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The New Parallel: Urban and Agrarian Political, Environmental, and Architectural Landscapes of the Demilitarized Zone

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I am submitting herewith a thesis written by Robert Vincent Truka entitled "The New Parallel: Urban and Agrarian Political, Environmental, and Architectural Landscapes of the Demilitarized Zone." I have examined the final electronic copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Architecture, with a major in Architecture.

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**The New Parallel:
Urban and Agrarian Political, Environmental, and
Architectural Landscapes of the Demilitarized
Zone**

A Thesis Presented for the
Master of Architecture
Degree
The University of Tennessee, Knoxville

Robert Vincent Truka
December 2007

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Thank you to the Sun, the Moon, the Stars, Bourbon, Motorcycles, and Cigars,
Thank you to My Parents, My Lovers, My Friends, My Teachers,
The Wu-Tang Clan, Nelson Mandela, and The Reverend Al Green.

ABSTRACT

North and South Korea share the most heavily armed military border in the world. Technically both sides are still at war dating back to 1950. The 38th parallel, also known as The Demilitarized Zone (DMZ) is a 156-mile long by 2.5-mile wide border condition with over two million plus known landmines buried with-in its boundaries. The Juxtapositions of the financial, political, economical, and military modalities could not be more drastically different between North and South Korea. North Korea is a communist autocratic military dictatorship and has one of the worlds lowest Gross Domestic Products (GDP). South Korea is a capitalistic democratic republic with the worlds thirteenth highest GDP and famous for its industrial complexes and economic export growth.

The fall of the Soviet Union and its infrastructural resources coupled with copious other environmental landscape management disasters has led to the contamination of North Korea's water table and the degradation of nearly all agrarian soils used for farming. Imminent famine, guaranteed to equal if not greatly surpass the North Korean Famine of the 1990's, which resulted in over 3.5 million human beings starving to death, is exactly what is to be expected. North Korea has 25 million inhabitants and they are to become refugees in their own state sooner rather than later because their government refuses to provide for its people. Instead the North Korean Government seeks to build a nuclear arsenal in the name of self-reliance.

PREFACE

This is a mixture of fact based research and political fiction which coincidentally enough is the current quagmire that the field of architecture finds itself in today.

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CHAPTER ONE

I Do Not Think Architecture Can Save the World

I do not think architecture can save the world; I just like to see what it looks like when it tries too. Here in North Korea, we have a remarkable opportunity; its brand of dictatorship an indelible mark upon the land and the people. The theoretical construct we propose here is to incorporate a working model of sustainable community that is opposed to the one North Korea has deteriorated under, to establish a new order under the working model of post World War II Japan, which South Korea has flourished under¹, to undo the harm of a failed state, in myriad disorder, architectural response is the saving mechanism, perfect because of the psychological conditioning of the North Korean people, and to unite the Korean Peninsula by normalizing the economies with a balance of industry, agriculture, exports, consumption and services. North Korea has not only the potential to reunify with the South during inevitable end to the failed North government, but become a model for repatriation through adaptability and resilience.

We will be working *within* the problems and promoting a call to sensibilities of the human condition. Architecture is the saving mechanism, economics make it feasible, and politics is what determines what is done, how,

¹ "South Korea Government." *Economy*. N.p., . Web. 07 Dec. 2015.

when, and why. This thesis will be an authentic and genuine disruption of context, site, place, and what proper architecture does².

The magnanimity of the problem craves to be solved because systems crave equilibrium³. Architectural design on a massive urban scale provides the inevitable return to system balance. North Korea is devoid of balance. Modernity is reflexively human; and humanity is missing from North Korea. This theoretical architectural project is manifest conjecture distilled in political fiction, but concretely South Korea will pay for its sister's country deterioration. We propose the financial liabilities and burden as precepts to offset the looming humanitarian and environmental crisis.

The 38th parallel is the line of demarcation, also known as the North and South Korean border, or the Demilitarized Zone. The infamous DMZ is the heaviest militarized border in the world. Within 4 miles of each direction of the border is over 2 million plus landmines buried; the strangest border condition phenomena in political, economical, and military theater, the centerpiece of architectural problem and solution in the Korean discussion.

