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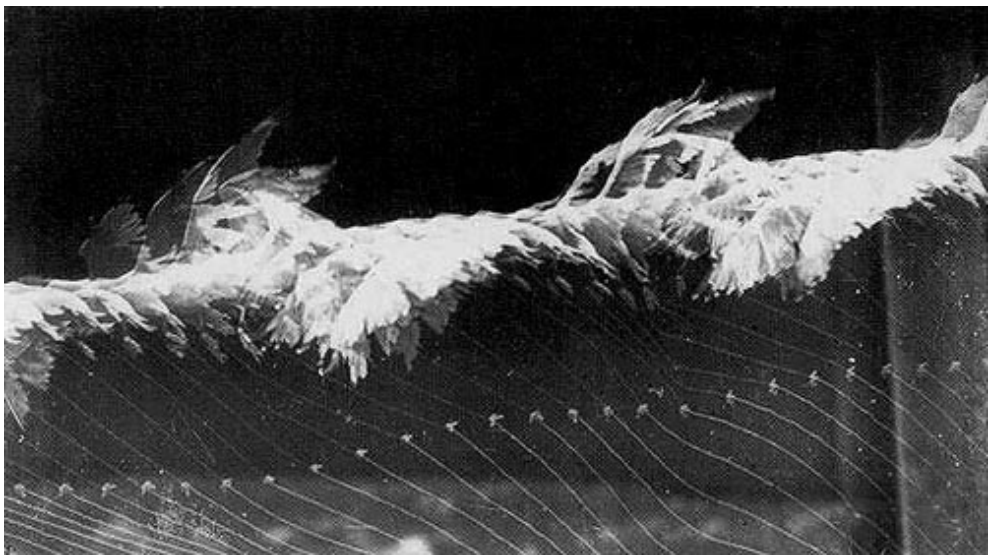

_objects and ontogenesis

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ABSTRACT

What this essay seeks to problematise is modernity's strive to rationalise, systematise, standardise and categorise and its application of universal laws and constants, which led to a static understanding of our reality, disregarding the notion of time and it's "relentless fluidity [and] it's irreducible materiality" (Kwinter, 2001, p.4), towards an easily digestible abstraction. Time has been reduced to a device, portraying unrelated sequences of events within our world that can be apprehended in a superimposed, more approachable construct of measure and management, while the very nature of it is characterised by constant inconsistencies, changes and a perpetual unfolding. The central argument of this essay is propagating for an architecture which actively considers the notion of time. An architecture that is responsive and sensitive to fluctuations, transformations and movements that occur within its complex environment throughout time. This essay is fragmented into two segments. The first will challenge the traditional, static understanding of the object, building upon Sanford Kwinter's theory of time sensitive 'architectures'. Gilbert Simondon's concept of 'Key Points', which serves as a method of grasping the vast complexity, irregularity and unpredictability of a milieu, in which the object is situated in, will be introduced. The second segment will develop an adaptive approach towards a building culture which is sensitive to both time and a complex milieu.

PART I

_architectures

If architectural thought and practice is to escape the confines of the static, one has to revisit and question the traditional conception of the (architectural) object. Rather than limiting it to merely its external attributes that define its appearance, such as materials and form, Kwinter stresses the need to investigate the relations to its immediate surrounding space, to its own components and to other objects, with which it is combined, establishing a field of relations and a "system of forces that give shape and rhythm" (Kwinter, 2001, p.14) to the object. What is proposed here is a more dynamic understanding of the object which is now no longer defined by how it appears, but by a series of agencies, forces, affectivities and temporal relations, which Kwinter summarises as 'architectures' (Kwinter, 2001). He differentiates between those fields of relations that are smaller than the object itself describing them as 'micro-architectures' and those that are larger, 'macro-architectures', of which the object is a part of.

_technical objects

Once the architectural object is portrayed as a set of architectures — fields of reciprocal relations, instead of a fixed unitary element— the identical nature to that of the technical object becomes apparent. The technical object Kwinter characterises as being associated by a "complex of habits, methods, gestures or practices that are not attributes of the object but nonetheless characterize its mode of existence"

(Kwinter, 2001, p.21). The notion of the technical object — or in other words 'the apparatus' — has been extensively discussed by Foucault, who's definition in summary refers to a 'system of relations' of physical, institutional and administrative nature that enable the exercise of power within a social structure. In an Interview, Foucault described it as follows: "What I'm trying to pick out with this term is, firstly, a thoroughly heterogeneous ensemble consisting of discourses, institutions, architectural forms, regulatory decisions, laws, administrative measures, scientific statements, philosophical, moral and philanthropic propositions — in short, the said as much as the unsaid. Such are the elements of the apparatus" (Foucault, 1980, p.194).

