

A SACRED SPACE IN CYBERSPACE

Misun Chung

"The key is light, and light illuminates shapes and shapes have an emotional power"

- Le Corbusier

Sometimes we hold an object in our hand or look at a 2D drawing and wonder what would be like to be inside that space? Mentally, we are able to transcend ourselves into another dimension. That is the reality of our physical space. But in this new cyberspace, we are able to share that experience with others. Through visual, sound, color, and spatial stimulation, we are able to share what used to be only an imaginable space with others in "real time". The technology of multi-user 3D environment is still cumbersome and unstable but the future expansion and opportunities far outweighs its current limitations.

In the early 80's, William Gibson wrote a science fiction novel called *Neuromancer*¹ and coined the term "cyberspace". It was an immersive virtual environment where people worked, played, and lived. Now, 20 years later, the term isn't science fiction anymore. Cyberspace has been called many things: from "unreal estate"² to "cyberspace is architecture; cyberspace has architecture; and cyberspace contains architecture"³. If cyberspace is closely linked to architecture, what can we learn from designing physical buildings that is applicable to designing in cyberspace? If a physical building can evoke emotion in a visitor, can the same spatial elements be used to evoke emotion in cyberspace? To investigate these questions, I have designed a sacred place in cyberspace. It is a place for harmony, tranquil existence, and belonging. Drawing on seven architectural elements of site, density, depth, openings, proportion, composition, and light, it creates a sense of place.

What should be the design methodology in creating a sacred place in cyberspace? In my thesis I explore the use of a physical building as a precedent and apply its spatial elements into cyberspace. The investigation was to find a close link from a physical space to a cyberspace and also to find new spatial elements for the new site condition. The specific building was Le Corbusier's *Sainte Marie de la Tourette*. It is not only an inspiring architecture that successfully evokes a profound emotional response in visitors but his approach to designing suggests a way to design for yet another different condition - cyberspace. Understanding Le Corbusier's process of studying the medieval monastery of *Le Thoronnet*, articulating its essential architectural qualities for the 20th century technology, and responding to a radically different site condition, it was a guide to make another transformation.

But before designing in cyberspace, we must first understand what makes a space. In a physical space, design starts with an object. A series of objects form a space. Once space is established, a space could turn into a place augmented by users' participation, memory, identity, and anticipation; it is a linear transition from an object to a space and finally to a place. However, in cyberspace, a different link could be established. A hyperlink targeting an object to a place could

create a different kind of relationship. I have used this new device to create a spatial link from an object to a place.

As part of the design, I've evaluated spatial transition from medieval 12th century *Le Thoronnet* to Le Corbusier's 20th century *La Tourette*. After learning from traditional spatial elements, a new innovative approaches were implemented for cyberspace but capturing the same essence from a physical building. Le Corbusier did not mimic his source directly but transformed them, holding on to the elements that he thought retained value.⁴ This set of guidelines has helped me in reevaluating spatial details for cyberspace. The major difficulty in this project was even as if I tried to create a close link between a physical space and cyberspace, the physicality is very different and separate. However, our perception and association with a space is still the same. In cyberspace, there is no inside and outside, no gravity, no sound unless added, no color unless added, no light unless added. When we design in a physical space, we take certain things for granted but in cyberspace, you start with an empty canvas. Determining which stimulating elements should be added is totally controlled by the designer.

As each element of physical space was compared with cyberspace, there were limitations as well as finding new elements that were possible only in cyberspace. But before engaging a visitor with what may appear to be a bizarre environment, the procession was set to start with multiple physical space icons and work its way toward more abstract, unique cyberspace. This arrangement allows smoother transition from a physical space to cyberspace.

The journey starts with a gate and a familiar sound of bell rings. They were set to create a literal sense of an initially threshold into a sacred place, using physical icons. Also, by the entrance, an animated avatar was placed to provide a sense of scale and directionality of the movement.

In the procession area, texture mapped planes animate, sliding back and forth in a different time frame, to create a distinction between "on the path" or "off the path" relationship.

Community area is located before the main church. It will allow multi-user for discuss and share their common interests. Multiple transparent walls creates boundary as well as visual connection to the main entrance gate.

After passing procession area, a visitor encounters side chapels under the main space. There are series of transparent walls that fold down with proximity sensors and becomes a bridge to side chapels. This trigger gives an engaging experience as one approach a specific place. Plus, it demonstrates multiple task of an object.

After following the path, a visitor is elevated to the main church. In this space, there are series of avatars facing the solid light box. It's a small yellow box that represents a symbolic light that is apparent in both *Le Thoronnet* and *La Tourette*, connecting one to a higher divine. Here, the usage of link is performed. With all the "frozen" avatars facing the light box, it focuses attention to the center. When the

light box is clicked or triggered, one is transport to another file, transcending to inside the box.

All the six faces of the box become inverted, fragmented, and transforms to function as interior walls. The exterior wall on the other hand has turns into transparent planes and the surfaces are used as a link back to the main space.

Inside the light box, there are series of "rooms". It is a place for meditation and solace. Each room is separated by solid walls and it is accessible through multiple preset viewpoints. Through change of viewpoints, rotated in all xyz coordinates, the box gives even further variation of spaces for individual preference.

Besides spatial complexity, a different kind of sensor is apparent in all the places. There are multiple sound wave files playing at all times. Sound files are located at a specific position to fade in and fade out to simulate moving closer or further away. This will allow a visitor to notice the variation of intensity and gives sense of orientation. Lights are also placed to intensify focal areas and animated ambient lights to give change in atmospheric. Rather than static space, animated lights create movement and activity.

Architecture starts with a man, weather in a physical space or in a cyberspace. We can learn much from designing a physical space into a cyberspace. However, architectural forms should not be mimicked. Many multi-user cyber communities are turning into Disneyland with "artificial" facades and architecture forms. My exportation of thesis project was to demonstrate how we could learn from a physical space to design in cyberspace. As much as we question every piece of a physical building, we need to start questioning every piece of architecture in cyberspace. Designing for cyberspace needs further exploration to create a dynamic and unique space.

Tools

For the modeling tool, I used Form-Z and exported to vrml 2.0 file. With the vrml file, imported it into spazz3d to create animation, light, texture mapping, sound, and nodes. The vrml browser I have used was Blaxxun. It has collision and gravity tools that simulate an experience of movement in a physical space. For the walk-thru animation, I used Form-z as modeler, Stratavision for animation, and Premiere for editing the movie with sound and text. For the web site, I used Dreamweaver 3.0 and Flash 4 from Macromedia for efficiently and interaction.

Notes

- ¹ Gibson, William. *Neuromancer*. New York: Ace, 1984.
- ² Mitchell, William. *City of bits: space, place and the infobahn*. Cambridge: The MIT Press, 1999.
- ³ Novak, Marcos. *Liquid Architecture in Cyberspace*. (Ed. Benedikt, Michael) *Cyberspace: first step*. MIT Press, 1991.
- ⁴ Curtis, William J.R. *Le Corbusier: Ideas and Forms*. Oxford: Phaidon Press Limited, 1986.

Misum Chung is a recent graduate of the Master of Architecture Program at the University of Washington

