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The Design Method through Architectural Design Philosophy of Chinese Wall

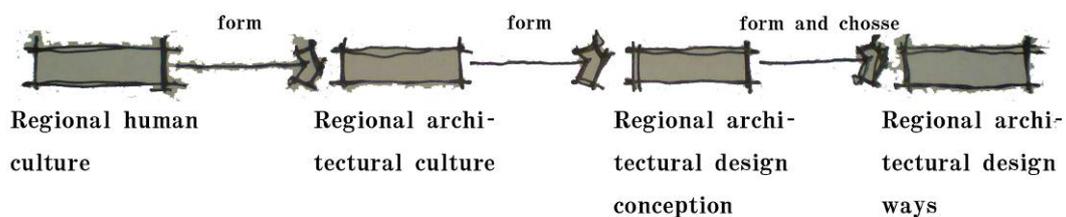
Abstract: Through the study of the culture and design philosophy to development the design methods of Chinese wall, discuss its design philosophy, limitation and impact to expend the boundary of wall. To understand the division and conception of wall in design, then summarize the similar division of design procedure which generates interaction between design conception and method.

The design of wall

As the basic architectural design element, wall creates the context with space after the division. The wall compose space, space field generated around solid of wall. Wall gives user a contrast to the space, use would have feeling of depth, density of space. (Meiss, 1990)

Culture to Design

In Chinese wall' design, the design starts from the regional human culture, and then base on it to generate regional architectural culture. Next step the regional architecture culture forms the regional architecture design conception. Finally the regional architecture design conceptions would guide the particular architecture design to choose the architecture design ways. As Willem Van loon in his geography literature 《Van loon's Geography》 said: “The history is geographically fourthly dimension, it gives geography time and meaning”. Culture as the representation of particular period's general life experience would possible describe and influence that part of history architectural design. The study put this process into the particular history and geography background, then to understand design conception of Chinese wall in design process.

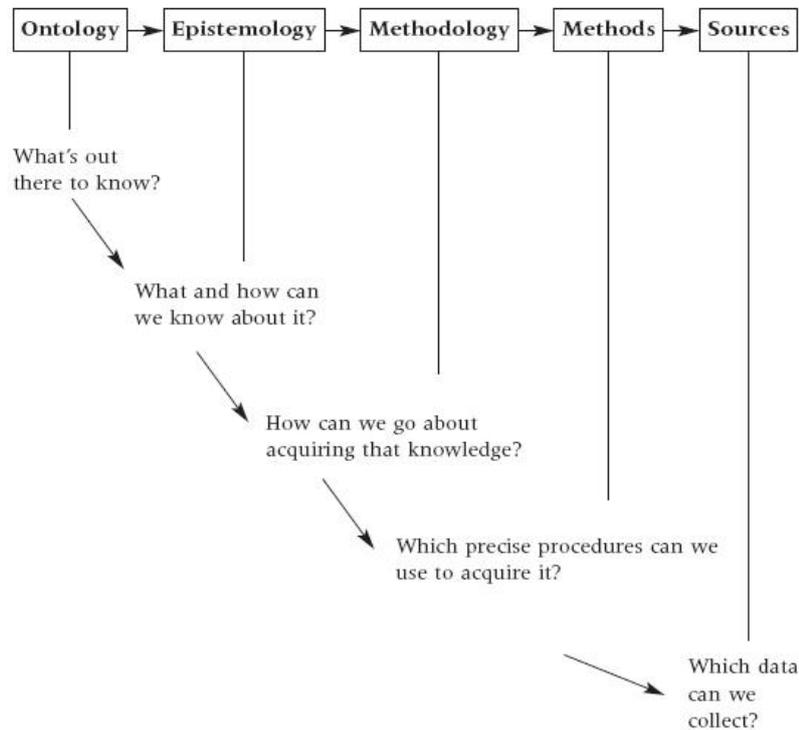


Design process in China

The main part of Chinese traditional culture is Han, in Han culture there is one important philosophy school been called Daoism. It indicates the relationship between human and nature should live harmony, human practical activity should obey the rule of nature such as climate, season, geography etc. You can never conquer it, only can understand it. (Chen, 2002) Wall in the design process to represent the life philosophy. This is response to life, to site. The design of Chinese wall emphasizes the design philosophy. Methodology as second stage to choose the technology, material and method, it is a stage of technical implementation. It is similar as Hay's description of research progress.

