

Haecceity, Drawing and Mapping

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Introduction

In this paper I will relate the notion *haecceity* or 'this-ness' to architectural drawing, mapping and method in architectural practice-based research. The notion of haecceities connected to architectural drawing opens up an understanding of architectural drawing distinct from 'merely' representing built or buildable, optimized architectural space. That the architectural drawing *represents* building and space is inherent, but, for the same reason, the architectural drawing's power to *produce* space and building is sometimes diminished. Another obvious reason for understanding drawing as a capacity in its own right is that many architectural projects are never built, but live their life as drawings and produce a large effect and affect as such. They serve as inspiration, they teach, and are sometimes even canonized as pieces of art. The graphical formations in the architectural drawing, which ultimately produce space and building, belong to a space in its own capacity, a space that supports the manifold processes of individuation. The haecceity of drawing makes it possible for these processes of individuation to take place. The productive properties of drawing can be exploited in design practice as well as practice-based research, because the drawing enables us to create real problems:

The truth is that in philosophy and even elsewhere it is a question of finding the problem and consequently of posing it, even more than of solving it. For a speculative problem is solved as soon as it is properly stated.

By that I mean that its solution exists then, although it

may be hidden and, so to speak, covered up: The only thing left to do is to uncover it. But stating the problem is not simply uncovering, it is inventing.¹

Whether a problem is speculative, like the posing of a hypothesis, or embedded in an object as an actual or virtual construction (in a drawing, for example), it is the process of creation that is of interest here, and how that process is enabled by haecceities. Understanding problem creation as a working method² makes it possible for architects to make use of their practice-based skills in architectural research.

Affect and Ethics

Deleuze and Guattari present an understanding of individuation and haecceities as dynamic, producing relations between ethics and art,³ which co-produce *affects*. In Deleuze affect is a key notion, and has many connections with other concepts. Affect is a force that acts out in the way people live; in the life-world, with which architecture is inherently connected. Affect is also a force that is acted out on the drawing plane. It is the link between art and ethics: art as producing affects, and ethics as a way to live as affected by and affecting back a particular milieu.⁴ Affects, of course, do not only stem from art, in general affect can be said to drive behaviour.⁵ Inspired by Spinoza, Deleuze and Guattari propose the understanding of ethics as an ethology,⁶ which is the science of how humans and animals behave in their milieu. Ethics as ethology is a way to live, which is inter-related with affect.⁷ The connection between ethics, art and affects enables the emer-

gence of novel modes of creation,⁸ modes that are not subjugated to *moral* rules, but are directly engaged with living. Thus, affect is at stake both in drawing and in life. If we connect architectural drawing to this rhizome of concepts, we have an approach to drawing which does not stem from building, but concerns the drawing in itself, engaged with producing frames for life, both on the drawing plane and on the plane, which the drawing represents.

Inspired by Bergson, Deleuze elaborates a line of thought on evolution in which instinct is a means to act and an embodiment of thought. For instance, the eye is *both* a construction (a problem created) *and* the solution to a problem posed in terms of light,⁹ and therefore an embodiment of already organized thought. Intelligence, on the other hand, is the organization of thought. This line of thought can be seen in parallel to the multiple capacities of drawing. As both an act/activity and as an object in different states of transformation in time, drawing is well-known to enable the architect to organize thoughts and let instinct act. When drawing, the architect is confronted with what could be called the ethics of drawing: In order to draw, something must be drawn.¹⁰ This cannot happen without some kind of affect. The Deleuze and Guattarian concept of haecceities, which is at the heart of the connection between ethics and art,¹¹ enables an understanding of architectural drawing as inevitably interrelated with life-worlds. Drawing, as both act and object, is directly connected to a here and now of life, and when drawing in relation to a site, the drawing is furthermore connected to the life of that site. The drawing's haecceity is the simple fact that the drawing is there – either as a piece of paper or a file in the computer – as a plane for the architect to work upon and to affect in a process of individuation. On the one hand, life unfolds on the drawing plane, it populates and individuates the drawing; on the other, life unfolds on the plane of a site.

Analogue and Digital Notational Systems

In architectural practice and research today there is great interest in computational technology with two different aims: the one is to optimize building processes and enlarge the register of architectural construction; the other is to use the computer to produce spectacular, fascinating and surprising form. The computer has the capacity to simulate evolutionary processes found in nature, like the becoming of an anthill. While this is truly fascinating, rethinking the analogue and the digital may enable a fertile meeting between determinism and indeterminism in site-specific drawing. The analogue and the digital are opposites in the sense that digital means discontinuous and analogue means continuous. A vinyl record is analogue. It has a continuous groove, an imprint, produced by physical sound waves. Like an 'old-fashioned' camera, which records light waves on film, analogue devices are able to record physical events, as opposed to digital devices, which depend on input from an analogue device translated into digital code.

It is tempting to describe the computer as a determinate, digital machine, but because architectural computer programs have a user interface, which mimics working procedures traditionally done by hand, I think we can talk about 'handmade computer drawing',¹² which then also contains the indeterminate. 'Handmade computer drawing' does not use the full potential of the computer as a calculator, but nevertheless benefits from some abilities of the computer. On the other hand, there is also hand drawing, which is strictly digital because it communicates via digital code. We usually understand computer drawings as digital and hand drawings as analogue. In order to change this understanding and open up towards an already existing but less emphasized architectural practice of analogue and digital mixtures,¹³ we can separate the physical drawing *tools* from the more abstract graphical *notational systems*. The tools are typically the hand and the computer, and the nota-

