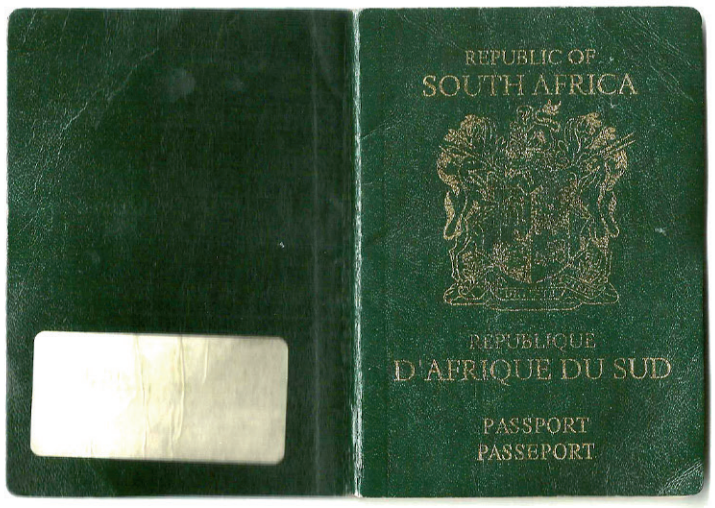

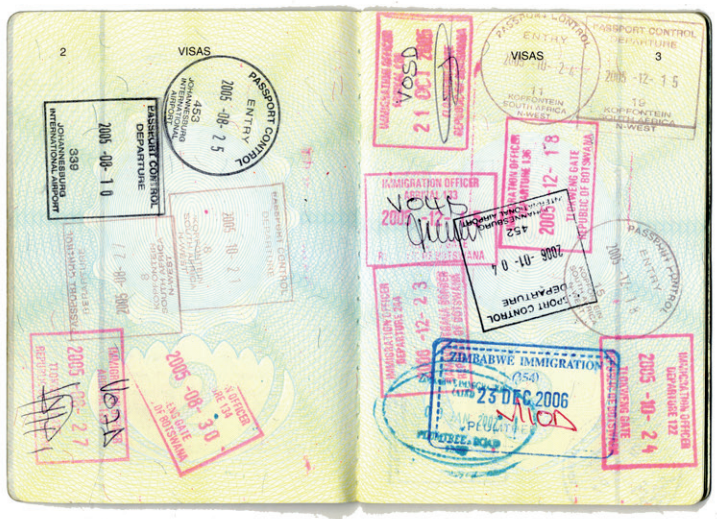

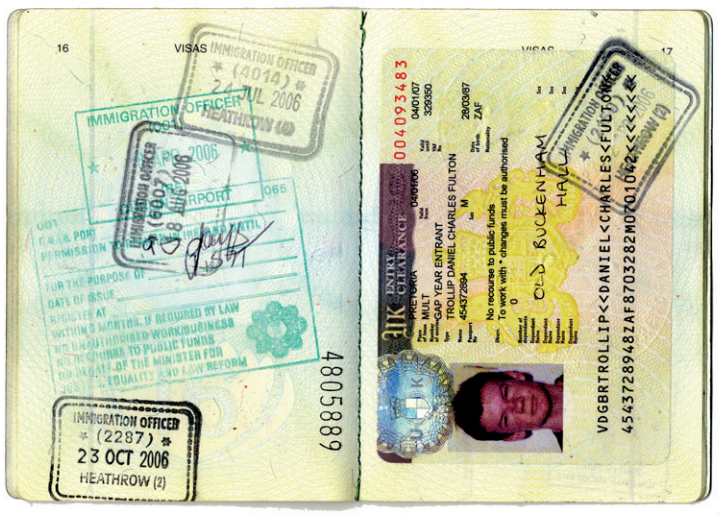

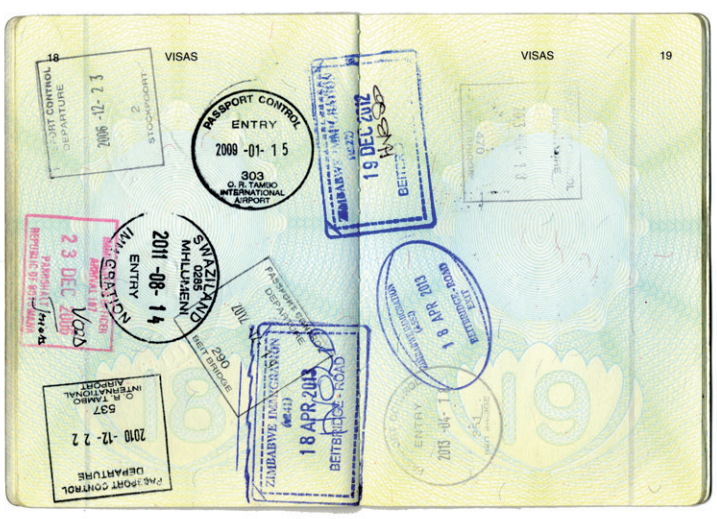

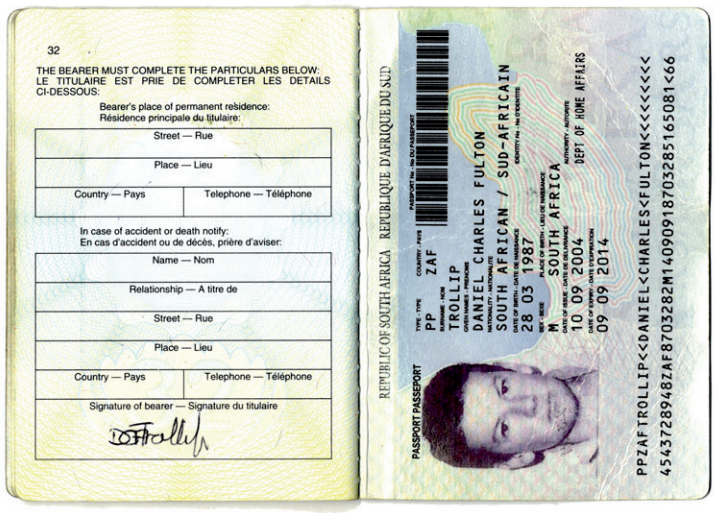

Between Boundaries

A New Border Post at Beitbridge

SCHOOL OF ARCHITECTURE & PLANNING

UNIVERSITY OF THE WITWATERSRAND JOHANNESBURG

I, Daniel Charles Fulton Trollip am a student registered for the course Master of Architecture [Professional] in the year 2013. I hereby declare the following:

I am aware that plagiarism [the use of someone else's work without permission and/or without acknowledging the original sources] is wrong. I confirm that the work submitted for assessment for the above course is my own unaided work except where I have stated explicitly otherwise. I have followed the required conventions in referencing thoughts, ideas, and visual materials of others. For this purpose, I have referred to the Graduate School of Engineering and the Built Environment style guide. I understand that the University of the Witwatersrand may take disciplinary action against me if there is a belief that this is not my unaided work or that I have failed to acknowledge the source of the ideas or words in my own work.

Signed

_____

06 December 2013

This document is submitted in partial fulfilment for the degree:
Master of Architecture [Professional]
at the University of the Witwatersrand, Johannesburg, South Africa, in the year 2013.

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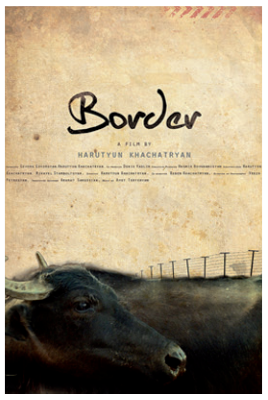

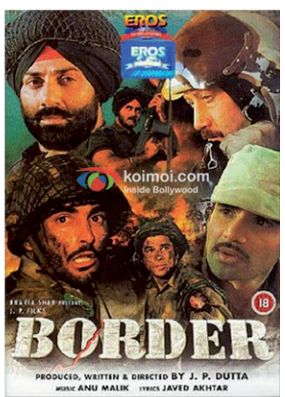

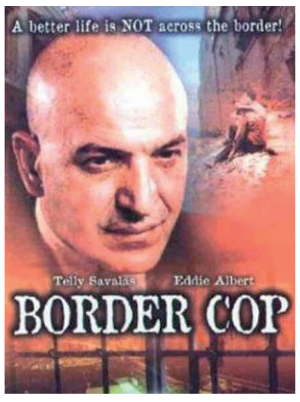

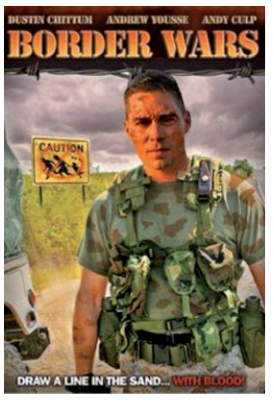

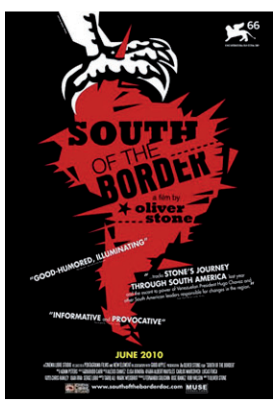

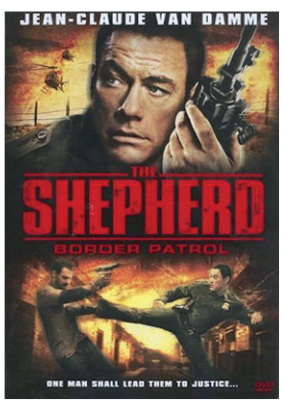

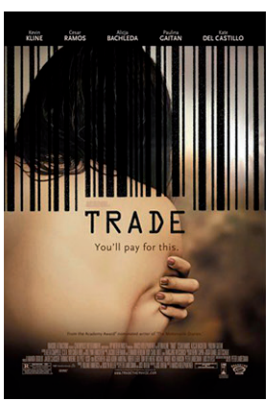

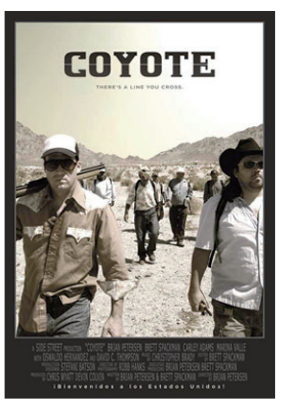

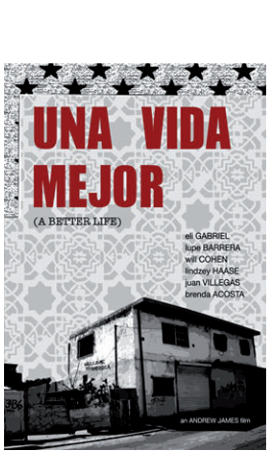

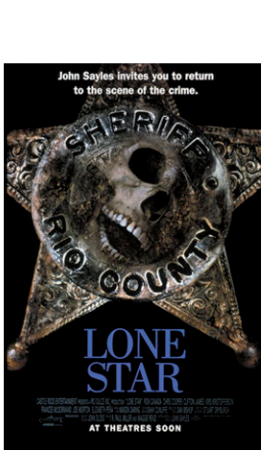

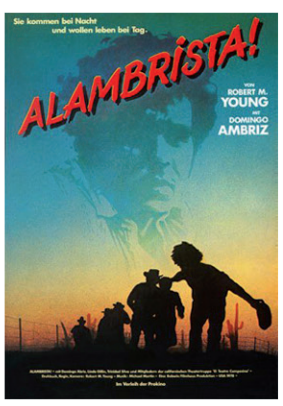

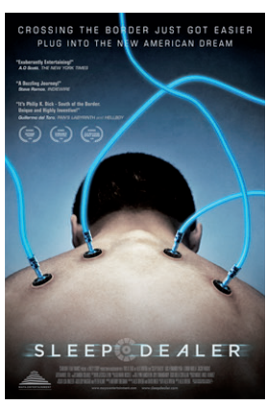

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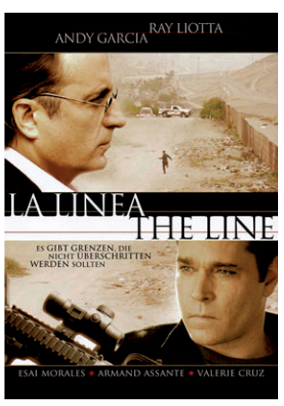