Research investigations have found strong connections to the inspirations behind the ideologies of North Korea and the architectural Japanese Metabolist movement of the 1960-70's. The post-traumatic responses after World War II by the North Koreans and the Japanese Metabolists were similar in response ideology but different in reaction. Adversity shaped both cultures and the human

² Jason Young Quote, October 2, 2015

³ How Wolves Change Rivers, Film Documentary www.youtube.com/watch?v=ysa5OBhXz-Q

conditions moving forward. Self-reliance coupled with adaptability is the thread stitching political fiction in our narrative. North Korean “Juche” is all things Korean, the purest form of Korean identity, and literally translates to self-reliance. The Japanese Metabolists ideology was centered on the principal of cultural resilience as a notion of national identity. The significance of this connection is the Trojan horse that allows our architectural thesis to penetrate beyond reproach. The Metabolist and ‘Juche’ both chant the mantra for self-reliance and cultural identity⁴.

Resilience deals with the ability of systems to adapt under change; thus, it also offers potential to rethink assumptions and build new systems...the conceptual take of the Metabolists is that of resilient urbanism in technical, socio-ecological, and cultural terms. A resilient society implies here its systematic spatial reorganization in order to achieve a balance between change and preservation as expressed in the design of different life cycles of infrastructures and individual cells, and of permanent and flexible parts of the urban system⁵.

The programming in this thesis is grounded in ethical and environmental considerations that are prudent at this juncture. A humanitarian and environmental crisis is looming. We are proposing Meta-Metabolist Mega Super Structures that reach from South Korea across the DMZ into North Korea as a literal and figurative handshake of peace and prosperity. The Meta-Metabolist Mega Super Structures will act as thread stitching Korea back together again. Korea is the last holdout, divided from geo-political status quo of the twentieth century’s Cold War⁶.

⁴ Winstanley-Chesters, Robert, “Environment, Politics, and ideology in North Korea

⁵ Schalk, Meike, “The Architecture of Metabolism. Inventing a Culture of Resilience.

⁶ Winstanley-Chesters, Robert, “Environment, Politics, and ideology in North Korea

Problem as Opportunity

We want to see what it looks like when architecture tries to solve the reunification of Korea. Robert Winstanley- Roberts said in, *Environment, Politics, and Ideology in North Korea*, “In a state of political arrested development...The confusing, seemingly opaque, defiantly hereditary and definitely dynastic North Korea, currently led by “Marshal” Kim Jung Un on first glance seems to meet this cliché. In diplomatic matters North Korea serves as a narratological thorn in the side of international consensus, represented as both dangerous military threat and famine-ridden basket case. Academic narratives surrounding North Korea, its ideology, policy and functionality are equally confused, opaque, and corrupted”. All of this is true. We do not think architecture can save the world; we just like to see what it looks like when it tries too. We will not show how our proposals work; we will show what it looks like while they are working.

The confusion, opaqueness, and corruption are problems across the board. Realistic and prevalent problems create our architectural and political fiction opportunity. The real problems are systemic failure of the North Korean government to properly function and provide resources for its people and their environmental landscape. The only reason North Korea is not considered a “failed state” by all accounts is because the government still has authority over its people. The Kim family has postured and insulated themselves and North Korea from “cultural pollution” from the south and exposure from the world. They indeed are incredibly self-reliant and it is a problem as well as an opportunity.

The self-reliance stems from Juche, and Juche was conceived along with North Korea in 1953 by Kim Il Sung, Kim Jung Un's grandfather.

A legitimate question is how the Kim regime is still in power. It is best answered by describing how each North Korean Dictator, all "Kim" lineage, has had to rely on different ways to expend power to retain autocratic control over the North Korean people. Korea's founder Kim Il Sung used party loyalty and the manipulative all empowering Juche ideology to instill the communist mantra of self-reliance and cultural identity. It worked and he was beloved. His son, Kim Jung IL relied on patronage and nepotism to insulate himself from reprisal over crimes against humanity. His son and current dictator Kim Jung Un, a 33 year old with a penchant for extreme measures of murdering his closest advisors and supporters to instill fear through the party ranks. We are witnessing the unraveling of an inept and obtuse leader and the near completion of North Korea as a failed state

It was heavily reported in 2013 that Kim Jung Un had his own uncle murdered, even though he was the one who helped transition power from Kim Jung IL to Kim Jung Un, because he did not clap enthusiastically enough at a speech Un was giving. He was declared to be "traitor for all ages, and "despicable human scum"⁷. This was callous, shallow, and pedantic for even North Korean dictator standards.