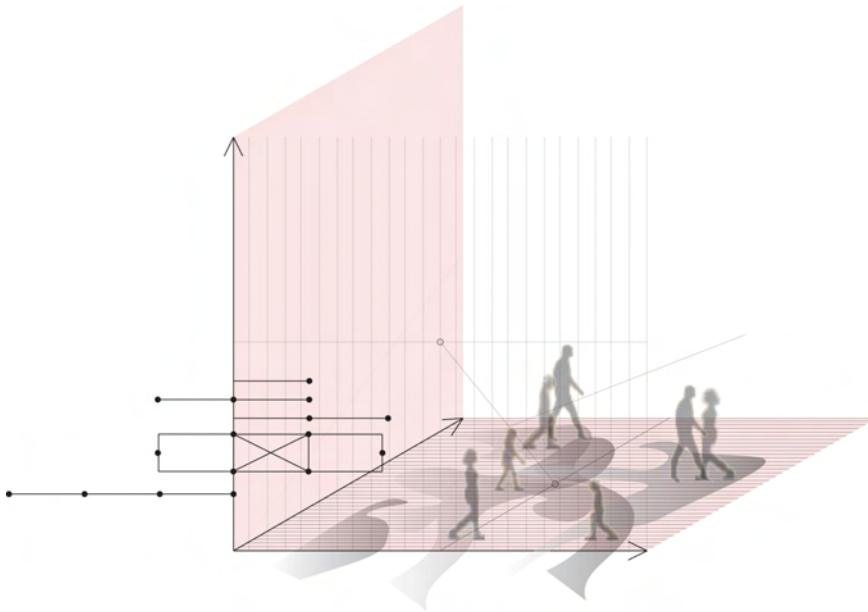


Fig. 1

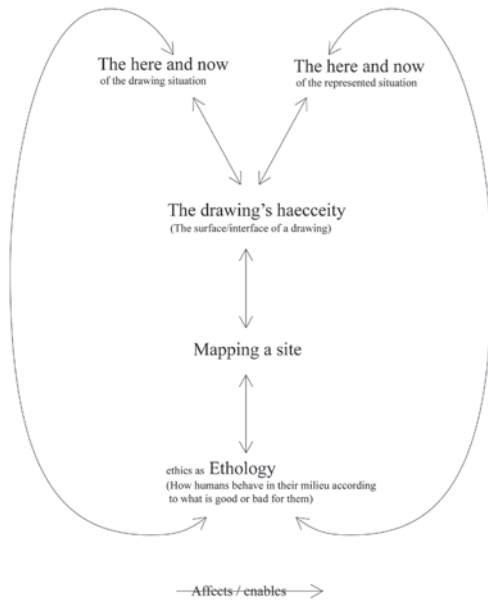


Fig. 2

Fig. 1: Points, lines, life

Fig. 2: Diagram of connections which meet in drawing

tional systems are the graphical systems used to put down configurations in the drawing. Obviously, the hand is an analogue tool, and the computer is a digital tool. But no matter if we deal with hand or computer drawing, analogue and digital notational systems are used. In *Languages of Art*, Nelson Goodman investigates the symbol systems of different art forms and their amenability to a notational system. He proposes that if an art form is amenable to a notational system, it is digital, notational and *allographic*,¹⁴ whereas if it is not, it is analogue, non-notational and *autographic*. Basically, Goodman uses the two categories as means to determine authorship:¹⁵ Painting, for example, is non-notational and is only regarded to be original when a direct connection to the author can be traced; hence painting is an autographic art form. Music, on the other hand, is amenable to a notational system, and a piece of music is original as an instance of a work, hence music is an allographic art form.¹⁶ Both digital and analogue systems should have meaning and should not be redundant.¹⁷ But the meaning of an analogue system is related to a physical event in a continuum, whereas meaning in a digital system is relative. Objects such as a seismograph, a counter, and a watch make use of an analogue, a digital, and a mixed system, respectively.¹⁸ A seismograph measures the trembling of the earth, and the graph produced by a seismograph is directly connected to a physical event, and therefore analogue. A counter counts and is in a relative relation to that which it counts, like a cash register, and is therefore digital. A watch is also counting, but is read in relation to how long a day lasts, not to the beginning of all time. The lasting of a day, however, is determined by the position and rotation of the earth and the sun, which is a physical connection that describes a location in a continuum, and because the watch is both counting in a relative relation (the lasting of a day) and in an absolute relation (the globe's location in a continuum), it is a mixed case. The same goes for roadmaps,¹⁹ because they contain information of the land they represent (analogue), and informa-

tion of a relative, topological kind (digital).²⁰ As in roadmaps, analogue and digital notational systems mix in architectural drawing, which is able to represent both kinds of information. Projective, analogue information, like tracings of the earth's contours, and digital information, like measurements and topological relations.

It seems meaningful to talk about digital and analogue notational systems rather than notational or non-notational systems, like Goodman does. We can still use Goodman's definitions of the analogue and the digital, but instead of seeking to separate them; it could be more fruitful to see these apparent oppositions as interrelated and interdependent. As graphical formations the notational systems are used to both unify and retain differences of analogue and digital kind in the same drawing. This move can be seen as a 'Deleuzefication' of Goodman, because Deleuze (inspired by Bergson) presents an approach to the world, where the world is a multiplicity of orders that are distinguished by difference, rather than by negation.²¹ A negation involves a general idea of *less and a more*²² and implies hierarchy instead of juxtaposition.

I agree with Goodman that *diagrams* can engage both the digital and the analogue,²³ but that an architectural plan is a 'digital diagram',²⁴ as Goodman hesitatingly concludes, is too narrow a definition. It is rather simply a diagram with both analogue and digital information. Goodman himself has difficulties categorizing the 'mixed and transitional case'²⁵ of architecture, but concludes that architecture is prevalently allographic, because elements and measurements in the architectural drawing mostly indicate relative location, and not location in a continuum. Drawings of a house are digital because elements in the drawing comply with elements in the house, and, in principle, the house can be placed anywhere.²⁶ The mapping and the site plan, however, are good examples of the opposite, namely that situatedness and location are

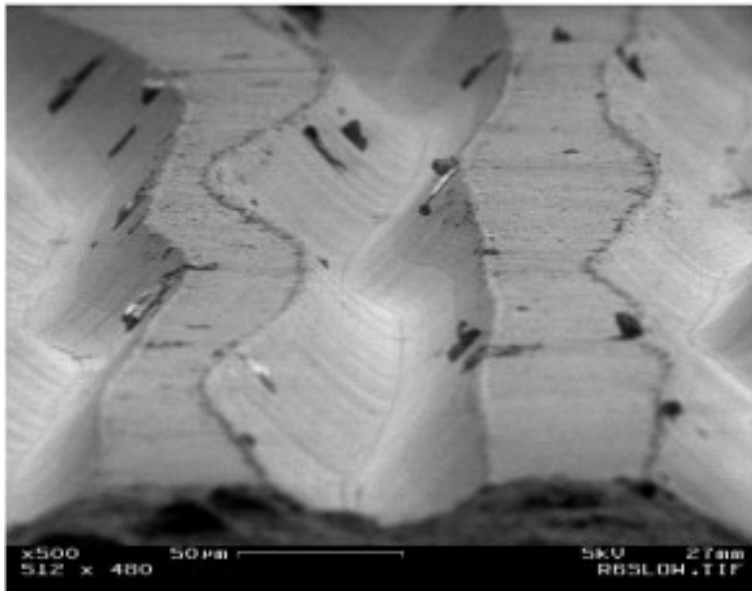
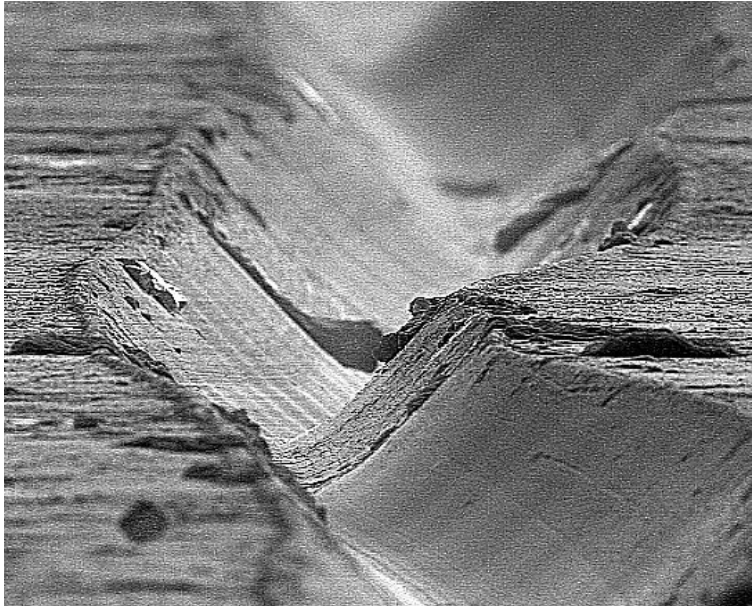


Fig. 3: Analogue system for storing sound (top), close up of record groove (bottom)

factors that affect architecture. That the digital is non-situated or generic in character is a tendency often seen in designs that are bred strictly in digital, generic environments. An understanding of the analogue and the digital as distinct but interdependent notions may open up for a way to approach a site, and create a meeting between digital, generic production and analogue, non-generic, milieus. This meeting could advantageously take place in drawing, which has a transversal capacity to make use of both analogue and digital tools and notational systems, no matter if it is made with pen, ruler and set square or computer scripting.

Haecceity

Haecceity is the becoming individual from having been undifferentiated.²⁷ It is something very concrete, a thisness, like a drawing, and describes a process of individuation, like *when* drawing.

Etymologically speaking, an haecceity is a *thisness* (from the Latin *haec*). The idea is that among the properties of an object, there is the property of being that very object.²⁸

[A haecceity is] the quality implied in the use of *this*, as *this man*; 'thisness'; 'hereness and nowness'; that quality or mode of being in virtue of which a thing is or becomes a definite individual; individuality.²⁹

The concept stems from the medieval philosopher John Duns Scotus,³⁰ and is further elaborated by Deleuze and Guattari,³¹ who use it to describe a change between states, the becoming individual by becoming different from what was before in a process of change or division. To them haecceities regard almost anything, not just objects and subjects.

