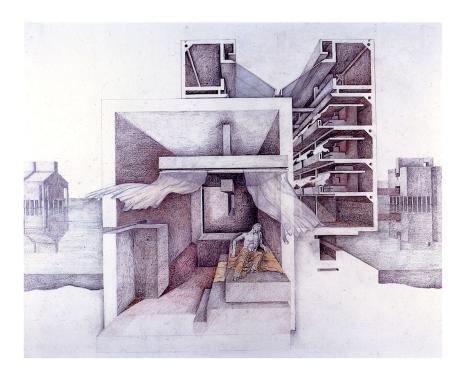
Woods, Lebbeus - Terra Nova, 991

Abstract.

In recent architectural theory there is a lot of attention to the text, and the representations of architecture in language. Some theorists go as far as to claim that language is really the only true realm of architecture, rather than drawing. But the discussion as to what architecture is has been going on since the word was invented, probably before we started counting the years. Where do we stand now with architecture, can a text or a drawing really be architecture in itself, or is only built work true architecture?

Using imaginary architecture as an example I wish to discuss the role of language and drawing in the representation of architecture, and arrive at a new definition as to what architecture is, or can be. This will shed light on the difference between building, drawing, text and other representations of architecture.

My research will consist, among others, of the following:
Robin Evans - Translations from Drawing to Building and Other Essays
Robin Evans - The Projective Cast
Jeff Kipnis - Perfect acts of architecture
Exhibits of the architecture association - folio series
Dreaming Architecture, Thomas A P Van Leeuwen
Raimund Abraham - Unbuilt, 985
Woods, Lebbeus - Galleryworks, 993
Woods, Lebbeus - Painting: Towards the Heroic, 979
Woods, Lebbeus - Origins, 985



Raimund Abraham, The Hospital, the House of Hope Nine Projects for Venice, 1979-80

A new hope in a new definition;

Architecture restricted.

Before we started writing books about architecture, make many drawings, exhibits and debated architecture at length, we stacked rocks on top of one another, under the supervision of the master builder. There was no drawing, no discourse, no architecture association, but there was architecture. As far as we can look back in developed human history there has always been another reason to build besides shelter, such as religious symbolism, sacred gathering or entertainment, which generated something more that the combination of protection from the elements, structure and material. In the Renaissance the drawing of architecture rather than its execution first received general impetus as one of the supporting tiers of architecture.

"The Italian Renaissance offered the architect a new, much higher status due mainly to the command, not of building, but of drawing, which was previously only a minor part of building production, a means to copy information rather than generate ideas.

¹ Hill, Jonathan, Building the Drawing, Architectural Design, Volume 75, Issue 4 (p 13-21)

The claim became that drawing was necessarily a precursor to architecture. This is exemplified in the painting of the architect Schinkel called the 'Origin of Painting' (1830), in which a painting is made on a rock surface of the shadow of Diboutades, rather than on a wall as is the case in the earlier painting of the same scene by David Allan (1773)². After the focus on drawing, language became an important part of architecture, and theory and literature are an indispensable part of architecture today. These days a great many things are defined as architecture. It has become a fencing term for al kinds of actions. A book can be architecture, a drawing, a carved rock, a lecture, a suburban shed. The discussion about what architecture is is never ending, so it is hard to define wether or not drawing or text by itself could be architecture in itself. The objective of this essay is to define a working statement as to what architecture is, in order to find out if something other than a building can be architecture. What we do know is that we all agree Frank Lloyd Wright was one of the great architects in the past. His definition of Architecture is as follows³:

"What is architecture anyway? Is it the vast collection of the various buildings which have been built to please the varying taste of the various lords of mankind? I think not.

"No, I know that architecture is life; or at least it is life itself taking form and therefore it is the truest record of life as it was lived in the world yesterday, as it is lived today or ever will be lived. So architecture I know to be a Great Spirit....

"Architecture is that great living creative spirit which from generation to generation, from age to age, proceeds, persists, creates, according to the nature of man, and his circumstances as they change. That is really architecture."

Architecture thus, according to Wright, is the manifestation of life. As poetic as that may be, it does not help us in a discussion about wether or not drawing or text, or both, can be architecture in themselves.

