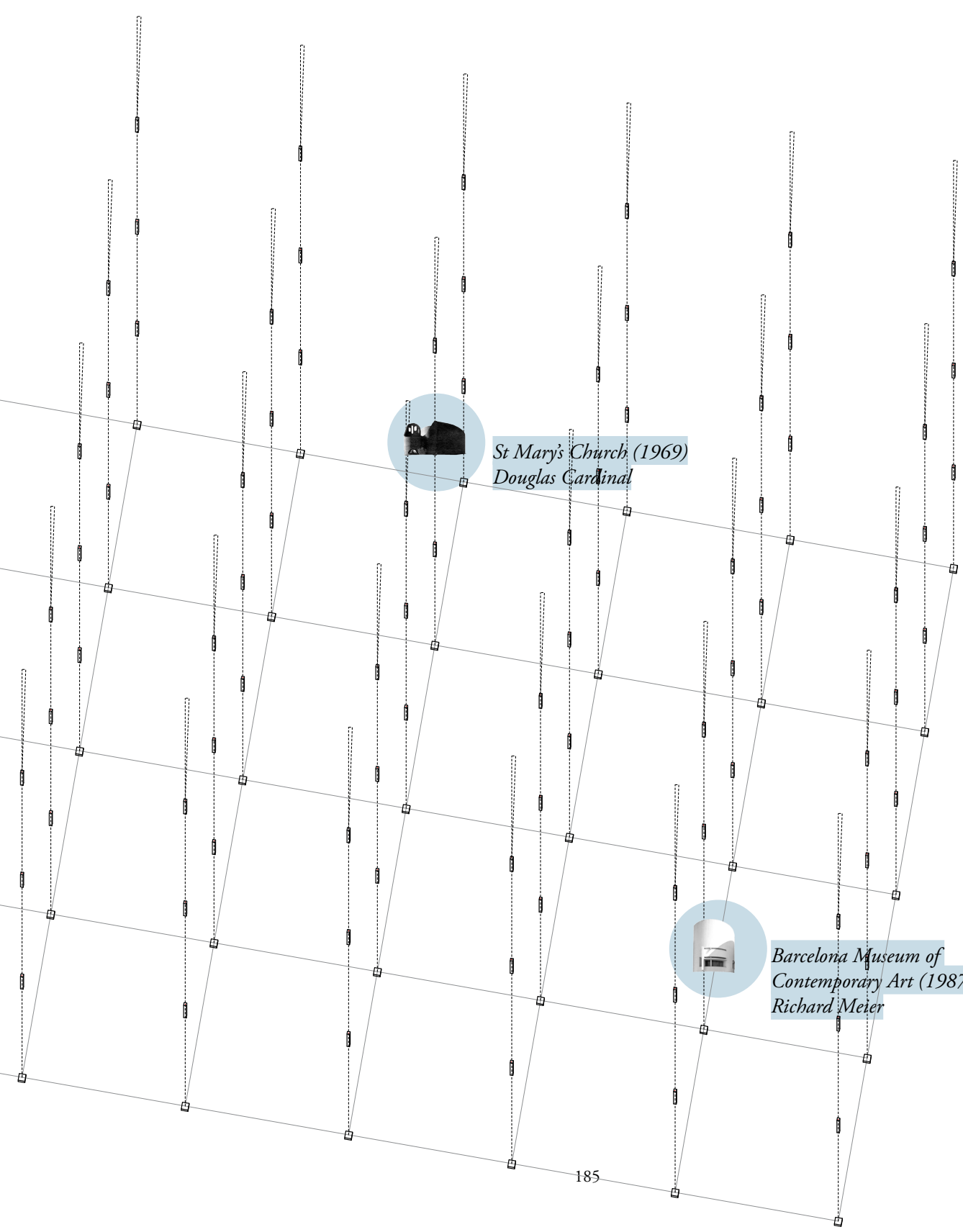
(d)

Gare-de-Lyons Saint-Exupery by Santiago Calatrava is a train station outside of Lyon, France. The interior is reminiscent of the rib cage of a whale; the concrete piers curve around the belly of the hall to form a structure of elegant repetition.

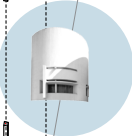


*Fig 303. Starting Nodes*





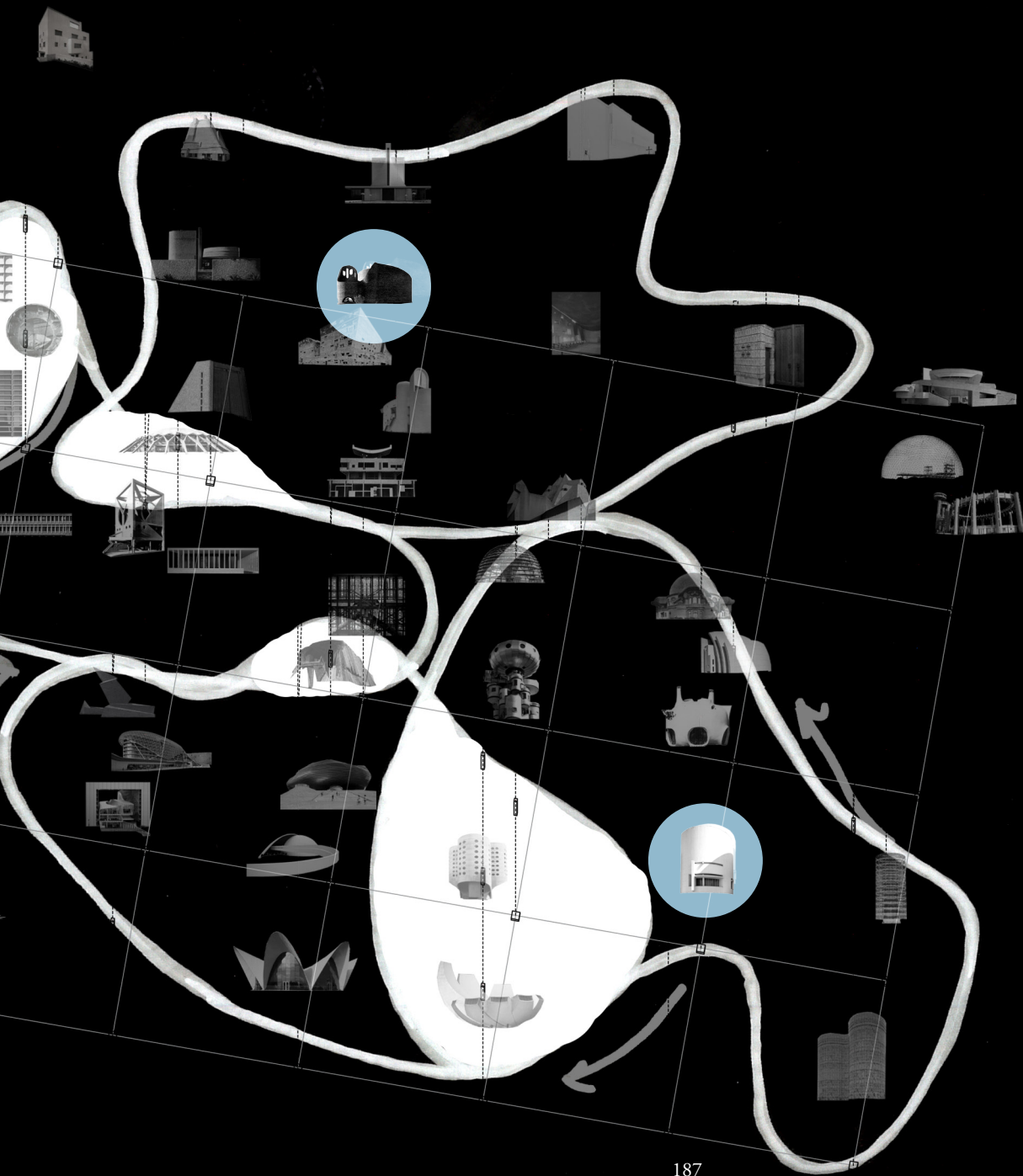
*St Mary's Church (1969)  
Douglas Cardinal*