A season, a winter, a summer, an hour, a date have a perfect individuality lacking nothing, even though this individuality is different from that of a thing or a subject. They are haecceities ... capacities to affect and be affected.³²

Deleuze and Guattari draw on Scotus, Spinoza and Bergson³³ when linking haecceities, art and ethics. In order to shed some more light on what the role of haecceities is, I will unfold the concept *intensity*, which plays a parallel but not completely similar role.³⁴ Intensity can be traced back to Deleuze's elaboration of Bergson's conceptualization of time and space.³⁵ Originally, Bergson distinguishes between time, or duration as he calls it, as that which divides only by changing in kind,³⁶ whereas space is divided by changing in *degree*. When dividing space, which in Bergson is defined as an *objective quantity*, we find equivalence between the divided and the number of divisions.³⁷ A change in kind, on the other hand, is caused by a *subjective, qualitative* difference, which is 'susceptible to measurement only by varying its metrical principle at each stage of the division.'³⁸ In Bergson, time or duration presents the 'right side', because Bergson thinks of space as a mere location for duration, whereas duration is that which spawns qualitative differences and changes.³⁹

Take a lump of sugar: It has a spatial configuration. But if we approach it from that angle, all we will ever grasp are differences in degree between that sugar and any other thing. But it also has a duration, a rhythm of duration, a way of being in time that is at least partially revealed in the process of its dissolving, and that shows how this sugar differs in kind not only from other things, but first of all from itself. This alteration, which is one with the essence or the substance of a thing, is what we grasp when we conceive it in terms of Duration.⁴⁰

The sugar is conceived *both* as a 'mere' spatial object that can be described in terms of external measurements, *and* as a piece of matter, which enables a change of state caused by intensive differences. Deleuze turns Bergson's distinction between differences in kind and differences in degree into an interrelationship between the two. He observes that Bergson himself indirectly claims that differences ultimately occur by virtue of *intensity* of contraction

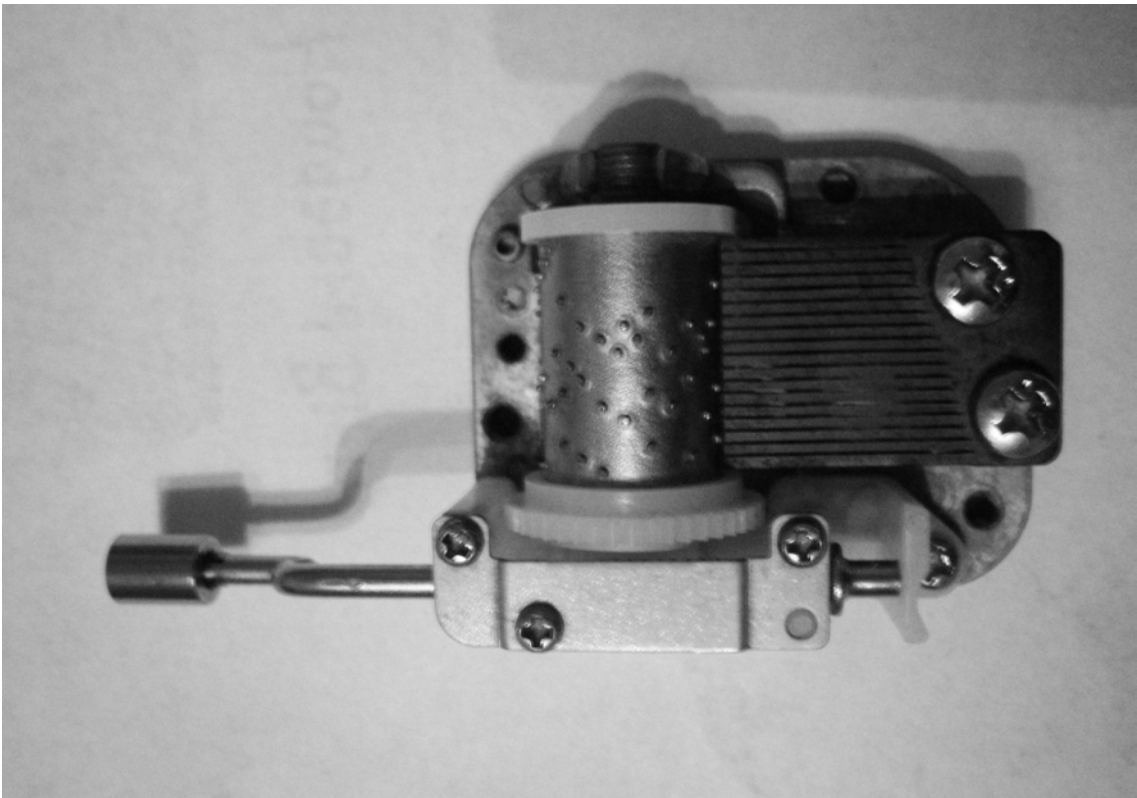


Fig. 4: Digital system for storing sound, musical box



Fig. 5: Captions from the top down:
1: Dismantling the Mercator world map its analogue information: 2: Projective manipulation of the drawing plane: 45 degrees rotation of time zones: 3: Another Pangaea.

