남 북 통 일 에 대 한 공 간 해 석

**SPATIAL TRANSLATIONS OF
KOREAN REUNIFICATION**

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the degree of Master of Architecture [Professional]*

ABSTRACT

This thesis speculates how architecture can promote the “Sequential Reunification Process” of North and South Korea. Premised on Phase One of the Reunification scheme, it champions progressive unity and proactive disciplinary action. To formalise this vision, it argues the pertinence of Foucault’s “heterotopias” to spatially rationalize and exploit the present state of division.

In anticipation of social diversification, the heterotopian framework embraces the condition of coexistence, to express the prevailing spatio-cultural disparities of each nation. Accordingly, this thesis investigates the function of architecture within the discourse of Korean Reunification, examines the spatial idiosyncrasies of North and South Korea, and subsequently develops two heterotopian interventions.

The two proposals, one superimposed in Seoul, South Korea, and the other in Pyongyang, North Korea, spatially synthesize the dominant ideologies of the “Other”, encompassing an inter-Korean exchange. This juxtaposition of the North into the South, and vice versa, embodies the objective of Phase One, which fosters cultural exchange and mutual understanding of the “Other”.

PREFACE

As a member of South Korean diaspora based in Wellington, New Zealand, my cultural identity and academic context present a unique opportunity to contribute to the tumultuous issue of Korean unification.

Having spent my childhood in South Korea, and still invested in its current affairs, I share, alongside many Koreans, the hopeful sentiments to see more overt changes towards unity.

Sharing the conviction that architecture can advance socio-cultural visions, this thesis posits architecture as a transformative medium of society, not a mere reflection. Thus, this research aims to promulgate the seemingly suppressed engagement of reunification in the discourse of architecture.

Dwelling outside Korea's socio-political construct, I am liberated from the inescapable censorship and systematic biases that continue to exist in Korean academia. Hence, my research intends to conspicuously promote the future vision of a united Korea.

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사랑해.

CONTENTS

Abstract	ii
Preface	iii
Acknowledgements	v

서문 01 Introduction

1.1	Introduction	2
1.2	Research Question	4
1.3	Aims and Objectives	6
1.4	Scope	7
1.5	Methodology	8

문학 02 Literature

2.1	Korean Reunification	12
	Sequential Unification Process	12
	Social/cultural Aspects	16
	Architectural Studies	18
2.2	The other space/ Heterotopia	20
	Heterotopia	20
	Chinatown	26
	The Otherness of the North & South Korea	32
2.3	Korean Architecture	34
	Traditional Korean Architecture	34
	North Korean Architecture	35
	South Korean Architecture	40

도면

03 Design

3.1	Design Framework	46
	Design Process	46
	Design Experiments	48
	Design Framework	52
	Visual Data/ Precedents	54
	Form Matrix	66
	Site Selection	72
	Program Selection	81
3.2	North in South, "People's Playground"	82
	Juche Design Criteria/ Process	84
	Site, Yongsan Park	86
	Program, Korean Folk-play	88
	Design Process	90
	Final Design	94
	Reflection	114
3.3	South in North, "SAMQO"	116
	Parametric Design Criteria/ Process	118
	Site, Central Pyongyang	120
	Program, Mixed-use	126
	Design Process	128
	Final Design	150
	Reflection	162

결론

04 Conclusion

4.1	Conclusion	166
4.2	Critical Reflection	168
4.3	Limitations	169
4.4	Implications	170

References	172
List of figures	175
Appendix	177

*“ WE HAVE
LOST A LOT OF
THINGS... WE
EVEN LOST THE
SENSE THAT
WE HAVE LOST
SOMETHING. ”*

*Young June Lee,
South Korean Photographer
(Ahn, 2014, p.55)*

PART 1

서 문

INTRODUCTION

- 1.1 *Introduction*
- 1.2 *Research Question*
- 1.3 *Aims and Objectives*
- 1.4 *Scope*
- 1.5 *Methodology*

INTRODUCTION

Segregated since the end of World War II in the 1950s, and technically still at war, volatile political and military conditions characterize the Korean peninsula. These turbulent relations typified by decades of conflict and negotiation, denote its increasing socio-cultural, political, and economic disparity. Despite the ascending otherness and the emergence of younger generations that do not remember a united Korea, both North and South governments have pledged progressive reformation toward building a single reunified nation.

In 1994, declared the official inter-Korean agreement, the “National Community Unification Plan” supplements the inaugural “Korean National Community Unification Plan” of 1989. Contrary to the latter that perceives the process of reconciliation as naturally occurring, the former encompasses the “Sequential Reunification Process” that gradually activates mutual exchange. Currently, in Phase One of the Process, involving the coexistence of two ideological systems, this thesis envisions the future of unity by mirroring its current disparity.

Within this geopolitical framework, this thesis speculates how architecture can champion the Sequential Reunification Process of North and South Korea. It argues the importance of Foucault’s spatial concept to understand, manipulate, and architecturally express the current state of division to promote inter-Korean dialogue. Referring to “other spaces,” the heterotopian paradigm encapsulates the condition of simultaneity, diversity, and differences of the two Koreas, thus pertinent to the spatio-cultural developments of Phase One.

Subsequently, three theoretical drivers determine the literary backdrop of this research. Each divided into separate chapters, the first establishes the social function of visionary architecture within the Sequential Reunification Process. The second interprets the theory of heterotopia to develop a design framework relevant to Phase One. The third examines the ideological divergence between the two states after the civil war, to understand their distinctive characteristics, which the following design chapters formally investigate.

Adhering to the heterotopian design approach, the two ensuing proposals, one in Seoul, South Korea and the other in Pyongyang, North Korea, synthesise the idiosyncratic spatial codes of the “Other.” Displaced in Seoul, the first heterotopia is a set of public interventions that embody the North’s socialist construct of Juche. The second in Pyongyang is a mixed-use commercial tower that follows the design process of parametricism to portray the South’s capitalistic inclinations. These nationally unique spaces dramatise the spatial disparity between the two Koreas, manifesting a spatio-cultural exchange.

In essence, the role of these heterotopias in this thesis is to internalise the contrasting conditions of North and South Korea, to facilitate the development of spatio-cultural hybrids in the long run. Temporarily manifesting the dominating qualities of the North and the South separately, this research anticipates the notion of otherness to be superseded by the advancement of an inter-Korean identity. Thus it concludes the relational nature of heterotopias and their transient effect.

RESEARCH QUESTION

HOW CAN S P A T I A L HETEROTOPIAS¹ CHAMPION THE SEQUENTIAL UNIFICATION OF KOREA?

1 _ "Heterotopia" is a spatial concept elaborated by Michel Foucault to describe spatial alterity and otherness. This concept is seminal to this research project and is further investigated in Section 2.2.

Fig 01. Kim, the Supreme Leader of North Korea, and Moon, the President of South Korea, shaking hands at the Inter-Korean Summit

AIMS & OBJECTIVES

This thesis explores the role of architecture in the discourse of Korean Reunification through the paradigm of heterotopia. Ordered chronologically, the scope of this research is discerned by three aims, each supported by measurable objectives.

Aim 1: To investigate the socio-cultural function of architecture within Phase One of the National Unification Plan.

1. Conduct a data-based study on Reunification to find potential design opportunities relating to social issues.
2. Devise a timeline that situates this plan alongside historical events that have impacted spatio-cultural conditions.
3. Examine the shared commonality of traditional Korean architecture to inform the spatio-cultural position of Phase One.

Aim 2: To conduct a literature review on Foucault's concept of "Other spaces" to formalize a heterotopian framework."

1. Study the theory of heterotopia and reinterpret its spatial principles to drive the design process.
2. Identify an established case study that embodies these principles to identify its social implications.
3. Select sites in Korea that emphasize the heterotopian intent of the design approach.

Aim 3: To develop heterotopian spatial interventions that encompass an inter-Korean exchange

1. Define the different ideologies that dominantly reflect the architectural landscape of each state.
2. Specify design criteria that mirror the spatial dichotomy to guide the subsequent design explorations.
3. Produce iterative design explorations to reach two outcomes that manifest the architectural paradigm of both sides.

SCOPE

According to the Ministry of Reunification, the Korean Unification agenda encompasses politics, the economy, and social-cultural stipulations. In response, this thesis centres on its spatio-cultural aspect due to its pertinence to the architectural discourse. Not limited to immediate realities such as material, construction, and regulatory constraints, this thesis adopts a speculative design approach to dramatize the significance of architecture within the dialogue of Korean Reunification.

Moreover, this thesis does not advocate nor condemn the ongoing political, economic, or social issues between North or South Korea. Although these fields intertwine in this research's literary section, it predominantly engages with its architectural implications. It acknowledges the political sensitivity surrounding Reunification, thus actively refraining from endorsing or contesting political arguments outside of the inter-Korean agreement.

METHODOLOGY

This thesis is a form of design-led qualitative research that uses literature analysis with design responsiveness.

Qualitative research, as defined by Denzin and Lincoln, “involves an interpretive, naturalistic approach to its subject matter... that attempts to make sense of phenomena in terms of the meanings people bring to them.” (Groat & Wang, 2013, p. 218) This approach entails collecting various data and analysis on literature to construct an argument, particularly relevant for the interpretation of the theory of heterotopia.

A design-led methodology, as described by Downton, is “a way of inquiring, a way of producing knowing and knowledge, this means it is a way of researching.” (Downton, 2003, p. 1) This approach engages with design throughout the process of research, presenting design as autonomous research material.

The design method of this research follows an iterative process with two varying approaches. First is the ‘operative design’ approach, as outlined by Mari and Yoo; it develops architectural semiotics using language. This approach was pertinent to the spatial translations of the North’s Juche ideology, which is read as a literary manifesto. Second is the parametric design process, complying with Schumacher’s design strategy; it engages with digital parametric tools and rule-based design.

Fig 02. Thesis structure diagram

“ WE ARE IN
THE EPOCH OF
SIMULTANEITY:
WE ARE IN
THE EPOCH OF
JUXTAPOSITION,
THE EPOCH OF
THE NEAR AND
FAR, OF THE
SIDE-BY-SIDE, OF
THE DISPERSED ”

Michel Foucault,
French Philosopher
(1967)

PART 2

문헌

LITERATURE

- 2.1 *Korean Reunification*
- 2.2 *The Other Space/Heterotopia*
- 2.3 *Korean Architecture*

KOREAN REUNIFICATION

Sequential Unification Process

North and South Korea reached an agreement to pursue “Sequential Unification”, although varying slightly in their ultimate objectives. This process denotes gradual unification through achieving step-by-step objectives. It identifies growing disparity and provides a realistic framework for unification. Ministry of Unification of South Korea outlined three stages (see Fig.03) that constitute the sequential unification. It sets the final goal to be **one** ethnic group, **one** nation-state, **one** political system and **one** government, compared to North Korea’s initiative to achieve **one** ethnic group, **one** nation-state, **two** political systems and **two** governments. (*Understanding Unification Issues 2020*, 2019) Despite the difference, the process entails significant mutual consensus.

Today, Korea is in phase one. This phase involves the peaceful coexistence of two Koreas and their political system while promoting interaction and cooperation in different fields to prevent hostility and distrust gradually. (*Understanding Unification Issues 2020*, 2019) Pak argues that the construction sector can satisfy the economic and social demands of phase one. (Pak, 2016) KIZ is an example of this type, which played a symbolic role in the reunification dialogue. (see section 3.16) In Germany’s case, the construction work in the East after unification contributed immensely to economic development and systematic integration. (Pak, 2016) The importance of the construction sector is evident, yet the architectural implication, although inevitable, is oblivious.

I
일 단계
[first phase]
Reconciliation
& cooperation

○ Here, 2020

Activate collaborative exchange in each sector
Peace management in the state of division

II
이 단계
[second phase]
North-South Union

Institutionalise collaborative exchange
Build mutual trust
Recover ethical solidarity

III
삼 단계
[third phase]
A complete
Unified Nation

Start general election
Declare unified congress and government

Fig 03. Sequential Unification process

1910-45

The Japanese occupation period

1971

First Communication between
DPRK and RoK after war

1953

Armistice agreement to
Korean Cold War

2000

1st Inter-Korean Summit

1950-1953

Korean Cold War

Fig 04. Chronology of inter-Korean events

Social/ Cultural Aspects

Social and cultural aspects are crucial to understanding Korean identity and pursuing a diversified Korean community. The Ministry of Reunification proclaims that the first step to unification is to acknowledge and recognise the other's presence. (*Understanding Unification Issues 2020*, 2019) A weakened sense of unity between North and South Korea, due to the prolonged division, requires social awakening around the issue of Korean unification. Thus, education and public engagement on unification is essential. As a social and cultural practice, architecture is highly capable of expanding the issue beyond the political realm.

Social Integration

The true definition of unification entails social integration, a state where public mass from the two Koreas shares a sense of belonging within one nation. Kreckel stated that social integration contains two distinctive folds: systematic integration that indicates political and economic unity and value integration that denotes forming a communal identity by sharing a common value. (1999) From this point of view, Song and Shin report that Germany, after its reunification, lacked in value integration while rapidly achieving systematic integration. (2012)

Similarly, critiques have been made against the South Korean government's policies, focusing only on immediate issues disregarding value integration. There is a tendency to overlook these intangible aspects of unification discourse. This thesis posits that a "mutual understanding of the value and culture of North Korea and South Korea has to be a prerequisite" for unification. (Kim, Kim, Kim, & Kim, 2018, p. 676)

Social Value of Architecture

Frampton stated that architecture is "the least autonomous, conditioned by productive forces lying outside itself, among other forms of cultural practice." (1992, p. 17) It is situated within social struggles and political forces. However, within these constraints, there is autonomy, such as aesthetic and architectural concepts, which enable the field to be critical of its social and political settings. (Jones, 2011) Here, it is argued that architectural practice can reveal conflicts and "defamiliarize" or disrupt the complex relationship between architecture, power and social meanings. (Jones, 2011, p. 168) Thus, architecture is critical to challenge one's understanding of their milieu.

