The architecture of deceit cultural studies essay

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The Architecture of Deceit

The little ‘ white lie’ of architectural renderingsResearch Methods – Dissertation ProposalARC9009MByGavin Mc KernanMaster of ArchitectureYear FiveJanuary 2013

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Abstract

Nowadays architects are able to produce photorealistic imagery with the aid of effective 3D rendering technology that visually simulates architectural design. Virtual reality may be regarded as the ultimate means of creating architectural imagery; it allows the architect or client to move within a 3D designed environment, giving them a simulated experience of the final design prior to its construction. Although these architectural visualizations have been around for some time; the major development in the areas of computer technology and computer aided design has made it possible for architects to produce renderings much quicker and even more realistic than

ever before. This offers both a challenge and an opportunity. On the one hand, it is now possible to visually test and portray design concepts more accurately than previously envisioned (Kolarevic, 2003, 261). On the other hand, architects are now able to illustrate the virtually impossible whether it is by deception or exclusion or even intentional fakery. Some might say that these architectural renders have become very deceptive as they are now seen as a visual end product instead of representing an idea during the design process. Conversely, it is the most important tool in conveying to clients what an architect is hoping to achieve, displaying how the final design would be situated within the ‘ real’ world. Digital rendering is changing the way buildings are conceived, designed and produced but has it become a professional gimmick used to deceive clients? Or is it a necessary evil architects must employ to win different tenders and projects? Through the course of my dissertation I wish to examine the impact this change has had on the architecture field.

Literary Review

Jennifer Whyte: Virtual Reality and the Built Environment

This book by Jennifer Whyte provides an insight into the use of virtual reality within the field of architecture, explaining how it is developing as a new tool for design, production and management. The book sheds light on the technological changes within design practices, examining how architects now generate their ideas and the practical implications of these changes. It covers many of the topics I wish to address in relation to my dissertation; it examines virtual reality within the historical context which gives a greater understanding to how it has shaped the approach of the architect’s design

process, also outlining the concerns virtual reality has when representing ideas to clients and end-users.

Bryan Lawson: What designers know

Bryan Lawson looks in-depth into what kind of knowledge designers work with and how they put this knowledge to use. Lawson is not only a psychologist but also an architect which has allowed him to study the design process in great detail. The fact that we can see the difference in how experienced designers and novices use their knowledge differently in this book suggests that design expertise can be developed. With each chapter dealing with a different technique this book provides an exploration of research techniques giving an insight into the source of design knowledge. The book examines the different roles of the computer which I found very valuable. What surprised me was that the author seemed frustrated with the CAD system and in fact states that " computer-aided design has turned out to be rather a disappointment so far" (Lawson, 2004, pg 64).

William J. Mitchell and Malcolm McCullough: Digital Design Media- A Handbook for Architects & Design Professionals

The previous book I talked about by Lawson looks at some of the negatives of computer aided design and how hand drawing can be used as a more effective solution but this book is quite the opposite. It explains that mastering CAD will be essential for a successful practice of architecture in the 21st century. The authors provide a general overview of computer aided design and does not stray from this throughout their book; this in result demonstrates a central topic which is highly informative. The book starts by

providing a general theoretical framework for understanding CAD techniques. They then examine the vast range of computer manipulation particularly in three dimensional models and motion models. Finally, they consider the planning integration, and management of practical CAD networks. Each major type of computer aided design system is discussed in terms of the elements and operators that it provides for constructing and manipulating designs, the forms of immediate feedback that it supplies to the designer, the kinds of reporting and analysis that it can support, the opportunities that exist for connection to other types of systems, and the design roles for which its characteristics particularly suit.

Branko Kolarevic: Architecture in the Digital Age; Design and Manufacturing

This book has been a great asset in my research so far, taking me through the years of digital production, from the evolution of the digital design process to the predicted challenges which it will face in the years ahead. So far it has answered many of my questions relating to the digital age; examining how it has been forging a different style of architecture but also at the same time presenting extraordinary opportunities for the redefining of an architect’s role in the creation of buildings. When exploring the principles of digital creativity it can help build an argument on the pros and cons of computers, looking at how they are affecting the design of architecture. The majority of people would be in agreement that virtual reality software in architecture has been a huge benefit but to write a dissertation I understand I have to look at the opinions of those on both sides of the fence. In doing this I hope to create a strong argument throughout my paper, coming to a

conclusion on whether or not the positives of rendering outweighs its negatives.

Francois Penz: Computers in Architecture, Tools for design

This book by Francois Pens is one of the oldest I have covered, published in 1992, and what makes this more interesting is that it covers mainly the use of computers in the field of architecture. This really illustrates how prominent technology has been over the past few decades and how it has been a huge driving force in the development of architecture today. The book brings together leading academics, researchers and practitioners to discuss the impact of computers on the design process in architecture. One of the chapters titled ‘ The Next Ten Years’ looks back at the previous ten years and presents an interesting histogram on the proportion of practices using computing at that time. The histogram was made according to a survey by the RIBA Market Research Unit in 1989 showing what percentages of architectural offices used some sort of computer and in what way giving the different stats for each different type of design programme. This chapter of the book is where I hope to pay particular attention to try and draw up some contrasting results over the years. It examines the expected future impacts of such technologies and highlights developments in CAD.