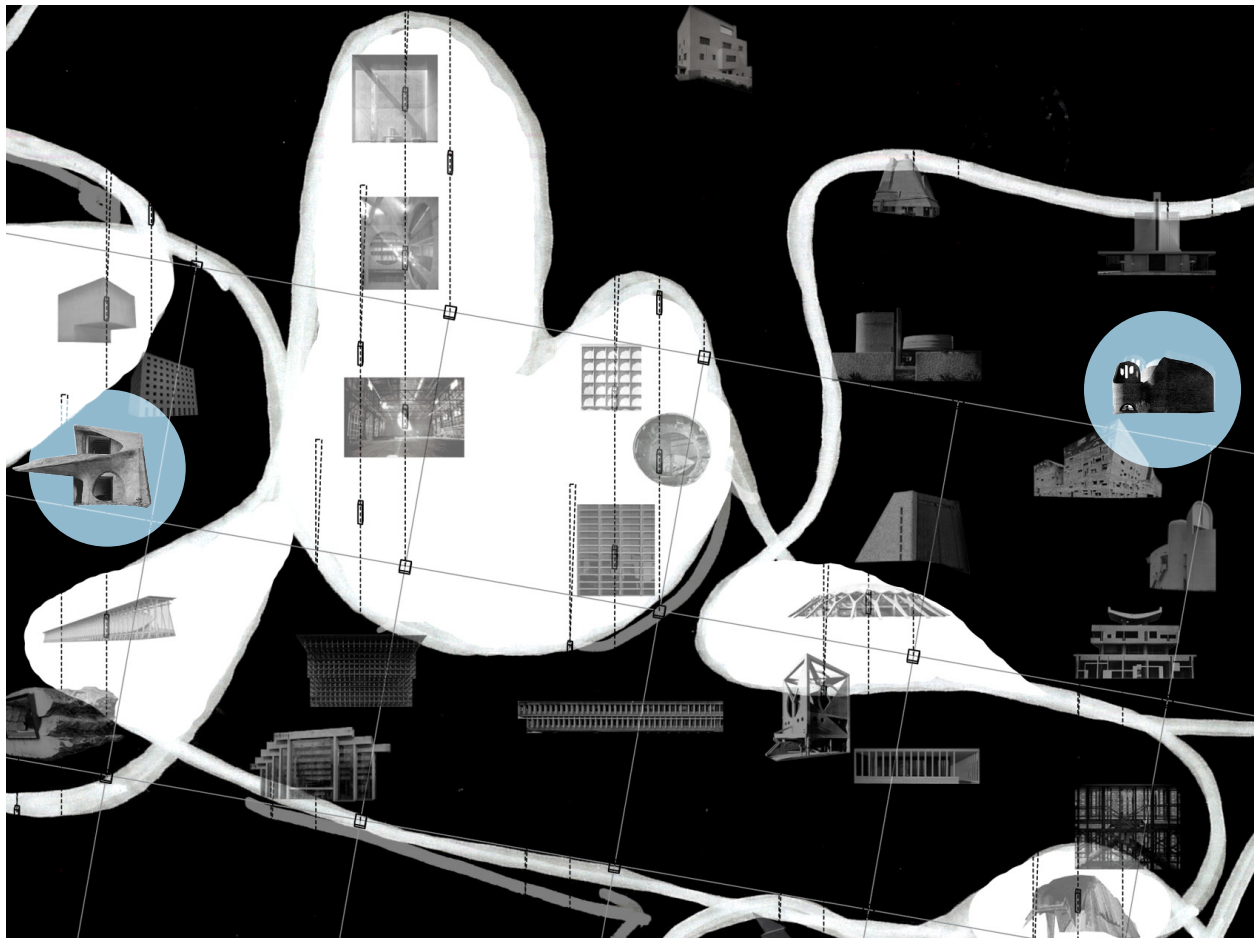


*Barcelona Museum of  
Contemporary Art (1987)  
Richard Meier*



*Fig 304.* Developed clusters





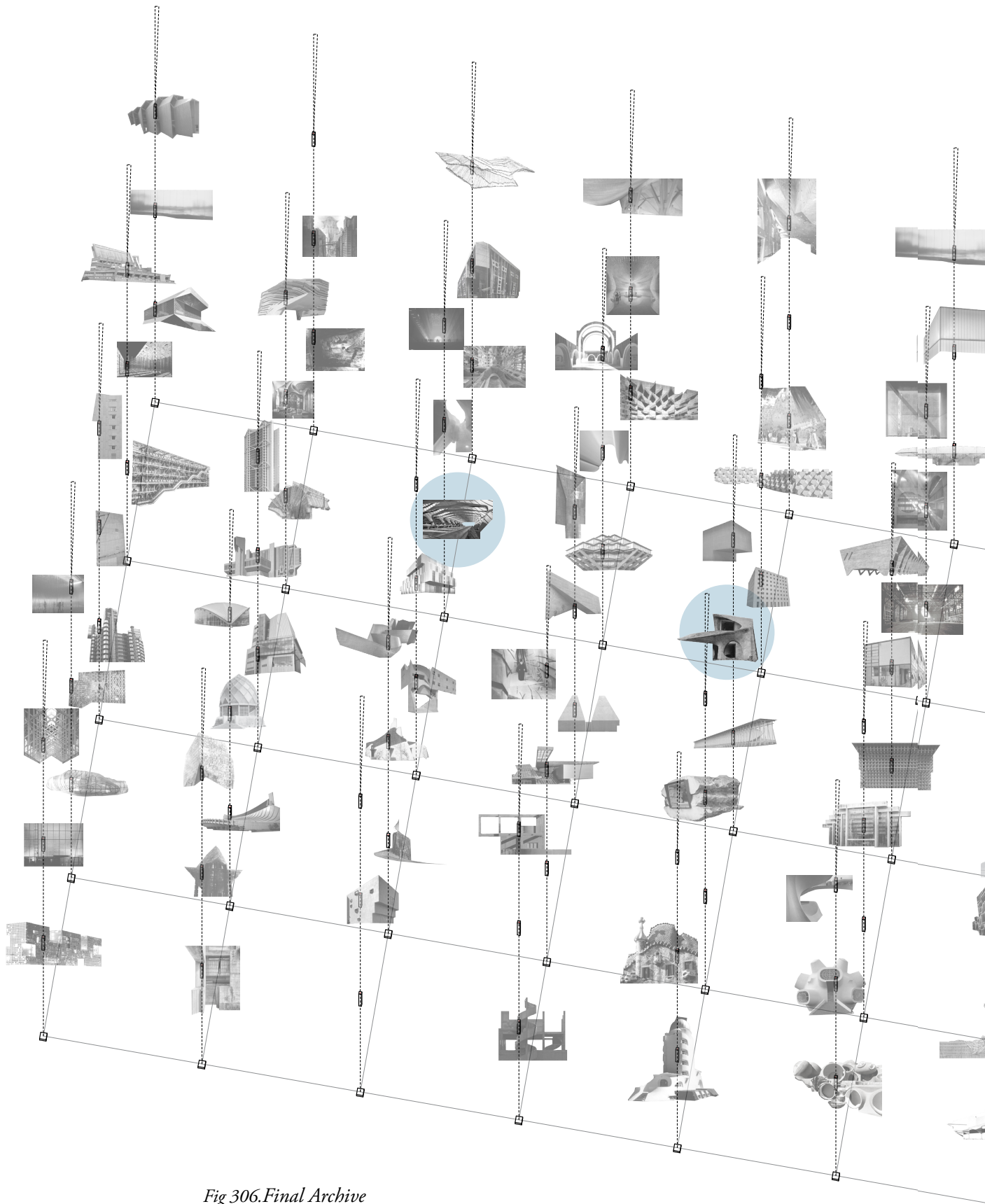
*Fig 305. Cluster Diagram Detail*

## Analysis

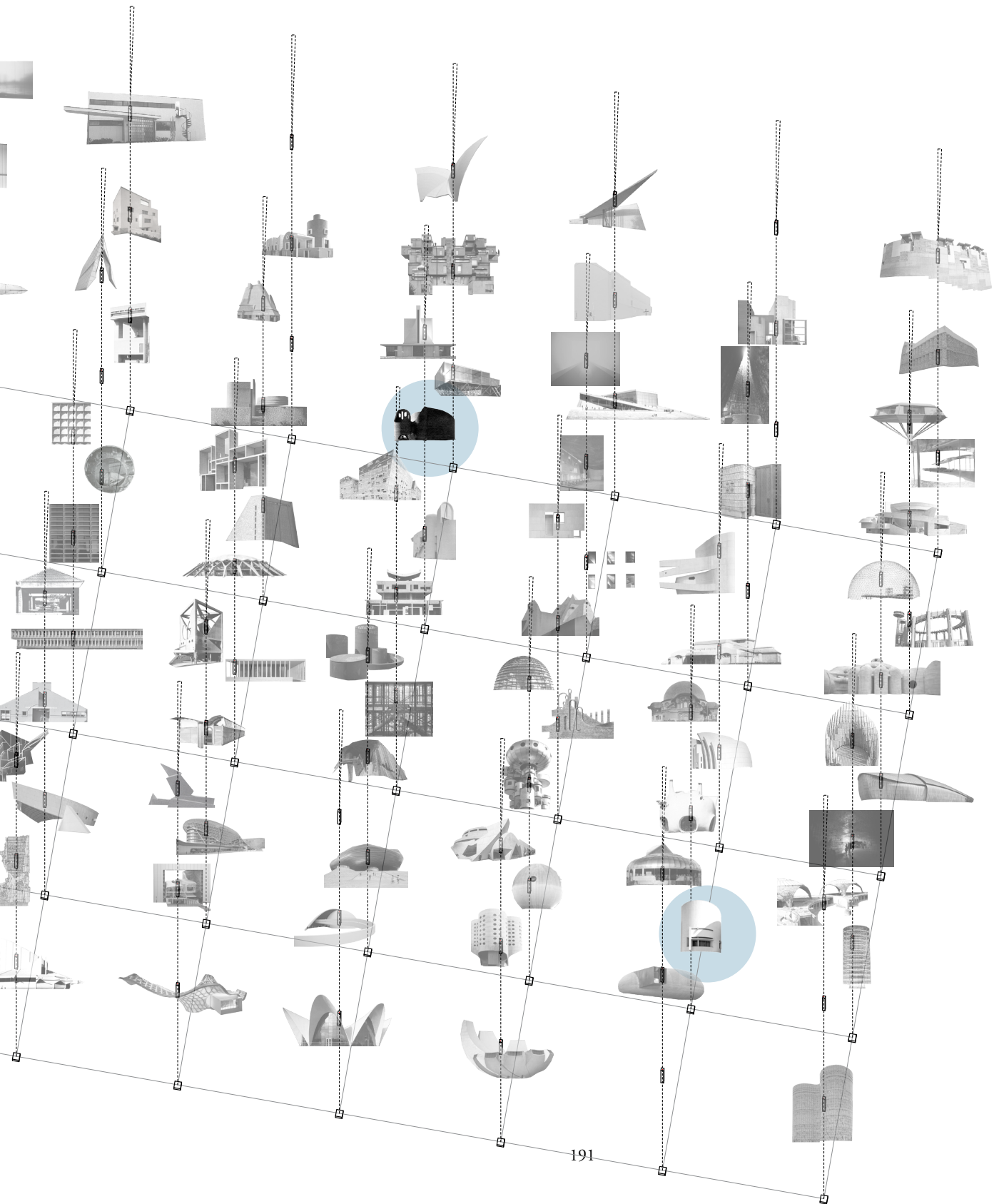
The previous diagram illustrates clusters created around the original nodes as well as alternate lines of connection that spread between them to form territorial boundaries in the space of the archive. Moments of overlap are illustrated in white and denote moments where expressive tendencies inter-mingle and emerge in unexpected ways.

A territory of interest is the relationship between Peter Zumthor's Steilneset Memorial and Nervi's Palazzo Del Sport. While the two were drawn to opposite poles (the Couelle project and the cardinal chapel respectively), they draw a whole territory of heavily striated moments between them. The bone-like repetition of the exterior structures are deterritorialized and reterritorialized into mullions, wooden filigree, concrete gates and a rhythm of punched windows. Their repetition and symmetry contains within it a entire refrain of relentless duplication.

Another moment of interest is the line of Louis Kahn Philip's Exeter Academy, Tadao Ando's Church of Light and Gaudi's Sagrada Familia. The relationship between the Kahn image and Ando's is more straightforward; Kahn built the library is strong geometries inspired by ancient ruins, these pure forms are built of stone and large circular voids are carved out of the interior walls. Ando creates a pure volume of concrete before slicing into it with slim rectangular voids. Each interior is cut by a ray of direct sunlight that rests in sharp contrast to the monolithic materiality of the projects. The Sagrada Familia's interior however has nothing of the ruin-like quality of the other two projects. It is heavily articulated; absolutely determinate in form. Rather, what connects all three is an atmosphere of permanence. Variation here takes place in the change of sun through time, the slow tarnish of the hard surfaces - the expressivity of these places however, does not intend to move. They express an on-going refrain of silent endurance.



*Fig 306. Final Archive*





*The intention behind the exercise was to establish spatial territories of expression within the space of the installation; these relationships would become palpable to the viewer as these conceptual territories began to command physical zones.*





*Fig 307. Archive panorama*



*Fig 308.*

The second Field Laboratory was an extension of the experiment of the first with a few alterations:

(1)

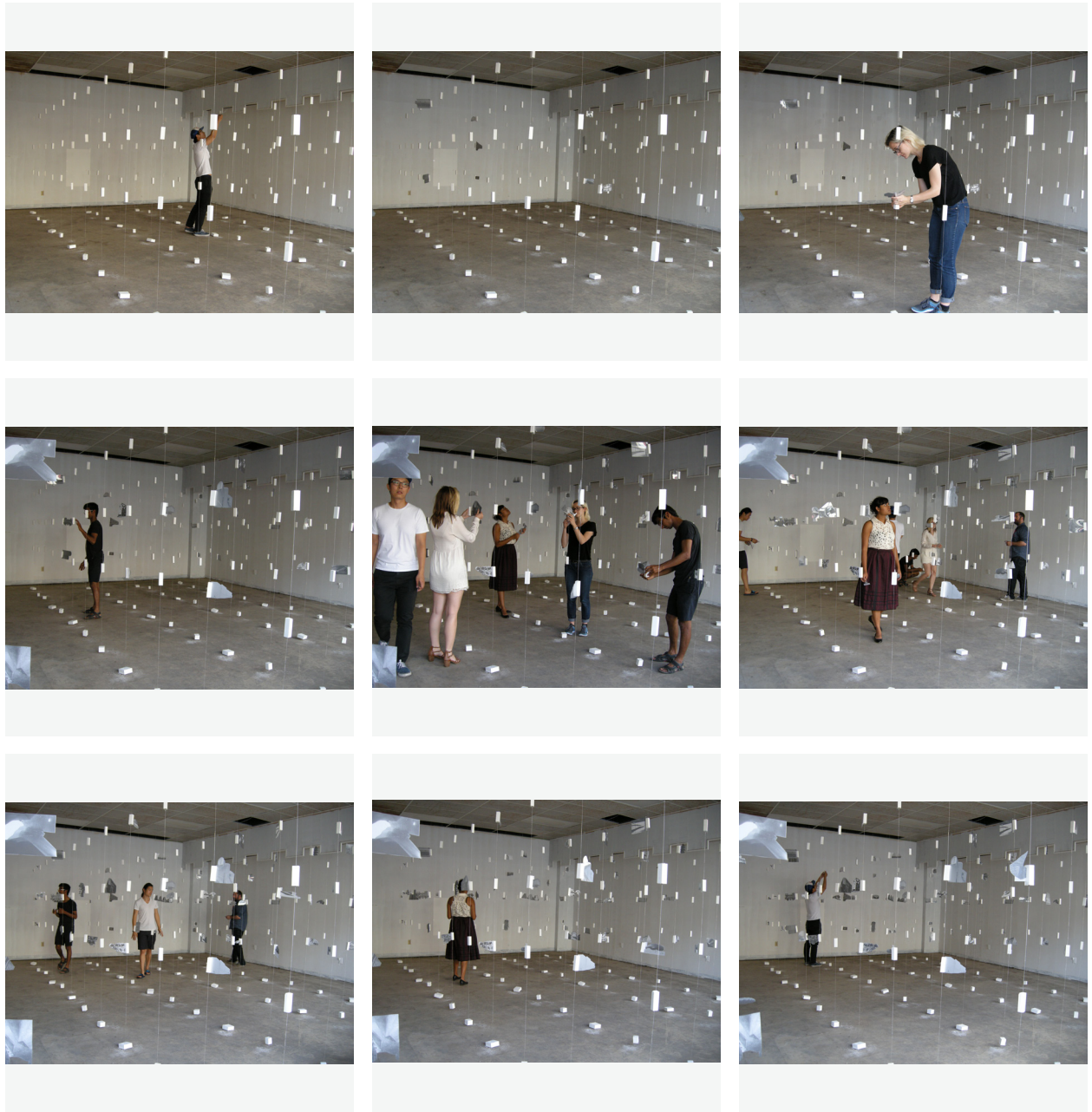
The figures of the archive were cut out and set afloat in the air of the installation. The lack of square sheets allows for greater visual overlap and collapse of perspective.

(2)

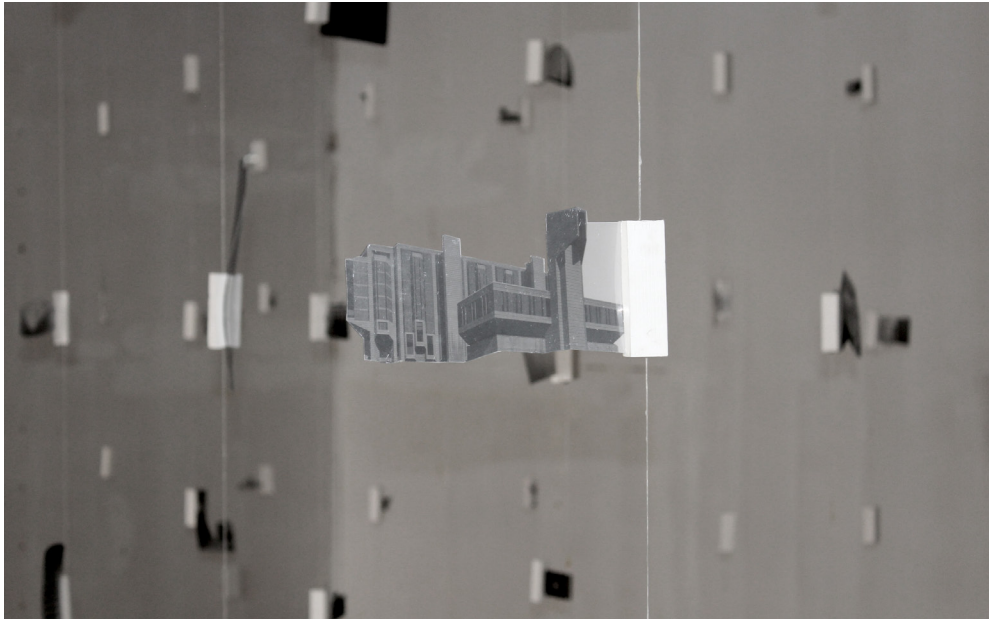
The curation of nodes was changed to a curation of strings. Sets of three were hung on a single string and the tighter direction of the grid was used to create a curated sequence. This sequence is illustrated in the following pages.

