

## ***Private space / public space – Questions of scale***

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This paper will deal with concepts – amongst other things. It will seek to question how concepts may help to distinguish or assemble other things than concepts. Nevertheless, the matter at stake is concepts. The paper assembles concepts, forms sentences, but is at the same time keen to raise awareness about how it does that. It is keen to call attention to what the key concepts mean, or may mean, for the sentences to help analyze and develop the assemblages, or relations, that we call architecture.

The concept of 'scale' will be crucial in this paper. The subject matter, however, is public space and in particular, perhaps, the scalar difference between public and private space. But the paper will approach the subject indirectly. It will proceed through a discussion about the concept of scale, as it remains unclear what it means to say that there is a "scalar difference between public and private space." The reason behind this obscurity is – among other things – that it is but seemingly clear what is meant by the concept of scale.

It requires but a brief moment of reflection upon the ways that the concept of scale is used in various contexts to realize that its meaning is far from uniform. I will provide with examples in the following. For now, in this preamble, it suffices to underscore that the ambition is not to identify one irrefutable meaning independently of the meaning that the concept has – and receives – in various concrete contexts, through concrete assemblages and relationships. Quite the opposite. The paper does not probe for an essence behind the concept but rather for possibilities to work relationally, with a discursive attentiveness to relations. The main thesis is that the meaning of the concept is dependent upon its use, that is, its actual application in concrete instances. As I will try to explain, scale is a question of relevance. The relevance of scales is partly determined by observing the properties of the things one attempts to describe. Partly – when it comes to the conception of things, such as architecture – relevance is determined by the factors worthy of being taken into consideration. My argument is that the conceptual confusion does not rest upon forgetfulness of what the concept means in general. Much rather, it is based on a neglect to consider if it may help, under the influence of certain particular circumstances, to produce, and to attain, particular meanings. There is confusion because a general term takes a bearing of different things – without differentiating them.

In other words, the claim of this paper is that we do not alleviate a conceptual confusion with a firmer definition of the concept's meaning, independently of its concrete applications. To the contrary, we may only help the situation by reflecting thoroughly upon how it is used, what it actually does. And I claim that this focus on use holds creative potentials, for instance possibilities of cross-fertilization between what is commonly called theory and practice.

It should be emphasized that I am not proposing an argument for what some would term conceptual relativism: This paper claims neither that concepts can mean anything nor that what we refer to as "reality" is a mere linguistic construction. Reality is a construction: an assemblage of differences and relations, and language can contribute to the processes of construction, assembly and separation. However it does claim the existence of real relations other than language, and that language can be used to treat reality in a more or less relevant manner. This must be tested on a case-by-case basis. Amongst other things we use language to act in and create (in) reality, which is why our use of language - including the meanings we attribute to our concepts - impacts our understanding of that reality whose new challenges and potential assemblages ultimately render it more and other than language.

This paper draws on the writings of Manuel De Landa. In the programme for his book *A New Philosophy of Society* he points out that his work is ontological and writes that "like any other ontological investigation it concerns itself with the question of what kinds of entities we can legitimately commit ourselves to assert exist."<sup>[1]</sup> This does not mean that language - or its use - has no part to play. Language cannot indicate immutable essence. What it can do is play a part in - and through - the establishment of real constructions of assembly. "The realist social ontology to be defended in this book is all about objective processes of assembly: a wide range of social entities, from persons to nation-states, will be treated as assemblages constructed through very specific historical processes, processes in which language plays an important but not a constitutive role."<sup>[2]</sup>

On one hand this paper attempts to align itself with De Landa's realism, his insistence on "the autonomy of social entities from the conceptions we have of them"<sup>[3]</sup> – on the other it is inspired by Dalibor Vesely's indication that we - the moment it becomes clear that concepts cannot be fixated with unchangeable references or essence - must understand that we describe the world in order to participate, to create, together: "What we normally refer to as reality, believing that it is something fixed and absolute, is always a result of our ability to experience, visualize, and articulate – in other words, to represent so as to participate in the world."<sup>[4]</sup> The space of participation, communal space - this is what Vesely calls "communicative space".

