

**BORDER INFRASTRUCTURE: TRANSLATING THE STRUCTURE  
OF THE IN-BETWEEN**

by

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Submitted in partial fulfilment of the requirements  
for the degree of Master of Architecture

at

Dalhousie University  
Halifax, Nova Scotia  
March 2011

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**DALHOUSIE UNIVERSITY**  
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**DALHOUSIE UNIVERSITY**

Date: March 22, 2011

AUTHOR: Monica Joyce Leung

TITLE: Border Infrastructure: Translating the Structure of the In-Between

DEPARTMENT OR SCHOOL: School of Architecture

DEGREE: MArch

CONVOCATION: May

YEAR: 2011

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# CONTENTS

ABSTRACT .....	vi
ACKNOWLEDGEMENTS.....	vii
CHAPTER 1: INTRODUCTION.....	1
Thesis Question.....	2
CHAPTER 2: BORDER CONDITIONS.....	3
(Metro)Basel .....	3
Borders: Or/And .....	8
Borders as Divisions .....	8
Borders as Connections .....	11
Areas of Focus .....	12
The Rhine as a Unifying Element.....	12
Liminality and Hybridity: Betwixt and Between .....	16
Liminal Site .....	23
Liminal Use.....	25
CHAPTER 3: DEVELOPING A THRESHOLD LANGUAGE.....	27
Cut & Carve .....	28
Frame & Lift .....	28
Embed.....	29
Blurred Elements .....	29
Field.....	29
Pivot.....	30
Overlay .....	30
Studies .....	31
Overlay - Shared Spaces .....	32
Bridge - Site Access .....	34
CHAPTER 4: TRANSLATIONS.....	37
Urban Translation.....	37
Programmatic Translation .....	40
Site Translation .....	43
Bridges and Landings.....	43

The Rhine Promenade and Inner Bank.....	48
Field Conditions.....	49
The Spine.....	49
Architectural Translation.....	54
CHAPTER 5: CONCLUSION.....	70
APPENDIX.....	73
Appendix A: Timeline of Metrobasel.....	73
Appendix B: Physical Principles.....	78
Geological Data.....	78
Mohlin Jet Stream.....	79
Climate Data: Basel 1961-1990.....	80
Water Data: Basel Rheinhalle 1998-2009.....	81
Appendix C: Case Studies.....	82
Transnational Cooperation.....	82
Horizontal Megastructures.....	83
REFERENCES.....	85

## **ABSTRACT**

Within the European Union, policies promoting integration and transnationalization have raised questions about the nature of borders and boundaries. With these shifts in conception emerge an opportunity to re-imagine how borders might be urbanized and developed. The Dreiländerecke (the Three Countries Corner between Switzerland, France, and Germany in Metrobasel) is one instance of this phenomenon, standing at the threshold of change towards increased trans-border cooperation and a loosening of political boundaries. However, this process is hindered by residual urban barriers.

This thesis investigates the liminal space of borders which provides a rich basis for forming a multi-scalar approach towards infrastructural, architectural, and programmatic strategies for cross-border development. Although connectivity is sought, it is not the ultimate aim, for unfettered integration risks a globalizing homogenization. Instead, this thesis investigates an architecture that facilitates the liminal process as core identities become translated at the meeting point of national cultures.

## **ACKNOWLEDGEMENTS**

For making this thesis richer in collaboration and discussion, I wish to thank:

Brian, for your constant enthusiasm and belief in the project.

Catherine, for your motivation and critical engagement.

Christine, for your sharp insights and clarity of vision.

Niall, for your initial seeds of inspiration.

My family, John, Annie, and Jessica, for your continuous support and love throughout the years.

My fellow peers and Janette, for helping me bear through the challenging moments.

Ying Zhou, for your generous help and access to information at the early stages of the project.

Alessandra Cianchetta, for our chance encounter and your interest in the project.

And to Blaine, for your unbelievable patience and unending encouragement.

## CHAPTER 1: INTRODUCTION

As the trend towards globalization and the current state of European Union integration continues, the lines that once sharply divided countries now become increasingly blurred. With this arises a unique opportunity not only to challenge conventional conceptions of these boundaries, but to re-structure these edge conditions to facilitate the liminal processes experienced both at a national and individual scale during this transition. To investigate how this could be achieved, this thesis uses Metrobasel, a specific border region situated between Switzerland, France, and Germany as a testing ground for urban and architectural propositions.

The research began with an exploration into current border conditions in the Metrobasel region. Due to the complexity of borders, the investigation required a comprehensive analysis spanning multiple scales and dimensions. From these initial studies, a series of criteria specific to the region was developed, guiding the intent of the project. The criteria responds to the multiple scales of change occurring in Metrobasel: institutional, urban, infrastructural, migrational, and cultural. These various dimensions require sensitive responses which serve as evaluative indices of the project's success.

As a methodology, the key elements discovered were used as the basis for potential architectural



strategies. Integral to the study was the process of translating these strategies into a viable, multi-layered architectural proposition that ultimately responds to the site and programmatic parameters laid out.

### **Thesis Question**

How can an analysis of liminality, across its various scales, inform infrastructural, architectural, and programmatic strategies for the transborder development of Metrobase1?

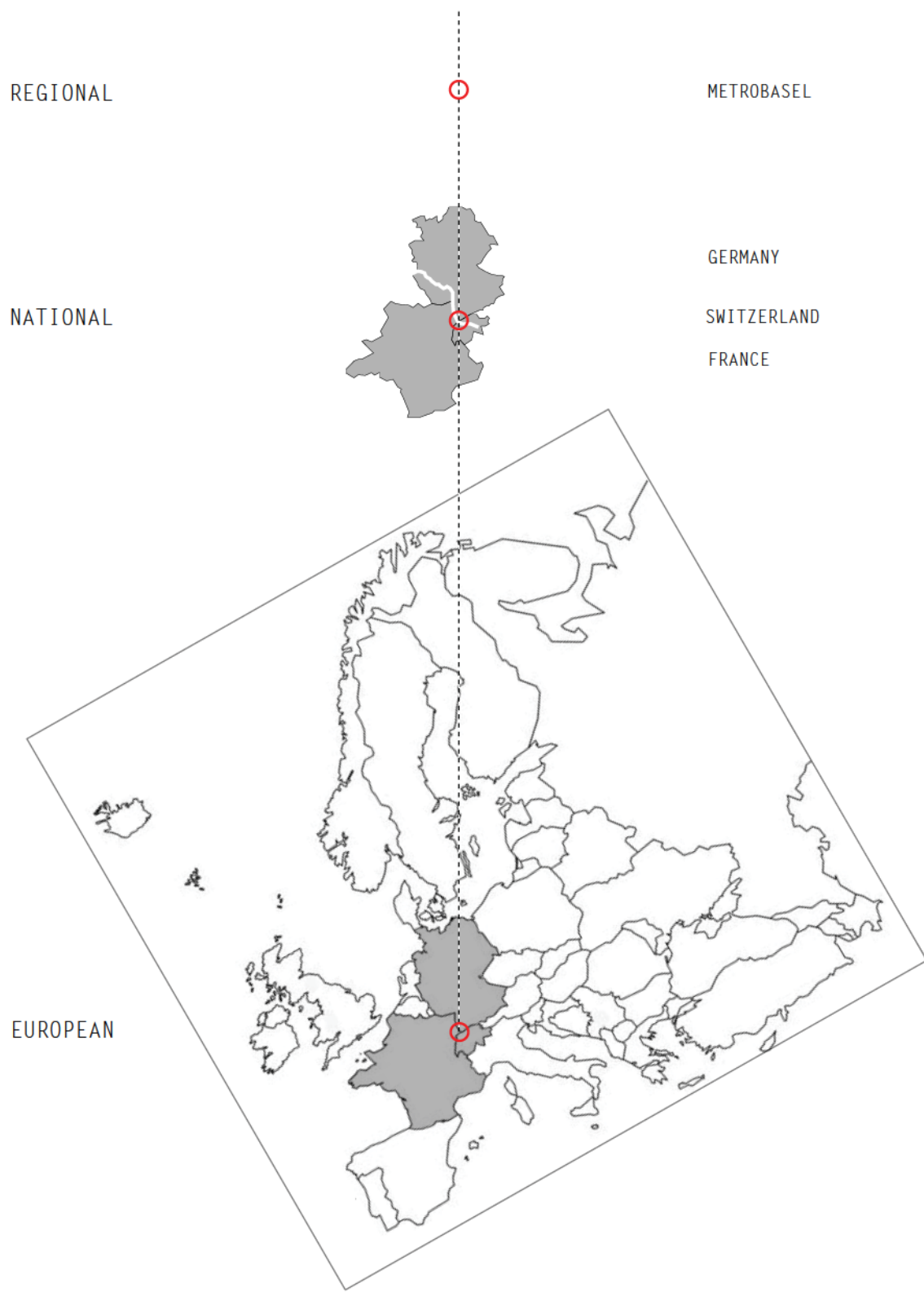
## CHAPTER 2: BORDER CONDITIONS

Architecture is the practice of the organization of space. The employment of architectural knowledge is thus ideological and territorial, formed by a specific understanding of boundaries and the means of separation: interior/exterior, private/public, legal/illegal. (Franke 2003, 10)

### **(Metro)Basel**

While the forces of transnationalization can be felt at a global scale, its effects are most tangibly felt at a regional scale. Metrobasel stands as one of these border regions experiencing changes in how borders are conceived.

This region holds a strategic location, geographically and economically, on the curve of the Rhine, the “Rheinknie”, where it bends to flow towards the North Sea. Historically a pivotal junction of major trading routes, it has been a highly contested region which has seen various nations settle along its banks, resulting today in the “Dreiländerecke”, the Three Countries Corner between Switzerland, France, and Germany (Hölzer, Hundt, and Lüke 2008, 244).



Metrobasel situated in its nested scales and relationships with the Rhine.

The regional identity of Metrobasel has been characterized by these borders and their changing definitions. As the region moves toward transnational development and cross-border cooperation, these national boundaries are called into question. Although these lines may begin to soften, the centres on either sides of the border are of unequal weight. It is clear that the region depends highly on Basel's global importance as a major centre of life sciences. As the home of two highly influential pharmaceutical companies (Novartis and Hoffmann-La Roche), the economic draw of Basel favours a continued emphasis on supporting the life sciences industry while neglecting to cultivate the individual potential of its surrounding towns.

Despite the intentions of transborder cooperation planned for the region, they are met with the reality and history of Swiss neutrality and insularity. Questions regarding Switzerland's response towards transnationalization are thus pertinent to pose. While the Swiss political elites show a growing interest in joining the EU (its 210 trade bilateral treaties make it a virtual member), the vision is not shared by its people (Integration Office Federal Department of Foreign Affairs). While immigrants represent 20% of the population in Switzerland, the naturalization process is among the most stringent, with increasing xenophobic attitudes held by popular right-wing political parties (Afonso 2004, 147). All these contradictions stand in spite of Switzerland's history as one shaped by several cultures: Gallic, Roman, and Germanic. Of



Anti-immigration and xenophobic posters circulated by the Schweizerische Volkspartei (SVP) [Swiss People's Party], a popular right wing political party. From Greek Architects.net, "Europe's Civilization Under Threat."

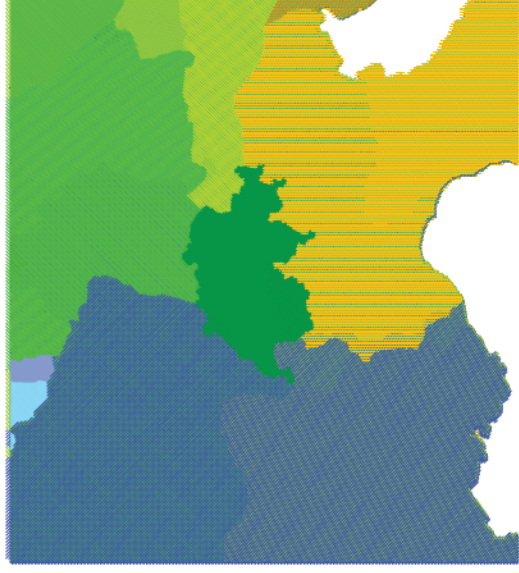
all the nations, it has the unique potential of being the most multi-cultural and tolerant, as witnessed by its four national languages (German, French, Italian, and Romansh). These internal conflicts are issues that inform the thesis question.



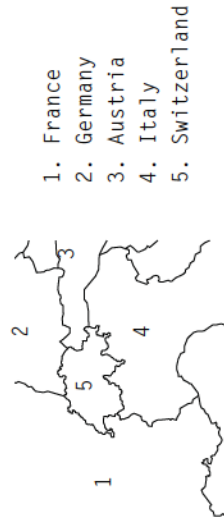
POLITICAL BORDERS



ECONOMIC BORDERS



CULTURAL BORDERS



- 1. France
- 2. Germany
- 3. Austria
- 4. Italy
- 5. Switzerland

Overlays of various timelines reveal the changing and fixed characteristics of national identities.

## Borders: Or/And

Space is a fundamental category for any form of power. It is a medium of social relations, articulated as physical and symbolic distance, proximity, position, opposition, and simultaneity. The production and control of space is thus crucial to any execution of power, representing its potency, reproducing its social order, and neutralizing and naturalizing its objectives through planning processes that lead to a specific physical layout. Any claim to power and property manifests and institutionalizes itself in the act of territorialization. (Franke 2003, 10)

## Borders as Divisions

Frontiers and borders help to define a territory - what it is, and what it is not. Both are historically determined but differ in their cultural conception. In North America, the idea of a frontier was historically defined as the outward edge of a colonial settlement. The frontier marked the point at which settlement ended and wilderness began, dividing civilization from nature, symbolized by the forest or prairie. In Europe, however, the idea of a border was formed from a history of division between nations and people that has been fought over many wars, and it is symbolized by the border post or checkpoint. Both these definitions can be traced back to Roman history when the ideas of frontier and border were initially formed. The Romans' definition represented elements of both frontier and border: as an end of their world as well as one to be defended against others. Although the Romans developed a border defense system, the *limes*, that demarcated the boundaries of the empire in a hard-lined fashion, there were also border



Remains of Hadrian's wall, one of the *limes* that marked the extents of the Roman empire. From BBC, "My Northumbria/Tyneside".

regions, the marches, that were of neutral ground between the empire and the rest of the world (Maier 2002, 19-22).



Herman Moll map of France, *A New and Exact Map of France Divided into all its Provinces and Acquisitions, according to the Newest Observations, and that accurate Survey made by the King's Command by Mr. Picar and de la Hire, with the Post Roads and the Computed Leagues from Town to Town, and the Passes of the Pirenean Mountains and many other Remarcks &c.* (c. 1740). J. Bowles, P. Overton, T. Bowles, John King, London. From Wikimedia Commons, "Herman Moll Map of France."

Thus, the definition of territoriality involves specific properties of history and geography as well as political jurisdiction or sovereignty. Interestingly, sovereignty is not a mere counterpoint to the delimitation of a territory because it develops at a different historical pace. As a means for improving its development, mapping and maps became important aspects of a dominion. The metaphoric quality of reducing three-dimensional space and extent to a planar model translated to a control of space and conceptual domination. It was through maps that one saw the lines of defense. (Maier 2003, 19-22)

Beyond the map, the embedding of these conceptual and abstract lines of control result in urban and natural borders which remain as residual artefacts despite current efforts at opening these boundaries.

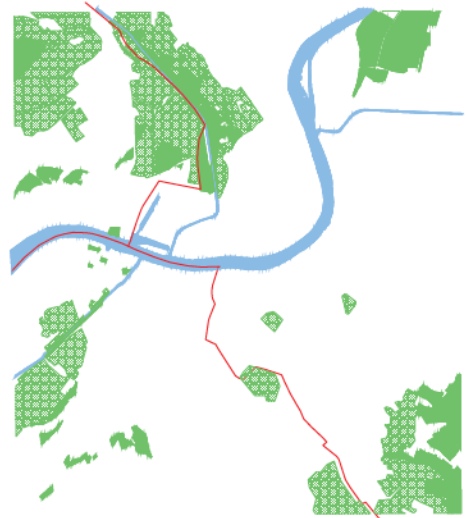




URBAN CENTRES



URBAN BORDERS



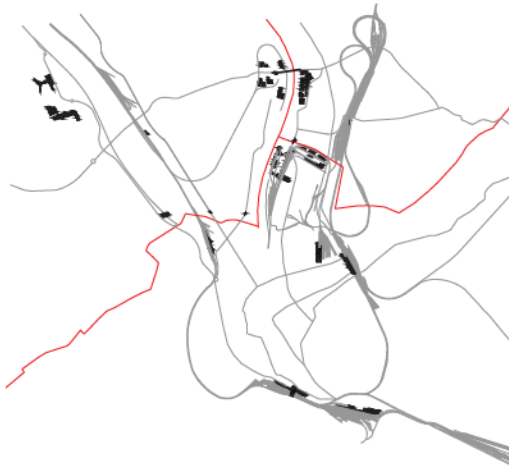
NATURAL BORDERS



Analysis of the built and unbuilt formations within Metrobasel and their relationship to existing borders.

## Borders as Connections

The original dividing line is transformed into a zone of exchange and a link between distinct things. This interlocking of once separate areas describes the process of urbanization in its dual meaning: as the reversal of traditional stability and of inertia in self-referential, local structures but also as an incipient productive exchange between different contexts. (ETH Studio Basel 2006, 50)



Points of entry (airport, train stations, harbours, and border checkpoints) in relation to the national borders.

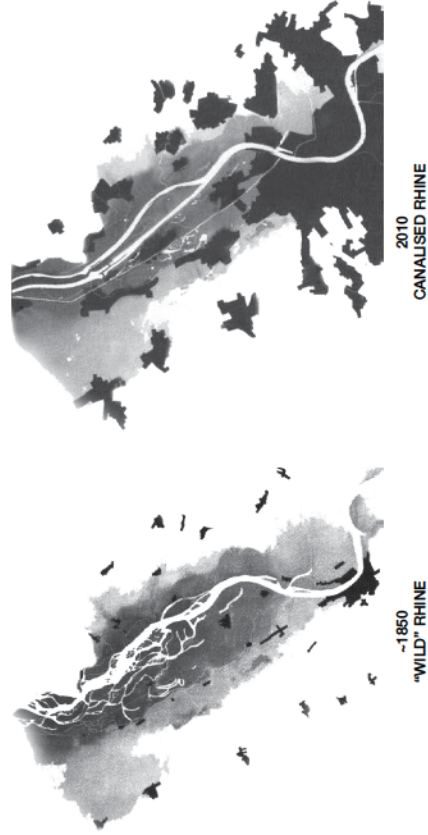
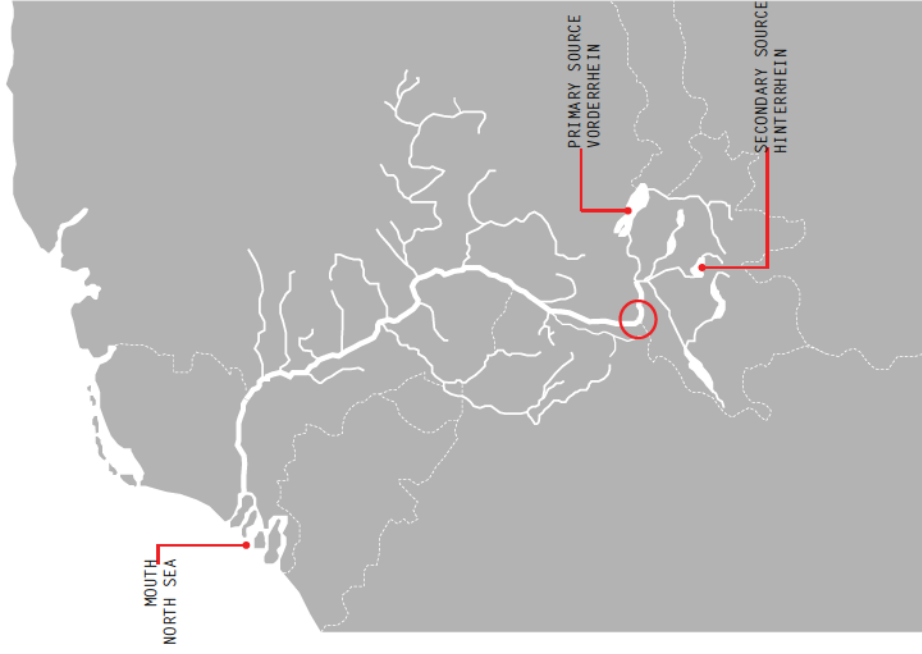
Despite the fact that borders are still drawn on maps, present day realities in Europe tend towards globalization and deterritorialization (with the exception of militarized zones). Borders that were once boundaries are now the necessary points of exchange in a world of growing interdependence. Nestled within the crossroads of trading routes, Metrobasel lies in a geographically strategic position as one of the gateways into Switzerland and the only port of entry for this land-locked country. It is serviced by various networks that link it to the greater global community: rail, highway, train, plane, and most importantly, the Rhine. The Rhine river has perhaps the largest breadth in encompassing the complex understanding of borders and connections. It is at once a political and natural border, but it is also a line of continuity and source of common cultural heritage along its banks.