## 15. EXPERIMENT 5 (STRINGS)





*Fig 309. Curation Process 2*



*Fig 310. Roberts Library - Warner,  
Burns, Toan and Lunde*

*With the images now cut from their original frames, the  
plaster casts grip directly onto the form of each project.*



*Fig 311. Chapel at Ronchamp - Le Corbusier*



*Fig 312. Walking through the lines*

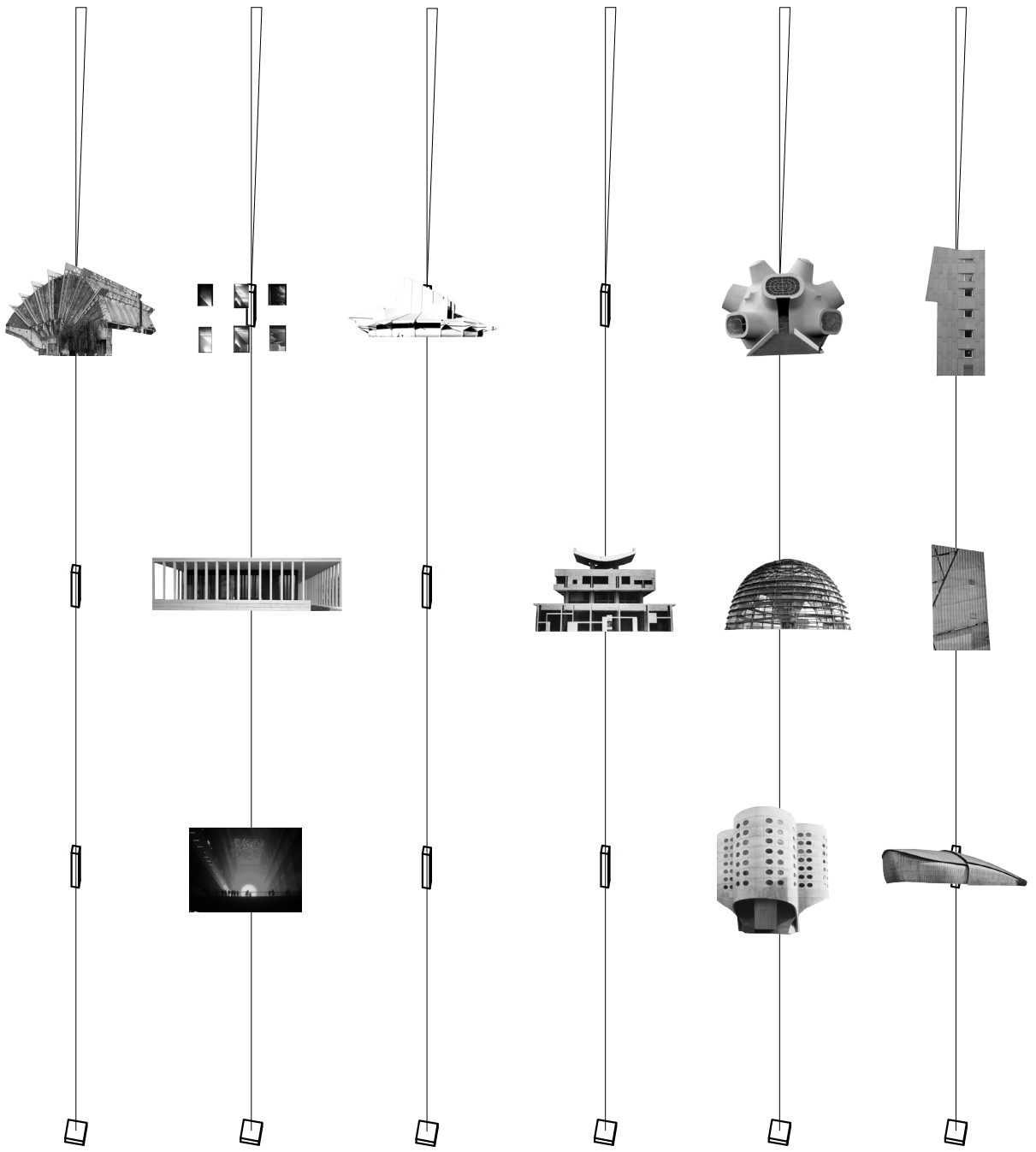
*The cut-out images create great space between each line.  
The figures float far from one another - these spaces are  
filled by visitors to the installation.*



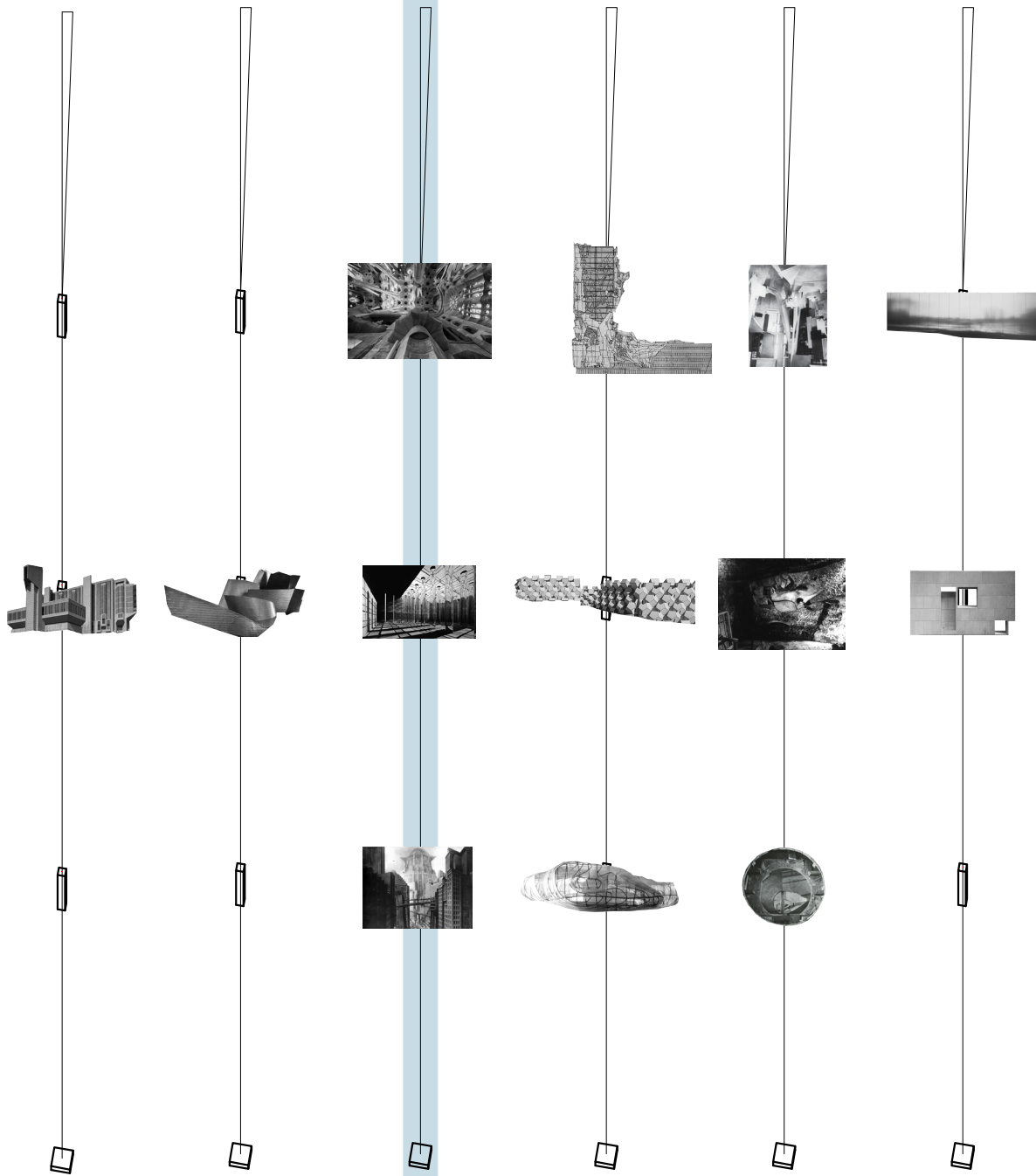
## Curation 2

In the second curation, three sets of three were selected in a series around a conceptual idea that linked the projects together. This strategy worked to define lines of thought that could morph and alter to hybrid applications of that concept, while the first operated at an elemental level of association.

With the greater distance between objects of the archive, the short direction of the room was too far for associations to occur across it. Therefore the sequence of strings in the long direction became the primary way to view the archive. While relationships could be made across rows, these linkages were often weaker associations. The following pages display each of these lines in a row that documents the installation. The right most line is the closest to the window. Highlighted strings illustrate lines of particular interest and particular territorial intensity.

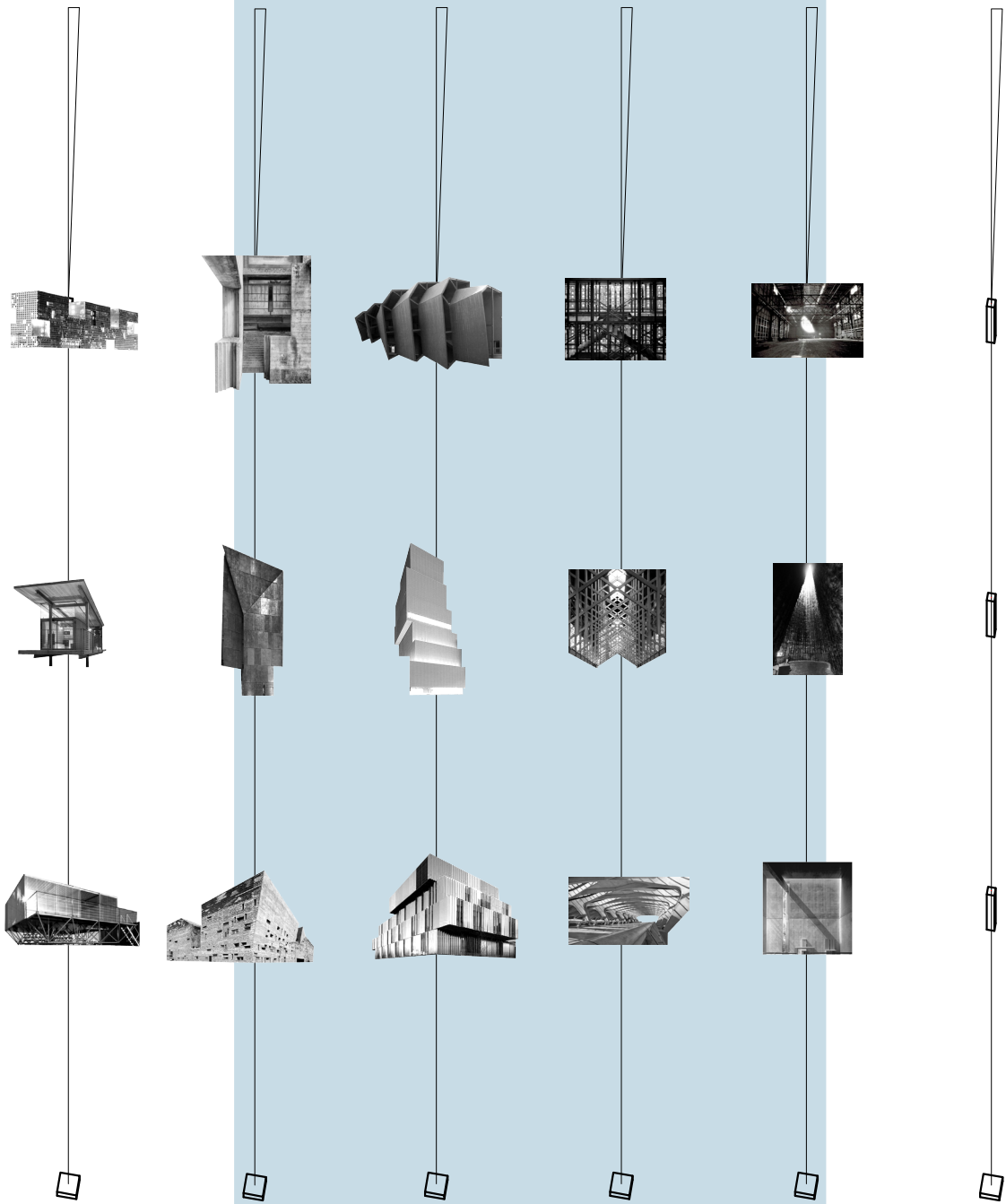


*Fig 313.Row 1*



*Vertical striations stretch upwards to a luminous ceiling (or sky).*





*A progression from articulated form  
to nested repetition  
to the overlay of repeated members  
in light  
to pure cuts of in  
monolithic forms*