‘A researcher’s methodological approach, underpinned by and reflecting specific

ontological and epistemological assumptions, represents a choice of approach and research methods adopted in a given study.' (Hay 2002)



The interrelationship between the building blocks of research from Hay, C. (2002), Political Analysis. A Critical Introduction

Base on the procedure of design philosophy. The following discussion is about implementation and conception of Chinese wall

Form

The Chinese wall is dominated by literature and poem. Architecture is way to achieve the spatial philosophy which describe by their literature and poem. (Yi, 2005)They usually image material wall extend to immaterial wall. When the conception of wall been zoom in, through architectural scale to urban scale, even regional scale. In Chinese ancient prose have a trope that take the mountain as wall, river as pool to be the boundary of territory defence. The writer take this simple element through enjoyable portray to describe the site, then correspond to this type of design philosophy.

Boundary, Distance, Solid Carrier

Wall is partition to present the Boundary of area, culture, right, and became the carrier of those things. This carrier delivers information of culture, right, function to us, for example castle, Chinese great wall, garden, house. (Yi, 2005)

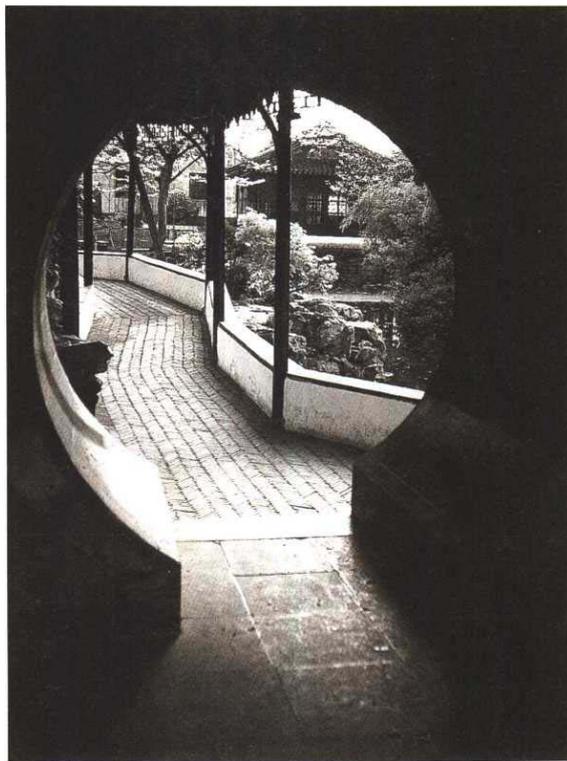
Wall is a distance, estrangement and defence. Wall is an obturation, partition inside and outside. The user of wall through their intentionally or unintentionally use and construction of wall build

up the context between site and life. The solid of wall become users' objective carrier of subjective experience. Here not only the initial function of wall, but also added symbolize sense, ornament. (Yi, 2005) When people first built up the wall, they gave it sense of construction through the design and making process which is consist of material and technology. Second during the process of construction and following daily life use, the function, material, form of wall and people's life experience operate together give wall an added sense, such as memory, culture, art and symbol.

Context, Respond

Wall divides site and creates new context with site. It forms material boundary of site, then it break the edge of itself to connect site by door, hole on wall. One hand wall generate boundary, another hand let the space penetrate through it. If landscape likes a beautiful painting, wall would like a frame for the landscape of mother earth.

In landscape without contrast and division the space would seem shallow. The multiple division of wall makes the landscape seem much deeper to achieve the dramatic landscape. Through the partition to acquire multiple landscape level, this is not just variety of space, but also architectural way of poetic life, poetic performance. (Yi, 2005)



Division of wall in landscape from Chen, C.Z. (2002) Garden of Saying

The wall has response to the site, it borrows the land of site to create and extrude space. This is the context with site, the context quite emphasize the response form site and reflect response to design. For example Chinese great wall usually built at the strategic place which on the top of mountain, it borrow the natural landform and use architectural method to express natural power in architectural

way. It has a powerful performance in wall construction because it brings the response from site into design and combines response with site context.