## **Areas of Focus**

### **The Rhine as a Unifying Element**

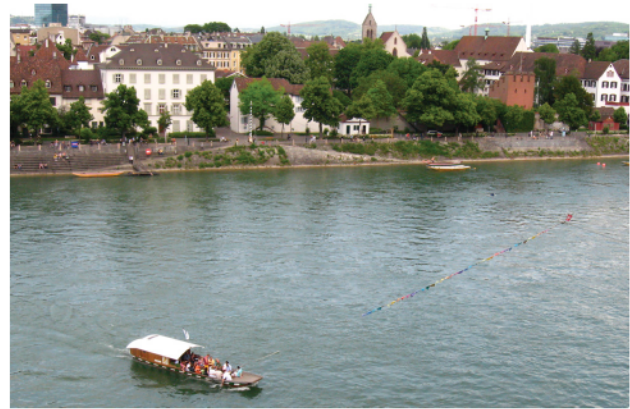
The histories of many civilizations have centered around rivers: Tigris, Euphrates, Yellow, Yangtze, Nile, Jordan, Ganges. The Rhine is no exception. The river, whose source arises from the Alps of Switzerland, meanders its way through northwestern Europe and has served as a significant character in the formation of states across its stream. The Rhine as we presently know it was born from the French and Industrial Revolutions. Conceived by Napoleon and canalized by engineers in the 19th century, the Rhine was designed to encourage the free flow of trade which had been impeded by twenty-five years of war. Thus, the Congress of Vienna in 1815 met to foster trade among the riparian states. As a result of the congress, the Rhine Commission can rightfully be considered the oldest continuous interstate institution in Europe serving the basis towards decades of diplomacy that would result in the formation of the Common Market and the European Union. (Cioc 2002, 3-4) The Rhine has served throughout history to unite the cities along its banks, mainly through economics and trade. Furthermore, this unity arises from a shared cultural identity to the Rhine and its cyclical rituals. Identification with the river is also reflected by the amount of water-related activities at its banks: paper mills, textile factories, chemico-pharmaceutical industries, hydroelectricity, motorless ferries, and swimming.

Focusing on the Rhine as a unifying element and armature provides the strongest potential in the Metrobasel region to bridge the existing divisions remaining at the urban level.



The evolution of the Rhine, its sources and tributaries, pre- and post-canalization. Left image adapted from Berger, Hufschmid, and Furrer, *Führer durch Augusta Raurica.* [Guide Through Augusta Raurica] (1998).

Motorless ferries are found in-between the five major bridges of Basel. Their history spans back to the mid-19th century when only a single, central bridge, the “Mittlere Brücke”, spanned the Rhine. Motorless ferry across the Kaserne, Basel (2009)



The Rhine promenade is the heart of Basel and a vital piece of public space that joins both sides of the city. From Hölzer, Hundt, and Lüke, *Riverscapes: Designing Urban Embankments* (2008).



Lining the edge of the Rhine are also a series of bath houses for calmer swimming protected from the river current. From Hölzer, Hundt, and Lüke, *Riverscapes: Designing Urban Embankments* (2008).



Rhine swimming is a popular activity especially during the summer months with special “fish sacks” offered for floating down the river. From *Swissworld*, “Rhine swim in Basel.”



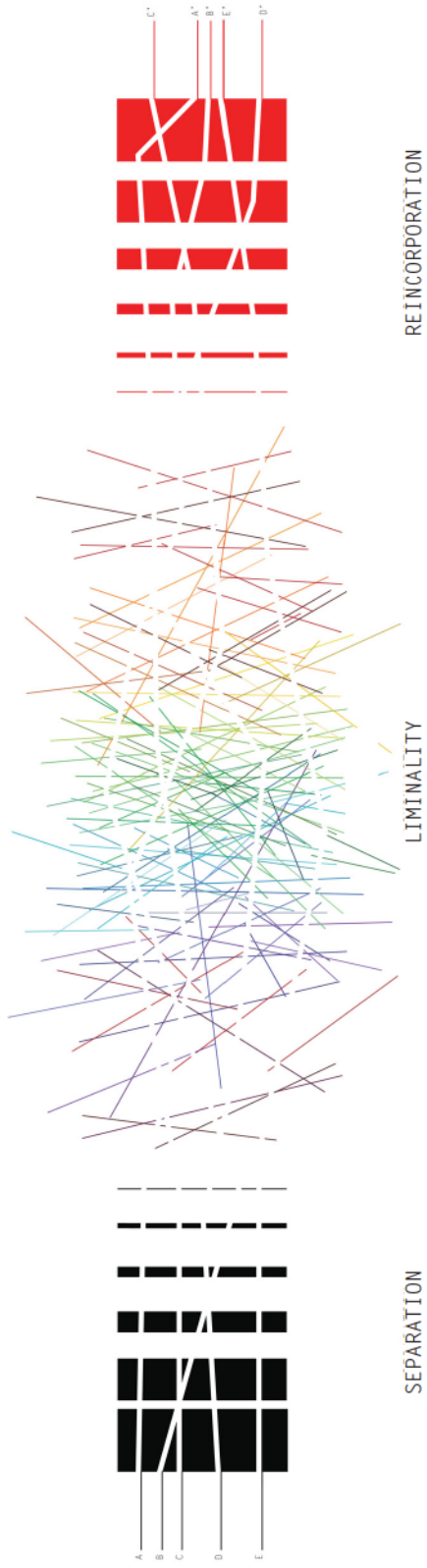
## **Liminality and Hybridity: Betwixt and Between**

Liminality is a central concept in this thesis. As defined by Arthur van Gennep, liminality is a rite of passage where one leaves one world behind and enters a new one (van Gennep 1961, 19). The neutral zone in-between becomes sacred for the inhabitants on either side. Victor Turner adds further that the ritual subject is ambiguous while s/he passes through a cultural realm that has few or none of the attributes of the past or coming state. The liminal zone or state is characterized as a “non-place”/“non-person” during which, one is neither this nor that, one is neither here nor there, but instead lies in a unique hybrid combination of the two (Turner 1969, 94). Under the theme of liminality, the thesis encompasses varying dimensions of change: institutional, infrastructural, migrational, and cultural.

### ***Changes of State: Transnationalization***

The process of transnationalization, of heightened connectivity due to the loosening of boundaries between countries, has been a part of the regional history that was begun through the Rhine and now more recently through the integration of the European Union. These processes no doubt find their influence filtering down to a regional and urban scale.

Within the region of Metrobasel, the process has begun for a change of state. Situated at the bor-



A representation of the various phases within liminality.

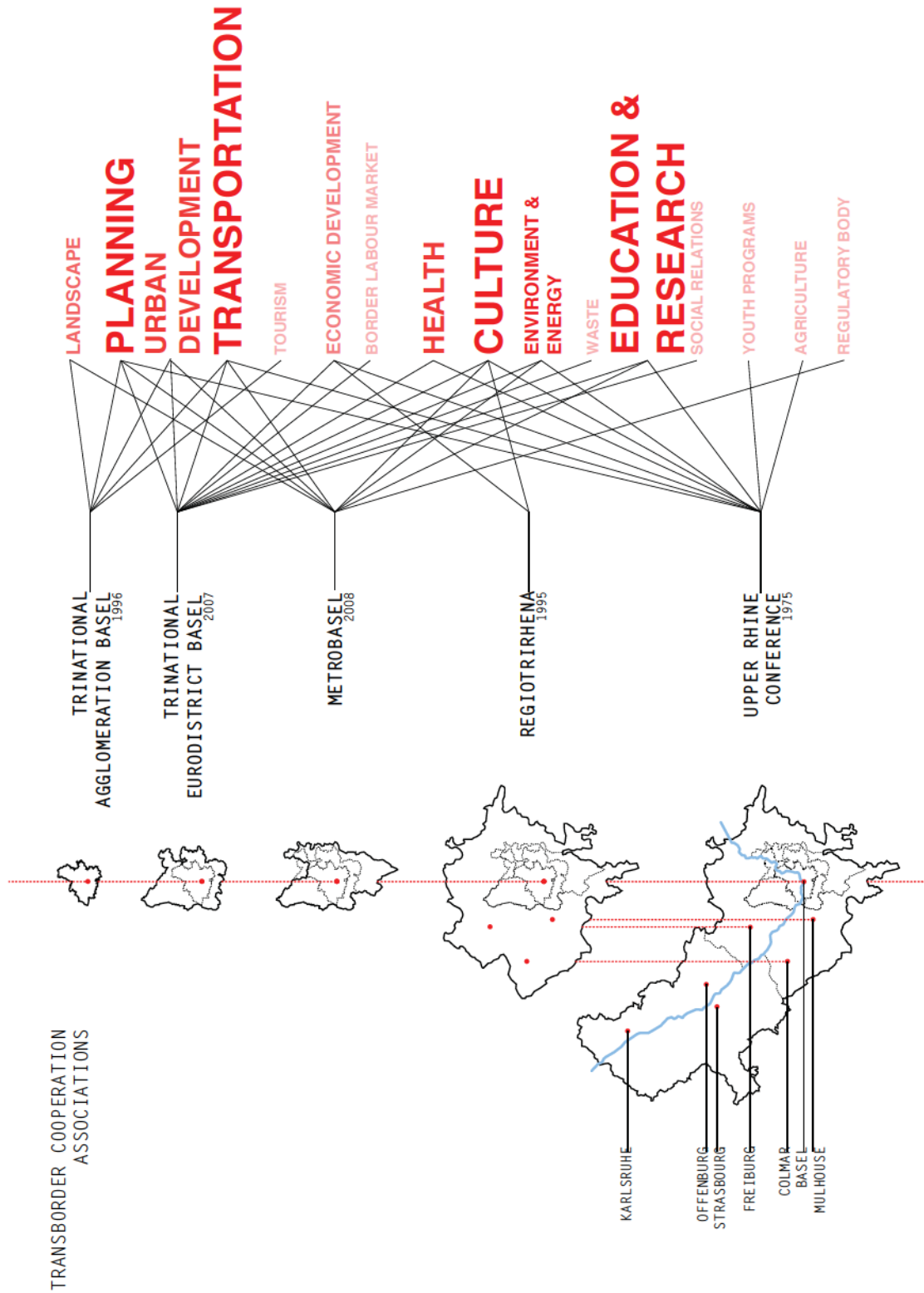


ders of their respective countries, the regions of Alsace, Baden-Wurttemberg, and Basel Stadt/Land have begun a dialogue for transborder co-operation.

To this end, a series of nested programs has arisen with overlapping and differing objectives. In summary, the main goals of these programs involve structural, cultural, and political changes for economic benefit. Although these goals are no doubt admirable, perhaps the ends to which they are directed could benefit from a different frame. Rather, reframing the focus on structural and cultural aims could provide the seeds for deriving the other two in a sustainable fashion. This shift in emphasis would place the value of its inhabitants, as opposed to the sole value of economy, as its goal.

### ***Changes of Infrastructure and Urban Development***

Located at the elbow of the Rhine, the city of Basel has become one of the main hubs of Swiss logistics, linking the North Sea and the Mediterranean. As a result, the city has left much of its river banks to port and industrial activities with only those within the immediate city centre having distinct urban character. According to the objectives of the Trinational Eurodistrict Basel (TEB) one of the transborder cooperation associations of the region, focus has been on creating infrastructure to bridge the divisions still felt along the Rhine.



Overlapping objectives of the five transborder cooperation associations that span a tri-national territory.

Currently, new urban strategies are underway to develop the banks of the Rhine and its tributaries. These developments are related to the emergence of a metropolitan economy that challenges the urban structure of the industrial era. Today, the challenge lies in the ability to restore and expand the areas located along the banks of the Rhine as the backbone of a coherent urban landscape furnished in respect to its overall identity. This new approach gives strategic positioning to bridges and gateways, which make the river city permeable. While there are many opportunities for crossing the center of Basel (five road bridges), the rest of the town is only served by two road bridges and one footbridge. North and east of the city, the Rhine forms a real break. Traffic problems at the Palmrain reflect the cross-border flows which are no longer limited to traffic associated with commuting, but also with recreation and shopping. (Duvina, Lohaus, and Prudent 2009, 43)

However, infrastructure serves only as a starting point for fostering connectivity. Bridging disparate places merely provides a thoroughfare, not a destination and desire to connect. Beyond planned infrastructural projects, further urban development that could ground the connections in shared public spaces and which aid in the transnationalization process have not been envisioned for the region. This void provides another focus within the thesis.

### ***Changes in Movement: Migration and Displacement***

Mapping identities, therefore, involves tracing journeys, which may be geographical, but may also be philosophical, political, emotional. They may be journeys in space, but also in time. And all journeys involve the crossing of borders, if only between here and there, between then and now. (Wagstaff 2004, 8)

Although the forces of transnationalization have been played out at the scale of nations, it is

experienced and felt at the scale of the individual. As the borders increase in their porosity, the displacement of individuals across it will range from the local to the distant, from the commuter to the immigrant. More than 46,000 residents from Germany and France work in Metrobasel, which represents a cross-border proportion of 40% of Basel's population (Sohn, Reitel, and Walther 2009, 928). In addition, a large pool of global immigrants have been transplanted to work in Basel's chemical and pharmaceutical industries (Duvinaige, Lohaus, and Prudent 2009, 57). Interestingly, the discourse of displacement is as relevant to the migrant as it is for the most fixed local (Dawson and Johnson 2004, 118). Despite the perceived insularity of Switzerland, its citizens are still confronted with the import and export of goods and ideas and move vicariously through encounters of cultural otherness. Underlying the forces of transnationalization is a move away from static views of people and culture towards ideas of mobility and hybridity. As a result, migrant place-making stems from movement and is less concerned with a fixed position or perspective (Carter 2004, 83). The idea of migrants as track makers who leave material traces suggests a new drawing of the plan and provides insight into how new architectures could be formed (Carter 2004, 90).

### ***Changes in Identity: An Overlay of Narratives***

The idea that identity is formed by the self and

one's social context underscores the implicit changes encountered by both immigrants and border nations. As the scope of one's social context enlarges through transnationalization, what once were clear forms of national, cultural, and personal identities will undoubtedly be recast. Underlying this process of construction is the act of narrative.

Without the narrative structure they impose, our experience of the world and of ourselves would not be intelligible: it would only be a continuous given, in the way one supposes it must be for animals. (Cave 1995, 211)

Although identities are formed through storytelling, it is not the mere recounting but the structuring of seemingly haphazard events into a meaningful sequence that is of importance (Bal 2004, 87-88). Ultimately, narratives are embedded in space and time, framing the events one experiences. The role of architecture and urban design should then lie in providing the appropriate spaces in which these social encounters occur. Within Metrobasel, the opportunities inherent in the transborder development process lie in creating the potential for interactions between local and migrant populations.

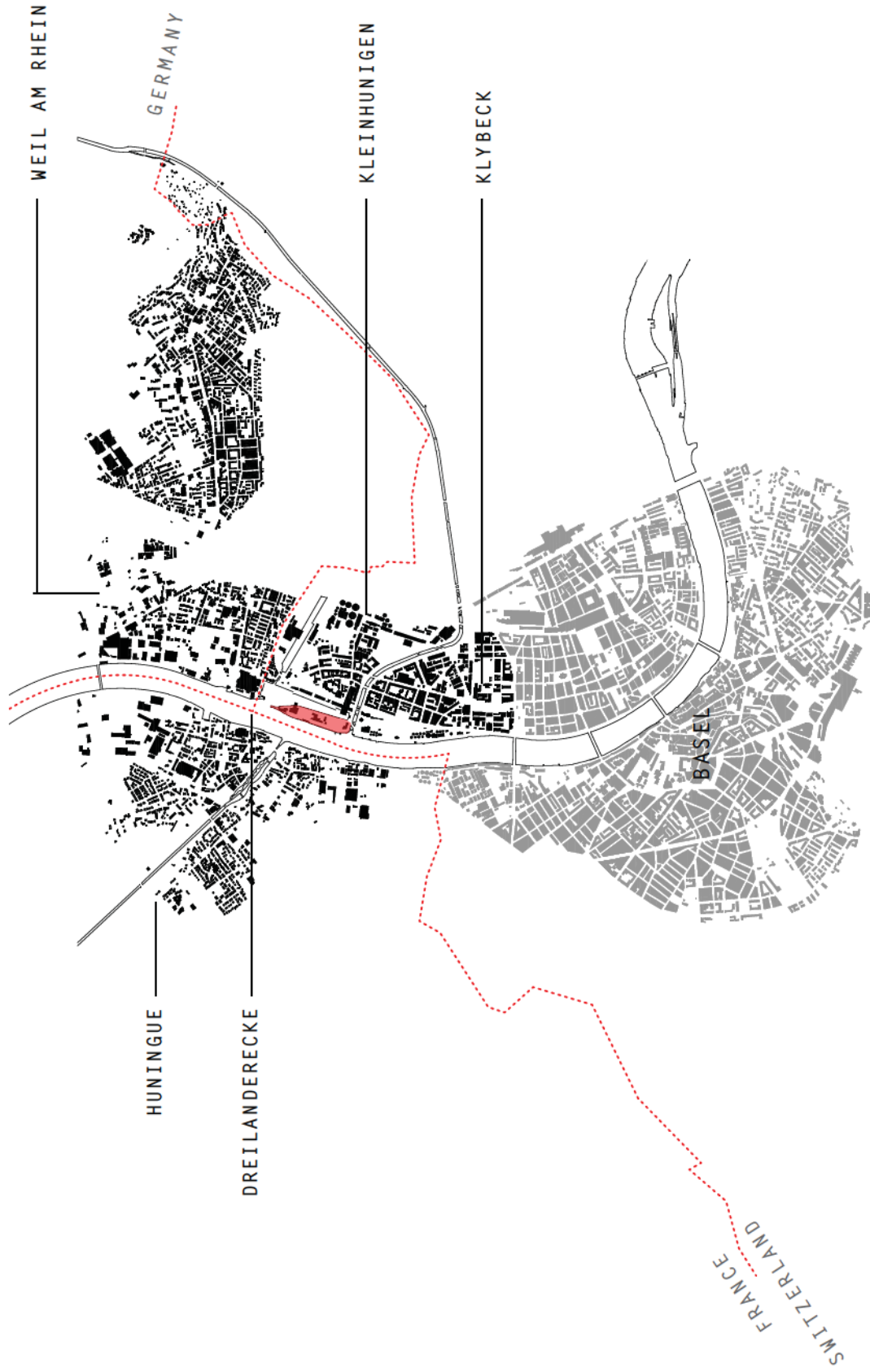
## Liminal Site



The existing Kleinmünchen port and its structures, Basel (2009).

The term Dreiländerecke is used not only to describe the regional border zone of Metrobasel, but also the specific point where the three border countries of France, Germany, and Switzerland meet. As drawn in maps, this lies in the middle of the Rhine, off the shore of the existing Basel-Kleinmünchen port. The unique, liminal characteristics of this port site allow for an ideal grounding of architectural and urban interventions that investigate the in-between. As an artificially reclaimed piece of land, the site is like an island. While the Kleinmünchen port is technically within the city of Basel, its connotations begin to disrupt preconceived notions of national association.

