

Michelle Piotrowski

People, Flour, Water, Salt:

Bread and Community in Urban Public Space

Bread is a staple food and cultural artifact whose production exemplifies the changing dynamics between people, cities, and land across cultures, regions, and time. *People, Flour, Water, Salt* proposes the implementation of communal bake ovens in the urban environment to support the development of diverse communities through public and productive space centred around the numerous and varied conceptions of bread. It challenges the physical and psychological detachment between people and wheat resulting from the framework of industrialized flour originating in the 19th century, and, through the introduction of an urban flour mill, seeks to re-establish the prominence of local food systems and advocate for regional and sustainable agricultural research. Following an examination of the historical impact of the growth of wheat and production of bread on the design and organization of cities, it suggests ways in which these processes can inform the shape and character of the city today.

The relationships fostered through shared knowledge, culture, and food in these urban public spaces serve to mitigate the social isolation and decreased agency that new, immigrant, and low-income populations often experience. The communal ovens and local mill thus become catalysts for both social engagement and economic activity, and promote broader discussions surrounding food security. Calgary, a city with a growing immigrant population and a rich historical and ongoing relationship with wheat production in Canada, forms the site of the architectural intervention.

The unique thermal gradients of the communal oven types – barrel vault brick oven, cob dome oven, and tandoor oven – and the specificities of their use, allow the ovens to assume a space-making role within the project, influencing the ways that people move and gather on a given site through varied seasonal use. The design proposal explores the dichotomy between the technical and intuitive natures of bread, and its translation to architectural form through the consideration of materiality, craft, visibility, microclimates, and the physiologies of bread and wheat. The built forms and productive landscapes of a larger network of bread in Calgary aim to not only shape the physical environments of the communities in which they reside, but to generate a new narrative surrounding the production and role of bread in a diverse and growing city.

Holes & Notches: Creating a Framework to Promote Agency for the Elderly in Baeksa Village

The demographic landscape of developed countries around the world is rapidly shifting. Populations are increasingly aging yet birthrates are declining. These changes are particularly pronounced in South Korea, where by 2050 the old-age dependency ratio, a ratio between those over 65 and those under 65, will increase from 20% to 70% which is 20% higher than the projected rate of other developed countries. Given the ratio of those retiring and those working in South Korea, the question of how to link productivity with the elderly is becoming an urgent issue. The liabilities of the nursing homes are also increasing. There has been a decrease in intergenerational support, low funding in the long-term care insurance policy and qualitative issues with elderly housing. Therefore, a long-term reliance on institutional care and pension systems is not a sustainable solution. The question of self-sufficiency in a time of rapid change is not new: the same question occurred in the 1970's during a socioeconomic shift of similar scale. Rapid urbanization brought modern amenities that vastly improved living standards in South Korea. Apartments, institutionalized education and white-collar jobs became the cornerstone of a modernized Korea. However, during urbanization there were many who did not fit the new status quo of modern living. Those who were poor, elderly or not in positions of power lacked social mobility to adapt to a rapidly changing Korea. In order to adapt, these groups built impromptu settlements, markets and structures to create for themselves jobs, food and homes to remedy a disconnect between their own skills and the changing socioeconomic landscape. Qualitative issues with institutional care combined with the unsustainability of welfare programs calls for a solution that relies on a similar approach of self-governance. This thesis seeks to create opportunities for the elderly to practice agency by building a framework that allows the building of self-made impromptu structures.

This project is situated in Baeksa Village, which is located in Seoul, South Korea. One of the last village communities in Seoul, it is a site with a primarily elderly population and unique village characteristics. It was built in the 1970's by inhabitants whose homes were expropriated to build new infrastructure. It was originally created as an illegal settlement and the village itself is a collection of self-made housing. Currently the site is under redevelopment plans to build new housing units. However, only two thirds are to be redeveloped as apartment complexes while one third of the site is to be renovated with village characteristics to remember the history of the village, protect its unique settlement patterns and to provide social housing to its inhabitants. Baeksa Village offers a potent site that intersects with both historical and contemporary socioeconomic landscapes. This thesis explores the spatial relationships between the new and the old, the apartment and the village, the working and the retired, the institutional and the impromptu to create a mutually productive and evolving dialogue between education, housing, and self-made structures.

This project proposes for a new type of low assistance elderly housing that can encourage the creation of self-made structures. A series of columns, screens and beams acts as a framework to encourage and organize the building of impromptu structures. The project anticipates that impromptu structures will develop over time and is designed in phases. A geriatric care school is integrated in the design to provide mutually beneficial communal support between students and the elderly. Students in training provide low-cost help, facilitate a hub for student community and create shared public spaces as a way to combat loneliness and social isolation experienced by the elderly. A constant flow of students works in tandem with

the needs of the elderly while training geriatric professionals to gain real life practical experience. The two programs feed into the impromptu structural framework creating a dynamic and self-sufficient community.