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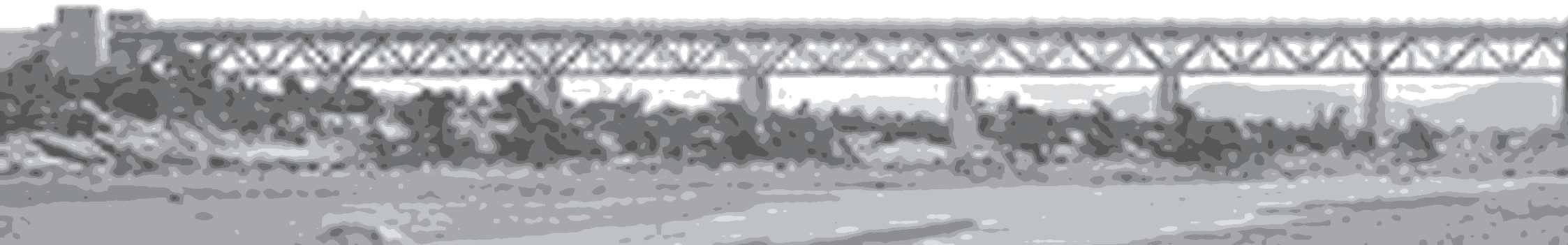

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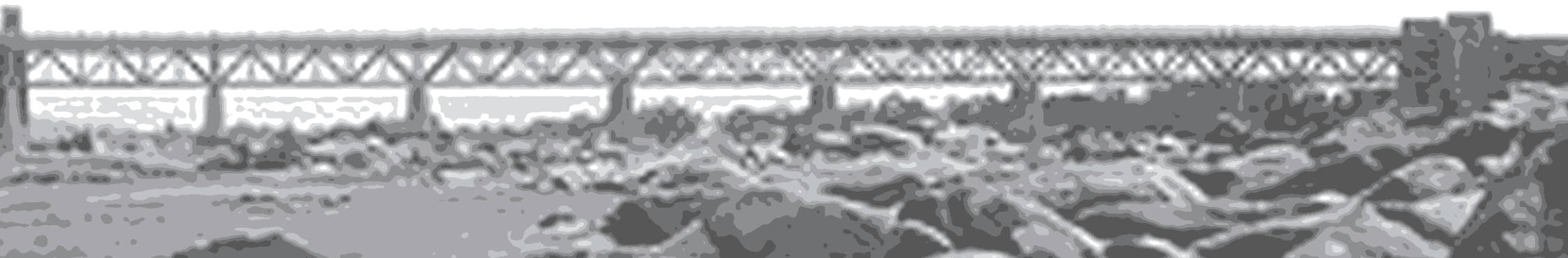

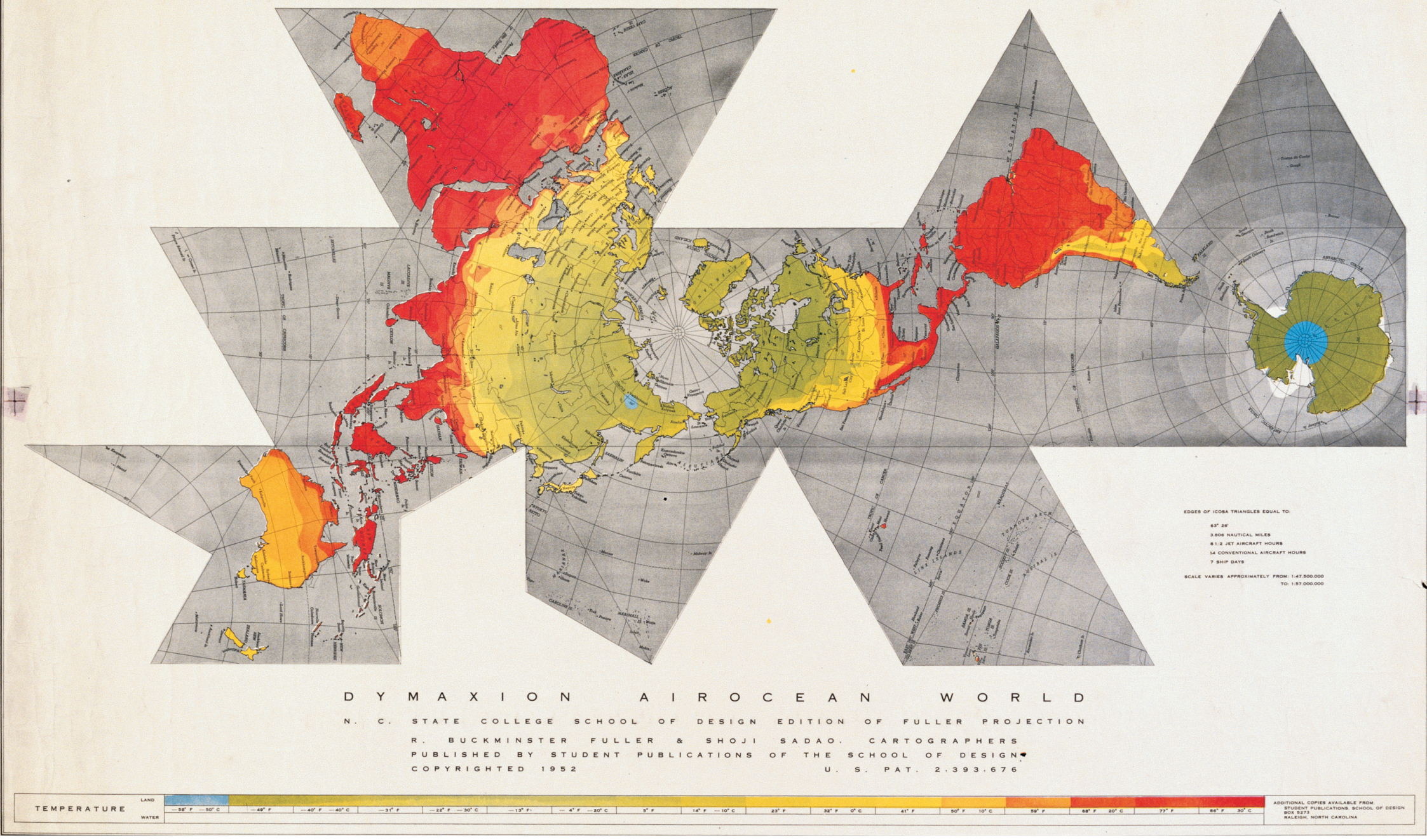

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Abstract

The current perception that engulfs borders and their posts is one of fear, apprehension and hostility. This essay seeks to formulate a new approach through which to view a border. Borders are places of cultural collision and richness, forming a type of hybrid, described best through the metaphor of theatre. This exploration is divided into three topics, namely security, immigration and the human experience, and culture and the border as theatre. Conceptual architectural projects by Lebbeus Woods, Office KGDVS and Rem Koolhaas are examples of how this thinking can be realised through architectural possibilities.

It is therefore the intention of this thesis to express these ideas through the proposal of a new border post at Beitbridge, situated between South Africa and Zimbabwe. The development of no man's land, or the 'Space of Cultural Possibilities' provides an opportunity to create a platform where the random encounters between travellers is encouraged. The transition from one country to another becomes a vibrant an unanticipated experience that seeks to shift the negative perception, built on fear, illegality and the questioning of one's identity, to one that exposes the cultural richness of a place where multitudes of nationalities are filtered through a single gateway.

Borders in the Spotlight

The human race is restless, constantly searching for a better life, afraid to remain still for fear of missing an opportunity for success. This search is relentless, leading many people to somewhat nomadic existences. International borders can be seen as an inconvenience to this process. The general and warranted perception of the border is negative, giving rise to connotations of rejection, fear and dread. It is with this perception in mind that it is my intent to attempt to uncover how this existing perception of the border can be altered through architectural possibilities with a specific focus on the human experience. This exploration will uncover three themes, namely, security, migration and the human experience and culture, and viewing the border as theatre.

What constitutes a secure border is a key question that needs to be addressed as this element shapes the first encounter and sets the tone of the crossing. It is then necessary to grasp immigration on a global scale to understand this notion of human geography from a numerical standpoint. However, the focus of this section will be based on the human experience of crossing the border on a personal or intimate level, as this is where the change of perception needs to begin. Following this theme, the border might better be viewed as a unique environment, theatrical in nature where cultures come together in a vibrant arena of activity. Although the original function of the border post is predetermined and can appear somewhat bland, pedestrian and inconvenient, a focus on the event of making a crossing and experiencing the transition should be placed at the forefront. It is a place that is unique to its location, and the manner in which the border post will perform, is impossible to predict. The unexpected is expected. A shift in perception in so far as its negative reputation is required in order to realise the importance, potential and value of a border post. Beyond the obvious requisites of a border post, the question is therefore raised as to how that can be achieved through architectural possibilities.

Projects by Lebbeus Woods, Office KGDVS and Rem Koolhaas have all sought to develop a different approach to architectural border thinking and form an architectural precedent on which to base this thesis. The project by Lebbeus Woods deals with an interesting approach to the protection of a country through constructing a wall so complex that attackers will get lost within it and therefore create a civilisation that dwells within the wall. Office KGDVS creates a garden in the harsh landscape surrounding the Mexico/USA border which raises questions about the quest for a promised land. In addition, a new type of environment through which one must cross is introduced at the border and this is created through the oasis like garden. Rem Koolhaas focuses on the experience of the individual when making the transition from a theoretically desolate place to a utopian like city.