² Evans, Robin, Translations from Drawing to Building, P. 165, 2003

³ Wright, F.L, In the Realm of Ideas

Let's look at some writings about text and drawing in specific. The idea of architecture manifesting itself in different media is not new⁴. The 17th century translator John Evelyn appended the translation of the book 'Parallel of the Ancient Architecture with the Modern' by french architectural writer Fréart de Chambray with an essay titled 'Accounts of Architects and Architecture.' In this essay he personalizes the different actions necessary for Architecture to exist in four different roles. These are the architectus ingenio, the inventor, drawer and supervising entity, trained in history and geometry. Secondly, architectus sumptuarius, the client and financial source. Thirdly, architectus manuarius, the workforce and actual construction entity, and lastly architectus verborum, the man of language, and architectural conversation. Observing a trend in recent architecture theory that focusses on linguistic practices more than anything else, as witnessed in the interest in Foucault, Lacan and Derrida, the function of the drawing as the architectural foundation for communication is being debated. However, while just having entered a new era in architectural drawing, it is worthwhile discussing the role of the flat graphic representation (drawing), the volumetric representation (real or computer model) and architecture's representation in language (the text). In what way are drawing, text and built work connected to architecture? Are they what architecture consists of or are they mere tools, an index of an existence of architecture in the mind of mankind. Is the built work superior to its representations? With architecture expressing itself in text, drawing, building, and numerous other media, is it not fair to say that perhaps architecture exists in the mind, and is expressed through certain media rather than existing in them?

We can investigate the role of the different mediums in which architecture is conveyed to communicate by looking at a specific field of architecture: imaginary architecture. An important body of work in the history of architecture is of this nature. Examples of architects who dedicated a significant part of their efforts in this field in history are Boullee, Piranesi and Ledoux, and in more recent times Lebbeus Woods and Raimund Abraham.

⁴ Forty, Adrian - Words and Buildings, P 11

The imaginary architect does not need the *architectus sumptuarius* or the *architectus manuarius* to create his work. He is therefore both free from financial restrictions and material consequence, as far as the actual content of the work is concerned. Using drawing and text to generate architecture he is able to step outside of the conventional realm and theorise about alternate architecture, and sometimes even alternate universes. Since the imaginary architect is free from all worldly restrictions that apply to actual building, he can shape his work so that it communicates the message he wants to reveal as effective as possible. This is of course only true of those architects who wish to send a message, in other words, communicate through architecture.

Imaginary architecture plays a fluctuating role in the history of architecture. Although not in his time, Piranesi has influenced many architects in the era's after his death, and Archizoom, and Superstudio have had major impact on the socio-political and creative aspects of the profession. Using compelling graphics ranging from accurately rendered city and landscapes to highly diagrammatic flowcharts, these groups created social awareness, new forms of aesthetics and at the same time they criticized older ones. They were highly effective in communicating their ideas through architecture. In this case architecture can be seen as the medium, and drawing or words just tools to their disposal, and the socio economical message within the work as the reason for existence, the real architecture. Recently imaginary architecture has taken a back step to the text, and theory has returned to the realm of the alphabet.

In many cases architecture theory is considered to be written only, but since *architectus verborum* does not create architecture alone, is *architectus ingenio* not capable of equal profound statements using drawing, rather than having drawing be only a representation? Or is it even like Bernhard Tschumi says⁵:

5 Tschumi, Bernard, Architecture and Disjunction, p. 93, 1977

"There is no way to perform architecture in a book. Words and drawings can only produce paper space and not the experience of real space. By definition, paper space is imaginary: it is an image."

Tschumi supposes that without all four entities, there is no architecture, although he fails to clearly define why that would be. In his essay he does mention that:

"Architecture resembles a masked figure, it cannot easily be unveiled. It is always hiding: behind drawstrings, behind words, behind precepts, behind habits, behind technical constraints. Yet it is the very difficulty of architecture that makes it intensely desirable. This unveiling is part of the pleasure of architecture."