Fig 05. Systematic and value integration diagram

Architectural Studies

Two types of architectural investigation prevail in the unification discourse: North Korean building studies and development of inter-Korean sites, namely DMZ or Kaesŏng. Both contribute positively to the spatial understanding of the inter-Korean context. The former provides an insight into North Korean architecture and shifts away from an overly politicised lens towards North Korea. The latter presents a hopeful vision to realise inter-Korean integration and cultural connection, often with symbolic architecture specific to the site. However, neither studies provide a developable architectural framework addressing the macro inter-Korean setting.

Visionary architecture

Architectural discussions around the unification are often visionary to overcome the political and physical realities. Congruent with the social values of architecture, visionary architecture maximises the critical dimension to challenge the established understanding of spatial experience. Distinguished from the physical buildings that constitute a real environment, architectural visions highlight a progressive spatial development approach. As Jones stated, “architecture is a discourse inasmuch as it is a form and a set of practices through which... visions of the social world are sustained.”(2011, p. 29) Thus, improbable inter-Korean visions have a constitutive function through its critical state.

Reflection

This section highlights ***the social role of architecture within the discussion of Korean Unification***. The objectives of the sequential unification process specify the social needs for the current inter-Korean setting. Phase one of this process brings an opportune moment for architecture to be critical as a social and cultural practice. Visionary architecture is found necessary as it reveals various conditions of the context. Thus, this research argues that architecture’s role in phase one of the reunification is to foster social and cultural restoration and envision an imaginative spatial relationship of two Koreas.

Fig 06. Poster of Crow's eye view, 2014 La Biennale di Venezia, showcasing inter-Korean projects.

THE OTHER SPACE/ HETEROTOPIA

Heterotopia

Brief introduction of Heterotopia

Since the philosopher, Michel Foucault, coined the term “heterotopia” in the late 1960s, it has been subject to much confusion and debate in the realm of architecture and urban theory. Commonly interpreted as “other places,” this boundless concept expresses spatial abnormalities in everyday spaces. Theoretically implied by Foucault, heterotopian spaces are characterised by “juxtaposition,” “discontinuities,” “hybridisation” and “combination of dissimilar components”. (Caliskan, Ribeiro, & Tumturk, 2019, p. 6)

Genealogically, “heterotopia” is a term used in the medical field to refer to body tissue or an organ that exists outside of where it is normally located. Foucault first adapted the term into the discourse of language, relating it to several spatial instances, which at the time, paralleled the ascending popularity of postmodernism in the field of architectural and urban studies. (Boyer, 2008)

Following the declining sentiments towards Modernism's abstract spaces, architects and designers became increasingly interested in the practical realities of the contemporary city. This involved the rejection of homogeneity and universality, and instead, expressing the heterogeneity of urban civilisations. Congruent with architects wanting to apply social sciences into the field of architectural and urban design, Foucault's spatial analytics became a significant theoretical tool for reforming the contemporary city. (Violeau, 2005)

However, while key critics of heterotopia such as Soja (1995-1996), Genocchino (1995), Connor (1997), and Siebers (1994) consider heterotopias as an important concept in postmodernism, others such as Hetherington argued that heterotopias were the very condition of Modernism. (Caliskan et al., 2019) On one hand, heterotopias were considered to resist and oppose global assimilation and socio-cultural integration, therefore, exemplifying postmodernism. While on the other hand, heterotopias were considered a form of Modernist sensibility because they were an alternative form of the fixed “social ordering,” the only difference being that it was subject to continuous change. (Hetherington, 1997)

Foucault champions a world with several heterotopias, supporting differences and resisting absolute order. The heterotopian formulation allows one to embrace multiple spatial schemas that affirm the idea of simultaneity by highlighting differences, diversity and power of choice. (Harvey & Harvey, 2000)

Ambiguity of Foucault's Six Principles

Characterised by Soja, Foucault's explanations of heterotopia are "frustratingly incomplete, inconsistent, incoherent." (Soja, 1996) Thus, the six equivocal markers of heterotopias, defined by Foucault, are interpreted in reference to the translated transcript of the lecture "Des Espaces Autres" (Of Other Spaces) in 1967 by Miskowiec, and more importantly, in relation to his ambivalent examples, often given without explanation, and their inherent ambiguities.

Before addressing Foucault's principles regarding the term's medical origins, Cenzatti highlights the innately precarious nature of the heterotopias formed in one's body. Whilst Cenzatti questions where heterotopia fits within the polarising classes of normal and healthy, or abnormal and sick (Cenzatti, 2008), this thesis argues that heterotopias are solely attributed to neither, and instead, they balance the notion of abnormality and normality.

#1: Manifesting diverse forms, Foucault asserts heterotopias are present in all cultures. Defined into two types, "heterotopia of crisis" and "heterotopia of deviation," Foucault articulates multiple examples of each with ambiguous meanings.

Although Hetherington summarises heterotopias as "a process rather than a thing," (1997), it is interpreted that whilst heterotopia of crisis relates to aberrant social practices played by members of society subject to particular physical, emotional and mental state, heterotopias of deviation are specific geographical sites in which these deviant practices occur.

Heterotopia of crisis, specifically in pre-modern society, is associated with individuals, in context to their human environment and relationship to society, who are in a state of crisis. Interpreted as temporal conditions, these heterotopias are "elsewhere from home" or "nowhere". For example, Foucault explains that during the nineteenth century, participating in the military service or experiencing boarding school for young men functioned as the "elsewhere" where they were meant to develop their masculinity.

Heterotopias of deviation describe spatial markers set in the physical environment that accommodate those whose practices deviate from the

dominant behaviours of its socio-cultural context. Foucault states these include prisons, psychiatric hospitals, and rest homes.

In short, in reference to Hetherington, heterotopias embody the process of social ordering by categorising “otherness” as an alternative practice to the norm. In addition to Hetherington’s conditional characterisation of heterotopia, this thesis argues that they also manifest a physical place, thus both types are ambiguously interconnected and undetachable. In other words, whilst heterotopias of crisis are relational, temporal, and reflect the human condition, heterotopias of deviation exist in tangible contexts.

#2: According to Foucault, as time progresses and cultural dynamics change, heterotopias mutate and transform their key functions. Western cemeteries are used by Foucault as an example to illustrate the evolving societal attitudes towards death and the deceased, which led to its physical relocation in the city.

Until the eighteenth century, cemeteries were situated in the city centre adjacent to the “sacred” church. The use of charnel houses, mausoleums, and tombstones embodied the dominant belief of the living soul and its immortality. Thus, less importance was ascribed to the preservation of individual bodies.

At the beginning of the nineteenth century, as civilization modernised and atheism became prevalent, cemeteries were repositioned to the city’s periphery. As the cultural perspective towards spirituality shifted and put the existence of souls into question, more importance was given to the dead body and its individualisation. This was due to the belief that the body was considered the only evidence of existence, therefore significant. Moreover, as the notion of immortality and resurrection diminished, death was thought to bring about “illness” to the living. Thus, its core presence in the city centre was considered to emanate and ensue in death.

Moreover, Foucault alludes to the fourth principle that is concerned with temporal displacements in the city. A cemetery is argued by Foucault as the epitome of heterotopian places. Not only does it materialise an illusory connection through space between the living and the deceased, but it also has the capacity to displace normative time. As death marks a temporal end of life, it also manifests a permanent condition of “dissolution” and “disappearance.”

#3: Foucault asserts that heterotopias are juxtapositions of several incompatible spaces in one material place. Using the traditional Persian style garden as an example, he asserts that these microcosms are a form of “other spaces”.

Encapsulating a miniature version of the world, the Persian garden's rectangular formation reflects the four corners of the world, while the vegetation, water feature, and basin placed in its centre represent its "umbilicus". Characterising these gardens as a counter space, Foucault claims that they simultaneously materialise the "smallest parcel" of the world, as well as, symbolising that it is its totality.

Counterclaiming Persian gardens as "other spaces," Kive highlights its embodiment of paradise, thus its alignment with the dominant ideology of perfection. Kive differentiates the notion of paradise by distinguishing the concept of paradise from the materialised paradise on earth, associating the former with ultimate perfection and the latter with a "perfected place". (Kive, 2012) Corroborated by Kive, it is interpreted that materialised paradise, such as Persian gardens, fundamentally intend to reach perfected order. Hence, it is in line with the prevailing ideology in purpose. However, congruent with Foucault, the Persian garden as a physical place on a real site is considered an "other space," due to its characterisation of being a deviation from normative order.

#4: Breaking the sense of conventional time, Foucault claims that heterotopias embody temporal discontinuities in relation to its wider spatial context. Interrelating heterotopias with heterochronies, which describes changes in the timing of a particular developmental process, he asserts its ability to amplify the characteristics of otherness to its fullest potential.

Foucault identifies two polarising temporal conditions of heterotopia. Whilst the first circumstance exemplifies the perpetual accumulation of time, the second is distinguished by their transient and precarious nature. According to Foucault, particular to nineteenth-century Western culture, spatial translations of the former include libraries and museums. These materialised archives encompass "all times", "all tastes" and "all forms", whilst also eternally expanding and re-organising itself, resistant to its limits. The latter is illustrated by festivals and fairs, where voids are temporarily occupied with various displays and activities, which are temporally restrained.

Furthermore, Foucault explains the Polynesian village as the twentieth-century heterochrony in Western societies. This holiday retreat offers contemporary urbanites a break from the city to immerse themselves into a "primitive" and "eternal nudity", thus, manifesting both conditions of the transient and eternity. These vacation villages allow individuals to "rediscover" Polynesian life and therefore, abolishing restraints of time, but also time is re-claimed as

individuals are able to access humanity's origins in an instant.

#5: Unlike overtly accessible public spaces, heterotopias have ambivalent socio-cultural systems that control their entry or permeability. Accordingly, Foucault outlines the two types of entry into heterotopia, one that is a compulsory obligation and another that requires permission under the fulfillment of a certain rite, ritual, or gesture. For example, whilst entry into prison is mandatory for prisoners, individuals that enter Scandinavian saunas or Islamic hammams are required to go through a ceremonial process of "purification" or hygienic cleansing in compliance to the control system.

Moreover, Foucault continues to describe physical entries implying the existence of illusory barriers. It is interpreted that heterotopian openings conceal "exclusions" under superficially "pure" and "simple" points of entry, exemplified in Brazilian family houses operating guest rooms where visitors access their designated bedroom but not the family quarters. Rather than being an explicitly "invited" guest, their visitors are implicitly strangers, unrelated nor connected, thus excluded upon entry into this domestic environment.

In short, it is interpreted whilst heterotopias are open, they contain inaccessible barriers within them. These intangible barriers exist within tangible spaces, limiting socio-cultural groups or individuals to be "absolutely sheltered" and "absolutely hidden" from the true realities of the respective other. Thus, permeability ranges beyond complete openness and closeness, as well as physical connectivity, which is not confined to geographical locations but rather to socio-cultural relations.

#6: Lastly, Foucault explains heterotopias have a function in relation to their surrounding material constructs. These functions are characterised into two contrasting ends, which are to create heterotopias of "illusion" and "compensation".

The first role suggests heterotopias are illusory spaces that reveal the greater illusion of real spaces in which human life takes place. It is interpreted that places are "messy," "ill-constructed" and "jumbled," exposing the limitations of human conditions. Foucault depicts the brothel as this sort, alluding to the materialisation of conflict between taboo human desires with societal norms.

On the contrary, the second operation of heterotopias is to create an "other" space or "another real space," that is "perfect" and "meticulous", in order to compensate and respond to the surrounding disorder. Exemplified by seventeenth-century colonisations of the Jesuits of Paraguay in South

America, key amenities around the village were rigorously positioned around a rectangular plan, forming a crucifixion cross, materialising divinity in the landscape.

Conclusion

In conclusion, Foucault posits six open-ended principles that characterise heterotopias, which theoretically drive and rationalise this thesis. The process of deciphering and attempting to bridge gaps between Foucault's key remarks and the accompanying, ill-defined examples, was critical for the design process as it highlighted the importance of setting out a clear scope of fundamental heterotopian qualities that could be distinctly identified, further explored and reflected on.

Chinatown

Introduction of Chinatowns

The following case study investigates the socio-cultural phenomenon of Chinatowns through the paradigm of heterotopia. The historic significance of San Francisco Chinatown, one of the oldest and largest Chinatowns outside of Asia, is examined as an archetypal example of the many Chinatowns established during the United States in the 1800s. It provides insight into how Chinatown has hybridised with its American host and sustained a permanent sense of heterotopia, despite changing socio-economic, cultural, and political conditions.

Historic Outline of American Chinatowns

Manifesting ethnic Chinese enclaves, Chinatowns in the United States were typically formed by mass Chinese migration in the 1800s. Prompted by historic events such as the Transcontinental Railroad construction (1862-1869), the California Gold Rush (1848-1855), and the downfall of the Qing government and uprising of the Taiping Rebellion (1850-1864), many departed China to join these trades and escape China's economic and political downturn. Accordingly, numerous Chinatowns emerged across the big urban cities such as San Francisco, New York, Los Angeles, Boston, etc.