⁷ Winstanley-Chesters, Robert, "Environment, Politics, and ideology in North Korea

In recent North Korean modus operandi and status quo nuclear threat news, on December 9, 2015, the North Korean leader made a public statement:

“The work of my grandfather Kim Il-sung had turned North Korea into a powerful nuclear weapons state ready to detonate a *self-reliant* A-bomb and H-bomb to reliably defend its sovereignty and the dignity of the nation” - Kim Jung Un⁸

Many political scientists see these increasingly occurring events able to qualify the near collapse and ability of the North Korean government to retain control of its people and become a fully dysfunctional failed state. The three reasons are:

1. The instruments and capacities of state control, both through examination of institutions such as the party, the military, and the influence of state ideology mechanism for demanding public loyalty to the North Korean Leadership.
2. The declining ability of the state to control the economy and therefore how they control the people.
3. Changes in international environment and North Korea playing all sides against each other with hard line negotiation⁹.

Because of the volatility of the North Korean government, any proposal to build a Meta-Metabolist Mega Super Structure that reaches over the DMZ may sound far

⁸ <http://www.npr.org/sections/thetwo-way/2015/12/10/459176409/experts-are-skeptical-of-north-koreas-claim-that-it-has-an-h-bomb>

⁹ Kihl, Young Whan, and Hong Nack. Kim. *North Korea: The Politics of Regime Survival*. Armonk, NY: M.E. Sharpe, 2006. Print.

fetched. Research has shown that any facets of the real Korean narrative offer a different perspective to visualize how the political landscape and infrastructure project we are proposing would actually play into North Korea's vulnerabilities to achieve our goal.

The first is the fact that just two years ago North Korea expressed wanting to build 14 industrial complexes like the joint complex they operate in Kaesong, North Korea, that produces consumption goods for South Korea¹⁰. South Korean companies fronted all the capital to build and maintain this complex, but it employs over 50,000 North Korean workers. The North would like to build more complexes with the help of foreign capital because they cannot build the complexes on their own accord. China, Russia, Japan, and western European countries have been contacted by North Korea, but because of the three previously listed reasons of signs of North Korea's collapse; all countries and investors are beyond skeptical of a tangible partnership with the North. Also, none of those countries are Korean.

In Juche, Korea is divided by the 38th parallel, but a Mega Super Structure connecting the North and South connects all things Korean, and all Koreans are Korean. The fact that North Korea has shown its hand that it wants 14 more complexes, that theoretically could employ 50-500,000 per complex, multiplied by 14 is anywhere from 700,000 to 7 million people¹⁰. This proves that North Korea

¹⁰ Feffer, John. "The Tao of North Korea." *The Huffington Post*. TheHuffingtonPost.com, n.d. Web. 01 Dec. 2015.

is cognoscente that it needs money to stay in power and it has to provide opportunities for its people or they will revolt.

The second reason is North Korea being easily manipulated by their own political spectacle and theater. Approaching North Korea from South Korea by reaching over the DMZ with Meta-Metabolist Mega Super Structures is political theater. Kim Jung Un could use it as a manipulative tool and say he is the one directing the operations as a gift to his people. All of the Kim dictators have seen themselves as charismatic leaders. Especially, when it comes to their political stances and posturing of the Korean landscape, how their economy is derived from said landscape, and all it entails.

“Max Weber’s insights into the nature of charismatic authority engage with the above issue. Weber defines charisma as “a certain quality of an individual personality by virtue of which he is set apart from ordinary men and treated as endowed with supernatural, superhuman, or at least specifically exceptional qualities. In order for this personal quality to develop into a public and political authority, it is vital that the charismatic individual be recognized as such; as Weber writes, “this recognition is a matter of complete personal devotion arising out of enthusiasm or of despair and hope. Once this recognition begins, the authority of moreover, we hope that North Korea’s neighbors will also follow suit and commit themselves to the principals of moral economy. Our hope goes especially to South Korea, which despite its claims of a common nationhood with the North, seems to have forgotten the ethics of common survival when it comes

to the suffering of its compatriots across the artificial northern border. Human subsistence is a moral question that transcends politics – it is not reducible to politics or political economy, and this principal must be adhered to not only by North Korea but also its neighbors¹¹”.

