

Poiesis or Semiosis in Architectural Design Practice.

Sven Verbruggen - Antwerp University.

Abstract.

We inquire into architectural design theory¹ to find ways out of the gridlocks that occur in the design process. When mining for guidance, it becomes clear that - to paraphrase biosemiotician Victoria N. Alexander - 'we need to better understand creativity (*poietics*) to supplement and enhance our understanding of already-established habit (semiotics).' (Alexander, 2013) Knowing the difference between a habitual association and a radical novelty allows us to define convention and invention more accurately. It leads to an important implication for architectural design theories. We will learn that prescriptive theory that intends to provide direct solutions - or positive feedback - can only instruct on conventional design decisions - already-established habits. By implication, if we want prescriptive theory to guide toward innovating design ideas it can only do so by reflecting on what creativity is constrained by. Thus, an essential part of theory should provide negative feedback and address clearly what not to do, which conventions should be put up for debate, both on an individual level as well as on the level of the discipline.

Introduction.

Is invention more meaningful than convention or is it the other way round? Parametricist Patrik Schumacher argues to embrace the continuous drive for innovation in his recent treatise *The Autopoiesis of Architecture*. (Schumacher, 2011) New Classicists or New Traditionalists consider it wiser to choose working concepts over untested ones when it concerns the built environment. (Papadakis and Watson, 1990) *Research by Design* protagonists Ranulph Glanville and Jeremy Till make a persuasive case for the academic quality of design by discharging creativity's crucial role. (Glanville, 1998, Till, 2005) Thus, with many leading architect-theorists the invention-convention-issue is either suppressed or ends up in oppositions and that is totally acceptable in a pluralistic era. But, because of this designers today struggle with the idea of a meaningful task. As a result they feel the need to legitimize their work by fabricating personal design theories. And still, unfortunately, an equivalent of Francis Bacon's skepticism towards logicians echoes through in running reservations towards design. Similar to the logicians designers follow 'probable reasoning, and are carried round and round in a whirlpool of arguments...'² in which there can be no true novel invention. It can be argued that as long as it is not made explicit what constitutes creativity these general reservations stay profoundly unanswered. Concepts such as invention, convention, and creativity need to be demystified in theory and practice. I propose to do so by inquiring into other knowledge fields such as complexity theory, emergence, neuroscience, psychoanalysis, and other.³ Patrik Schumacher's full-blown treatise opens the door for a reintroduction of a semiotical framework into architecture. Hence why biosemiotics is the solicited knowledge field for this paper.

Including a Practice Perspective.

Because, within this paper a practice perspective is desirable I will briefly introduce the *Deltaclusters*⁴ project. [Fig. 1] In the fall of 2013 I participated, in collaboration with MikeViktorViktor Architects, in an exhibition in Knokke (Belgium) that showcased five design researches on future alternative development of Belgian coastal area.

Many challenges exist for the Belgian coast - as the exhibition outline goes - of which several are existing for almost any deltaic area worldwide. Climate change will cause for seawater level to rise. The increase of rainwater will put pressure on the river delta that drains the hinterland. As a result, the coastline is threatened by floods from both sides and it is extremely questionable whether the government can keep on financing the maintenance of the existing infrastructural defense systems, let alone invest in the necessary extra defense infrastructure. A lot of industry and related urbanity is located around strategic harbors. Together with profitable tourism the area most likely will endeavor to stay a qualitative built environment. To meet the challenges within fifty years - as set in the exhibition outline - the precautions that have to be taken go beyond regular intentions within architectural and urban development.⁵ Today there seems to be a mismatch between the scale of regular architectural and urban development and the large-scale operations that are required to turn and cluster certain parts of the deltaic built environment. *Deltaclusters* is imagined as a virtual part of any given deltaic area that needs to be inhabited. Central to the design of clusters of habitation the actor or agencies who can change the contemporary development process. The main message of this contribution was a call to maximize the intentions in architecture during momenta of urban change. Four possible clusters were drawn up wherein economic opportunity meets with socio-political necessities and societal support.

So far the general idea of the case study is set. In this paper I will show how the appropriation of knowledge from bio-semiotician Victoria N. Alexander results in a sharper design vocabulary. Appropriating her definition of both *poiesis* and *semiosis* led to a better understanding of creativity within this case study.

Architecture's History with Semiotics.

Architecture has a peculiar bond with semiotics. In the 60s and 70s many tried to transpose the conceptual framework of semiotics to architecture. Often, as a result, this complicated the discourse more than it helped

to develop it. Obviously, with this loaded memory in mind, to turn once again to semiotics can be expected to meet with a certain reluctance. But if we turn to (bio)semiotics today it is for a whole different set of reasons.