Chinese great wall from www.google.com

Time and space ---Time reflection on wall

Time in architecture always connect with light, when light reflect on wall, people think this is the space-time performance on wall. Light and shadow this phenomenon tightly contacts with time, after the reflection of wall been present on the surface. While the time changed the wall with light and shadow make the space lively. (Yi, 2005) Through the change of images on the wall, people feel sad or sigh with emotion about the time process.



Light and shadow reflection on wall from www.chinaculture.org

Limitation and Impact

After the division of wall, user still tries to through different method to weak, break this division. To built up the context with site and life. Through this basic architectural element study, wall is not only compose the inside space of architecture, at the same time it is about users' attitude to site. This is Chinese architecture always emphasized, the context of architecture and site.

But in the same time it would cause failure by design conception itself, after the solid architecture has been set at secondary position as a technical implement, the architectural elements would not have enough attention to improve them. This order is easy to simplify design, and in practice it would work in normal pattern, then been limited in classic pattern. This repeated use of classic pattern would generate boundary of wall itself, for example people would think Chinese wall is always built by wood, only through the material to understand it. The design philosophy would distorted by this simply design, then misunderstood would accumulate through this design process. First it would form the ostensibly and simply form of wall, people would think this is the material wall should be. Then people would ratiocinate it back to design philosophy think it is the classic representation of design philosophy. They have locked themselves in this boundary which they created.

Here are three examples from AA, western university and caving dwelling from China to reinforce this study, not only expand the design method, technology, they both through the study of wall to explore the design philosophy. These different countries method, technology and conception would generate impact to expand the 'boundary' of wall, such as conception, material, context and response to site.

Wall Example 1. -----Expand of conception

After the strictures of Modernism, people have rediscovered ornament use in architecture. Oliver Domeisen start the study of possibilities of ornament in diploma units at the Architectural Association in London to pursued with a purpose as contemporary digital design and construction techniques are fused with an awareness of grammar and definition. (Domeisen, 2008)

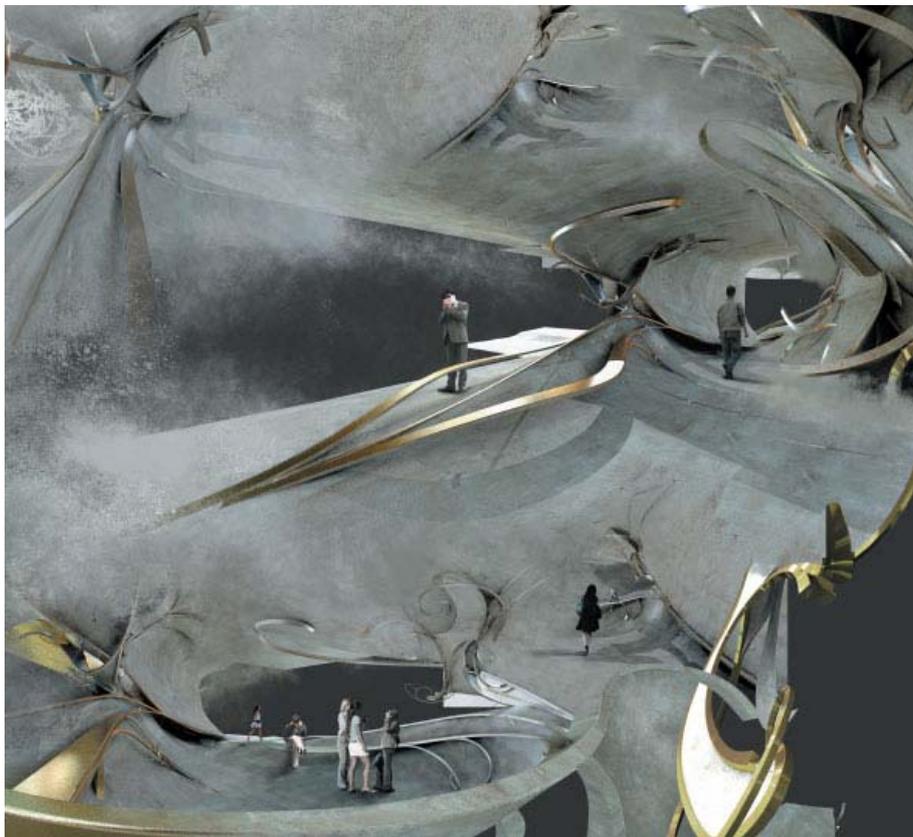
From The invasive ornament of the Rococo – the Rocaille – is an amalgamation of nature and artifice. It transmogrifies everything it touches into a seamless, ever expanding space of asymmetrical dynamics and material transubstantiation. (Domeisen, 2008) This enlightens the curvilinear dynamics of a new ornamental language drawn from the Rococo geometrical design. The student Kaiser use Elements of the Georgian square, such as cast-iron railings and the stone paving, are drawn into the building and combine with aluminium bronze mullions and concrete partitions to form a spectacle of transformation. (Domeisen, 2008)The Ornament does not only frame the opening in the partition wall, but facilitates a seamless moment of transition that invites new forms of occupation. (Domeisen, 2008)