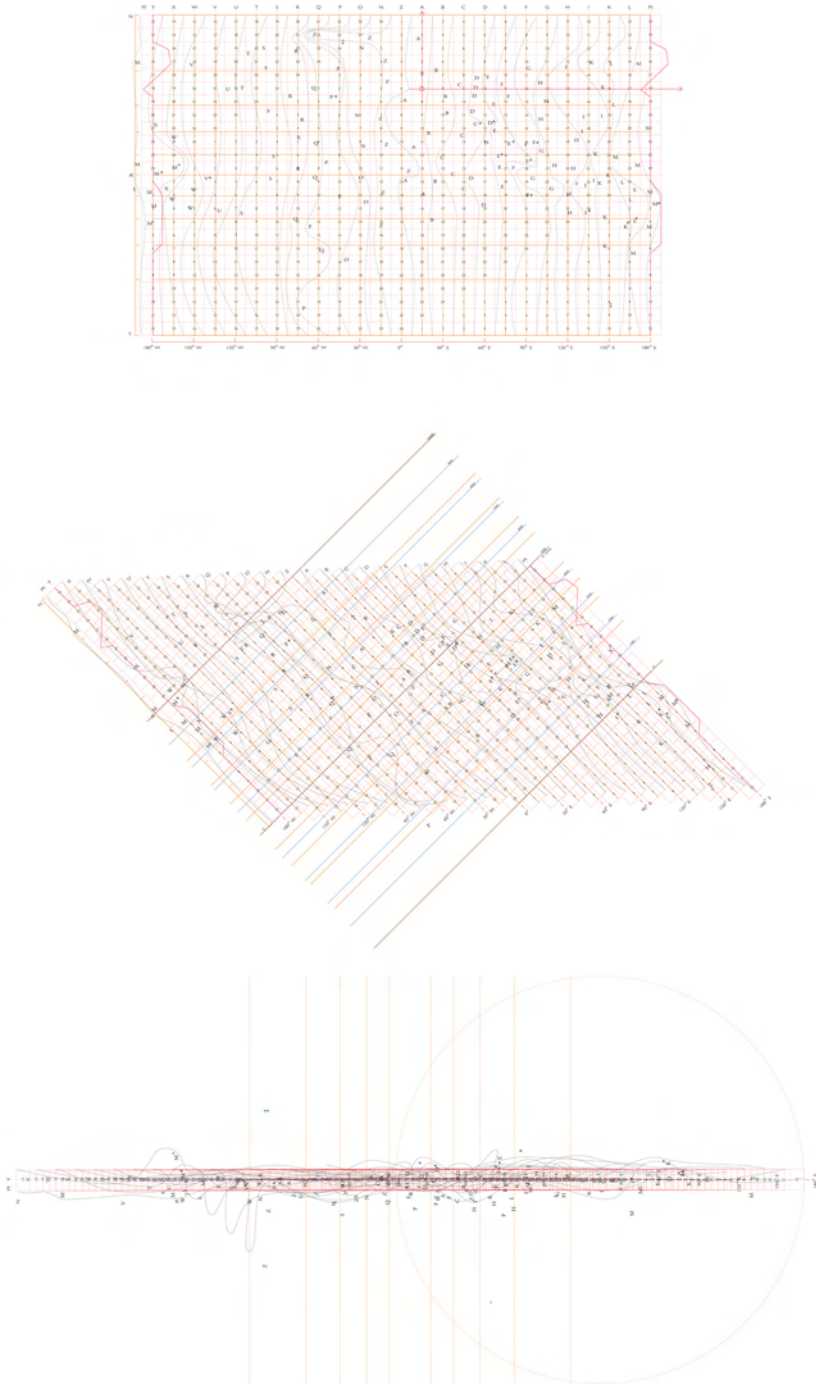


Fig. 6: Captions from the top down:
1: Digital information: Degrees, latitudes, longitudes and time zone systems: 2: Projective manipulation of counting systems: 3: A new intensity.

or relaxation. Thereby Deleuze gathers that it is ultimately a question of interrelation between time and space in terms of intensity, and not a clear-cut distinction, but rather a fluent transition between the two.⁴¹ By observing this, Deleuze changes Bergson's original distinctions between kind/time and space/degree into an interrelationship of intensities and extensities, where intensive processes produce the extensive form.⁴² A haecceity makes a meeting possible where an alteration of intensity can be produced. Like a fractal, this process may potentially happen again and again in all kinds of different connections. Intensities, then, as 'drivers of' dynamic processes of evolution, such as embryogenesis,⁴³ produce not only the measurable world, but are also co-producers of affect and sensation.⁴⁴

What, in fact, is a sensation? It is the operation of contracting trillions of vibrations onto a receptive surface. Quality emerges from this, quality that is nothing other than contracted quantity. This is how the notion of contraction (or of tension) allows us to go beyond the duality of homogeneous quantity and heterogeneous quality, and to pass from one to the other in a continuous movement.⁴⁵

The notion of affects and sensations, which are caused by intensities, haecceities and processes of individuation, is the link between ethics and art, because, in understanding ethics as an ethology, life is a product of *affecting* and *being affected* in a milieu,⁴⁶ both with instinctive, bodily acting and organizing, 'mindly' thoughts.

Ethics and the Production of Affect

Because haecceities enable the production of affect and are produced by affect, they open up a kind of creation, which does not follow moral rules, but ethical ones. Ethics is distinguished from moral in the sense that moral is concerned with rules to govern the behaviour of the body, and with determining categories of 'Good and Evil', whereas ethics is concerned with 'good and bad' in the sense that we

should live in accordance with 'that which agrees with our nature or does not agree with it'.⁴⁷ On the one hand, this is an unclear guideline, because who is to judge what agrees with our nature? On the other hand, this approach gives resistance to conventions. Ethics holds a connection to instinctive acting in life in accordance with sense and affect, and poses questions such as: 'What can a body do?'⁴⁸. This relates to art, because, firstly, art creates affects, and, secondly, art 'can create the consistency necessary to understand interrelations that are real but difficult to conceive' by putting things together that are 'only apparently incompatible (and that are in fact connected)'.⁴⁹ So, we have the opening question 'What can a body do?', and to prevent the answer from being 'everything' (complete relativism), we have a situated milieu, which affects behaviour in a certain direction. In nature organisms, animals and plants act in accordance with their milieu, not due to intelligence but due to instinct.⁵⁰ Bergson understands instinct to be knowledge of matter, an 'acting on things', a kind of thought which has already been organized and embodied, like we see in the body forms of living beings. Intelligence, on the other hand, is knowledge of form, an 'organizing of thought'.⁵¹ Thought, organized or not, 'allows for the development of instruments which will serve to effect the environment in a certain way'.⁵²

Bergson's ideas sketch out a methodical approach in architectural practice-based research, because the organization of thought and the acting out of instinct can be a method to develop concrete tools, objects, techniques, technologies, as well as to motivate a way of conducting research with architectural tools, such as a ruler, a set-square, the hand and the computer, as 'body extensions' with properties embedded in them.



Fig. 7: Scanimation of the changes in the Berlin street net from 1945 until 2010. A scanimation is a technique, known from children's books, which can show changes over time. It is an interesting representational form because it can mix analogue and digital notation and information. In order for the scanimation to work properly, a transparent piece of folio with black stripes corresponding to the stripes in the drawing should be slid over a drawing like the one shown here.

Intuition and Abduction

In Bergson instinct and intuition go hand in hand, and his intuitive method seeks to crack a hole in conventions and make way for novelty to emerge.

*There are things that intelligence alone is able to seek, but which, by itself, it will never find. These things instinct alone could find; but it will never seek them.*⁵³ (emphasis in original).

Charles Sanders Peirce describes something similar under the title abduction or hypothesis (later retroduction). Abduction, as opposed to intuition, is related to 'traditional science', as the first stage of a scientific process, the posing of a hypothesis: the construction of a qualified guess. In Peirce logic marks the scientific process, and because there is logic behind abduction, it is a method in line with induction and deduction. The posing of a hypothesis obviously bears some similarities with the creation of a problem. As opposed to Karl Popper, who thought that the posing of a hypothesis was unscientific,⁵⁴ Peirce thought that abduction describes a logical, systematic inference. He thought of abduction as being simultaneously the 'highest' and the 'lowest' class of inference.⁵⁵ Low, because the logic behind abduction is vague, and high, because, as opposed to induction and deduction, abduction is the only kind of inference that can open up new ground.⁵⁶ Abduction is low on security, but high on *uberty*, richness or fruitfulness, and has a tendency to be affirmative.⁵⁷

A mass of facts is before us. We go through them. We examine them. We find them a confused snarl, an impenetrable jungle. We are unable to hold them in our minds. We endeavor to set them down upon paper; but they seem so multiplex intricate that we can neither satisfy ourselves that what we have set down represents the facts, nor can we get any clear idea of what it is that we have set down. But suddenly, while we are poring over our digest of the facts and are endeavoring to set them into order, it occurs to us that if we were to assume something to be true that

we do not know to be true, these facts would arrange themselves luminously. That is *abduction*.⁵⁸

Apart from the assumption of truth, which is difficult to apply to architectural design, the process described here is one of creation and invention. That facts, thoughts and lines eventually 'arrange themselves luminously', when working intensely with a certain material, is a well-known phenomenon in the architectural drawing process.

