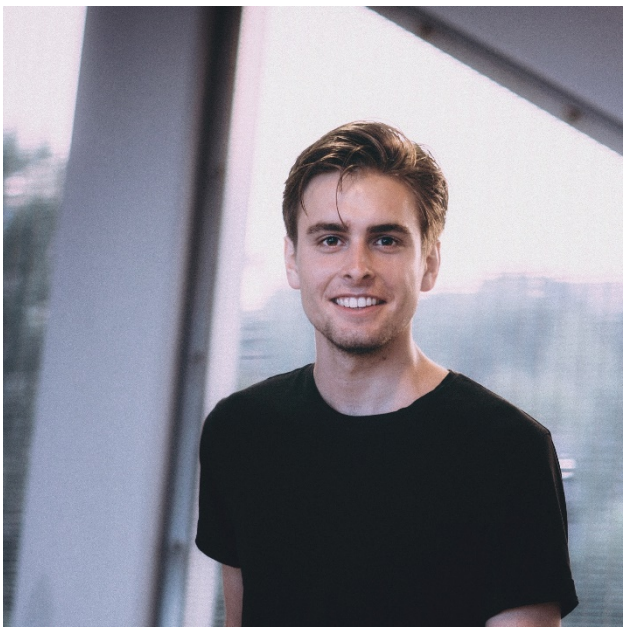
Biographical Sketch



Michael Lidwin is a fifth-year, Bachelor of Architecture candidate in University of Tennessee's College of Architecture + Design, pursuing a second major in Modern Foreign Languages and Literatures with an Italian Concentration. Michael has long been fascinated by the urban architecture of his hometown – most notably Eero Saarinen's Dulles Airport, whose tower is visible from his childhood bedroom window. In Tennessee, Michael has particularly enjoyed studying architecture in the context of Appalachia and East Tennessee, working with local communities in Clay County, KY and Knoxville, TN through both Freedom by Design and University-Assisted Community Schools. In summer 2018, Michael completed coursework at the UT Finland Summer Architecture Institute, where he helped document and digitally-model Alvar Aalto's Enzo Gutzeit Country Club and Sauna in Kortvik, Finland. This experience analyzing architecture formed an important foundation for his summer 2019 travels as an Aydelott Travel Award recipient. As of July 2019, Michael is a Research Trainee in the international design platform, IBIDEM City, where he enjoys collaborating on competition projects and

research with Milanese designers outside of traditional architecture coursework.

Michael would like to thank Alfred Lewis Aydelott, FAIA; Hope Galloway Aydelott; the Aydelott Foundation; and 2019 committee members for selecting his application and having faith in his ideas. He is truly honored to be a recipient of this unique travel opportunity. He would also like to extend his personal thanks to all who have helped him at the University of Tennessee: Knoxville, especially his research advisor, Professor Brian Ambroziak.

Student:

Michael S. Lidwin

Faculty Mentor:

Professor Brian Ambroziak

Buildings:

1. Sikandra (Akbar's Tomb) | Architects: Emperor Akbar and Emperor Jahangir | Agra, India
2. Yokohama International Passenger Terminal | Architect: Foreign Office Architects | Yokohama, Japan
3. La Valletta City Gate | Architect: Renzo Piano Building Workshop | Valletta, Malta
4. Arnhem Central Station | Architect: UNStudio Arnhem, Netherlands

Institution:

University of Tennessee: Knoxville | School of Architecture, College of Architecture + Design

Introduction

In the words of Keller Easterling, "A diagram…is not a representational sketch of a single arrangement but rather an 'abstract machine." [1]

The discipline of architecture may change overtime, but its one constant will be the ability for designers to respond to societal issues and for architecture to capture multiple potentials of place. The one true consistency for architecture is the ability to *diagram*.

This architectural analysis investigates the importance of entrances – specifically, examples where the entrance itself is the architecture. Transitory architectures become an ideal setting understand the architectural diagram, because entrances document both local cultural identities, as well as that culture's relationship to a broader global world.

City entrances have long been moments of cultural reflection and challenge traditional boundaries of borders, because entrances break borders and invite people inside, even allowing university students to travel the world for a summer and get a glimpse at the thinking behind international works. In this case, entrance architecture serves as a mediator between conditions of interior and exterior. The specific designs of entrances often reflect themes of identity, politics, beauty, and commerce. The architecture studied here is fundamentally transitory, with its role in aiding movement into new spaces, while also acknowledging the complexities of local culture and global experience.

This study is especially important for architectural analysis in the twenty-first century, because globalized culture sometimes threatens a localized identity, and political conversations about border definitions present challenges about acceptance of other cultures and communication between two cultural divides. Cities and cultures are sometimes experienced through the media before even setting foot in an environment. Therefore, architectures of entrance become opportunities to confront the different perceptions of a city. Architectures of entrance become important moments of introductions for both those inside and outside. This importance has changed the notion of entrance from being a secondary architecture program to being a primary focus that is need of more scholarly attention.