DESIGN ARCHITECTURE IN VIRTUAL REALITY

Architectural representation has newly been introduced to Virtual Reality (VR) technology, which provides architects with a medium to showcase unbuilt designs as immersive experiences. Designers can use specialized VR headsets and equipment to provide a client or member of their design team with the illusion of being within the digital space they are presented on screen. This mode of representation is unprecedented to the architectural field, as VR is able to create the sensation being encompassed in an environment at full scale, potentially eliciting a visceral response from users, similar to the response physical architecture produces. While this premise makes the technology highly applicable towards the architectural practice, it might not be the most practical medium to communicate design intent. Since VR's conception, the primary software to facilitate VR content creation has been geared towards programmers rather than architects. The practicality of integrating virtual reality within a traditional architectural design workflow is often overlooked in the discussion surrounding the use of VR to represent design projects. This thesis aims to investigate the practicality of VR as part of a design methodology through the assessment of efficacy and efficiency while studying the integration of VR within the architectural workflow. This is done by examining the creation of stereoscopic renderings, walkthrough animations, interactive iterations and quick demonstrations as explorations of common architectural visualization techniques using VR. Experimentation with each visualization method is supplemented with a documentation of the VR scene creation process across an approximated time frame to measure efficiency, and a set of evaluation parameters to measure efficacy. Experiments either yielded the creation of a successful experience that took far too long for the common fast-paced architectural firm to afford (low efficiency) or created a limiting experience where interaction and functionality weren't executed to meet the required industry standards (low efficacy). This resultant impracticality demonstrates that successful immersion and interaction are not produced simplistically in VR; requiring a great deal of effort, time, and thought placed into design intent. Although impractical, documentation suggests that the user experience of creating VR content might be able to engage new ways of design thinking and impact the way architects conceptualize space, encouraging further research.

Mark Fraser

Death and Memory: A Memorial and Museum for Euromaidan

Abstract:

Ukraine, a country that only recently established its independence in 1991, is still undergoing a process of defining what its identity is. This uncertainty is prevalent and dates back hundreds of years in the formation the country as an area situated at a cross roads, ultimately evolving into a multi-ethnic nation with a number of differing views of what it means to be Ukrainian. This prolonged conflict, largely dominated by differing Eastern and the Western attitudes, has created a divide in the country between people who identify themselves as European and those who identify themselves as Russian.

“Euromaidan,” a protest that erupted in Ukraine in the winter of 2013 and took the lives of 130 people, is a recent example of the conflicted sense of identity within the country. What began as a peaceful protest, aimed at bringing Ukrainian and European relations closer, became a fight for basic human rights and freedoms. Events such as this that shape a country’s identity, take a toll on its citizens because of the harsh realities that they must face. Intense feelings of pain, fear, loss, and uncertainty are all collectively felt and the question then becomes how we choose to remember, or forget what has happened.

This thesis proposes a memorial and museum for the Euromaidan and its artifacts, exploring the role of the memorial and the way we remember in society today. Using light, space, and material, the proposal expresses the reoccurring sensations that characterize the Euromaidan protest. In doing so, it questions architecture’s role in the creation of memorials and its ability to act as a reminder for the dark realities of the past.

Six Empty Shells:

Contextualizing the Aspirations of Mexican Modernity in the Tlatelolco Housing Complex.

During 1950's, the Mexican federal government pursued an ambitious plan to modernize the country. This period, known as the Mexican Miracle, was characterized by rapid urban growth, the institutionalization of government, nationalism in the arts, and an effort of international rebranding, culminating in the 1968 Olympic Games. With the growing apparatus of government and facing a demographic explosion, the capital, Mexico City, faced a critical housing shortage in which the one-party regime saw an opportunity to embed its institutional ambitions.

Since pre-Hispanic times, the northern boroughs of Mexico City have been known for informality and poverty. The first phase in the city's northern renewal plan was the Tlatelolco Urban Complex completed in 1963. It epitomized the emerging modern Mexico, extending for 95ha, containing 102 residential buildings with 12,000 dwellings, all the while boasting monumental buildings, squares, historical sites, and government offices, proposing a radically new urban lifestyle.