Gradually, as work from the Transcontinental Roadworks and Gold Rush began to dwindle, competitive tensions arose among laborers seeking new jobs. Fuelled by racial antagonism, Chinese people became scapegoats for job shortages across America. (Davis, 2015) Consequently, the Chinese Exclusion Act was implemented in 1882, barring the immigration of Chinese laborers, and excluding them from gaining citizenship. These racial barriers were further exacerbated in cities such as San Francisco where housing policies prohibited Chinese immigrants from living outside of Chinatown. (Saxton, 1995)

In short, it is argued whilst Chinatowns were considered a "sanctuary" in that they allowed Chinese immigrants to practice their own culture, (Wong, 1982) they were also the materialisation of those in crisis, and in need of desperate refuge. Consequently, early Chinatowns operated as essential multi-modal hubs where Chinese immigrants could live, work, and play, in isolation. It was a segregated ethnic residence as well as an economic zone in which residents could conveniently access transportation, restaurants, place of work, shopping, etc. (Loo & Mar, 1982) fostering their distinct Chinese American culture.

Brief History of San Francisco Chinatown

In 1906 a 7.9 magnitude earthquake struck San Francisco resulting in large scale fires that left the city devastated and completely destroyed Chinatown. Prior to the quake, Chinatown blended seamlessly into the rest of the city, featuring brick houses with Victorian Italianate facades. The reconstruction of Chinatown was highly disputed amongst white political and business leaders. (Davis, 2015) Not only was it perceived as a slum, hosting criminal activity, gambling and prostitution, (Li, 2005) it was also regarded as a counter space that did not adhere to the philosophy of the “City Beautiful Movement”, which was endorsed by the mayor James Feland, which aimed to re-order the city to the advantage of upper-middle class white Americans. Only when threatened with the possibility of prominent Chinese businesses leaving the city, Chinatown was authorised to be built anew. (Tsui, 2015)

Early Chinatown as Heterotopia

Chinatowns internalised Chinese people, who were ethnically, linguistically, and culturally deviant from the hegemony of white America. Hence, early San Francisco Chinatown is argued as a highly heterotopian space, in which Chinese immigrants banded together out of socio-cultural, economic, and political “necessity”. (Davis, 2015)

These heterotopias formalised ethnic solidarity and socio-cultural cohesion of its Chinese inhabitants in relation to the wider socio-spatial constructs of white America. However, in the eyes of the prevailing white majority, Chinatowns were racialized ghettos for the Chinese minority. (Li, 2005) For them, the physical sites of Chinatowns manifested “Chineseness,” a term that perpetuated the marginalisation, misunderstandings, and stereotypes of Chinese people and their culture. (Davis, 2015) Thus, it is argued that Chinatowns operated as a stronghold for “Chineseness” or “otherness,” that promoted foreignness and unassimilable distinctiveness.

Hybridisation of San Francisco Chinatown:

Following the aftermath of the San Francisco earthquake, Chinatown was re-formalised as a hybridised heterotopia by manifesting a fusion building typology.

To overcome its reputation, characterised by opium, disease and prostitution, Chinese-American entrepreneur Look Tin Eli appointed two Caucasian men, architect T. Paterson Ross and engineer A. W. Burgen, to rebuild the new Chinatown. Eli’s key intent was to pioneer an “oriental city”, which showcased its “choicest treasures” that would subsequently encourage social change and tourism. (Ngai, 2006)

In line with Eli's vision of materialising an "imaginary east," Ross and Burgen were tasked with recreating a Chinatown that aligned with how Americans imagined it to look and feel. (Davis, 2015) Representing the American majority, Ross and Burgen's white ethnic identity was a key tool for reinterpreting "Chineseness" that would bridge the gap between the white and Chinese counterparts of society.

As Ross and Burgen had not been to China, and their 20th century American education had exposed little about the architecture of Asia, their designs were dependent on historic images and their creative interpretation of them. (Choy, 2012) Required to create an illusory "oriental city" by Eli, spatial codes of traditional China were appropriated and dramatized into the architectural language of Chinatown. For example, the Sing Chong building, one of the first buildings to be built after the quake, has an ornamental pagoda attached to its rectilinear mid-rise block form. Ironically, whilst traditional pagodas are freestanding religious temples, the Sing Chong building became a department store, manifesting a temple for consumerism. (Tsui, 2015)

Moreover, the re-build of Chinatown was a mix of Chinese and American spatial vocabulary, as Western designers, construction methods and local materials were utilised as well as limited by local building codes. (Choy, 2012) Thus, Chinatown was a collective fabrication between Chinese people and the American society which materialised under complex socio-cultural relations.

Permanent Heterotopia

In reference to Cenzatti's elaboration of Foucault's second and fourth principle, Chinatowns exemplify functional changes according to the concurrent social relations that produced them, as well as temporal discontinuities, breaking the flow of conventional time. (Cenzatti, 2008) Therefore, whilst historic Chinatowns served as ethnic enclaves, today's Chinatowns are popular tourist destinations that are simultaneously old and new.

Following the re-construction of Chinatown as well as the implementation of the Immigration Act in 1965, Chinatowns no longer housed the majority of the Chinese population. (Li, 2005) Simultaneous with the shift in the socio-cultural dynamic, more non-Chinese people and businesses began to infiltrate Chinatown.

In order to preserve its heterotopian experience preceding its historic establishment and original use, conspicuous visual markers and architectural features of Chinatown became its key tool. For example, in Washington DC Chinatown, the abundant visual element of signages across businesses are

Fig 07. The Sing Chong Building, San Francisco

Fig 08. The Gateway Arch, San Francisco

regulated by local administrators. The mandate issued to both Chinese and non-Chinese businesses requires Chinese inscriptions on storefront signage according to their English translation, protecting the homogeneity of the linguistic landscape of Chinatown (Lou, 2012) thus, safeguarding its cultural distinctiveness.

In addition, since the beginning of the 20th century, Chinatowns have sustained their heterochronic qualities through their visual signage. Defined by Foucault as temporal dislocations, heterochronies are interpreted to distort the experience of ordinary time. According to Lou, the type of language, text vector, symmetry and physical composition of shop signs in today's Chinatowns follow that of their past. (Lou, 2012) Thus, a sense of the historic tradition and the cultural diversification attributed to contemporary conditions concurrently exist through the multilingual signage.

Chinatown as Heterotopian Microcosm

Aligned with Foucault's assertion of his third principle, San Francisco Chinatowns are a form of microcosm that operationally encompasses an array of public and private amenities and aesthetically juxtaposes selected representations of China. With the aim to dramatize "Chineseness" to the tastes of middle-class Americans, visual codes that signify China's identity were drawn from traditional Chinese culture and fused with American friendly utilities.

Unlike other ethnic enclaves such as Japan or Italian neighbourhoods at the time, Chinatowns were exposed to relatively high hostility and opposition. Thus, as a survival mechanism, Chinese people were forced to materialise the American fantasy of China. (Davis, 2015) Under the directions of Eli, Chinatown's architectural language intended to be overtly identifiable as Chinese. Colours of vibrant red, gold, green and yellow, signage with Chinese characters, and the utilisation of Chinese motifs on roofs, facades, building forms, lamp posts etc. became exotic visual signals to its American visitors.

However, the architectural details spread across Chinatowns such as dragon gates, pagoda roofs and various other traditional ornamentations, in the eyes of Chinese immigrants, were far from the modern day China with which they were familiar. These visual representations of China were from the distant past, and seemed to be displaced onto the supposedly progressively urban America. (Davis, 2015) Thus, the resulting reproduction of "Chineseness" in Chinatown is not a historically accurate representation of China; rather it is a hybridised microcosm, that sits between Chinese and American spatial references.

Socio-Cultural Implications of Embracing Otherness

Congruent with Caliskan's definition of heterotopia, San Francisco Chinatown manifests an alternative socio-spatial perspective, which exemplifies the possibility of meaningful co-existence between different socio-cultural groups within a city. (Caliskan et al., 2019) Although the ethnic foreignness of Chinese people caused racial antagonism, the deliberate embellishment and embracing of Chinese identity in Chinatown became an attractive exotic element to the white community. (Davis, 2015)

As Eli had intended, Chinatown's new aesthetic began to shift the adversary attitudes towards Chinese people. To Westerners, Chinatown had transitioned from being a racially alienated slum to a safe, middle-class friendly experience of China. (Davis, 2015) American newspapers explicitly drew links to Chinatown's new appearance with changing anti-Chinese sentiments. Exemplified in the *Bulletin's* "Pacific Progress" issue in 1909, Chinatown was praised as "one of the most noted places on the American Continent"; it also regretfully expressed "the racial grief" between "yellow and white people of the earth" as being unnecessary. (Choy, 2012)

On the other hand, however, Choy asserts that Chinatown's new image reinforced racial stereotypes about China, its people and their culture. (Choy, 2012) As many Chinatowns around America and the world began to follow the aesthetics of San Francisco Chinatown, the repeated replications of "Chinese" details are seen to oversimplify cultural complexity.

In short, although the architectural outcome of the new Chinatown did not completely resolve the continued legal and everyday discrimination towards Chinese people, the reconstruction of Chinatown contributed towards creating a meaningful connection between white Americans and their Chinese counterpart. The exaggerated 'otherness' through architecture is found effective to ease social antagonism during its peak.

The Otherness of the North & South Korea

Segregated for decades, it is important to illustrate the extent to which each nation considers the respective other as us “wuri” and them “nam”. Unlike the phenomenon of Chinese migration into the highly foreign terrain of American cities, North and South Korea share inherent commonalities in their history and culture, yet differ in their current socio-economic and political conditions. The strong sense of nationalism between the two Koreas highlights the socio-cultural conflicts that currently exist and will continue to linger through the sequences of reunification. Thus, outlining the similarities and the impacts of their differences, this section argues the importance of the heterotopian framework in spatially expressing these civil challenges.

Regarding their similarities, the social backdrop of South Korea is among the most linguistically and ethnically homogeneous in the world. Likewise, North Korea’s socio-political scene has heavily limited the opportunity for ethnic, cultural and linguistic multiplicity. For both counties, nationalism is ascribed to ethno-racial homogeneity, which is attributed to a number of historic events such as Japanese colonialization, civil war, labour and democratization movements. (Lee, 2012) As a result, both North and South Koreans have been indoctrinated in schools and their everyday culture to favourably view their ethnic unity.

Moreover, South Korea’s reputation for racial discrimination towards migrants from poorer countries as well as North Korean defectors (Ock, 2020) exemplifies the importance of embracing diversification. For example, North Korean defectors commonly encounter difficulties in seeking and sustaining employment in the South’s highly competitive economy and aggressively individualistic society. Attributed to supremacist attitudes shared by South Koreans as well as sentiments of holding North Koreans accountable for political disloyalty, defectors are treated as inferior second-class citizens. (Jonsson, 2006) Thus, the public’s intolerance towards non-South Korean cultures and values denotes the challenges of complete social cohesion. (Song & Shin, 2012)

However, it is important to note that both North and South Koreans have long desired and expect to see reunification in the long run. (Jonsson, 2006) Although it is not overly discussed in politics, academia, everyday cultural practices, fields such as sports and the arts have already begun to embrace the notion of one Korea. The simultaneous attitudes of wanting and rejecting cohesion expose socio-cultural complexities and subconscious contradictions.

In short, North and South Korean ethnic monotheism must be superseded by cultural pluralism. Thus, this thesis seeks to utilise the heterotopian methodology to spatially express these complex relations and conflictive sites to promote meaningful connections between the two Koreas.

Fig 09. Heterotopia diagram of Joint Security Area, Korea

Reflection

Heterotopia as “Placeless places”: Heterotopia is an influential concept in the field of architecture and urban design, especially given the fact that Foucault gives spatial referents in his explanation of heterotopia’s six principles. However, Knight argues that heterotopias are limited to their literary origins, and unintended to be transferred to real urban sites. (2017) In delineating Foucault’s “ill defined” principles, this thesis has deployed a heterotopian framework that embraces the illusory nature of visual representations. Thus, akin to Knight’s critique, the architectural outcomes are disconnected to realities of physical urban sites. This is evident throughout the design process in which there is a lot of collaging and juxtapositions of South and North Korean visual codes. As a visionary project limited by economic and political circumstances, the heterotopian framework is liberated by its virtual conditions.

KOREAN ARCHITECTURE

Traditional Korean Architecture

This section examines how traditional Korean architecture is applied to North and South Korea in the post-millennium era. Korea experienced drastic destruction during the Japanese occupation era and civil war, losing much of its heritage. After the war, two Koreas both intended to re-establish regional identity through the use of traditional architecture.

Traditional Korea in Contemporary North

In North Korea, traditional architecture was adopted as a neo-classical style to strengthen its national identity. In time with the fall of the Soviet Union, North Korea established an independent ideology to replace Marxism-Leninism, called “Juche Ideology”. (see section 2.32) Architecture played an active role to materialise this ideological transformation, exhibiting its national identity by applying traditional artifacts.

Traditional elements are applied as decorations or motifs. The typical hapkak roof with green tiles and wooden substructure transformed into concrete structures was frequently used. (Prokopljevic & Armstrong, 2015) This approach correlates with the architectural principle in North Korea, which calls for a legible and ‘easy’ architecture that evokes the mass.

