

The Use of the eBook format in describing Changing¹ Architecture

Alexander Četković

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ABSTRACT: eBooks bring new possibilities of describing architecture that traditional books cannot offer. The traditional book has strongly influenced our understanding of architecture through the restricted means of perspective, plans and images used in combination with text to describe architecture. But new technologies, such as streaming media expand the possibilities of reproducing architecture by adding the component of time and walk-through helping to experience space or follow change in flexible architecture. Interaction, especially hypertext, allows to influence the flow of narrative and gives the reader more independence when reading a text. In many aspects eBooks are still far from perceiving the real architecture, but the new possibilities of mediation help shift the perception to a better understanding of architecture.

Introduction

Traditional representations of architecture

Representation of architecture on paper in form of general plans, floor plans, elevations and cross-sections are important for architects to transmit their ideas to constructors and fellow architects, whereas the perspective is crucial in convincing the client. As such they are a part of the canon of representation tools for architects that are still taught but also cultivated in the discipline. Also in books these tools are used to depict buildings while describing architecture. But in books, it is above all the image in form of drawings and later photos, which is used to illustrate and explain the building to the reader. A picture is seen as an objective statement, supporting the authors text but also allowing the reader a subjective opinion.

Influence of tools on built architecture

Since the first plans of buildings were put on paper, they have exerted strong influence on how the buildings have been designed and how the conception of space has been perceived². Especially the central perspective, introduced as a tool to show the spatial appearance of buildings and first described by Alberti in "De Pictura", has been influential on the architecture of western culture. Buildings designed

¹ the term changing is here used in sense of time parameter

² Robin Evans. *Translations from Drawing to Building and Other Essays*. Architectural Association Publications, 1997. ISBN 1-870890-68-X

according to this centralised view, tend to lose some of the apprehended effects (gradual building up of space, tempo found when moving through the structuring of elements, axis of views) once the user leaves the idealised central axis of perception (Figure 1). One can say that the plans and the perspective lead to a frame-set of the mind. Not only do these tools influence how the built environment is perceived but they can even be misleading as shown in the 2010 Venice Biennale by architects *de vylder vinck taillieu*. In their exposition “7 houses for 1 house / the ordos 100 project” they displayed the process of creation and design of a project, from the initial drawing to the model. The patient and attentive observers of the plans and the models noticed that the project also consisted of entirely closed rooms and stairs leading to nowhere (Figure 2). Only through the combination of the different presentation media (or as in my case a hint of the guide) can the project be conceived.

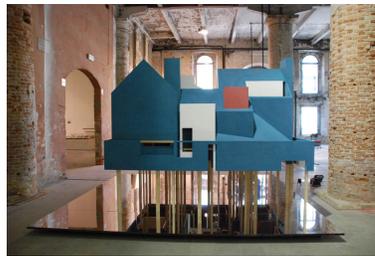
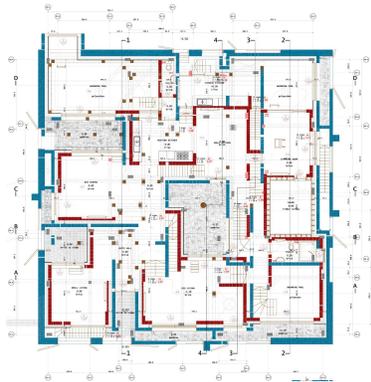


Figure 1: central line of vision in Santa Spirito, Florence (Filipo Brunelleschi 1436)

Figure 2: ordos 100 project, (architecten de vylder vinck taillieu 2010) *The project contains locked in rooms and stairs leading to nowhere, elements that are not obvious from the plans*

Also images have a strong influence on views and styles. The depicted buildings of the modern movement had a strong influence worldwide and favored its dissemination. Architects of the movement (such as Le Corbusier or Mies van der Rohe) were very conscious of the fact and were very deliberate in the ‘mise-en-scène’ of their buildings. Interestingly the fact that the photos were black-and-white lead to the misinterpretation that most of the originals were white cubes, instead of lightly colored cubes.