Our Mega Structure proposal has programming that encapsulates ethical and environmental considerations that connect new Industrial complexes that stitch Korea together. These threads in the form of Mega Super Structures, reaching over the DMZ plays into North Korea's vulnerability of needing more complexes and the precept that South Korea will pay for it. We believe the metabolist designs of these mega structures are valid because the diagram of metabolist architecture is the exact same diagram of how South Korea organizes its industrial complexes. South Korea paying for the joint North/South Kaesong Industrial complex has set precedent and if they don't pay for the Mega Structures they will concretely pay for the 25 million North Koreans who need help once the government fails entirely.

Designing and implementing the Mega Structures puts a viable plan into action of how to prevent a humanitarian crisis before and after the failed state. Humanitarianism is not a concept in North Korea and this is all the more reason to have mega resources in place as preventative measures to help North Koreans, but also prevent South Korea being blitzkrieged by millions of refugees they do

¹¹ Kwon, Heonik, and Byung-Ho Chung. *North Korea: Beyond Charismatic Politics*. Lanham, MD: Rowman & Littlefield, 2012. Print.

not currently have resources in place to assist. Creating economic and urban accommodations on mega architectural and urban scales is our opportunity. It is our contention that North Korea will not see the bridges reaching up and over to their land as hostile internally, although might act so publically, and this is because the North loves the spectacle of political theater and relevance. Also, they need the economic and environmental help.

“This conception of theatrical politics extends the realm of political and ideological practice into the commemorative and demonstrative spaces of politics, into gymnastics and mass displays and into the monuments and monoliths that supported the personality cult of Kim Jong Un’s reign. Such theatrics and theatricality demands that these spaces, places and concepts share at some level a degree of charisma deriving in political science from Weberian conceptions of political governance (Weber, 1947)... Concluding that within North Korea as part of the sometimes dramatic and sometimes less than dramatic re-visioning and reimagining of geographical and political space, derived in part from the conceptions of other nations, what has been bestowed on landscape, nature, and the environmental space is the possibility of that charisma. This is not to say that in present day, the “lived” utopia evident in North Korea’s presentational narrative is particularly dramatic or impressive, but essentially it is exactly that, the space in which North Korea currently lives yet imbued with an incorporation sense of the charismatic. It is a geographic utopia of the everyday, the realized, and the possible, rather than the grander historical

schemes of nature remaking. This is a charismatic landscape in which the environmental not necessarily simply becomes a political project, rather, it might be argued, and the space of politics itself has become one of landscape¹².

Environmental Landscape Remediation as a Re-Unification Opportunity

North Korea has ruined their farmland and paddy crops with continuously drastic and damaging land management techniques over 60 years. Deforestation from the Korean War and people scavenging for fuel to burn and organic material to consume has deciduous and conifer forests depleted. Because of terrible irrigation techniques involving the maintenance and electricity required to operate over 40,000 water pumps the North Korean water table is considered ruined through most of the entire country. The end of Soviet assistance in the 1990's contributed to North Korea's agricultural fiasco. Again, it is hard to get any accurate numbers and statistics concerning empirical evidence on and under the ground, but what we do know is that North Korea has been inviting western scientists to North Korea to consult on their agricultural realities. That analysis has shown that because of the massive flooding and drought of the early and mid 1990's, coupled with over-fertilization for a long period, the viable farmland left in North Korea is considered to be at low crisis levels.

¹² Winstanley-Chesters, Robert, "Environment, Politics, and Ideology In North Korea", p.41. 2015.

¹² Winstanley-Chesters, Robert, "Environment, Politics, and Ideology In North Korea", p.41. 2015.

Environmental reports state that perpetuating the return of North Korea's farm land back to organic vibrancy will require a massive remediation effort. A time frame of 50-100-150 years¹² is an appropriate expectation for North Korea's soil, forests, and water table to be repaired and revitalized. The fact that North Korea has invited western scientists to help with their farmland and eradicate an antibiotic strain of tuberculosis that is germane to North Korea exposes North Korea's true predicaments regarding their people's health and their country's landscape.