Perhaps one of the salient features of the site is its direct location on the Rhine where its divisive and unifying capabilities are felt. Within Basel proper, the Rhine is a necessary character upon which both halves of the city, Grossbasel and Kleinbasel, face to form a whole. This connectivity is most notably aided by the five bridges and fleet of motorless ferries which traverse its watercourse. In contrast, beyond the north of Basel and towards the borders, the Rhine serves as a natural and political frontier that divides the three nations. Each country begins to turn its back to the water by placing unsightly industrial programming at the river's edge. Without a view to the Rhine, each begins to forget its existence. The Dreiländerecke site lies at an opportune location for investigating where



The Dreiländerecke site in its larger context. The existing port is situated in the Kleinhunigen neighbourhood of Basel in direct proximity to the cross-border towns of Huningue and Weil am Rhein.

infrastructural development could be inserted that could aid in the transborder connectivity sought by the region.

Conversely, a latent potential exists in exploiting the site's location at an existing exchange point. The flow of goods and people on the site's harbour port, ferry, and cruise terminal provides a crucial point of departure for intensifying public programming on the site and enhancing the architectural design of these spaces.

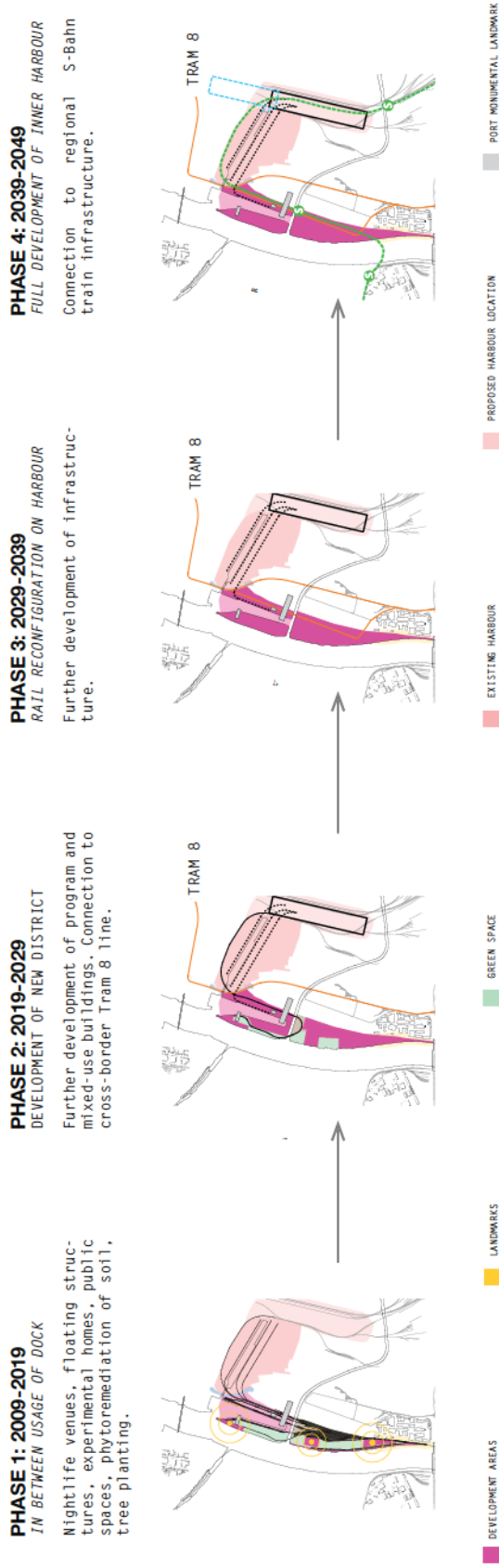
### **Liminal Use**

Although the port has served as a vital connection point, both the city of Basel and the Basel port authority are interested in the potential of this site for other uses. Having gone through various stages of masterplanning (including one by HHF & AWP Architects and most recently by MVRDV), their main objectives are to reclaim this prime real estate on the Rhine for largely mixed-use and residential development while reinstating the Rhine promenade for public use. It also outlines a series of cross-border infrastructural projects that would improve the connectivity of this area, namely the introduction of bridges, a cross-border tram line, and a cross-border S-bahn (regional train) line. This thesis takes these initial masterplans as a starting point but challenges the potential use of this site to look beyond a mainly residential development.



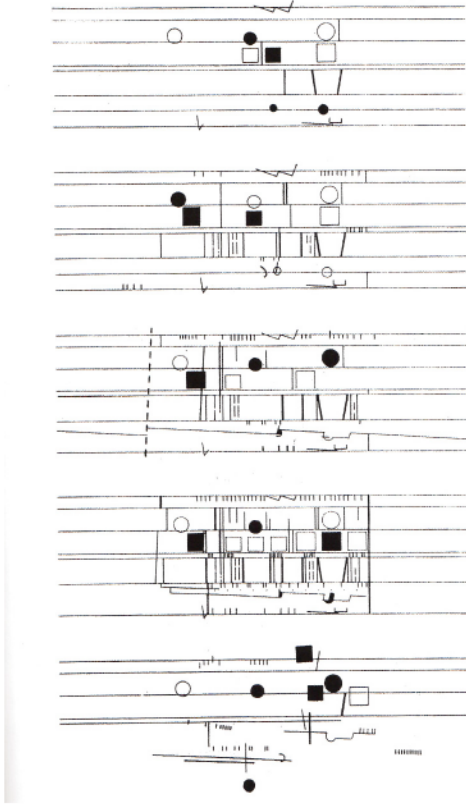
Rendering of proposal for the Dreiländerecke site by MVRDV. From *Basellandschaftliche Zeitung*, “Das Manhattan am Rhein springt über Grenzen.” [The Manhattan on the Rhine jumps across borders.]





## CHAPTER 3: DEVELOPING A THRESHOLD LANGUAGE

In one sense...architecture is always a “second language” even to those who speak and read it. In another sense, the term second language could suggest that architecture is grounded in other disciplines, that is secondary to philosophy, science, literature, art, and technology. But finally, there is a third possibility for the idea of a second language in architecture; that is, architecture as text. (Eisenman 1998, 69)



Bernard Tschumi, notation diagram of the National Theatre and Opera House, Tokyo (built project, 1986). From Tschumi, “Event Cities.”

In a transnational age, when global interactions are made possible by technology and disappearing borders, language and translation become increasingly important. At the conjunction of multiple nations, languages, and cultures, a major objective of architectural design lies in ensuring spatial clarity to aid in orientation and wayfinding. The fundamental nature of this goal is underscored by our shared history in visual and spatial communication which traces back to cave drawings and more recently the embedded meanings of the cathedral.

In this thesis, an extensive analysis is made of thresholds which moves beyond two-dimensional mapping to understand spatial implications and possibilities. From this study, a set of clear, spatial strategies is derived for delineating threshold and entry sequences. The first set of spatial constructs created to translate the threshold conditions of the site began as descriptive interpretations. However, a second order reading inspired another set of constructs that blur the conventional edge conditions found.

## Edge and Border Elements

### Cut & Carve



The Rhine as a border results from water carving through the valley. The edges of this natural border between nations reveal differing cultural attitudes. The French side uses natural vegetation and allows for a certain amount of erosion to occur. On the other side, Switzerland and Germany have clad their banks with hard surfaces to maintain control. The process of cutting and carving then should be mindful of the opposing processes of erosion and control. *Liminal process: The act of bridging sides.*

### Frame & Lift



The border crossing station provides an archetypal condition of a threshold space. Characterized by their lifted roofs and central inspection kiosks, these stations set up a spatial sequence for experiencing the border. Lifting, to provide a passage under, uses the roof element to draw a boundary zone. Lifting and framing a distant visual connection heightens awareness of the border between here, where one stands, and there, the distant view. *Liminal process: The act of passing through.*

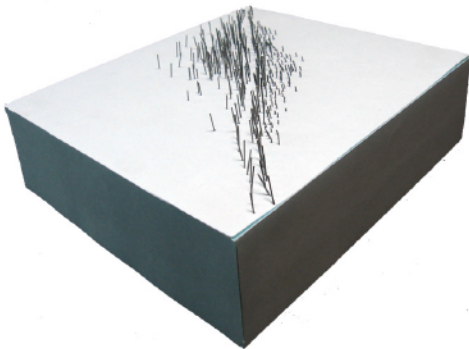
## Embed



The border region of Metrobasel is characterized by the aggregation of expansive industrial areas. The borders of these industrial zones are characterized by their sheer size and the limits they place on public access. Although open space is indeed plentiful in these industrial zones, they are not perceived to be occupiable. Silos and warehouses are embedded in this zone and accessed only at the point of exchange. *Liminal process: The act of exchange.*

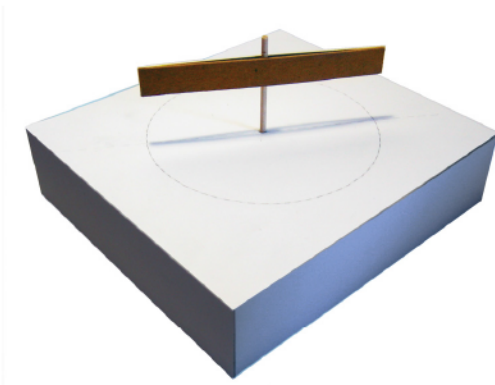
## Blurred Elements

### Field



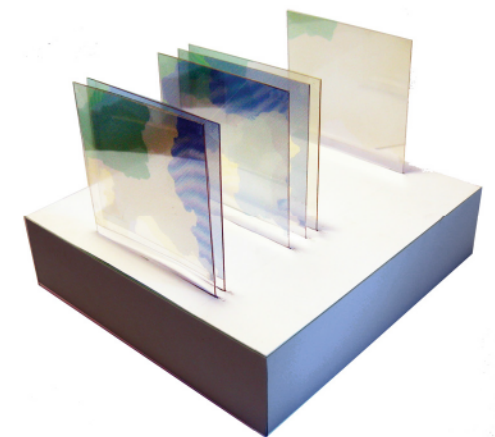
A large portion of the border between Switzerland and Germany is contained in a nature reserve park, the Lange Erlen. The park, a natural escape from the city, serves as a liminal zone that mediates the threshold between the two countries. As a field of natural elements, the national border is masked by the larger system of the park. Although the similarity of elements blurs the line, it is implied by their density and spacing.

## Pivot



Among the attractions of Basel are the motorless “faehri” fleets that operate between the bridges. The fascination lies in their incredible simplicity. The movement of the ferry merely depends on bringing a rudder 45 degrees to the flow of the river while being attached to an overhead cable. The rotation of the rudder at each bank allows for the ferry to travel in the opposite direction. The pivot serves as a neutral structure that translates existing forces into opposing expressions to confound the boundaries between one side and the other.

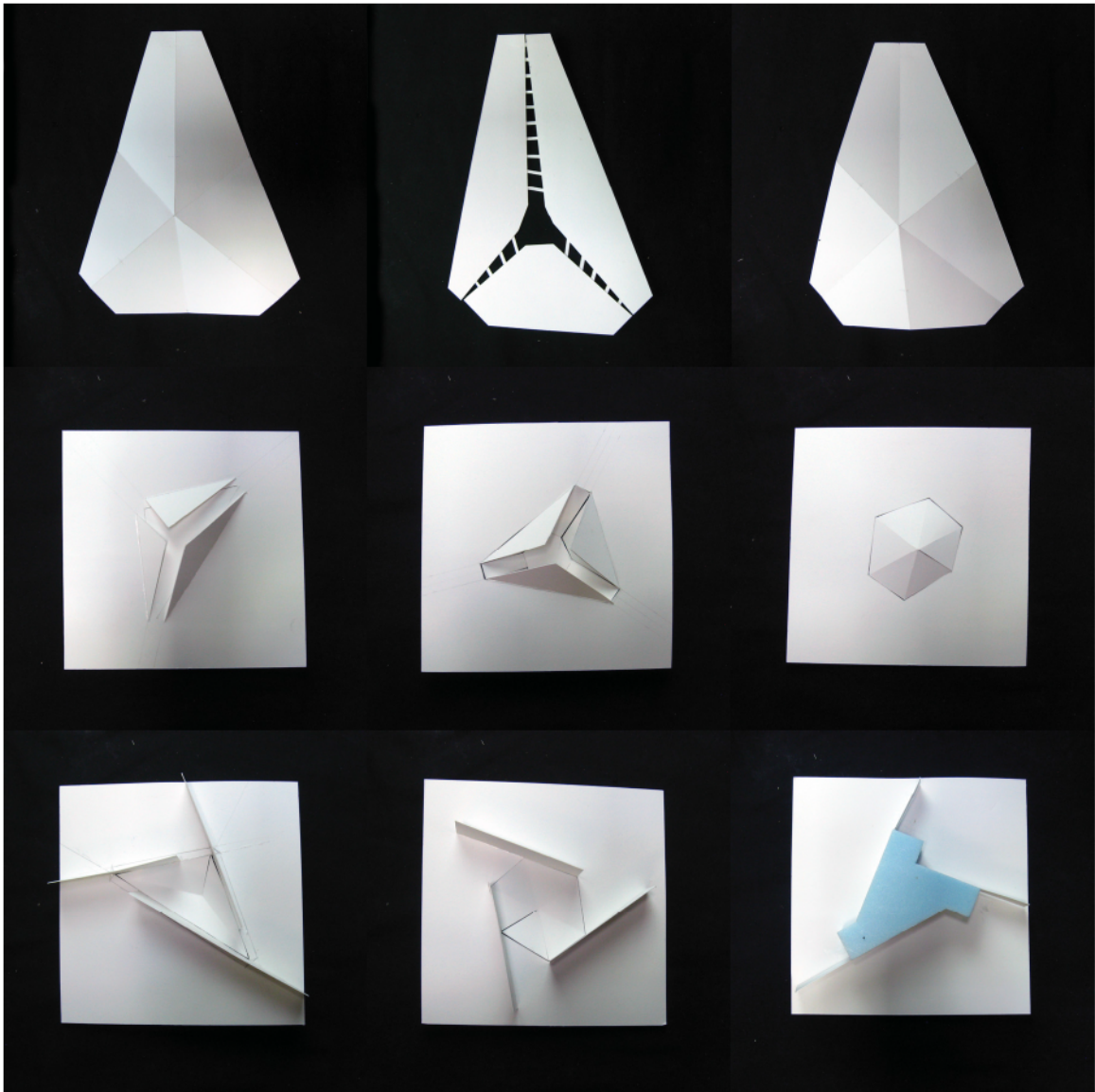
## Overlay



The issues of borders in Metrobasel cannot be studied without considering the overlay of histories in this region. The process of overlaying many frames of time blur our conceptions of borders as static entities and reveal the malleability of these lines. The effect of the overlay also depends on the time and space between them. As these historical overlaps disturb the view of borders, they also challenge embedded conceptions of Us versus Them by revealing a palimpsest of shared regional identity.

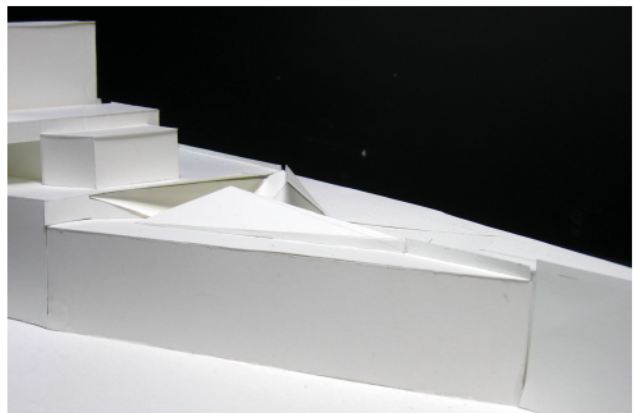
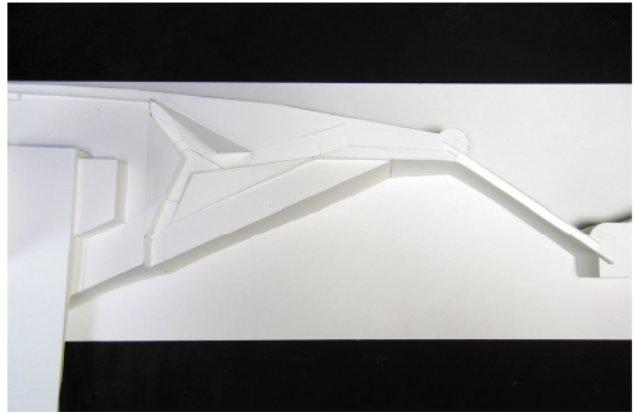
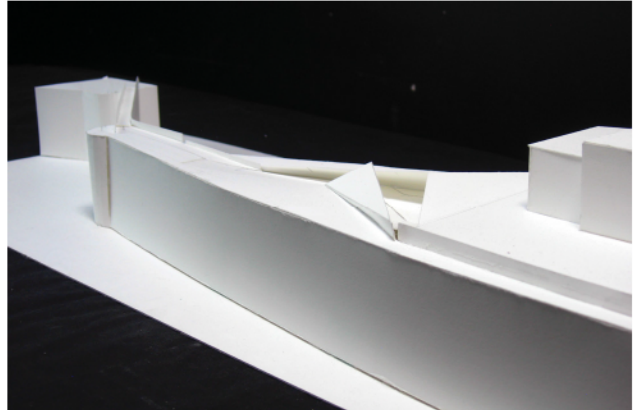
## **Studies**

The complexity of borders lies in their scaleless, placeless, and non-material nature which require considered responses that span from a national to a detail scale. The previous investigations in the language of thresholds and their resultant abstract constructs can therefore be scaled up or down to approach strategies for reconnection across and reconception of the border line. While the thesis grapples with the meeting of three nations, strategies must resolve the connection across any single border at a time.



### **Overlay - Shared Spaces**

These studies investigate the orchestration of spatial sequences that allow the meeting of three different regions into a central shared space of equality. They begin by overlapping one architectural element, the wall, to provide in-between spaces of gathering. This was further developed to overlap the functions of three architectural elements: floor, wall, and roof.

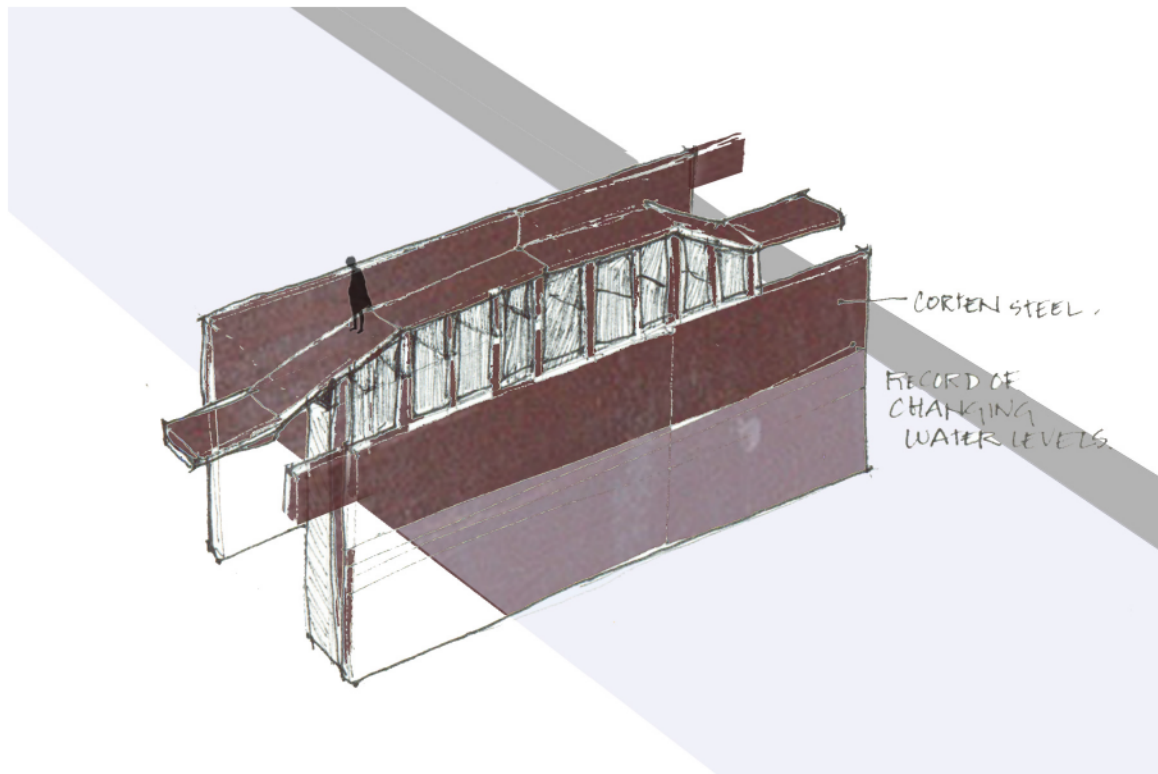


These studies were then translated into a trina-tional pavilion as a test project on the tip of the site, demarcating the point at which the three countries meet.

