SENTENCED BY LIGHT:
AN ARCHITECTURAL STUDY OF LIGHT AND TIME
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MASTER OF ARCHITECTURE

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abstract

Life is a series of moments

Architecture is experienced through a series of moments

Prison is experienced through a series of measured moments
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Throughout my experience at the Washington-Alexandria Architecture Center, I have discovered who I am. The thesis project, as prescribed, should be a manifestation of one’s architectural studies conducted throughout the years. I like to think of this thesis as a manifestation of my life, my experiences, my friends and my family. It allows me to further understand who I am and what I value in this world.

The environment in which I have studied has played a pivotal role in my maturation. I could not have done it without the following people. Akiko Suzuki, Anna Barbour, Mary Butterworth, Steven Siebers, Patrick Cooke, James Krapp, George Makrinos, Jamie Bresner, John Foley, John Wirth, Joe Wheeler, Eric Garcia, Tony Torres and Jon Foote.

And to my committee, whom I consider dear friends—Susan, Paul, Jaan and Marco— you have given me confidence. Where would I be without you?

Thank you.
INTRODUCTION

The decision to design a prison was an easy one, although the project proved to be quite challenging. I decided early on that I would like to study light and its relationship with time. In prison, each inmate is aware of time spent and time pending. The building expresses the relationship of light and time in regard to the human inhabitant, essentially becoming a calendar and a clock. The objective is that each inmate would attain an apprehensiveness to light, both revealing and hiding beauty through the presence of architecture.

Through the course of the exploration, I found myself much more aware of my surroundings and how light interacted with them. The light that would flicker off of a passing truck, or the shadow of a mailbox, my senses were much more acute. As a result, I was able to incorporate these subtle moments into the building and unleash them in the form of a story.

The documentation of the thesis does not intend to inform the reader of every decision made. Rather, it humbly presents the work and allows an extrapolation of ideas. With that said, I hope you enjoy the project as much as I had enjoyed learning from it...

What you are about to read is a written account of the experiences of captor and captive. The story reveals the direct relationship between the incarcerated individual and the architecture that becomes, changes and defines his life.
THE SENTENCE OF PRISONER #0904

A written account by an unidentified prison guard:

Prisoner #0904 was sent to the DC prison on Sept 17, 1999. He had a way about him that I found peculiar; I was sure that this place would get the best of him. I should've taken another look...

WAKE UP

0904 was issued his orange jumpsuit and headed up to his cell. His name was actually his cell number; there was a very simple system in this prison. The cells were arranged in a fashion so that on the 21st of each month, sunlight would pierce each heavy wall and awaken the prisoner lying in his bed at 7:30am. So the way we named prisoners is that we took the number of the month of his cell and combined that with which storey it was, so 0904 was in a September cell, meaning light woke him up on September 21, and he was on the fourth level.

There was also a small mirror and colored glass at the top of the walls. The light would 1. shoot through the colored glass, becoming red and 2. the light that bounced from the mirror was reflected to K street, but not before filtering through red glass located on the south wall, thus casting a red shadow on the street.

TANTALIZING?

I escorted 0904 to his cell, and before the door opened, he placed his belongings and street clothes in an open room right outside of his cell. Then the cell door opened, which in turn, closed the storage space. That would be the last time he would see his belongings until release. It must have been tantalizing though, knowing that his last taste of freedom was only six inches of concrete away, and while the cell door is closed, these belongings are exposed.

WAKE UP

0904's first night in the cell was probably his roughest. I don't think he ever got used to the transparent glass floors and the shadows of prisoners both above and below him. The lighting in the cell was set up that it “threw” the shadows of prisoners across the floors, also making it easier for the guards to see them. And vice versa with the guards, light threw their shadows into the cells so that the prisoner always knew that a guard was lurking. It was a very interesting relationship of captor and captive which I don't think many grew accustomed to.

DUTY

0904's first job was in the laundry room, all of the newcomers get laundry or dish duty. He pretty much kept to himself, and the other inmates didn't bother him too much. Before he knew it, one year had passed.

Many prisoners tried to time the opening of the door to grab their belongings, but not one was successful. Another interesting observation is that the catwalk on which the prisoners walked is hung from the wall above. It took them a little while, but before you know it, all of the prisoners seemed to walk in a rhythmic fashion. I guess the shaking scared them a bit.