Traditional Korea in Contemporary South

After a compressed transitional period of urban development, South Korea began to witness a growing number of architects in the discourse of Korean identity. This emergence is driven by the latest generation of architects who are exposed to international discourse but are aware of the specificity of contextual issues of South Korea. (Rizzardi, 2019) To define Koreanness, contemporary Korean architects reinterpret tradition and its underlying philosophy that distinguishes Korea from other neighbouring countries. Two key concepts have been prominent under this discourse: ‘Mak’ (spontaneity) and ‘Bium’ (emptiness).

‘Mak’ extends on the idea of ‘rawness’ that has been imperative in the reinterpretation of traditions in contemporary South Korean architecture. In the 1990s, ‘4.3 Group’, a young group of Korean architects who formed the only Korean architectural movement, insisted on this concept to promote

Korean identity. (Rizzardi, 2019) They argued that Korean aesthetics endorse a distinct fondness towards the unexpected and incomplete. (Cho, 2018) This concept encompasses craft, architecture, food and even lifestyle of Koreans. The application of this concept into contemporary architecture continues to prevail among prolific Korean architects today. (Refer Appendix A for design exploration on Mak.)

‘Bium’ is another key concept that is popular among contemporary Korean architects. The concept derives from “Madang”, a space of literal emptiness, a courtyard in traditional Korean ‘Hanok’ houses. Cho explains that Korean beauty comes from the emptiness. (Rizzardi, 2019) Rooted in the eastern philosophy of Yin and Yang, voids are necessary for Korean spatial exploration. (Rizzardi, 2019) Korean architects widely adopted this concept to reject the commodification of architecture by developers in South Korea.

Conclusion

Traditional Architecture has been adopted into contemporary settings of the two Koreas in different ways. While North Korea focuses on the physical adaptation of traditional artifacts, South Korea is concerned with the interpretation of traditional philosophy. Therefore, even, traditional Korean architecture ostensibly shared between two Koreas, is distant from evoking inter-Korean unity. It instead reveals a divergent interpretation of traditions in Korea.

Fig 10. Columns of Haeinsa temple
Fig 11. Mak-sabal bowl, all-purpose bowl

North Korean Architecture

This section investigates the architectural developments of North Korea, namely Pyongyang, after the civil war. With its early developments attributed to the Soviet's Socialist Realism, the built environment of the North today is characterised by the state-imposed principals of "Juche." Hence, the emergence and dominating presence of Juche ideology form the literary backdrop for the North Korean design criteria. (see section 3.21)

Socialist Realism & North Korea

Following the aftermath of the Korean War, the reconstruction of Pyongyang was led by the North Korean government with the financial and technical aid of Eastern Europe, China, and most importantly, the USSR. (Ahn, 2014) Concurrently, the North Korean task force, comprised of local architects and planners educated in foreign institutions of Eastern Europe and the Soviet Union, meant the spatial developments of the North did not externalise its Korean heritage. Instead, it explicitly echoed the Soviet Union's ideology of Socialist Realism. (Prokopljevic & Armstrong, 2015)

Enforced during the Stalinist era between 1932-1955, Socialist Realism was premised on the principle that the arts, including the wider urban landscape and architecture, must manifest the social and political ideals of socialism. It promoted the communist ideology of the collective state and dominance of the proletariat in a classless society. (Prokopljevic & Armstrong, 2015) Emerging in resistance to, and in competition with, the simultaneously ascending International Style of the West, it embodied the Soviet's top-down social revolution, national identity and stylistic representation.

Adhering to the formula "national in form, socialist in content", the objective of the urban environment was to serve the political system. To materialise "national form", its built environment balanced classicism and communist expression. Congruent with the state's intent to idealise its national identity, classical architectural motifs were used alluding to the era of significant ideological progress. To "nationalise" the international nuance of neo-classicism, revolutionary communist ornamentations were adapted and applied onto urban interventions and architecture. Exemplified in early post-independence buildings such as Kim Il Sung University (1946), Moranbong Theatre (1954) and Taedongmun Cinema (1955), overt neoclassical themes such as stone materiality, octagonal columns and classical reliefs were fused with socialist emblems such as national figures, slogans and inscriptions. (Prokopljevic & Armstrong, 2015)

Concurrently, Pyongyang followed the principles of Socialist Realism in its urban configuration. Exercising classical planning, Pyongyang was organised along grid patterns, parallel with socialist urban centres of the Soviet Union and Europe. (Yim, 2016) Similar to the urban landscape of Moscow and Beijing (post-1949), Pyongyang's masterplan was oriented toward expansive public squares and monuments such as Kim Il Sung Square, Juche Tower, Mansudae Monument etc. Moreover, the main thoroughfare, initially named Stalin Street (now called "Sungri" Street) mirrors the socialist boulevard of Stalinallee in Berlin, which also showcases a monumental array of residential apartments. (Prokopljevic & Armstrong, 2015)

In essence, the reconstruction of North Korea's built environment began with the compatible ideology of Socialist Realism. Embodying the ideological distinctiveness of the Soviet Union, as opposed to embracing its national heritage, the early developments of the North indistinguishably mirror the urban aesthetics of the Soviet alongside other socialist cities influenced by the USSR.

Juche Ideology & North Korean Architecture

Created by Kim Il-Sung, the "Eternal leader", Juche is the state enforced ideology of North Korea. Manifesting socialist and national customs, it expresses the philosophical principle of "man is the owner of everything and determines everything," which, on a national scale, denotes "self-reliance" of the state. (*Understanding North Korea 2020*, 2019, p. 32)

The establishment of DPRK's Juche ideology in the 1950s was instigated by the death of Stalin (1953) and the rising geopolitical tensions between North Korea and USSR and the West. Hence, the North Korean government promoted the ideology of Juche, to rationalise its ideological, economic and political independence. (Kurbanov, 2019)

Reflected in Pyongyang's built environment in the 1960-1980s, architecture continued to follow the ideological framework of the Soviet's Socialist Realism. However, in contrast to its earlier architectural works prior to the implementation of Juche, emerging buildings began to explicitly represent Korean heritage intertwined with socialist functions. Commonly used Korean elements were traditional roof forms and polychrome substructures, which drew links to historic temples, palaces and cemetery gates. (Prokopljevic & Armstrong, 2015) These elements were exemplified in the Pyongyang Grand Theatre (1960), International Friendship Exhibition (1978) and Grand People's Study House (1982), where neo-traditional architecture overtly expressed

distinct national identity, materialising the state of detachment from outside influences.

Following the Fall of Communism in the 1990s and the death of Kim Il Sung in 1994, North Korea sought to fortify their national ideology under the leadership of Kim Jong Il. Published in 1991, the leader's theory of architecture proclaimed the ideological rationale for all North Korean architecture. (refer appendix C) Although the subsequent structures built in the 1990-2010s manifest modernised forms with no overt use of traditional motifs, Juche Ideology is expressed explicitly through socialist building functions and nationalist inscriptions. Exemplified in building such as Changjon Apartments (2012), Wonsan Baby Home and Orphanage (2015), and Pyongyang Sci-Tech Complex (2015), architecture conveys the accomplishments of the ideology through its large scale, short construction times, use of modern materials etc. (Yim, 2016)

In summary, Juche ideology is North Korea's own socialist construct that followed the era of the Soviet's Socialist Realism. Emphasizing national independence and Korean values, the architecture of North Korea is attributed to Juche's embodiment of socialist reformation, national distinctiveness and aesthetic agenda. Thus, the design criteria outlined in section 3.21 recounts and reinterprets Kim Jong Il's principles of architecture to drive the first inventions of this thesis.

Fig 12. Pyongyang Sci-Tech Complex
Fig 13. Changjon apartments

South Korean Architecture

Following the discussion of North Korea's principal ideology of Juche, this section outlines capitalism as the predominant driver of South Korea's contemporary urban landscape. Within this narrative, characteristics of parametricism are argued as a plausible design process that encapsulates South Korea's political and economic conditions, thus its architectural intent. This section informs the design criteria of the South. (see 3.31).

Outline of Parametricism

Coined by Patrik Schumacher in 2008, parametricism defines an emerging architectural style that is built upon computer technology and parametric design systems. Parametric design, as defined by Jabi, is "a process based on algorithmic thinking that enables the expression of parameters and rules that, together define, encode and clarify the relationship between design intent and design response". (Schumacher, 2016, p. 20)

In essence, parametricism is premised on parametric variability of all architectural elements. Contrary to the modernist understanding of geometrical forms (i.e. cubes and cylinders), parametricism is based on "animate geometrical entities" (i.e. splines and nurbs), enabling dynamic systems such as hair and blobs. (Schumacher, 2010, p. 21) Subsequently, there is emphasis on the process of generating specific rules rather than its formal outcome. Thus, this methodological shift characterised by a digital algorithm results in complex and unprecedented forms.

South Korea & Capitalism

Similar to North Korea, the South experienced rapid urban developments after the end of the Korean war in 1953. Whilst the North became an isolated socialist state, South Korea developed into a capitalist nation, driven by the key forces of globalisation and neoliberalism.

Networking with international bodies, many South Korean scholars and students were migrating to and returning from the continents of North America and Europe. (Park & Hong, 2012) Simultaneously, architectural education in South Korea was systematically reformed, detaching itself from the field of engineering in the 1980s. Thus, in conjunction with the flow of emigrants possessing intercontinental experience, and architecture's disciplinary shift from being characterised as an applied science to becoming a form of spatial artistry, the South established itself as part of architecture's global milieu. (Pai, 2018)

Attributed to capitalism, Rizzardi implies that architecture is an instrument for capital accumulation in South Korea. Claiming that contemporary urban developments in the South are strictly governed by the rule of ROI (return on investment), he states that in Seoul "... when a building is built, it risks being demolished immediately to make room for a potentially more profitable building." (Rizzardi, 2019, p. 11) Thus, the architectural state of the South is inescapably driven by capitalistic rule with the expectation of financial gain.

Subsequently, South Korean architecture in urban cities are manifestations of its financial power. Considered an international setting for diverse projects and stimulating ideas (Pai, 2018), the great extent to which the South is invested in the power of starchitects and the spectacle nature of iconic buildings is exemplified in recent works such as OMA's Gwanggyo Galleria (2020), Frank Gehry's Louis Vuitton Maison (2019), MVRDV's The Imprint (2018), David Chipperfield's Amore Pacific Headquarters (2017) and Zaha Hadid's Dongdaemun Design Plaza (2014) etc. Encapsulated in these projects are the innovative, technologically advanced and diversified spatial codes of the South, rendering itself to be at the forefront of world economic competition. (Westra, 2006, p. 4)

Neo-liberalisation & Parametricism

Distinguishing itself from North Korea, South Korea's economic and social prosperity is attributed to its participation in the neo-liberal, global economy, and its connection to globalisation. Congruent with the South's interests in international trends, Schumacher proclaims parametricism encapsulates a unified "world architecture". (Schumacher, 2016)

Stated by Schumacher, parametricism is considered the next epochal style that is to supersede modernism on a international scale. Responding to the era of "complex and variegated urban order", parametricism is compatible with the re-emergence of market-based processes under neo-liberalisation. (Schumacher, 2016) Argued by Schumacher, parametricism is a form of adaptation in architecture and urbanism to meet shifting socio-economic needs of the masses. Succeeding modernism's restricting characterisation of society, where one size fits all, parametricism radically expresses the ascending complexities of the Post-Fordist society. Observed in the South, these complexities include the embracing heterogenic conditions: diversification of lifestyles, and occupations. (Schumacher, 2016)

Information Age & Parametricism

Amongst the multiplicity of styles in South Korea's architectural repertoire, the theory of parametricism is argued to be a viable architectural process to characterize the South's technologically advanced civilization ascribed to capitalism and the information age.

Since the 1990s, South Korea has been denoted as the Hollywood of the East, exemplified in the global proliferation of Hallyu. (Farrar, 2010) Portraying its capitalistic culture and its ascending soft power, the term Hallyu translates to "wave of Korea", describing the popularisation of Korean media entertainment, culture and tourism. Facilitated by the digital era, and backed by the government, the South's highly developed social networking services (SNS) and visual content sharing platforms depict the leveraging of information technology leading to its global success.

Enabled by the computer age in the last decade, digital processes have emerged as an important tool in architecture. Computer aided design (CAD) tools not only facilitate the productivity of drafting labour but they also allow for generative approaches, aiding the designer to produce and explore ideas creatively. (Dino, 2012) Thus, from the initial inception of the design to its development and construction, the computer has become a key tool in the discipline and has enabled architectural advancement and innovation. (Schumacher, 2016)

Congruent with South Korea's highly computerised culture, Schumacher claims that parametricism is the only architectural style that takes full advantage of the current computational revolution. Utilising computational techniques such as modelling, scripting, simulation, form finding tools and animation, parametricism is considered an important 21st century approach that responds to architectural opportunities of the information age. (Schumacher, 2016) Thus, the parametric design approach expresses the South's highly digitised socio-cultural, political and economic landscape.

Reflection

The two Koreas have diverged drastically after the Korean War despite the long-shared history. The external influence is evident for both sides. While North Korea is influenced from socialist states, South Korea is increasingly attuned to global movements. Both states contain distinct architectural features due to their specific historical and political context. The disparity between the architecture of two Koreas reveals geographical abnormality. This points to the adequacy of the heterotopian framework in responding to the sequential Unification of Korea.