To emphasize the fact that this paper is about the relationship between private and public space considered as the question of (what) scale (does and hence means) I shall quote Rafael Moneo's presentation of Rem Koolhaas' early oeuvre up to around 1990. Moneo writes:

"Koolhaas is interested in hitting upon the right scale. We will discuss this at length when we get to the illustrations of his work, but briefly for Koolhaas scale is inextricably linked to how people – individuals and masses – will use the architecture. His book S, M, L, XL addresses this interest in scale while serving as a framework through which to present and organize his work. At the heart of his interest in scale is the importance he gives to the uses that architecture is to serve. Scale is therefore a category that leads from the private to the public. It's what makes it possible for architecture to satisfy the needs that arise in the sphere of the individual and address the spatial requirements of masses. Through skillful manipulation of scale, architecture puts itself at the service of a society defined by mass culture, thereby recuperating the usefulness it had in the past. Koolhaas considers that it's the spontaneous operators – the developers – who have best understood this new usefulness of architecture from the perspective of finding the right scale." [5]

There is no doubt in my mind that Moneo, in referring to the question of scale - is pinpointing a decisive aspect of Koolhaas' architecture. Yet it is not entirely clear what Moneo means by scale. Is scale "a size" as in "The right scale" or does scale refer to communication between different "sizes"?: "Scale is therefore a category that leads from the private to the public." Is this a question of different scales: smaller scales, greater scales - like scale models, yet present simultaneously as different aspects and sizes (private, public) of realized architecture? This lack of clarity is widespread to the point of being common - and hence interesting.

Danish landscape architect Jakob Kamp draws the question of scale into his description and critique of the Copenhagen development of Ørestad in Danish daily Politiken on 20.08.2009.

Kamp writes: "The difference between other parts of Copenhagen and Ørestad is its scale, or rather its lack of human scale." This would appear to indicate the same ambiguity as Moneo's comments: Scale in the singular must indicate that the Ørestad is characterized by a single scale, one size, that this district of the city has a given size or scale. However, it would perhaps be more correct to say that this area is dominated by an awareness of other scales than the human one, whence Scale to Kamp is potentially a question of a multiplicity of real sizes, which ought to be related, assembled, in a manner which also considers the human scale.

Later in Kamps article, it will become clear that not only is the latter the case, it is also the problem. To put it more precisely: We shall see not only that Kamp wants an architecture capable of communicating between a number of real sizes, between several specific scales, but also that he believes this lack of communication between scales in the Ørestad to be due to the fact that this is a district planned on a single (cartographic) scale, i.e. through a scale model which has occasioned and facilitated work on - and awareness of - one particular "real" scale.

Kamp writes that Ørestad was planned from an infrastructural starting point based on the national level - with the freeway and the regional trains leading to nearby Copenhagen central station and the international Airport - as well as the urban level - with the metro and major roads both leading into the city centre. He goes on to write that this has created a particular type of urban space, designed to the scale of the traffic network. These are urban spaces designed for trains and cars rather than for people. The scale of the car is dominant rather than the human scale: As Kamp points out, the problem here is that all the public spaces were designed for cars.

The scale of cars has been decisive for the scale of these urban spaces - possibly at the expense of other scales. Here lies the object to be investigated and discussed in this present paper: scale is considered in the singular right from the conception of this urban development; as a kind of essence rather than as a question of relations - relationally. Presumably this singular perception of scale means that scale is in the singular insofar that it denotes the relation to reality embodied by individual scale models. One consequence of this individuality is that we forget to consider the meaning of any choice to work at one particular scale. We forget to consider that there is a question of relevance underlying the choice of cartographic scale (e.g. kilometres, metres, centimetres or millimetres). Furthermore, we forget that the widespread notion of identity between reality and model bar the scale is associated with a particular way of utilizing scale (i.e. working with scale models). Instead we tend to experience the fact that reality can occasion working at - and with - several different scales as an unnecessary complication. This applies not only to kilometres, metres, etc. but also to non-metric scales such as those indicated by De Landa and to which I shall return later.

Moneo wrote of finding the right scale - this might be one scale in reality and another in the drawing - but it may be possible to identify the two with one another using an indication of scale precisely because each has only one scale. Kamp sees a connection between considering merely the single scale of cars in creating reality - at the cost of others - and that understanding of (cartographic) scale which ensures identity between reality and the scale model. He writes that Ørestad seems to have been designed at the scale of 1:1000. All buildings, exterior spaces, urban spaces, roads etc. are on the same scale (i.e. that of cars), which leads to a suffocating lack of variety. Kamp goes on to note that these issues are exacerbated by the fact that all exterior surfaces are covered in the same grey, Chinese granite.

The question is whether the choice of cartographic scale - which concerns the relation between drawing and reality - constitutes the underlying cause in the realization of an urban district built with regard for only one scale? In other words we must consider whether working with an awareness of several scales already during the analytical phase requires a certain attention to the significance of this choice: The choice of cartographic scale affects the outcome of analytical processes. Furthermore when it comes to the conception of an architecture that works on several scales rather than seeking "the right scale" we must consider our choice of representations - perhaps working with a number of different ones - to prevent representations from determining the

outcome.