Geoffrey Broadbent's article '*A Plain Man's Guide to the Theory of Signs in Architecture*' (Broadbent, 1977) provides a good insight in the earlier semiotic episode within architecture. But allow me to first roughly recall two phenomena that lead to the situation in which architecture started to look toward semiotics for the first time. The classical canon as a closed formal system - or language - was only problematized when the modernist project suggested that it obstructed the human emancipation. The representation of status had to be avoided. Remember the notorious arguments for a more "honest" architecture from architects such as Adolf Loos, Louis Sullivan, Le Corbusier, Gropius, e.a. But, as for example Summerson pointed out, the breaking away from the classical canon eventually had to result in a new architectural canon. And, as it goes, a new canon again started to represent something. Thus, representation always finds its way back into the architectural language. (Summerson, 1957) Let us consider another phenomenon that is widely accepted to have initiated the first semiotic turn. Many were convinced that by the mid 50s the meaning of functionalist architecture had been reduced to its single economic cause. Architecture seem to have been completely subordinated to a capitalistic system that reduced the architectural task to a superficial styling. These two phenomena, on the one hand the attempt to deny representation or meaning but to still end up with a new kind of meaning, and on the other hand, the anxiety for the erosion of the profession have lead many prominent figures to solicit the semiotic framework in the early 60s.

According to Broadbent this first solicitation of the semiotic framework was ambivalent. Next to 'where are we on the subject of meaning in architecture?' it turned out that the semiotic terminology was fairly complex and thus difficult to transpose. The profusion and conflict of terminology within the field of semiotics itself made it even more difficult to find a wider acceptance. Nevertheless, it was key to reinstall a new common language for architecture '... that will help us to understand all buildings better.' (Broadbent, 1977) To do so *the Theory of Signs or Signification* which had been initiated by Peirce and Saussure was the general point of reference. The first fundamental difference in turning to semiotics - today or back in the early 60s - presents itself. Whereas the first semiotic turn was mainly intended *to understand all buildings better* I turn to (bio)semiotics today *to better understand the notion of creativity*. Thus, in other words, the first turn to semiotics looked for a sign system that could theorize the whole of architecture, while within this paper contemporary semiotics is considered to be explicit about a specific moment in the creative process.

Although a thorough analysis of the differences between the semiotic fathers, Peirce and Saussure, is beyond the realm of this paper it is important to highlight one crucial contrasting principle. Peirce's conceptual framework to study all aspects of signs is *triadic*. Saussures' framework is *diadic*. For Peirce there are three parts of signs to be acknowledged: the sign or the interpretamen, the interpretant, and the referent or object. An easy example is the stop-sign. The sign is a board placed along the side of a road. The object is for people 'to stop'. The interpretant is people understand to stop at the junction. A sign stands for an object which is interpreted through the sign. The interpretation is conditional. According to Peirce we interpret signs according to a rule, a habitual connection. This tenet is the cornerstone of Peirce's pragmatism. In essence Peirce focusses on the *behavioral* aspects of the sign-interpretation. His triadic model shows a parallax between the interpretant and the object and the connection based on habits.

Saussures' model is diadic. A sign is made up of the binary relationship between the *signified* and the *signifier*. A famous example here is the relation between a 'tree' or 'a drawing of a tree' and for example the Latin word 'arbor' or the French word 'arbre'. This immediately shows the essential idea of Saussure, namely, the signified-signifier-relationship is both arbitrary and differential. Arbitrary because the signifier - in this case the word 'arbor' or 'arbre' - that refers to a concept - or the signified - has no a priori or universal connection. Differential because we understand the signs by what they are not. With this diadic model to study signs the focus lies on the *structure* of sign systems.

Why is this triadic-diadic difference important to architecture? Well, basically they stand for either a focus on *purpose* or a focus on *structure* in communicative sign-systems. As Broadbent explains the first turn to semiotics in architecture resulted mainly in a *structural* approach to set up a new architectural design vocabulary.⁶ If our interest today is not a quest to import a whole new vocabulary to structure our understanding of architecture but to understand better the *purposeful behavior* in a creative process we might reconsider Peirce's pragmatic approach.

The exploration of the semiotic knowledge field is often discouraged due to the plenitude of conflicting or confusing terminology. Broadbent mentioned this as a general stumbling block. And this can still be the predominant idea if one turns to semiotics today. Much of recent semiotic work focusses on improving the original terminology and triadic model of Peirce.⁷ Arguments are made as to why one preferably should call the 'interpretant' a 'reaction' or 'response'. Similarly the 'semiotic object', in short 'object', is sometimes replaced by the word 'referent' or 'objective'. And also the words 'sign', 'symbol', 'signifier' are used to substitute the difficult term 'interpretamen'. The fact is, however, that the meticulous calibration of terminology is only relevant for architecture to a certain extent. At least, if the subject matter is the understanding of *purposeful behavior* in the creative process.

On a Triadic Model for Architectural Design Theory.

To short-circuit a number of interpretation of the original Peirce model I propose to start from the very recent triadic model of Alexander. It takes into account much of the critiques on Peirce's original model that exists within the semiotic discipline. [Fig. 2] First, Alexander emphasizes the purposefulness by preferring the word 'objective' over 'object' and, second, she replaces the word 'interpretant' with 'response' to make the model more generally applicable. She also argues that the main objective is a form of self-preservation or self-confirmation. The latter is to be understood in the widest sense of survival. For example, if one responded to a trace in the sand as to recognize it as a footprint the objective is to reaffirm ones conceptual notion of a footprint. The objective is always to reinforce a habit of reading signs in a specific way. 'This makes the triadic semiosis more *objective* (to call upon the sense of the adjective form) than the dyadic semiosis of, say Ferdinand Saussure, whose semiosis is inescapably subjective because it is not grounded in purpose, which either confirms the response or not.' (Alexander, 2013)