This can be seen as somewhat analogous to Adrian Forty's thoughts on what architecture consists of. Forty says, in his book Words and Buildings, that part of the essential nature of architecture is that it cannot be perceived at once. That something is always hidden from view, and that a progression through architecture is rather more like reading a book, a linear process, than looking at a drawing, where the whole picture can be taken in at once⁶. So, where Tschumi places as much importance on drawings as on text, exemplified by the following quote: "Architecture does not exist without drawing, in the same way that architecture does not exist without texts."7, Forty is convinced the world of language is a better host for architecture, and then again ample examples can be found of scholars and architects who claim an extreme of either of these standpoints. Adolf Loos claimed he could write the Pantheon, and that drawing is an unnecessary act of architecture⁸, and Carlo Scarpa, declared that his work existed in drawing and drawing alone⁹. This leaves us without a definitive answer at best, and proves once more that architecture is not a field that can be caught in a certain projectional medium, be it text or drawing. Forty makes a strong argument for language in terms of its fuzzy edge, where nothing is defined and therefore language is the best tool for the communication of experience rather than evi-

⁶ Forty, Adrian, Words and Buildings, P.39, 2000

⁷ Tschumi, Bernard, Architecture and Disjunction, P102 1977

⁸ Loos, Adolf, Regarding Economy, p 139, 1924

⁹ Forty, Adrian, Words and Buildings, P 29, 2000

dence. This cannot be interpreted other than that Forty is arguing for an architecture of experience rather than an architecture of science. Experience, however, is a fickle thing. Freud and his followers and have proven in many ways that perception is highly individual, and memory, which is our primary repository for experience, is a highly subjective device, capable of great distortions, blank spots and even additions. Who is to know what architecture will be perceived as by another if an architecture of experience is created to full effect? Especially since Forty seems to believe in architecture as a communication device more than anything, this argument seems to be sliding down the wrong slope. My argument is that rather than existing in either words or drawing, architecture exists in the mind, and drawing and text are projections of these volumetric models in the brain. The 16th century painter Georgio Vasari says:

"One may conclude that this design is nothing but a visual expression and clarification of that concept which one has in the intellect, and that which one imagines in the mind." 10

Where both drawing and text can help in forming the mental image, it is still the volumetric existence of the work in the mind which is the real architecture. This idea can be traced back to the Platonian idea of the ideal image world separated from the real world. Where Forty fails to attribute language as the sole proper representation of architecture is, for instance, in his argument of linear progression, where he claims that the mind perceives architecture in a linear sense, analogous to the linear action of reading. However, if architecture exists in the mind, and is only recorded and verified by the senses into a spatial, or rather, volumetric model of the space inside one's head, then this is not the case. Much like music, which is appreciated rather in repeated listening than a single linear progression, as most books are, architecture can be enjoyed while having the volumetric image of the space in one's head. One could enjoy it with the eyes closed, and listening to the reverberation of the space, or the pattern of direct light falling on the skin. Just like a draw-

¹⁰ G Vasari, Vasari On Technique, trans LS Maclehose, 1960, p 205.

ing, words are only a projection of the mental image, but communicated through abstract symbols rather than representational ones. In this way, both are too two dimensional to capture the volumetric space entirely, and a drawing is as incapable of entirely describing architecture as language. Where words are capable of effectively transmitting ideas of a conceptual nature, drawings are mostly effective when a physical nature is involved. In between is the diagram, which borrows symbolism and iconography from language and merges it with representation and spatiality from drawing. It is no wonder that the diagram, since its introduction in the beginning of the 20th century is considered a primary tool for the architect. The problem with defining which tool is supposed to be the best for the field of architecture is that the field itself cannot be defined in that way. Words are more suitable for a conceptually oriented architecture, and drawings for a more material one. Practitioners can choose how much they balance between these types of expression, and choose their tools accordingly, using the diagram as a transitory tool. This is obviously the case in the profession, and when observing presentations from various architects, they seem to be well aware of these choices. However, architecture theory, which is supposed to inform and provide a theoretical and inspirational foundation for architecture still lacks this conscious choice, exemplified by the almost complete lack of graphical representation of any kind in most important works of architecture theory.

We could look how this occurs in the realm of imaginary architecture. Here, it is clearly exemplified by pointing out two strong examples; first, in the realm of language and the fuzzy edge, there is Italo Calvino's writings, for instance in his book Invisible Cities. This book is one of the best examples of the use of the power of imagination while reading texts. Calvino does not show us anything, he walks us through a landscape of letters, not so much describing the place, as the feeling of being there and the metaphysical consequences, but most of all the conceptual nature of the existence of architecture. Each reader creates his own environment. A clear example of Forty's arguments. In the area of drawing, we can look at the work of Lebbeus Woods. His highly inventive worlds are

