

Cyborgonomic Architecture, Chromosapien Space

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“Cyborgonomic Architecture, Chromosapien1 Space” is the title of a graduate options studio taught at the Taubman College of Architecture and Urban Planning at the University of Michigan in the fall of 2015. The studio explored, in an intensive manner, new potentials for ways in which a wide range of bodies interact with topographies, spaces, surfaces and objects. The bodies in the case of the studio were part of a culture of disability that was unfamiliar to the students, and it required that they open themselves up to obtaining a deep understanding of a wide spectrum of bodies, disability practices and disability theories. Students designed at a range of scales from the landscape to urbanism, architecture, surfaces, furniture, everyday objects and graphic/identity/wayfinding design. The students invented topographies, spaces, surfaces and objects that attempted to take the stigma of the “dis”- out of the “disabled” bodies living in and interacting with them, and the studio viewed disability as a means for expanding the boundaries of our normative relationships to space.

STUDIO INTRODUCTION

“Cyborgonomic Architecture, Chromosapien1 Space” is the title of a graduate options studio taught at University of Michigan in the fall of 2015. The studio explored, in an intensive manner, new potentials for ways in which a wide range of bodies interact with topographies, spaces, surfaces and objects. The bodies in the case of the studio were part of a culture of disability that was unfamiliar to the students, and it required that they open themselves up to obtaining a deep understanding of a wide spectrum of bodies, disability practices and disability theories.

To break down the 2 “C” words in the title of the studio, Cyborgonomic is related to an attempt to revisit ergonomics through the lens of the cyborg, and Chromosapien is a term invented by my colleague Robert Adams as a way to dissolve the binary structure

produced by the use of the terms “abled” and “disabled” and to substitute for the genericized and sanitized term “universal”, as in “universal design”.

Students in the studio designed at a range of scales from the landscape to urbanism, architecture, surfaces, furniture, everyday objects and graphic/identity/wayfinding design. The students invented topographies, spaces, surfaces and objects that attempted to take the stigma of the “dis”- out of the “disabled” bodies living in and interacting with them. The Cyborgonomic Architecture, Chromosapien Space Studio participants traveled to Ilsan in South Korea and lived for one week on a site with nearly 300 people with a wide range of disabilities both cognitive and physical that had been literally left at the gate, abandoned by society. It was a powerful experience for all of us to be “abnormal” in this context, although it was we who felt unlike the residents as they in no way treated us as “other”. In this segregated community- a not for profit organization called Holt Korea- what those of us outside label as “dis”-abled was just the norm, and difference was not a condition consistently reinforced by either the environment or the more general public. We found it to be an almost euphoric village of children and adults growing, living, and working, and moving toward living as independently as possible given the particular constraints of their disabilities. Holt Korea has produced a kind of hyper-functional community of persons that in the “normal” city would be operating as and defined as “disabled” not only by other citizens, but by the infrastructures and details built into the environment itself. But, forward thinking design was missing from the environment! There were lots of retrofits and gerry rigged adaptations of furniture, apparatus and architecture to adapt to the different body conditions from those that design has historically addressed- conveyance devices, support mechanisms, etc..

THE PROJECT

The specific project the students worked on is a real project Holt Korea is undertaking for housing for 20 specific families with disabilities to live independently on a three acre site near their current facility. While the Korean government cannot make it illegal for disabled citizens to marry, it highly discourages it. On the contrary, Holt Korea has encouraged and facilitated the formation of families between disabled persons. As a part of this facilitation, Holt encourages natural formations of relationships between people whose



Figure 1: The Studio meets with Young Sook in her floor oriented dwelling and accompanies her outside as she speeds off at super human scale in her electric scooter with poodle on board..

abilities might complement one another, thereby making them stronger as a couple, and more able to live independently.

RESEARCH

The research for the studio work was two-fold, involving both the firsthand experience of living at Holt Korea for a week and studying disability theory, performance art and other texts on the medicalization of architecture, the body and technology. We looked at the work of artists such as Lucy McRae, Tim Hawkinson, Stelarc, and Rebecca Horn and the fashion line “Lumps and Bumps” by Comme de Garçon.

A substantial amount of work was given to the field work during the time in Ilsan. We met with a number of the actual families that had formed at Holt Korea and that were on the waiting list for the project to be developed. These were couples living alone as well as couples who had gone on to have children. We learned about their lives, and their broad ranging different disabilities. In some cases, we found that there was a unique kind of creative practice taking place

within the dwellings of these families as they altered space to better support the practices of their unique lives. This was documented through interviews, notes, drawings and photography.

Young Sook, who lives with her fully abled daughter, had polio when she was younger and she is unable to walk. She lives on the surface of the floor in her apartment. She has modified her space with a frictionless flooring surface, a pillowed corner where she works, lives and sleeps, and an apparatus wall with important devices like the cell phone, selfie stick and back scratcher close at hand. Young Sook also designed and installed a floor kitchen with a profile of not more than a few inches off the ground plane! We all took some inspiration from Young Sooks spatial interventions and her reinvention of the body in space within the domestic scene. It opened us up to speculate on further moves that might prod our architectural imaginations.

Young Sook actually lived in the “real” city after moving out of the Holt Village, and she is happy and productive living with her daughter and having a longtime and devoted visiting caregiver. But there were other families we visited that had moved out into the city with stories that were less perfect.



Figure 2: The "CHROMATURE" structure changes breadth, height, slope, shape and material to have multi-performative aspects- it is a floor, a ramp, a bench, a table, a digital interface, a sleeping platform, a garden bed, a human bed, etc..