Drawing and Haecceity

What takes place in architectural drawing can both be understood as the creation of a problem and as an ever-emerging posing of hypotheses, which succeed and overwrite each other. In drawing these processes are in discussion with a material consisting of both facts and fiction, and are put down by means of physical tools, materials and notational systems. Architectural drawing taps into the generative, explorative and epistemological resources of art, where new relations between objects and concepts are created by arranging and composing a material. As a methodical way of orchestrating instinct and intelligence, drawing enables the creation of a problem, and can contain a problem and a solution to it. And as an activity conducted over time and an object in a process of transformation, drawing is many simultaneous processes of individuation. In a very basic way, drawing is a state of simultaneously doing, being and representing. On the one hand, the drawing takes place here and now and refers only to itself. It is concrete and present. On the other, the drawing represents something else, and is an actualizing field where differences are grown.⁵⁹ Architectural drawings function as epistemic objects⁶⁰ in concrete form, which enable exchanges between real and imagined worlds in symbiosis with notational systems and physical tools. In its manifold capacity the drawing makes it possible to negotiate with the world at a distance and to let new worlds emerge at the same time, clarifying processes of thought and producing

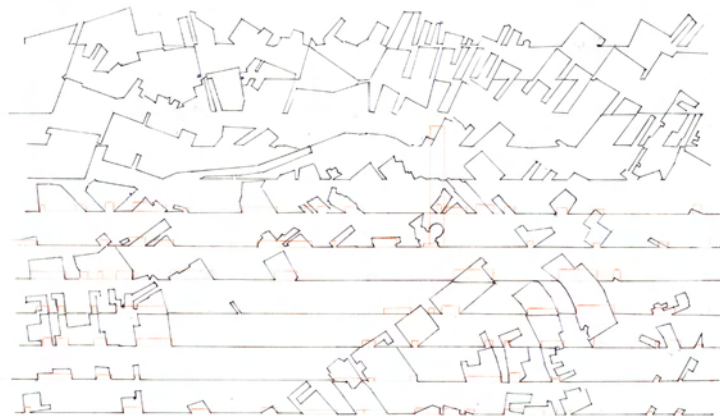
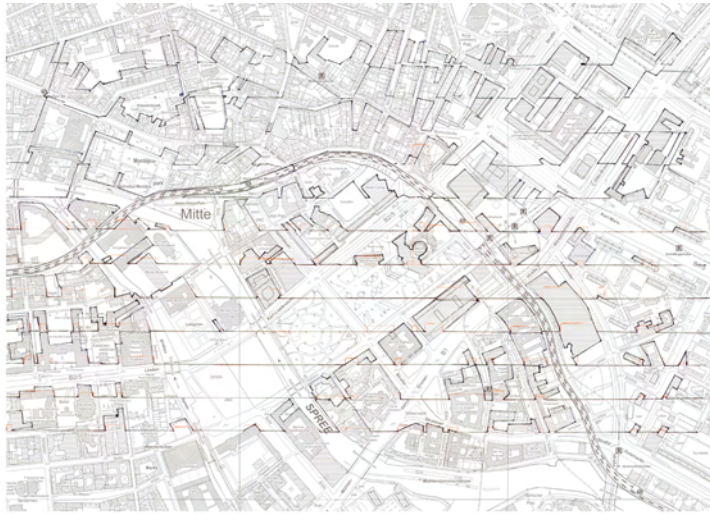


Fig. 8: Work in progress: Writing, mapping and cutting up the urban tissue, Berlin Mitte

architectural space while communicating it. The haecceity of architectural drawing is at the heart of drawing's methodical function in both design and research practice. Drawing works in both practices to drive a process forward, and is not only a piece of 'material evidence'. Just as drawing can coproduce architectural objects it can coproduce architectural thoughts, and when the two hold a part of each other we have a situation of reciprocal pollination between design and research practice.

Mapping and Haecceity

Architectural mapping is a meeting point between life-worlds and ethics. Maps of cities and maps of the globe obviously represent life-worlds; they can express both fact and fiction.⁶¹ Maps can represent the 'real world', like a projection of the curved surface of the earth onto a flat drawing plane, or a 'fictive world'. In both cases, though, maps are constructed and artificial,⁶² they are not that which they represent, but as exploratoriums they enable a meeting between the real and the fictive. Exactly by being different from that which it represents, a mapping is an exploratorium for the emergence of new possible worlds.⁶³ Because mappings have a contact-surface with the life-world they represent, as a potential plan of action, and a contact-surface with the 'here and now', as concrete objects, they are able to be affected by life and affect back life more obviously than a detail drawing, for example (although a detail can have a large impact on life as something well or poorly working, maps are grounds for playing out scenarios). Apart from helping us orientate and navigate in the world, maps are tools for dividing up the world and for making decisions; they can have a strategic function, for example when used in military campaigns.⁶⁴

Along with being strategic tools (to overlook information from the top down), maps are selected projections of actual ground conditions onto a surface⁶⁵ (a way to receive information from the bottom and up), which depicts chosen aspects of

our environment. Even if maps are fact-based, they are artificial and non-objective, both because of the situated cultural context of the mapper, and because of the techniques of cartography (mathematical formulas) that are used to project the curved and three-dimensional ground conditions onto a two-dimensional, flat surface (which doesn't mean that maps or drawings have to be two-dimensional⁶⁶). The cartography's projection distorts the one or the other aspect of the depicted ground conditions. This distortion becomes very obvious when it comes to world maps, because their purpose is to show the whole, round globe unfolded at once.⁶⁷ When zooming in on a piece of the globe, a city for example, the distortion becomes smaller, but the image that the map gives is still a selection. Hence, when we examine maps of the earth as architectural drawings, their 'double-sided' character⁶⁸ and artificiality becomes a property to exploit. The mapping receives information from two sides: from the physical surface, which the map represents, and from the working surface of the mapper.⁶⁹ Even if mapping (especially master planning, which has a bad imperialist sound to it) is often considered to be a 'top-down' practice, it is really something which, again, is in the middle, right there where 'top-down' and 'bottom-up' meet. Or at least it can be. As drawings, maps represent life-worlds, and like an exploratorium that investigates how bodies can behave and how they are limited, mappings make it possible to scrutinize the connection between behaviour and the different processes of affect that produce a certain milieu.

A Mapping Strategy

Then, what should be mapped? Is it possible for a 'loose fit' between the determinate and indeterminate to emerge by mapping a piece of contemporary urbanity?

Goodman mentions a composition by John Cage [fig. 13], which he calls an 'autograph diagram'. In contrast to traditional musical scores, which are

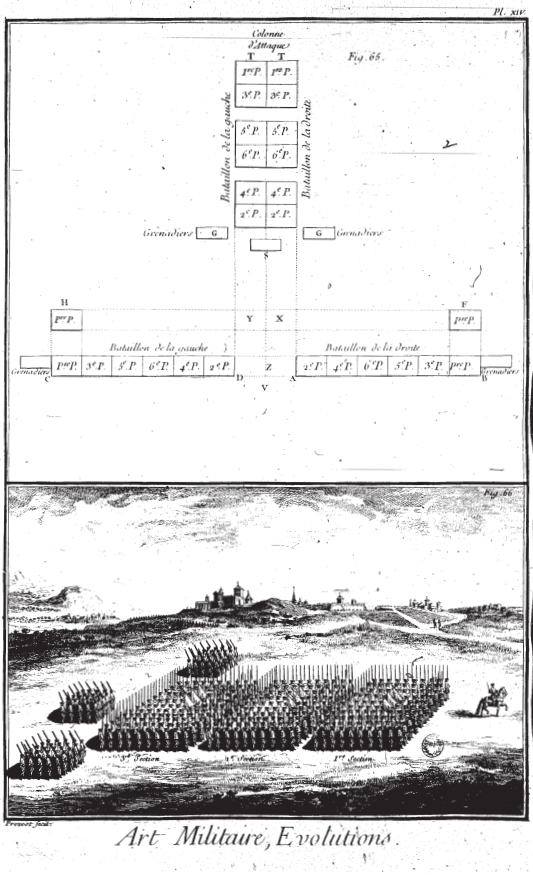


Fig. 9

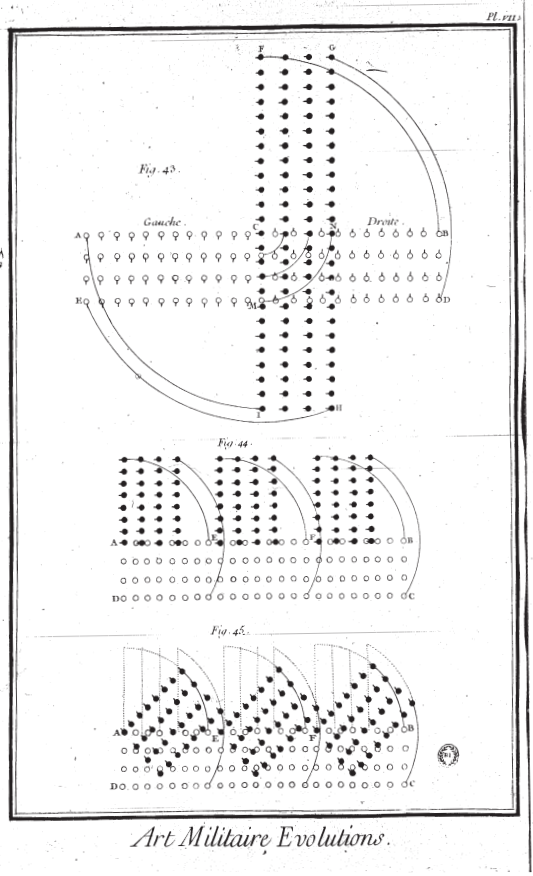


Fig. 10

Fig. 9: Diderot's Encyclopedia: Art Militaire, Evolutions
Fig. 10: Diderot's Encyclopedia: Art Militaire, Evolutions