As I stated earlier this paper has no ambitions to suspend (conceptual) confusion by insisting on an overarching or essential understanding of scale. Instead the ambition is to be aware of this confusion: perceiving it as a testimony to the challenges that provide the option of considering how the concept of scale works - and may perhaps be made to work - in order to solve some of the real problems manifested in places like the Ørestad and indicated by Kamp. This confusion is pregnant with creativity: Perhaps it is possible to compose an architecture of an entirely different complexity (read "multiplicity of scale") if we abandon the notion that reality exists at one scale while drawings exist at another - an idea that appears quite easy to work with, but which is given reality only in architecture - and does so with unfortunate consequences.

As I already indicated - and a point to which I shall return later - De Landa claims that reality is characterized by a multiplicity of effective scales, effective relations, including scales which are characterized by other properties than metric extent. Instead of reducing the complexity of reality out of consideration for our tools and concepts we should develop them to handle a complex reality in order to give form - to give space.

In the following I shall briefly - with reference to Vesely and Philippe Boudon - seek to imply how the development of the cartographic scale has historically been associated with surveying, with geometry, but in such a way that what was measured and the process of measuring were effectively abandoned in favour of geometry. The consequences have been fatal: The reasoning of geometry is characterized by being true independently of size, of measurement, of scale. Thus I shall first introduce what Boudon referred to as the scale-oblivion of architectural history and his insistence that "architecture is not geometry insofar that architecture always has scale- measurement" before - drawing once again on De Landa and Boudon - I move on to consider partly how real scales, real assemblies may be described, and partly how these scales may be called on as a particular form of attention in the conception of space and form that is architecture.

In his previously quoted book *Architecture in the Age of Divided Representation* Dalibor Vesely describes how we are now experiencing a gap between Instrumental and Communicative understandings of the world. We do not know the world in and of itself as a definable, immutable essence, but through representations that reproduce pulsating relations, assemblies, such as colours meeting on a plane to mimic life. Representations are communication and have through history been carried - rather than enclosed or embraced - by different techniques[6]. Yet the cultural history described by Vesely is the history of how the relationship between pulsating communications and technique have so to speak been reversed so that over time it has become technique, science, that surrounds, includes, measures this pulse. Technical representations are autonomized and encapsulated: separated from life as various systems of expertise. According to Vesely this also affects architecture, previously characterized by the creation of assemblies between differences and as such by its contribution to communicative communions between private and public, between that which we may understand and that which is incomprehensible, yet perceptible etc., etc.. Up through the 18<sup>th</sup> century to the present time we have - according to Vesely - experienced an increasing degree of scientification of existence as well as of everything else - including architecture.

As previously indicated Philippe Boudon pointed out that the invention and development of geometrical systems - of great usefulness to architecture - meant that questions of scale, which are vital to architecture but of no significance to the insights of geometry - were forgotten. This is an ancient problem and an intricate one. As Michel Serres and Gilbert Simondon tell us in each their way, the discovery of scale was associated with the discovery of geometry insofar as geometry was invented by the philosopher Thales through his desire to measure the size of the pyramids: Thales realized that his own shadow on the sand when the sun was at a certain height corresponded to his actual height and proceeded to measure the shadow of the pyramid with the sun at the same angle. The fact of identity between the pyramid and the shadow not only provided him with the measurements of the pyramid, but also with the possibility of producing a scale model of the pyramid, which would fit in his pocket: This model was identical with the pyramid - bar its scale. This was a relational identity of proportions between the sides of the triangle and the pyramid, not of size. Later, during the architecturally decisive epoch of the Renaissance, this proportional identity between building and drawing came to be considered the essence of architecture. This was the basis for later oblivion vis-à-vis not only the relationality of geometry and architecture, but also the fact that architecture - unlike geometry - features relations between actual sizes, between different scales. Science - geometry - on the other hand was busy enclosing art and architecture in what was later to become a claustrophobic embrace.

Through his dialogue with instrumental thought, 17<sup>th</sup> century philosopher René Descartes arrived at the belief that we may best understand ourselves and everything else by our experience of being positioned as an object in geometric space. However we all spontaneously have a different experience: this is not how we find our bearings in the world. What counts is not the body as it actually is: an object in objective space, but a system of possible actions, a virtual body with its phenomenal "place" defined by tasks and situations. Let us - in reference to Kamp's critique of the Ørestad - term this experience in which we all partake "the human scale" and maintain that it is a question of living pulse rather than metric measurability and that this may be why it is easily overlooked in instrumental, geometric planning. That science which according to Vesely was predominant from the 18<sup>th</sup> century on - and of which Descartes' philosophy is a significant exponent - certainly did not find that this was a relevant way to truly describe and understand our world and has thereby contributed to the overlooking of this scale in the name of respect for

science and precision not only in our verbal descriptions, our language, but also in and through the architecture we create.