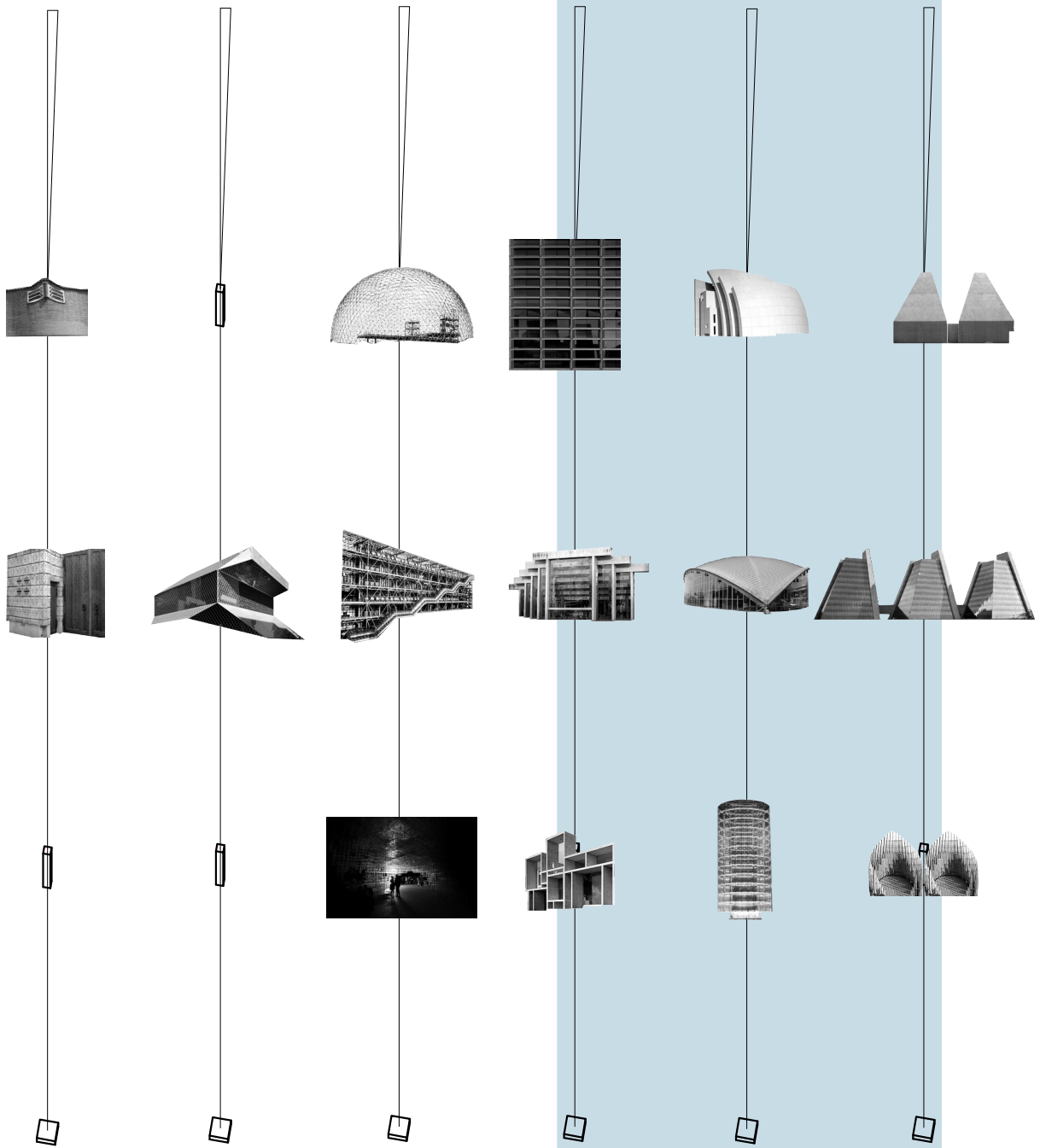
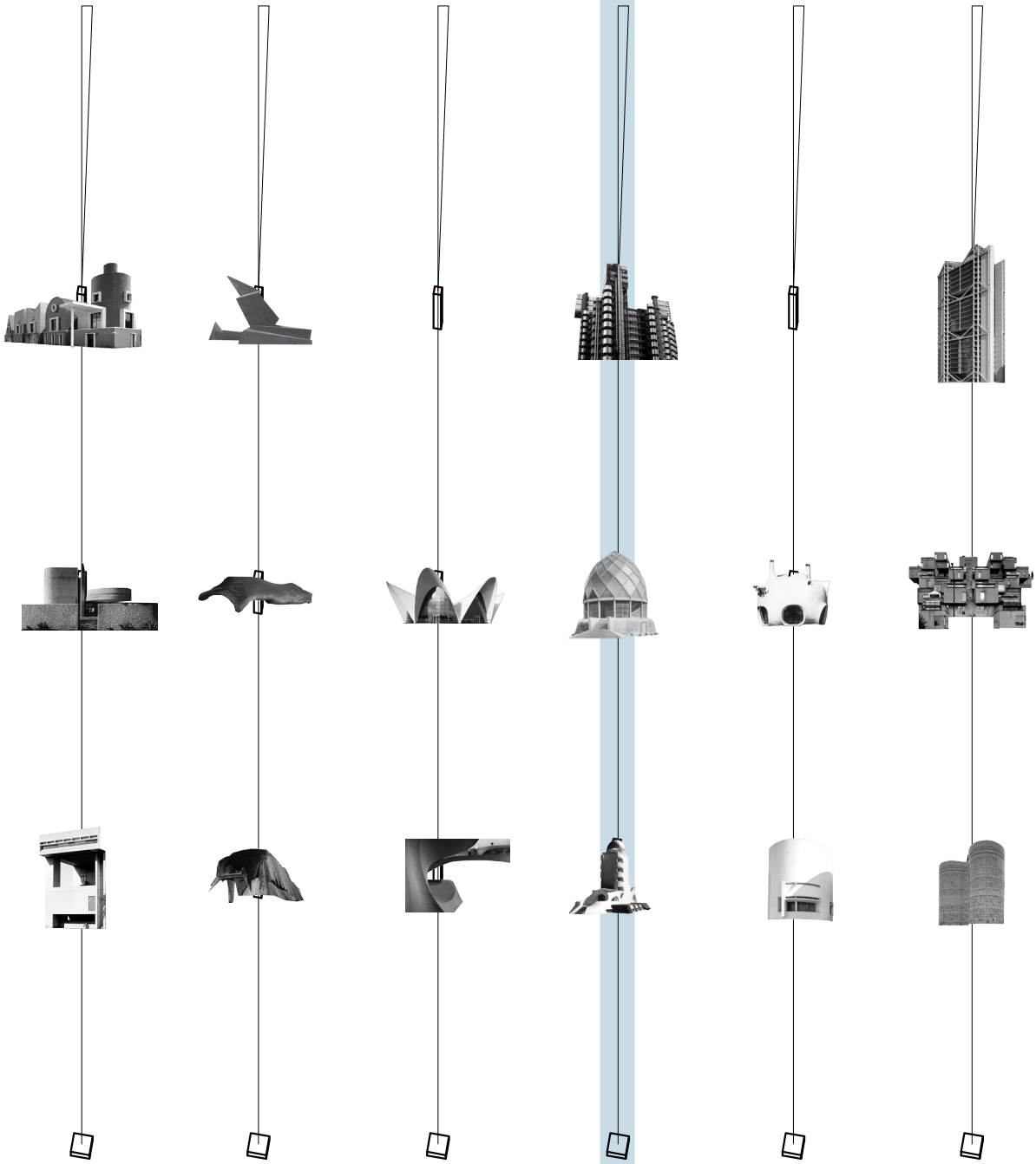


Fig 315.Row 3

*Each string becomes a collection of mutations in pure geometries, the rectangle, the cylinder and the triangular prism*