Fig 14. The imprint by MVRDV
Fig 15. Louis Vuitton by Frank Gehry

Fig 16. Mixed form matrix

PART 3

DESIGN

3.1	<i>Design Framework</i>
3.2	<i>North in South</i>
3.3	<i>South in North</i>

DESIGN FRAMEWORK

Design Process

Part 3 presents design research materials responding to the literature analysis. This chapter gathers design exploration and guiding frameworks for the development of **two proposals**, presented in subsequent chapters. Each proposal architecturally translates one side of Korea, and contextually responds to the other, following a heterotopian framework. (see pg 62)

The separation of proposals scrutinises the prevalent architectural qualities and conditions of both North Korea and South Korea. Through 'designing', it also reveals critical contextual issues and initiates visual juxtaposition to understand compatibility as well as the incompatibility of the two subjects. The design outcomes of the two proposals reveal heterotopian effects against their contextual conditions.

Fig 17. Design development sequence

Design Experiments

Different modes of design have been investigated. (refer to Appendix A) Figure 19-21 show a series of digital collages with heterotopian possibilities. Each collage displays aesthetic juxtapositions between the two Koreas, revealing the efficacy of visual contrast.

Fig 18. Other visual experiments (refer Appendix A)

Fig 19. Traditional in South Korea

Fig 20. North in South Korea

Fig 21. South in North Korea

Design Framework

In this thesis Foucault's spatial principles of Heterotopia are reinterpreted to drive the design process. Methodologically, heterotopia is the guiding theoretical framework to reinforce and spatialise the agenda of the sequential unification process. It adheres to the key agenda of the unification process, which rejects the absolute order of social cohesion but celebrates relational progress and social diversity between North and South Koreans.

As Caliskan expresses it, the design approach intends to spatially “balance” the notion of social “segregation” and “integration” through spatial explorations. (Caliskan, Ribeiro, & Tümtürk, 2019) Rather than resolving ideological conflicts, this thesis intends to identify and architecturally dramatize each nation's distinctive features of “otherness” in relation to one other.

Consequently, the design process aims to materialise the coexistence of polarising spatial constructs, by composing differing socio-cultural, spatial fragments within a single site. Thus, the design outcomes in Part 1 manifest characteristics of the North but are superimposed into South Korea, and Part 2 vice versa.

According to Caliskan, the heterotopian framework involves the formation of fragments of “spatio-typological coding,” which are morphologically integrated in its spatial construct. (2019) Thus, these fragments correspond to the socio-cultural symbols, practices and ideologies of a particular demographic. Interpreted and applied into the design process this entails following four key stages: (right)

1. **Examining the predominant national ideologies** that form the normative order of North and South Korea.
2. **Identifying a geographical setting** of each proposal in each nation, that amplifies/ maximises the effect of “otherness,” that goes against the dominating local distinctiveness.
3. Experimenting with **architectural forms that represent** fragments/tectonic codes of each nation.
4. **Composing** the different fragments into one integrated intervention – a set of smaller scale interventions in the South and a single, larger scale proposal in the North.

Fig 22. Puzzle diagram of Heterotopian framework

Visual Data / Precedents

The architectural language of each nation is curated through the gathering of imageries, followed by precedent studies. These portray design aspects of the contemporary Korean built environment. The collection of imageries is subject to the author's temporal and intuitive gathering of data. Thus, it cannot be viewed as an objective representation of Korea's overall built environments, but instead as design resources and supporting material for the literature study. These sources are essential for the Heterotopian framework, as they provide a real visual context open for design exploration.

North Korea

Fig 23. Visual Matrix of the North

Ryugyong Hotel / Baikdoosan Architects / 2012

precedent

Ryugyong Hotel is the tallest structure in North Korea, a total of 105 floors, and Pyongyang's primary urban node. The building indicates the stylistic shift of North Korean architecture and the state's desire to gain international recognition. Ryugyong Hotel displays a postmodern aesthetic with particularity emerging from Juche principles. It shows North Korean endeavours to apply a contemporary approach to architecture with excess reflective glass and reduction of national details. (C Ahn, 2014)

The formal constraints due to technological and material limitations are evident in this building. The structure is built entirely out of concrete, unusual for a building of this height. This materiality necessitates the pyramid form for structural integrity. (Prisco, 2019) In short, the Ryugyong Hotel exemplifies the use of architecture to exhibit the state's progress while inevitably containing architectural limitations specific to North Korea.

Heterotopian Possibility against the South

The architectural qualities of the Ryugyong hotel show similarity to many postmodern buildings that already exist in the South. The heterotopian quality of this building emerges from its unoccupied state. Due to financial and structural challenges, the building has remained closed and unfinished for over 20 years. Thus, it is an architectural sculpture or folly that merely serves as an ideological symbol. Being devoid of spatial experience and programmatic function, combined with the state's preoccupation with the building's exterior image, has transformed the building into a work of public art with a particular ideological message. This approach contrasts with market-oriented buildings of Korea that necessitate profitable space.

Image redacted

Fig 24. Ryugyong Hotel, 2012

Juche Tower / 1982

precedent

Juche Tower is a monument located at the eastern bank of the Taedong River directly opposite Kim Il Sung Square to commemorate Kim Il Sung's 70th birthday. It glorifies the wisdom of the "great leader" and promotes "Juche ideology" through its design. The tapering granite spire capped with an illuminated metal torch reaches 170m in height, becoming one of the world's highest masonry structures. (*Architectural and Cultural Guide Pyongyang*, 2012)

Juche Tower embodies grand monumentality and is filled with ideological content. The placement of the tower is carefully staged to ensure maximum urban exposure. It gains an unobstructed view from Kim Il-Sung's main square. The tower expresses a national character through drawing formal reference to ancient Korean pagodas. It conveys the pertinence of Juche through numerous symbolisms. (C Ahn, 2014)

Heterotopian Possibility against the South

The monumental qualities present an abnormal temporal experience; however, these qualities are common in many monuments outside North Korea - meaning, monumentality on its own cannot generate heterotopian space. Instead, the spatial alterity exists in the building's overt symbolism. Due to the heterotopian qualities that North Korea as a nation already entails, the abnormality of the building increases as it explicitly exhibits the nation's ideology. Thus, the design principles of idiosyncratic Juche Ideology are imperative in creating heterotopian qualities.

Image redacted

Fig 25. Juche Tower, 1982

Fig 26. Visual Matrix of the South

Design framework

Design [도면]

Amorepacific Headquarters / David Chipperfield / 2017

precedent

The new headquarters of Amorepacific, Korea's largest beauty and cosmetic company, consists of offices, a conference hall, a large auditorium, museum, restaurants, and retail facilities. In contrast to the slender high-rise buildings nearby, the headquarters presents itself as a simple, squat cuboid. The building portrays efficiency through the use of pure modernist block form and uniform façade. The building's proportions have been developed around a central courtyard to maximize the effectiveness of natural ventilation and daylight for all areas. (*David Chipperfield Architects*, 2018) The central void fulfils the functional and programmatic needs of the building. Consequently, this building captures two vital elements of capitalist South Korean society, 'efficiency' through the minimal aesthetic and 'practicality' through its volumetric arrangement.

Heterotopian Possibility against the North

This modernist approach of expressing functionalism coincides with many socialist buildings in North Korea. There is an explicit formal commonality between geometric social apartments in North Korea and this building. However, the difference lies in the refinement and abstraction of design. This abstractness offers heterotopian qualities that could bring out a visual juxtaposition against the symbolic built environment of the North.

Fig 27. Amorepacific Headquarters, 2017

Dongdaemoon Design Plaza / Zaha Hadid / 2013

precedent

Dongdaemoon Design Plaza, as a cultural hub of Seoul, consists of a variety of public spaces, including an art hall, conference centre, museum, etc. The building is located at the centre of a 24hr shopping district, embodying constant movement and density. DDP is the first public building in Korea to utilise 3D BIM and parametric digital tools in construction. The cladding system consists of over 45,000 panels in various sizes and curvature degrees, showcasing the advanced fabrication process. ("Dongdaemun Design Plaza / Zaha Hadid Architects," 2015) Attributed to its digital process, the design of DDP is fluid and alienated. It is constantly folded with external park spaces adding to its spatial dynamic.

DDP has been highly controversial among local architects, primarily due to its alien form, which was considered detrimental and disconnected to the surrounding and historical context. DDP erased a symbolic sports complex that was considered significant for Seoul's modern history. Besides, it involved a considerable cost that was paid out to a foreign starchitect and mega-cooperate construction companies. (Boer, 2016) Despite such criticism, the building became a significant landmark gaining international attraction and local popularity through its photogenic aesthetic.

Heterotopian Possibility against the North

This building embodies the social system of South Korea. DDP's expressive design directly feeds the image-based and trend-sensitive culture of South Korea while accurately portraying the digital and technological characteristics of the society. The controversy of DDP manifests the democratic state of South Korea. These factors directly contrast with the social system and the function of architecture in the North, thus, providing immense heterotopian possibilities.

Fig 28. Dongdaemoon Design Plaza, 2013

North Korea

*This form matrix translates the collected research data into architectural semiotics.
The formal languages and aesthetic characteristics of each nation are established.*

Fig 29. Form Matrix, North Korea

South Korea

Fig 30. Form Matrix, South Korea

Formal lanaguage of Korea

North

South

Fig 31. Matrix Selection

Site Selection

Three sites were selected for comparison. The sites were chosen according to inter-Korean relevancy. This section concludes that two capital cities are more suitable for the application of a heterotopian framework over KIZ and DMZ.

Fig 32. Images of Seoul/ Pyongyang
Outline of Korean peninsula,

KIZ / DMZ

Kaesŏng Industrial Zone (KIZ)

Kaesŏng Industrial Zone (KIZ) is the first special administrative, industrial region in North Korea formed as part of an inter-Korean collaborative agreement in 2000. This region is open for South Korean companies under the premise of hiring North Korean labourers. It intends to mutually benefit the two Koreas through the economic activity of production while promoting national collaboration. (Donghan Kim, 2012) Kaesŏng is divided into four districts: industrial, commercial, residential and tourism. The region is filled predominantly with industrial buildings and factories. The site can be considered a large enclave due to its restrictive access, only permitting labourers and relevant members. (Son, 32)

Korean Demilitarised Zone (DMZ)

The Korean Demilitarised Zone (DMZ) is a strip of land that serves as a military buffer between North and South Korea. It is defined as a border barrier that divides the Korean Peninsula. The DMZ was first established over 60 years ago when the Korean War Armistice was signed. Since then, the area has been heavily militarised and detached from human contact. (Kim, 2013) The DMZ became a crucial ecological site accommodating a high biodiversity.

Conclusion

KIZ and DMZ are both not suitable for heterotopian development. The two sites contain an overly political and definitive function, reducing spatial flexibility. They introduce another spatial dimension, industrial and ecological, which hinders the research from the inter-Korean investigation. Finally, both sites lack in social presence due to their remoteness; hence, they are inadequate to deploy the objectives of Phase One, coexistence of the two societies.

Fig 33. Aerial of Kaesŏng Industrial Region (top)

Fig 34. Photo of De-militarised Zone

Capitals

Pyongyang and Seoul are multi-functional capitals of Korea. Lawrence argues that capitals are particularly significant to understand a nation and in the discourse of collective identity as they symbolise a nation-state as a whole. (Vale, 52) The two cities share geopolitical and territorial similarities including a central river and a lineage of a fortress and walled city. (Ahn, 2014) However, since Korea's division, they have diverged into entirely different cities driven by dissimilar political systems. The representational values of capitals and the differences between the two provide an ideal testing ground for applying heterotopian theory.

On Pyongyang

Socialist City - Pyongyang has implemented socialist urban concepts. It developed "micro-districts" to place working areas near other service areas and evenly distributed green areas and incorporated landscape to control the city's expansion. The central part of Pyongyang is dedicated to administration and institutions, with major national symbols functioning as urban nodes. Most evidently, the alignment of Kim Il Sung Square and Juche Tower, located across Taedong River, creates a major symbolic spatial axis. (Dongwoo Yim, 2016)

Urban Transformation - Since the 1970s, Juche Ideology became the primary principle in urban planning, overtaking previously sought socialist values. (Changmo Ahn, 2015) The focus shifted from reconstruction of infrastructure to ideological formation that would propagate North Korean Juche Ideology and their leaders. New strategies, such as creating major boulevards joined with unbalanced development to accommodate city growth, created a conflict with the previously established masterplan. Consequently, Pyongyang's urban morphology portrays a mixture of the ideal socialist city and the realities of the development.

^ **Pyongyang**

Size : 1747.7km²

Population : 3,222,000

v **Seoul**

Size : 605.21km²

Population : 9,776,000

Density : 16,000/km²

Fig 35. Seoul and Pyongyang

Pyongyang and Seoul

On Seoul

Seoul is the second densest metropolis in the world, with 25 million residents. Seoul is characterised as a Schizophrenic city and the city of ephemerality. (Rizzardi, 2019) Its urban fabric ranges drastically without a coherent pattern. The city contains old and new, hills, international, rich, entertainment and much more. It presents a constant multiplicity where various spatial qualities compete.

Schizophrenic city - Seoul experienced drastic contextual transitions in the modern era, ranging from Japanese occupation and the Korean war to American influence. The constant shift with chaotic growth resulted in a culture of “pali-pali” 빨리빨리 (hurry up!). The society is always in search of new and fashionable trends. This translates to Seoul's readiness to join various international discourses of contemporary architecture. Consequently, the city contains a clutter of architectural styles and types. Ephemerality and disorder became explicit elements that define the urbanity of Seoul. (Rizzardi, 2019)

On Differences

Density - Pyongyang has about 1/9 population density compared to Seoul. Access to Pyongyang is strictly controlled by the state. (Ahn, 2014)

Development - Urban development occurring in the two cities indicates programmatic differences. Pyongyang has residential development taking place near boulevards while Seoul has commercial and service facilities. The use of a central district epitomises this difference. Pyongyang placed civic and institutional facilities such as libraries, museums and parliament houses, while Seoul's central district is occupied by commercial facilities such as headquarters and shopping malls. (2014)

Urban image - Pyongyang is filled with propaganda and monuments celebrating Juche Ideology and their leaders, while Seoul is filled with signs and billboards attributed to its capitalistic society. (2014)

Fig 36. Aerial collage of the capitals, showing density difference

Program Selection

Figure 37 shows potential programming of the two design proposals. The main comparison centres around sharing the same program or applying different programs for each proposal. The former denotes that the two proposals are directly comparable. It ensures that the differences are expressed primarily through the design language. The latter recognises building program as another heterotopian element that distinguishes the characters of the two societies.