A common particularity in the semiotic conceptual framework is that a sign stands for an object that in itself again can be understood as a sign for another object. Alexander gives an example of a wolf reading signs of a scent of a rabbit to show how the immediate object, the idea of a rabbit, relates to a deeper dynamical objective, namely the survival of the wolf.⁸ [Fig. 3] As mentioned before, the first semiotic turn tried to translate the entire conceptual framework into an architectural vocabulary and met with a growing complexity in terminology. Fig. 4 shows an example of using the progressive triadic model to explain a design intention. Due to the necessary finality on the one hand and the generalization on the other hand the example primarily proofs to be rather artificial. The result is too elaborate and hermetic.⁹ Therefore, I propose to reconfigure the diagram by looking at another similar model, namely Jacques Lacan's conceptual framework to understand the individual as a process.¹⁰ Lacan too uses a triadic model - in his case to name all aspects of the self. [Fig. 2] Sign, Objective, and Response is replaced by the Symbolic, the Real, and the Imaginary. Lacan's model had a big influence on critical theory which in turn had a strong impact on architecture. Arguably the linear equivalent of the model allows for a more simple representation of the combination of both circularity and evolution within the model. [Fig. 5] On top of this, whereas the semiotic triad is rather elaborate and focussed on a finality, Lacan's linear model is open-ended and brings more attention to the transitional phase - the arrows in the models - which he calls the metonymic displacements in between two metaphoric states. [fig. 6]

It is important to notice that while Alexander's diagram is reconfigured towards a linear model there is no intention to alter the understanding of the separate elements. I consider this reconfiguration more workable to make the link to an architectural designer at work. Design observations¹¹ - the mental *mapping* of options - and dealing with design decisions - the mental *strolling* through options - can be represented by Fig. 7 to conform to the reconfigured model. Thus on one side, when the designer is observing examples, he learns that a particular representation can be associated with a (previous) observation or experience. On the other side, when the designer is about to make a contingent design decision, he relies on his habitual associations to introduce a possible experience through a related representation. In that sense *evocation* is a recollection of an experience that is projected on a new constellation. The whole mechanism of making a contingent design decision can be graphically expressed through an equivalent of Lacan's linear model. [Fig. 8] In this model any designer will recognize how a design idea matures throughout a design process. One could say that a specific design idea reaches a primary metaphoric state after which it metonymically evolves into a more mature metaphoric state until it is considered fit for implementation.

Now that we have established a basic understanding of how the conceptual semiotic framework can be used to interpret the making of contingent design decisions, let us turn to Alexander's definition of *poiesis* and *semiosis*. She defines 'an "interpretation" as a response to something as if it were a sign, but whose semiotic objective does not, in fact, exist. If the response-as-interpretation turns out to be beneficial for the system after all, there is *biopoiesis*. When the response is not "interpretive," but self-confirming in the usual way, there is *biosemiosis* [...] With life, semiosis (re-creating / maintaining) is the rule; poiesis (radically novel creating / adapting) is the exception.' (Alexander, 2013) In other words, when we talk about the arrows in the model - or the process of metonymic displacement - she argues that due to the self-preserving or self-confirming objective the response is habitual and thus semiotic. To have poiesis - understood as a radical novelty for the system - one has to deliberately or by mistake go against the habitual association. Only when the non-habitual association turns out to be beneficial, and thus purposeful, to the system the response is poetic.

Once an accurate definition for poiesis and semiosis is set Alexander offers a compelling understanding of autonomy. Self-reproduction means consistently following the habitual associations and, thus, repeatedly run through complete semiotic cycles to confirm and maintain the system. Hence, a system is autonomous only if it is semantically closed, i.e. running cycles of self-confirmation. Creative behavior falls outside this semantically closed or autonomous system. Based on this understanding she states that 'Francisco Varela and Humberto Maturana (1974) misnamed their project, which they should have called autosemiosis rather than autopoiesis.' (Alexander, 2013) This would merely have been a footnote to an architecture paper such as this one if it were not for Patrik Schumacher to have adopted the misconception of autopoiesis through

the social system theory of Niklas Luhmann, who based his notion on the work of Varela and Maturana. Central to Schumacher's treatise is the idea of architecture being a self-referentially closed, autopoietic system. I would agree with Alexander's implication that *the autopoiesis of architecture* should have been called *the autosemiosis of architecture*.¹²

For architecture to appropriate this precise definitions of *interpretation, creation, and autonomy* - based on the understanding of poiesis and semiosis - can be very fruitful. With these definitions a discrimination between invention and convention can be made more explicit. The notions of poiesis and semiosis as developed so far suggest at least two fundamental levels of inventions. Imagine, for example, that all Δ -processes in Fig. 8 or Fig. 9 evolved along the line of semiosis, i.e. all design decisions follow conventional or habitual associations. Due to the complex constellation of all the sub-solutions, the overall design can look fresh and new. We could refer to this as the emergent objective that is perceived as an invention. Another option is to talk about a semiotic invention or *semi-invention*. Important to register is that the overall exist out of a collection of conventions. [Fig. 9] If, on the other hand, in at least one Δ -process a non-habitual and eventually purposeful association is made, the outcome could be referred to as a poietic invention or a radical novelty.