INAUGURAL NIGHT

Many prisoners tried to time the opening of the door to grab their belongings, but not one was successful. Another interesting observation is that the catwalk on which the prisoners walked is hung from the wall above. It took them a little while, but before you know it, all of the prisoners seemed to walk in a rhythmic fashion. I guess the shaking scared them a bit.
LOCATION

The site is located on North Capitol and K Street in NW Washington, DC. It was chosen because of its unique character; two churches, apartment complexes, office buildings a high school. It posed an interesting design problem of introducing a building to house those restricted from the community right in the center of it. The most significant site element is the church located across the street on North Capitol. The relationship between the steeple and its cast shadow had a direct influence on the design of the prison, and of its inhabitants.
Initial sun studies revealed a significance in the shadow cast by the church steeple. The summer solstice at 09:00 was deemed most significant as it is the longest day of the year and marks the beginning of visiting hours.
INCARCERATION

The new year came and went, and spring was almost upon us. At this time, 0904 worked to produce state issued calendars that were sent out to each state congressman and senator. The prison hosted graphic design competitions yearly, and the top 12 entries were placed in the calendar. It was much better work than laundry duty, and he became proficient with computer software, which would surely help him upon release. He also began keeping a daily journal, convinced that he would some day write a book.

REVELATION

0904 broke out of his shell a bit and began attending the library regularly each afternoon. He enjoyed reading about architecture, and the library held an extensive catalog of the works of Marco Frascari, whom 0904 adored. He then began to broaden his horizons and decided to attend some of the prison’s religious programs.

CROSSING PATHS

One morning as I was walking to take a shower, for a moment I captured an intriguing site. I was looking outside, and directly in my view were a prisoner going to visit his lawyer, a visitor visiting a prisoner, and a citizen on the street walking to work. Not only were they all aligned, but their shadows intercepted into each other’s space. I sat and thought what each one of those people had on their minds as their paths crossed for that moment.

That afternoon instead of visiting the library, 0904 made his first visit to the chapel.
Each wall of cells is oriented toward a monthly rising sun. Since there are twelve months, there are twelve walls, twelve levels high, in which the prisoner inhabits as a bed. Each wall receives a wake up piercing of sunlight at 7:30 AM on the 21st day of its respective month.
CONCRETE STUDY MODEL
Light shown at 7:30 AM
The model is an exploration of the material of the cell wall and how it interacts with light.
UNITY

The day is now Sept. 17, 2001. 0904 seemed to sink into somewhat of a depression, although most prisoners seemed to given the state of the country at this time. To deal with the events, the prison held extended meetings and religious events in the chapel. 0904 attended quite a few to cope with what was going on.

SEPTEMBER 17, 2001

I attended services in the chapel. There seems to be more prisoners changing now; 0904 is not a good time. Even though it is a time for reflection, 0904 attended quite a few to cope with the events.

The path to the chapel, a path marked by the words of light, seems to be leading to the sky. When I sit there, I feel a sense of peace and stillness. The sky is so clear, and the stars shine brightly. The path seems to be leading me to a place of peace and solace.

The path is lined with trees, and the leaves rustle in the wind. The sound of the leaves is soothing, and it makes me feel at peace. I decided to sketch around after prayers. After a few minutes, I looked up, and the path was filled with light. The words of light seemed to be guiding me to a place of peace.

I sat on the path, and the words of light were reflected in the water. The path seemed to be leading me to a place of peace and serenity. The words of light were reflected in the water, and it made me feel at peace. I decided to sketch around after prayers. After a few minutes, I looked up, and the path was filled with light. The words of light seemed to be guiding me to a place of peace.

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The most special space in the prison, the chapel represents what we human beings put so much faith into: hope. The architecture is intended to instill a sense of inspiration into those that occupy it, and to allow the minds of the incarcerated to wander off into the future of freedom.

The chapel design begins with a cylinder shape, the only such in the entire prison. In an attempt to create a uniquely lit space, an angled concrete wall slices through the room, slightly tilted towards the path of the sun. The result allows the inmates to quickly orient themselves in the world based on the source of the diffuse lighting as well as create an effect that completely contrasts the harsh, direct sunlight of the cells.
HOPE

0904 frequented the chapel, although not for the sermons or events that it held. He now had a hobby, which was to try and capture its simple beauty through his prison issued pen and yellow notepad. As time passed, 0904 began to sketch other parts of the building, and was just beginning to understand the qualities of light. He knew by the way the red beams streaked across the interior courtyard that it was one hour until he had to return to his cell.
section depicting inside/outside relationship
transverse section looking north
The day had come. 0904 was set for release. The date is September 17, 2004. He was filled with anxiety. The sun seemed to rise in slow motion. It should have struck each part of the building simultaneously, but it didn’t. Not on this day. It took its time to reach each part of the building, each tower of cells and cast each shadow. Its almost as if light was slowed down to beyond the nanosecond. 0904 took these last few minutes in his cell to write the conclusion of his journal.
REFERENCES


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