Fig. 11



Fig. 12

Fig. 11: Work in progress: Quantitative mapping of Berlin Playgrounds. The ones with a purple dot emerged due to damage on buildings caused by bombings in the Second World War.
Fig. 12: Work in progress: Qualitative mapping of Berlin building typology.

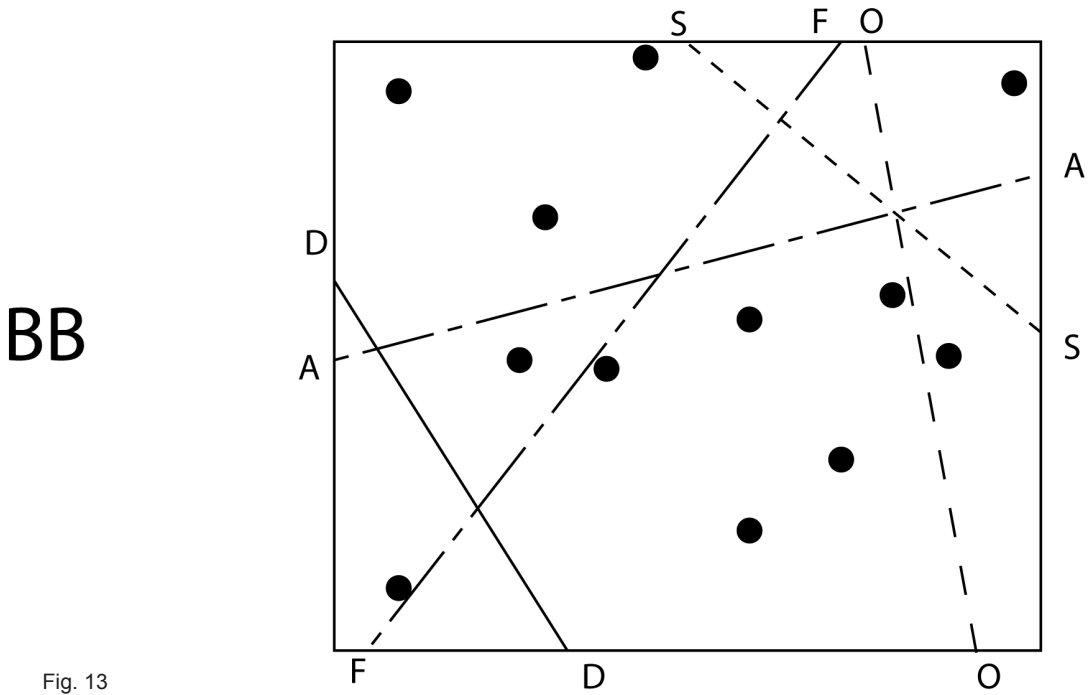


Fig. 13

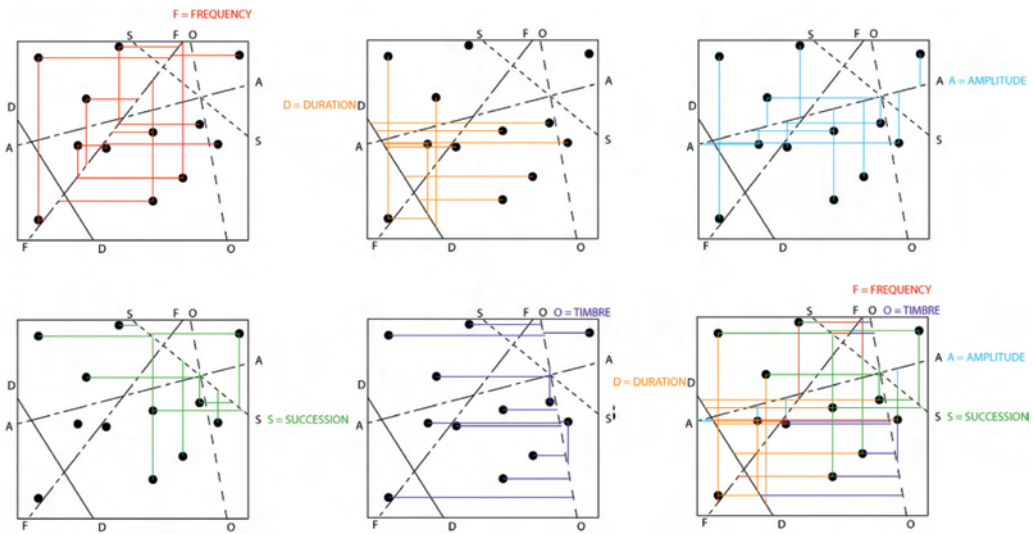


Fig. 14

Fig. 13: John Cage, musical notation, taken from: Nelson Goodman, "Languages of Art" p. 188. "Concert for Piano and Orchestra, Solo for Piano" (New York, Henmar Press, Inc., 1969), p. 53, figure BB. Redrawn by the author

Fig. 14: John Cage composition with guidelines made graphically visible by the author.

digital and allographic in Goodman, this composition is open to interpretation to an extent that makes it impossible to distinguish whether it is the same piece we are listening to every time it is played. Hence, in Goodman's definition it is analogue and autographic.⁷⁰ I think, however, that the piece is a nice example of a mapping in between the deterministic and the indeterministic, which includes the influence of affect in its proscription of a musical behaviour. The composition namely does have guidelines:

... dots, for single sounds, are placed within a rectangle; across the rectangle, at varying angles and perhaps intersecting, run five straight lines for (severally) frequency, duration, timbre, amplitude, and succession. The significant factors determining the sounds indicated by a dot are the perpendicular distances from the dot to these lines.⁷¹

To use a musical composition in relation to architecture holds some difficulties, because music is inherently more ephemeral, fleeting and less physical than architecture. But there are some principles or tendencies in the composition that may be useful. In regard to notational systems the composition is a mixed case, like a map or a diagram. The dots and the distances have a certain meaning, relative to each other (digital). And music is a physical event – think, for example, of the notion of amplitude (analogue). The composition is not bound to a specific place and the way the piece is composed graphically, is, like in a painting, hard to dismantle in relation to meaning (at least for a non-musician). The composition, however, handles complex relationships of influences between musical means of affect and the transposition of them into the physical world. What the architect might use from this musical notation is the way non-deterministic and yet rule-based influences of that 'which agrees with our nature' (in this case the nature of the musician) can be transposed into physical, situated life-worlds via drawing with digital and analogue notational systems.