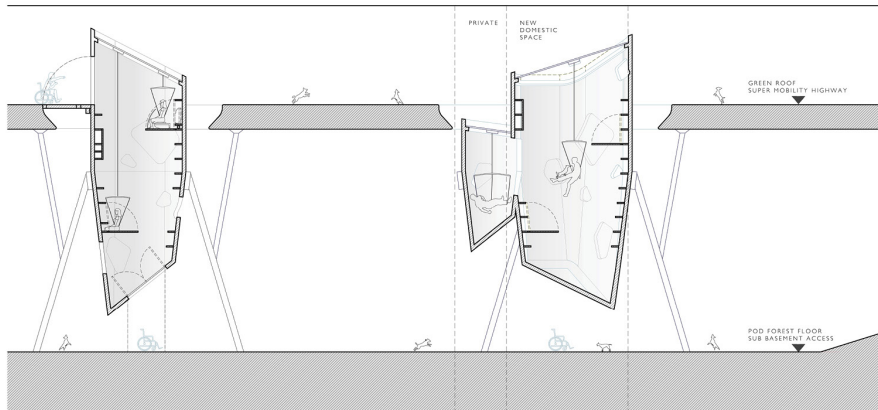


Figure 3: In the project “CHROMONAUT”, the dwelling pods are entered from above- the inhabitants slip out of their urban mobility devices or wheelchairs and slip into a harness suspended from the ceiling, completely independent of the surface of a floor.

One family had a daughter, who was the joy of her parent's life when she was young. The parents both have disabilities, but since they were not genetic, their daughter was born without any disabilities. As she grew up to become a teenager, she was ostracized at school and in her neighborhood, and because of this, she has retreated to her dark bedroom for most of the daytime, and suffers from extreme depression.

Experiencing this range of success with how persons with disabilities were able to operate within the abled Korean urban realm was an important part for allowing the students to develop their own take on attitudes toward their projects, especially related to questions around segregation (was this "ghetto-ization" or a necessary and positive situation?) and/or integration.

THE PROJECTS

After returning to Ann Arbor from Korea, the students produced some careful and fairly realistic housing projects that were presented at the midterm review. For the post-midterm work, we set about to challenge the somewhat normative projects and made design inquiries into more speculative projects.

Four projects will be described here. The first project is authored by Diemtrinh Tran and is titled "CHROMATURE", and the site is organized with a kind of chromatic armature that runs across the land as a continuous surface. It moves from outside to inside across the weatherproofing barriers. The "CHROMATURE" structure changes breadth, height, slope, shape and material to have multi-performative aspects- it is a floor, a ramp, a bench, a table, a digital interface, a sleeping platform, a garden bed, a human bed, etc.. The "CHROMATURE" accommodates human bodies that are standing, sitting, wheeling or occupying the floor, and it produces situations and spaces where people can see eye to eye from these different positions. The "CHROMATURE" is a low density project with very few walls, where residents share indoor and outdoor spaces within slippery boundaries.

The second project is called "CHROMONAUT". The author of this project- Julian Cheng- was inspired by Young Sookbut inspired more by her life in the open air than the interior of her dwelling that was described earlier. When it was time to go out, she mounts her electric wheelchair and goes flying off faster than we could run, almost super human! The "CHROMONAUT" project attempted to give dwellers this freedom of mobility and lightness while inside their dwelling space. The project was also inspired by the gravity-free states of astronauts and acrobats. The dwelling pods are entered from above- the inhabitants slip out of their urban mobility devices or wheelchairs and slip into a harness suspended from the ceiling, completely independent of the surface of a floor. The device draws from current cutting edge medical technologies for hospital conveyance gurneys. The occupants inhabit the dwelling sectionally- the domestic plan is transformed into a domestic section.



Figure 4: "POUCHOUSE" is a project with a structural skeleton that is an armature for puffy pillow-like dwellings with beds, chairs, and other body supporting surfaces built into kangaroo-like pouches and envelopes

The third project is "POUCHOUSE" designed by Ritwika Banerjee. It is a project with a structural skeleton that is an armature for puffy pillow-like dwellings with beds, chairs, and other body supporting surfaces built into kangaroo-like pouches and envelopes. A film script and storyboard was designed as a part of the "POUCHOUSE" project, and in the script, the pouches are animated as living things- they breathe, pump, and flutter.

The final project is "CHROMO-KIT" by Stephanie Yeow. It is a kit of object parts that collectively produce a field of space through the vectors of human action they provoke. Each dweller is able to choose their parts and their configuration, and can re-configure those parts. The domestic landscape is seen as an extension of the human body- and the kit of parts are moveable, operable, adjustable, and put into performative action through a simple app operated by a smart phone or wrist band.

The studio proposed constructs that were both speculative and highly practical, realistic and far-fetched, and for the studio, these were not seen as mutually exclusive- or as binary modes of operation- but rather as inclusive qualities that each project was striving to achieve. This allowed the work, in some ways, to break through pre-conceived boundaries or territories of our initial understandings of segregation and integration, and of space and disability, and of the basic functional aspects of the Americans with Disabilities Act. The goal was to produce projects that might be elevated beyond these, perhaps expanding the boundaries of our conceptions of normative relationships to space for everyone, for all bodies, and for the Chromosapien, by viewing through the lens of disability.

ENDNOTES

1. "Chromosapien" is a term invented by Robert Adams to dissolve the binary structure produced by the use of the terms "abled" and "disabled" and to substitute for the genericized and sanitized term "universal".