Thomas Wilson and Hastings Donnan (2012), social anthropologists and editors of the recently published anthropological companion to border studies, describe borders, frontiers and borderlands as an aid to "understand the major forces of change that seem to be sweeping the globe, forces often included as aspects of globalisation." Accordingly, Borders have a major impact in the control of development and progression of all countries in the world and they become vital components and catalysts on an ever-changing global arena. Borders do not only pertain to the line on which a country is divided, but also the lines that penetrate through various forms of transport, including international airports. An interesting notion is that certain borders, i.e. airports, can be located in the heart of a country yet one still has to pass through an official "border" in order to gain access to that country. A border, therefore, possesses a fluid quality, one that 'seeps' inland, acquiring different forms and yet performing the same duty. Therefore, it is necessary to consider all forms of borders, not just the peripheral posts on the country's border, when considering the impact they can have on "these major forces sweeping the globe".

The definition of a border would perhaps seem black and white, given its function of dividing two countries but beneath lays many complex layers that make the border far richer in cultural and sociological aspects than to which that definition alludes. Brendan O'Leary, Professor of Political Science at the University of Pennsylvania, defines the "partition" of a border as being a "political partition" that is a "fresh cut" that divides a community's national homeland and "creates at least two political units under different authorities" (Wilson and Donnan, 2012: 29). In the same vein, John Borneman, professor of Anthropology at Princeton University, aptly describes border regimes as the "regulation of freedom" (Wilson and Donnan, 2012: 119). The apparent contradiction lies in the fact that we are free within our country's border, requiring permission to pass through into a foreign land. Existing metaphors that engulf the term 'border' are undeniably negative and violent. These metaphors include, separation, exclusion, tearing and cutting. As will be explored later in this essay, there is also the theatrical element which can be used to bring relief to the negativity and a certain comical element begins to emerge.

Security

Security forms a crucial part in attempting to understand a borders life and reputation. A recent article from the New York Times on the subject, asked the question: "What does a secure border mean and how can it be measured?" (Cave, 2013). The very existence of the border has produced these issues around security and illegality. In particular, illegal immigration is perhaps the topic that most captures our attention due to one's own will to constantly improve one's own way of life and given certain circumstances, this is done in desperation in order to lead a better existence. One can understand the need to search for a better life given dire circumstances. Nicholas De Genova, expert in the field of border studies, states that "the border spectacle, therefore, sets the scene – a scene of ostensible exclusion, in which the purported naturalness and putative necessity of exclusion may be demonstrated and verified, validated and legitimated" (Wilson and Donnan, 2012: 493). The nature of the border, therefore, creates exclusion purely through its existence, preventing foreigners or immigrants from joining that community. This is an unfortunate reality that cannot be addressed through architectural means. However, the nature in which this exclusivity is addressed needs to be a primary concern in the attempt to alter one's perception of fear, loathing and inconvenience.

Perceptions of the border vary greatly but, in general, the encounter becomes a focal point during one's journey. David Coplan, social anthropologist at the University of The Witwatersrand, describes this idea by stating that "No matter how complete and valid one's documentation, or how well meaning one's mission, running the gauntlet of the border, first out of the zone of control, and then into another, brings sweat to the palms, palpitations to the heart and awkwardness to the encounter" (Wilson and Donnan, 2012: 511). All of these emotions I have felt personally, predominately due to a language barrier or misunderstanding of the unnecessarily complex procedure one must follow. Another possible explanation for this creating this 'awkward encounter' may be that your identity comes into question when passing through these "zones of control". Scepticism around a traveller's intent when crossing a border is expected given the illegal activities that occur at these checkpoints.

Therefore, returning to the question posed in the New York Times of what does a secure border mean and how can it be measured, I would suggest that that the answer not only lies in reducing statistics on illegal activities but is also measured by a sense of security experienced by the average traveller on a personal level. The border acts as a filter and cannot avoid dealing with the harsh realities of illegal behaviour; however, creating a secure and transparent environment enforced by trustworthy and fair officials is vital. This leads to the focus on the human experience and trends in global immigration. Security acts as the first layer and 'handshake' to a border post and following a general understanding of this, it is vital to consider the human experience, starting with a 'top down' approach through global statistics, and followed by the 'bottom up', individual experience.

Immigration and the Human Experience

Having established a viewpoint on security, the outer layer or skin encasing a border, we can now turn to grasping the border from a human perspective. The global picture is one devoid of the personal experience and feeling as it appears to deal with larger political and economical issues, but it is vital to begin to understand trends in Immigration. However, the main focus is placed on the personal experience of traveller as it is these combined experiences that give birth to the reputation of a place.

According to the International Organisation for Migration (IOM), there are an estimated 214 million migrants globally; a figure that is roughly four times the population of South Africa. That figure equates to 3.1% of the world's population and means that one in thirty three persons is a migrant. In terms of dividing this figure along the lines of gender, 49% of all migrants are woman, according to the IOM (n.d). Interestingly, in a survey conducted in 2012 by the international strategic consulting company, Gallup, in excess of 640 million people globally would leave their country permanently given an opportunity to do so (Clifton, 2012). These statistics place global trends in migration into perspective and highlight the growing role of a border post as having a significant affect on a nation.

The desire to immigrate on the part of individuals is a key theme to the discussion around borders. Therefore, it is important to highlight the narrative of the traveller in an attempt to understand the experiences felt by people who move from country to country, for short or long term reasons. Of course there are many other users of a border such as the movement of goods and the role they play in dividing nations, but immigration is at the forefront of many border arguments. According to Peter Kivisto and Thomas Faist, sociologists with a main interest in immigration studies, addressing the sociological aspects of immigration, they argue that to generalise about immigration on a grand scale is to lose "an explicit concern with the varied ways that concrete individuals experience immigration at an existential level. Missing are the tears, fears, hopes, plans,

aspirations, uncertainties, ambivalences, and the like that are part and parcel of the immigrant experience" (2010: 3). The border is the threshold that signifies the start of new prospects and the end to an old chapter.

Robert Alvarez, professor of Ethnic Studies at the University of California, states the "Border crossings – human as well as commercial and technological – have multiplied, and border complexity has increased alongside these new movements" (Alvarez, 2012: 25). He also states that the anthropology of border lands has "become global" (Alvarez, 2012), in the sense that studies in the past have looked only towards global trends, thus negating the impact of the individual experience. This reiterates the need for a fresh architectural approach to the border given its "increased complexity". Ricardo Scofido of the New York City architectural firm, Diller Scofido and Renfro, said on being asked to design a border fence by the New York Times that, "It is a silly thing to design, a conundrum. You might as well leave it to Security and Engineers." (Hamilton, 2006), While I tend to agree with this statement, I also believe that the border needs to be conceptualised more broadly as an architectural intervention that widens the scope of the 'fence'. It should not only be viewed as a barrier, questioning one's identity or mundanely processing a multitude of travellers, but rather as a platform that embraces the multi-cultural possibilities that could emerge, given the right environment.

The book by Kivisto and Faist, entitled Beyond a Border devises three spheres in which to explain the immigration phenomenon; movement, settlement and control (2010). Movement relates to the issues surrounding "why [are] there so few migrants from many places and so many from only a few places?", and how movement relates to economics and demographics (2010: 8). Settlement deals specifically with the integration of the migrants into a new environment and lastly, Control through politics from both the sending and receiving parties (2010). In my opinion, it is the extent of the act of migrating from one place to the next that demands such a focus and crossing a border plays a pivotal role in how that act will play out.

Therefore, the individual and the personal experience at the border lie at the centre of forming a new perception of this political and cultural partition. With the individual as the focus, the surrounding environment needs to complement this experience. This environment could place emphasis on alternative aspects found at a border that are currently shrouded in the negative elements that have previously been highlighted. These aspects are the theatrical nature created by the interaction of many people of different cultures passing through a single gateway. The cultural richness that occurs could also be emphasised to encourage the positive development of a multicultural arena.

Culture and the Border as Theatre

Borders can potentially be vibrant places of new possibilities and experiences. It is the coming together of different cultures with the possibility of new experiences that await the traveller on the other side of the fence that creates this vibrancy. Pamela Ballinger, human rights professor and historian, relates an appropriate idea to this picture through the French philosopher and sociologist, Henri Lefebvre's idea of "Rhythmanalysis" (Wilson and Donnan, 2012: 399). Lefebvre states that "everywhere where there is interaction between a place, a time and an expenditure of energy, there is rhythm". What more appropriate place than a border is there to encompass this thought? The border has a relentless rhythm that penetrates through its many layers of movement, trade and built form. It is a rhythm that is specific to its location and nature and is unlike any other environment. The 'expenditure of energy' is heightened at a border, pulsating through these layers. It is the extent of activity pushed through a single portal that creates this heightened rhythm.

Robert Alvarez argues that the border is not about "the geopolitical line or the territory, territorialisation (as in control), reterritorialisation (reclaiming land and identity), or deterritorialisation (losing them). This is about the deep belonging and identification with place – a bridging and continuous connection of everyday life, of social and cultural activity" (Alvarez, 2012).
Although the intent of this essay is to focus specifically on national borders and their posts, it is necessary to grasp a broad understanding of the term 'culture', as it is a crucial concept to consider at the junction between countries and the platform that therefore exists. Raymond Williams, a renowned cultural critic, defines culture as "a record of a number of important and continuing reactions to changes in our social, economic and political life and may be seen as a special kind of map by which the nature of the changes can be explored" (Dworkin and Roman, 1993: 262-3). As a country experiences these "changes in social, political and economical life", the border will be directly affected due to its strong link to the entities to which Williams refers. Therefore, according to Williams's definition of culture as a reaction to these entities, a strong presence of culture will be evident at a border post. What greater place to examine culture than a border post where all the elements described by Williams are concentrated and amplified, and moreover, juxtaposed to an adjacent country's culture. It is this cultural element in my opinion that is eclipsed and smothered or forgotten in the average traveller's desperation to pass through. The importance of a border could be re-established and emphasised as a cultural entity, reflective of its surroundings. It is formed and moulded according to its location and therefore should be a reflection of what the two countries represent, especially when considered in the context of culture as a key player in portraying the essence of a nation.

Gloria Anzaldua, cultural theorist and writer of the famous book Borderlands/ La Frontera: The new Mestiva (1987), states this interesting thought on the topic of culture, "Like all people, we perceive the version of reality that our culture communicates. Like others having or living in more than one culture, we get multiple, often opposing messages. The coming together of two self-consistent but habitually incomparable frames of reference causes a cultural collision." This 'cultural collision' described by Anzaldua is emphasised at a border post and if acknowledged and encouraged to grow, could create a more productive and cohesive environment. Given the ethnically diverse setting that occurs at a border post, a form of hybrid culture will inevitably emerge. A fascinating example of this, as highlighted by Robert Alvarez (2012), is the development of music genres that emerge or evolve as a result of their creation at a border post. With the diverse mix of people brought together at a border post, bands will develop across cultures, resulting in specific, often new types of music. An example of this is occurred in the infamous border town of Tijuana, Mexico with Alejandro Madrid's Nortec Collectiva: Electronic Dance Music from Tijuana to the World (Alvarez, 2012). In the same vein, other forms of art such as sculpture and fashion could emerge that are influenced in the same manner through this mix of cultures.