Is There Poiesis in the Deltaclusters?

Before referring back to the *Deltaclusters* project I want to anticipate on two extrapolations a reader might make. The first one, in case of the wolf-example of Alexander, the wolf is not looking to be creative. A designer, on the other hand, often is. In fact, again, any designer is familiar with this deliberately self-mistaking. For example, it is a common advice among architects to turn your drawing or model literally upside down when you are stuck in the design process. When this helps this is a textbook poietic act. Training oneself in such techniques can be part of the designer's task. Even more, to go against an habitual association in itself can become a habit. But I will not develop this idea any further because it introduces a tautology that is counter-productive. It would undermine the endeavor to learn from biosemiotics. Keeping in mind that the intention is to have an osmotic enrichment and not to import a perfect matching conceptual framework.

A second extrapolation is introduced by the question 'how and when to decide whether the poietic-act-to-be truly is a meaningful act that serves the overall semiotic purpose of self-preservation or self-confirmation?' Or in other words, are there early signs of purposefulness within the design process? One could say that for the rabbit-chasing-wolf being creative happens accidentally. For example, he might follow a trace or odorant of which he instinctively thinks that it belongs to a rabbit. When it then turns out to be something else that he can eat he has completed a poietic act without being aware of it. He does not realize that he was wasting time following a for-habit-mistaken-sign. Before he knows it the sign has proven itself worthy or not as a sign. A designer, on the contrary, knows he is drifting when he deliberately goes looking for non-habitual associations. And he is aware that the pathway to a possible poietic act might turn out to be extremely barren. Interpreting Alexander's angle on the concept of learning is useful, however, inconclusive. She refers to a philosophical position on the self and the other, for which we have no concept.¹³ If fundamentally the other cannot be seen as not-self than we cannot learn about the other by the negative of the self, i.e. self-negating, but, we can only learn about the other through notions that we are familiar with. Thus, a concept of the other is formed by mistaken notions that are familiar to the self. This implies that learning happens through self-mistaking and not self-negating. (Alexander, 2013) To refer back to the *mapping and strolling* of a designer at work it is reasonable that decision making is the reversed process of learning. For a designer this means that although it seems that one can go against habitual associations one can only go so far as the deliberately mistaken associations are familiar. For example, a Rorschach image makes sense as soon as the beholder sees in it something familiar. It is widely accepted to call the pattern-recognition-ability a marker for creativity while, in fact, it is more likely to be a marker for semiotic or conventional behavior.

Within the *Deltaclusters* case we worked very consciously with this re-calibrated terminology. The main focus was to come upon a game changing approach. To arrive at a first metaphorisation of the main idea - to combine the top of the socio-political priorities - a spatial configuration was designed that incorporates numerous references.¹⁴ With the aforementioned discrimination it is more precise to name all design decisions on a sub-level semi-inventions because they are all developed along the line of habitual association. In fact it turned out to be liberating to recognize and accept the dependency¹⁵ of design ideas. It encouraged to be explicit about references. It allowed to channel all attention towards a central invention. Thereby releasing the stress of having to find novelties for every aspect of the design. A growing hunch, that being restrictive and not trying hard to invent, allowed us to work comfortably with very stringent design rules. For example, the entire design was built on an 8m10 grid in all three dimensions without any exceptions. In a similar rigorous approach cantilevering elements were excluded from the design option list. Again, this had a liberating affect. We could maintain a focus on the central argument. The goal was to evoke life in a future built environment with a minimum of architectural tour de forces.

The *Deltaclusters* case study shows that we consciously remained aloof from imagining everything to be innovative. We are convinced, though, that a degree of radical novelty was reached at the overall level. The clusters were designed within the conditions that would made them possible in the first place. This means,

for example, that a stadium-like urban district would be built when a world-cup event or olympic games provides the momentum. It would be designed to anticipate contemporary societal needs. As soon as the cluster reaches its second life it is imagined to be the catalyst for a profound change of which the local society benefits. The stadium-like district would turn into a full-functioning urban district with schools, housing, offices, shops, etcetera. It should allow to deal with communal requirements such as district heating, infrastructure, defense systems, and safe zones at cluster level. We imagined a different lifestyle in the *Deltacusters* districts. Yet, not in the way of new identities or sub-communities. Rather, we projected existing lifestyles that already today have the intention to act differently but are in no position to do so. For example, a young family that wants to buy a zero energy dwelling in an urban context that borders on a rural landscape.

Within the public debate that followed after the exhibition it became clear that we had changed the participants view on the architectural task. First, we had overtly assigned a direct societal responsibility to architecture. Second, the evocation and the overall design went beyond the mere projection of lifestyles. Proposals clearly met with existing challenges and necessities and, therefore, were considered to be appropriate. And finally, the design challenged the autonomy of the architectural discipline as it prioritized synergetic solutions. These were all ambitions that we had learned to set ourselves, because that is how we came to understand purposefulness through various interaction with intellectual positions in architecture today. Every *free association* in the design process that bared a familiarity to one of these three ambitions was considered interesting to pursue.

conclusion

To sharpen our design discourse we turned to notions of biosemiotician Victoria N. Alexander. Different than the first semiotic turn in the 60s there is no intention to internalize or appropriate the entire conceptual framework. What is analyzed is purposeful behavior within a creative act or process. A notion that is often not made explicit in running architectural theories.