However, the further phases of the renewal plan never came to fruition, as the modernizing momentum of the Mexican Miracle came to an end with the 1964 change in leadership. The new administration withdrew commitment from social housing projects, causing serious financial issues for the upkeep and maintenance of Tlatelolco, leaving it an estranged monumental housing experiment in the informal northern city fabric, a reminder of failed public policies. Despite this, the residents of Tlatelolco have found a way to appropriate modernism, and through their tightknit community, have single-handedly saved the housing project from falling into complete abandonment. As Mexico City once again faces an urban housing crisis, it is vital to re-examine and reconcile with the modernist aspirations which brought upon this housing project. Positioning Tlatelolco within the discourse of its contemporaries, Josep Lluís Sert argues that "*monuments are only possible in periods in which a unifying consciousness and unifying culture exist. [...] Monuments of recent date (1943) have with rare exceptions become, empty shells. They in no way represent the spirit or the collective feeling of the modern times.*" Given that the Mexican Miracle did not create a lasting unifying consciousness, Tlatelolco was left a virtual field of empty shells. The methodology proposed targets interventions at six monuments—the empty shells—where the aspirations pursued by the modernist experiment are contextualized through site specific architectural interventions. Ultimately, rather than representing a 'spirit or collective feeling of modern times,' the shells become the containers of the collective memory of the site and the people who dwell in it.

Morgan Wright

Chipping, Shredding and Layering – Experiments in Geological Design Thinking

Abstract

In the recent history of the earth, the last 200 years specifically, human activity has stratigraphically changed the material layer that covers it. Every inch being changed in unprecedented ways as a by-product of rapid urbanization¹. This layer is being churned and spread across the Earth's surface to reveal all the environmental, sociological, and political indiscretions of the human species. The total story of the Anthropocene being exposed as one anthropogenic crust, that when examined closely, will tell all future epochs what, exactly, happened during this short period of time when humans roamed the planet.

Chipping and Shredding and Layering is a thesis composed of two parts: a historical narrative and a set of speculative design experiments. These speculative design experiments explore what exactly geological design thinking is: a methodology that pertains to the following rules, (1) the primary material must come from site/demolition activity, (2) every built form must underline how the material has changed or will change over extended periods of time, (3) each design tactic must address how we might "live with the mess"², therefore it must engage public space and disrupt the future development on the site, and (4) address site pollution, and strategize how in-situ phytoremediation and bioremediation can be integrated into the public landscape. These three experiments take advantage of infrastructure and routine operations that already exist in modern material extraction, consumption and waste flows. The experiments work together to underline the perplexing scale of the massive urban landscape transformations that are shaping modern waterfronts and urban parks today.

This thesis asks, what does it look like to live in the mess we are creating? And what would it look like if site once again became the individual source of the material for building? To test the limits of the appropriate proximity between the processing of raw materials and constructing urban spaces, a set of design experiments have been explored on a site currently undergoing one of these massive urban landscape transformations – Toronto's Port Lands. The Toronto's Port Land and subsequent Don Mouth Revitalization project by Waterfront Toronto will be scrutinized and used as a testing ground for the ideas presented. In the process of creating a new landscape from industrial land, how will the existing materials (sediment, soil, buildings) change?

This thesis disrupts the proposed Don Revitalization project by imagining that the project would metabolize all its own waste on site. Using these three geologic design experiments, ***Chipping and Shredding and Layering*** paints a speculative future of how the Don Mouth Revitalization project could change the way we think about the process of design, identifying ways to use material excavated in-situ to create unconventional but still useful landscapes. Though they may not have the capital value or the picturesque parkscapes the public has come to expect with new development projects, each experiment identifies a significant part of the sites history and looks at how in the future, with time, the experiment will flourish. Looking at how accumulation and depletion of materials can make materials already on site play a more crucial role in landscape transformation and development projects and how, given a framework, naturally the site will make "living with the mess" a pleasant experience.

¹ Paul J. Crutzen, "Geology of Mankind," *Nature* 415 (January 3, 2002): 23.

² Donna Jeanne Haraway, *Staying with the Trouble: Making Kin in the Chthulucene*, Experimental Futures (Durham: Duke University Press, 2016).

Alex Siu

The Parkdale Public Library is for Us

Abstract:

The Parkdale Public Library is an illustration of what remains of democracy today. While the government is deeming libraries as irrelevant with their funding cuts, and privatized cafes are taking over as 'public' social spaces for the middle-class, the Parkdale Public Library still exists with rare and wonderful relations happening inside. Away from the rest of the city, two strikingly different individuals are chatting and erupting in laughter while waiting in line for the computers, and a senior woman is reading her poetry out loud to a crowd of friends, community, and strangers.

This thesis investigates public neighborhood libraries as an opportunity for the democratic engagement of individuals at a time where we hardly look at a stranger in the eye. It observes the relations between library patrons in order to question the current limits of our civil interactions. The research culminates in a design proposal for a re-imagined neighbourhood library in Parkdale, Toronto to make a stance for libraries as vital interior public spaces. The design method takes from keen observations made at Parkdale Public Library as the means for creating affordances and atmospheres that will keep encouraging people to express themselves and engage with one another. The design suggests for the utilization of additional programming, spatial framing and spatial anchors to influence more moments of connection between people of difference. Ultimately, the architecture is positing that a new material aesthetic reality is needed to make known and better reflect the important reality of tolerance, solidarity and genuine self-expression happening inside our libraries.