Two insights may be gained by Foucault's definition. The transcendence of the object from its external features, and its ability to have an affect onto the social realm. This close proximity between human and object has been conceptualised by French philosopher Gilbert Simondon, who has dedicated most of his work to establishing a theory of technology. In his book *Du mode d'existence des objets techniques*, which is mainly concerned in discovering the essence of the technical object, Simondon situates it into the realm of culture, as a meditating entity between human and nature, claiming, however, that it has been neglected by culture and limited to its function as a tool as opposed to the aesthetical object which is recognised as being meaningful and therefore included in philosophic inquiry (Simondon, 2017). Simondon argues that in order to discover the essence, one has to examine the genesis — i.e. the temporal delineation — of the technical object. Here, the object, just as the living-being, is described by its evolutionary character. Instead of being fixed and stable entities, objects are becoming throughout time. This process of becoming, has been further conceptualised through his idea of 'individuation' — which will be elaborated on in the second segment of this essay.

Such an understanding of the object, be it architectural or technical, allows a sensitivity for the complexity of our environment, which occurs when actually considering time. Only when considering the constant transformations and movements of and within each object, the dynamism of the milieu they are situated in becomes apparent.

_key-points

In a world constituted of dynamic, ever evolving living and non-living entities relating to each other in ways that are so extensive, dense and complex, the question of representing the totality of such a reality moves into the realm of the impossible. Hence, a need for a method of structure and approaching these realities at certain specific and local points arises. This is where Simondon's concept of 'Key-Points' proves useful, which, as he describes, are certain 'privileged places and moments' (Simondon, 2017, p.178), or places and moments of particular significance that are scattered over a spatial or temporal landscape, and act as points of reference to structure a territory.

Simondon's Key-Points on the one hand can be understood as modern 'equipments' or technical objects, such as antennas, pylons and lighthouses, which act as figures to the ground or the environment they

are inserted in (Teyssot, 2017). On the other hand, there are key-points that refer to natural landmarks and phenomena, such as mountain peaks, special rock formations, grottoes or the centre of a forrest. According to Simondon, the latter served as a means to structure the 'magical' world in which humans lived, before there was a distinction between religion and technology. The magical world describes a mode of existence prior to the distinction "between human reality and the reality of the objective world" (Simondon, 2017, p.178), between subject and object. The only means of differentiating the figure from the ground was through the identification of said key-points, which enable "a reticulation of space and time that highlights privileged places and moments [...], as if all of man's power to act and all the world's ability to influence man were concentrated in these places and in these moments" (Simondon, 2017, p.178). Simondon's descriptions of both magical and modern key-points situates these places and moments in between human and nature, as mediating things, forming a 'milieu' in which these places and moments both affect and are affected by humans.

While these figures of the magical world are inherent to and inseparable from their ground, modern key-points have detached themselves from the ground, retaining only their functional characteristics of mediation and becoming technical objects, that are transportable, instrumental and abstract from the milieu (Simondon, 2017). These engineered structures are situated into a particular landscape, allowing a new reticulation of a territory, "in a synergetic alliance of technical schemas and natural powers" (Simondon, 2017, p.193). Simondon further highlights the significance of insertion of a figure onto the ground, prescribing technical objects an aesthetic value when they are perceived together with the environment they are placed in. "The technical object is beautiful when it has encountered a ground that suits it, whose own figure it can be, in other words when it completes and expresses the world" (Simondon, 2017, p.197). Following this argument, a pylon is not necessarily a beautiful object in itself, however its aesthetic quality arises when perceiving a line of pylons supporting cables along a valley.