Alexander's insights on semiosis - the naming or re-creating of things - versus poiesis - the making or creating of things - reveal a bit of a misconception of terms such as *interpretation*, *free association*, *evocation*, *invention*, *convention*, and *creativity*. Due to an over-emphasized idea of newness these terms are uprooted. To reach radical novelty one has to go against habitual associations and that is less evident than these words tend to make believe.

The idea that architecture is an autonomous discipline is permeated with the misconception of creative terminology. Self-referentiality and poietic behavior are mutually exclusive. Thus, when self-referentiality is a fundamental concept for an autonomous discipline then true novel behavior is excluded.

Being aware of this misconception in terminology changes how we see the decision making process of a designer. Design steps can only be made when out of several curious options one can be charged with a certain familiarity - or conventionality. Because novelties are hard to reach they have to serve a necessity that is already present within the system one is designing for.

The practice case shows that it can be interesting to re-calibrate elementary terms used in a design practice. But more importantly, it reveals that a form of theory is under-exposed or not existing, namely, that part of theory that deals with how to be poietic within architecture.

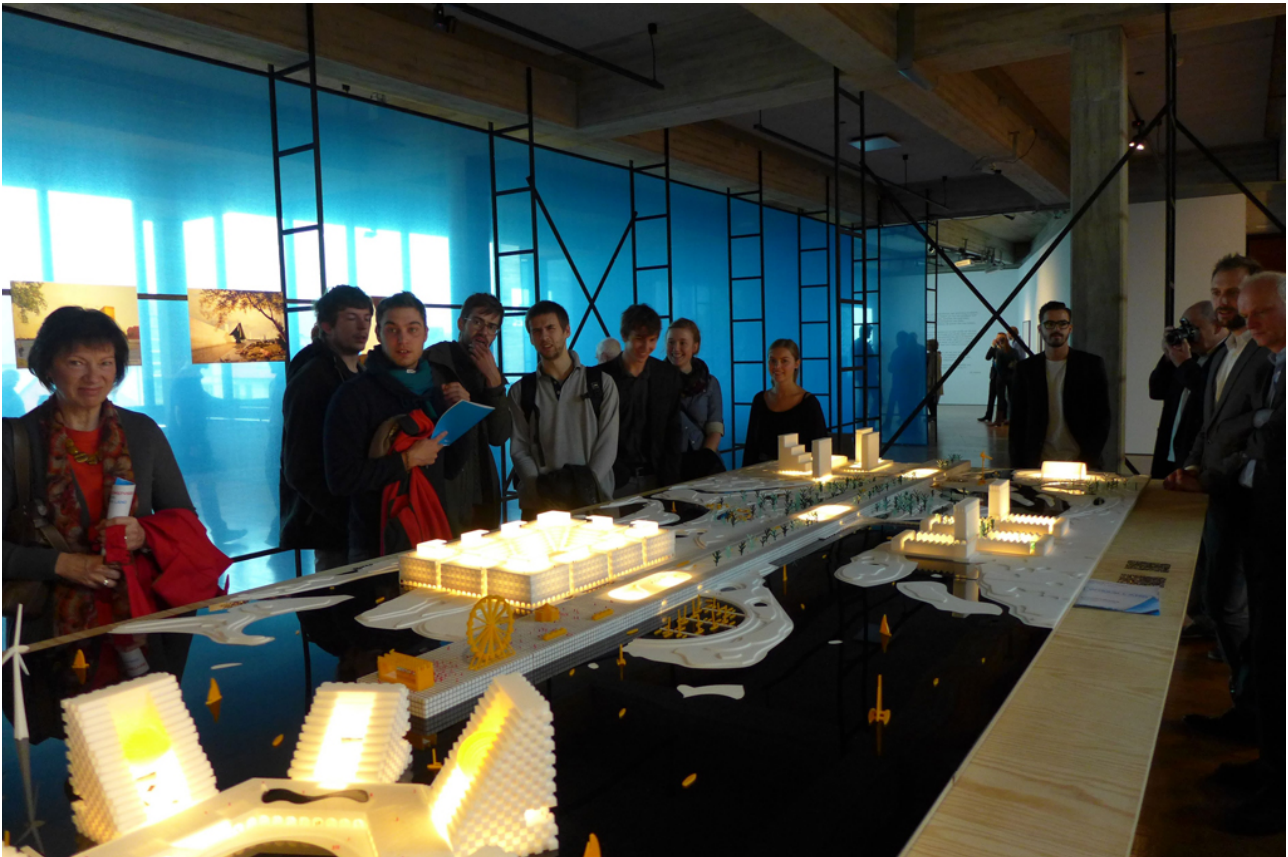


Fig. 1 Deltaclusters - contribution to the 'Wisselland' exhibition

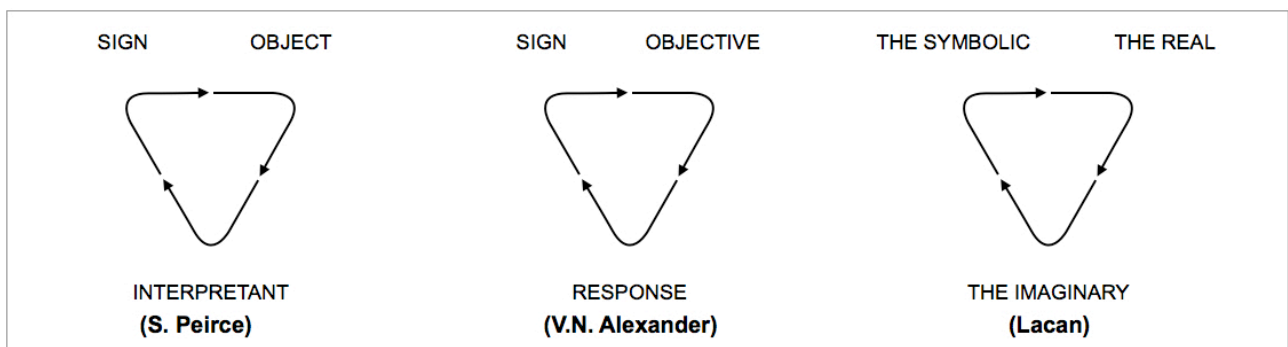


Fig. 2 Peirce's triadic model and Alexander's alternative proposal compared with Lacan's triadic model

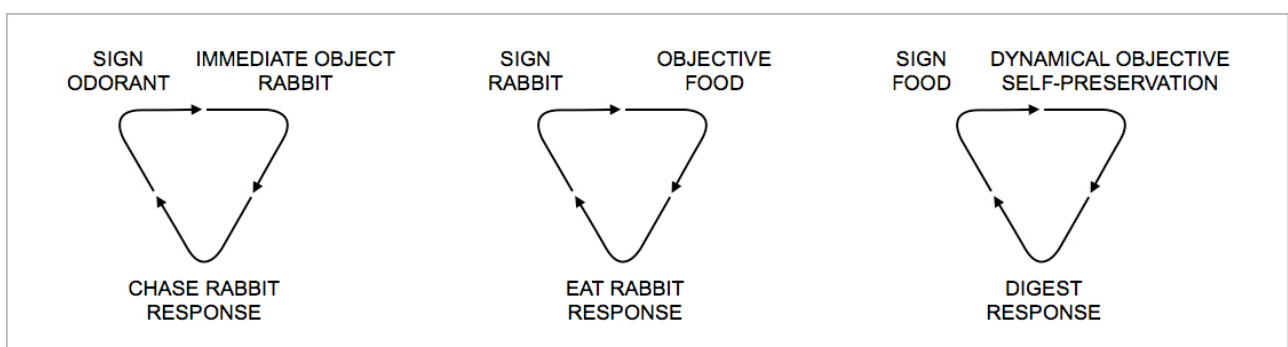


Fig. 3 This shows how Alexander understands the difference between the 'immediate object' and the 'dynamical object' of Peirce. At the same time it shows Lacan's metonymic displacement at work in V.N. Alexander's conceptual framework.

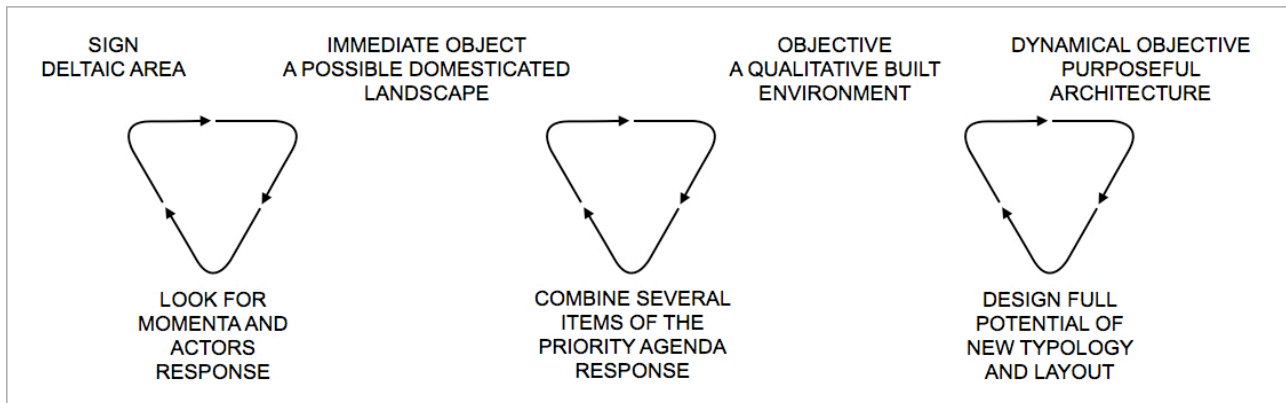


Fig. 4 Here the progressive triadic model is used to show a design intention

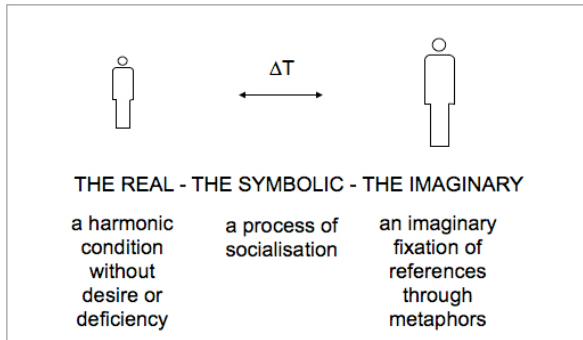


Fig. 5 Lacan: the individual as a process - the linear variant of the triadic model