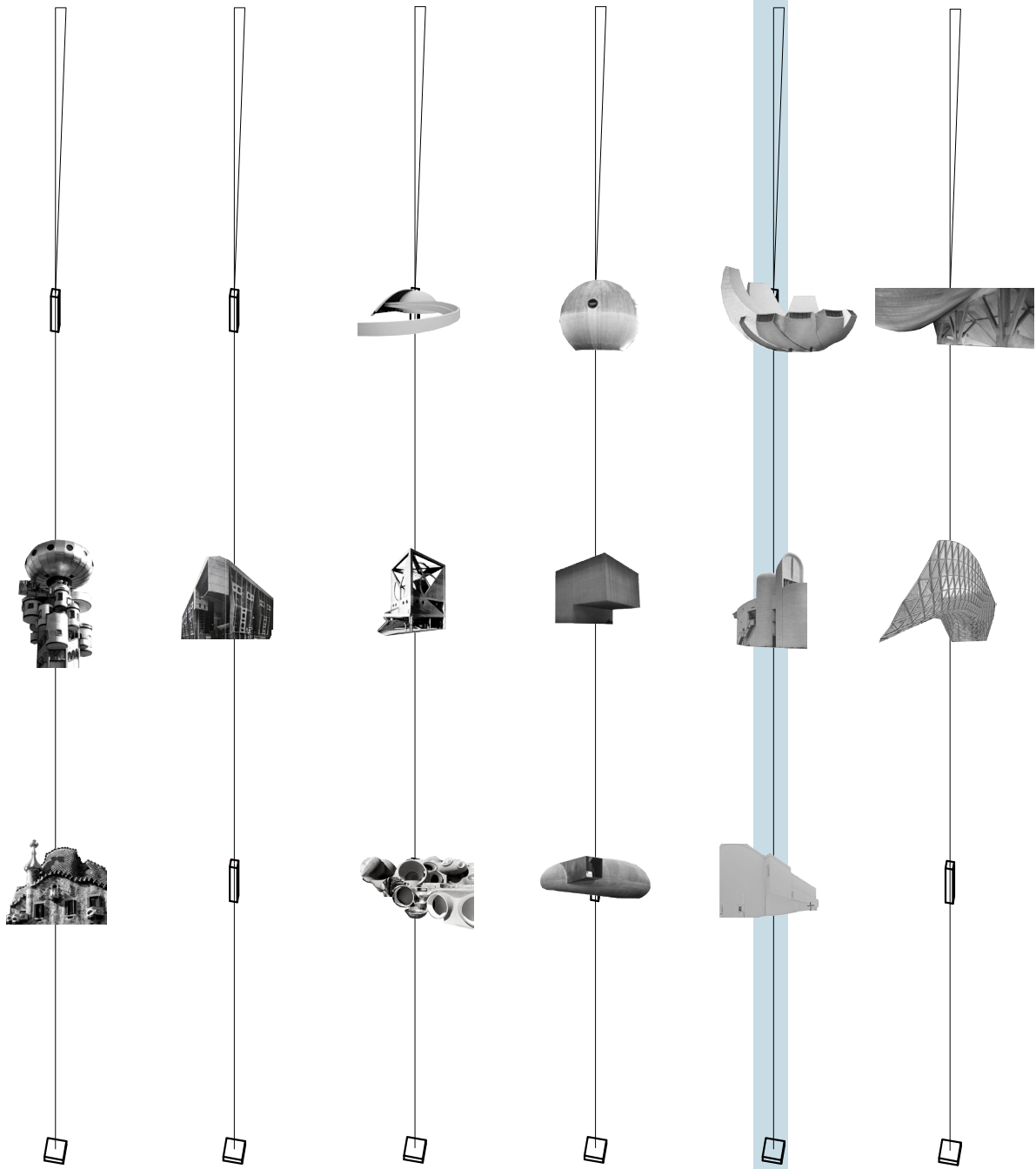




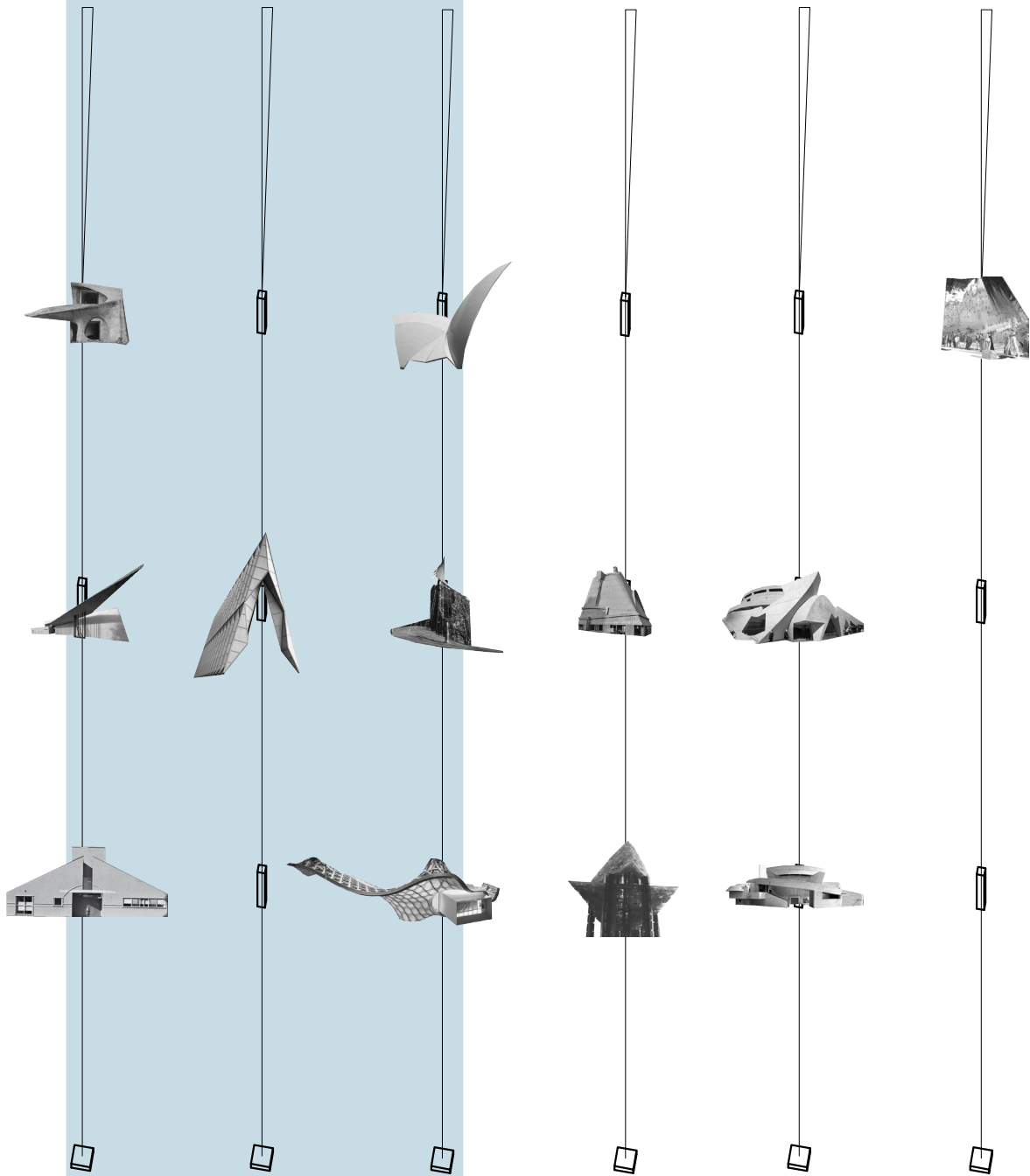
*Fig 316.Row 4*

*Spiraling Towers in concrete  
glass and steel.*



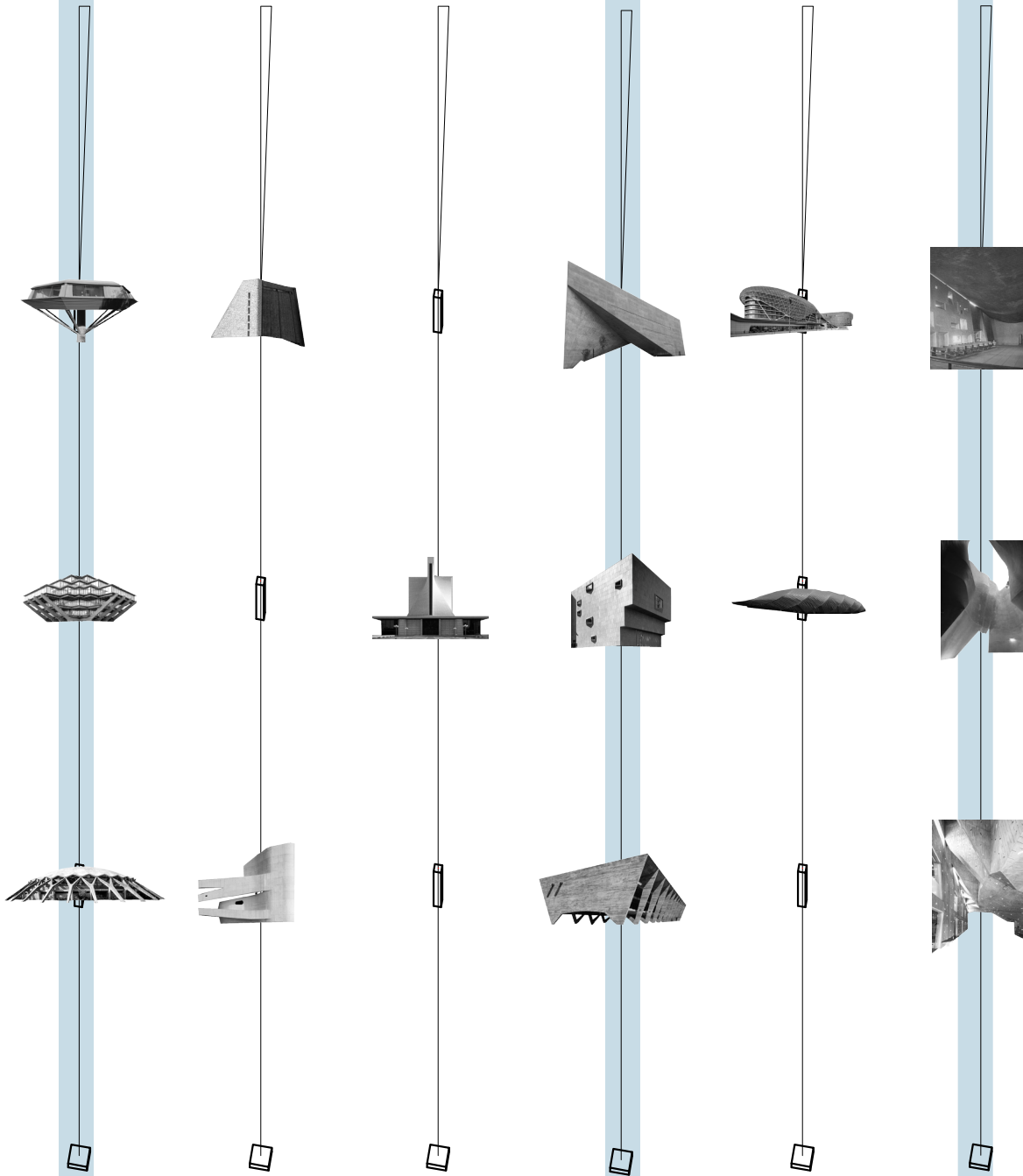


*Repetition of form in decreasing sizes.*



*Flight! Vectors reach outwards at precarious angles. The extension creates a semblance of movement upwards.*

Fig 317.Row 5



*Articulation in the round  
- on the ground, perched  
above the ground and a  
tower*

*Light hits these  
slight facets in  
each volume and  
creates sharp - shape  
defining shadows*

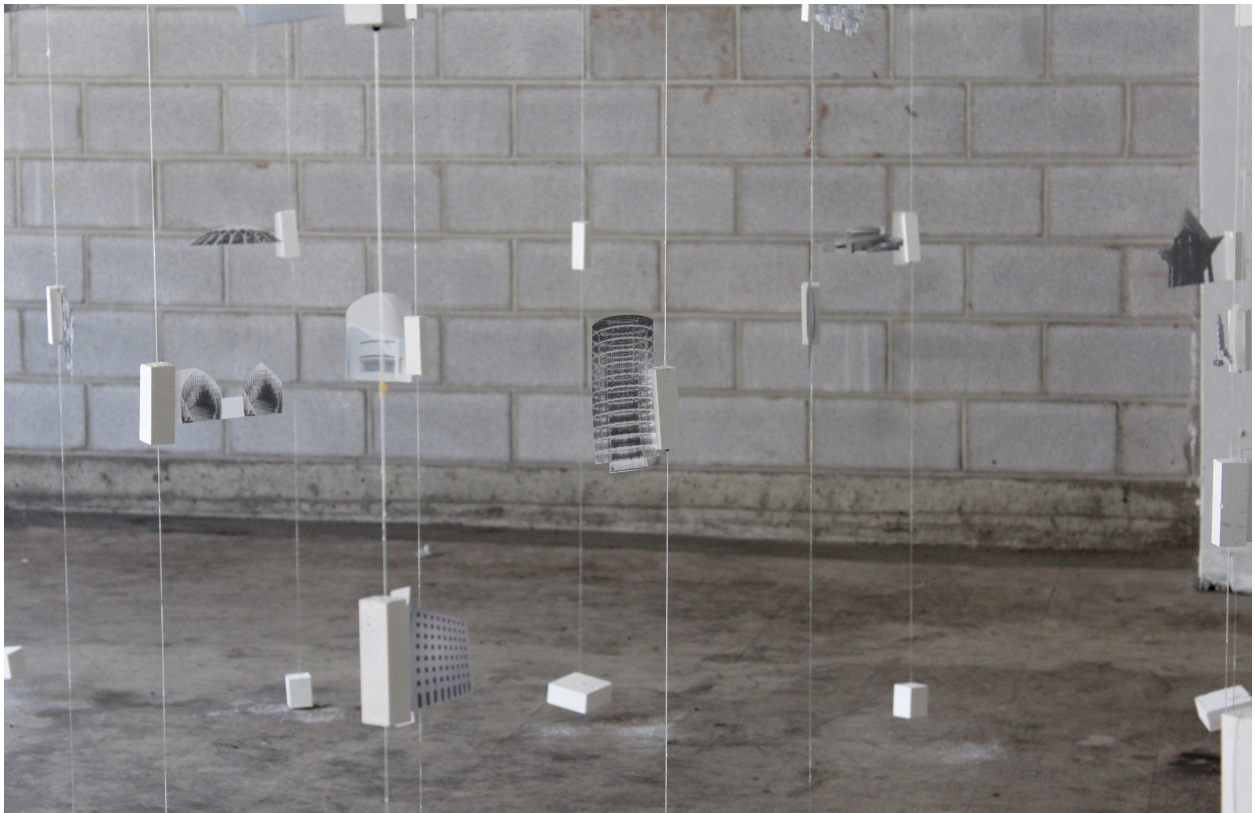
*The heavy  
belly of the  
ceiling presses  
down on the  
interior -  
cracks where it  
hits the wall.*



Lifted from the ground the strings sway. Through air movement or through content. The lines vibrate and overlap; the archive images blur and become similar.