Conclusion

It may seem like a lot to ascribe to drawing the ability to intervene with the way that we live, but the drawing does this in at least two ways: drawing works with affect in the sense that in the process of drawing we are affected by it and affect it back. Thereby the drawing is in a constant process of individuation, or of being continuously produced anew, it differs both from itself and from other things, like Bergson's lump of sugar. This is a sensuous property, which calls attention to the drawing's doubleness of being in contact with the here-and-now and with that 'something else' that it both represents and produces. And, because there is a difference between the drawing itself and that which it represents, drawing enables us to experiment with the represented and thus we can arrange and compose registers for action that could not be proposed and eventually tested otherwise. The extensive world is represented in our drawings as depictions of existing buildings, cities, etcetera and, simultaneously, the graphical configurations on the drawing plane calls forth intensive affects and fosters sensuous inferences. In yet another way, the drawing represents architectural space as a plan of action, and when this plan is put into effect, it affects our lives. In drawing we find a mixture of instinct/intuition and intelligence, which interacts and binds together the extensive, measurable world, and the intensive, sensuous world, facts and fiction.

So haecceity provides a means of determining an individuation which, *at the same time*, maps a differentiation *and* unity of being.⁷²

Notes

1. Here Deleuze quotes Bergson (Henri Bergson, *The Creative Mind*, 58-59 (1293, 51-52), Translated by Mabelle L. Andison, Westport, Connecticut: Greenwood Press, 1946. *La pensée et le Mouvant*, 1941) in Gilles Deleuze, *Bergsonism*, trans. by Hugh Tomlinson and Barbara Habberiam, (New York: Zone Books,

- 1988), p. 15.
2. See the work of Peter Bertram on intuitive method in relation to the architectural process, for example: Peter Bertram, *Frembringelse* (Copenhagen, Kunstakademiets Arkitektskoles Forlag, 2011).
 3. Gilles Deleuze and Félix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, trans. by Brian Massumi (Minneapolis and London: University of Minnesota Press, 1988), pp. 279-80.
 4. Anthony Uhlmann, 'Deleuze, Ethics, Ethology, and Art', in *Deleuze and Ethics*, ed. by Nathan Jun and Daniel W. Smith, (Edinburgh: Edinburgh University Press Ltd, 2011), p. 159.
 5. Gilles Deleuze and Félix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, trans. by Brian Massumi (Minneapolis; London: University of Minnesota Press, 1988), p. 283.
 6. Gilles Deleuze, *Spinoza: Practical Philosophy*, trans. by Robert Hurley (San Francisco: City Light Publishers, 1988), p. 27.
 7. Gilles Deleuze, *Spinoza: Practical Philosophy*, trans. by Robert Hurley (San Francisco: City Light Publishers, 1988), p. 27; and Gilles Deleuze and Félix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, trans. by Brian Massumi (Minneapolis and London: University of Minnesota Press, 1988), p. 283.
 8. Gilles Deleuze and Félix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, trans. by Brian Massumi (Minneapolis; London: University of Minnesota Press, 1988), p. 280. Please note that this point is being put forward by Anthony Uhlmann, 'Deleuze, Ethics, Ethology, and Art', in *Deleuze and Ethics*, ed. by Nathan Jun and Daniel W. Smith, (Edinburgh: Edinburgh University Press Ltd, 2011), p. 156.
 9. 'The construction of an eye, for example, is primarily the solution to a problem posed in terms of light.' Gilles Deleuze, *Bergsonism*, trans. By Hugh Tomlinson and Barbara Habberiam (New York: Zone Books, 1988), p. 103.
 10. On the paradox of drawing a hole, for instance, see Anette Højlund's PhD dissertation *Mind the Gap!*, The Royal Danish Academy of Fine Arts, School of Design, Copenhagen, 2011. pp. 48-59.
 11. Anthony Uhlmann, 'Deleuze, Ethics, Ethology, and Art', in *Deleuze and Ethics*, ed. by Nathan Jun and Daniel W. Smith (Edinburgh: Edinburgh University Press Ltd, 2011), p. 164.
 12. For a somewhat similar understanding see Claus Peder Pedersen's essay 'Digital Imperfection – Polemic Outline of a Digital Form of Drawing', in *Cartography Morphology Topology*, ed. by Cort Ross Dinesen (Copenhagen: Publishing House of Royal Danish Academy of Fine Arts, School of Architecture, Kunstakademiets Arkitektskoles Forlag, 2009.), pp. 80-4.
 13. On such practices see for example: Stan Allen, *Practice: Architecture Technique + Representation* (Abingdon and New York: Routledge, 2009), p. 84-92.
 14. Nelson Goodman, *Languages of Art*, (Indianapolis and Cambridge: Hackett Publishing Company, inc., Second Edition, 1976), p. 113.
 15. Goodman, *Languages of Art*, p. 160. Goodman defines the digital/notational/allographic and the analogue/non-notational/autographic according to syntactical and semantical *density*. If 'dense throughout' a system is analogue, if 'differentiated throughout', a system is digital. '... a *system* is analog if syntactically and semantically dense. Analog systems are thus both syntactically and semantically undifferentiated in the extreme A system of this kind is obviously the very antithesis of a notational system.'
Goodman, *Languages of Art*, p. 161: 'A digital scheme, in contrast, is discontinuous throughout ... To be digital a system must be not merely discontinuous but *differentiated* throughout, syntactically and semantically. If, as we assume for systems now under discussion, it is also unambiguous and syntactically and semantically disjoint, it will therefore be notational.'
 16. Goodman, *Languages of Art*, p. 128.
 17. Goodman, *Languages of Art*, p. 159.
 18. Goodman, *Languages of Art*, pp. 157-58.
 19. Goodman, *Languages of Art*, p. 170.
 20. Goodman, *Languages of Art*, p. 170: 'Topological diagrams are purely digital in the sense that only dots or junctures connected by lines in the right pattern'

- matter, and not 'the size and location of the dots and the length and shape of the lines'.
21. Gilles Deleuze, *Bergsonism*, trans. by Hugh Tomlinson and Barbara Habberiam, (New York: Zone Books, 1988), p. 46.
 22. Deleuze, *Bergsonism*, p. 17.
 23. Nelson Goodman, *Languages of Art*, (Indianapolis and Cambridge: Hackett Publishing Company, inc., Second Edition, 1976), p. 170: 'Diagrams, whether they occur as the output of recording instruments or as adjuncts to expository texts or as operational guides, are often thought -because of their somewhat pictorial look and their contrast with their mathematical or verbal accompaniments - to be purely analog in type. Some, such as scale drawings for machinery, are indeed analog; but some others, such as diagrams of carbohydrates, are digital; and still others, such as ordinary road maps, are mixed. The mere presence or absence of letters or figures does not make the difference. What matters with a diagram, as with the face of an instrument, is how we are to read it. For example, if figures on a barogram or seismogram indicate certain points the curve passes through, yet every point on the curve is a character with its own denotation, the diagram is purely analog, or *graphic*.'
 24. Goodman, *Languages of Art*, p. 219.
 25. Goodman, *Languages of Art*, p. 221.
 26. Goodman, *Languages of Art*, p. 219.
 27. <<http://plato.stanford.edu/entries/medieval-haecceity/>>. 'At issue is something like this: what explains the fact that (e.g) a clone of me is not an instance of me, but an instance of human nature? Haecceities, in addition to explaining distinction, also explain non-instantiability.' [accessed 11 November 2012].
 28. 'Haecceity' in 'A Companion to Metaphysics', ed. by Jaegwon Kim, Ernest Sosa and Gary S. Rosenkranz (Blackwell Publishing Ltd, 2009).
 29. Anthony Uhlmann, 'Deleuze, Ethics, Ethology, and Art', in *Deleuze and Ethics*, ed. by Nathan Jun and Daniel W. Smith (Edinburgh: Edinburgh University Press Ltd, 2011), p. 164.
 30. 'Haecceity' in 'A Companion to Metaphysics', ed. by Jaegwon Kim, Ernest Sosa and Gary S. Rosenkranz (Blackwell Publishing Ltd, 2009).
 31. Gilles Deleuze and Félix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, trans. by Brian Massumi (Minneapolis and London: University of Minnesota Press, 1988), pp. 287-92.
 32. Deleuze and Guattari, *A Thousand Plateaus*, p. 288.
 33. Deleuze and Guattari, *A Thousand Plateaus*, pp. 257-341.
 34. Deleuze and Guattari, *A Thousand Plateaus*, p. 287.
 35. Gilles Deleuze, *Bergsonism*, trans. by Hugh Tomlinson and Barbara Habberiam, (New York: Zone Books, 1988).
 36. Deleuze, *Bergsonism*, p. 40.
 37. Deleuze, *Bergsonism*, p. 41.
 38. Deleuze, *Bergsonism*, p. 32.
 39. Deleuze, *Bergsonism*, p. 40.
 40. Deleuze, *Bergsonism*, pp. 31-2.
 41. Deleuze, *Bergsonism*, p. 31: 'Isn't Bergson now in the process of restoring all that he once dismissed? What difference can there be between relaxation (*détente*) and contraction except for the differences of degree, of intensity?'
 42. In evolutionary processes changes of intensity in pressure or temperature, for example, produce extensive changes in form. If we divide a cup of boiling water into two halves, the extensive property, which is the volume of the water, will be divided as well, whereas the intensive property, that is the temperature, stays the same. See for example Peter Bertram, *Den Animerede Bygning* (Copenhagen: Kunstakademiet Arkitektsskole, 2008), pp. 57-8.
 43. Manuel De Landa, 'Deleuze and the use of the Genetic Algorithm in Architecture', downloadable at http://crisisfronts.org/wp-content/uploads/2008/08/deluze_genetic-algorithm.pdf, pp. 2,3 [last accessed 11 November 2012].
 44. Peter Bertram, *Den Animerede Bygning* (Copenhagen: Kunstakademiet Arkitektsskole, 2008), p. 59.
 45. Gilles Deleuze, *Bergsonism*, trans. by Hugh Tomlinson and Barbara Habberiam, (New York: Zone Books, 1988), 74.
 46. Gilles Deleuze, *Spinoza: Practical Philosophy*, trans. by Robert Hurley (San Francisco: City Light Publish-