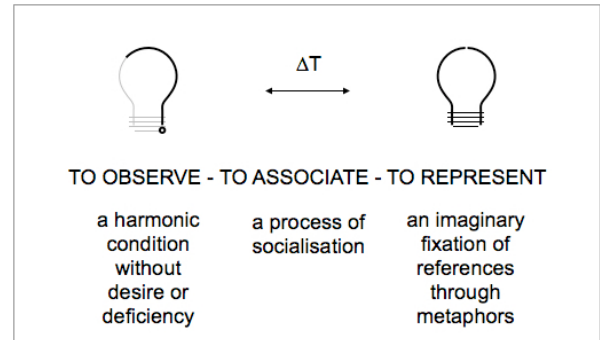


Fig. 7 Sven Verbruggen: A designer coping with a contingent design decision, based on Lacan's model.

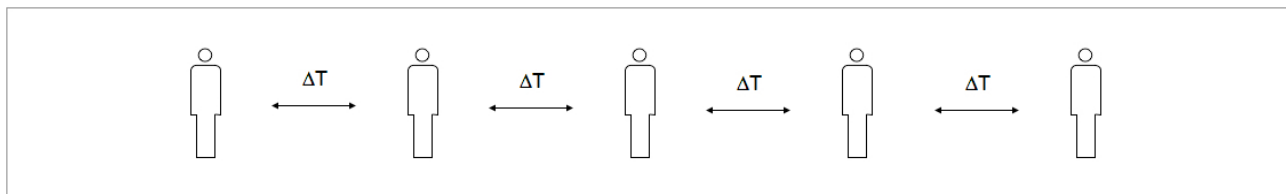


Fig. 6 Lacan: The individual is continuously reaching for a new self-realisation. The self understood as a process of metonymic displacement from one metaphorical state to another.

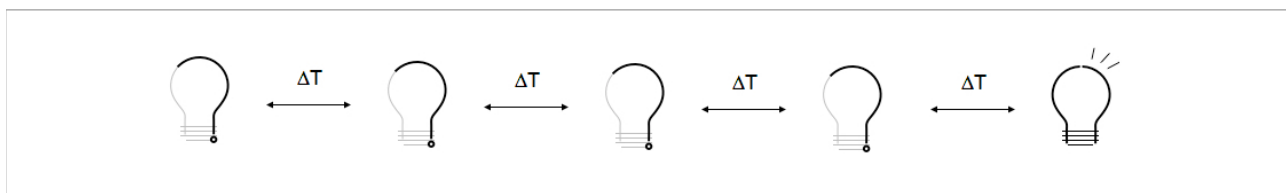


Fig. 8 Lacan's metaphorical states alternated by metonymic displacement applied to a developing contingent design decision.

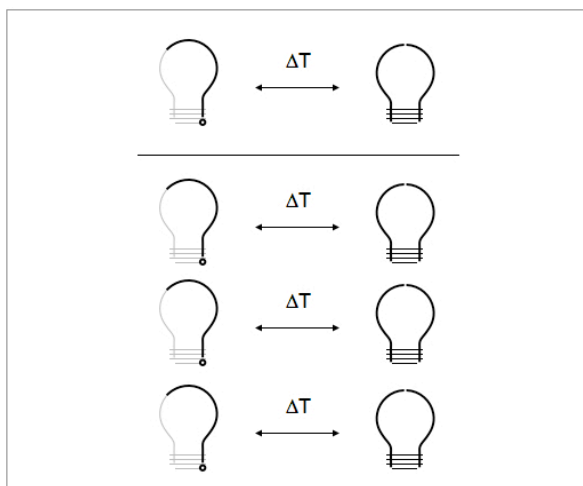


Fig. 9 Sven Verbruggen: A designer coping with a contingent design decision, based on Christopher Alexander's model.

¹ Architectural design theory in the realm of this paper is understood in the strictest sense as the guidance of good practice.

² Bacon, F. (1620). *The New Organon*.

³ Insights from these knowledge fields are discussed in another paper - unpublished at the moment - 'My Idea is Better than Yours: Critical about Design Ideas,' which is a contribution to the Criticall conference held in Madrid, 12-14 June 2014.

⁴ *Deltaclusters* is a contribution to an exhibition called *Wisselland*, curated by the Flemish Architecture Institute (VAi) and held in Knokke - Belgium, 2013-2014. It gathers design hypotheses, which were part of earlier research projects, to anticipate development in architecture and urbanism at the Belgian coast in 2070.

⁵ Regular intentions within architectural and urban development deal with for example the increase of performance of the existing patrimonies due to more stringent building regulations that put a lot of emphasis on maintenance and renovation.

⁶ The early work of Peter Eisenman, including his PhD dissertation, was exclusively dedicated to set up a sign system based on the structural semiotic framework. His work was based on the work of Noam Chomsky - a Saussure-apprentice.