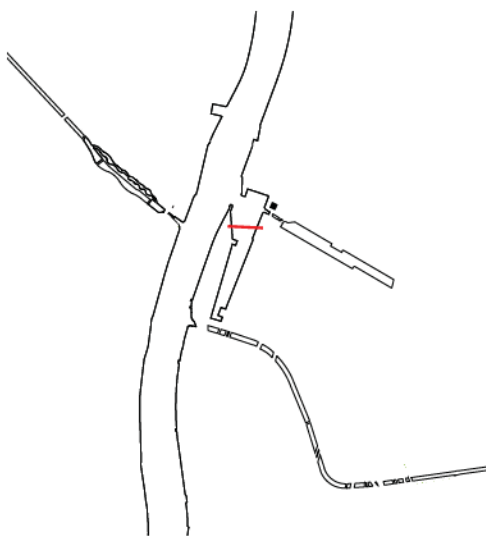


## Bridge - Site Access

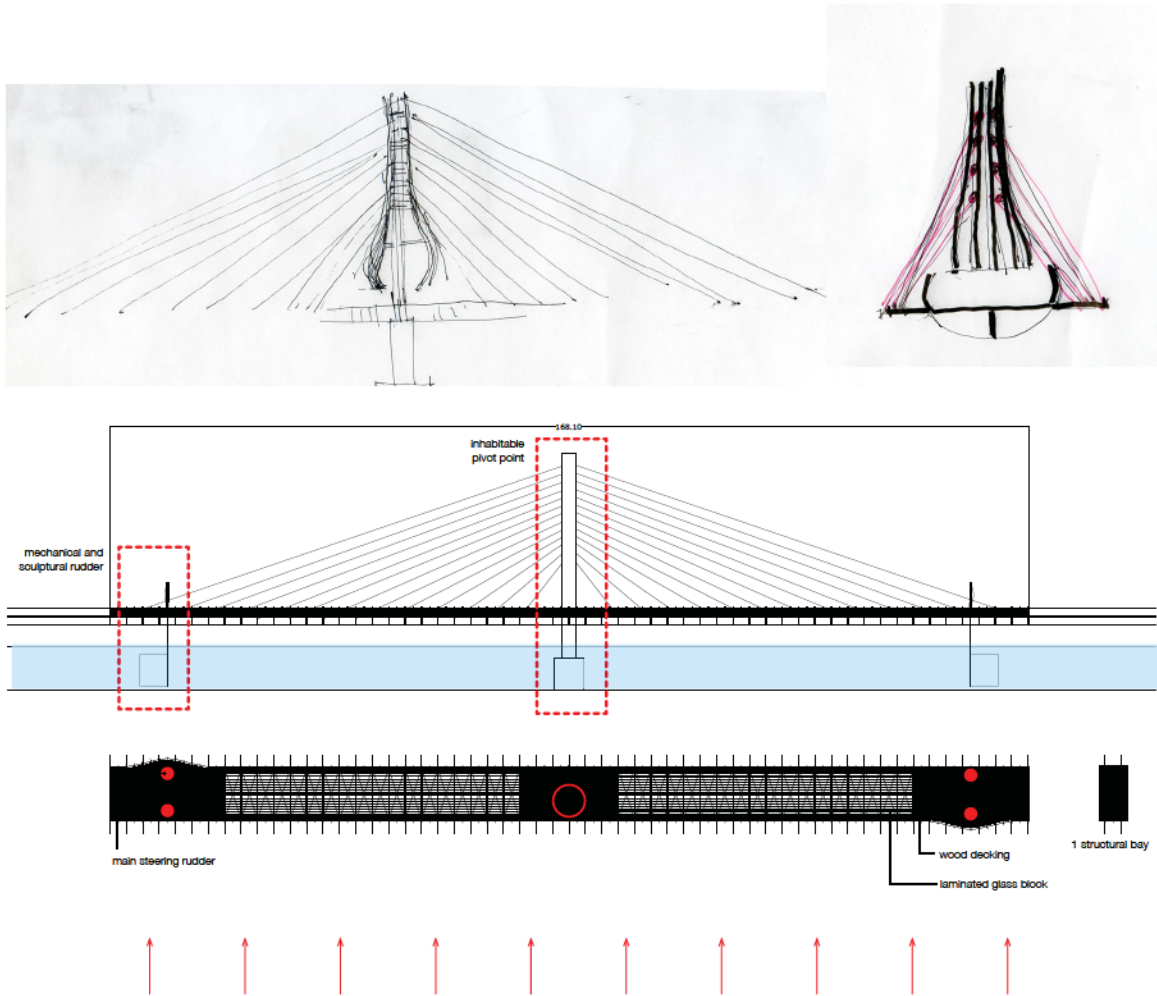
These studies begin to investigate the potential ways of bridging onto the site by translating specific threshold qualities inherent at each access point into formal expressions within a bridge structure.



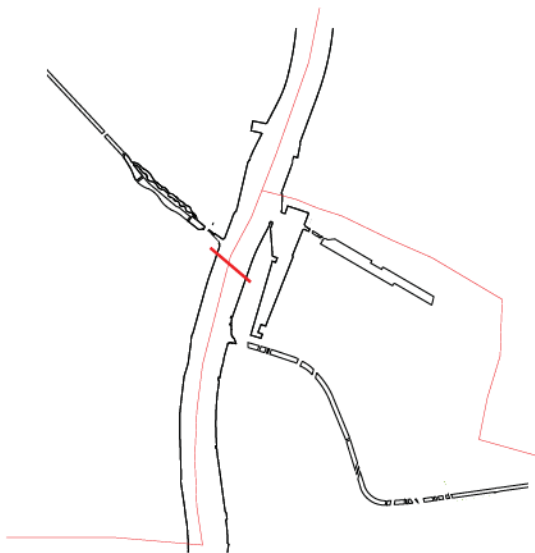
## Wall Bridge



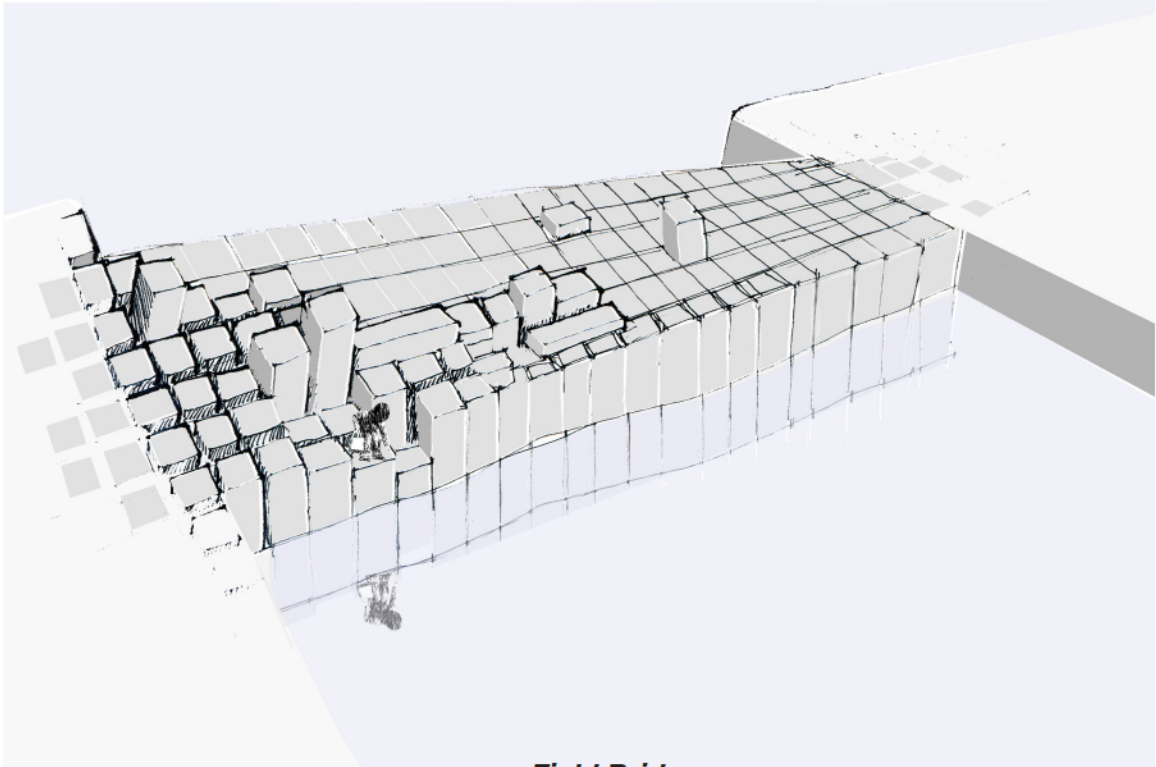
Situated nearest to the border crossing station and reflecting the treatment of the harbour's river edge, this bridge addresses the concept of control at the threshold. The walls of the bridge control and compress views and space while traversing above the bridge. In parallel, they control the flow of water below to manipulate water levels of the inner harbour and to allow for its diversion under the site for heating and cooling of buildings.



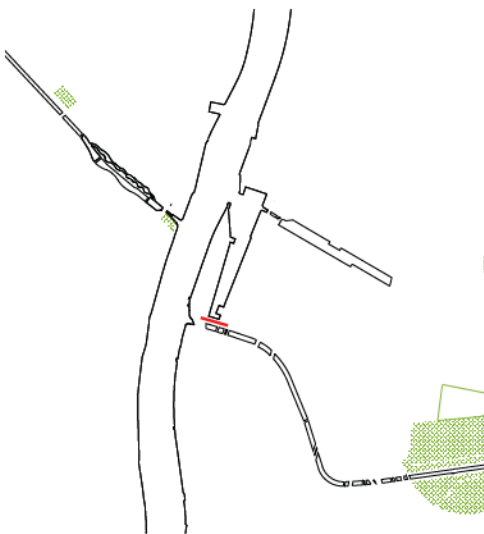
### ***Pivot Bridge***



As the only bridge spanning the Rhine, the design seeks to heighten the experience of the river. It draws from the inspiration of the motorless ferries to consider a pivot bridge driven by a series of rudders that harness the hydropower of the Rhine. In its open configuration, the bridge traces the border line that in maps is “drawn” in the middle of the river. The ephemeral quality of the bridge also confounds the meaning of here and there as the beginning and end points are in constant flux.



**Field Bridge**



As a connection between two larger green spaces (Parc des Eaux Vives and Lange Erlen), the concept of using a field condition to bridge the two banks alludes to the liminal zone of the park. As a systematic landscape, the boundaries between land, bridge, and water are blurred. Within this field, filtering water into the inner harbour can also be incorporated to work in conjunction with the wall bridge, thus controlling water quality for use in building systems on the site.

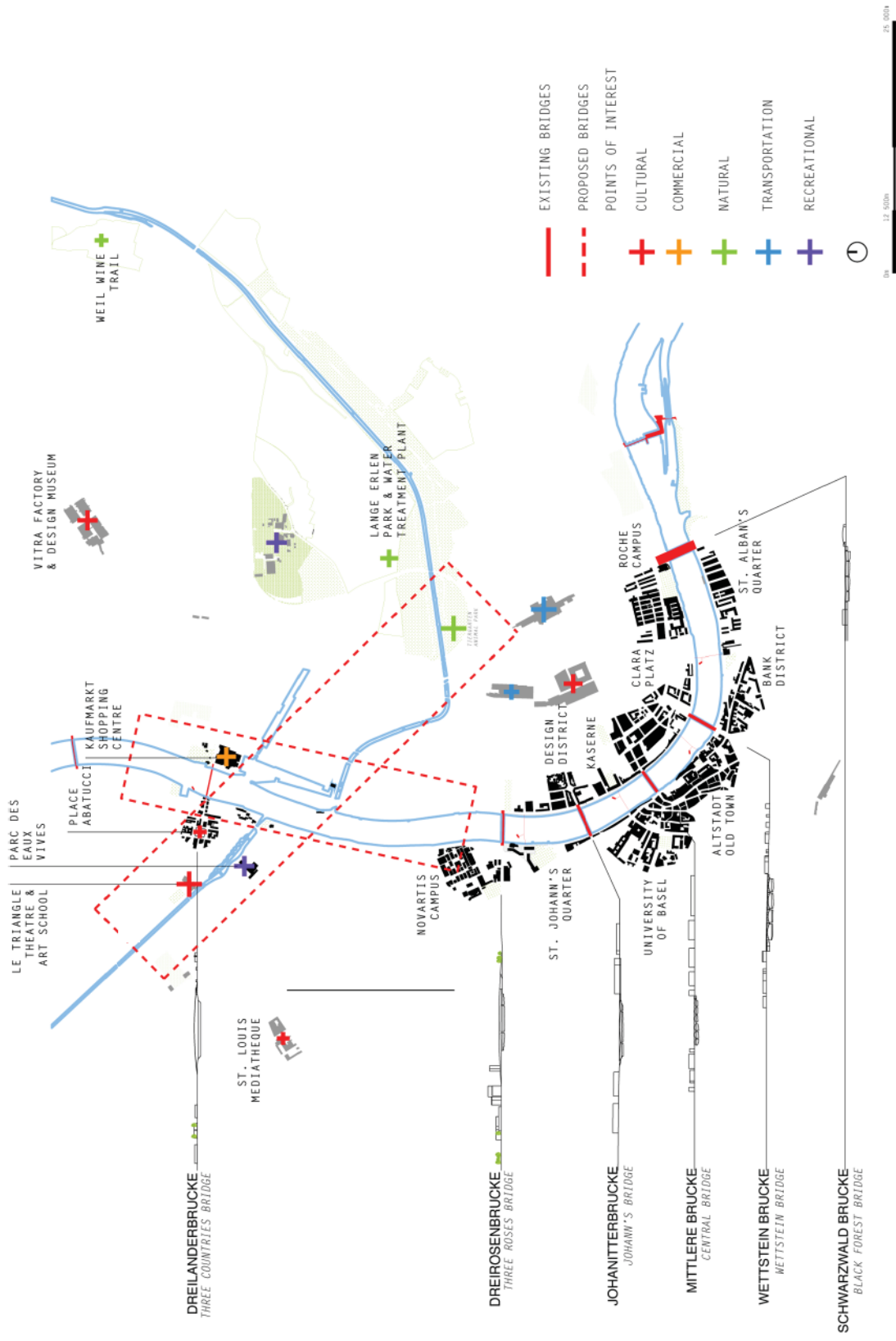
## CHAPTER 4: TRANSLATIONS

The most fundamental border crossing is the act of translation...It requires one to discover both the value of the other's language and the limits of one's own. Good translation thus proceeds not by the motives of dominance and acquisition, but by respect. It is a word for a set of practices by which we learn to live with difference, with the fluidity of culture and with the instability of the self. (Wagstaff 2004, 12)

### Urban Translation

The overlying urban strategies address the larger issues of connectivity amidst residual fractures brought to light during current transborder developments within Metrobasel. An initial analysis was made of the larger context to discern local points of interest and existing bridges. From this analysis, voids in the river where bridge connections are lacking become clearly evident. By drawing out existing points of interest, however, potential connections begin to emerge. The urban strategy therefore aims to structure the coherence of these distant points within two frames that overlap through the mediating element of the Dreiländerecke site.

The first frame seeks to connect across the Rhine between Huningue and Kleinhüningen at two scales. In the larger context, bridging across the Rhine would continue the language of bridges that span the river within the city of Basel and would serve as a means to transition down the waterway. Beyond providing a point of entry into the site, it would also exploit this opportunity to link



Analysis of Basel, existing connections and points of interest.



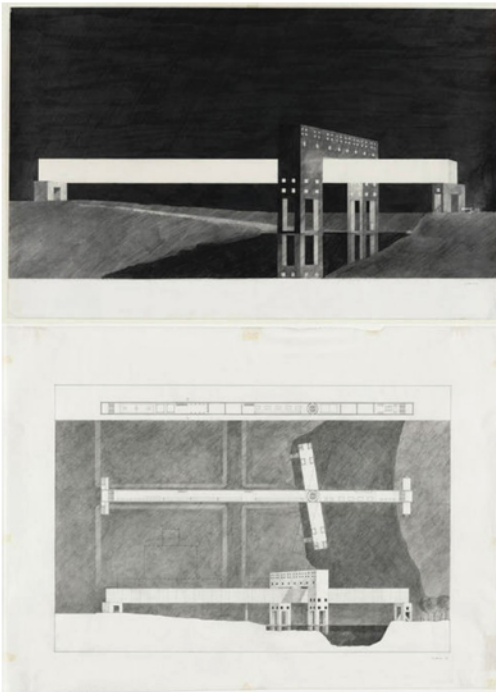
Harbour structures such as the shipping hangars and the Bernouilli grain silo, with their grandness, lend themselves to adaptive reuse within the larger masterplan of the Dreiländerecke site. Kleinhunigen (2009).

two significant green spaces on either side of the river: the Parc des Eaux Vives in Huningue and the Lange Erlen park shared between Weil am Rhein and Kleinhunigen. At a closer scale, the connection across the Rhine capitalizes on the momentum of this transversal development to enhance the relationship of the harbour site across its inner bank to the Kleinhunigen neighbourhood. The opportunity to develop a coherence across the inner harbour requires an analysis of potential linking axes. These were traced to align with future infrastructural insertions such as the cross-border Tram 8 line and the cross-border regional S-bahn line which bookend the site. As well, connections back to the existing major road systems are sought. A unified design across the inner bank and the Dreiländerecke site results in a masterplan that highlights a cohesive vision, sensitive to existing harbour structures. Certain key buildings with monumental character are singled out for potential adaptive reuse within the scheme.

The second frame focuses along the Rhine to connect back to the city of Basel and its river promenade. The development of the river's edge for public use and access will highlight the Rhine as a vital part of Metrobasel's shared regional identity.

## Programmatic Translation

The issues of re-conceiving the potential of border zones are complex and require programmatic translations of the liminal to contend with the multiplicity of threshold conditions and scales of transitions encountered. From a national to urban, cultural to individual scale, the concept of hybridization is integral to mediating changes of state and serves as a strong basis for conceiving potential programmatic interventions on the site.