The correlation of plans and photos (the virtual and the real, the idea and the realisation) prompt the common practice of publishing the pictures of the newly built building so that they correspond to the design plans or perspectives. Consequently freshly commissioned projects are eager to impress the eye, blending out the potential look of the building years later on. Building upon this argument one could say that some of the more prestigious projects leave out (long-term) time and concentrate on the moment of commissioning.

We see that the way the buildings are depicted and the tools they are described has a strong influence on how they are perceived.

Describing Time in Architecture

According to Brand³, architects seem to forget that buildings change over time. Often the modern buildings are conceived not to anticipate change but are deliberate in their form, appearance, functionality and space organization. Sometimes even the obvious changes through weather or deterioration of materials due to age or use is blended out.

The famous picture of Sir John Soane's draughtsman, Joseph Gandy, in 1830, depicted the unbuilt design of Bank of England in ruins (Fig. 3). This painting was intended to create an analogy of the project to antic temples. At the same time it was an examination of the impermanence of the building. Considering time has always been a common aspect of design. Architects such as Peter Zumthor, incorporate change over time in the concept of their projects (Fig. 4). Yet at the same time it is striking how many of the contemporary iconic symbols of architecture need to be renovated after relatively short periods of usage. We hear about these quality makeovers from the press, because these objects are worthwhile repairing. But how many buildings have become unusable or simply disappear due to bad quality, without ever being mentioned in the press? Or as Brand explains, most architects seldom return to the buildings once they were finished, thus they rarely learn from the mistakes they have made. This attitude towards sustainability can mostly be attributed to the architects but has also gradually developed through the hype around star-architects the architecture-critics, the press and last but not least the public. But also attributed to the influence of the representation tools of architecture in books, where only the impression of the newly built counts.

Using media to depict the (positive and negative) change over time can help raise awareness of the issue. Media, such as videos, would allow us to see changes happening over years in fast motion, allowing to anticipate how buildings might change in time to come.

Describing flexible architecture

Another aspect of representation of architecture with the given tools is that flexible architecture, i.e. transformable, adaptable, moving or interactive architecture, is difficult to document. For instance if we look how the moving room in the Maison à Bordeaux from Rem Koolhaas can be illustrated, we can compare the different possibilities

³ Stewart Brand. *How Buildings Learn: What Happens After They're Built*. Penguin Books, October 1995. ISBN 0140139966



Figure 3: Bank of England by Sir John Soan (picture by Joseph Gandy, 1830)

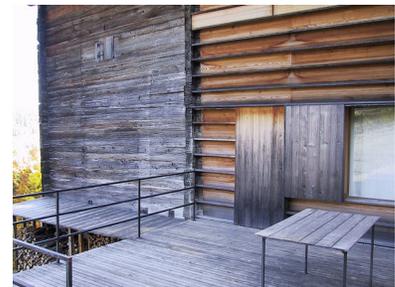


Figure 4: House Gugalun, Switzerland (Peter Zumthor 1994). The old barn and the new extension seamlessly blend into one another. The new is not only in dialog with the old, but blends in more and more into the old structure through time.

the means offer.

1. In the plan (here a section, Fig. 5), usually the two states, before and after the change, are depicted.
2. The photos of different states (Fig. 6) give a notion of how the changes take place.
3. In the film (Fig. 7) we can not only follow the different phases of change but also the tempo in which they occur. It also helps to understand why certain things happen.