⁷ Semiotics and the more recent biosemiotics aims to conceive a general mind-frame that is applicable to various phenomena. Biosemiotics explicitly aims to appropriate various disciplines with complexity and system theory. The underlying belief is that finding similar patterns in non-related phenomena leads to a higher understanding of the real. As a rule one looks for greatest common denominators. Formulas, conceptual frameworks, tropes, e.a. are abstracted and generalized to be applicable to a maximum variety of cases. For example a sign can be a thought, a signal, an experience, a taste, a habit, etcetera. The more general terms need to be consistent the more their definition is subject of debate. V.N. Alexander refers to recent work of T.L. Short, Salthe, Sharov, Barbieri and others to address a couple of important alternative conceptual frameworks. Short proposed to expand the triadic model Sign, Response, and Object by a fourth element, Purpose.

⁸ Those who are familiar with the early work of Peter Eisenman can recognize his discourse of surface structures and deep structures which he took from Noam Chomsky.

⁹ Alexander expands more on the inferred finality. Although the circular-progressive model suggest a direction from a surface structure or immediate object to a deeper structure or semiotic objective, and thus, suggest a movement to an overall purpose, neither truth nor falsity, presence nor absence, she argues, is part of the semiotic triad, it is just outside of it. According to Alexander this should not imply that a Kantian transcendental signifying reality exist. Nevertheless, I prefer not to elaborate on the particularities because my final goal is not to defend a specific triadic diagram in this way or another. Arguably the derridian notion of iterability suggests that no final referent or source exist. That is why I prefer to redraw Alexander's diagram through Lacan's insights so that the focus shifts to the circular-progressive mechanism more than to the finality within the diagram.

¹⁰ The basis for this diagram is set in Lacan's concept of *the mirror stage*.

¹¹ I expand on the designer at work and how he deals with contingent design decisions and his world of references in my contribution to the 2012 *Theory by Design* Conference at the Antwerp University College. The world of references out of which we sample solutions exist synchronically at any given moment in time. Nevertheless it is important to realize we study this world of references and how it evolves diachronically. I consider two sides of a designer at work. On the one hand he is constructing a very personal world of references. He does so by studying examples of predecessors, dismantling them and piecing parts back together. It is a mental *mapping* of design options. On the other hand, when he is trying to come upon a solution to a design problem he is *strolling* through his mental archive pondering over a variety of options. My key argument is that both *mapping* and *strolling* are - to a large part - non-linear, non-rational activities that are structured randomly. For more on this topic I refer to my other paper - unpublished at the moment - 'My Idea is Better than Yours: Critical about Design Ideas,' which is a contribution to the Criticall conference held in Madrid, 12-14 June 2014.

¹² It is not so much the blob and the parametric language that is countered here but the confusion of true invention with convenient innovation by use of a parametric procedure which is rather a conventional recreating than a radical novelty. The danger is that blobs and the parametric canon may disappear - and that may well be the case in a less liberal era - but the confusion lives on. For a further reading on autopoiesis I refer to the work of Jeffrey Goldstein GOLDSTEIN, J. (2003) The construction of emergent order, or, how to resist the temptation of hylozoism. *Nonlinear Dynamics Psychol Life Sci*, 7, 295-314.

¹³ I base my interpretation of Alexander's reference to *the other* on the work of Jacques Lacan and Slavoj Žižek.

¹⁴ Examples of the habitual associations I discuss at length in another paper 'Architecture, absolutely critical: How to identify a promising New Urban Configuration?' There I explain how design knowledge of Sullivan, Mies van der Rohe, Steven Holl, and others finds its way into contemporary proposals. VERBRUGGEN, S. (2014) Architecture, absolutely critical: How to identify a promising New Urban Configuration? IN CAVALLO, R., KOMOSSA, S., MARZOT, N., BERGHAUSER PONT, M. & KUIJPER, J. (Eds.) *New Urban Configurations*. Delft, IOS press.

¹⁵ Examples of the habitual associations I discuss at length in another paper 'Architecture, absolutely critical: How to identify a promising New Urban Configuration?' There I explain how design knowledge of Sullivan, Mies van der Rohe, Steven Holl, and others finds its way into contemporary proposals. VERBRUGGEN, S. (2014) Architecture, absolutely critical: How to identify a promising New Urban Configuration? IN CAVALLO, R., KOMOSSA, S., MARZOT, N., BERGH

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Biography

Sven Verbruggen is an architect, researcher and educator. At the university of Antwerp he has been teaching in the master program. He is also involved in a design teaching studio at the University of Ghent. At both Universities he conducts a PhD research on contemporary design theories. He has a wide experience in middle and large size projects, as he was leading several projects for Neutelings Riedijk Architects and SOM. He is partner in the private practice MikeViktorViktor architects. Earlier design driven research, that was also the basis for several teaching studio assignments, is: New Event Space Typologies: the Stadium Alternative - 2011 & 2012; Typologies of Healthcare Infrastructure - 2010; New Prison Typologies - 2009; Designing Sustainable Strategies for Urban and Architectural Development in Areas with High Risk of Flooding. The recurring focus in his research and teaching is the invention convention equilibrium in design practice.