While North Korea's farmland is remediated, the people will need jobs, housing, social services, education, training, and soft introduction to modernity. The modular and cellular organization with adaptability for cultural identity of Metabolist architectural design will compliment the transition. Theoretically, people who have lived very regimented and controlled existences will have an easier time being introduced and adapting to their new lives while their home farmlands are remediated. The only way to accommodate tens of millions of people and organize their housing, work, and social cultural existence is to be considerate of the potential to arrange, add, move, and remove the modular accommodations that will be the street and city scape of Meta-Metabolist Mega Super Structures. The Juche ideology engrained in every tangible part of North Korean existence has conditioned the North Korean people to transition from farmer to industrial producer, serviced based worker, and from agrarian to urban dwellings. Think about it, people have been moving from the farm to the big city

for hundreds of years. It has never been easy for anyone, but the world's population continues to move from rural to urban environments. Being out of ones comfort zone is terrifying, but the North Koreans are actually inherently and ideologically conditioned to transition into modular and metabolist dwellings and urban organization because of their self-reliance and adaptability. The same self-reliance and adaptability Metabolist architecture employs to design architectural and urban scale spaces and environments.

CHAPTER TWO

HISTORY, ECOLOGIES, AND CIRCUMSTANCE

Pre-Korean War

Beginning with recorded history, the Korean Peninsula has had its share of kingdoms, dynasties, and Korean Emperors. The Peninsula of Korea was under Japanese control in the late 19th century and early 20th century. Korea was annexed under Japanese control from 1910-1945, the end of World War II. On August 9, 1945, the day when the second atomic bomb was dropped on Nagasaki, Russian tanks entered into North Korea from Siberia and made the Japanese surrender their forces there. It was around this time that the U.S. and Russia agreed to the 38th parallel as division between the north and south Korea. Korea's founder Kim Il Sung was a member of the Soviet Red Army at the end of World War II and became a pivotal leader to manage the relationships between North Korea and the Soviet Union between 1945-the end of the cold war.

The North was controlled by Russia and the U.S controlled the South. From 1945-1950, UN General Assemblies, Soviet-American Commissions, and provisional governments were analyzed and worked towards, but because of the Cold War imminent for all parties involved, and the spread of communism as the greatest fear for western capitalism, the possibilities of unifying Korea became unlikely. These events led to Kim Il-Sung, the original supreme leader and found

of North Korea, born in 1912, to grow up despising the Japanese occupation and their dismissal of all things Korean. He fled to Manchuria in the 1930's to fight in guerilla warfare against the Japanese. He spent time in prison camps and his overall biography is questionable, but he maintained he was a guerilla warfare legend, and eventually raised the ranks of Soviet and North Korean Communist parties.

Korean War

From 1945-1950, the Soviets used Kim to lead the Korean Communist Party. In 1950, the Korean War began when North Korean forces led by Kim Il-Sung, crossed the 38 parallel armed with modern Soviet stock artillery, tanks, aircraft, etc. The invasion was lopsided from the beginning and drove South Korean forces and their American comrades to the far southeast of the Korean Peninsula. Eventually, U.S. World War II famous General MacArthur invaded the west coast of Korea near Seoul, flanking the North Korean army. Coupled with new offensive measures by the South Korean and American armies that had been pushed far south, the status of the war swung in the South's direction and the North was driven far into the North, even with the South controlling Pyongyang, the North Korean capital, which was moved north west for ease of Sea access¹³. The armistice that ended fighting is not in fact a peace treaty, and

¹³ "Defense." *Defense*. National Intelligence Service, n.d. Web. 05 Dec. 2015.

no peace treaty exists to this day. This stipulates that North Korea and South Korea are still at war.

The Demilitarized Zone [DMZ]

Because North and South Korea are still at War, both sides needed assurances from the other that hostile and volatile actions would not agitate one another. To be noted; much agitations have occurred over the years, even including the axing incident when a North Korean soldier axed a U.S. soldier to death. After World War II the Soviets and U.S. agreed upon the 38th parallel as the demarcation line. In 1953, The North and South agreed upon making the 38 parallel the line of demarcation. This line of demarcation would be the border for a 2km stretch of demilitarized area in each direction of the line, following its every twist and turn on the compass. In all the DMZ area is 4km wide by 255km long strip coast to coast. The line of demarcation is a topographical designation and therefore the natural environment which is often used to draw borders for cartographic and natural resource distribution, because of natural features such as rivers, mountains, forests, etc., the demilitarized zone progresses in a number of scenarios that offer much speculation about how to best use the land leading up to the demilitarized zone, and the land leading up to that land.