## 16. FIELD LABORATORY 2

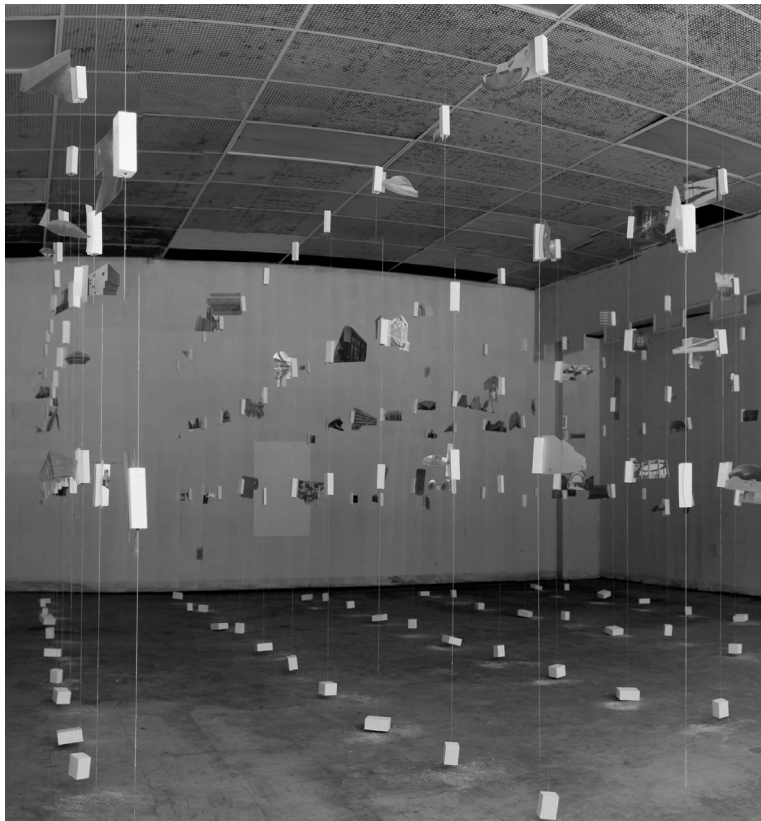




*Fig 318. Distinct figures*

*Each image is an island. They come together to form a  
cloud of objects*

Cloud



*Fig 319. Overview*

*Many lines overlap in space to form a cloud or distinct rows.*





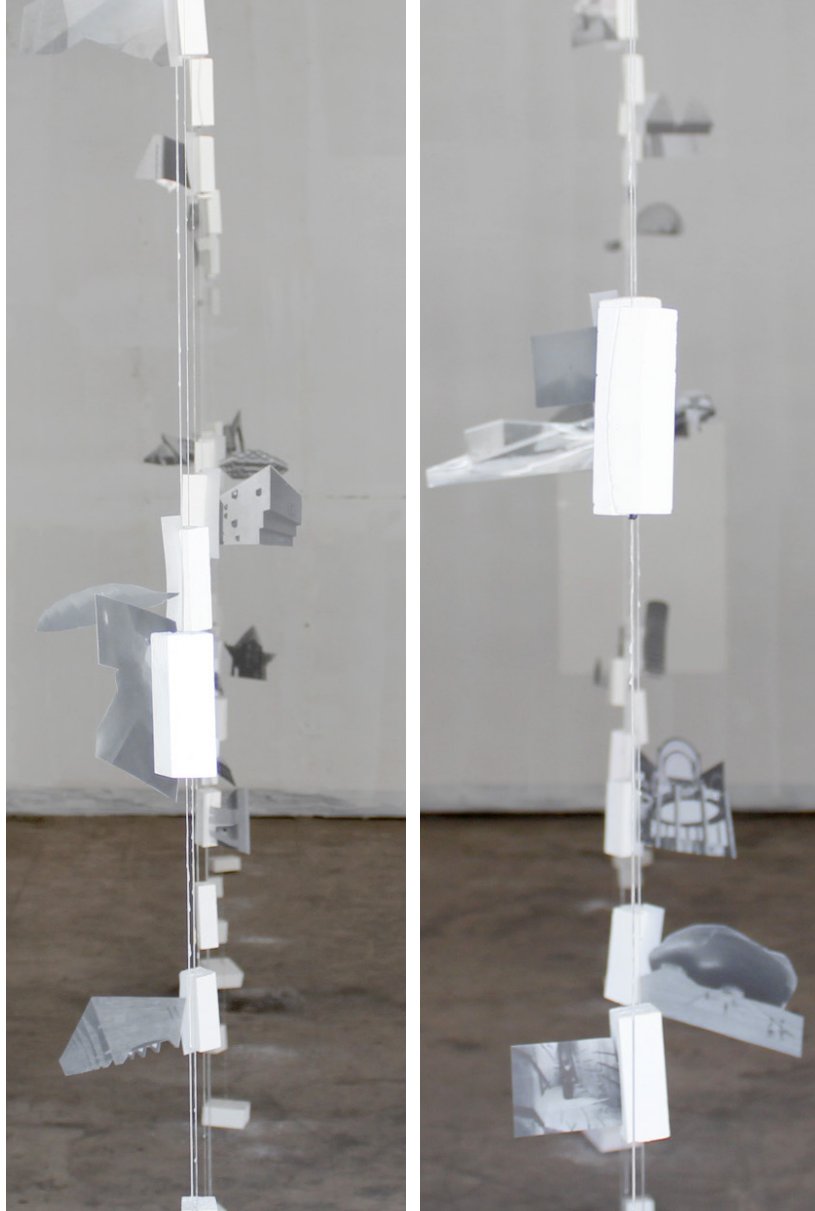
*Fig 320. Detail of cloud*

*The images of the cloud overlap and flatten in perspective.  
The lines shimmer against the backdrop.*

Overlap



*Fig 321. Row 3 (w2)*



*Fig 322. Row 3 (side)*

*Fig 323. Row 5 (side)*

*The images overlay in at each row.*

Movement



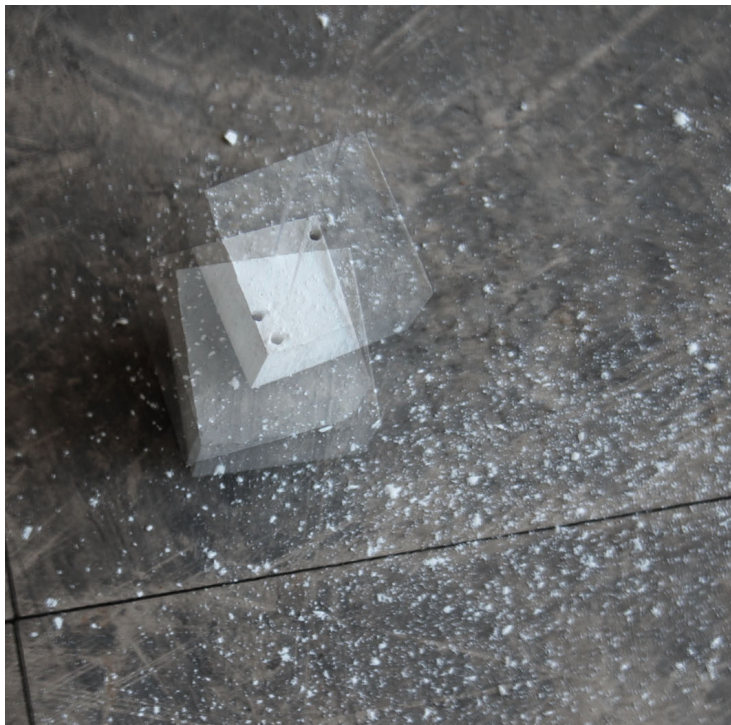
*Fig 324. Movement*

*The strings are hit by wind or by moving observers.*

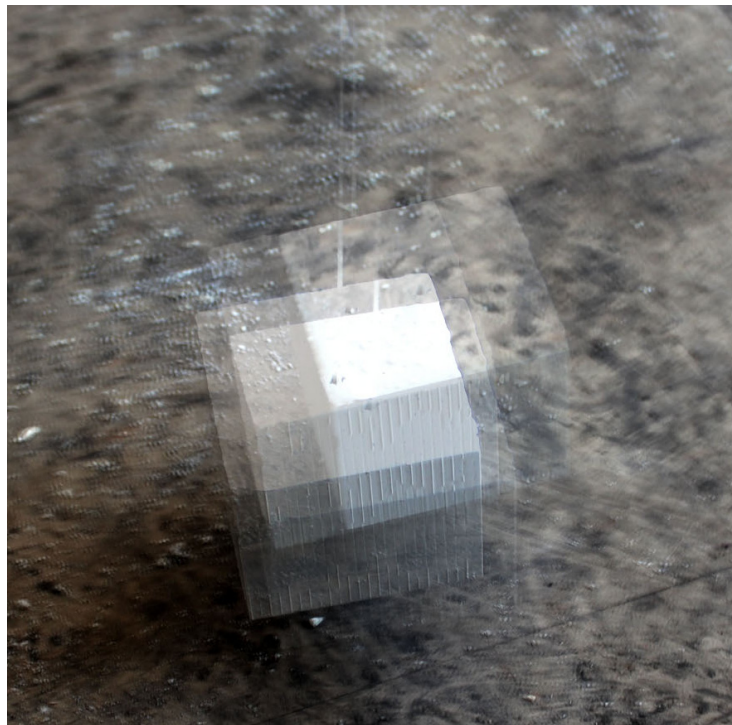


*Fig 325. Blur*

*One line becomes many. The images and the plaster  
totems merge and begin to dematerialize.*



*Fig 326. w1 swaying*



*Fig 327. w2 swaying*

*The base of each line acts as a pendulum and rotates slowly in place. The grid is sensitive, and so it sways often.*



*Fig 328. Long Exposure 2*

*Walking through the space - even more so in the small  
direction of the grid - causes a disturbance.*





*Fig 329.LE 2. Overlay Detail*

*Lines and bodies move together in overlay.*



*Fig 330. Long Exposure 3*



*Fig 331.LE 4. Overlay Detail*

*And so, in looking and in moving the occupants participate in the gestures of the installation. Human and non-human bodies interact and react to one another.*



“Now we are at home. But home does not preexist: it was necessary to draw a circle around that uncertain and fragile centre, to organize a limited space. Many, very diverse, components have a part in this, landmarks and marks of all kinds.”<sup>1</sup>

1 Deleuze, Gilles, and Félix Guattari. *A Thousand Plateaus: Capitalism and Schizophrenia*. Trans. Brian Massumi. (Minneapolis: U of Minnesota, 1987), 311

## 17. EXPRESSIVE TERRITORIALIZATION



Within the archive of expressive encounters are lines of connective desire that link works together into different modes of expression<sup>1</sup>. That is to say these entities share characteristics and are qualitatively (or affectively) linked to one another. Modes are categories, or territories that link these individual moments of expressivity. The work of the Field Laboratory and the Curation of the archive translates into the analysis of territories of expression. Sameness, or modes work to tie these works together. This tie-ing is work much like that of the Rhizomatic line described earlier in the thesis - it bounces through time and space to connect like-to-like in an ever evolving chain.

Territories of expression are not so different from ideas of political or social territory - they differ in that rather than setting out a conceptual or social field of rules, expressive territories are zones of sensation. They are defined by the encounter between bodies (or spaces, or songs) that establishes a limit, or line between different environments or atmosphere. It's a border inscribed by matter. In the final installation, the vast territory of the archive is offset by the nuanced expression of the plaster casting - these differences are flattened and made equal.

Territories have their own motifs and qualities that evolve in time, this is called a refrain. Deleuze and Guattari describe a refrain as: "any aggregate of matters of expression that draws a territory and develops into territorial motifs and landscapes."<sup>2</sup> In architecture, we draw lines around these territories and they evolve into complex assemblages - into cities, homes, territories of the mind, of spirituality - of cold-ness or stone-ness. These constructed territories overlay with

1 Deleuze, Gilles. 1990. *Expressionism in Philosophy : Spinoza*. New York; New York : Cambridge, Mass.: New York : Zone.

2 Deleuze, Gilles, and Félix Guattari. *A Thousand Plateaus: Capitalism and Schizophrenia*. Trans. Brian Massumi. (Minneapolis: U of Minnesota, 1987)

territories of geology and natural history - plant and animal species. In the encounter of these *other* expressionists at times the border of these territories becomes hard, expressed in high walls of stone. At other times things are allowed to bleed, like one cluster of the archive into the other into border zones, or expanded thresholds. In mixing, new motifs develop and emerge.

In conclusion, the combined experiments of the line, field, casting, archive and field laboratory set out a new territory of expressivity. By drawing out the fine-ness of expressivity the thesis reaches a common ground shared by all matter. They return at each step to the question of the vibratory line. Why Express? Why divide? What is Expressive? What is the context and content of Architectural Expressionism? These are the core questions that pre-suppose the thesis. Once they emerged the investigations began at the base point of architecture, the line: what it can do – as a diagram – as a difference maker – as boundary – as connector – as body. All works comprised in the thesis are an expanded territory of the refrain of the line.

The thesis pre-supposes a vibrant territory of expression to draw from that is realized in the archive. It identifies a set of considerations that may have been overlooked in the rapid construction of our cities. These complex territories in which we find ourselves are of a different order than those of the primitive cave painters or even the expressionist of the Avant-Guard. Much of the architectonic language of our cities is comprised of motifs of efficiency and utilitarianism that does not realize the full potential of materialist-humanist-expressivity. At times these environments are glorious testaments of innovation and at others they repress our innate desire for expression.

It seems that the true quality of architectural expressionism is to engage in a building and unbuilding of environments that once joyful have now become sad-passions. To realize the potential of architecture is to engage in expressive territorialisation that challenges pre-conceived notions of space, occupation and encounter. This is an act that is drawn in diagrams and vibratory lines. It is in this act that histories of form and atmospheres flatten to a two dimensional archive that can be employed by the line and turned into flesh.



## **GLOSSARY**



Abstraction *noun*

1. The quality of dealing with ideas rather than events  
'topics will vary in degrees of abstraction'
2. Freedom from representational qualities in art:  
'geometric abstraction has been a mainstay  
in her work'<sup>1</sup>

Affect *noun*

1. Watch me: affection is the intensity of colour in a sunset on a dry and cold autumn evening. Kiss me: affect is that indescribable moment before the registration of the audible, visual, and tactile transformations produced in reaction to a certain situation, event, or thing. Run away from me: affected are the bodies of spectres when their space is disturbed. In all these situations, affect is an independent thing; sometimes described in terms of the expression of an emotion or physiological effect, but according to Deleuze, **the affect is a transitory thought or thing that occurs prior to an idea or perception.**<sup>2</sup>

Aggregation *noun*

1. The formation of a number of things into a cluster<sup>3</sup>

Assemblage *noun*

1. Assemblages, as conceived of by Deleuze and Guattari, are complex constellations of objects, bodies, expressions, qualities, and territories that come together for varying periods of time to ideally create new ways of functioning. Assemblages operate through desire as abstract machines, or arrangements, that are productive and have function; desire is the circulating energy that produces connections. An assemblage transpires as a set of forces coalesces together, the concept of assemblages applies to all structures, from the behaviour patterns of an individual, the organization of institutions, an arrangement of spaces, to the functioning of ecologies. Assemblages

emerge from the arranging of heterogeneous elements into a productive (or machinic) entity that can be diagrammed, at least temporarily.<sup>4</sup>

Atmosphere *noun*

1. The pervading tone of mood of a place, situation, or creative work  
'An atmosphere of pervading gloom hung in the air'<sup>5</sup>

Attribute *noun*

1. A quality or feature regarded as a characteristic or inherent part of someone or something<sup>6</sup>

Becoming *verb*

1. Becoming is the pure movement evident in changes between particular events. This is not to say that becoming represents a phase between two states, or a range of terms or states through which something might pass on its journey to another state. Rather than a product, final or interim, becoming is the very dynamism of change, situated between heterogeneous terms and tending towards no particular goal or end- state.<sup>7</sup>

Body *noun*

1. The human body is just one example of such a body; the animal body is another, but a body can also be a body of work, a social body or collectivity, a linguistic corpus, a political party, or even an idea. A body is not defined by either simple materiality, by its occupying space ('extension'), or by organic structure. It is defined by the relations of its parts (relations of relative motion and rest, speed and slowness), and by its actions and reactions with respect both to its environment or milieu and to its internal milieu.<sup>8</sup>

Chaos *noun*

1. The property of a complex system whose behaviour is so unpredictable as to appear random, owing to great sensitivity to small changes in conditions
2. The formless matter supposed to have existed before the creation of the universe  
'Creation stories describe in various ways the essential struggle between chaos and form'<sup>9</sup>
3. Philosophy can thus be recast in terms of an ethics of chaos, a particular way of living with chaos – and against the sterile clichés of opinion (doxa) – by creating conceptual forms capable of sustaining the infinite speed of chaos whilst not succumbing to the stupidity, thoughtlessness or folly of the indeterminate. Philosophical creation is thus poised between, on the one hand, the subjection of the plane of immanence to some variety of transcendence that would guarantee its uniqueness and, on the other, the surging up of a chaos that would dissolve any consistency, any durable difference or structure.<sup>10</sup>

