Design as Seven Steps of Deterritorialization

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The purpose to this paper is two-fold: First, to draw a map of the birth and development of design from the specific point of view: the concept of deterritorialization. Second, to address the present day situation of design through the deleuzian concept of "abstract machines". The aim is respectively to more precisely specify the ultimate state of deterritorialization, and more importantly to uncover how these machines can advance the potentials of design by constituting becomings.

Deterritorialization is defined by Gilles Deleuze and Felix Guattari as the movement by which one leaves a territory. E.g., in terms of the evolution of species, all species were first territorialized in the sea, later some species deterritorialized by migrating to land. I.e. they were reterritorialized on land. Territorialization, deterritorialization and reterritorialization are concepts fundamental to the description of the process.

The first step of deterritorialization, leading to the present state of design, is the evolution from paw to hand. The ultimate consequence of this initial step is the emergence of man as the tool-making animal. Deleuze describes this process as follows:

"We could go back to the commonplaces of the evolution of humanity: man, *deterritorialized animal*. When they say us that the hominoid removed its front paws from the earth and that the hand is the first locomotor, then prehensile, these are the thresholds or the quanta of deterritorialization, but each time with a complementary reterritorialization: the locomotor hand as the deterritorialized paw is reterritorialized on the branches which it uses to pass from tree to tree; the prehensile hand as deterritorialized locomotion is reterritorialized on the torn-off, borrowed elements called tools that it will brandish or propel." (D2, p.134)

The second step of deterritorialization is when tool-making competence becomes deterritorialized through the division of labor, which corresponds to the emergence of urban concentrations in the form of prehistoric empires. This division and specialization is further reinforced during the Middle Ages and Renaissance, when the tool-making professions defined their territories in the form of guilds: Carpenters, stone masons, blacksmiths, watchmakers, tailors and so on. We might say that the tool-making competence of man becomes reterritorialized in guilds. The third step of deterritorialization emerges during the Renaissance, when certain parts of the process of constructing buildings migrates from the realm of craft making a new territory for itself only inhabited by signs. Architecture emerges as a profession producing programs or diagrams in the form of plans, sections and façades. The "disegno", the draft or sketch, becomes an esteemed object in its own right among the artists of the Italian Renaissance. These changes are only part of an overall cultural transformation in which signs during the Renaissance-Baroque era form a universe in themselves with its own independent order. This is what Jean Baudrillard calls a simulacrum.

The fourth step of deterritorialization is connected to the emergence of industrialization and mass production. Industrialization and mass production finally break up the territories of the guild and their craft-based competences and reterritorialize in the factory.

The fifth step of deterritorialization is associated with the birth of the Modern Movement. Jean Baudrillard sees this as; "The revolution of the object". He argues that prior to Bauhaus there were strictly speaking no objects (only things), subsequent to Bauhaus all things could be classified as objects and produced as such. This fundamental deterritorialization depends on a code which makes for a synthesis of two layers or strata: Function and form. Every thing has a function whereby a rational procedure can be translated into rational form. Form follows function. This new codification transgresses not alone traditional crafts, but all aspects of society, from town planning and architecture to art and fashion.

Design, in the modern use of the term, is a product of this fundamental deterritorialization, which transforms any thing into an object of design fitted for industrial mass production.

The sixth step of the deterritorialization corresponds to the era of mass communication: the McLuhan revolution or media revolution. From now on everything is communication. Function is now only regarded as a subset of communication. The focus turns from objects to services. The products that are offered rely on modules that can be combined and personalized to fit specific lifestyle segments. Companies focus on corporate identity programs, penetrating everything from logo, typeface, color code, building and interior design to employee uniforms.

The seventh step of the deterritorialization is connected with the emergence of the network society and globalization. In the global network economy everything is outsourced. Outsourcing is not restricted to production, finance, distribution, delivery and marketing, but also applies to the highly specialized competences that constitute the "inner architecture" of the product itself. It is the concept alone that holds this net together. This step is therefore termed: concept based design.

Looking at current tendencies in design, we can observe that:

- some designers take transformations on a "macro-scale" as their point of departure: global patterns of migrations, distribution of wealth, natural resources, urbanization, communication, and combine these parameters with new scientific and technological innovations, e.g. OMA, MVRDV, Bruce Mau Design.

- Some designers, e.g. within the field of Human Centered Design, work on the empirical "micro-scale", using anthropological and video-cam based techniques to map the obstacles, thresholds and flows between people, artifacts and their surroundings.

- Some designers make use of both approaches, e.g. Larry Keeley and the Doblin Group. Here new innovations are based on a combination of mapping companies into models known as "Innovation Landscapes" and anthropological observations.