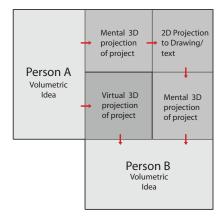
something most of us haven't seen before, and they continue to amaze on repeated investigation. Although accurately rendered, one keeps wondering and inventing the world these drawings show a little window of, and they literally create a new, spatial and material, world within one's mind. Since we are hardly capable of creating a wholly new thing out of nothing, and can only use the things we already know in combination to create the new, these unique materializations of an imagined world are highly valuable. As much information as Woods' drawing holds, they can never show us what the place smells like, or how the walls feel. They are very inefficient for showing us what the social and political orders are of these worlds, and without text, a sustained argument on wether or not these spaces are 'better' than the ones we have in our reality seems non existent. If we were to combine drawing with writing, as is not uncommon since Woods does write a great number of texts in addition to his drawings, we do not necessarily get the 'whole picture' either. When the concept is laid out in text, and the materiality and spatiality is rendered on paper, what is missing is our own volumetric experience of the place. Although we can write as much as the way the air smells and the door handles feel when we enter, there is no sense-memory of the space. We have not walked up to it, and felt the gravel under our feet. We have not received our own memories, but someone else's. We get displaced from our actual location and need to imagine we are there. Everything that is not defined we will substitute with our own imagination, or, lack thereof. So if using our imagination to materialize concepts is a necessary condition for architectural theory, as can be extracted to be Forty's argument, then is it necessarily that specific type of imagination that needs to be invoked? If the theory is augmented by drawing, to appeal to a broader audience, and if still the imagination has to be invoked to construct a reality with this material in one's head, would that not be preferable? I am only assuming that the goal of communication, which theory consists of, is to be heard and understood by more people than the writer alone.

Drawing and text as the physical representation for building, rather than to convey an idea, is problematic. 'The drawing, model, photograph and text provide ambiguous and elusive information – an uncomfortable thought for any architect. Rarely do marks on paper equate to marks on site. To transform the drawing into the building requires an act of translation and an intimate knowledge of the techniques and materials of drawing and building.'¹¹ Over the last two decades advances in representation have supplied us with a world of possibilities that were unheard of earlier. Not only can we represent in three dimensions rather than two, those representations can be material. Better still, with modern Building Information Technologies (BIM), we are able to ideally define the whole building in a single representation that is more accurate and complete than the finished building could ever be. If architecture is a construction of the mind, and all projection is targeted at the communication of it, then if we could transfer our mental image to another person directly, we would be practising architecture. Since that is not possible at this time, what about the ways that come closest?

If we were to take a virtual reality stroll through a BIM building, we could make a hole in the brick wall and find all the conduits, just as in any real building. Daylight can be rendered accurately, as well as complete atmospheric environments. But it is not limited to that. No longer being a medium that exists in concrete form, we can add the fourth dimension of time, and see how the building will develop through the ages. We can also use this to animate diagrams and create clarity in difficult concepts that were impossible to visualize before. Using animation we can recreate walkthroughs in a linear fashion, experience a concept in the Corbusian fashion of an architectural promenade. We can include voice overs to include more verbal aspects of a scheme or idea, and we can do the whole thing over and over again, each iteration perhaps even reacting to the observer. These concepts change the way architecture is projected and communicated radically. It is not just another step in the process of drawing, it is much closer to direct volumetric projec-

¹¹ Hill, Jonathan, Building the Drawing, Architectural Design, Volume 75, Issue 4 (p 13-21)

tion from the mental image to an analogous volumetric projection, immediately visible for anyone. (fig. 1)



Given this immediacy and combination of the functions of the text and drawing, the volumetric model is one step closer to the image in the mind, and therefore one step closer to actual architecture. However, if drawing and writing are mere representational tools of architecture, an index of it and not embodying architecture, the combination of them is still in the field between the mind and the built, no matter how close to reality it is, it is not reality in the mind or in the real. What volumetric design does do, in combination with new technologies such as CAD/CAM, is to return the actual building of architecture closer to the architect, rather than that of the construction company;

"I believe it will be recognised that we have entered an era where expertise in making is becoming repositioned at the centre of architectural practice. For architects, the new era is most clearly defined by the revolutionary change in making information. It is led by a convergence in the properties of digital drawing and the automated techniques of manufacturing into the hybrid and adaptive technology of CAD/CAM (computer-aided design/computer-aided manufacturing). Armed with an array of new tools that draw and make, the CAD/CAM operative is neither a designer nor a maker, but both."