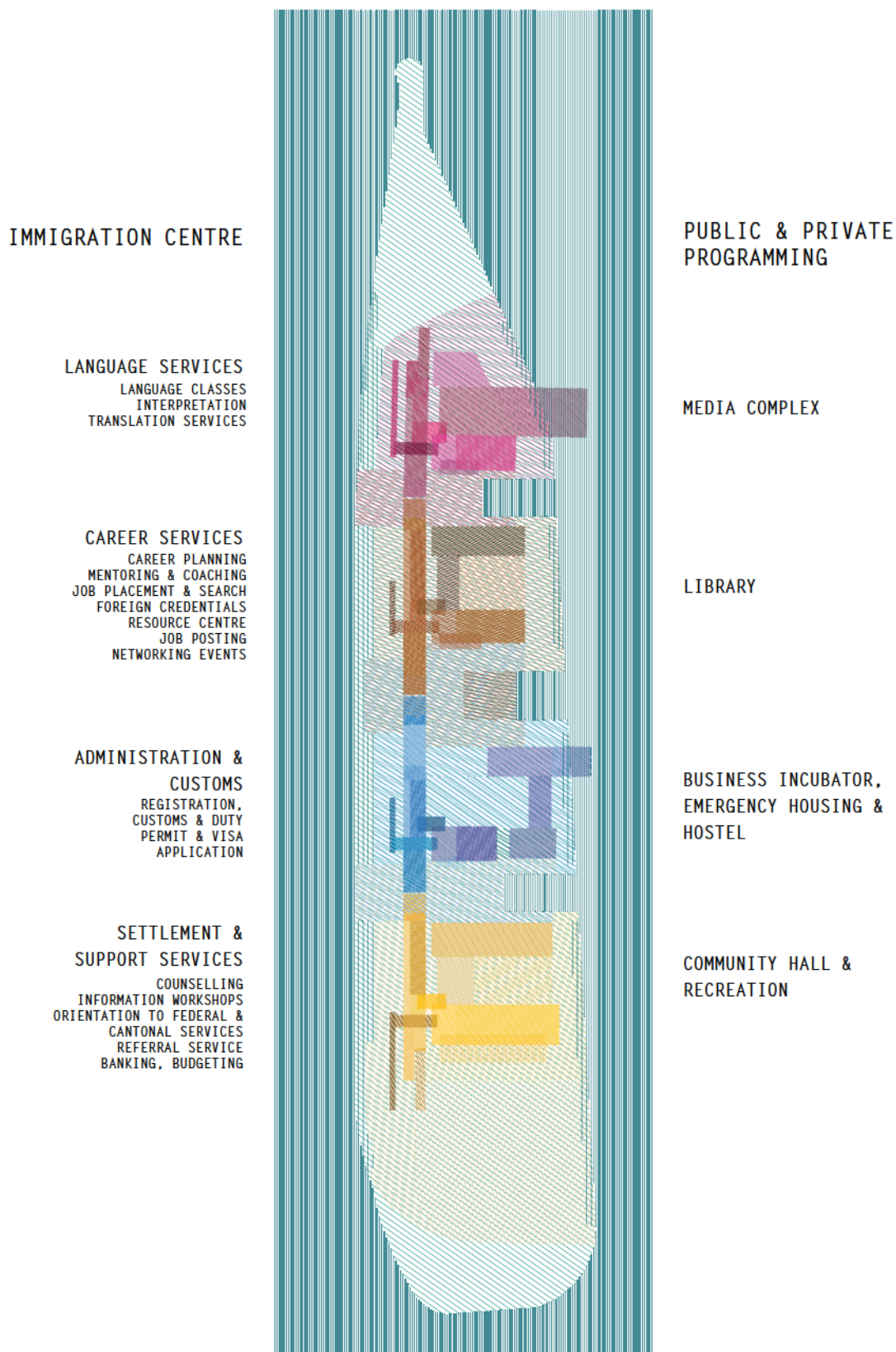


Steven Holl, *Gymnasium Bridge project: Plan, site plan, and exterior perspective*, (1977). Museum of Modern Art, New York.

The work of Steven Holl, particularly his “Edge of a City” projects, demonstrates how hybridization provokes new ideas of connectivity at points of existing disjuncture (Holl 1991, 9). For example, the Gymnasium Bridge project serves to physically link Randalls Island to the South Bronx through the proposal of an inhabitable bridge. Holl’s strategy to hybridize an infrastructural function with public programming exploits the potential of this transition space. The bridge links and also houses both a gymnasium and a dock for boats along the river which it spans. The bridge serves as a social condenser to catalyze various activities for lower income individuals to rehabilitate both physically and mentally. (Holl 1977, 3). Through cross-programming, Holl adds significant value to what otherwise would be merely a bridge.

Similarly, the programmatic strategy on the Dreiländerecke island exploits the potential of cross-programming at the meeting point of various cultures and individuals. Often at the border, one finds duty-free and discount shopping centres which minimize the cross-border experience to one of consumerism, missing the latent potential of cultural engagement in these zones. Therefore, the programmatic anchor on this site uses an immigration centre, not only as an aid in the transitional process, but as a locus for provoking hybridized relationships with public and private programming along the site. The insertion of a comprehensive immigration centre is much needed in face of the large immigrant populations within Metrobasel. Instead of segregating into immigrant enclaves, the immigration centre serves as an interface between local and migrant populations to provoke unexpected connections and encounters. Furthermore, it organizes the large site into various complexes that find a symbiotic relationship with the services provided by the immigration centre. The opportunities for exchange occur in the overlapping of shared programmatic needs which occur formally through spatial organization as well as informally through the ephemeral use of the in-between spaces for events such as weekly community markets.





Program diagram showing the relationship between the services of the immigration centre and private and public programming.

## **Site Translation**

Using the language of thresholds developed, the design interventions translate the inherent liminal qualities of the site. Preserving the “in-between”, while promoting spatial and programmatic connectivity, ensures the site remains a neutral “no-man’s land” for mediating across nations and cultures, near and far. A major part of the design focuses on translating the liminal processes previously explored to a range of threshold conditions experienced at the level of the site: entries onto the site, the edges of the site, across the site, and between the site and the built form.

## **Bridges and Landings**

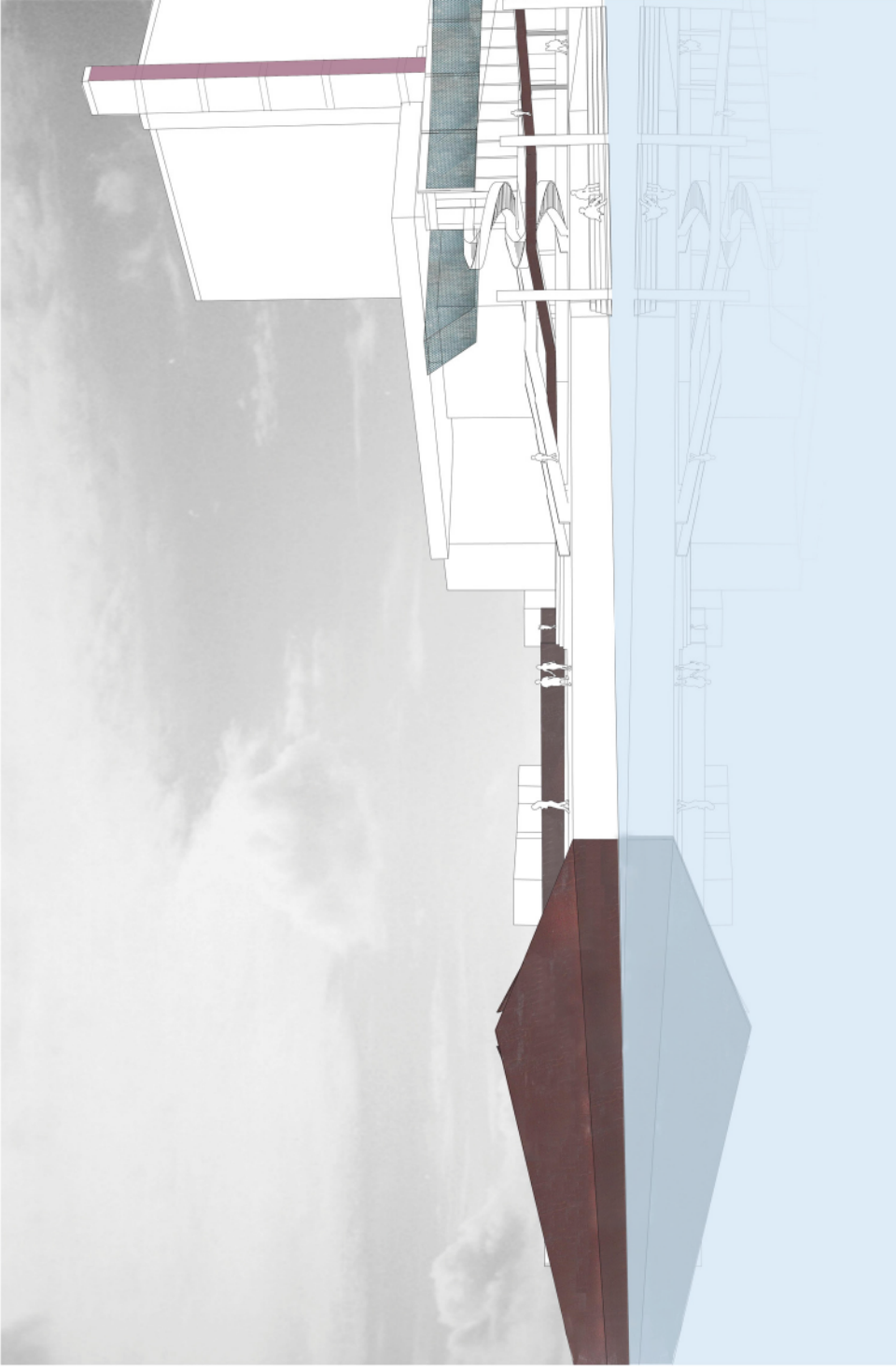
Entries onto the site are important threshold conditions in this project. Based on previous studies, bridging onto the site translates specific threshold qualities inherent at each access point into formal expressions within a bridge structure. Although bridging onto the site is logistically important, focus is also given to the treatment of the landing condition. The characteristics of each bridge serve as starting points for continuing a specific, formal language for the landing.

At the northern end, the “wall bridge” enters the site and forms a direct relationship with the narrow tip of the island. Taking formal cues from the wall bridge, a trinational monument is designed to physically manifest the abstract meeting point of

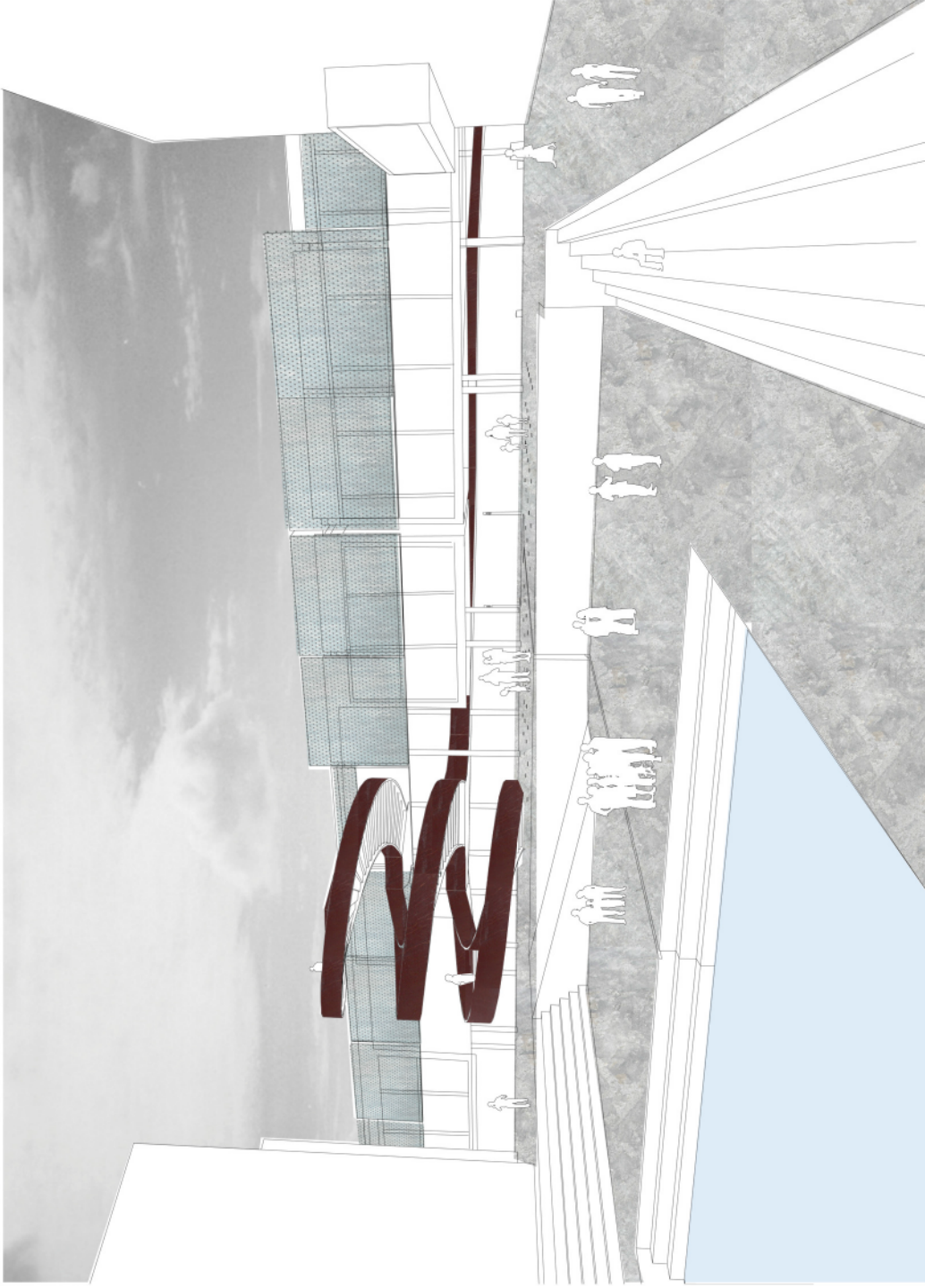
the three countries. While the actual physical coordinates of the border itself floats in the liminal space of the Rhine, the monument would provide a conceptual anchoring of this point. Three walls of corten steel emerge from the water and the land to shelter a pavilion and basin that floods with time, fluctuating between an inhabitable and an uninhabitable space. From within, the walls act as framing devices, an observatory, to view back towards France and Germany.

At the middle of the site, the pivot bridge culminates in a grand, spiral staircase which becomes the focal point of the central plaza. Following the pivoting motion of the bridge, the staircase spirals and connects from the roof plane to the ground plane and below while providing visual connections at all levels. The sheer size of the staircase slows down one's movement and encourages stopping and viewing along its course.

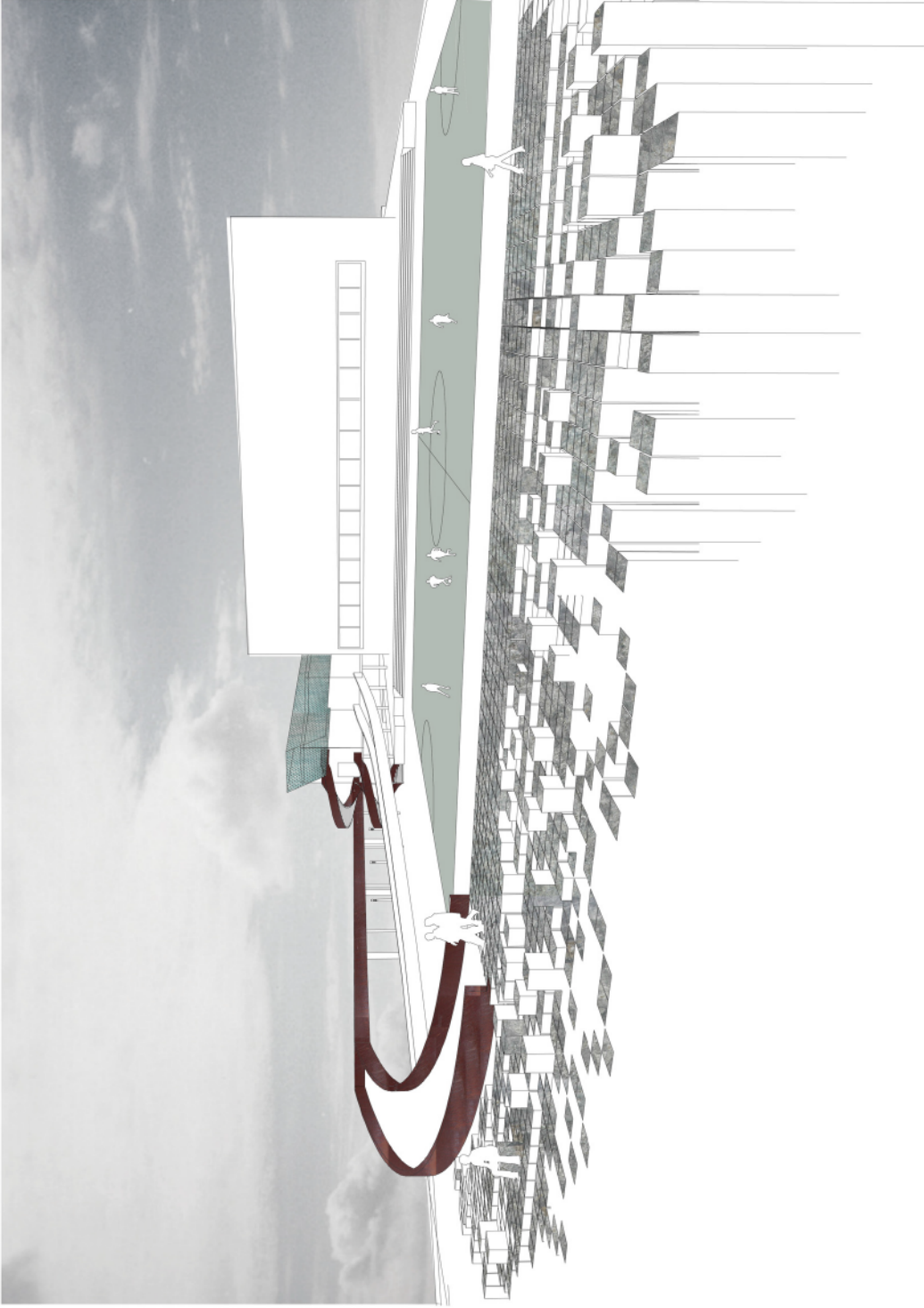
At the southern end of the site, the field bridge continues onto the site as a landscape feature that steps down on one side to a man-made beach,



View of the approach from the wall bridge, landing at the trinitational monument and observatory at the tip of the island.



View of the approach from the pivot bridge, culminating in a large central spiral staircase that becomes the focal point of the central plaza.



View of the approach from the field bridge, landing onto a beach on one side and a sports field on the other.

and turns into a sports field on the other. In this way, the line between the bridge and the land become blurred.

### **The Rhine Promenade and Inner Bank**

Another threshold condition exists at the edges of the site. These are critical areas that can react to changing water levels. By carving the edges in different ways, one can manipulate the relationship between water and land. Furthermore, a change of the material ground between the edge and the rest of the site helps to visually delineate this condition. At the edge, sandstone is used and will weather with water exposure. On the plaza side, granite is used which weathers less with time. Both stones are chosen for their abundance in local quarries.

On the outer edge, the Rhine promenade is designed to have a direct interaction with water. As the water levels rise and fall, the edge of the site changes its meaning and use. The carvings not only create a flexible and inhabitable edge but also reveal strategies for access from the water, mainly from the river cruises and ferries that will continue to dock on the site.

On the inner edge, the land is carved to form inlets, providing a mediating space within the inner harbour. The inlets on the site set up a cor-

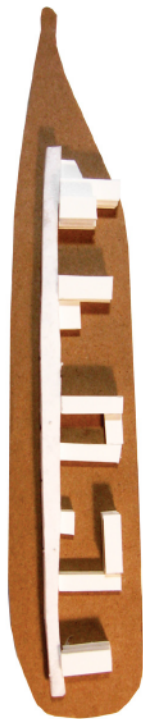
responding relationship of inlets proposed on the opposite bank. Together, these pairs of carvings form a gestalt of shared water landscapes.

### Field Conditions

At the scale of the site, another aspect of the design focuses on creating a field condition, or a systematic landscape, to define varying degrees of boundaries across the island. Although the units of pole-like elements are manipulated in scale and meaning across the site to serve particular functions, together they underline a recognizable field of boundaries and thresholds, dependent on their placement and density.