Conclusion

Following the heterotopian framework, separate programs will be applied to each proposal. The programmatic difference maximises heterotopian qualities as it affects the building typology and design requirements. It also ensures each proposal facilitates a real, socio-cultural state of the other to achieve heterogeneity and diversity beyond spatial image-making.

Note. Appendix B shows a discontinued proposal attempting to design a North Korean embassy in South Korea.

	Program options		Heterotopian Criteria Key qualities	
			+	-
Sharing a program	Parliament House		potential for symbolism	rigid planning restriction, security issues
	Embassy		innate otherness in operation	programmatic requirement
	Cultural Centre		escape from functional space	already prevalent in both sites
	Apartments		ubiquitous but individualised	private, individual scale predefined program requirement
	Folly		potential for spatial otherness	reductive approach, disregards social aspect
Seperate programs	North	Playground monument	paradoxical combination of playground function and monument typology	Lack of political features to represent North (the other)
	South	Shopping mall Headquarter/ Office Multi-complex	Mix-programming open for constant change	complication around architectural planning

Fig 37. Program comparison table

NORTH IN SOUTH

남안의 북

This chapter deploys the spatial coding of North Korea to develop a heterotopia in the South. The design of the interventions follows a set of North Korean inspired design criteria. The interventions are located in Yongsan Park, former US basecamp in Seoul, reassuring symbolic presence. The program, Korean folk-play, conveys the key differences between social conditions of the two Koreas while culturally encompassing both nations. Consequently, this proposal envisions spatial otherness that contests with the urbanity of Seoul.

Juche Design Criteria

The idiosyncratic characteristics of North Korean architecture are defined by Kim Jong Il's treatise, "On Architecture", published in 1991. (Appendix A) This section interprets and reconstructs the leader's theoretical statements to form design criteria to represent the North. Containing four parts - a) *Architecture & Society*, b) *Architecture & Creation*, c) *Architecture & Formation*, d) *Architecture & Guidance* - these guidelines materialise Juche through the interweaving of national character and social content centring on the interests of the working-class population. Although assertive propaganda and repetitions are used to instruct architectural production, these were omitted in the overall interpretations. Instead, they adhere to the spatially translatable remarks ascribed to socialist intent.

Design Criteria

- **Ensure social purpose** through utility, monumentality and Juche aesthetic. The design must regard the masses and attract public interest.
- **Follow artistic characteristics of Juche.** This includes expressing clear order, nature-inspired, innovative design and the combination of national characteristics and modernity.
- **Apply formal guidelines of Juche.** To contain symbolic expression based on ideological content and to achieve visual harmony through symmetry, proportion, rhythm and colour.
- **Be innovative and original.** The design must showcase advanced architecture structures and innovative form avoiding imitations.

Fig 39. Operative Design by Mari and Yoo

The design process follows the “Operative Design Method”, developed by Mari and Yoo, which focuses on how language can invoke form. Similar to Richard Serra’s Verb List Compilation: Actions to Relate to Oneself, this method involves spatial translations of action words. (Di Mari, 2012) This process coincides with the approach of North Korean architecture that seeks to enhance the legibility of architecture, easily understood by the masses. The design iterations in this chapter demonstrate the spatial formation of extracted keywords from the Juche principles. Other action words are added according to programmatic requirements.

Site, Yongsan Park

Yongsan Park, located in the heart of Seoul, is a former US basecamp closed off to the South Korean public for over 100 years. In 2009, the United States agreed to relocate the US military headquarters and return the land to South Korea. The complete relocation is expected by 2020 with a proposal to turn the entire block into a public green park.

Historical and Social Significance

This site, as the former largest US basecamp, contains historical and social relevance to Korean Reunification. The presence of the US army in South Korea is due to the ongoing inter-Korean state of affairs. Being the primary ally of South Korea, the US protects the South against its opponent, North Korea. This militarisation, despite its necessity for national security, accentuates the negative tension between the two Koreas. North Korea consistently demands that the US retreats for any peace agreement. (*Understanding Unification Issues 2020*, 2019) Putting aside the political legitimacy of this demand, the returning of Yongsan Park implies peace and demilitarisation of the Korean peninsula. Therefore, it holds symbolic significance.

Heterotopian Relevance

Yongsan Park is a large green enclave in the middle of the city. The site openly contrasts the surrounding metropolitan density. The vast emptiness provides relevant spatial characteristics, such as monumentality, for introducing the North-inspired design. Additionally, the site also reveals temporal and cultural alterity, attributed to its prolonged closure and foreign occupation.

Past - US Basecamp

Present - Partial opening to public

Future - Public Green Park by West8& Iroje

Research proposal

Fig 40. Map of Yongsan Garrison basecamp

Fig 41. Aerial of the site

Fig 42. Future plan of Yongsan Park

Fig 43. Thesis proposal

Program, Korean Folk-play

The proposed interventions are designed to house “Korean folk-plays”. Jo, a South Korean scholar, defines that “Folk-play is a form of popular culture that contains the customs and lifestyles of the mass.” (Cho, 1986) While many folk plays in South Korea have disappeared during the Japanese occupation and industrialisation period, folk plays remain active in North Korea due to more leisure time. At times, folk plays are used by the state to show off their cultural identity and to reinforce ethnic solidarity. (Han)

J. Huizinga, a cultural historian, defines ‘Play’ as “a free activity standing quite consciously outside ‘ordinary’ life as being ‘not serious,’ but at the same time absorbing the player intensely and utterly.” (Huizinga, 1955) This evokes the heterotopian concept of space. In addition, folk plays juxtapose the trend-sensitive and digital-driven characteristics of South Korean society. Hence, it is auspicious to create spatial alterity. This program manifests North Korea’s sense of commonality and the two nations’ shared history while juxtaposing South Korea’s utter dependency on the digital realm.

Fig 44. Various Korean folk-games in painting

Design iterations

Fig 45. Form tranlsations of Juche principles

utilitarian

Fig 46. Form translations
of Juche principles cont.

Final Design, “People’s Playground”

“People’s Playground” is a series of public interventions, each hosting a different “folk-play” program. The interventions are designed according to the Juche criteria. The collection ensures “variety not only in the composition of architectural types and individual structures but in formation of architectural groups.” (*Architectural and cultural guide Pyongyang*, 2012, p. 212) Each intervention is an architectural embodiment of a subsequent function that offers an inter-Korean experience to the citizens of Seoul.

The interventions complement Yongsan Park to create highly accessible and public space. The South Korean public, the major user group, is unfamiliar with the park due to prolonged closure. Thus, joined with idiosyncratic Juche-inspired interventions, the park provides an excursion within the city for locals and behaves as a temporal space of heterotopia.

Fig 47. Composite elevation of all interventions

Placement

Fig 48. Key / Plan of "People's playground" Interventions (shown at different scales)

The placement of each intervention is determined by its design intent and the site's surrounding conditions (i.e. Baduk Tower on the hill to reinforce verticality/ Juldarigi on the main pathway to highlight linearity/ Ssireum Stadium in the central area to imply festivity/ Chi-gi Shelter near the residential district with high access to respond to the spontaneity of the games played within). Autonomously arranged interventions are linked through Dodal Gates that activate the entire site into a playground. Yongsan Park is a large empty site similar to the green parks of North Korea. The scattered placement invites occupants to wander around the entire site actively. The journey throughout the interventions presents South Koreans with an unusual task of walking long distances (30min – 2 hours). This commuting experience invites the whole park to become a heterotopia.

North in South

Fig 49. Location plan

The Ba-duk Tower is a five stories intervention, providing a sedentary space for boardgame plays. Its verticality aims to detach the space from its surrounding urban environment and offer a space of isolation. It functions as a platform for the players and observers to consolidate through a game of Ba-duk (Go) or Jjjanggi (Korean Chess). The form takes a reference from octagonal geometry that frequently appears in traditional Korean columns and pavilions.

Baduk Tower
바둑장기탑

Ba-duk (go) is a two-player strategy board game played on a gridded board. Ba-duk is a sedentary game with a play duration that averages from 30 minutes to 6 hours. This game originated from China but was popular throughout Korea's history even to the present day. (Cho, 1995)

Fig 50. Render of Baduk tower

Fig 51. Exploded components (left)
Fig 52. Axonometric Poster

The Juldarigi Shelter derives its form from the characteristics of Juldarigi game and Juche design principles such as linearity, symmetry and repetition. Double-sided seating on longitudinal edges defines the linear playground space. This space, sheltered under expressive roof structures, also operates as a protected pathway.

Jul-da-ri-gi Shelter
줄다리기 터

Juldairigi is a group game that involves pushing and pulling action, equivalent to tug-of-war. It was played on “Daeboreum” (first full moon of Lunar New Year) and open to the entire community. This game is known to be related to rice farming and was celebratory to the year of a good harvest. (Dongkwon Yim, 1996)

Fig 53. Render of Juldairigi intervention

Fig 54. Exploded components (left)
Fig 55. Axonometric Poster

The Ssireum Arena uses 'Kimilsungia', a national flower in North Korea named after Kim Il-sung, as a design motif. Ssireum is an annual event in Korea filled with festivity. This is a central piece among the series that provides an ample open space for people to gather and share experiences as a community. The form highlights centrality and attempts to "make use of the shape and formative phenomena in nature". (*Architectural and cultural guide Pyongyang*, 2012, p. 196)

Ssireum Arena
씨름장

Ssireum, a national sport of Korea, is a two-player wrestling game that began in the fourth century during the three-kingdom period. Attributed to its popularity after the Korean independence in 1945, Ssireum developed as a festival sport to be watched, particularly during national holidays. (Yoon, 1995)

Fig 56. Render of Ssireum arena

Fig 57. Exploded components (left)
Fig 58. Axonometric Poster

Chi-gi Playground

치기놀이터

The Chi-gi Playground houses various types of equipment games to be played in. The intervention formalises the nature of the games through its stepped roof stairs and flipping orientation of the columns. The structure is fully occupiable, creating unexpected pockets of space responding to the nature of Chi-gi games.

Chi-gi play refers to small group games that involve striking or hitting action against playing pieces. These games occurred spontaneously and contained flexibility to fit the contextual need. They required active engagement and promoted physical interaction between players. (Han)

Fig 59. Exploded components (left)
Fig 60. Axonometric Poster

동인기원건축
길 찾기

Fig 61. Exploded components
Fig 62. Axonometric Poster

Reflection

The design of 'People's Playground' manifests formal particularity complying with the design criteria of 'Juche'. Each intervention dramatises the symbolic use of architecture and exaggerates the use of colour to draw links to the visual portrayal of North Korea. However, these design features are insufficient to provide explicitly heterotopian experiences. This is due to the 'schizophrenic' nature of Seoul. The city contains limitless styles and aesthetics, making 'People's Playground' another experimental intervention not distant from public art sculptures.

Addressing this limitation and further differentiating the space from Seoul's surrounding context, other architectural conditions are utilised, namely site and program. The historical significance and relevancy of Yongsan Park signify the monumentality of the interventions. The sparse placement of interventions contrasts with the surrounding density and results in the overall experience being highly impractical. The programming of 'People's Playground' conflicts with the highly digitised and privatised culture of South Korean space, while denoting North Korean nationalism. Thus, the interventions ultimately function as heterotopias within the context of Seoul.

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SOUTH IN NORTH

북안의 남

“South in North” is an exploration of South Korean design concepts against the North Korean setting. The digital design method is adopted as a primary mode of design development. The design is situated next to Kim Il Sung Square to capitalise on the superiority of the city centre. The proposal deploys mixed-programming with a focus on introducing capitalistic qualities. Consequently, “South in North” emerges as a heterotopian tower disrupting Pyongyang’s urban pattern and architectural language.

Parametric Design Criteria

Characterising the spatial constructs of South Korea, this section interprets Schumacher's "heuristics" on parametricism in relation to the overarching framework of heterotopia. Subsequently, the dos and don'ts of parametricism were formalised into design criteria to drive the second intervention of this thesis.

Negative Heuristics (Taboos to Avoid)

- *Rigid and orthogonal geometries → to increase organic fluidity*
- *Repetition of simple elements → to increase complexity and variety*
- *Juxtaposing contrasting elements or systems → to increase visual order → contradicts heterotopian framework*

Positive Heuristics (Dogmas to Follow)

- *Parametric malleability → soft forms*
- *Gradually differentiate → vary in form*
- *Systematically correlate → connection of systems*

Based on Schumacher's heuristics and his vision for parametricism's stylistic dominance, the objectives of parametricism are construed as contradictory to heterotopia. Following the "collapse" of modernism, parametricism is argued by Schumacher as the next "hegemonic epochal style" to overcome the current state of "visual chaos". (Parametricism 2.0 p.120) Describing post-modernism as a mere transitional episode, he advocates for the unified style of parametricism. Subsequently, conveyed in his heuristics, the formal agenda of parametricism insists on uniformity and singularity, emphasising organic integration and adaptation. This theoretical backdrop refutes the heterotopian framework, in which the key intent is to embrace heterogeneity through the juxtaposition of spatial multiplicities, without organized order.