Volumetric design in the case of CAD/CAM merges the *architectus manuarius* with the *architectus ingenio*. What this achieves, in the discussion about drawing versus text, and

¹² Bob Sheil, Design through making, Architectural Design, Volume 75, Issue 4 (p 5-12)

them being communication tools for the projection of a mental architecture, is that building itself, rather than a tertiary projection of the mental image of architecture, can come closer to that ideal. Although there might not be such a thing as perfect architecture, there very well might be the perfect projection, the one on one representation of the mental image in built form. This is what CAD/CAM brings us, and will assist us with further in the future.

Several considerations concerning the projections of a mental architecture have been overlooked. Let's take Woods' Sarajevo projects as a vessel for our investigation. This is a project that can be placed within the realm of imaginary architecture. Never meant to be executed, the drawings and texts' purposefully attempt to strike a conceptual and sometimes emotional chord in the observer of the work. They are not attempts at full description, nor at accurate representation. Visiting a war-struck Sarajevo in ????, Woods collaborated with architect ??? to create a new existence for a number of buildings designed by ??. The designs do not deny the damage done by the war, but instead attempt to deal with the new world that has been created by the war. Using Woods' signature drawing and design style, a fragmented and shattered image is drawn up, which nevertheless has strong presence, direction and idea. Smooth, durable materials are used in pieces, held together by cables and intricate connections. The buildings receive a new layer of existence, both in function as in appearance, through which they confront the horrors of war, the resilience of spirit and the aesthetics of a new era. The drawings are niether representational, diagrammatic or purely ideological. They are an intricate mix of all three, essentially everything a drawing could be. They function as an ideological vision that carries the message in the text further than the words ever could by themselves. But, without the accompanying text, the drawings would be hard to interpret, and they could well be city scapes from a Storm comic. The text carries a unified message that can be understood by all on an equal level, and creates the foundation for the concept. However, reading the text without the drawings does not prepare one for the designs, and the text would be hollow and disconnected. Here is a fundamental example of text and

drawing working in tandem to express a singular, strong idea that spans politics, sociology, design and artistic expression. Using these drawings, text and models, a profound idea is communicated from one to another. It is a communication of a state of mind, a perspective on existence in a post-war world, that forms the architecture.

If drawing and words, and their combination to express a singular idea, can be architecture, and buildings that do the same can be architecture, is one preferable over the other, is architecture only justified when it can be built, or when it communicates an idea? The Sarajevo project by Woods seems to suggest that only and idea is necessary, and building it is just a material effect of the idea.

"Whether architecture is immaterial is dependent on the perception of the user, which relies on fiction rather than fact. Richard Gregory writes that 'visual and other perception is intelligent decision-taking from limited sensory evidence. The essential point is that sensory signals are not adequate for direct or certain perceptions, so intelligent guesswork is needed for seeing objects.' Consequently, 'perceptions are hypotheses'."¹³

Here, Hill extracts for us an important clue. Our perception of the real is largely constructed through creative juggling with the facts of our senses. Seeing something for the first time is harder than subsequent times because our brain needs to acquire data to juggle with. This means that we never truly see what's 'there', but always a projection of our mind. If this is the case, then, a building is still just a representation of an image in the mind. We would not need buildings to pursue architecture, and using the various ways of projecting our mental images and ideas we could effectively sustain the profession. This would also mean that the volumetric representation of a building is just as much architecture, as the building itself. One would not need to go through the process of building it to achieve the desired effect. Like Eisenman's houses, which are invariably built out of cheap materials

¹³ Hill, Jonathan, Building the Drawing, Architectural Design, Volume 75, Issue 4 (p 13-21)

in a shoddy way, causing them to not even remotely aspire to the theoretical idea. "Building' became a matter of enlarging and rerendering certain drawings." 14

