DRAWING, (BUILDING), WRITING.

- 0a. "Drawing in architecture is not done after nature, but prior to construction; it is not so much produced by reflection on the reality outside the drawing, as productive of a reality that will end up outside the drawing." (Evans, 1986, 165)
- 0b. "Beyond fashion, time, style, there is a structural analysis of what architects do. This is a way of penetrating the more profound aspects of architecture, its very bowels, which is tantamount to saying that one is seeking out its moment of conception. I try to get as close as possible to the eyes of an architect rather than trying to elaborate broader historical frames of reference. I try to be specific in terms of architecture." (Moneo, 2000, 19)

drawing, building, writing.

- 1. In this lecture I would like to distinguish 'writing' from 'drawing'. Understanding the difference between these two operations helps to define the difference between theory and practice, between the production of a building and the reflection on the finished product.
- I identify three specific operations in the discipline of architecture, that is: drawing, building and writing. These three operations work within different contexts; they serve different purposes and basically intervene at well-defined moments within the architectural process. To illustrate this we could summarize the design process in a seemingly simple, chronological scheme: (fig. 1)
- 1a. I will discuss the 'building' part shortly. In this lecture I am leaving aside the practical skills or technical knowledge associated with the 'building' as *métier*. A builder engineer, contractor, craftsman and in a sense also an architect knows how to execute a design proposal. He has the skills to realise the drawings made by the designer as an object. Strictly speaking, 'building' both as the act of production and the resulting product holds a central position in the discipline of architecture. The designer makes a proposal with the construction of a building in mind. Usually, in turn, the building itself is the beginning point for writing a text on architecture. Nevertheless, while 'building' consists of a central part in the design process, I want to argue that the act of 'building' itself does not constitute the core of the architectural discipline.
- Research in the architectural sciences architectural theory, criticism and history begins mainly with investigations of the building-object. An author, as a conscious and self-critical person, perceives buildings. He observes them in order to articulate his observations by speaking about, by writing on the architecture of the buildings. At this moment architectural science normally intervenes. The theoretician, the critic, the historian or the writer-architect relates discursively to a subject of reflection. He unfolds an argument, makes a point and formulates a conclusion. These activities result in architectural thought: a discourse on architecture. The reflective and discursive work is usually fixed by the act of 'writing'. Because of this, it is an important possibly even an essential operation within the discipline of architecture.

At the moment an architect conceives a building, architecture is once again the subject of investigation. However, in the process of designing, the designer does not necessarily write. He projects a non-existent building, making representations of it. So, some typical operations may be set apart from writing: constructing a plan arrangement, articulating patterns, sketching different positions and possibilities, visualizing the construction in section. In architectural practice a significant part of thought and communication occurs by drawing and not by the written word. Like writing, drawing surely is a rational gesture. Nevertheless, the translation from drawing to writing does not go without saying. Whereas the material acts - marking an empty surface- are seemingly similar, both actions function within a dissimilar logic. Overlooking the initial question of this symposium - Is it thinkable to draw a PhD? - we could ask ourselves in which sense drawing and writing differ.

drawing & the discipline of architecture.

- 2. We can situate the issue the use of drawing and its role in the field of architecture in a broader social (and historical) framework, in order to point out the difference between drawing, building and writing. Secondly we will compare the specific characteristics of the two media used, from the point of view that drawing and text have distinct qualities. Finally, we will attempt to formulate the singularity of both actions.
- [context] Visit an architecture office during its working hours, look at architectural periodicals, read monographic studies on architects, consult the educational programs of architectural schools; you will find drawing a central part of the field of architecture as an institutional and social practice. On the one hand, drawings are used to order and structure the social interactions and relations of the many actors involved in the design project: the commissioner, the contractor, the structural engineer, a public servant. It provides an important instrument through which principles of the design and ideas are communicated. On the other hand, by means of drawings functional diagrams, plan arrangements and sketches the designer usually appropriates *non-architectural* issues. The drawing is pivotal in arriving at a sense of the design and to mastering all the intricacies of a final work of architecture.

The anthropologist Edward Robbins argues that the role and status of the architect as a central figure of design, emerged when the drawing as his instrument of command was firmly established. (Robbins, 1997, 13-20) He situates this shift in the early Renaissance, the late Middle Ages. At this moment in time, architects disassociated their activities from those carried out by craftsmen and their practical (technical) considerations; they further distanced themselves from the practical (financial and representational) concerns of the commissioner. The architect became an independent participant in the building process, a move based on drawing's ultimate importance as a medium of communication. Thus, the transition from builder to self-declared professional architect unfolded "as the transition from 'craftsmanship' to 'draftsmanship'" (Robbins, 1997, 20) As Robbins suggests, these changes meant

that architecture became an increasingly distinct profession with its own status, knowledge base and tasks.