Concept *noun*

1. An abstract idea  
'In that profession you start with a blank sheet of paper and a concept or abstract idea'<sup>11</sup>
2. A concept is defined ... by the unity that it expresses amongst heterogeneous elements. In other words, concepts must be creative or active rather than merely representative, descriptive or simplifying<sup>12</sup>

Desire *noun*

1. A strong feeling of wanting to have something or wishing for something to happen
2. *verb* Strongly wish for or want (something)<sup>13</sup>

‘It says the language of man is art. It stems from something, which grows out of the needing, of the desire to be, to express, and the evidence of the promise of the material to do it. The means is somehow there’<sup>14</sup>

*Deterritorialisation noun*

1. The severance of social, political, or cultural practices from their native places and populations<sup>15</sup>  
‘Perhaps deterritorialisation can best be understood as a movement producing change. In so far as it operates as a line of flight, deterritorialisation indicates the creative potential of an assemblage. So, to deterritorialise is to free up the fixed relations that contain a body all the while exposing it to new organisations.’<sup>16</sup>

*Difference noun*

1. A point or way in which people or things are dissimilar<sup>17</sup>
2. ‘Difference is usually understood either as ‘difference from the same’ or difference of the same over time. In either case, it refers to a net variation between two states. Such a conception assumes that states are comparable, and that there is at base a sameness against which variation can be observed or deduced.’<sup>18</sup>

*Discontinuity noun*

1. The state of having intervals or gaps; lack of continuity<sup>19</sup>

*Discursive adjective*

1. Relating to discourse or modes of discourse  
‘the attempt to transform utterances from one discursive context to another’
2. Philosophy, archaic: Proceeding by argument or

reasoning rather than by intuition

‘Place may be an immediate, pre-conceptual experience, and its knowledge then is intuitive rather than discursive’

*discursively adverb*

‘Difference identities, different traces, of the subject although each, paradoxically, determining a bounded whole which co-exists discursively without conflict’<sup>20</sup>

Edge *noun*

1. The outside limit of an object, area or surface
2. The sharpened side of the blade of a cutting implement or weapon
3. An intense, sharp, or striking quality
4. *Verb* Provide with a border or edge<sup>21</sup>

Emotion *noun*

1. A strong feeling deriving from one’s circumstances, mood or relationships with others  
‘There has been an attempt to defuse aggressive emotions and any desire for revenge’
2. Instinctive or intuitive feeling as distinguished from reasoning or knowledge  
‘Since Plato, many philosophers have sought to make a sharp distinction between reason and emotion’<sup>22</sup>

Emotive *adjective*

1. Arousing or able to arouse intense feeling  
‘Film is an emotive medium, uniquely able to manipulate through lighting and music as well as words’<sup>23</sup>

Encounter *verb*

1. Unexpectedly be faced with or experience<sup>24</sup>
2. To come upon face-to-face<sup>25</sup>

Ethics *plur. noun*

1. Moral principles that govern a person's behaviour or the conducting of an activity
2. The branch of knowledge that deals with moral principles<sup>26</sup>  
'Ethics involves a creative commitment to maximizing connections, and of maximizing the powers that will expand the possibilities of life.'<sup>27</sup>

Experience *verb*

1. Encounter or undergo (an event or occurrence)
2. Feel (an emotion or sensation)<sup>28</sup>
3. Experience is that milieu which provides the capacity to affect and be affected; it is a- subjective and impersonal.<sup>29</sup>

Experiment *noun*

1. A scientific procedure undertaken to make a discovery, test a hypothesis, or demonstrate a known fact
2. A course of action tentatively adopted without being sure of the outcome<sup>30</sup>
3. *Experimentation verb* Experimentation can be an investigative procedure that seeks to explain how assemblages function by analysing the elements that compose them and the links between those elements; an 'assemblage' being any compound in which the parts interact with each other to produce a certain effect. However, experimentation is also a practical dismantling of assemblages and the creative production of new combinations of elements; even when experimentation concerns thoughts or



concepts, it is never merely theoretical.<sup>31</sup>

Express *verb*

1. convey (a thought or feeling) in words or by gestures and conduct.
2. (express oneself) Say what one thinks or means
3. Press out
4. *Genetics* Cause (an inherited characteristic or gene) to appear in a phenotype  
‘the genes are expressed in a variety of cell lines’<sup>32</sup>

Expression *noun*

1. The action of making known one’s thoughts or feelings  
‘she accepted his expressions of sympathy’
2. The conveying of feeling in a work of art or in the performance of a piece of music
3. A look on someone’s face that conveys a particular emotion
4. A word or phrase, especially an idiomatic one, used to convey an idea
5. *Mathematics* A collection of symbols that jointly express a quantity
6. *Genetics* The appearance in a phenotype of a characteristic of effect attributed to a particular gene<sup>33</sup>
7. ‘While there is still not a self- present world that precedes expression, Spinoza’s immanence precludes any point of perfect expression that would ground particular expressions. A being just is its expression, its power to act. The world is not an object to be known, observed or represented, so much as a plane of powers to unfold or express different potentials of life.’<sup>34</sup>

‘If however, we approach a poem as expressive, we see the words as having unfolded from a potential,

a potential that will produce further relations – all the readings or thoughts produced by the poem. Thus, expression is tied to a commitment to the creation of concepts; for expression is the power of life to unfold itself differently, and one would create a concept in trying to grasp these different unfoldings.<sup>35</sup>

8. *Expressivity*: The quality of being expressive<sup>36</sup>

Expressionism *noun*

1. A style of painting music or drama in which the artist or writer seeks to express the inner world of emotion rather than external reality  
‘Expressionists characteristically reject traditional ideas of beauty or harmony and use distortion exaggeration, and other non-naturalistic devices in order to express emotional states.’<sup>37</sup>

Genesis *noun*

1. The origin or mode of formation of something<sup>38</sup>

Haecceity *noun*

1. That property or quality of a thing by virtue of which it is unique or describable as ‘this (one)’  
‘Understanding concepts in his philosophy (eg., faciality, virtuality, haecceity, types of becoming, and rhizome) is important as they provide to entry points into some of the issues under examination’
2. The property of being a unique and individual thing  
‘The haecceity of a thing is what makes this particular thing what it is in particular’<sup>39</sup>

Identity *noun*

1. The fact of being who or what a person or thing is
2. The characteristics determining who or what a person or thing is
3. A close similarity or affinity<sup>40</sup>
4. 'There can be no identity without pure differences standing in the background as a condition for the illusory appearance of a pure, well- determined identity.'<sup>41</sup>

Intensity *adjective*

1. The measurable amount of a property, such as a force, brightness, or a magnetic field  
'different light intensities'<sup>42</sup>  
'What the artist aims towards is indeed sensation. Sensation is intimately related to the intensity of the forces that it does not represent.'<sup>43</sup>

Intuition *noun*

1. The ability to understand something instinctively, without the need for conscious reasoning<sup>44</sup>  
  
'Whereas concepts define the points of intensity on a plane, intuition refers to movements upon it. As such, intuitions can be considered as ideas or even 'lines of thinking' in a general sense, immanent to a particular problem and the circumstances of its consideration.'<sup>45</sup>

Line *noun*

1. A long narrow mark or band  
'a row of closely spaced dots will look like a continuous line'
2. Mathematics: A straight or curved continuous extent of length without breadth
3. A direct course

4. A furrow or wrinkle in the skin, especially on the face  
‘laughing lines’
5. A contour or outline considered as a feature of design or composition  
‘crisp architectural lines’ ‘the artist’s use of clean line and colour’
6. (On a map or graph) a curve connecting all points having a specified common property
7. (the Line)  
‘The equator’
8. An area or branch of activity
9. A direction, course, or channel
10. (lines) A manner of doing or thinking about something  
‘We both seemed to be thinking along the same lines’
11. *verb* Mark or cover with lines  
‘a thin woman with a lined face’  
‘lined paper’
12. (draw) a line in the sand
13. in (or out of line) with<sup>46</sup>
  
14. *etymology* a Middle English merger of Old English line “cable, rope; series, row, row of letters; rule, direction,” and Old French ligne “guideline, cord, string; lineage, descent;” both from Latin *linea* “linen thread, string, line,” from phrase *linea restis* “linen cord,” from fem. of *lineus* (adj.) “of linen,” from *linum* “linen”<sup>47</sup>

#### Lines of Flight

1. ‘A ‘line of flight’ is a path of mutation precipitated through the actualisation of connections among bodies that were previously only implicit (or ‘virtual’) that releases new powers in the capacities of those bodies to act and respond.’<sup>48</sup>

## Line of Materiality

1. 'Deleuze's Bergsonian theories of consciousness outline two kinds of operation. One is the 'line of materiality', upon which he theorises relationships between the mind and the material world (including the body). Such activity always occurs in the present, understood as a purely theoretical demarcation between past and future. On this line, our relationship with matter is wholly material and unmediated: the world of consciousness is reconciled with the world of matter by means of different kinds of movement. Such activity is always oriented towards the practical life of action rather than pure knowledge. As such, the form of memory at work is 'habit memory', reflex determination of appropriate bodily responses conditioned by whatever has proved useful in the past, but without 'pure recollection'.<sup>49</sup>

## Materialism *noun*

1. Philosophy: The theory or belief that nothing exists except matter and its movements and modifications  
'And, if we don't really know what matter is, then materialism is in trouble'
2. The theory or belief that consciousness and will are wholly due to material agency<sup>50</sup>
3. 'Deleuze thinks in terms of an expressive and intensive materialism as opposed to a reductive and extensive materialism'<sup>51</sup>
4. 'This materialism that is philosophy will bring something to life, it will extricate life from the places where it has been trapped, and it will create lines of flight from these stases. The creation of these lines of flight constitutes events and, as events, they are quite distant from the abstractions that constitute the staple diet of traditional philosophy.'<sup>52</sup>

Matter *noun*

1. Physical substance in general, as distinct from mind and spirit
2. A particular substance  
'organic matter' 'reading matter'<sup>53</sup>

Morphogenesis *noun*

1. The formation and differentiation of tissues and organs<sup>54</sup>

Motive *noun*

1. A reason for doing something
2. A motif in art, literature, or music<sup>55</sup>

Multiplicity *noun*

1. A large number or variety<sup>56</sup>
2. 'A multiplicity is, in the most basic sense, a complex structure that does not reference a prior unity. Multiplicities are not parts of a greater whole that have been fragmented, and they cannot be considered manifold expressions of a single concept or transcendent unity.'<sup>57</sup>

Neutral *adjective*

1. Having no strongly marked or positive characteristics or features  
'her tone was neutral, devoid of sentiment'<sup>58</sup>

Percept *noun*

1. An object of perception; something that is perceived.
2. A mental concept that is developed as a consequence of the process of perception.<sup>59</sup>  
'Given this emphasis on impersonality and

the dissolution of the ego, it is not surprising that the literary hero of the percept is the 'man without qualities'.<sup>60</sup>

Perception *noun*

1. The ability to see, hear or become aware of something through the senses  
'the normal limits to human perception'
2. The awareness of something through the senses  
'the perception of pain'
3. The way in which something is regarded, understood or interpreted  
'we need to challenge many popular perceptions of old age'
4. Intuitive understanding and insight  
'The second is the use of the eyes not just to see in the normal sense, but to gain insight, discernment, perception and precognition'<sup>61</sup>

Phenomenon *noun*

1. a fact or situation that is observed to exist or happen, especially one whose cause or explanation is in question.
2. the object of a person's perception<sup>62</sup>

Phenomenology *noun*

1. The science of phenomena as distinct from that of the nature of being
2. An approach that concentrates on the study of consciousness and the objects of direct experience<sup>63</sup>  
'Phenomenology's insistence on describing phenomena as they appear thus opened up to philosophical reflection the realm of experience as it is experienced by ordinary individuals in everyday life prior to the theoretical attitude of 'objective'

thought.<sup>64</sup>

Plane *noun*

1. A flat surface on which a straight line joining any two points on it would wholly lie  
‘the horizontal plane’
2. An imaginary flat surface through or joining material objects<sup>65</sup>

Power *noun*

1. The ability or capacity to do something or act in a particular way<sup>66</sup>  
‘Spinoza regards potentiality as creative and expressive; if all life is the striving to express substance in all its different potentials then the fulfilment or joy of human life is the expansion of power.’<sup>67</sup>

Repetition *noun*

1. The recurrence of an action or event
2. A thing repeated  
‘the geometric repetitions of Islamic art’<sup>68</sup>
3. ‘That is to say, repetition is connected to the power of difference in terms of a productive process that produces variation in and through every repetition. In this way, repetition is best understood in terms of discovery and experimentation; it allows new experiences, affects and expressions to emerge. To repeat is to begin again; to affirm the power of the new and the unforeseeable.’<sup>69</sup>

Score *noun*

1. A notch or line cut or scratched into a surface<sup>70</sup>



Sensation *noun*

1. A physical feeling or perception resulting from something that happens to or comes into contact with the body
2. An inexplicable awareness or impression<sup>71</sup>  
'Sensation opens at the threshold of sense, at those moments prior to when a subject discovers the meaning of something or enters into a process of reasoned cognition. Sensation takes place before cognition and thus pertains to significance.'<sup>72</sup>