Hence, the following design criteria reinterprets the design agenda of parametricism to work within the primary framework of heterotopia. To express the key spatial ideology of South Korea, these criteria focus on the algorithmic design process and aesthetics of parametricism, rather than its deeper theoretical agendas.

Design Criteria

- ***Maximise visual and spatial complexity through the use of dynamic forms with variance, irregularity and disorder.*** This alludes to the South's capitalistic innovations and technological advancements, highly contrasting the North's ordered socialist aesthetic.
- ***Adopt "malleable" aesthetics through the use of soft curvature and continuous fluidity, avoiding orthogonal geometries.*** This intends to heighten the extent of visual juxtaposition amongst the North's rigid geometric structures whilst reflecting the South's diversified architectural landscape.
- ***Showcase the digital technicality of the South*** through explicitly engaging with computer generated processes conveying structural complexity.
- ***Comply with the South's "Rules of Investment"*** by allocating and organising space to provide maximum profit throughout the building. Encapsulating a landmark, it must incorporate a combination of private as well as openly public areas.

Design Process

The process of this proposal involves digitisation of relevant concepts using 3d generative software. This method accepts collective authorship of the design shared between the designer and the computer. Various digital tools are explored to test distinctive socio-cultural aspects of South Korea.

Site, Central Pyongyang

The site is located between **Kim Il-Sung square** and **Mansudae Hill**, a vacant land part of Mansudae Fountain Park. Three factors helped to specify the site: the central location, North Korean urban principles, and the recent urban developments.

Central Location

Amid the recent urban transformation to accommodate the changing economy in North Korea, Pyongyang's city centre becomes a particularly essential and viable site for further development. Historically, central districts have been the critical areas for socialist cities where this transformation unfolds due to its superior location and infrastructure. (Yim, 2016) This site, therefore, presents as an ideal location to serve for a new architectural instigation.

North Korean Urban Principles

Adhering to the socialist concept of "micro-district", this site falls under the civic/ administrative zone, allowing a service facility to take place. The site is also surrounded by greenery parks and well-developed infrastructure, expressing key advantages of socialist planning. The site's superiority implies adequacy for further development to promote the prosperity of Pyongyang to the international audience.

Recent Developments

This site gains relevance due to the recent construction development of Changjon Street and Mansudae Apartments nearby. This development ensures commercial activities and modernisation to respond to the emerging middle class in North Korea. (Yim, 2016) This development took place over an already existing mid-rise apartment, which indicates that the development intends to boast the nation's progress. Thus, the site adequately embodies the changes in Pyongyang.

Fig 64. Urban district plan

Fig 65. Artist image of Pyongyang

Mapping

Kim Il-Sung Square

Ryugong Hotel

Juche Tower

Fig 66. Figure ground 1, 2 and 3

Fig 67. Pattern finding through building elevations >

Grand people's Study House,
showcasing traditional roof form

Kim Il Sung Square
Central public space of the city

Major urban axis

Axis to Yongsan Park

Taedong River / Primary ecological division

Fig 68. Axo mapping of Kim Il Sung Square to explore surrounding site conditions

Program, Mixed-use

The program for this proposal consists of a headquarters, shopping mall, observatory, cultural facilities, etc. The extensive mixed-programming manifests the urban disorder of Seoul, South Korea. Two key programs, a headquarters and a shopping mall, exemplify the consumerist phenomenon of capitalist society, relevant given that South Korea is the fourth highest in the world for national luxury brand consumption. (*Crow's eye view : the Korean Peninsula*, 2014) Other programs are added to maximise the lucrative function of the building. This programming compresses the qualities of the capitalistic society and the disarrangement of South Korea.

The mixed-programming of the building corresponds to Foucault's principles of Heterotopia. It manifests ambiguity through the combination of public and

Fig 69. Visual abstract

Samsung Headquarter

private spaces. This combination introduces hidden barriers within the building that limit access to certain areas. Moreover, the internal division and zoning that bring about rentable areas allude to constant spatial mutation according to the tenants. In short, this program carries multiple layers of heterotopian qualities that are notably absent in North Korea.

Samsung Background

Samsung is South Korea's most prominent multinational conglomerate company. While internationally, they are mainly known as producers of innovative electronic devices, locals know from a national scale that their brand extends across numerous subsidiaries and affiliated businesses.

Samsung epitomises the branding culture of South Korean society and technological interest that led the country to digitisation. It also captures neo-liberal conditions and the international presence of South Korean companies in the global market.

Fig 70. Program collage

Concept 1. Pragmatism

Efficiency and practicality are imperative in the architecture of capitalistic South Korea. Evident through the ubiquity of monolithic rectilinear block apartments, this results in a dearth of design features. The parametric process, algorithmic design and machine learning method offer a unique opportunity in this aspect, as it offers a mathematical design process enabling efficiency.

Technique - Galapagos, grasshopper

Galapagos is an optimization tool that computes shapes and forms that fit a user-defined goal. In this instance, a “gross floor area” and “building height” were set to compute more economically profitable building forms.

Reflection

The outcome of this exercise did not satisfy the design criteria. The software notably replaced design authorship. There was a lack of flexibility in adapting the parameters to attain any contextual qualities. The formal outcome of this exercise lacked the digital and parametric aesthetic that was initially sought.

Fig 71. Digital Iterations through Galapagos

Concept 2. Advertisement/ Projection

The idea of 'projection' is an abstraction of 'advertisement' that denotes the market economy that dominates Seoul. It embodies the digital nature of South Korea and the virtual space of screens that emerged as the new "reality" in many contemporary societies outside North Korea.

This concept also takes a reference to Deleuze's fold and Eisenman's notion of 'digital singularity', which challenge the binary relationship of subject/object and interior/exterior. It introduces the ontological question of how we perceive reality, the boundary between real and virtual, which provides a strong link to the theory of "Heterotopia".

Technique - Pufferfish, Grasshopper

"Pufferfish" is a plug-in for grasshopper that consists of various form-morphing tools. A base box, representing high-rise typology, was deformed through actions such as tweening, pinching, pulling, etc.

Reflection

This concept is too vague to formalise into a physical building through available digital tools. Pufferfish provided numerous digital-oriented morphing tools that successfully translated into the parametric aesthetic. However, the concept of 'projection' was not explicitly manifested in the outcomes. Thus, this concept is too abstract for form-finding but could be incorporated in the later stage to add a "South Koreanness" to the design.

Fig 72. Digital Iterations through Pufferfish

Concept 3. Density and Noise

Attributed to high density and fast-paced characteristics rooted in South Korean Society, this concept seeks to express noise and disorder through a parametrically realised aesthetic. It juxtaposes the still conditions of North Korea, therefore, reinforcing heterotopian qualities. Using digital design methodology, such elemental concepts can now be visualised and formalised.

Technique - Perlin Noise/ Grasshopper

Perlin Noise is a component from the “4D Noise” plug-in for grasshopper. It generates a constantly changing kinetic surface that signals within the noise space.

Reflection

This method indicated potential and relevance to the design framework. The results were highly appropriate in terms of its aesthetic and style. However, the chosen tool did not provide enough control over the form-generation process due to internalisation of the parameters. Thus, the vector environment cannot be contextualised.

Fig 73. Digital Iterations through Perlin Noise

Concept 4. Movement and Ephemeral (chosen)

This concept iterates on the previous “Density and Noise” concept with shifting focus on the ephemerality of South Korean society. Consumerism, pertinent in Seoul, makes everything even architecture inevitably temporary. Besides, the fast-paced lifestyle joined with the continual demand for innovation requires new buildings to emerge. The concept of “movement and ephemeral” embodies previous concepts while explicitly drawing links to heterotopia.

Technique - nDynamic/ Maya

Maya dynamic is a simulation tool to encode form and proceed with capturing moments amid motion. This tool deforms an object according to defined dynamics/ forces within the computational environment.

Reflection

This concept strongly complemented the digital design methodology and heterotopian design framework. The advancement of computational programming introduced virtual simulation as a critical design agency. The tool provided high control over the simulation, enabling direct manipulation through applied dynamics. It also stood out to best represent the idea of manifesting South Korean aspects while juxtaposing the North. This exercise provided the most flexibility to manipulate the form to fit the contextual requirement and the designer's intent while maintaining the digital and parametric aesthetic.

Fig 74. Digital Iterations through nDynamics

Concept 5. Swarm

Technique - Culebra/ Grasshopper

This exercise builds on the simulation method to further experiment with previous concepts. Neil Leach postulates the agent-based modeling through “swarm theory” where he discusses the concept of ‘emergence’, an urban logic that explains aggregative urban forms. Agent-based modeling is used to create “a system of intelligent agents capable of making their own decisions and influencing others in their decisions to generate urban form”. (Leach, 2009, p. 63)

Reflection

This approach offers a futuristic approach enabled by technological advancement that satisfies the South Korean design criterion of parametricism. However, this method does not complement the overall heterotopian framework, as it seeks homogeneity on an urban scale. It was also found to be challenging to formalise the ‘swarm’ in a single building without adequate site information.

Fig 75. Swarming tests through Culebra

Massing Iterations

1 conceptual massing exploration

2 massing exploration along the new axis

respond to Kim Il Sung Square

further explorations to find site responsive volume through height variation, these iterations did not fulfill heterotopian criteria as the volume topographically blends in with the wider context

fragmenting the volume to reinforce the newly established project orientation

varying height to create dynamic yet context-responsive volume

final volume consists of three displaced towers oriented towards the new project axis; their height varies according to surrounding conditions

attempt to develop abstract facade, discontinued due to its rigidity and lack of parametric aesthetic

Program Massing

1	core
2	public lobby
3	gallery
4	concept store
5	observatory
6	restaurant
7	shopping mall
8	auditorium
9	gym
10	open studio
11	lounge
12	meeting
13	office
14	staff studio
15	lab / workshop
16	cafeteria

Program zoning is based on the initial massing (before deformation) for ease of the process. A key aspect of the arrangement is public to private relationships. Public spaces are strategically located to maximise their accessibility. Notably, lower floors are occupied by shopping malls and top floors by destination programs such as cinemas, galleries, and observatory.

Fig 77. Program massing iterations
Fig 78. Program massing exploded axo, 1:2000

Contextual Simulation

This phase simulates the final massing model in a dynamic field for distortion. The field uses three key landmarks of Pyongyang as attractors to deform each closest tower, providing the building a contextual specificity. Each tower is warped to face the landmark and offer a diagonal framed view, an alternative perspective to the state's landmarks.

Unlike pre-planned and controlled buildings of Pyongyang, this contextual or responsive design approach introduces an entirely new assemblage of individual buildings that challenges the urban and architectural norm.

Fig 79. Deformation tests ^

Fig 80. Deforming mass through nDynamic simulation >

Blob Simulation

This phase increases design complexity by generating blobby forms using emission and fluid dynamics. The blob emerges from public areas such as an observatory, galleries, shopping mall, etc. It introduces a dynamic space intertwining with the base form, differentiating public from private spaces. These new blob spaces are defined as voids or multi-functional spaces, adding programmatic flexibility to the design.

Fig 81. Generating blob through nDynamic simulation

Design Sequence

Each tower is **deformed** from its initial block state to create a visual reference to the three landmarks nearby.

Blobs add dynamic variance throughout the building, manifesting parametric language as well as visually juxtaposing the surrounding context.

Overlapping floors create irregular external balconies and outdoor green spaces to enhance public presence and verticality.

Swarm simulation digitally activates the blob surface. The blob panels are proposed as pixelated screens displaying **digital animation**, introducing temporality, adaptability and further digitalisation.

Fig 82. Design explanation in sequence

Structural Development

Core

Column + Slab

Building skin frame/bracing around the facade

Spatial frame for the blob

Fig 83. Diagram of structural elements

Final Design, “SAMQO”

Project Name

In contemporary South Korean culture/language, many words (often English) are shortened by joining the first sounds/segments of each word. SAM - “삼” (Samsung) and QO - “코” (quarters) are blended, linguistically marking a cultural shift.

North Korea being Anti-Western, to the point of actively banning/minimising the use of English words, the project name symbolises the bridging towards pro-peace. Adopting a South Korean semantic gesture in a North Korean setting exemplifies cultural progress.

Architectural Description

SAMQO, the new headquarters for Samsung, Korea’s largest conglomerate (multi-industry company), is located in the centre of Pyongyang. The headquarters features private to public uses, including offices, conference halls, auditorium, food court and commercial facilities.

SAMQO consists of three high rise towers, base block, and blobby additions. Three towers, varying in their height and shape, are oriented along the newly established project axis. They are connected through the base block at lower levels, displaying a similar typography to commercial centre or malls in a capitalist city. A blob form intertwines with the deformed towers adding parametric characteristics and a parasitic appearance. The duality of the design language denotes the multiplicity of South Korean architecture in contrast to the ordered and legible surroundings of North Korea.