Through contemporary border studies, Robert Alvarez (Alvarez, 2012) calls for better consideration of connectivity that needs to include "multidimensional sociological process, meaning and understanding" (Alvarez, 2012). This notion links to a greater understanding than just that of the connection of one

point to the next but considers a deeper degree of understanding in terms of human connections on a personal and cultural level. The argument formed by Alvarez states that borders and border towns, in terms of their "people, life, culture and society" (Alvarez, 2012), can no longer be generalised under a generic "border" umbrella. Each case should be treated individually according to these various aspects. The experience of the individual needs to constantly remain in the limelight. Our individual encounters at the border shape one's perception of the border and inevitably affect that of the country into which that individual is entering. It creates a lasting impression and therefore cannot be disregarded. As Alvarez says, on the matter of personal encounters, (after Basso 1996) that, "it conjures up deep sentiment" (Alvarez, 2012).

Moving through a border could become more about the transition of passing from one place to another and that transition needs to be celebrated and emphasised in a ceremonial manner. One can focus heavily on the negative aspects of hostility and illegal immigration and activity at a border but those problems have been created by ways inherent in our nature. Eclipsed by these unfortunate events is the powerful experience of what a border crossing truly means and stands for.

Wilson and Donnan proceed to express borders using a vivid metaphor of theatre by saying "if all the world were a stage, then borders are the scenery, its mis-en-scene, its ordering of space and action, wherein actors and observers must work at making borders intelligible and manageable and must do so in order for the drama to proceed" (Wilson and Donnan, 2012: 19-20). A border is more than a simple gate through which to pass into a foreign country, and becomes a gateway that should express its own identity with the possibility of being viewed as a destination point. The theatrical spectacle is reinforced through television shows such as Discovery channel's "Border Security", which relies on the discovery of smuggling and illegal immigrants to provide entertainment to the viewer. The very nature of the activity at a border post provides somewhat bizarre viewing and creates an attraction due to one's own connection to personal experiences. In addition to the connection to television, the border is seen as a means to escape, in particular if a serious crime has been committed. It is perceived as a gateway to freedom.

John Borneman cites the ideas of Mary Douglas, the late eminent social anthropologist, and her 1966 book entitled Purity and Danger, where she relates the idea of boundaries, thresholds, doorways and crossroads to the human form (Wilson and Donnan, 2012: 121). Douglas uses the analogy in an effort to define the idea of society through the boundaries of the human form. The exterior (skin) is seen as the periphery or boundary but it is the interior functions or "internal lines", as Douglas calls them (Douglas, 1966: 115), which shape and define the exterior form in terms of their group morality. The analogy can be interpreted as one's physical appearance is the what greets the world but the interior workings of the body is what defines that appearance, even though it is not always seen. Group morality refers to the economical, political, ethical, cultural and various others that define a nation. This analogy can be linked to borders and the way in which they are defined and affected due to the countries' political, cultural and economical climate. Linking the border to the external aesthetic of the human form provides a strong argument for the impact in which a border can have on the countries cultural and political standpoint. Therefore, the border enforces the countries' morality. Borneman also uses this theory to describe how the economic and social nodes in a country become centralised, estranged from its borders and yet the border still has such a crucial role to play (Wilson and Donnan, 2012).

According to Coplan, despite the obvious fact of borders being "intimidating fortifications" and despite the standard procedures that one has to follow in order to pass through, borders are about the "encounters between people" (2012: 514). This reinforces the title of his writing on the subject, "Border Show Business" (2012: 507) and places emphasis on the encounters between various types of people at the border. A link can be formed between placing an emphasis on the individual experience as discussed earlier, and the cultural nature of that meeting, as discussed in this section. It is a fascinating concoction of people brought to a single place where countries meet. The struggle for authority and ensuing power plays are key factors in the borders notorious reputation. "Border performance is more than a matter of enactments involving travellers, state officials, other no less important mediators, service providers and assorted hangers on. It is also a theatre in which neighbouring states represent and play out, often in hyper dramatic fashion, their bilateral relations" (2012: 519). As this comment by Coplan suggests, the drama is not only as a result of the meeting of a diverse group of people, but rather multiplied in addition to the encounters by the type of relationship held on a political level between neighbouring countries. This is 'played out' at the border post.

"If all the world were a stage, then borders are the scenery, its mis-en-scene, its ordering of space and action, wherein actors and observers must work at making borders intelligible and manageable and must do so in order for the drama to proceed"
-Thomas Wilson and Hastings Donnan (2012)

De Genova states that "the border spectacle is a spectacle of enforcement at "the" border, whereby the spectre of migrant "illegality" is rendered spectacularly visible" (Wilson and Donnan, 2012: 492). The metaphor of the border as theatre is relevant in relating to border security and law enforcement. The picture of illegal immigrants finding inventive ways in which to pursue better lives, and the brutality enforced to prevent them, become agents for a spectacular show. The border is always on display and unashamedly expresses its brutality through this theatre production.

A border is also defined through its location. It is deeply rooted in a sense of place, specific to that location, yet is often isolated or disconnected, perhaps accompanied by a border town (forming a separate study in this thesis). It is forced to form a connection with its surrounding landscape as it seems a strange phenomenon for an entity of such importance to be so disconnected. Perhaps, this disconnection is the chief reason for its struggle to find an identity. The isolation heightens activities at the border allowing situations to escalate out of

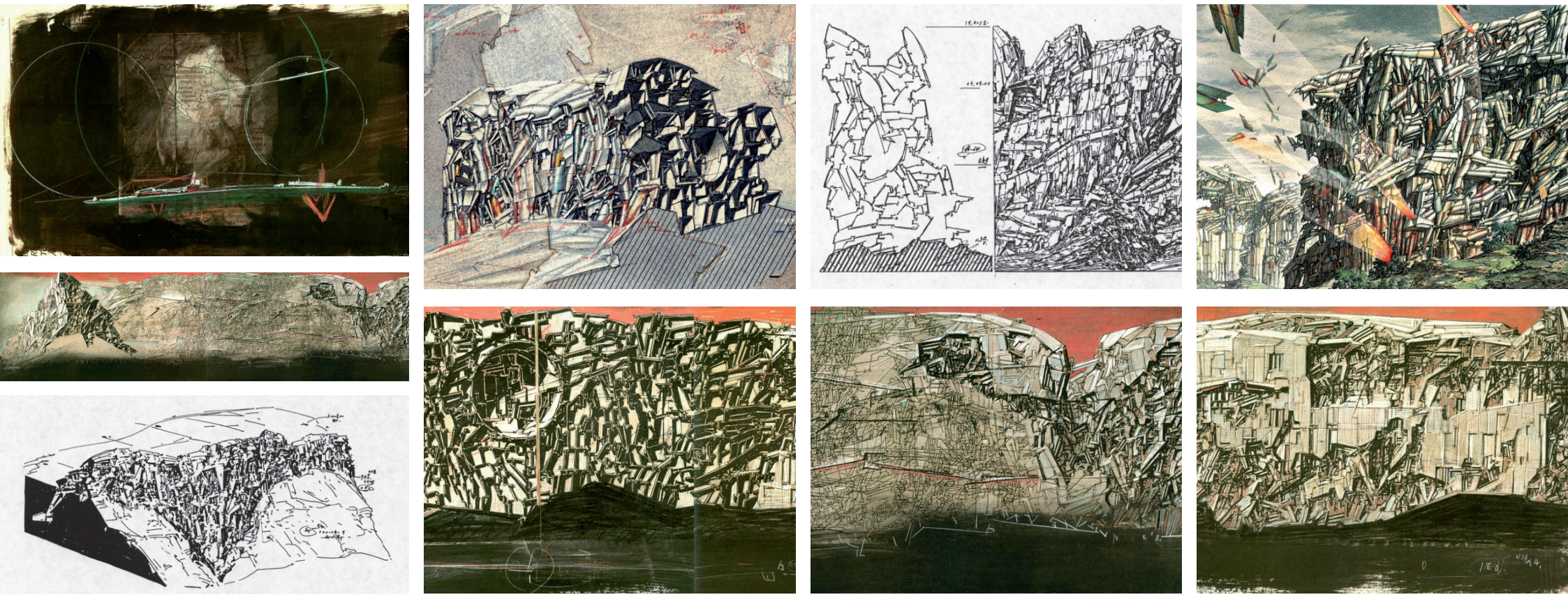


Fig 1.1.4. Metastructure by Lebbeus Woods. 2009.

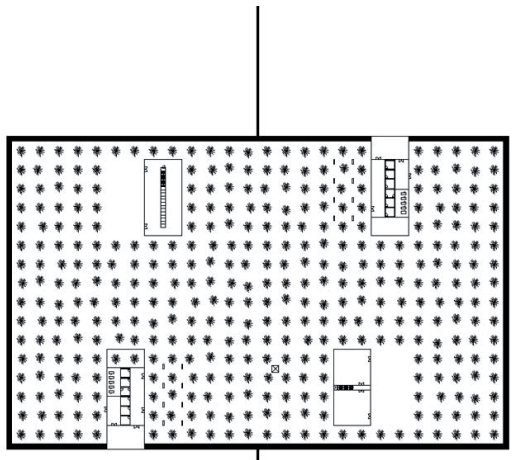


Fig 1.1.5. Aerial View, Plan and Perspective of the Border Garden by Office KGDVS. 2005.

control. It lacks the control usually found in urban environments, feeding the possibility of a “Lord of the Flies” situation on the brink of outbreak. The border post seems confined to a constant state of limbo. Sarah Green, Professor of Social Anthropology at the University of Manchester and contributor to the Border Studies Companion, on the topic of “A sense of Border”, states that “[borders] are capable of taking different forms in almost every respect: in their material existence; in the way the way they are monitored and controlled; in their officially intended purpose and meaning; in the types of unofficial and informal practices that gather around them; and in the way they engage with, and are partly defined by, historically changing transnational political and economical conditions” (Wilson and Donnan, 2012: 575). I would suggest that all of these factors highlighted by Green can be strongly influenced by a physical location and by forming a reflection of its surroundings.

The areas surrounding borders that have been explored in this essay include security, immigration and human experience and culture and the border as theatre, and highlight three areas that are crucial in formulating a new approach to border design and thinking. Following this, there are three architectural examples that explore some of the aspects uncovered earlier in this discussion. These examples serve to bridge the gap between the theoretical thinking and the design intervention of this thesis.