How the land is approached and comprised of copious contentious perspectives concerning what to do about the crisp and seemingly virgin ecological wonderland that exists because no human has basically entered the DMZ area for over 60 years. Flora and Fauna thrive and natural ecological and biological life cycles have been allowed to let natural order be hegemonic. The very second humans are introduced to the phenomena that is the DMZ natural habitat preserve, the disruption of uncountable number of ecosystems will be disturbed at best and destroyed at worst. Minimal carbon and human footprint must be an irreproachable expectation for the design and implementation of the metabolist mega infrastructure. The key to these designs would be a production process of each component in the entire structure to be modular and pre-fabricated. Then installed in a way that allows for quick adaptable reorganizations within and on the infrastructures that promote the ability of individual expressions of people, neighborhoods, streetscapes, and culture. The oppression of Korea as a whole, and I say whole because South Korean people may have had better living conditions as a whole, but they have still had to live with the fear of a constant threat of atomic annihilation from the north for a very long time. It is a social and psychological phenomena to live everyday with a psychopath pointing a gun to you and your families head and still go about your daily life contributing to one of the most impressive industrial, technological, designed, planned, and realized thriving economies in the entire world.

Another phenomena of the DMZ border condition are the 2,000,000 plus land mines that we think we know about. Truly, there is no clear number since the mines have been planted, dug up, and replanted for 60 years. Landmines can have a shelf life and become dull. But not all will remain dull. If you were to walk through the DMZ every step would be a game of Russian roulette. A plan needs to be implemented to start finding and destroying these land mines without blowing up the ecological wonderland. This could be approached with drones. One of the first Industrial complex manufacturing could focus solely on building millions of mine seeking drones. These drones could identify and possibly remove the mines, preserving danger to human lives, and cleanly extracting the buried hard artillery.

Ecology of The Demilitarized Zone

It is 2km wide each to the south and the north from the military demarcation line. In case of the ROK, Civilian Controlled Area (CCA) is 5~ 20Km wide ara from the southern boundary line of DMZ . The DPR Korea is also known to have designated a similar size of an area. The river systems that directly affect the DMZ and CCA are the five major rivers and their basins. Beginning from the west, the Imjin River, the Hantan River, the Bukhan River (including the Hwachon River), and the Soyang River run into the West Sea and the Nam River flows into the East Sea. Except for the Nam River, the main streams of the other

four rivers run from north to south through the DMZ and CCA and finally flow into the West Sea. Only the Nam River shows an U-shaped flow. It originates from the north, runs to south through the DMZ, goes back to north, and flows into the East Sea. As for mountain range, there are the Taebaek Mountains in the east. An area from the east to Cholwon Plain shows very steep terrain and topography. The area can be segmented into four types based on vegetation: coniferous forest, deciduous forest, mixed forest, and shrub forest.

The eastern part has an excellent forest ecosystem and the central part serves as a wintering site for globally rare birds. Wetlands and tidal flats are developed in the western area showing biodiversity higher than any other place in the world¹⁴.

Japanese Metabolist Architecture

The Metabolist movement started in Japan in the 1960's. It is significant for many reasons. The ideology was centered on the principal of cultural resilience as a notion of national identity. This is prolific to our thesis because the cultural premise and identity of the North and South are literal and figural polar opposites.

The Metabolist were re-acting and responding to their country as a whole and their countries culture in the after math of horrendous and unprecedented traumatic events. Experiencing Post Traumatic conditions, specifically, World War II, and the tectonic threats of earthquakes, volcanoes, and tsunamis that

have historically caused Japan incredible loss and disasters on unprecedented levels. The post-traumatic urban and rural conditions of Japan invoked the Metabolists to envision a way for their country to unite amongst all the dividing facets of modern life. The juxtaposition of what drives societal norms was envisioned to be simple and adaptable to swift changes¹⁴. The Metabolists saw themselves and Japan as resilient and wanted modern yet simple modular designs to play into that resilience and adaptability of a quickly evolving modern society and how density impacts the human condition. The North Korean Juche ideology was grounded in self-reliance and being able to adapt. It is only fitting on a psychological and political end, to begin with similar inspirations.

Economies as Urban Scale

Whether the Kim family stays in power or not, more famine and barren farmland is a certainty if a massive environmental clean up effort is not mobilized as soon as possible. If a coup does not remove the Kim regime a revolution might. Eventually the suffering will get worse and that is hard to imagine, but it is true because they do not have formidable industry like South Korea and soon they will not be able to produce agriculture.