Let's diverge for a moment. We have been talking about architecture existing only in the mind, and the repercussions of this for drawing, text and building. When we look at the issue differently, by saying that which is in the mind could be anything, and the study of this is psychology and philosophy and not architecture, therefore architecture is inherently material, our argument seems to be lost. But not entirely, and here is where it gets interesting. If architecture is a volumetric idea that exists in the mind, but that can only exist once it is manifested, the act of architecture would be the projecting of the mental idea onto a material, in order to transgress the boundary of a single mind. This then leads to the conclusion that to transgress the boundary of a single mind, communication is necessary. Of course, the projection of the mental image is performed because the idea needs to be communicated. Thus, compacting all of this in a single sentence; architecture is the act of projecting a mental volumetric idea onto the material with the objective of communicating that idea. Note that here architecture is defined as an act rather than an object. Hence, the result of this act can be temporary, or even completely ephemeral, such as a light installation or a lecture. Once the volumetric idea has been communicated, architecture has been performed. We are now left with one problem to make our definition complete, and that is to narrow it down, because it could now very well be the definition of art, sculpture or any other kind of mental projection. The key lies in the word volumetric. Something that is volumetric is inherently spatial. But architecture, as it is understood through the ages, has to do with objects that surround a human being rather than singular solid objects such as a phone or a piece of sculpture. Architecture envelops. Also, architecture does not always need to communicate, as it could also simply try to achieve the idea. The definition would thus be; the act of of projecting a mental enveloping volumetric idea onto the material with the objective of communicating or realizing that idea.

¹⁴ Kipnis, Jeffery, Perfect Acts of Architecture, p. 34

Let's examine some examples to see if our definition works, and if we can achieve what we set out to do, to decide wether something that is pure drawing or pure text can be architecture.

Woods' book *Radical Reconstruction* contain the Sarajevo projects in text, photographs and drawings. This work is meant to convey an idea about the future of Sarajevo through the use of manipulated buildings, and explanations as to the process of their creation. So, there is an enveloping volumetric idea in the work that is being communicated through the means of the book. As long as the book exists it will project and communicate this idea, and thus the work is architecture.

Italo Calvino's book *Invisible Cities* consists of just text and describes, almost every page, a new city that can be experienced through different means. Most cities are themed, but that does not restrict the visions to purely conceptual descriptions, in fact, most often materials and shapes are specifically mentioned. In this case the vision of cities are projected onto text, onto paper, in order to transfer these visions to the reader. This would fit exactly within our definition of architecture. Thus, fictional prose, and by extension, poetry, can be architecture.

Walter Benjamin's life work *Passagenwerk* describes in a multitude of ways the arcades of 19th century Paris. In this case, in contrary to Calvino, much is based on documentation rather than invention. However Benjamin's vision creates a new understanding of these spaces by guiding us through them, assisted by intense interpretations of his own. This is also a way of communicating a volumetric idea, and can therefore be seen as architecture.

A simple shack in the fields, as those that can be found all over the world. This is not as easy as it seems. Since most often we do not know the reasons for making these, we do not know if there was a particular volumetric conceptual idea that created the shack. But we may well assume that the shack was meant for purely functional reasons, and since it therefore lacks a mental idea, it is not architecture.

Robin Evans' essay *Translations from Drawing to Building*. This essay concerns itself with the history of the drawing and the role it has played in architecture history. It then concludes that the drawing, and the way it is perceived in our times, and the way it holds the profession in a stranglehold of precision and projection, should be discarded in favor for a more uncertain, variable and poetic method of description. Although not presenting a volumetric enveloping idea in the common sense, Evans' essays affect the way we look at other ideas, and as such affect volumetric ideas. It can be seen as influential on this level, and it therefore exists on this level. It would, through this logic, fall within the definition of Architecture. This would mean that architectural theory, which affects volumetric enveloping ideas directly, can be considered architecture.

Jaques Lacan's essay *The Gaze and the Eye,* in which an extensive investigation is performed in the psychological differences between the gaze and the eye, but also where the words themselves are deconstructed and infused with new meaning. Since there is no enveloping volumetric idea present within this work, and because it does not alter our understanding of existing volumetric enveloping ideas, it does not comply to our definition. Although it is possible the reader will see ideas differently after absorbing the text, it is rather general ideas that are affected, and not volumetric ones in specific, thus excluding it from the application as used for Evans' essay.

Verifying these examples, we can see that our new working definition for architecture draws a clear line concerning drawing, text and building. The volumetric mental idea is

the main component of architecture, but it needs to be communicated or an attempt at execution performed before it can be called architecture proper. This definition hands us the difficult separation between architecture, architecture theory and theory in general. It also informs us that a building does not per se count as a more valid manifestation of architecture in favour of drawing or text. All form of architecture are an *act of projection*, and should thus be conceived.