Architectural Projects

Metastructure (circa 1992) by Lebbeus Woods is a conceptual project designed to protect the country of Bosnia and Herzegovina from the attacks it experienced from 1992 - 1995 from Croatia and Serbia (Woods, 2009). The project consists of a “defensive wall” around the entire country that is best described through Wood’s intricate hand drawings (Fig 1). Woods describes the project. “The wall would be built very high, with a vast labyrinth of interlocking interior spaces, creating a structurally indeterminate system that would be extremely difficult to bring down by demolition charges or artillery fire. Tanks and mobile artillery could not be brought through the wall. Foot soldiers could not climb over the wall in large numbers, but would have to go through it. Once inside, they would become lost. Many would not be able to escape. They would either die, or, as it were, move in, inhabiting the spaces, even forming communities. Local farmers from the Bosnian side could arrange to supply food and water, on a sale or barter basis. In time, they would move in, too, to be close to their market. Families would be living together. The wall would become a city” (2009). This example provides an interesting angle to a border in both the wall becoming inhabitable and forming a barrier of protection. Although the project is a “fantasy”, Woods makes a very relevant statement that can be implemented into everyday border design, namely, “walls can be armature for transformation, an instrument not for dividing but for bringing opposing ideas and people together” (2009). The idea of the fence or wall playing a larger role and taking on a greater function could form a central function in a contemporary border given its importance in defining a nation.

Fig 1.1.6. Separation between the ‘good half’ and the ‘bad half’. The border wall is a clear divider. 1995.

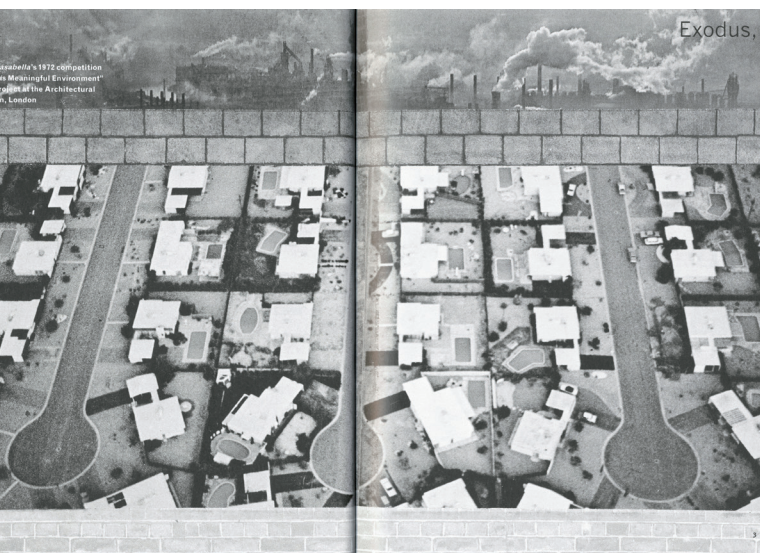


Fig 1.1.7. Plan showing the ‘good half’ superimposed on the city of London. 1995.

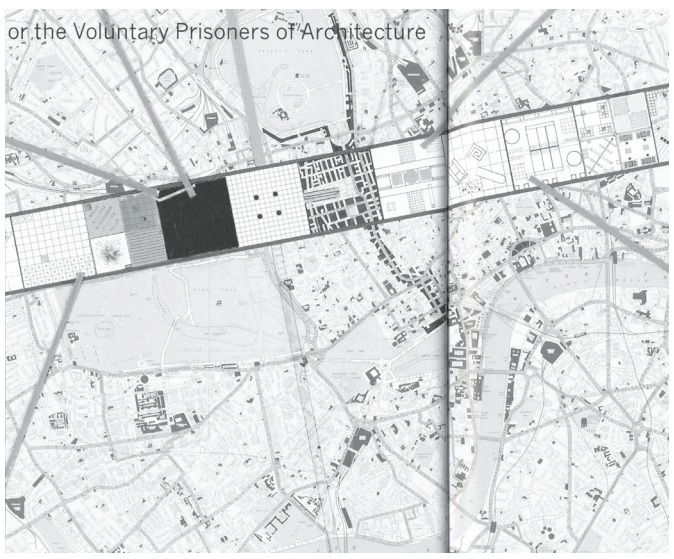
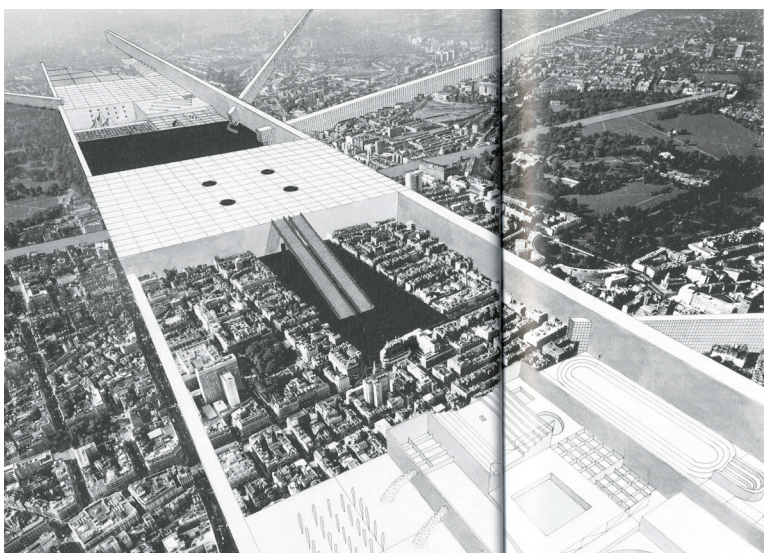


Fig 1.1.8 Division, isolation, inequality, aggression, destruction: The frontline of Architectural warfare. 1995.



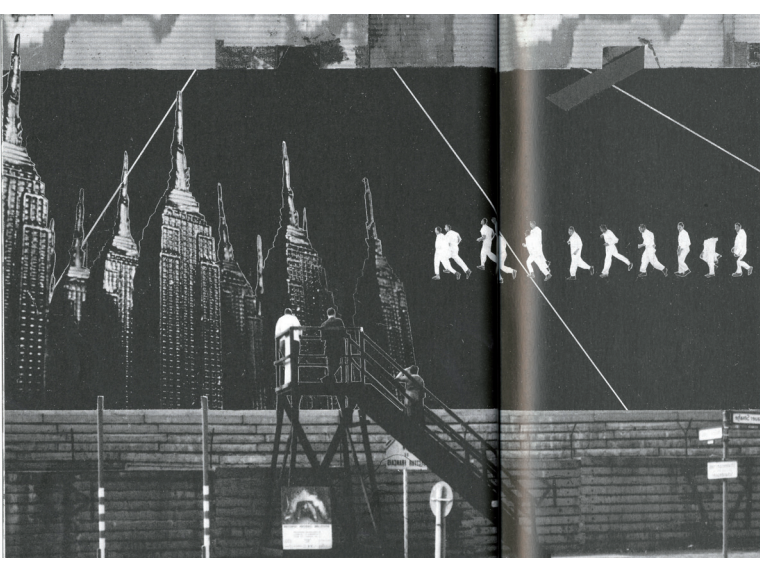


Fig 1.1.9. Some people choose to remain in the ‘bad half’ and become ‘voluntary prisoners’. Certain people adapt to their environment, content with the situation and find no reason to cross over to the good half. 1995.

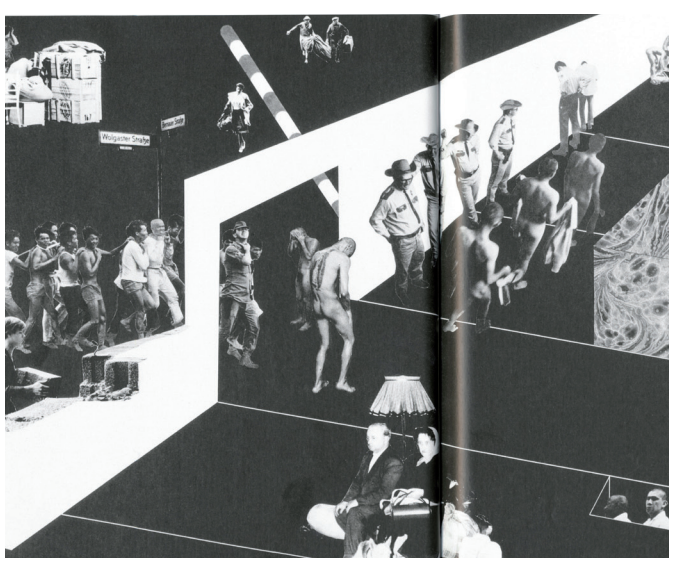


Fig 1.1.10. The transition and reception area that is an ‘architectural sigh of relief’. Malnourished ‘prisoners’ of the bad half make the transition through the barrier and into the good half. 1995.

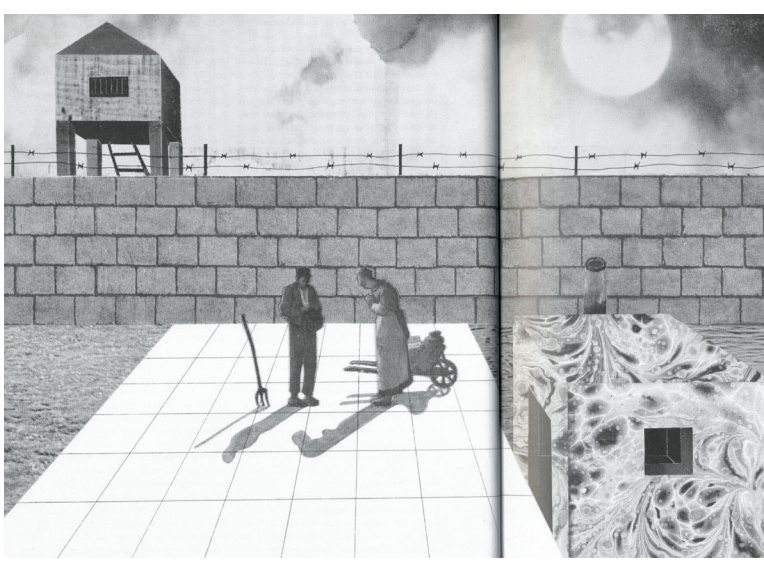


Fig 1.1.11. “Nothing ever happens here”. The wall separating the two halves, creating a sense of controlled freedom. In this image, the couple appear stranded and desperate as a result of their situation. 1995.

Another example that holds great relevance for the key ideas in this project is the 'Border Garden' (Fig. 2) by Office KGDVS, an architectural design firm located in Brussels. The proposal placed first in an international competition in 2005. As described by the architects, the project consists of an "oblong volume, with 9m high walls that defines a no man's land between [United States and Mexico]" (Office KGDVS, 2005). The aim of the project is to create a garden of palm trees with "scattered pavilions for passport control", where "in its simplicity, raises questions about the desire for the promised land" (2005). This project links directly to the thoughts I have already expressed pertaining to every persons desire and natural instinct to long for the greener grass on the other side or as Office KGDVS aptly puts it, "the search for the promised land" (2005). The contrast between these opposite landscapes creates this vivid irony where there is desert on both sides of the fence with the oasis in the middle that belongs to no man and forces you to wonder whether the other side of the fence really will be better. This conceptual project relates to migration through the search for a better life, rather than serving as a comment or critique of border posts themselves.