The art play the main role to expend people's e design conception of wall and space. From the old Rococo painting we can see, without software and computer people still can imagination the

dancing line through drawing. People have the willing to create a wall without joint which would expend the form of previous wall. Today enlighten by Rococo painting the AA student tries to break the white wall which created by Modernism as a modern classic pattern and push the Modernism spatial conception further.



Johann Esaias Nilson, *New Coffee House (Neues Caffehaus)*, Augsburg, 1756



Alex Kaiser (AA Diploma Unit 13), *A New Ornament for the Architectural Association*, Bedford Square, London, 2007/08

Wall Example 2. -----Expand of experience of material construction

This concrete wall experiment is part of a series of 1:1 construction workshops involving collaborations between architecture and engineering students at the University of East London (UEL), teachers at Edinburgh University School of Architecture, and CAST at the University of Manitoba, Canada. (Chandler, 2004) The workshop forum is valuable in developing a philosophy of engagement between architectural teaching and practice, treating materials research and design as facets of one activity. (Chandler, 2004) Work by Kenzo Unno in Japan taken the mass production potential of a technique with fabric to a flawless level, while Mark West at CAST in Canada has developed fabric formworks to make structurally and materially efficient beams and slabs. (Chandler, 2004)

This research became a question as a consequence of our experience, the enjoyment of a creative interaction with materials providing new areas of invention as the Wall progressed. The technical experiment engages form and experience process of wall.



The completed formwork

The final piece, 3m wide, 2m high, between zero and 200mm thick

Wall Example 3. -----Expand of context and response to site

In this example the wall is replaced by the mountain or ground, wall transform with mountain and ground. A cave dwelling is a special structure, a useful space formed not by addition, but by subtraction, for example subtracting certain things in nature. The Loess plateau is prevalent in the northwest and its neighboring regions, with the depth of the loess extending from 100 to 200 meters. With little seepage and a very strong vertical nature, this provides a very good precondition for the development of cave dwellings. At the same time, the natural condition of dry weather, little rain, cold winter and limited timber also creates an opportunity for the development and continuity of cave dwellings which are warm in winter, cool in summer, very economical and require no timber in construction. (China culture center, 2009)

This low technical construction great impact the conception of wall and response to site. The space composed by this 'wall' is quiet different from our previous conception of space and wall

which built on the ground. The wall itself is one part of mountain or ground, it trustily deal with material and response to site.



Cave Dwellings of Northwest China from www.chinaculture.org

Rethinking about Wall and Design Procedure

After a lot research, design would not limited by the method and technology. They can choose any design method to correspond their bias. While time change, design method, technology, aesthetics, life already have great change, and these design method, technology which at secondary stage of design procedure now have form a bottom-up impact to pre-design philosophy. The variety of design method also urges variety of design philosophy and specific.

After so many considerations of design method, technology of wall, let this study go back to design procedure which makes the choice of design method, technology. In this complex changed world, people's limited vigor and knowledge can not support them to have a deeper and comprehensive understanding. So some of the typical architectural element, part of design philosophy would easily become represent of convenient reading and understanding of design. This is the misunderstood in the joint of interaction between design conception and method.

When man built up wall to divide his world, man simultaneously divides himself. (Hatton, 1999) This study above only can from some aspect of it to explore the design. We are living in a complex and dynamic world to study the architecture. It is unavoidable that designer would limited by this complex situation, but the design procedure is similar like a division of wall to help us have a clearly idea of different conception and method. When we set up our own design

procedure or approach is for us to understand the boundary of different conception and method, then built up context and response to our design work.

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