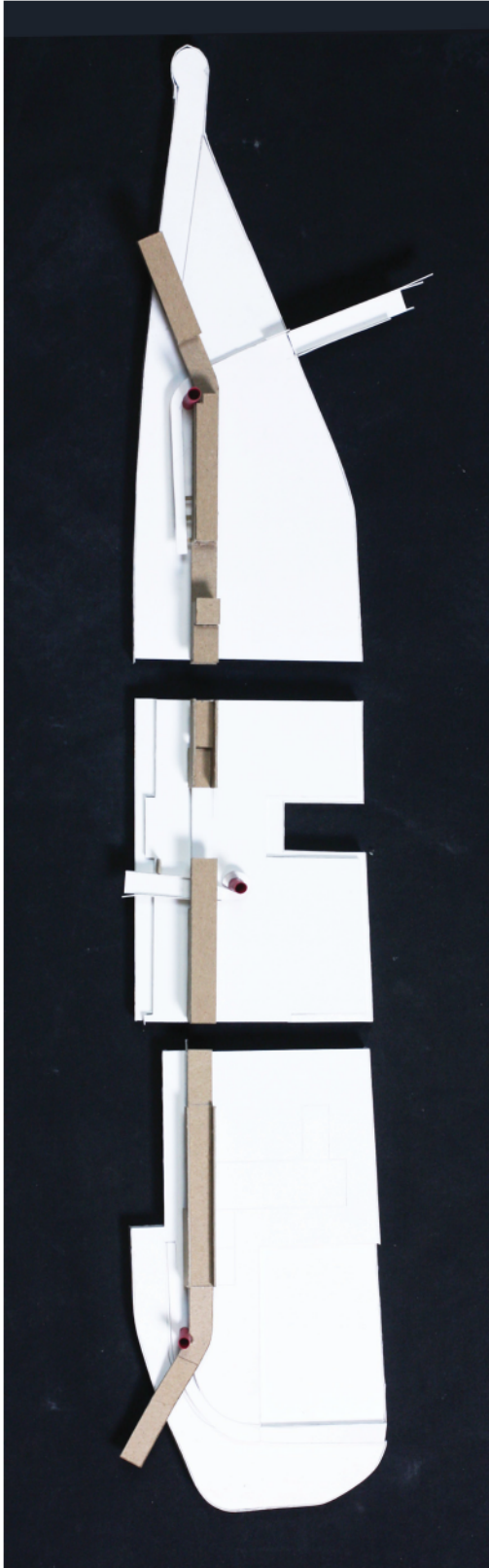
### The Spine

The placement of the immigration centre on the site is integral to addressing the larger thesis question of liminality. While the whole island can be seen as a liminal zone, at the scale of the site, it is the edge of the Rhine where most tension exists: between nature and artifice, between France, Germany, and Switzerland. Choosing to stretch the program of the immigration centre along almost the entire length of the site provides a sustained study of the resultant edge conditions and a strong formal move for organizing the rest of the site. The initial connecting axis lines drawn across the inner harbour help to determine a rhythm and proportion for placing the complexes, which then develops a corresponding pattern of plazas and private courtyards along the site.



Initial parti model shows the relationship between a central organizing spine and its associated complexes.





Sketch model showing the formal articulation of the spine in relationship to the bridge access ramps onto the site.

The spine not only serves as the main organizing element by setting up various relationships across the site, it also has a character of its own. The liminal qualities of the site are scaled down to be embodied within the spine.

As it runs along the entire length of the island, the ends of the spine are turned outward towards the Rhine, considering them not as mere endings but perhaps as new beginnings. At the northern tip of the site, the spine leads to the trinational monument and observatory, providing a visual connection towards France and Germany and inspires a continued mental journey across nations. At the southern end of the site, the spine dips down to the river and forms a ferry dock that services an existing route across the Rhine.

To access the spine, the three bridges onto the site extend into ramps that weave around the spine. At the point of intersection, a pivot connection of vertical circulation provides a connection between exterior and interior, from the ground plane to the roof plane. Punctuated at three points along the site, these pivot points also serve as clear markers along the site.

The spine is also lifted up off the ground to frame views across the site and to mark a threshold across the site between the more public Rhine promenade and the private area of the complexes.



Site model showing the various site and landscape strategies employed.



View of the site from the Rhine shows the various carvings along the river's edge which allow for habitation and docking and the pairs of inlets across the Inner Harbour.



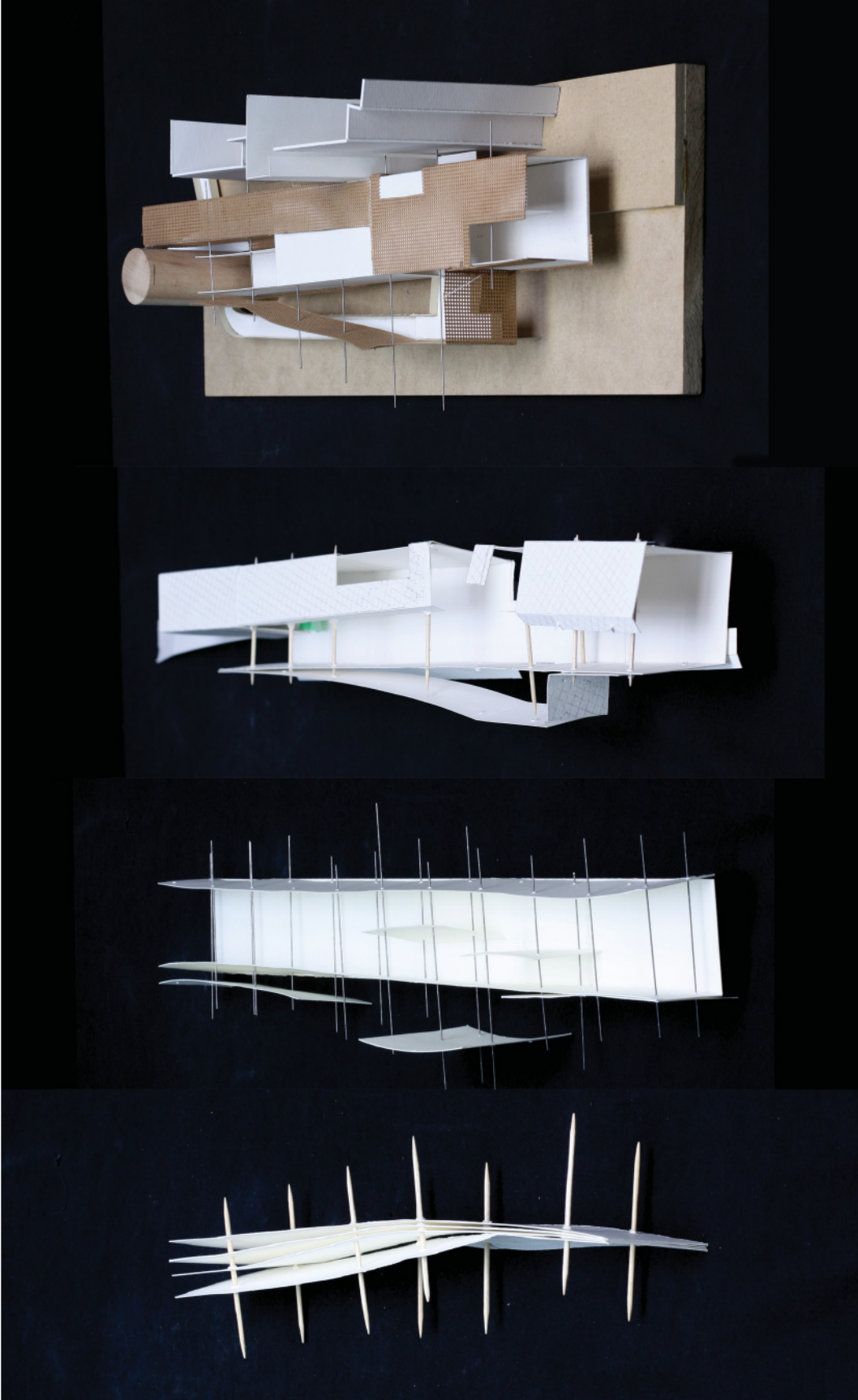
View of the site from the Inner Harbour shows the cohesive masterplan across the island and inlet that proposes new and adaptively reused buildings.

## Architectural Translation

We have crossed the threshold as a notion of borders, and articulation of spaces and times it joins and separates. How is the door through which the passage is made actively related to the window through which we gaze? (Caws 1981, 189).

At the architectural scale, liminality refers to the experiential, material, and spatial changes of state that occur across the building threshold. In essence, the architectural translation focuses on an in-depth study of facade design at two scales: in a conventional sense of a building envelope and in an extended sense of a building as facade. While the immigration centre is housed within a building which requires a facade, the whole building itself acts as a facade to the complexes behind it.

The main concept is to blur between the interior and the exterior, heightening the shifting transition across the threshold condition. The process of overlaying becomes one major strategy for achieving this. The building begins as a glass box, completely transparent, and only through layering of various materials, obtains varying degrees of opacity, depending on programming. The layers that are used include clear glass, fritted glass, and perforated, pre-patinated copper screens. These materials are specifically chosen because they change with time through weathering and reaction to light.



Sketch models explore the layering of interior and exterior planes to blur the lines between facade, threshold, and building.

The entry sequences into the building emphasize movement through a sequence of layers that weave and fold to blur between inside and outside, extending the interior to the exterior and the exterior to the interior. At the access points to each immigration service, the envelope begins to peel away from the building, thickening the space in-between and signalling entry. Ultimately, these layers structure a series of entry sequences that aid in orientation, wayfinding, and informal gathering. Within the immigration centre, overlaying parallel walls provide subtle indications of signage within the lobby. Spatially, overlapping and shared spaces allow extensions between one program and another. The use of glass features significantly as a tool for achieving this while also introducing light into and through the building. For example, the placement of the central, glass vertical circulation between the spine and adjacent building encourages informal encounters at the interface between local and immigrant programming while playing with the experience of exteriority in an interior, in-between space. The experience in the glass elevators begin in compression between the buildings and rises to full expansion with views above and beyond the buildings. Skylights strategically placed at double-height spaces highlight directionality within the building. Similarly, a glass floor connects from the entry staircase landing through to the lobby space of the adjacent complex. This not only serves as a material connection but provides a skylight for the passage under the building.



View of a typical entrance to the immigration centre and its associated plaza behind. The facade peels away to allow passage into the immigration centre whereas the facade is lifted to provide a portal into the plaza.





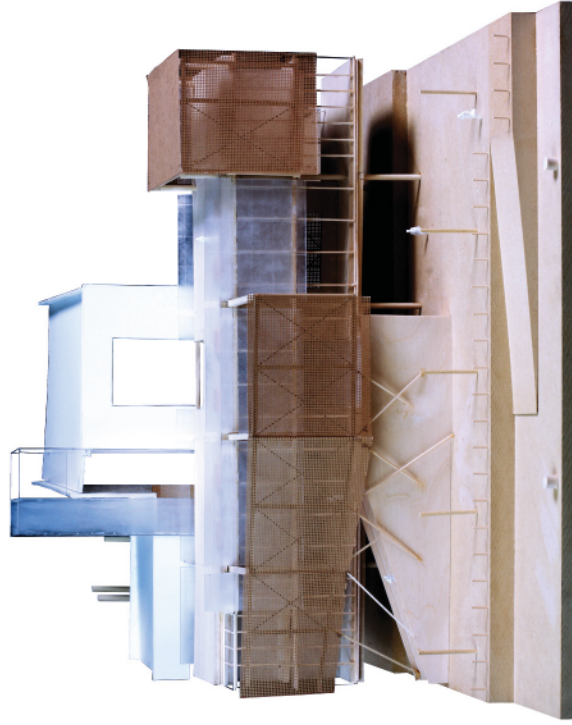
View of a typical entrance into the immigration centre reveals the glass floor that connects across the entire entry sequence.



A sectional view through the immigration centre shows the placement of the central elevator core between buildings and the peeling away of the facade at the entry.



A view of the immigration centre from the plaza shows the lifting of facade layers to provide a visual connection into the public space.



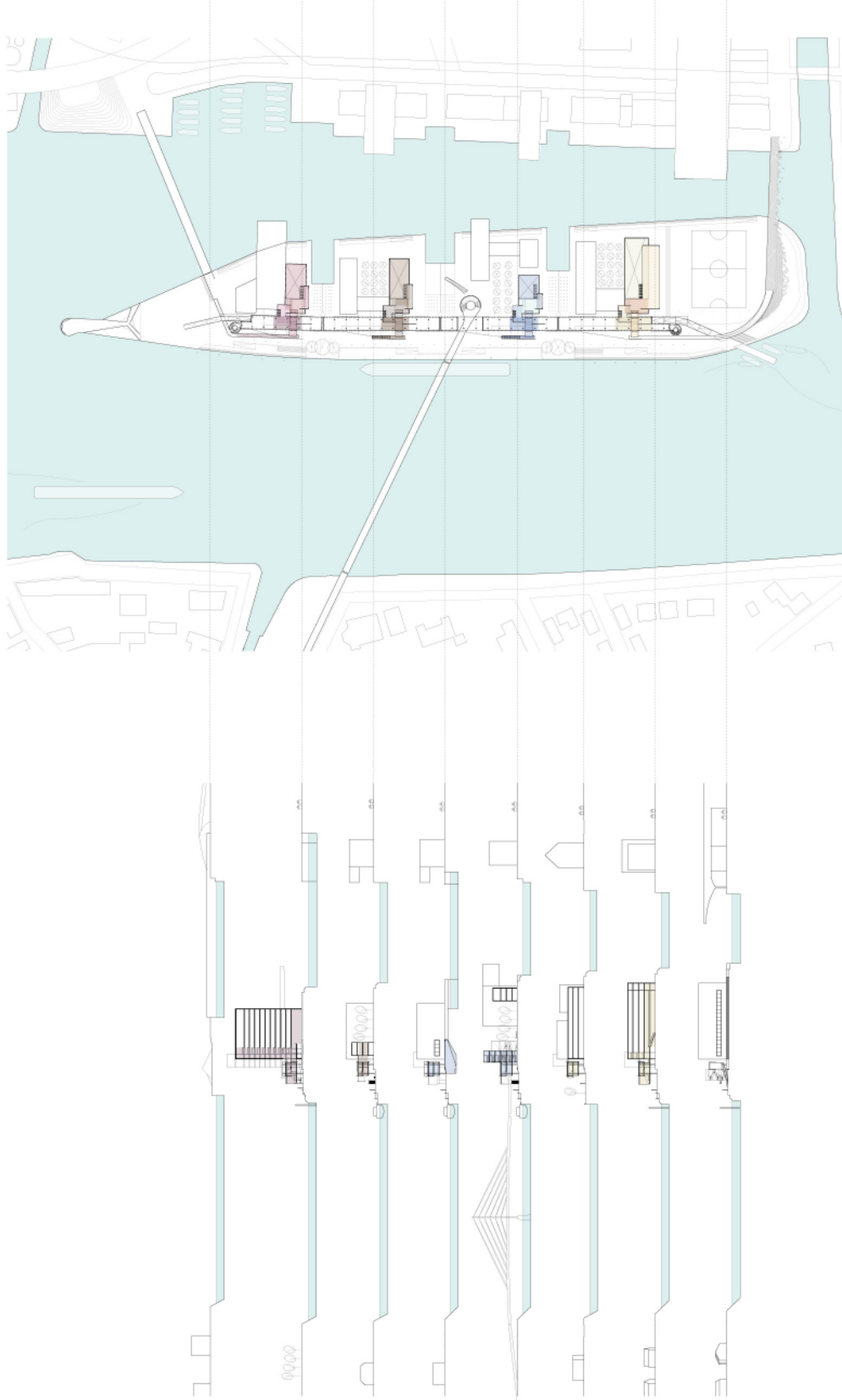
The opacity and transparency of the building changes depending on the time of day (left: morning, right: afternoon)

Throughout the building, the varying applications of the material layers continue to compress or extend views into and out of the building, connecting or disconnecting it to the adjacent complexes, interior courtyards, or plazas. This is fully achieved by coordinating the openings of the complexes' buildings with the immigration centre.

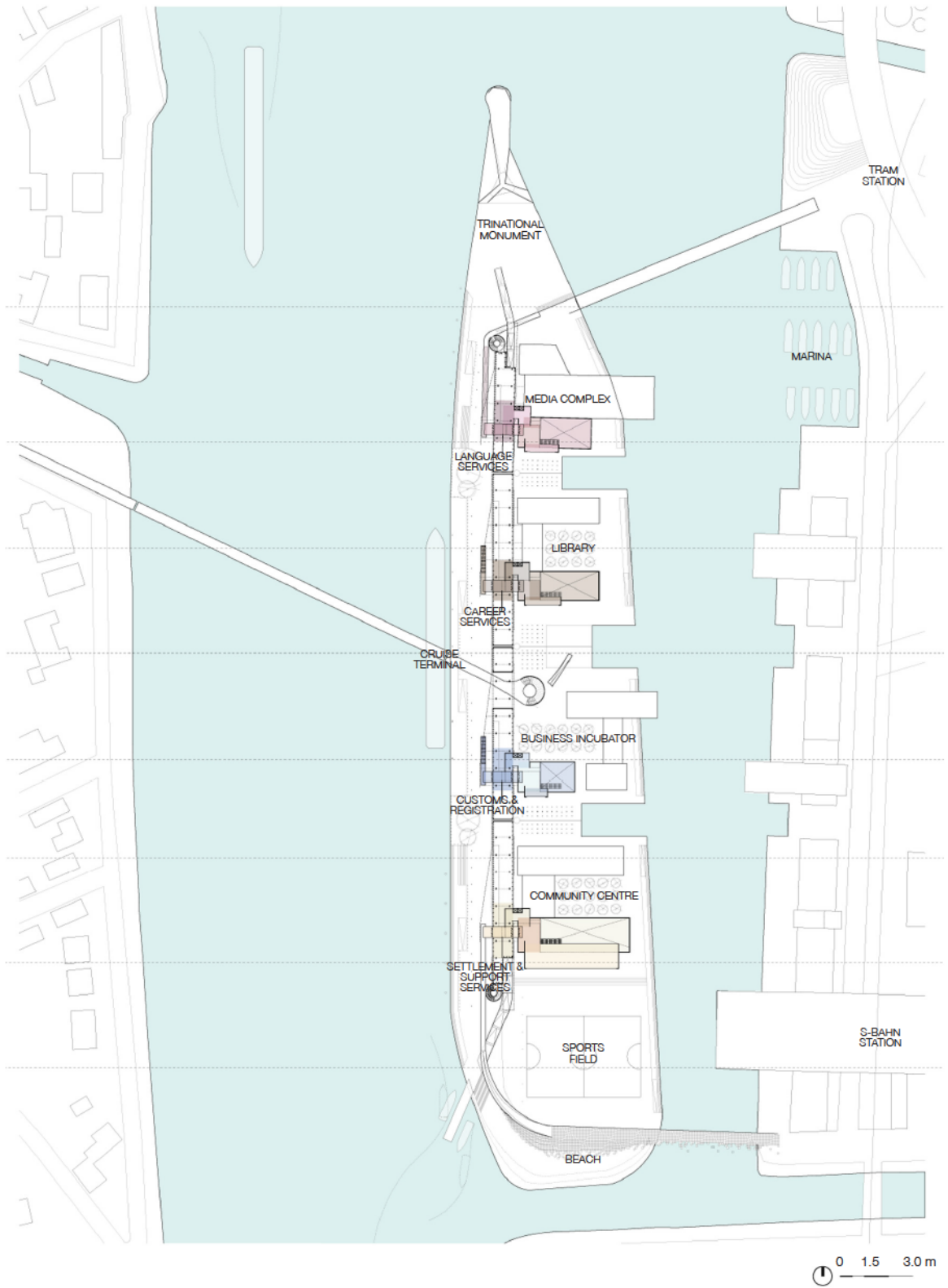


Copper patination was used to determine a colour palette that would distinguish each quarter of the immigration centre and its associated complex. Copper Patination. From Flickr, "Patination Art."