The final project is the 1972 project by Rem Koolhaas, Elia Zenghelis and Madelon Vriesendorp, entitled 'Exodus or the Voluntary Prisoners of Architecture'. The theoretical project proposes to split the city of London into the "Good Half" and the "Bad Half", the former being defined in terms of its architecture and the latter left to decay (Koolhaas and Mau, 1995: 5). The people of the bad half all desire to live in the good half but, as this cannot be allowed to happen, a wall is proposed to separate the two sections (1995). Koolhaas writes, "The good half, now glimpsed only over the forbidding obstacle from an agonising distance, became even more irresistible. Those trapped, left behind in the gloomy bad half, and became obsessed with vain plans for escape. Hopelessness reigned supreme on the wrong side of the wall. As so often before in this mankind, architecture was the guilty instrument of despair" (1995: 5).

This abstract, taken from the Koolhaas' description of the project, highlights some points put forward in this essay. Although the project is not entirely dealing with the theme of borders, its focus is on the power that architecture has in order to create a mood within an area. The project deals with an idea of separation and desire caused by a physical partition and most importantly, the transition as a major factor from one side to the next. This is created through the contrasting environments on either side of the border. For example, the project speaks of a "reception area", upon arrival in the 'good half' as being an "architectural sigh of relief" (1995: 9). The transition is expressed as an entity to be celebrated with a "spectacular welcome". The architects portray a fascinating narrative based on the partition between two opposite lands and the movement between the good and bad halves is highlighted as a journey to be celebrated, particularly at the transition point. The extreme situation of this fantastical scenario highlights vital themes which prove to be prevalent in a number of architectural ways. The experience of the traveller is dominant and is defined through the architecture. The architecture forms a key part through defining this exclusive "good half" through a physical wall and it is the contrasting environments that are located on either side of the wall that make the transition so important.

These examples search for new methods, and interventions at a border and, in so doing, attempt to place focus on elements that could alter the traditional negative perception of fear and inconvenience. They are elements that seek to highlight the experience of the user and look to place importance on the act of moving through a border from a cultural point of view. The transition becomes the focus. They place a strong focus on the psychology of the traveller and the experience they face. The architecture is designed in order to emphasise and highlight the transition in all three of the above mentioned projects. It is the exact moment of crossing over to another place that is celebrated. In the case of Woods' 'Metastructure' project, the wall became inhabitable, creating an environment in which both sides could eventually live in harmony. The 'Border garden' looked to create a transition space that forces the user to question their search for a promised land. The act of crossing a border is emphasised and celebrated. There is no denying the contentious nature of the border and although they are all theoretical projects, the architectural interventions portray experiences that differ from the existing typography. Architecture has the potential to participate in exploring new ways of thinking about human movement from one place to another and particularly across political borders. it has the ability to celebrate the occasion at this political, social and cultural space.

Robert Alvarez suggests ways in which to shift the focus in the way we view borders: "rather than maintain the epistemology of a horizontal line and separation, the notion of borders and bridges can emphasise the connections, links and contrasts, the broad and deep range that is bridged by border processes, actors, and institutions that include the nation state. Bridges are meant to be crossed and they are built to span obstacles. They are connectors of the diverse and the disparate, as well as of history and meaning, people and places" (Alvarez, 2012). The metaphorical bridge to which Alvarez refers to is the element that brings people together, filtering and funnelling them, simultaneously intensifying and exposing political issues and cultural backgrounds in a theatrical manner.

In this thesis, I wish to uncover, expose and enhance the richness of the border post through architectural means. The richness emerges through the people that cross through the border and the results of their encounters with other travellers. This experience is shaped by the factors explored earlier in this essay. The role of architecture at a border post can play a vital role in shifting the perception of the user from one of fear and loathing, to one of appreciation and excitement. The emphasis needs to remain on the individual and one border cannot simply be viewed from a distance and in the same bracket as every other border. As Alvarez implies, the connection or the "bridging" has to be celebrated, the meeting of diverse meaning, people and places, and this is where architecture can have an enormous impact and influence. One useful approach to rethinking the border post through this thesis is the metaphor of the border as a theatre, one that often contains a somewhat comical script. It is this metaphor, that will be pursued through the design proposal in this thesis. It is a fascinating contrast between the evident hard reality or 'realness' of a border post and the associated metaphorical analogies. The intent of this project is to explore new possibilities of this connection, based on the elements that have become hidden in the more negative aspects of border crossings.

Simultaneously, the issue of security will always remain a key element in border design and how that is achieved remains a highly contentious issue. The architecture of a border post should act as a catalyst for change as it cannot be solely responsible for this shift in perception. Issues of security, illegality, brutality and dehumanisation need to be simultaneously addressed on a social, political and economical level, in conjunction to a new design approach, in order to achieve this.

Therefore, it is the goal of this thesis to uncover and expose a border post through its rich history and culture and to celebrate the transition from one place to another, without disregarding the serious issues of illegal immigration, security and smuggling. The notion of a transitionary space and one that holds such an importance to someone on a personal level and yet has such a large impact on a global scale is at the core of this exploration.

I wish to explore the ideas expressed in this essay through the proposal of a new border post at the existing border crossing at Beit Bridge, between South Africa and Zimbabwe. The question of how the current negative perception and inefficient processes could be addressed will form the basis of the following proposal.

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1674

1691

c. 1700

1710

1722

1772

1791

1803

1835

1899

1922

2013

	Southern Africa	Central Africa	East Africa	West Africa	North Africa
	BC – Khoisan occupy southern Africa				8000bc - Evidence of pottery and agricultural production in Nile Valley
					2755 – 2255bc – The Old Kingdom (first pyramids)
					1570 – 1085bc – The New Kingdom.
					1070bc – Rise of the Kingdom of Kush
					767-671 BC – The Late Period. So called 'black pharaohs' are rulers of Egypt. Kushites are eventually removed by the Assyrians.
					553bc – Kushite kings move to Meroe
					332bc – Alexander the Great rules Egypt
					30bc – Egypt becomes a province of the Roman Empire
BC					
AD			100 – Aksum Empire emerges		300 – Decline of Meroe
1000			600 – East African trade with India established	1000 - Yoruba kingdoms of Ife and Benin thought to have been founded	
1100				1100 – Height of Ghana Empire	
1200	1200 – Beginning of Great Zimbabwean State				
1300				1300 – Height of Mali Kingdom	
1400	1400 – Most of the Great Zimbabwean Stone buildings completed	1400 – Formal establishment and rise of the Kongo Kingdom			
	1487 – Bartholomew Dias reaches Cape of Good Hope. Dutch East India Company founds the Cape of Good Hope				
1500	1500 – Great Zimbabwe abandoned		1593 – Portuguese build Fort Jesus in Mombasa		
1600				1670 – Asante Empire Established	
1700				1787 – British settlers and freed slaves establish a colony at Sierra Leone	
1800	1795 – 1803 – British takeover of Cape Colony from the Dutch East India Company			1816 – Gambia reoccupied by British after French withdrawal	1798 – Napoleon takes Egypt but troops are evacuated after British victory at Alexandria in 1801
	1820 – British settlers land in the Eastern Cape				1820 – Muhammed Ali (Master of Egypt 1805 – 47) conquers Sudan
					1823 – Khartoum is founded
					1830 – French capture Algiers
	1835 – Beginning of the Great Trek	1853 – 6 – Livingstone's second expedition, crossing central Africa and discovering Victoria Falls.		1860 – French attain Senegal	
				1861 – USA recognises Liberia (Founded for freed slaves)	
				- British occupy Lagos	
	1868 – Britain annexes Basutoland			1866 – French acquire posts on Guinea coast	
					1869 – Inauguration of Suez Canal
			1870 – Italian company takes over Assab on Red Sea		
			1873 – Zanzibar Slave Market closed down		
	1879 – Outbreak of the Zulu War	1879 – Stanley opens up Congo for King Leopold of Belgium		1874 – British declare Gold Coast a colony	1874 – Egyptian empire extends to within 60 miles of Lake Victoria
	1880 – Boers under Kruger claim Transvaal's independence	1880 – Brazzaville established		1880 – Cameroon appeals for British protection	
			1881 – French occupy portion of Somaliland		1881 – French claim protectorate over Tunisia
	1883 – Kruger declared president of the Transvaal			1883 – French gain a foothold on upper Niger	
				1884 – Germany claim Togo and Cameroon	
	1884 – Berlin conference	1884 – Berlin conference	1884 – Berlin conference	1884 – Berlin conference	1884 – Berlin conference
	1884 – German protectorate declared over Angra Pecquena				
	1886 – Gold rush to the Transvaal and Johannesburg is established		1885 – Germany forces Sultan of Zanzibar to hand over mainland. Boundary commission decides frontier between German and British 'spheres'		1885 – Spain claims territory at Rio de Oro
	1888 – Rhodes and Beit establish De Beers				1887 – Britain withdraws from Egypt
				1889 – French protectorate on Ivory Coast	
	1891 – Portugal accepts Mozambique frontier from Britain		1891 – Britain recognises Italian protectorate over Ethiopia	1890 – Anglo-French claim West Africa, with the French claiming territory from the Mediterranean to Guinea, and the northern Nigerian frontier going to the British.	
				1893 – Guinea and Ivory Coast become French Colonies	
		1894 – Britain attempts to gain cape to Cairo route with Leopold but loses it when Germany and France protest	1894 – British protectorate over Uganda	-French capture Timbuktu	1894 – Italians capture Kassala
1900		1885 – King Leopold claims Congo Free State	1896 – Ethiopian independence from Ethiopia following war, but retain Eritrea		1896 – Anglo – Egyptian army begins re-conquest of Sudan
	1899 – 1902 – Anglo Boer War				1904 – Agreement between France and Britain gives Egypt to Britain and morocco to France
					1911 – The French enter Fez
					-Italy invades Tripoli
					-Germans enter Agadir
					-Germans assist the French in morocco in return for a portion of French Congo
	1910 – Union of South Africa is formed				1912 – Spain claim Spanish Sahara
2000					2011 - North and South Sudan split

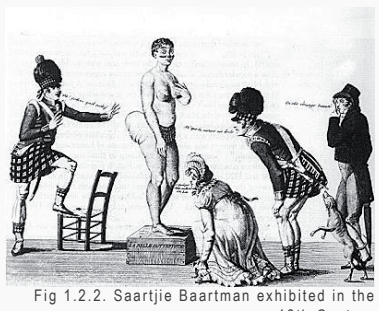


Fig 1.2.2. Saartjie Baartman exhibited in the 18th Century

Fig 1.2.3. Aksumite Palace at Lalibela

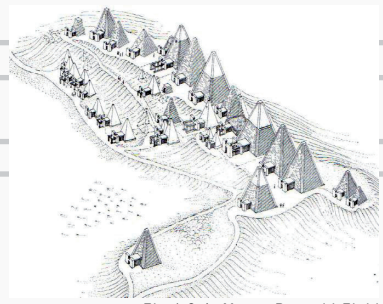


Fig 1.2.4. Meroe Pyramid Field

Fig 1.2.5. Punch cartoon depicting the stanglehold on the Congo

Fig 1.2.6. Zanzibar c.1800

Fig 1.2.7.Yinka Shonibare's Scramble for Africa. 2003.