Moreover, the drawing provided - until recent times - the instrumental basis from which designers conceal their intermediate status. In one sense, drawing became the symbol of what distinguishes the architect from the other actors involved in the project. As devices of memory, self-education and experiment, drawings are used to experiment with new geometric, spatial, aesthetic, narrative, symbolic possibilities. In another, certain forms of drawings are conventionalized and made the basis for directing the production of a building. It is thus through drawing that architects appropriate and translate the work of others into their own work. It is through the drawing that they ensure that the actual building will be an accurate translation of their design. Drawing is constituted in this instance as an instrument of social practice, as a medium of communication. The act of drawing begins to define a discourse.

- 2b. [medium] 'Writing' as well as 'drawing' result in media. Drawings alongside of text, drawn figures combined with language, mediate between different people, between man and his environment, between mental ideas and materialized artifact. Whatever the nature of the 'medium', it is organized as an 'in-between'. Each medium creates a zone functioning simultaneously as passive support and active tool. Both forms of representation each have medium-specific characteristics. (Forty, 2000, 37-41)
 - (a) Drawings and texts are both projective. They refer beyond themselves to 'something' outside of the medium. In the main, architectural drawings are 'geometric projections': orthogonal (plan, section) and perspectival projections. As such they are precise. They convert a 'real' object into a mathematically 'exact' representation. Relative to drawing, language's force lies in its ability to 'abstract' and 'synthesize' a plurality of phenomena into common signification. (Barthes, 1990, 119) The use of written language encourages things to be seen 'as'. Language accommodates ambiguity.
 - (b) 'In language there are only differences,' said Saussure. A word signifies through its opposite: 'to be' 'not to be', 'light' -'dark'. On the contrary, a drawing has no immediate or recognizable opposite. It refers to its referent by iconic or isomorphic correspondence.
 - (c) A language operates through conventions, metaphors, concepts. As such the conceptual subjective communication occurs in a direct way. Language is the medium to express subjective impressions, to narrate mental 'experiences': "It is warm, cosy, moody over here." Drawings are referring to tactile experiences too: the materiality of an object, visual perceptions or the construction of a three-dimensional object. Nevertheless, these subjective characteristics are hardly represented in a drawing. When people talk about 'reading' a drawing, what they are generally doing is projecting imagined bodily movement around a drawn plan, and describing a narrative operation what they would experience. Understanding a drawing demands some imagination.
 - (d) It is in the nature of language that words have to be spoken or written in linear sequence.

 Arguments are developed, an intrigue is unpacked, a reader follows the argument or the

narrative. Reading an image also takes time, but the eyes may wander over the presented surface. A drawing normally presents its image all at once, from one point of view.

2c. [action] To conclude I would argue that drawing and writing not only operate within different contexts, that they do not only make use of another medium, but that the actions themselves also make use of a different *rationale*. In my opinion they differ on three levels. To begin with, neither action serves the same objectives. Secondly they implicate a distinct subject-object relationship. Thirdly they relate differently to time.

I would define the act of drawing as design, as the creation of a potential field of new possibilities with the aim of making choices. By drawing, the designer reveals inexistent potentialities, which may provide the decisive step towards an anticipated result. The result of this process can be seen as a 'proposal' for a reality yet to be constructed. Its reality value is the only condition to function as a proposal. A proposal is relevant when it reveals potentials, when it is a realistic alternative and not an unimaginable, inconceivable fallacy nor the mere documentation of an observation of an already existent reality. The act of drawing is organized as a process of making. In the process, there is a degree of subjectivity and arbitrariness at work. But as imagined representation of reality to be constructed, the design proposal itself is objective. (Moneo, 2000, 18) ¹ So, the drawing process is linked mainly with the 'coming into being' of a new reality.

Not only the act of drawing, but also the act of writing about a building is organized as a decision making process. In writing about architecture, generally, the author is not analyzing his own words or acts, but instead articulates an opinion on the built reality 'outside'. In this type of writing he formulates an argument as to how an already existent building is 'working'. The author applies a discursive and critical relation to his object of study. Architectural thought principally describes the implications of the 'existence' of things.