The emergence of new key-points, that are neither magical, nor modern equipments was proposed in a review by Robert Mitchell, originating from a contemporary reading of Simondon's magical key-points, which according to him, describe a world, that lies a long way in the past (Teyssot, 2017). The ice packs of the North Pole and Antarctic, the Amazon rain forest, and natural parks such as Yellowstone, are listed as exemplary places, linking their beauty to their role as key-points within global ecological and economic processes. These new privileged places and moments are no longer merely technical objects in the sense of bridges, antennas or lighthouses, however the result of a merging of natural processes and highly controlled engineered interventions, blurring the border between nature and technology, redefining the very notion of 'nature' and taking it out of its idyllically romantic connotations.

Part II

_individuation and transduction

In order to grasp the concept of individuation, initially the concepts of the pre-individual and that of meta-stability need to be addressed. According to Simondon, there is a state of being before that of the individual entity: the pre-individual. "The pre-individual exists as a realm of potentialities which contains within it the possibility for potential individuations" (Bluemink, 2020). In other words, the pre-individual holds within itself a set of potentials to develop in multiple ways, according to the circumstances and relations of the environment it is situated in. Through this process of individuation the pre-individual transforms from one meta-stable state to the other, by means of actualising its potentials. The meta-stable describes a state in which a system is neither fully stable nor fully unstable, meaning there exist the potentials to be individuated in multiple ways, while it "only requires the smallest amount of energy to change from one state to the other" (Bluemink, 2020). In the process of individuation these tensions within an object become resolved, thereby creating new tensions, which again lead to further processes of individuations (De Vries et al., 2014). In the ongoing process of individuation, the individual is never an isolated self but is consistently shaped in relation to its milieu. To comprehend the individual, it is essential to view it alongside its environment. The interaction between the individual and its milieu is mediated by affect (Shaviro, 2006).

The process of individuation is further developed by what Simondon refers to as 'transduction', which involves the adaptation of an individual to its surroundings (De Vries et al., 2014). It is through transduction that the process of individuation takes shape. Transduction is the concrete process in which the metastability of an object emerges. The new set of relations that emerge through past individuations, which will affect the ones still to come. In Simondon's words, "Transduction occurs when there is activity, both structural and functional, which begins at a center of the being and extends itself in various directions from this center, as if multiple dimensions of being were expanding around the central point" (Simondon, 1992, p.313).

_ontogenetic space

The proposed complexity and dynamism of objects and the milieu they inhabit, has direct spatial implications, which need to be acknowledged in the practice of organising space. The understanding of the procedural mode of existence of things, suggests a paradigmatic shift from an ontologic towards an ontogenetic conception of space.

In the framework of an absolute ontology of space, it is conceptualised as a geometrically organised system, resembling an absolute grid where objects are positioned, and events unfold. Defined by Euclidean geometry, this grid simplifies the idea of space to its geometric core, presenting it as a natural given. This reductionist understanding of 'space as container' has been challenged by relational

ontologies, arguing that space is produced by social and material interactions rather than being a neutral, passive geometry (Dodge and Kitchin, 2005). The ontogenetic understanding of space proposes an alternative to the static, fixed conception of space developing a sensitivity towards time and all the changes and transformations that it entails. It allows to consider the dynamic relations of its form, function and meaning, which are constantly being (re)defined and (re)created in the moment. "[S] pace is not a container with pregiven attributes frozen in time; rather, space gains its form, function, and meaning in practice. Space emerges through a process of ontogenesis" (Dodge and Kitchin, 2005, p.172).

Now when it comes to the practice of organising space: If space is constantly (re)defined and (re)created, the task of organising it can never be one that is completed. The architectural object, just as the elements it consist of and the space that it generates, needs to be understood as a dynamic process rather than being complete and final. The ontogenetic process, however, is closely related to specific fixed limitations. Adopting Simondon's vocabulary, and considering the architectural object an individual entity in a constant process of individuation, its limitations or restrictions lie within the set of potentials of its pre-individual state. There are specific constraints embedded within the pre-individual, which nevertheless allow a multiplicity of different outcomes of individuation according to the associated milieu. In the context of a building the fixed constraints may lie within the attributes of the chosen building materials and elements, which nevertheless can lead to multiple directions within the buildings ontogenesis. A depiction of the architectural object that resonates with Simondon's understanding of the technical object as "the unity of two layers of reality: a layer that is as stable and permanent as possible, which adheres to the user and is made to last; and a layer that can be perpetually replaced, changed, renewed" (Simondon, 2009, p.24).

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