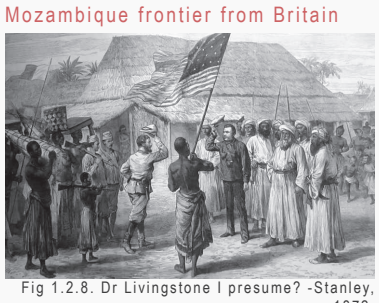


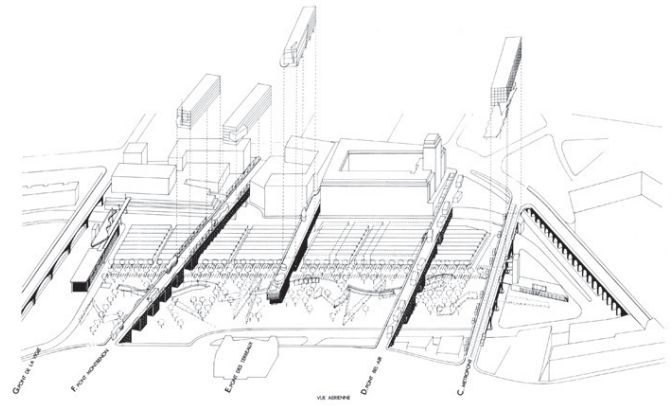
Fig 1.2.8. Dr Livingstone I presume? -Stanley, 1872.

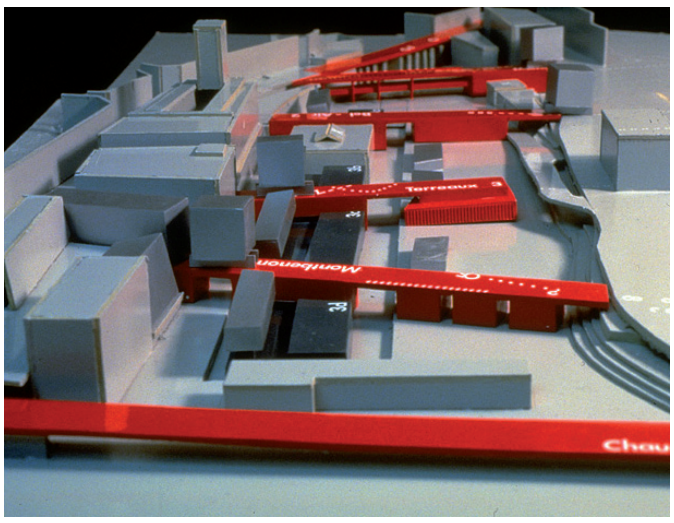
Fig 1.2.9. The New Border separating North and South Sudan

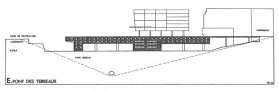
Bridges

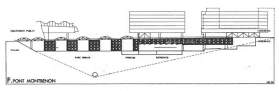
Christian Norberg-Schulz in his book Genius Loci, Towards a Phenomenology of Architecture, states that “before, the meaning of the landscape was ‘hidden’, and the building of the bridge brings it out into the open. The bridge gathers Being into a certain ‘location’ that we may call a ‘place’ (Norberg-Schulz, 1979:18).” Therefore, the bridge is an entity that defines and creates ‘place’. What may have been vast landscape can change and acquire a new meaning through the introduction of a bridge. A bridge possesses a quality that both defines a ‘place’ as Norberg-Schulz describes, and an experience that is to cross it. The following examples are of existing and theorised, inhabited and uninhabited bridges. They have looked at various ways of enhancing the experience of crossing a bridge, found ways of feeding off the traffic and emphasised the power of this connection in an urban and rural environment.

In the project by Bernard Tschumi (pictured below), entitled Bridge City (1988), Tschumi seeks to connect two areas of Lausanne through building on the existing bridge infrastructure. The project is best described as “ along the valley’s North-South axis, the inhabited bridge cities use the program to link two parts of the city that conflict in both scale









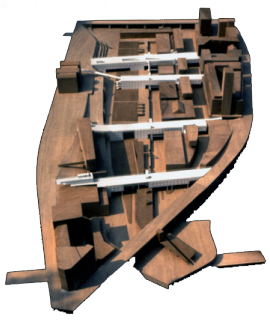


Fig 1.3.1. Bernard Tschumi’s Bridge City Project proposed for Lausanne

and character” (Tschumi, n.d). Tschumi describes the project through the idea of the bridges acting as ‘urban generators’, these ‘generators’ would “create the possibility of new spatial links within the existing city, but also encourages unpredictable programmatic factors, or new urban events, that will inevitably appear in coming decades” (n.d). It is the idea of spontaneous and ‘unpredictable programmatic factors’ and creating a space that will inevitably evolve over time that is an idea that is very relevant to the explorations in this thesis. This project explores the connections to its context on both a horizontal and vertical level through the implementation of commercial uses on one level and pedestrian movement and related uses at the deck level.

Frank Lloyd Wright was commissioned in 1948 to design the Twin Suspension Bridges for the Pittsburgh Point Park Civic Centre, of which he was commissioned to design the previous year. The beautiful bridge was designed using a ‘cable stayed’ structure, even though it was referred to as a suspension bridge and Wright designed heavy vehicles, light vehicles and pedestrians to move on a separate level (Futagawa, 1987). The pedestrian walkway on the upper level is designed to be a garden and the bushy greenery can be seen from the intricate hand drawings of Wright. Wright has also designed the structure as an element to be expressed and celebrated through the ‘engineering innovation’ (Futagawa, 1987:168). From the drawings of the bridge, Wright clearly saw the bridge as a crucial element in the scheme and not just as a connector to reach the civic centre. It would provide a separate experience as an approach to the civic centre and at the same time, solve the traffic congestion in the area.

In a similar vein and clearly with the design of the Twin suspension bridges fresh in his mind, Wright proposed another bridge to be implemented in San Francisco a year later in 1949. The project is described as “where the roadbed of this bridge reaches the highest point on the arch, it becomes divided to provide space for a public park, like a hanging garden, with parking space on both sides” (Futagawa, 1988:273). The idea was for motorists to be able to pull off the bridge and into the park in order to enjoy the views of the bay below. The structure was made up of a series of butterfly arches which would have been the largest single concrete span in the world (Futagawa, 1988).

London bridge was an inhabited bridge up until it was destroyed in the Great Fire of 1666 (Cruickshank, 2010). The bridge has a rich history and has transformed over decades, from its original, timber framed form constructed by the Romans in 55AD, its transformation to stonework under Henry II in 1163, and to the somewhat bland motorway it is in its present state, post the Great Fire (Cruickshank, 2010). According to Cruickshank, author of Bridges: Heroic Designs that Changed the World, the bridge had its “own identity, trades, urban customs, and, with gates at either end, was a secure and self contained town within the city” (Cruickshank, 2010:144). A gateway into the city was formed and the grand nature of the architecture portrayed that in addition to controlling the flow of traffic in and out of the city, whilst providing interesting trade

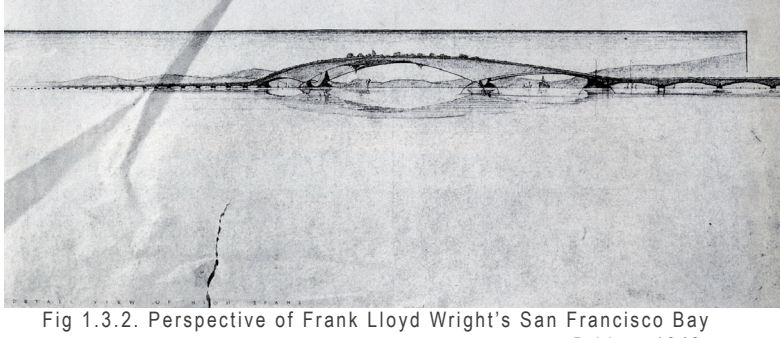


Fig 1.3.2. Perspective of Frank Lloyd Wright’s San Francisco Bay Bridge. 1949.

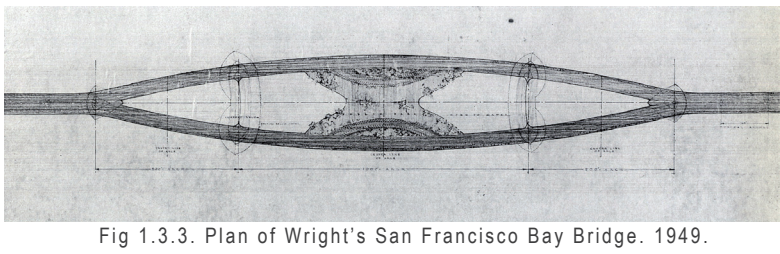


Fig 1.3.3. Plan of Wright’s San Francisco Bay Bridge. 1949.

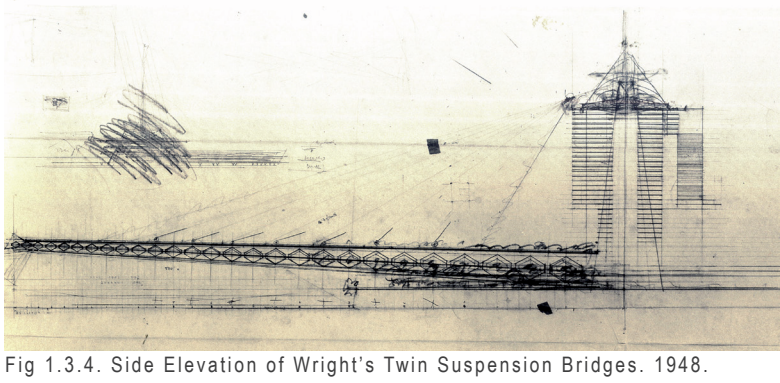


Fig 1.3.4. Side Elevation of Wright’s Twin Suspension Bridges. 1948.

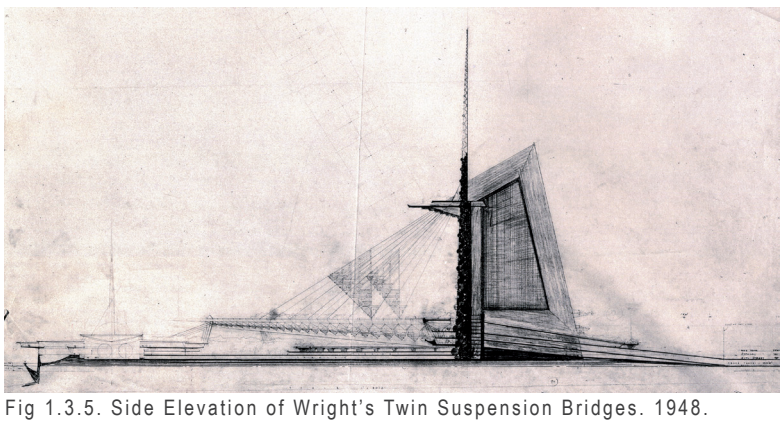


Fig 1.3.5. Side Elevation of Wright’s Twin Suspension Bridges. 1948.