Common to these approaches is that the focus is not on the objects themselves but on drawing new diagrams, which reveal new relations between people, artifacts and their environments. Mapping of this kind is what some refer to as an artificial ecology.

Looking at this sequence of deterritorialization, the objection could be made that we still design objects for mass production. We still talk about form and function and communication. We still organize things and signs in systems.

Steps 5, 6 and 7, which appear as historical phases, could be regarded as the superimposition of three different kinds of transformation:

1. Object based design: The transformation of anything into an object fitted for industrial mass production. A transformation based on the stratification of object in form and function. The making of this stratification is what constitutes the territory of modern design.

2. System based design: The transformation of anything into a system of communication. A transformation based on the overcoding of form-function by communication.

3. Concept based design: The transformation of anything into a conceptual diagram connecting the global network. A transformation based on the decoding of segments into lines of flight.

All three kinds of transformation coexist simultaneously. Thus when the latter replaces the former, the former does not cease to exist. Instead the latter and the former integrate to form a broader perspective.

Deleuze and Guattari explain how such transformations can be regarded as the product of what they call three abstract machines:

"There are different types of abstract machines that overlap in their operations and qualify the assemblages: *abstract machines of consistency*, singular and mutant, with multiplied connections; *abstract machines of stratification* that surround the plane of consistency with another plane; and *axiomatic or overcoding abstract machines* that perform totalizations, homogenizations, conjunctions of closure." (TP, p. 514).

We can connect these insights in the following diagram:

Object based design	System based design	Concept based design
Transformation of anything into objects fitted for industrial mass production.	Transformation of anything into communication and systems of signs.	Transformation of anything into diagrams which cut across coding and overcoding.
Abstract Machines of Stratification	Axiomatic or overcoding abstract machines	Abstract Machines of Consistency
Coding Stratification in form-function.	Overcoding Function overcoded by communication.	Decoding Making lines of flight that cut across strata.
Territorialization	De- and reterrito- rialization	Absolute deterrito- rialization

The abstract machine is a concept, which originally refers to the theoretical outline made by Alan Turing, in 1936, for a "universal machine" that could simulate any other machine operating on symbols. This abstract machine laid the foundation for the invention of the computer. Natural science has since discovered abstract machines in thermodynamic and geological processes, in ecosystems and in biogenetics. The same "abstract machine" can be embedded in very different concrete assemblages. We therefore distinguish sharply between the abstract machine in itself and the different concrete assemblages in which it might be embedded.

An abstract machine can be lifted out of one assemblage and migrate into another. In the designing of intelligent weapons one lifts out human competences, mapping them as abstract machines, i.e. programs, which can be embedded in a computer chip, and which in turn can be embedded in an intelligent weapon.

Gilles Deleuze and Felix Guattari extend the concept of abstract machines from the purely axiomatic type to diagrammatic-experimental machines, which imply creativity and can therefore provide for new inventions. They constitute becomings. In most cases, when they speak of abstract machines what they are referring to is this extended concept more precisely the abstract machines of consistency – unfortunately without being explicit. The following compilation of quotations, seek to provide a broad perspective of this specific kind of abstract machine.

"The diagrammatic or abstract machine does not function to represent, even something real, but rather constructs a real that is yet to come, a new type of reality."(TP, p. 142) "...; they constitute becomings. Thus they are always singular and immanent."(TP, p. 510) "... abstract machines know nothing of forms and substances. This is what makes them abstract"..... "Abstract machines consist of unformed matters and nonformal functions." (TP, p. 511) "Of course, within the dimensions of the assemblage, the abstract machine, or machines, is effectuated in forms and substances, in varying states of freedom. But the abstract machine must first have composed itself, and have simultaneously composed a plane of consistency. Abstract, singular, and creative, here and now, yet nonconcrete, actual yet noneffectuated....." (TP, p. 511)

Mapping is the first step in the construction of an abstract machine of consistency. A map is a non-axiomatic type of diagram, e.g. it has many entries. It can be read in different ways. And in reading it one might discover new routes and connections. That is new insight and knowledge.

A thorough inquiry by James Corner provides insight into the concept of mapping from a deleuzian point of view. However just as the deleuzian concept of abstract machines transcends the restricted axiomatic sense of the word, the deleuzian use of the concept of mapping also transcends the ordinary use of this word. As an illustration of this we could compare mapping with the well-known strategy games or war-games. Here the map functions as a game board. When we play these kinds of games borders are crossed and new territories are lost or conquered. That means: the game deterritorializes the borders of the map. That means: The map is in the process of redrawing itself.