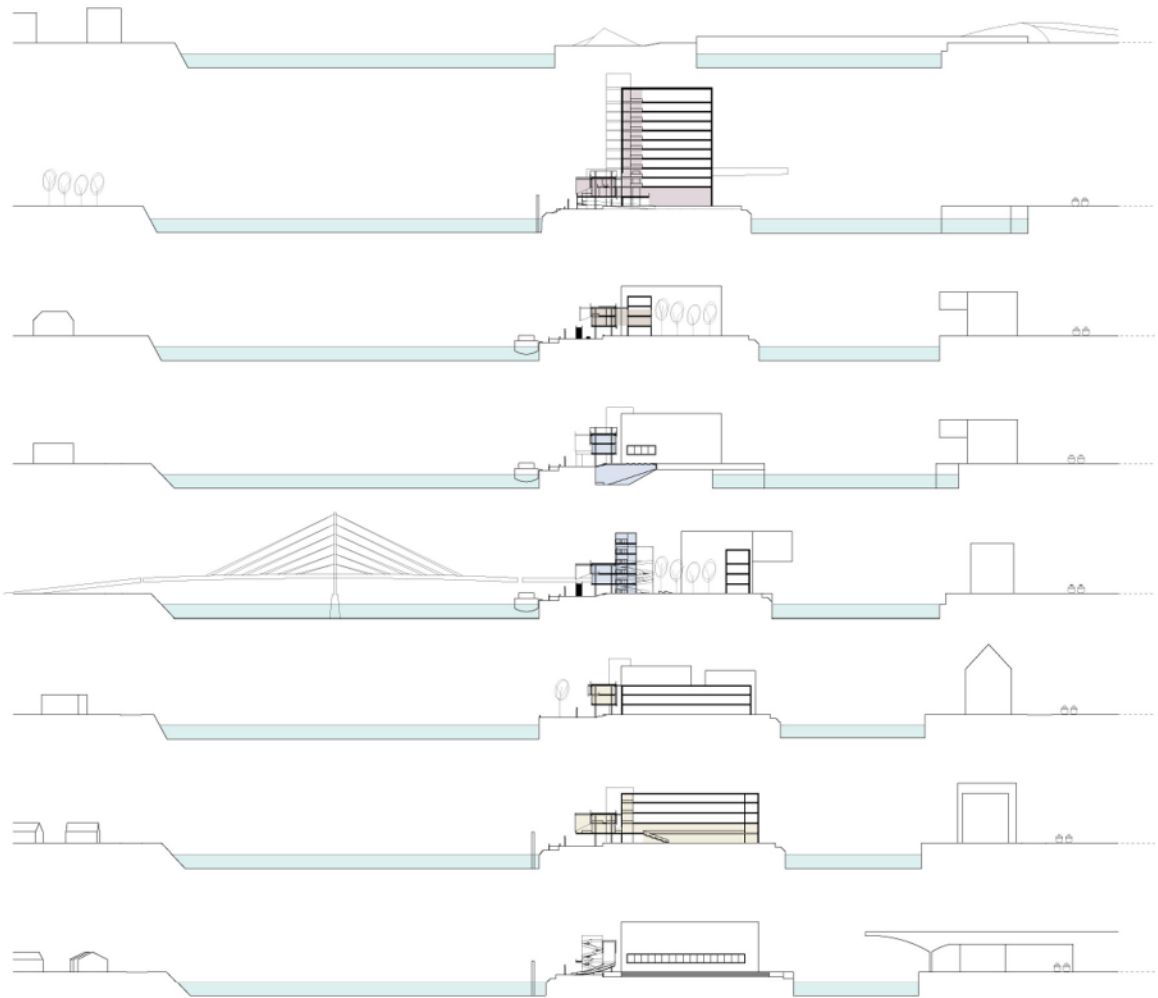
Finally the study of the facade extends to its legibility from afar both as signage for those entering the site, but also as a singular entity from across the Rhine. At the larger scale, the overall coherence lies in the similarity of assembly and provides a unified front along the Rhine. At a smaller scale, the potential for differentiation into distinct quarters, again for ease of orientation, is made possible through variation of individual elements. Using copper patination as a base, four main colours were drawn out to use for distinguishing between immigration services. These were then translated into various hues that could be expressed in fritted glass and the copper panels themselves.



Site plan and sections reveal variations in facade layering along the length of the immigration centre that either connect or disconnect it to adjacent public spaces. Colour coding of each immigration service and its associated complex is concentrated within the entry sequence.



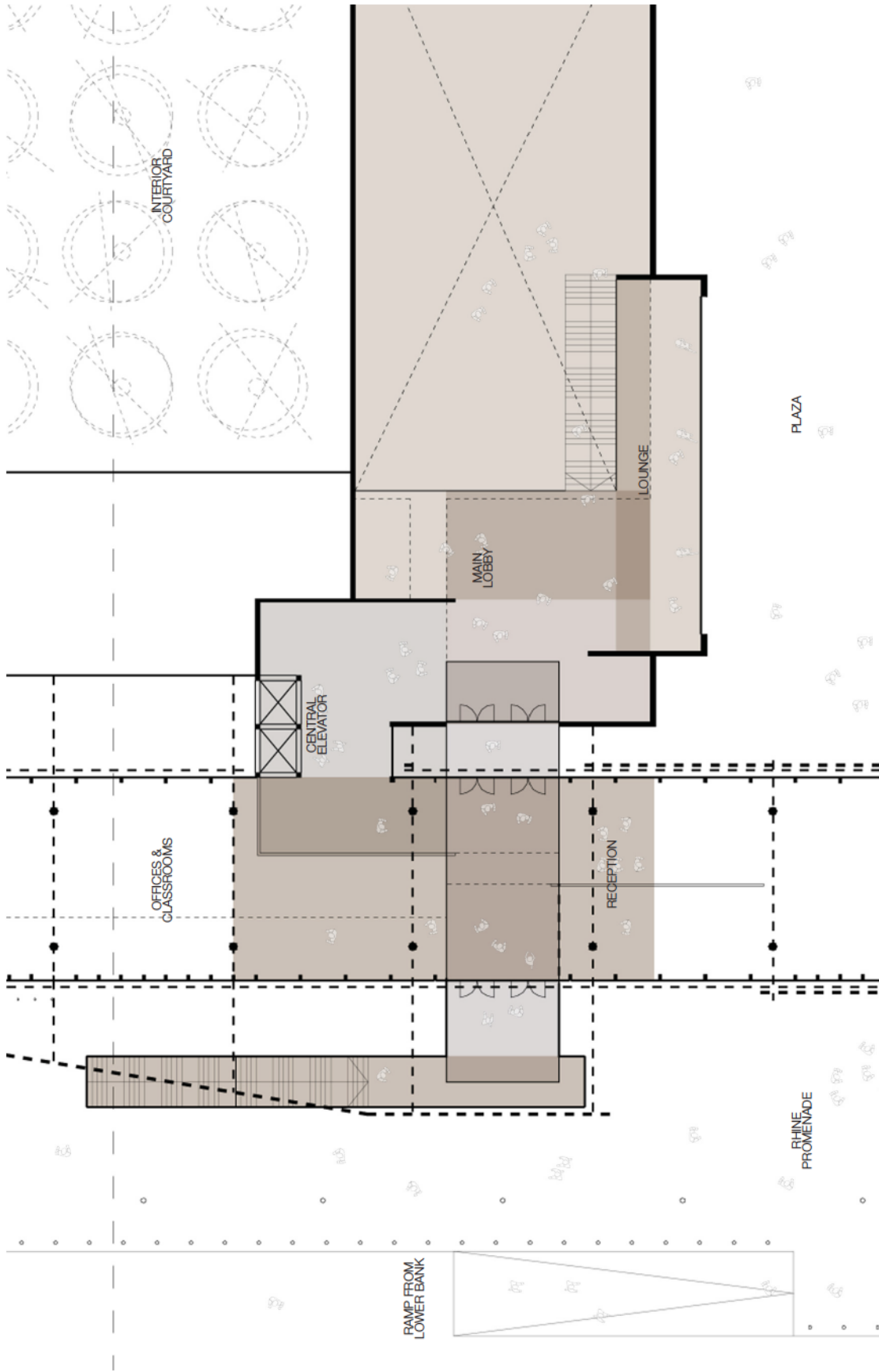
Detail of site plan.



0 1.5 3.0 m

Detail of site sections.

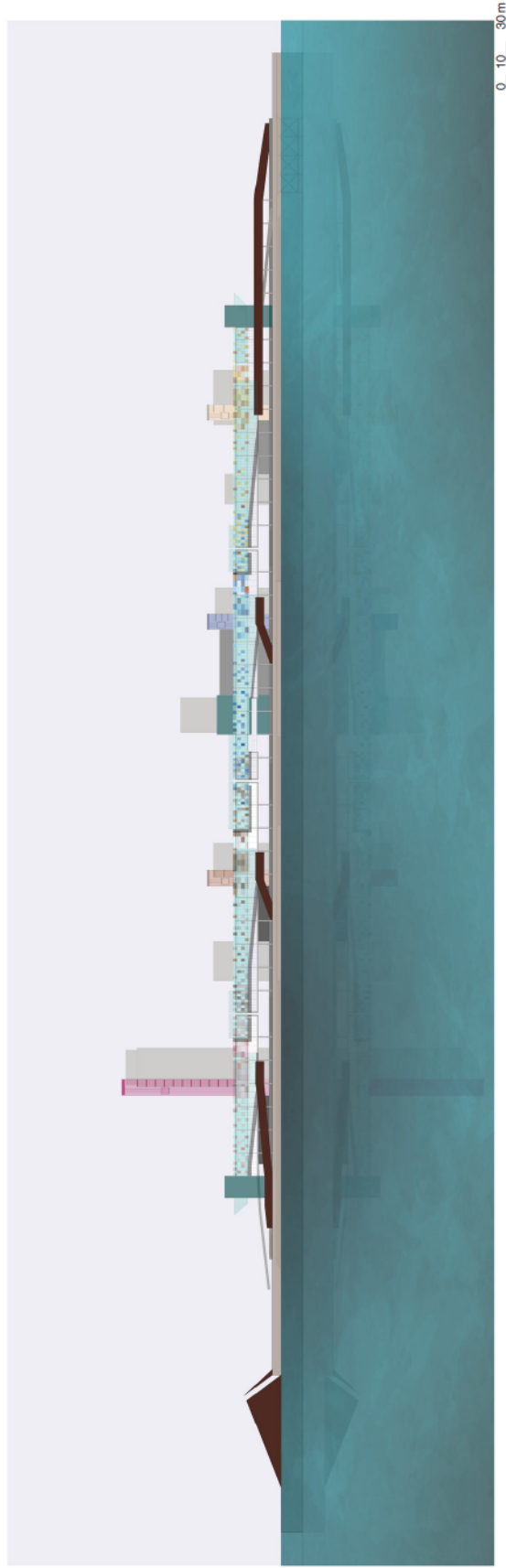




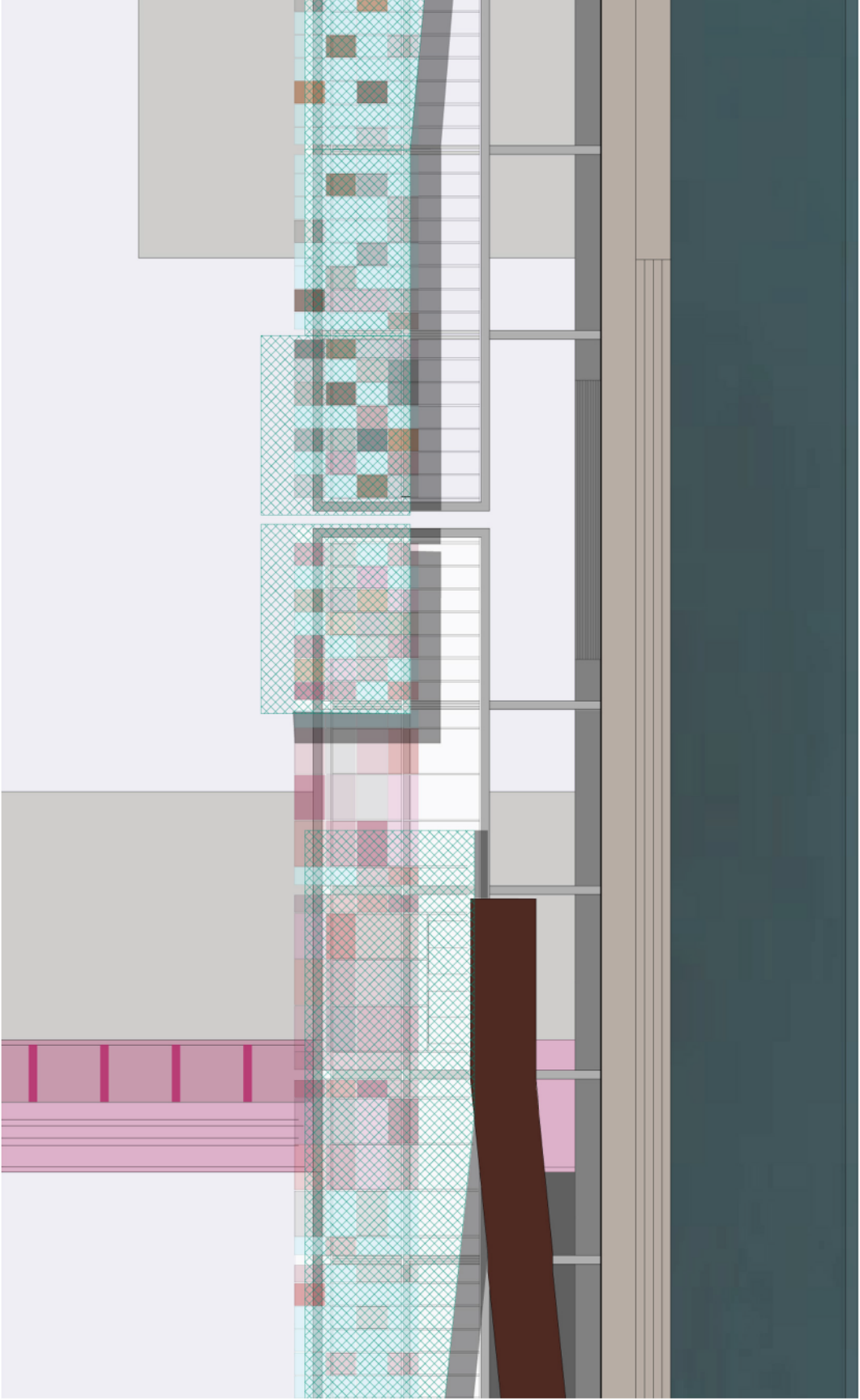
Detail of entry sequence in plan.



Section through a typical entry sequence



Elevation of the immigration centre and Dreiländerecke site from the Rhine.



Detail of elevation shows the distinct colour palette for each immigration service which begins to mix at the entrance to the plazas.

## CHAPTER 5: CONCLUSION

With transnationalization becoming a reality in our globalizing world, borders, which have spanned centuries in the making, regain a central focus in political, economic, and cultural discussions. Coupled with the advent of the European Union, porous boundaries have heightened concerns for the future of national and cultural identities. At this pivotal moment in history, when the nature of borders is called to question, a critical opportunity lies in contributing to its redefinition.

Architecture has an important role to play in this discussion. Architecture's domain lies not only in designing the experience of built form, but also more fundamentally, how space is defined: built and unbuilt, inside and outside. By researching boundaries across various scales (national, regional, urban, and landscape) and extrapolating this understanding to an architectural proposal, a tangible, human-scaled response can be considered as one dimension of this complex issue. This thesis provides a specific reading of existing border conditions and provokes new conceptions of boundaries that promote a heightened liminality, or the "in-between". The strategies for site, programmatic, and architectural design emphasize preserving and structuring the "in-between" as a means of mediating across na-

tions and individuals that prevents the proliferation of homogenization and dulling of cultural diversity.

Although the issues of borders and boundaries are vast in scale, this thesis uses the specific conditions within Metrobasel as a testing ground for a pilot project that begins to re-imagine the border zone between France, Germany, and Switzerland. Clearly, a comprehensive investigation of this topic requires several more case studies in various locations to expand the scope of possibilities. As the readings are particular to the region, it would be interesting to compare proposals across a variety of border zones and to identify universal and specific aspects to these strategic developments.

As a departure point, this thesis provides initial proposals at a conceptual and schematic level to various scales of intervention which begin to inform an appropriate architectural response. With more time, each scale of engagement, whether urban, landscape, or architectural, would benefit from greater depth of realization. As an overlying masterplan for the Dreiländerecke site, the concept of a hybridized immigration centre paired with complementary public or private programming could be enriched by group collaboration and potential client input.

While this thesis stands at the beginning of a larger investigation, its specificity and focus should not hinder a way of working, revealed during this process, that can be transferred to a variety of

locations and scales. Engaging with the issue of borders, one returns to the initial act of mapping, the act which allows borders to be drawn in the first place. Redefining border zones therefore requires a new approach to mapping which involves a deep reading of the site and moves beyond the conventional two-dimensional abstraction to embrace the spatial domain in regard to the essential activities and psychological states that define our existence.

## APPENDIX

### Appendix A: Timeline of Metrobasel

HUNINGUE is a commune in the Haut-Rhine department of Alsace, France. Its history reveals a turbulent changing of hands between French and German rule.

828 Name of Huningue appears for the first time in records and is the property of the Abbey of St. Gallen. Grows up around a stronghold placed to guard the passage of the Rhine.

1634 Wrested from the Holy Roman Empire by Duke of Lauenburg (Prussian/Habsburg empire). Still owned by Basel who has a pledge of loans to the Habsburgs.

1648 Sold to Louis XIV (France) during the Treaty of Westphalia which ends the Thirty Years' War of the Holy Roman Empire (1618-1648).

1679 Louis XIV orders the fortification of Huningue in fear of threat from Basel.

1680 Construction begins under engineer Vauban. Bridge is built across the Rhine and serves for 136 years as a lock.

1684 Work of the fort requires the displacement of the population on the island (St. Louis and Village Neuf).

1796 Huningue besieged by 20,000 Austrians. The Army of the Rhine, under the command of General Abbatucci holds the fort for 3 months.

1814 Colonel Chancel of Napoleon's army, entrenched in Huningue, resists 3.5 months to Bavarians.

1815 Loses to Austrians on 26 August. Garrison of 500 men headed by General Barbagnère holds the city for 2 months. Fort dismantled on request from Basel.



- 1828 Completion of Huningen channel (no longer navigable) supplies water to the Canal du Rhon au Rhin.
- 1846 Increased support for common commune of St. Louis and Village Neuf.
- 1871 Passes with Alsace-Lorraine to the German Empire following Treaty of Frankfurt.
- 1918 Returns to France after WWI and Versailles Treaty.
- 1939 City is evacuated, sixty percent destroyed.
- 1940 Retaken by Germany.
- 1944 Huningue attaches to St. Louis and Bourgfelden to form Sankt-Ludwig Huningen.
- 1945 Returns to France.
- 1993 May 23 inauguration of the Parc des Eaux Vives.
- 2002 Inauguration of the Triangle (theatre).
- 2007 Bridge over the Rhine linking to Weil am Rhein.
- FRIEDLINGEN/WEIL AM RHEIN is situated in the district of Lörrach, Baden-Württemberg, Germany. Its continental climate makes this area particularly suited to viticulture. It developed into a city since the mid-19th century. It is a city with four quarters: Altweil, Leopoldshöhe, Otterbach, Friedlingen. Two federal highways (B3 and B317) lead through city as large traffic veins. Its history traces one of ever-increasing growth.
- 786 First mentioned as Willa in a document of the St. Gallen monastery, thought to be of Roman origin.
- 1361 Becomes fief of Rötteln.
- 1503 County of Baden is assigned to Office of Rötteln.

- 1702 Duke of Villars crosses the Rhine to fight the Battle of Friedlingen during the War of the Spanish Succession (between the Holy Roman Empire (Margrave Ludwig Wilhelm of Baden-Baden) and the Kingdom of France (General Claude de Villars). Takes place in the battlefield covering Friedlingen, Weil, Haltingen, and Tüllingen with no clear winner. Weil is severely damaged as a result.
- 1809 Dissolution of Rötteln leaves Weil the chief official of Lörrach.
- 1835 Introduction of the Badischer Zollverein customs station on Leopoldshöhe which controls the old important route from Freiburg to Basel.
- 1851 Grossherzogtum Baden (Grand Duchy Baden) builds the railway line to Switzerland.
- 1851 Brisk construction activities post WWI, new built housing estate “garden city” on Leopoldshöhe. Friedlingen begins to grow as Swiss textiles settle here, as well as other manufacturers, due to its favourable location on the Rhine and numerous workers.
- 1929 District of Friedlingen, Leopoldshöhe, Otterbach merge to form Weil am Rhein.
- 1934 Becomes part of the Rhine port.
- 1952 Comes under the administration of Baden-Württemberg.
- 1971 Neighbouring Ötlingen is incorporated.
- 1975 Haltingen and Märkt are incorporated.
- 1999 Hosts Regional Garden Show “Grün 99”.

BASEL has Switzerland's only cargo port, through which goods pass. This port connects to ocean-going ships at the port of Rotterdam. Historically, Basel was not the most important Roman town. Its strategic location left it as a military base while civilian population lived in Weil am Rhein, Efringen-Kirchen or Augusta Raurica.