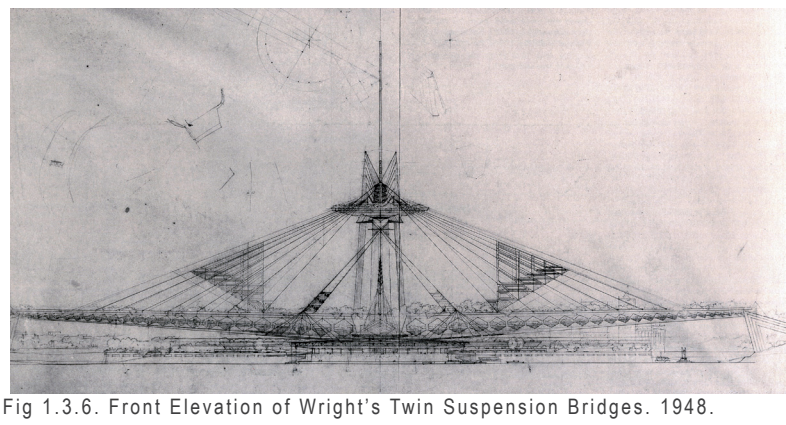


Fig 1.3.6. Front Elevation of Wright’s Twin Suspension Bridges. 1948.

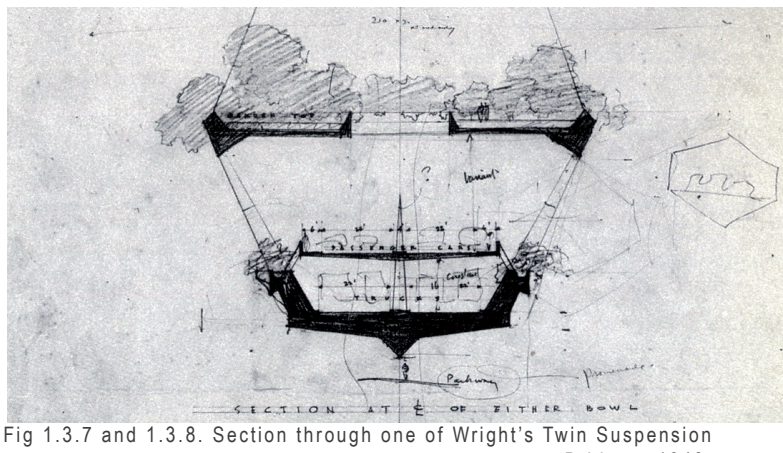


Fig 1.3.7 and 1.3.8. Section through one of Wright’s Twin Suspension Bridges. 1948.
Below: Aerial Perspective of the Pittsburgh Point Civic Centre. 1948.

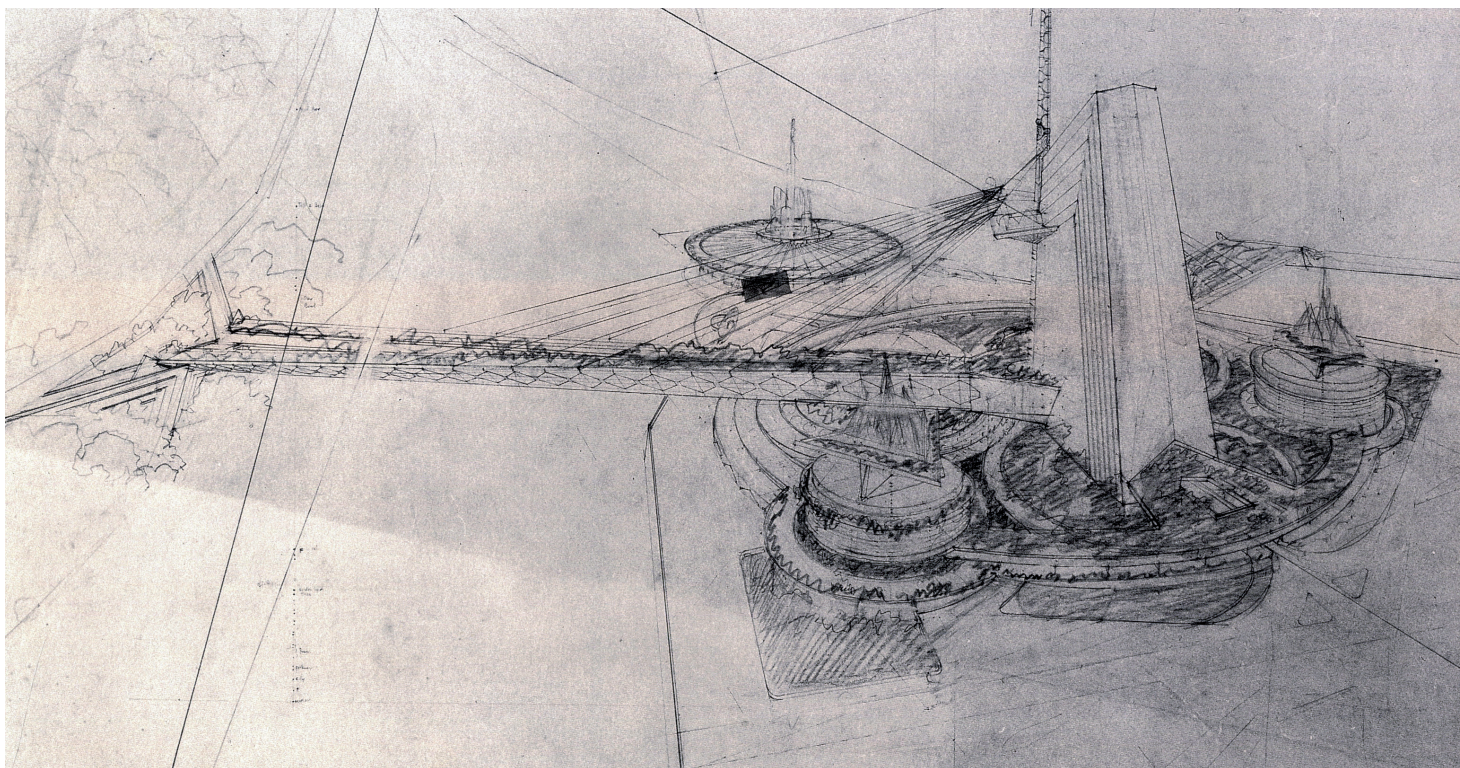


Fig 1.3.9. Old London Bridge

and living opportunities that fed off the movement of people. The bridge also contained a chapel at the centre that was dedicated to the remembrance of the former Archbishop, Thomas Beckett. The chapel could be accessed by the bridge or from the river entrance, accessible to fishermen from their boats (Cruickshank, 2010). The bridge also had a major influence on the flow of the river Thames, it had a dam wall type effect, widening the river and when the shallower areas, towards the banks, froze in winter, people would inhabit the frozen surface for a time (2010). At the entrance to the bridge, heads including those of William Wallace and Guy Fawkes were displayed on spikes as a deterrent to any visitor tempted to commit crimes such as treason (City Bridge Trust. 2009). The bridge created activity that couldn't be anticipated but more importantly, created an environment that engaged with its surrounding and in particular, it created a strong connection to the river. It is a tragedy that it only exists through imagination as there is no existing equivalent in terms of scale.

Fig 1.3.10. Malabadi Bridge in Diyarbakir

The Malabadi Bridge in Diyarbakir (pictured above), Turkey is another bridge that made provision for something more than to just transport one from one side to the other. It was constructed around 1146 and has a span of 38.8m (Cruickshank, 2010). Small rest rooms for weary traveller were incorporated in the bridges haunches (Cruickshank, 2010). It is this bridge that echoes the thoughts of Norberg-Schulz as it truly gives that specific area meaning through the small gesture of creating a place of rest, in addition to connecting the two sides of the Batman River.

Fig 1.3.11. Ponte Vecchio in Florence

The obvious examples of the Ponte Vecchio Bridge in Florence and the Rialto Bridge in Venice are the best examples of existing inhabited bridges. Although they lack the scale of the old London Bridge, they still undoubtedly posses a remarkable beauty. In particular, the Ponte Vecchio, which was constructed around 1345 and spans the Arno River with arches of between 27 and 30m, still bustles with small stores "colonised by goldsmiths and jewellers, who still dominate its commercial activity" (Cruickshank, 2010: 153). The bridge was first used as a platform for butchers but due to the smell, they were removed by law in 1593 and the goldsmiths and jewellers moved in (Cruickshank, 2010). The very informally built shops and rooms received a more formal addition on a higher level through the introduction in 1565 of an enclosed walkway called the Vasari Corridor that was to provide a secure and fast passage across the bridge for certain higher classed members of society (Cruickshank, 2010).

Lastly, in combining the idea of the bridge connecting two countries, Henri Labrouste's final Prix de Rome project of the Border Bridge (1839 – 1840) between France and Italy is apt. Labrouste was interested in "how a rural bridge could convey a world of ideas" (Belier et al, 2013: 75). The bridge is monumental, seeking to celebrate both the divide and the connection created by the border. The authors describe it as a monument the "emerges like an organism from the rock it gradually tames" (2013:75). The symmetry gives the crossing a grand and ceremonial nature while the bold lettering above the arches clearly indicates the country into which one is entering.

Therefore, bridges could play a role that serves more than just to create a short cut or connect one area to another. It is clear from all of the above examples, that crossing a bridge forms an experience on its own and catering for that experience or the addition of program that could enhance it, are all strategies that these examples have successfully explored. It is the idea of creating a space that has the ability to adapt to various changes in environment that proves to be vital in a successful inhabited bridge. These bridges serve a function but seek to build further on that function in order to amplify the experience that is to cross it. The inhabited bridge has a beauty that is very different to the uninhabited bridge and each one responds in a different manner to its surrounding environment.

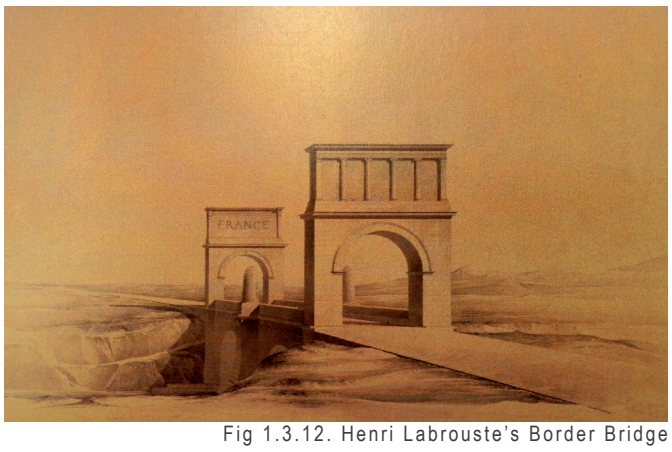


Fig 1.3.12. Henri Labrouste's Border Bridge