If we take this image a step further, for instance by embedding the maps in the war machines themselves, the distinction between the game board and the game pieces becomes oblique. Finally, if we transgress the restrictions of the otherwise fixed rules of the game, we approach the meaning of mapping, diagramming in the deleuzian sense. The point is that these constant destabilizations and recreations do not constitute chaos or pure chance, but rather a coherence interior to the process itself. These inner forces, or what Deleuze calls "intensities", have an inner autonomy or "plane of consistency" of their own. This is the absolute state of deterritorialization, not dependent on reterritorialization of any kind. Unlike axiomatic or overcoding abstract machines (Turing machines), which are universal and work by homogenization, linking hierarchy to hierarchy, abstract machines of consistency are singular and make lines of flight between heterogeneous elements.

One of Deleuze's favorite examples is the Pink Panther, an animal connected with a cartoon figure, connected with a name, connected with a color, connected with a tune. Obviously no abstract machine of the overcoding or axiomatic type can relate these heterogeneous segments. Only an abstract machine of consistency can make these lines of flight.

Upon closer examination the nature of the machine's connections reveals itself to us. The cartoon figure and the panther are connected by iconic resemblance. It looks like a panther. The panther and the color are connected by the name "Pink Panther". The Pink Panther theme, composed by Henry Manzini, is linked by the rhythm, which emulates stealthy stalking of the panther.

But why pink? It is obvious that to create an effect the color of the panther has to differ from the natural coloring of a real panther. But why not blue or red? The answer lies in the "poetry" of the name "Pink Panther". The alliteration, that is the repetition of consonants (P- P), and the juxtaposition of vowels are core poetic devices. Megastars, such as Mickey Mouse, Tina Turner, Marilyn Monroe, Sylvester Stalone, Sharon Stone and King Kong all take advantage of this in building their names. Likewise a design success like Good Grips, a product line with a name that communications what it does, also makes use of the same naming machine.

Having constructed itself as an abstract machine of consistency, the Pink Panther becomes a veritable "war machine". The panther paints the world pink and disappears in the pink color.

To illustrate the fundamental difference between relative deterritorialization and absolute deterritorialization, one can take the process of globalization as an example of the former. Small regional areas deterritorialize in Europe and become national states. These nations may further deterritorialize into a united Europe, which again one day could unite in a United States of Mankind encompassing the entire globe. But this would still be a reterritorialization limited to the human species and the globe. Expanding deterritorialization to the entire universe mankind would have to transform itself into cyborgs of some sort. This however would still be a reterritorialization, this time of cyborgs and the universe.

Absolute deterritorialization, on the other hand, cuts across these expanding hierarchies. Making transversals with no fixed territory only kept together by its own inner destabilizing intensities, as an ever mutating, penetrating, proliferating process.

This difference is also the fundamental difference between the strategies of old and new companies in the network economy. Old companies are centered around production services or core competences. They are organized as a stabile inner core surrounded by a soft flexible coating, which seek to accommodate to the changing demands of their environment.

New companies are, on the contrary, based on an inner core of constant but coherent instability.

Rem Koolhaas speaks of the importance of a constant inner destabilization. Bruce Mau replaces the evolution of a company with the "Jumps", which he calls the "Madonna Curve", after the megastar Madonna, who according to Mau demonstrates the ability of constant reinvention of her image. Such companies are, so to speak, blowing apart the continuous evolutions, replacing them with discontinuous ruptures and jumps making lines of flight.

Finally the strategy of new companies is not so much a defensive one of adapting to exterior demands, but more of an aggressive offensive one of becoming mutating, proliferating, dissipating and all-penetrating, like viruses.

This corresponds to the final state of absolute deterritorialization. Yet what keeps this from being chaos is the fact that the abstract machine of absolute deterritorialization outlines its own plan of consistency.

Design companies today build on teamworks. Teamworks are abstract machines that connect forces or intensities, in the form of skills or competences, into a unique rhythm, which defines the core of a company. Diagramming is part of the construction this machine.

Designing is in itself the creation of abstract machines, which draw complex diagrams, that cut across heterogeneous segments. The miniaturization of new intelligent materials and pervasive computing add to this deconstruction of the design object. The design product is often not embedded in a single physical object. But rather is an interconnection between many objects and people and their environment. It can even be embedded within the human body itself through implants or genetic engineering. Today's design cuts therefore across the old fashioned simple dichotomies: man-object and man-nature. Furthermore design products are not restricted to space. They cut across the borders between real and virtual dimensions.

But if science discovers that nature itself is an embedment of abstract machines, there will be a breakdown of the borders between scientific exploration and creativity. The role of the designer will shift from the marginalized role of an aesthetician only concerned with styling surfaces and wrapping objects, to the key role of designing the world. References:

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