If the farmers cannot farm and no one can work, eat, or survive, then North Korea will have 25 million refugees in their own country. China would be

¹⁴ Schalk, Meike, "The Architecture of Metabolism. Inventing a Culture of Resilience.

standing at their border with assault rifles stopping a mass migration into China. Alienating North Koreans one of two options for migration. South Korea does not have the resources to suddenly handle any amount of immediate massive immigration, especially when the social, psychological, health, and infrastructure are not in place to handle it.

Because of the political theater and nuclear threats made by the Kim regime, outside humanitarian assistance is going to become less available because the United Nations and recently even China does not want to enable the North Korean government by giving food to North Korea's starving population while their government spends 6 billion a year on military defense and the enrichment of plutonium. 6 billion is almost 25% of North Korea's GDP. South Korea has a GDP of 1.3 trillion dollars. South Korea's economy is seen as stable, but the latest 2015 report from the CIA world economic analyses indicates that in 2014 the South Korean economy was slightly sluggish due to heavy reliance on exports and not enough domestic consumption and services. The only stagnation in South Korea's economy over the last 40 years, since they've mobilized a vast industrial organization, is the lack of consumption and services¹⁵. Consumption and services is the other half of a healthy economy, next to production and exportation. This thesis will plan and design the location of new industrial complexes with urban threads connecting the complexes to new urban cities that are flexible on the macro scale so individuality can thrive

¹⁵ *Central Intelligence Agency*. Central Intelligence Agency, n.d. Web. 3 Nov. 2015.

amongst huge macro mega infrastructure. The “urban fill” between the new complexes will be the areas of mixed use residential and service based blocks and neighborhoods. By creating demand for consumption and services within the borders of the Korean peninsula, the economic outlook for a re-united Korea looks and feels very good. As production increases and consumption matches the pace, the new unified Korea will be the model for a thriving and balanced capitalist economy.

By providing cellular and metabolist modular units that are pre-fabricated by the Koreans and urban threads and stitches that allow for adaptable street landscapes and mixed use housing that is the outer core of industrial complexes that focus on sustainable production techniques. The North Korean people have been farmers for a long time. When the earth is fertile again, people can move back and live where and as they wish, and they can do so with the education and proper tools needed to produce agriculture in a successful and properly managed approach. While their land is environmentally remediated they will need places to live, work, and reunite their families.

Prolific urban density will require the service part of an economy to flourish at an incredible rate. For the first time, the North Koreans will be able to engage the 21st century and modern living, not as a privilege, but as a fundamental human right. They will still be self-reliant as they work and create their own communities, working in their new cities. The industrial complexes will not be the only providers of labor. The service industries are the urban infill between and

around planned streets and blocks and what makes cities unique and provide places to experience culture at the aggregate level. The contemporary architectural and urban scale mixed-use developments are an integration of business, offices, and housing. When people are added to the ingredients an authentic urban reality has the opportunity to create its own narrative and culture.

This is important because the only aspect of South Korea's economy is the lack of consumption and in the service industry. I want to give people an opportunity to have choices and be an individual. They can work in the industrial complexes, they can work to remediate their broken environmental landscape, or they can work in the service industry, which is the urban infill all cities need and have to support daily life. The human condition in any modern narrative requires service industry to run restaurants, bars, bowling alleys, and movie theatres. Tailors, accountants, bakers, and "pizza by the slice" will all need people to work these positions. It is how the modern world works and makes living in dense urban areas unique and authentic.

This thesis contends what it might look like if mega structures reconnected the North and South economically, socially, and culturally. This exploration could find a third Korean culture perhaps. The one that develops as a product of these new dense urban cities that connect to the industrial complexes that create the consumer goods the new Korea needs and wants to consume. Regardless, there are going to be obvious social strains and culture shock if a plan is not in place to handle the flow of human beings between the North and South. As of

today, only one road or highway actually connects the capitals, Pyongyang, North Korea and Seoul, South Korea. This thesis will show what it will look like when true connections and urban density is threaded across the 38th parallel.

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VITA

The Reverend Robert Vincent Truka was born a raconteur on the muddy banks of Lake Erie while the thick chop of the waves crashed rocky beachheads. The Reverend is a Man of the people and for him others must always come first. He loves diversity of cultures, religions, shapes, sizes, colors, and places, and devotes his time to the tangible alliteration of supremely designed spaces. The Reverend enjoys smoking quality cigars, drinking fine bourbons, listening to jazz, riding motorcycles, and cooking delicious meats and vegetables for his family.