2c -2. In the act of drawing, the relationship between subject and object can be not unambiguously pointed out. While a text primarily relates to an object and an objective outside the text, a drawing is both the object that is created, as it forms the most important material of reflection. A drawing is not only a line - the material trace of a gesture - nor a sign - the resulting image that presents itself for contemplation - but an in-between. In this way, every drawing act is a complex hybrid between production and contemplation, between deciding and questioning those decisions. The outcome of a drawing (sketch) is mainly contingent and polysemic. The drawing should not form a final conclusion in itself, but rather become a guide to a position from which the designer can start thinking again, in order to make new decisions.

2c-3. Now, we return to the central part of the scheme of the building process to discuss the different moments of the design process. (fig. 2)

The first moment runs parallel with the act of drawing, the formulation of a design proposal. A drawing projects something new on what already exists. The project is located and so reinvents the existing building site. The materialisation of a building program reinterprets or translates the original

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¹ As Rafael Moneo argues in an interview: "I'm quite aware that form is not inevitable, that there is a degree of arbitrariness in design which, paradoxically, may be disguised in the result."

commission. The project transforms an initial question into a possibility not realized so far, but thinkable - or at least imaginable - in the future.

The writing is situated apart from what is not yet realized or produced, but starting mainly from the product itself (a building, a project, a statement by the user or the architect). Before an author can decide if a specific architectural solution 'works', it should first exist as a 'proposal'. I call this 'switching back on' what is already made, the critical moment.

The drawing and the writing are in a different proportion to time. Principally the act of drawing is proactive. In design the 'construction' is a central theme. Principally the act of writing is retro-active. Here 'explanation' is more significant.

3. Both actions - drawing and writing - have a different status. The designer as well as the author is working in a different social field. Both actors make use of a different medium. Both maintain a singular relationship to the surrounding world.

In reality, both operations are difficult to separate. In creating an object, the designer also argues or critiques his design proposal. The author criticizing an object may understand the designer's intentions, informing their writing on his architecture. Nevertheless, it seems important to me to distinguish them epistemologically. The distinction is mainly found in the fact that the 'design proposal' should be built. The designer must allow his proposal to partially leave his hands, in order to see it realized by a builder. Once the building is realized, the use of the building totally eludes the designers' control. Even when the builder, the commissioner or the user ignores the initial intentions of the designer, the building itself should remain significant. ²

(fig. 3) In the design process itself, a proposal assumes significance when the project no longer requires the creativity or the imagination of the designer in order to be judged. When, in the proposal, the initial arbitrariness of the design is disguised and the proposal becomes self-sufficient, it becomes 'work'. Because of its autonomy - because of the fact that an architectural 'work' does not need clarifications by the designer in order to be understood - the 'work' can be judged by an outsider, by a 'public' not involved in the design process itself. So, 'work 'is the limited value of *creation* and bears the first steps of *reflection* in it. I would situate the desired results of the design process in this transition between the 'creative' and the 'critical' moment. ³

conclusion- 2 types of research

To be able to think the 'design rationale' it is important to distinguish it from the discursive rationale. Does this mean that there is no relation between the researcher and the designer? No, not at all; insight into the distinction between drawing and writing in the design process makes their very interaction possible. Therefore I describe two types of research, two types of reflection on architecture, which can be identified with the two operations described above. The first deals with architecture as an

² I'm paraphrasing some intuitions that are brought to forth in the work of Robin Evans, I'm mainly referring to the concluding chapters of his major work on the architectural drawing.

object. The author disconnects the realized construction from the making process, and searches for an objective relationship to an objectified object of study. Most studies in architecture belong to this type of research. (fig. 4)

However, a building can also be understood as a proposal, as the result of a design process. In this case we may argue that the built work is the last drawing. So we interpret the design as the single actualization of an infinite number of possibilities; and recognize that our object of study contains the implicit and inchoative rationality of making. As a discursive strategy we can imaginably reconstruct the making process in order to point out the choices made in the design or to make explicit the potentialities that are ignored by the designer. (Weber, 1982) ⁴ Consequently, writing becomes the discursive doubling of the design process. This approach requires that the author understands architectural practice and introduces its logic in its unfolding argumentation. (Collingwood, 1999) ⁵ Without stating how a design process really occurs, without prescribing an 'ideal result', the text may create space to speak about designing, about the designed object.

5. The importance of a study that does not focus on the building as 'object' but aims at the 'project proposal' cannot be situated in the scientific clarity of a discourse, nor in the rational unfolding of an argument. The importance must be situated in the identification of an architectural project with a choice made. As such the building is treated not as a given fact but as a cultural act, a human decision. As a result the designer along with architecture is again given some credibility and responsibility.

⁴See Webers concept of the 'ideal type'.

⁵ I'm referring to Collingwoods idea of 're-enactement'.