Yet it would be wrong to overlook the fact that a great deal of modern architecture has actually been created with a sense of human scale. Indeed this architecture is characterized as outstanding and unusual. The works of architects like Frank Lloyd Wright, Adolf Loos, Le Corbusier and Mies van der Rohe were created as spaces for the virtual body with its phenomenal place, defined by its tasks and situations. However these spaces remain islands - and modern architecture has rarely managed to make the scale of the body enter into dialogue with other scales: There is no communication between the architecture of Mies van der Rohe and Hans Scharoun at Berlin's Kulturforum. Vesely calls this gap "a grey zone" and writes:

"In one sense the gray zone is a metaphor for a deep discontinuity in modern culture; in another sense it is a metaphor for the problematic attempts to resolve the discontinuity from a single, relatively narrow position. The typical example is a loose and arbitrary connection established between a highly personal experience and ideas of universal validity." [7]

The problem outlined by Vesely can be traced a long way back through cultural history and which cannot of course be easily solved. Yet Vesely's experience at the Berlin Kulturforum is the same as we see in the Ørestad: islands of good architecture designed with due attention to the human scale Kamp perceives to be missing in the spaces - the public space - between the buildings: grey zones. Hence Vesely's description also appears relevant for the Ørestad - and hence for the question of how we communicate between several different real scales which currently seem to fall apart from one another to dominate each their separate spaces: the body in the private sphere, and the car in the public one.

Boudon proposes a clearer outline of the question of scale, maintaining that it has to do with size and measurement, but relationally so: If it is the case that modern architects like Wright, Loos, Le Corbusier and Mies were attentive to the non-metric dynamic scale of the body in creating their spaces, they have none the less used measurable elements to grasp this non-metric quality. The box of cartesian space is broken to reveal perception in constant motion: creating space in dialogue with the elements of architecture. But perception encounters a number of split levels and these levels are measurable. The architect is capable of seizing an immeasurable spatial dynamic through understanding and rendering it measurable: giving it measurement, scale, concreteness through the physical elements of architecture. Furthermore he does so because the bodily scale - when it comes to architecture - must be fitted to other scales like those of materials and constructions which are also - by their nature - measurable: how great a load can they bear - and how so?

Boudon terms this space where the different scales meet and relate to each other and that which we may measure *the conceptual space of architecture*. It must be said that although awareness of measurables and conceptual space does not give rise to great architecture in and of itself, it does appear as though such awareness - including the question of which scales to assemble and give measure - is decisive in altering a situation where good architecture at best constitutes islands in grey space. Differences in scale between public and private space must be determined not only by relative size - the largeness of one in relation to the other; instead we must consider what relations work and form spaces; what scales we may term real, effective and as such worthy of being attentively drawn into conceptual space, where the question of a goal like inter-scalar communication can be addressed and solved with a certain amount of artistic nerve.

I have indicated that De Landa's sociology is interesting in this context; he insists on working scientifically and precisely. However the alternative to such a scientific description of reality is not to establish a position of opposition to science, but involves - amongst other things - reconsidering the borders of science as it is currently effective and working with a certain amount of awareness to what it cannot see, cannot understand, and which may for example be indicated by the human scale: This virtual, non-metric body which we all are and of which we are - perhaps - aware.

Henri Poincaré, a pioneer of topological geometry who inspired i.a. De Landa to be aware of non-metric formations and scales, developed topology partly on the basis of an understanding that science, geometry, does not describe the things themselves: their essences, but rather relations between things (or in the case of geometry between points, lines and planes) partly because he did not find our everyday bodily space of experience to equal that of geometry (i.e. Euclidian space, which at this point in time was still the space to which Descartes referred and which remains dominant to this day). This was what underlay Poincaré's decision to invent a suitably descriptive geometry that permitted other plastic relations and alterations between its elements than did traditional geometry.

Taking his cue from topology - and from formations that behave in a non-metric fashion - De Landa describes effective scales constituted by relations that may or may not fold and may be considered decisive although their geographic extent is less than that of many other scales, relations and systems (although these may be less intense). The internet is an example of an immaterial scale that may be characterized as a large scale of decisive significance. We experience its effects first-hand in the physical world where buildings - corporate headquarters: call centres - are erected in specific locations and gain significance for their measurable qualities attributed to that specific locality, like the large corporate headquarters erected in the Ørestad.