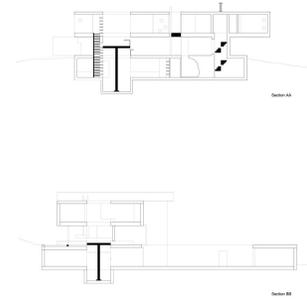


Figure 5: Two different sections through the lift. Maison à Bordeaux (Rem Koolhaas, 2001)



Figure 7: Excerpt from film Koolhaas Houselife (Ila Bêka and Louise Lemoine, 2008) (see youtube)



Figure 6: Photos of the lift moving. Maison à Bordeaux (Rem Koolhaas, 2001)

FAÇADES THAT RESPOND TO WEATHER ELEMENTS are a further example of architectural elements that can be only perceived with time. The Articulated Cloud from Ned Kahn can only be partially conceived in a frozen image, whereas the waves formed by wind on the façade can be observed in a film (Figure 8).

MOVING BUILDINGS are better conceivable when the tempo of the changes in the environment is comprehended.



Figure 8: Articulated Cloud - Pittsburg Childrens Museum (Ned Kahn, 2006) (see youtube)

INTERACTIVE ARCHITECTURE has usually an activating event that triggers some action in the built environment. To see both the triggering event and the resulting changes can help understand why and how things happen in such an environment. Especially what is often missing in photos of such elements are the users and how they interact which is a crucial part for understanding such technologies.

Space perception through movement

EMBODIMENT AND MOVEMENT THROUGH SPACE are a crucial part of our perception of space. Without such elements the depicted spaces in photography and plans are difficult to grasp. Although embodiment is difficult to mediate in film, the movement through space and the swaying with the camera from one side to the other has become an integral part of describing spaces (Figure 9) in film.

THE PERCEPTION OF SOUND AND ITS ECHO IN ROOMS is one of the sensory components we use to perceive space. The combination of movement, sound, change of light and distances all lead to a more plausible perception of space.

NEW TECHNOLOGIES IN FILMING, such as telescopic cranes (Figure 10) or steadycams, permit us to display movement through architecture without jolting, allowing the reader to perceive better the dimensions of architectural buildings.

Further Possibilities of eBook

Beyond the added possibilities of media (video and audio) the new epub3 format is based on the html5 technologies. This means that links along with hypertext is possible. Hypertext is a pre-condition for non-linear narrative in eBooks, allowing the readers to determine their flow when reading the eBook.

Further Javascript combined with location detection would allow interactive texts. The dynamic elements we know from web-browsers could be introduced to eBooks. One could imagine the content of the eBook changing depending on the current location of the reader of location dependent priorities of text elements.⁴ But also other functions of JavaScript allowing the reorganisation of content such as interactive questionnaires, type-dependent content (eg. text for him and text for her), or feedback over Internet⁵.



Figure 9: Il Girasole by Angelo Invernizzi (Verona) in 1930s ('Il Girasole' film by Marcel Meili and Christoph Schaub, 1995) (see Wallpaper)



Figure 10: Telescopic cranes with camera used to create motion in film 'Extreme visions' by Thomas Ball, 2009. (see youtube)

⁴ There are sites on the web collecting the popularity of certain sights in Internet by collecting the frequency how often these objects have been depicted and stored by tourists in Internet using the pictures place tag and comparing the contents of the picture. Such statistics could be used to give certain locations higher priority than other or make contents location and time (ex. season) dependent.

⁵ Kindle provides the possibility to annotate text in its books. This allows Amazon to collect such data to display the most frequently annotated passages

Elements missing in the eBook

For readers really to perceive architecture and place, there are still a multitude of elements that an eBook cannot offer. The sounds of the place (a microphone records only audio in stereo, but the acoustics of a place are not only the foreground noises but also the background noises, the random noise we blend out in our conscience etc.), the smells, the embodiment, the haptic of the materials around and the ground, and not least the context of the place i.e. putting the architectural context in its environment. Opposed to a book where the reader is guided by an author, like Barthes fittingly suggested, only visiting the place ourselves can we truly discover the place for oneself and make it a part of our own conceived world.

Conclusion

The possibilities of new technologies to describe architecture harbour opportunities of interpreting architecture in a new way. Nonetheless these are only narratives around observations that cannot be compared to the experience that eventually create the conceived world each and every one of us bears within ourselves.

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