0 50 100 200 m

South in North

Design [도면]

Fig 85. Ground Plan 1:750
Fig 86. Section A-A 1:1000 >

1F

- 1 core
- 2 escalator
- 3 retail
- 4 event hall
- 5 bridge

2F

- 1 core
- 2 escalator
- 3 retail
- 4 atrium
- 5 misc/staff

3F

4F

Fig 88. Distant view of SAMQO in Pyongyang ^

Fig 89. Exterior view of SAMQO >

Materiality/ Appearance

Three towers are finished with a gold-tinted glass façade. The tint exaggerates opulent characteristics of the South Korean private cooperation. The simplicity of the tower façades implies efficiency and pragmatism. The blob, on the other hand, has a digital surface made of LED-action panels. It incorporates a field of pixilation and perforation to enable dynamic displays throughout the surface of the blob. It invites digital animation into the realm of architecture, enabling the appearance of building to change infinitely. This implies heterotopian temporal discontinuity and mutation, which detach the building from the surrounding temporal convention.

Spatial Experience

The intersection between the blob and the towers creates a visual and spatial juxtaposition that is consistent throughout the building. It introduces voids and height variance to the interior, providing a dynamic spatial experience. The porosity of the blob surface varies according to spatial needs to create a visual connection between private and public spaces.

The heterotopian experience is heightened through spatial alienation of the interior. Internal architectural elements such as columns and lighting maintain the visual language of deformation. The use of contemporary materials, including metallic and glass finishes, further differentiates the interior from the conventional materiality of North Korea, which is predominantly concrete and stone.

Fig 90. Interior view of the shopping mall
 Fig 91. Interior view of the tower bridge/ office reception

Occupation

The building offers numerous outdoor spaces for both workers and the public. The introduction of greenery spaces in a vertical dimension follows the recent international trends of increasing demand for sustainability and occupant comfort. The outdoor spaces blur the distinction between indoor and outdoor, showcasing its presence to the city. This contrasts with enclosed monumental buildings of North Korea and detached green parks of Pyongyang.

Fig 92. Exterior view of skygarden courtyard

Reflection

Like the 'People's Playground' proposal, 'SAMQO' presents apparent spatial alterity through its form, aesthetic, program and architectural concept. The design of SAMQO follows the design criteria of South Korea. The emergence of blob forms in conjunction with deformed tower block results in spatial complexity and "malleable" aesthetic, thus satisfying parametric requirements. The design includes two ways of generating profit, one through rentable areas and the other through partial privatisation of superior spaces in the building. It also responds to the digital criteria not only through digitally generated form but also by adopting a digital screen along the blob surface. Consequently, the proposal operates as a heterotopia that contrasts the conditions of Pyongyang.

This proposal focuses primarily on formal development and particular spatial moments. Therefore, overall planning and technical details are undermined. The missing elements are insignificant in the discussion of the overall heterotopian effect of the building.

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*“ HETEROTOPIAS
ARE USED IN
THIS THESIS AS
INSTRUMENTS
TO REALISE
A TRANSIENT
PHASE OF THE
PERMANENT
PLAN OF KOREAN
REUNIFICATION. ”*

*Author's own
(p 177)*

PART 4

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CONCLUSION

4.1	<i>Conclusion</i>
4.2	<i>Reflection</i>
4.2	<i>Limitations</i>
4.3	<i>Implications</i>

CONCLUSION

Contrasting Heterotopian Effects between the North and South

The two design outcomes differ in the degree of their heterotopian effect. While the effect of spatial alterity of the People's Playground in Seoul is relatively subtle, SAMQO in Pyongyang is comparatively high. These effects are measured in a twofold manner: first by their spatio-cultural distinctiveness compared to their host and second, through their abiding design criterias' specificity.

Driven by neoliberalism and globalization, the spatio-cultural conditions of the South are ascendingly heterogeneous. Within this backdrop, the People's Playground emerges as a mere addition to the city's collection of heterotopias. Although its inherent inter-Korean agenda is distinctive, its heterotopian effect is ineffective due to the South's already diversified formal and functional conditions of architecture. Additionally, the juxtaposing effect of People's Playground is reduced as it alludes to the international movement of Post-modernism. Defined by its Juche criteria, the spatial outcomes are characterized by symbolism, fragmentation and vivid colour, blending into Seoul's spatial constructs. In contrast to the South's spatio-cultural multiplicity, the built environment of the North is consistent and highly ordered. With Juche's principles determining every detail in the city, the ideological detachment of SAMQO indicates inherent spatial alterity. Unprecedented in Pyongyang, SAMQO's characteristics of the neoliberal South introduces an entirely new paradigm. Moreover, the presence of SAMQO is highly heterotopian due to its parametric criterion. Defined by parametricism, the spatial outcome manifests a highly distinctive aesthetic of organic curvature in resistance to the dominant orthogonality and rigidity, supplemented additionally by its capitalistic program, visual complexity, and overt scale. In essence, heterotopias are relational entities that expose the dominating ideology through the emphasis of spatio-cultural gaps within the built environment. The application of a heterotopian framework in this thesis conveys the spatial diversity of the South and spatial homogeneity of the North. The differences in urban conditions indicate varying

efficacy of heterotopia.

Temporality of Heterotopia

Within the National Unification Plan, the current stage of Phase One alludes to the temporality of mutual segregation and socio-cultural isolation. Likewise, heterotopias, the theoretical keystone of this thesis, are transient entities dependent on the extent to which different spatio-cultural constructs are unfamiliar and disconnected. Accordingly, this thesis centres on spatially synthesizing the current disparities and conflicting dynamics between North and South Korea. Intending to foster the growing inter-Korean relationship, it promotes mutual understanding by superimposing new spatial tensions, establishing itself to the respective other. Although both the People's Playground and SAMQO manifest physical permanence, as the dynamics of otherness diminish, so do heterotopias. With the anticipation that each nation's otherness is gradually reduced throughout the sequential phases of the Plan, these heterotopian design outcomes expose their temporal nature. Similar to American Chinatowns manifesting Chinese-American hybridity, the proposed heterotopias intend to transform from identifying as exclusively North or South Korean and develop into a spatio-cultural amalgamation. Thus, heterotopias are used in this thesis as instruments to realise a transient phase of the permanent Plan of Reunification.

REFLECTION

On Methodology

This thesis adopted a design-led methodology with a specific design approach for each proposal. Each approach ensured the particularity of North or South Korea conforming to the heterotopian objective.

The operative design approach, complementing North Korea's symbolic use of architecture, guided the spatial translation of Juche principles. The translation process, however, was prone to the author's subjectivity. Hence, extensive visual and architectural research on existing buildings is carried out to confirm architectural semiotics of the North.

The digital design approach utilised a parametric modelling method to explore South Korean characteristics applied in Pyongyang. The main challenge was in contextualising rules and parameters during the generative process. Digital simulation, compared to other tools tested, showed high applicability and control to utilise on the limited urban data of the Pyongyang site.

On Heterotopia

This thesis posits heterotopia as a plausible theoretical framework responding to phase one of Korean Reunification. Heterotopia, originating from a French philosopher Michel Foucault, is an alien concept for both Koreas. The application of this Western theory can be found to be peculiar in the reunification dialogue. However, the current stagnant state of divided Korea necessitates diversifying perspectives. In reflection, heterotopia is regarded as a universal concept that is context-sensitive. Thus, this thesis argues the relevancy of heterotopia for its theoretical backbone rather than its cultural origin.

Following heterotopian framework, this thesis presented two separate proposals with different design criteria and context, providing comparable "spatio-typological coding" of North and South Korea. While this approach enabled a balanced understanding of two nations by reversing the design subject and context, it contained a risk based on the author's South Korean background and identity. Thus, this research established strict design criteria to minimise the risk of systematic bias.

LIMITATIONS

Lack of Resources

The social understanding of North Korea is limited due to its political isolation. Architectural studies used in this thesis are inevitably detached from the everyday conditions of Pyongyang, failing to show the social and cultural realities. Therefore, the programmatic development of People's Playground and the site selection for SAMQO lack specific North Korean justification. Consequently, this limitation results in the judgment on the heterotopian effect to be focused on the visual dimension.

National Architecture

The research is premised on national unity and collective identity. It regards spatial settings and contexts at the macro-level. This approach implies a reductionist way of defining national architecture as represented by the dominant power. Evidently, this thesis disregards rural areas of Korea and focuses on urban settings considering cities' social efficacy. This approach is especially simplistic for South Korea, where the architectural condition cannot be summarised into a singular style or category attributed to complex and diverse external forces.

This research acknowledges the limits of national architecture, and it thus shifts away from architecturally defining a nation to selecting distinctive architectural conditions appropriate for design experimentation. The final designs do not intend to represent the other nation, but rather to reveal differences and distinguishable features against one another.

IMPLICATIONS

Clearly Korean reunification is significant; however, the implications for Korean identity and corresponding architecture are currently ambiguous. The current discussion around reunification is highly politicised, lacking social and cultural consideration. Through the comparative analysis of Korean architecture, this research seeks to provide information for future actors, governmental, architectural, or otherwise, in addressing these concerns.

This research features spatial development of the two Koreas, based on the heterotopian framework, to uncover potential learnings and their respective intrinsic value of otherness for similar social and cultural unification situations. Adding to the heterotopian body of work, the recordings of this research provide an opportunity for further development according to emerging spatial conditions of otherness.

Fig 93. Author's childhood drawing on Korean Reunification , 2006

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APPENDIX A

initial design experiments testing different mediums

Parti Model + Physical model

Using the narrative of architecture, confined to primary forms, this approach does not complement the theory of heterotopia, as the theory opposes syntax of a language. Hence a more unregulated method may be explored.

Mak

Exploring creative modes that are inherently Korean, calligraphy has been tested for form making and sketch generation. This approach relies too much on an intuitive sense of aesthetic. There is a predictable difficulty in applying this method to a design framework. A major finding is that the brush and ink (design tools) were dominant drivers in the aesthetic.

APPENDIX B

discontinued design exploration on cultural house design

A series of design iterations for the “cultural house”. This exercise shows a visual translation of the design criteria.

The following illustrations show a developed “cultural house” design that was initially explored. This proposal was not further pursued after a critical reflection on the heterotopic efficacy of the outcome. The “cultural house” as a program was insufficient to create a completely alienated space for the occupants in South Korea as there are ample cultural facilities already nearby. Another key limitation was the author’s lack of cultural understanding of North Korea compared to South Korea. However, the design language, such as form and scale explored in this scheme, aided the realisation of the final design.

APPENDIX C

extracts from *“On Architecture by Kim Jong Il, translated by Philipp Meuser
(re-interpretations by author)*

Meuser, P. (2012). *Architectural and cultural guide Pyongyang. Dom.*

1. Architecture & Society

a. *“Utility is the first function of Architecture”*

The usefulness/functionality of architecture should be explicit through program and spatial organisation. “Convenience” is a measure of utility.

b. *“Grand monumental presence”*

Creating a spectacle through “scale”, “centrality”, and “frontal depth” to create distinctive three-dimensionality.

c. *“Juche aesthetics regards the masses”*

In measuring “beauty”, the “objective evaluation” from a collective group is necessary to conclude its “ideological and artistic qualities”.

2. Architecture & Creation

a. *“Balance ensures the orderliness of architectural formation”*

For the “orderliness” of architectural formation, symmetry is key where “the balance of shapes and weight” should be addressed/explicit.

b. *“Make use of shape and formative phenomena in nature”*

c. *Architecture must show an “understanding of various shapes and colours in the natural world”*

but

still remain “structurally rational”.

d. *“Be free from the stereotyped shapes of the [author added: immediate] past”*

Through utilising new (relatively newer) materials, frameworks, structure, made possible through “scientific and technological” advances.

e. *“Embody national characteristics and modernity in combination” – “must develop with the change of the times”*

National characteristics are influenced by “history, nation’s ideas, sentiments, way of life, aesthetic feelings, tastes and all other elements”.

3. **Architecture & Formation**

- a. "Architecture embraces sculpture, mural painting, decoration, and other genres of art"

Whilst these other genres of art have an "auxiliary" role they are incorporated to enhance "ideological and artistic levels of architecture" which "reflect the spirit of the times".

- b. "Symbolic expression in architectural design is the technique of ideological content"

Formative features are based on "ideological content".

- c. "Harmony is basic to architectural formation"

Harmony is associated with the phenomena of "optical illusions" which are defined as a "major precondition" governing "the technique of design." "Investigate new design techniques" that "alter the formative" look in different proximities/movements.

- d. "Ensure variety not only in the composition of architectural types and individual structures but in formation of architectural groups"

The architectural designs, not be similar to each other, have a "rich" variety of aspects that link to its "form and content".

- e. "Symmetry, asymmetry, proportion, rhythm, contrast, and measurement are the basic means of harmony"

Applying these formative qualities according to the function to achieve desired spatial impact. For example symmetry for "neatness and clarity", rhythm to "stimulate a feeling of motion", etc.

- f. "The auxiliary means of harmony- texture, colours, decorations, light and shade and illumination also play a very important role in the composition of architectural shapes."

Colour selection considers "the physical and chemical qualities of colour together with people's psychological conditions" so that their "formative effect is expressed realistically."

4. **Architecture & Guidance**

- a. "Architects should be versed in modern science and technology, which provide the possibility of creating advanced new architectural structures and innovative architectural form and content"

Use "modern science and technology" to "advance architectural structures" and create "innovate" architectural "form and content."

- b. "Increase public interest in architectural creation"

The outcome should "attract" and "stimulate" public interest" through the provocative forms that house essential utilities.

- c. "Avoid unhealthy attitudes" such as "imitations"

Prohibited is creating architectural forms that mimic and copy their immediate surrounding environments.

APPENDIX D

Screenshots of scripts and definitions for the parametric concepts in Section 3.3.

Parametric design methodology entailed extensive computational learning.

Galapagos for Concept one

Pufferfish for Concept two

Perlin noise for Concept three

Culebra for swarm simulation