Like the bodily scale, the immaterial scale of the internet must be communicated through the measurable aspects of the conceptual space of architecture, which are real because architecture gives measure to our world - give measure to scales in and through the relations established by architecture. Boudon writes:

"If Poincaré in the context of everyday space considers that the space of experience is not that of geometry (of Euclid) and sets himself the task of discovering a suitable geometry, then we must correspondingly understand that this suitable geometry is preceded by the dimension of the scales drawn into its conception; rather than speaking of an experience of conception associated

with the space of everyday life, we should discuss an experience of conception that has perception as one of its scales." [8]

As previously quoted Moneo wrote of Koolhaas' work "scale (...) a category that leads from the private to the public" but also that Koolhaas "is interested in hitting upon the right scale". When Moneo discusses the 1988-91 Lille-project towards the end of his Koolhaas presentation he says "as on so many other occasions, he wholeheartedly accepts the scale of the contemporary metropolis and the impact of the infrastructure that characterizes it" [9] - hence we understand that according to Moneo Koolhaas' architecture presents us with an awareness of communication between different scales rather than an ambition of striking the right one. For Moneo never expanded on what he meant by saying that scale leads from private to public - so we may wonder whether this is because Koolhaas is not in fact interested in working with scale as a question of relations, communications, and of assembling different sizes.

Sociologist Albena Yaneva spent a couple of years 'in the field' with Koolhaas and OMA - at the time the studio was working on an extension project for the Whitney Museum in New York. Yaneva described the work of the studio through her project, first in the article "Scaling Up and Down" and more recently in her 2009 book *The making of a building. A Pragmatist Approach to Architecture*.

If we are to follow Yaneva it makes no sense to discuss the work on the Whitney project as a question of "finding the right scale" in the singular. Instead this is a work spanning several scales, not only in terms of the models which switch between larger and smaller models of the project, but also and by extension - the scales of reality: Smaller-scale models allow for a working awareness of certain real scales: relations to the surroundings, to the city; while larger-scale models reveal others, more internal to the building itself. Furthermore, the continuous shifts between these two kinds of models - and yet more models (ideas from one model are carried over into others and vice versa) shows studio work to be in dialogue with scale as a relational complex. Furthermore this is not a linear, process progressing from smaller, rougher models to larger, more detailed ones; it is complex. Conceptual spaces are established, altered and transcended through awareness, feeling, pulse. In her preamble to the above-mentioned article Yaneva writes:

"In the scaling venture, two alternative states of the building are simultaneously achieved and maintained: a state of being "less-known", abstract and comprehensive; and a state of being "more-known", concrete and detailed. After multiple up and down transitions between small- and large-scale models, the building emerges, become visible, material and real. These scaling trials bring the building into existence." [10]

Perhaps we are on the track of how working with scale - not as essence but as relationality - may lead from private to public, establishing mutual interchange between the two "scales" in order to enable architects to create pulsating, communicative spaces.

[1] Manuel DeLanda, *A new philosophy of Society. Assemblage Theory and Social Complexity*, (London: Continuum, 2006), 1.

[2] *Ibid.*, 3.

[3] *Ibid.*, 1.

[4] Dalibor Vesely, *Architecture in the Age of Divided Representation. The question of Creativity in the Shadow of Production*, (Cambridge, Massachusetts: The MIT Press, 2004), 4.

[5] Rafael Moneo, *Theoretical Anxiety and Design Strategies in the Work of Eight Contemporary Architects*, (Cambridge, Massachusetts: The MIT Press, 2004), 316.

[6] Vesely writes: "Thus, as Hans-Georg Gadamer points out, in contrast to the conventional understanding, "representation does not imply that something merely stands in for something else as if it were a replacement or substitute that enjoys a less authentic, more indirect kind of existence. On the contrary what is represented is itself present in the only way available to it." On this account, representation more or less coincides with the essential nature of making, and in particular with the making of our world." Vesely, *Architecture in the Age of Divided Representation*, 13.

[7] *Ibid.*, 34.

[8] Philippe Boudon, *Sur l'espace architectural*, (Paris: Éditions Parenthèses, 2003), 35-36. Author's translation .

[9] Moneo, *Theoretical Anxiety and Design Strategies*, 357.

[10] Albena Yaneva, "Scaling Up and Down: Extraction Trials in Architectural Design", in *Social Studies of Science* 35/6, (London: SSS and SAGE Publications, 2005), 867.