Singularity *noun*

1. 'Singularities are the 'zone of clear expression' of the monad. Less abstractly, in terms of civic geography, a singularity would be a county, a regional department, or even topography...A singularity is a unique point but it is also a point of perpetual recommencement and of variation'<sup>73</sup>

Subjective *adjective*

1. Based on or influenced by personal feelings, tastes, or opinions  
'there is always the danger of making a subjective judgement'
2. Dependent on the mind or on an individual's perception for its existence<sup>74</sup>

Substance *noun*

1. A particular kind of matter with uniform properties  
'a steel tube coated with a waxy substance'
2. The real physical matter of which a person or thing consists and which has a tangible, solid presence<sup>75</sup>
3. 'In traditional metaphysics, a substance is whatever

can exist without requiring any other being in order to be. For instance, there cannot be whiteness without some thing that is white; substance is the bearer of predicates or properties.<sup>76</sup>

Territory *noun*

1. Land with a specific characteristic  
'woodland territory'
2. An area defended by an animal or group of animals against others of the same sex or species
3. An area of knowledge, activity or experience<sup>77</sup>
4. 'A territory refers to a mobile and shifting centre that is localizable as a specific point in space and time'<sup>78</sup>

Vibratory *noun*

1. Consisting of, capable of, or causing vibration or oscillation<sup>79</sup>

Notes:

- 1 Abstraction. Oxford Dictionaries. Oxford University Press. <http://www.oxforddictionaries.com/definition/english/abstraction> (accessed June 29, 2015).
- 2 Colman, Felicity J. "Affect." The Deleuze Dictionary. By Adrian Parr. New York: Columbia UP, 2005. 11. Print.
- 3 Aggregation. Oxford Dictionaries.
- 4 Graham Livesey "Assemblage." The Deleuze Dictionary.
- 5 Atmosphere. Oxford Dictionaries.
- 6 Attribute. Oxford Dictionaries.
- 7 Cliff Stagoll "Becomming." The Deleuze Dictionary.
- 8 Bruce Baugh "Body." The Deleuze Dictionary.
- 9 Chaos. Oxford Dictionaries.
- 10 Alberto Toscano "Chaos." The Deleuze Dictionary.
- 11 Concept. Oxford Dictionaries.
- 12 Cliff Stagoll "Concept." The Deleuze Dictionary.
- 13 Desire. Oxford Dictionaries.
- 14 Kahn, Louis I. Silence and Light. Tokyo: U, 1973. Print.
- 15 Deterritorialization. Oxford Dictionaries.

- 16 Adrian Parr “Deterritorialization/Reterritorialization.”  
The Deleuze Dictionary.
- 17 Difference. Oxford Dictionaries.
- 18 Cliff Stagoll “Difference.” The Deleuze Dictionary.
- 19 Discontinuity. Oxford Dictionaries.
- 20 Discursive. Oxford Dictionaries.
- 21 Edge. Oxford Dictionaries.
- 22 Emotion. Oxford Dictionaries.
- 23 Emotive. Oxford Dictionaries.
- 24 Encounter. Oxford Dictionaries.
- 25 “Encounter.” Merriam-Webster.com. Merriam-Webster,  
n.d. Web. <[http://www.merriam-webster.com/dictionary/  
encounter](http://www.merriam-webster.com/dictionary/encounter)>.29 June 2015.
- 26 Ethics. Oxford Dictionaries.
- 27 John Marks “Ethics.” The Deleuze Dictionary.
- 28 Experience. Oxford Dictionaries.
- 29 Inna Semetsky “Experience.” The Deleuze Dictionary.
- 30 Experiment. Oxford Dictionaries.
- 31 Bruce Baugh “Experiment.” The Deleuze Dictionary.
- 32 Express. Oxford Dictionaries.
- 33 Expression. Oxford Dictionaries.
- 34 Claire Colebrook “Expression.” The Deleuze Dictionary.
- 35 ibid
- 36 “Expressivity.” Merriam-Webster.com.
- 37 Expressionism. Oxford Dictionaries.
- 38 Genesis. Oxford Dictionaries.
- 39 Haecceity. Oxford Dictionaries.
- 40 Identity. Oxford Dictionaries.
- 41 James Williams “Identity.” The Deleuze Dictionary.
- 42 Intensity. Oxford Dictionaries.
- 43 Constantin V. Boundas “Intensity.” The Deleuze  
Dictionary.
- 44 Intuition. Oxford Dictionaries.
- 45 Cliff Stagoll “Intuition.” The Deleuze Dictionary.
- 46 Line. Oxford Dictionaries.
- 47 “Line” Online Etymology Dictionary.
- 48 Tamsin Lorraine “Lines of Flight.” The Deleuze  
Dictionary.
- 49 Cliff Stagoll “Memory.” The Deleuze Dictionary.
- 50 Materialism. Oxford Dictionaries.
- 51 John Marks “Materialism.” The Deleuze Dictionary.
- 52 Kenneth Surin “Materialism+Philosophy.” The Deleuze  
Dictionary.
- 53 Matter. Oxford Dictionaries.

- 54 "Morphogenesis." Merriam-Webster.com.
- 55 "Motive." Merriam-Webster.com.
- 56 Multiplicity. Oxford Dictionaries.
- 57 Jonathan Roffe "Multiplicity." The Deleuze Dictionary.
- 58 Neutral. Oxford Dictionaries.
- 59 Percept. Oxford Dictionaries.
- 60 John Marks "Percept + Litterature." The Deleuze Dictionary.
- 61 Perception. Oxford Dictionaries.
- 62 Phenomenon. Oxford Dictionaries.
- 63 Phenomenology. Oxford Dictionaries.
- 64 Tamsin Lorraine "Phenomenology." The Deleuze Dictionary.
- 65 Plane. Oxford Dictionaries.
- 66 Power. Oxford Dictionaries.
- 67 Claire Colebrook "Power." The Deleuze Dictionary.
- 68 Repetition. Oxford Dictionaries.
- 69 Adrian Parr "Repetition." The Deleuze Dictionary.
- 70 Score. Oxford Dictionaries.
- 71 Sensation. Oxford Dictionaries.
- 72 Tom Conley "Sensation." The Deleuze Dictionary.
- 73 Tom Conley "Singularity." The Deleuze Dictionary.
- 74 Subjective. Oxford Dictionaries.
- 75 Substance. Oxford Dictionaries.
- 76 Claire Colebrook "Substance." The Deleuze. 279 77
- Territory. Oxford Dictionaries.
- 78 Kylie Message "Territory." The Deleuze Dictionary. 79
- Vibratory. Oxford Dictionaries.

## Bibliography

- Bachelard, Gaston, 1884-1962. 1994. *The poetics of space*, ed. M. Jolas. Boston: Beacon Press.
- Bennett, Jane, 1957-. 2010. *Vibrant matter : A political ecology of things*. Durham; Durham N.C.]: Duke University Press.
- Benson, Timothy O., 1950-. 2001. *Expressionist utopias : Paradise, metropolis, architectural fantasy*, eds. David Frisby, Los Angeles County Museum of Art. Berkeley, CA: University of California Press.
- Curti, Corrado. Material(ism) for architects: A conversation with manuel DeLanda. 2010 [cited May 4 2015 2015]. Available from <http://www.cluster.eu/2010/10/08/materialism-for-architects-a-conversation-with-manuel-delanda/>.
- DeLanda, Manuel. 2006. Matter matters material expressivity. *Domus Issue 893*. June 2006.
- Deleuze, Gilles. 1990. *Expressionism in philosophy : Spinoza*. Trans. Joughin Martin. New York; New York : Cambridge, Mass.: Zone; Zone Books; Zone Books ; Distributed by MIT Press.
- Deleuze, Gilles, 1925-1995. 2003. *Francis bacon : The logic of sensation*. Minneapolis: University of Minnesota Press.
- . Gilles Deleuze, lecture transcripts on spinoza's concept of affect. Les Cours De Gilles Deleuze, 1978 [cited July 20 2014]. Available from <http://www.webdeleuze.com/php/sommaire.html>.
- Deleuze, Gilles, and Felix Guattari. 1987. *A thousand plateaus : Capitalism and schizophrenia*. Minneapolis: University of Minnesota Press.
- European Graduate School Video Lectures. Manuel DeLanda - the philosophy of gilles deleuze. 2007 1/5. in YouTube [database online]. [cited 15 January 2015]. Available from <https://www.youtube.com/watch?v=zqisvKSuA70>.
- Gaudí, Antoni, 1852-1926. 1978. *Casa batllo, barcelona, spain, 1905-07 ; casa mila, barcelona, spain, 1905-10*. Tokyo: A.D.A. EDITA.
- Guggenheim, Solomon R. 1980. *Expressionism, a german intuition*,

- 1905-1920. New York: Solomon R. Guggenheim Foundation.
- Hesse, Eva, 1936-1970., Sol LeWitt 1928-2007., Veronica Roberts editor., Lippard, Lucy R., writer of added commentary., Swenson, Kirsten, writer of added commentary., and Blanton Museum of Art, host institution. 2014. *Converging lines : Eva hesse and sol LeWitt*. New Haven: Blanton Museum of Art in association with Yale University Press.
- Hesse, Eva, 1936-1970., Griselda Pollock, and Vanessa Corby. 2006. *Encountering eva hesse*. Munich ; New York: Prestel.
- Hesse, Eva, 1936-1970. 2006. *Eva hesse : Catalogue raisonné*. Wiesbaden] : New Haven: Museum Wiesbaden ; Yale University Press.
- Hoffman, Dan, 1951-. 1994. *Architecture studio : Cranbrook academy of art, 1986-1993*. New York: Rizzoli.
- Jabes, Edmond, and Bracha Lichtenberg Ettinger. 1990. *A threshold where we are afraid*. Oxford: Museum of Modern Art.
- Kahn, Louis I., 1901-1974, author. 2013. *Silence and light : The master's voice in the lecture for students at the department of architecture of the Eidgenössische technische hochschule ETH zurich (swiss federal institute of technology), february 12, 1969, auditorium maximum, ETH zurich*, eds. Alessandro Vassella editor., University of Pennsylvania. Louis I. Kahn Collection., Pennsylvania Historical and Museum Commission. and Eidgenössische Technische Hochschule Zürich. Zurich: Park Books.
- Kahn, Louis I., 1901-1974. 1986. *What will be has always been : The words of louis I. kahn*. Los Angeles : New York: Sui Dynasty ; Rizzoli.
- Klee, Paul, 1879-1940. 1968. *Pedagogical sketchbook*. London: Faber and Faber.
- Krauss, Rosalind E. 1993. *The optical unconscious*. Cambridge, Mass.: MIT Press.
- Langer, Susanne K. (Susanne Katherina Knauth), 1895-1985. 1953. *Feeling and form : A theory of art developed from philosophy in a new*

- key*. London; New York, Scribner <1953>: Routledge & Paul.
- Lima, Zeuler Rocha Mello de Almeida, author. 2013. *Lina bo bardi*, ed. Bergdoll, Barry, writer of added commentary. New Haven: Yale University Press.
- Luo, Amy. 2015. Salvage economy; geoffery farmer's mid-career survey at the vancouver art gallery. *Canadian Art*. Sept 15.
- Martin, Agnes, 1912-2004. 2012. *Agnes martin : Paintings, writings, remembrances*, ed. Arnold B. Glimcher. London: Phaidon Press.
- . 1993. *Agnes martin : Paintings and drawings, 1977-1991*, eds. Emma Anderson, Serpentine Gallery. London]; London England] : Serpentine Gallery, 1993: Serpentine Gallery.
- Massumi, Brian. 1998. The diagram as technique of existence. *Any* 23.
- Massumi, Brian. 2011. *Semblance and event activist philosophy and the occurrent arts*, ed. Inc ebrary. Cambridge, Mass.; Cambridge, Massachusetts: MIT Press.
- Moura, Eduardo Souto de, 1952- architect. 2012. *Floating images : Eduardo souto de moura's wall atlas*. Zürich, Switzerland: Lars Müller Verlag.
- Pallasmaa, Juhani. 2005. *The eyes of the skin : Architecture and the senses*. Chichester : Hoboken, NJ: Wiley-Academy ; John Wiley & Sons.
- Parr, Adrian. 2011. *The deleuze dictionary*. Rev. ed. ed. Edinburgh: Edinburgh University Press.
- Plummer, Henry, 1946-. 2013. *Cosmos of light : The sacred architecture of le corbusier*. Bloomington and Indianapolis: Indiana University Press.
- Richter, Gerhard, 1932-. 2006. *Atlas*, eds. Helmut Friedel, Städtische Galerie im Lenbachhaus München. Köln : New York: Verlag der Buchhandlung Walther König ; D.A.P./Distributed Art Publishers.
- Rosenberg, Harold. 1971. *The tradition of the new*. Freeport, N.Y. : Books for Libraries Press, 1971: .

- Sheppard, Adrian. The return of expressionism and the architecture of luigi moretti. , <http://www.mcgill.ca/architecture/files/architecture/ExpressionismMoretti.pdf>.
- Takasaki, Masaharu, 1953-. 1998. *Takasaki masaharu : An architecture of cosmology*. New York: Princeton Architectural Press.
- Worringer, Wilhelm, 1881-1965. 1964. *Form in gothic*. [Rev. ed.] Containing the original illus. ed. New York; London: Schocken Books; A. Tiranti.
- Zumthor, Peter. 2006. *Atmospheres : Architectural environments, surrounding objects*. Basel: Birkhäuser.