500BC Celts settle in two locations: 1) where the Birsig river meets the Rhine 2) on the hill overlooking the Rhine knee.

44 BC Foundation of Augusta Raurica by the Romans.

15 BC Romans conquer the Celtic region and construct a Roman fort on Münster Hill.

374 Town of Basilea documented, Christianization begins.

~400 Alamanni enter the region from the north, fighting against the Romans.

~500 Era of Frankish rule begins.

~740 The creation of the diocese of Basel. Bishop moves his seat from Augusta Raurica to Basel.

1019 Construction of the cathedral of Basel (Münster) begins under German Emperor Heinrich II.

1080 City wall built by Bishop Burkhard.

-1090

1225 First construction of bridge over the Rhine by Bishop Heinrich von Thun.

-1226

1250 Interior city wall built.

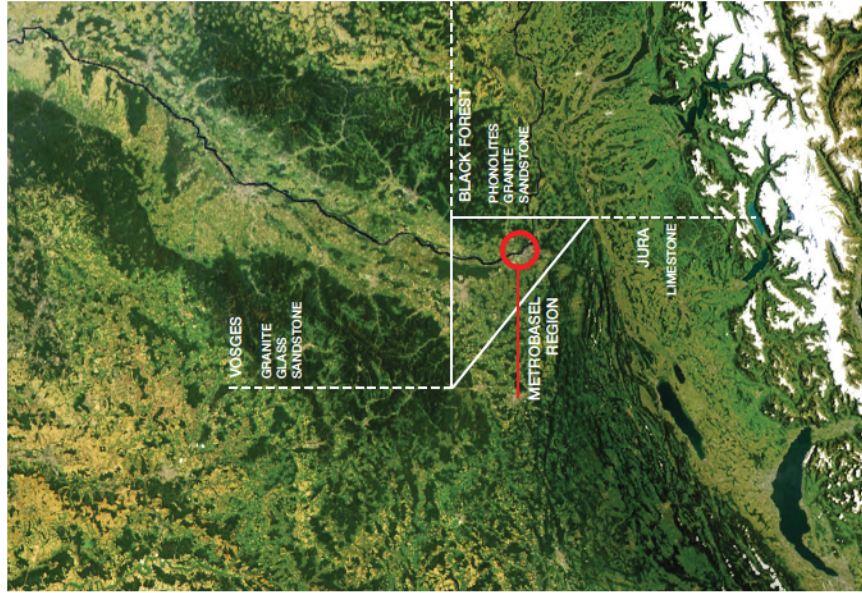
1350 Exterior city wall built.

1356 Basel earthquake destroys much of the city along with a number of nearby castles. Plague ensues.

- 1459 Pope Pius II endows the University of Basel. Introduction of printing by apprentices of Johann Gutenberg.
- 1495 Basel incorporated into the Upper Rhenish Imperial Circle.
- 1500 Basel Münster completed.
- 1501 Basel joins the Swiss Confederation, separating from the Holy Roman Empire.
- 1833 Canton of Basel-Stadt is created when the historic canton of Basel is divided. The result of this division is two half cantons: Basel-Stadt and Basel-Land.
- 1970 The first Art Basel is held.

## Appendix B: Physical Principles

### Geological Data

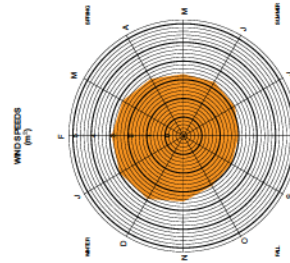
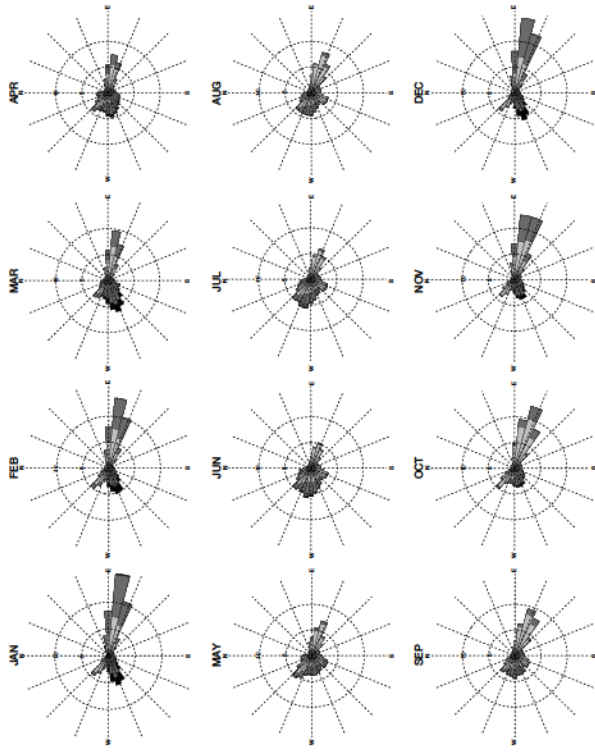
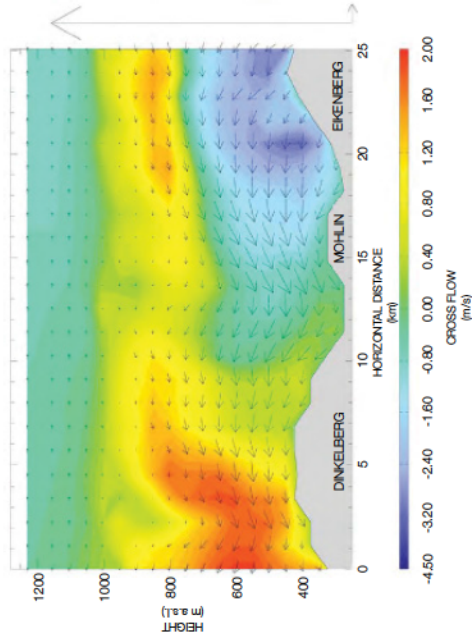
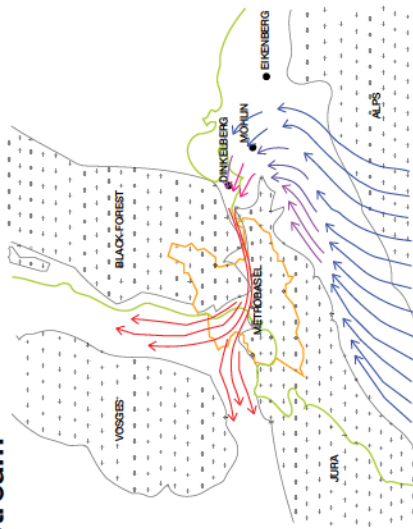


DEVELOPMENT OF THE RHINE RIFT  
ALLUVIAL SOIL  
MAIN COMPOSITION OF SITE

Development of the Rhine rift. Image adapted from ETH Studio Basel, *Metrobasel: A Model of European Metropolitan Region* (2009).

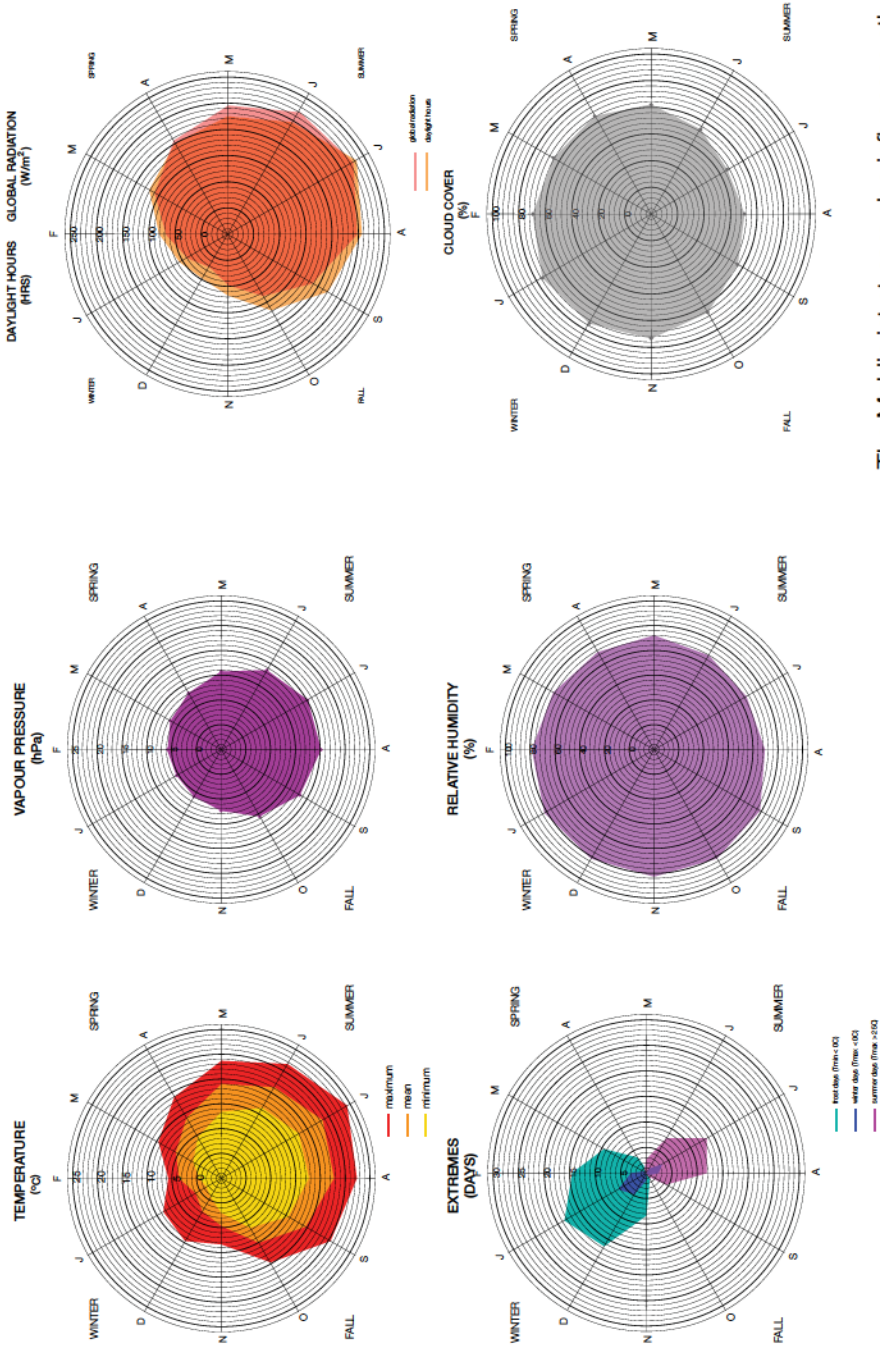
The region is characterized by the meeting of three major topographical features, collectively known as the Belchen mountain ranges: Vosges (France), Black Forest (Germany), and Jura (Switzerland). It has been postulated that these ranges have cosmological significance. Their peaks form a perfect pythagorean triangle, with its historical unit of measure coincidentally equal to the that for measuring longitudes. Of interest is the potential of these mountains to serve as local sources of material for inspiring the project.

### Mohlin Jet Stream



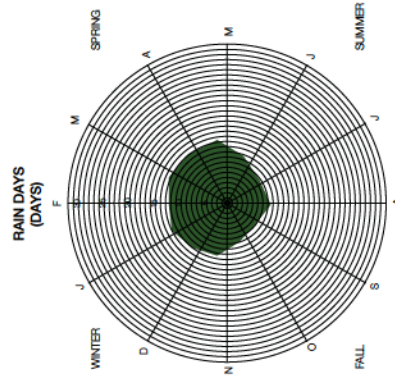
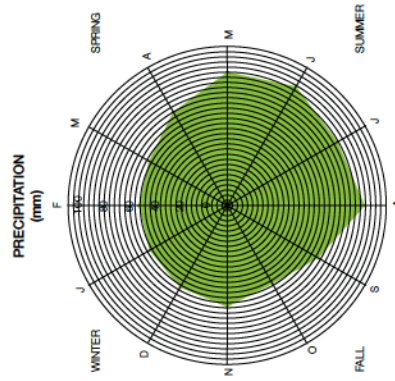
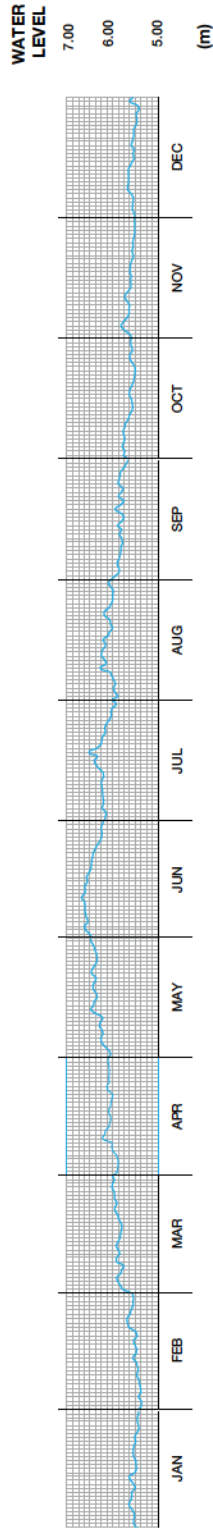
Due to the location of the mountain ranges, a particularly important wind system is generated in the Metrobasel region. The Mohlin jet stream is most evident during the winter months when the flow of cold air from the Swiss Alps (just south of the Jura) is funneled through the valley between it and the Jura. As it moves around the Jura, it is sped up and warmed. This is evident in the Metrobasel region where the prevailing winds originate from the southeast.

# Climate Data: Basel 1961-1990



The Mohlin jet stream also influences other climatic conditions in the Metrobasel region. As the wind is funneled around the Jura and the Black Forest mountains, it is also warmed. Therefore, Basel experiences warmer temperatures and higher humidity.

## Water Data: Basel Rheinhalde 1998-2009



The Rhine is part of the larger hydrological cycle and to understand its flows and water levels, one must also consider it in relation to the precipitation in this area. From the data, the Rhine experiences a flux of ~1.5m between summer and winter seasons which correlates directly to the flow experienced. This also correlates to the increase in precipitation experienced in the summer months. Although the number of rain days stays consistent year-round, the amount of precipitation increases significantly between April and August.

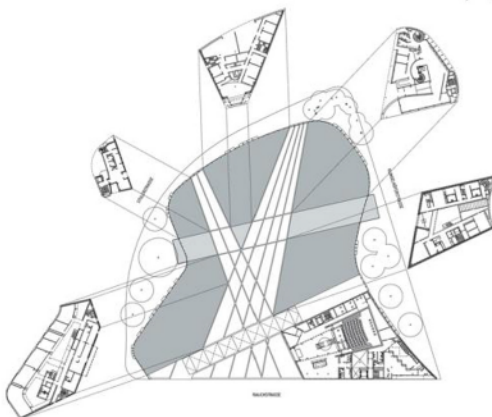


## Appendix C: Case Studies

### Transnational Cooperation

#### *Nordic Embassies - Berger + Parkkinnen*

The Nordic Embassies in Berlin represent five nations: Iceland, Norway, Sweden, Finland, and Denmark. The central component to this complex is the Felleshus - "A House for All" - which serves as the common space within which the various embassies meet and interact. It includes: an auditorium for concerts, readings, film viewings, conferences, exhibition spaces, conference rooms, terrace, and canteen. The connections between the nordic countries and political alliances in Northern Europe have had a long history which has allowed for this collection of embassies in Berlin. The distinguishing feature of the design is the almost 230m long and 15m broad copper band of pre-patinated lamellas which gives the complex a unified appearance from the outside.



The copper band encloses a plaza whose space is carved by the four embassy buildings. The use of water basins as a landscape feature between the buildings refers to the connecting seas between the Nordic countries. The embassy buildings are grouped to correspond to the arrangement of the countries on the map. (Nordic Embassies of Berlin)

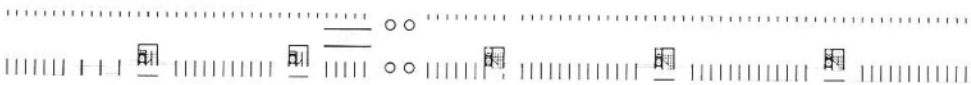
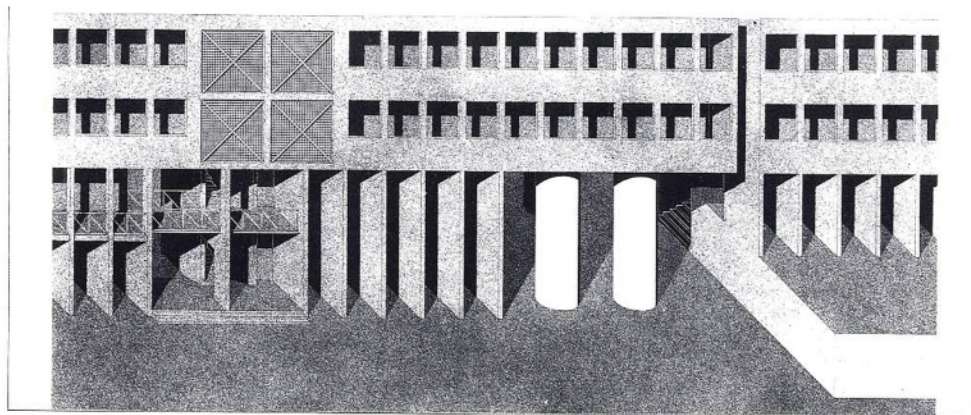
Exterior view of copper band and site plan of the Nordic Embassies in Berlin. From Nordic Embassies of Berlin "Felleshus: The Architecture."

## Horizontal Megastructures

### *Gallaratese II Housing Complex - Aldo Rossi*

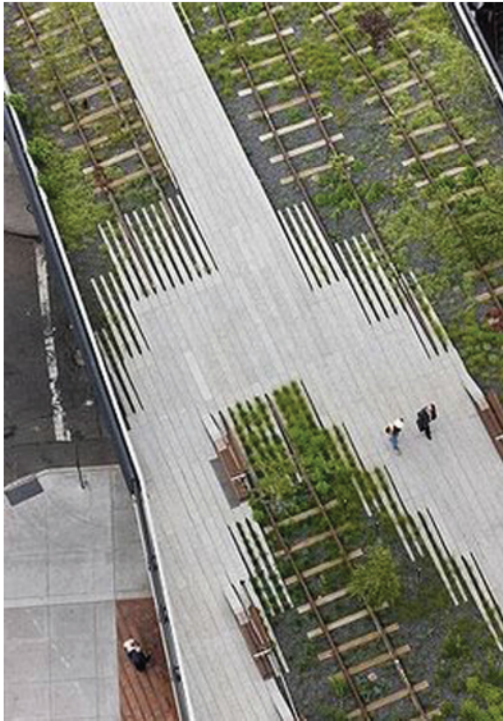


The Gallaratese II housing complex was created following WWII when there was urgent demand for housing in Milan. It is entirely repetitive and white but a delicate use of scale and rhythm within the repetition breaks up what otherwise would be a dauntingly abstract structure. The housing complex consists of a block with two to three floors of flats that could be accessed by an exterior gallery. The salient feature of the project is the colonnade upon which the housing units sit, forming the public arcade of the entire block.



Rossi, Aldo. Gallaratese II Housing Complex, Milan (built project, 1969-1973). View of public colonnade. From GiorgiaLupi.net, "Quartiere Gallaratese Aldo Rossi."

***The High Line - Diller Scofidio + Renfro and FIELD Operations***



The High Line project takes over an existing infrastructural remnant to reintroduce green space and new interpretations of landscape at an elevated level. As it connects from Gansevoort Street to 30th Street in New York, it provides paths that meander and slow down what is otherwise a fast-paced urban environment. The design concept, from built to unbuilt, is based upon an existing landscape character inherent of the place, working symbiotically with existing urban conditions and microclimates such as noise, wind, sun, shade. The access points prolong the transitions between the frenetic activity of urban life below and the slower landscape of the High Line.



View of the open-joint paving system on the Highline. From Blue on Blue, "The NY City High Line Now Open!"

Rendering of the Highline from the street view. From Diller Scofidio + Renfro, "The Highline."

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