Kevin Forseth: Rendering the Visual Field; Illusion Becomes Reality

Although this book focuses mainly on architectural rendering through the medium of hand sketching and not computer rendering, it is still very applicable to my dissertation. Forseth address some of the key issues facing me with my dissertation, outlining techniques and strategies for rendering

and how natural realism can be achieved. Realism can sometimes be misunderstood but especially in regards to architectural renders used today but the book explains exactly what realism is and how it should be portrayed.

Introduction

Those involved in the production of computer aided design and virtual reality programmes would admit that these applications have surpassed all expectations (Kolarevic, 2003, 261). Three-dimensional rendering has enhanced the creativity of architects, allowing different forms and structures to be explored, pushing the boundaries of design. Architecture as a whole has benefited from these advancing technologies but at what cost? The term ‘ rendering’ can be defined as an act of interpretation and the visualization of proposed architectural designs. Kevin Forseth defines rendering " as the art of showing people how their dreams and wishes will look, depicted in their best light" (Forseth, 1991, 129). Consequently rendering is now a way of seeing architecture stripped of all unpleasant realities attached to it and as a result it has become somewhat of a deceptive tool. To sell an idea or dream, some architects would argue that the use of 3D renderings is the only way, even if these renders are not entirely truthful. Should renderings portray an ideal image that will sway potential clients, developers or public juries to buy into a project? Or should architects use more truthful images of what the final project should look like, which will do greater justice to the completed design?

Research Question

Digital technology and 3D rendering software are allowing a direct link to be made between what can be designed and what can be built, would it be accurate to claim that these new found tools are being used to present designs that cannot be built to clients? Is it the architect at fault? Or perhaps it is the naivety of the client that the problem?

Research Method

To understand the changes design has undergone in relation to architectural visualizations and 3D modelling I must go back and examine the birth of the digital age. Trying to go back to a period when there was no reference of computer technology is difficult in comparison to the technology available at the present time. All Architecture works has technology at its core, but since the Second World War " technology has caught up with our imagination: there are few buildings that can be envisioned but not built" (Spiller, 2006, 11). Moving back through the years I have came to a crossing point, when the works of visionary architects were no longer seen as too experimental or controversial to construct but in fact very buildable. These architects were once regarded as ‘ paper architects’ and they are now the very architects who are designing cultural icons all over the world. Peter Eisenman, Daniel Libeskind, Zaha Hadid, Rem Koolhass, is to name a few. Then progressing from this shift in technologies of architectural rendering to the present day and what seems likely to be the future- I have been looking at the work produced within design factories in China. The Chinese are famous for their use of fanatical renderings, taking rendering to the extreme and often working to produce renderings that are detached from reality. With the use

of inspirational rendering, what might start out as a plain building in a chilly part of China, could be enhanced with the addition of blue skies, a background of skyscrapers and green areas imported from other sites, could be transformed into an attractive design even though these additions do not exist in the environment. Looking at these designs will help me investigate how far these illusions go within the field of architecture. I believe this will allow me to observe the rendering process at its most excessive nature; from what I have read and seen so far the true urban condition is being replaced by visual fantasies in 3D visualisations. Finally I will look at the opinions of the architects and the opinions of the clients creating a strong argument from both sides. I aim to discover what is the problem or problems with the use of virtual reality software and rendering at the present moment and how could these problems be resolved were both parties can work together once again in harmony. The problem I see arising so far is the actual style of rendering that is used and what it depicts. The kind of rendering I am referring to is a picture of a truly amazing setting with sun shine, blue skies, people with smiles on their faces enjoying their surroundings. And this is often a ploy by architects to persuade their clients to buy into their project even to the point of misleading them with a certain rendering style which more often than not, is more convincing than the actual architecture. Clients invariably like to see different presentation approaches and how these are marketed but they also like to see their project during construction and the finished product in pictures to analyse if it lives up to the sublime visualizations. Fig. 1 Exterior view (North-East) of Elbe Fig. 2 Rendering of the Elbe Philharmonic Philharmonic Hall Render. jpgReal. jpgThe general rule of thumb is the more ‘ real’ the render is, the better it is. It is believed that

photorealistic renderings are more valid and bear more reliability within presentations and submissions than non-photo realistic renderings (Whyte, 2002, 133). I have been looking at many different projects that have used photorealistic renderings during their design process to a very high standard, and although this is the majority of projects today, I have been examining the fault lines between virtual reality and reality. Elbe Philharmonic Concert Hall in Germany by a Swiss architecture firm Herzog and de Meuron stood out for its eye catching renders so I started to research the project, which is still under construction. The rendering (Fig. 2) gives the impression that the translucent façade is almost a weightless sheet that is beautifully seamless. But when we look at the photographs taken during construction (Fig. 1), they do not reflect the glassy waves that appeared in the renders. Sometimes when a rendering is so real looking, the discussion can revolve round the details instead of the concept that it’s supposed to portray. Is it possible that some finished developments look as though something is missing because the renderings have embedded a faultless image in our heads. Maybe if such a sublime image was not revealed to us initially, then we would be more content with the finished product.