- ers, 1988), p. 27: 'Consideration of genera and species still implies a 'morality,' whereas the *Ethics* is an *ethology* which, with regard to men and animals, in each case only considers their capacity for being affected.'
47. Deleuze, *Spinoza: Practical Philosophy*, p. 22: 'There is no Good or Evil, but there is good and bad... . Hence good and bad have a primary, objective meaning, but one that is relative and partial: that which agrees with our nature or does not agree with it. And consequently, good and bad have a secondary meaning, which is subjective and modal, qualifying two types, two modes of man's existence.'
48. Gilles Deleuze and Félix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, trans. by Brian Massumi (Minneapolis and London: University of Minnesota Press, 1988), p. 283: 'To the relations composing, decomposing, or modifying an individual there correspond intensities that affect it, augmenting or diminishing its power to act; these intensities come from external parts or from the individual's own parts. Affects are becomings. Spinoza asks: What can a body do? We call the *latitude* of a body the affects of which it is capable at a given degree of power, or rather within the limits of that degree. *Latitude is made up of intensive parts falling under a capacity, and longitude of extensive parts falling under a relation*. In the same way that we avoided defining a body by its organs and functions, we will avoid defining it in Species of Genus characteristics; instead we will seek to count its affects. This kind of study is called ethology, and this is the sense in which Spinoza wrote a true Ethics.'
49. Anthony Uhlmann, 'Deleuze, Ethics, Ethology, and Art', in *Deleuze and Ethics*, ed. by Nathan Jun and Daniel W. Smith (Edinburgh: Edinburgh University Press Ltd, 2011), p. 159.
50. Uhlmann, 'Deleuze, Ethics, Ethology, and Art', p. 163.
51. Uhlmann, 'Deleuze, Ethics, Ethology, and Art', p. 162.
52. Uhlmann, 'Deleuze, Ethics, Ethology, and Art', p. 161.
53. Uhlmann, 'Deleuze, Ethics, Ethology, and Art', p. 162.
54. Ole Fogh Kirkeby, 'Abduktion', *Videnskabsteori og metodelære*, ed. by Heine Andersen (Copenhagen: Samfundslitteratur, 1990), p. 124.
55. 'abduction' (Carnegie Application (L75), NEM 4:37-38, 1902), as listed in: Mats Bergman and Sami Paavola, eds., *The Commens Dictionary of Peirce's Terms: Peirce's Terminology in His Own Words*, available online at <<http://www.helsinki.fi/science/commens/dictionary.html>> [accessed 10 November 2012].
56. 'retroduction' (A Letter to J. H. Kehler, NEM 3:206, 1911), as listed in: Mats Bergman, Sami Paavola, eds. *The Commens Dictionary of Peirce's Terms: Peirce's Terminology in His Own Words*, available online at <<http://www.helsinki.fi/science/commens/dictionary.html>> [accessed 10 November 2012].
57. 'retroduction' (A Letter to F. A. Woods, CP 8.385-388, 1913) <<http://www.helsinki.fi/science/commens/dictionary.html>> [accessed 10 November 2012].
58. 'abduction' (Harvard Lectures on Pragmatism, a Deleted Passage, PPM 282-283, 1903) <<http://www.helsinki.fi/science/commens/dictionary.html>> [accessed 10 November 2012].
59. A point made by my supervisor, Peter Bertram, in a conversation.
60. For an elaboration of this see: Jan Bovelet, *Drawing as Epistemic Practice in Architectural Design*, published in *Footprint 7*, Volume 4, Number 2 (Autumn 2010), pp. 75-84.
61. Fiction in the sense that an architectural project is fictive as long as it is not actually built, this, however, does not mean that a project that is not built is not concrete or actual.
62. James Corner, 'The Agency of Mapping: Speculation, Critique and Invention', in *Mappings*, ed. by Denis Cosgrove, (London: Reaktion Books, 1999), pp. 213-52; and Denis Wood, Ward L. Kaiser and Bob Abramms, *Seeing through Maps: Many Ways to See the World* (Amherst: ODT, Incorporated, 2001).
63. James Corner, 'The Agency of Mapping: Speculation, Critique and Invention', in *Mappings*, ed. by Denis Cosgrove, (London: Reaktion Books, 1999).
64. Corner, 'The Agency of Mapping', p. 215.
65. Corner, 'The Agency of Mapping', pp. 214,15.
66. On three-dimensional drawing see for instance: Nat Chard, *Drawing Indeterminate Architecture, Indeter-*

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- minate Drawings of Architecture* (Vienna: Springer Wien and New York, 2005).
67. Denis Wood, Ward L. Kaiser and Bob Abramms, *Seeing Through Maps: Many Ways to See the World* (Amherst: ODT, Incorporated, 2001).
68. James Corner, 'The Agency of Mapping: Speculation, Critique and Invention', in *Mappings*, ed. by Denis Cosgrove, (London: Reaktion Books, 1999), p. 214.
69. Corner, 'The Agency of Mapping', pp. 214,15.
70. Nelson Goodman, *Languages of Art*, (Indianapolis and Cambridge: Hackett Publishing Company, inc., 1976), pp. 187,88.
71. Goodman, *Languages of Art*, p. 187.
72. Anthony Uhlmann, 'Deleuze, Ethics, Ethology, and Art', in *Deleuze and Ethics*, ed. by Nathan Jun and Daniel W. Smith (Edinburgh: Edinburgh University Press Ltd, 2011), p. 165.

Biography

Anna Katrine Hougaard was Born in 1979 in Copenhagen, Denmark. She holds a diploma in architecture since 2007 from the Royal Danish Academy of Fine Arts, School of Architecture. In 2011 she received a Ph.D. scholarship from the same school. She is currently living and working in Berlin.