As a result, this architectural analysis selects architectures of entrance that have recognized their important positioning in the urban landscape along a system of borders and also architectures of entrance that mediate between different cultures or local identities.

This investigation analyzes a new discourse of entrances (the thematic "door") and what supplementary programs evolve, how entrance architectures challenge the relationship between building and environment. When "the door" becomes a complete architectural space, not just a component of a larger architecture, the landscape that develops as "the door" dissolves, transitioning into the surrounding urban areas. It is also psychological in allowing multiple interpretations of where the door stops and ends. As such, the door as a singular architecture is inherently conversational. It promotes dialogue.

NOTES

1. Easterling, K. (January 2012). "An Internet of Things" e-flux journal #31. PDF: 1-8

Sikandra: Akbar’s Tomb

Fig. 1. Emperor Akbar, View of Juxtaposed Gates with Cricket Players in the Distance, Sikandra, Agra, India, 1605-1613.

The procession begins in the backseat of an open rickshaw. I am sitting on a torn vinyl seat, surrounded by a current of zigzagging mopeds and cars, whizzing by storefronts with red and green garage doors and billboards written in Hindi – plastered on every façade as a visual meter during my journey. Cows nonchalantly saunter along the dirt road, oblivious to their contrast in speed. It is four in the morning, and the city is already awake, stirring. The sun has not risen; it too begins to wake in the distant sky, though the haze of debris and pollution pulls the sun’s light farther. From a nearby mosque, the call for morning prayer faintly sings amidst honking

mopeds, competing as the one, true soundtrack of the city. Nocturnal dogs with dirt-matted fur curl up in shaded pockets for their slumber against the bustling parade of traffic. Monkeys swing between branches and fences, screeching in a morning chatter. Each day, I sailed these asphalt rivers of Agra in the belly of a green and yellow tuk-tuk, passing through urban life that enveloped Sikandra.

Arriving to Sikandra required a strict dress code of mosquito repellent pants and a jacket of sweat, donated by the 115-degree air and awarded at the end of voyage described above. After collecting my tiny purple ticket from the booth along the highway, my feet followed the red-tiled sandstone path that led visitors to the tomb. A linear division in the floor’s pattern served as subtle wayfinding. I clung to its side, where trimmed hedges and trees cloaked me in a protective shade. A single white minaret shone above the tree canopies, duplicating into two, then four. The drum of traffic continued to buzz, but now competed with the clamor of families, playing cricket in the nearby lawn. Picnic tables for breakfast covered the grass of Sikandra, as the city took advantage of the cooler morning air. As I approached the South Gate, the tree’s sheltered promenade dissolved. The sandstone path opened to a central lawn, closed off by a 6-inch fence, as if the lack of shade wouldn’t have already kept people away. A single tree stood to the right, mirrored on the other side of the lawn by a hexagonal-jaali screen that pixelated the scene behind. In order to enter Sikandra, I had to circle the lawn and climb three red steps, carefully aligned beneath a six-and-a-half-foot portal, also made of sandstone. The portal was simply an arch, detached from any

enclosure, but aligned to the larger entrance behind. Oriented, facing the cenotaph beyond, I stood still: half reveling in the next transition of shade (albeit small), half focused on the series of scales, in which door had been dissected. However, this was not yet Akbar's Tomb, but rather the entrance sequence that led up to it.

Fig. 2-5. Emperor Akbar, View of Moments of Approach, Sikandra, Agra, India, 1605-1613.

It was in this threshold created by the tiny sandstone portal that I realized the extent of Sikandra's entrance. Like the portal being detached from the actual South Gate, entering Sikandra was a

gradient of experiences – not a single moment. The bustle of traffic and undulation of shaded spaces transitioned visitors from the urban surround and into the quiet mausoleum. Once through the South Gate, the city seemed to quiet, its sounds dampened by thick fort walls and absorbed by foliage that increased the further one traveled from the Gate.

Sikandra (also known as Akbar's Tomb) contains the cenotaph of Emperor Akbar (1542-1605) and is in a small district on the outskirts of Agra. The mausoleum's design builds off a history of Ottoman architecture, while establishing a distinctly Mughal style that helped legitimize a then-relatively new ruling dynasty.[1] Thus, the entrance into Akbar's Tomb was not only important for the experience of the architecture, but also as a conceptual metaphor that reinforced the ruling power of the Mughal Emperors who were unfamiliar to residents of that area. This metaphor continues today as Sikandra is juxtaposed with an urban scape that grows right up to its walls. The dissolution of the entrance into a landscape of experiences is still an important and observable feature in the design of Akbar's Tomb. For my Aydelott research, I focus specifically on the tomb's South Gate – one of four gates to the tomb, but the only functional gate, as the others serve as ornamental, closed monuments.

Fig. 6. Emperor Akbar, View of the South Gate, Sikandra, Agra, India, 1605-1613.

In this paper, I define successful entrance architecture as architecture where visitors, whether assimilated into culture or foreign, can appreciate and understand the logics of the architecture. Successful architectural entrances introduce to visitors, or reinforce to residents, the ideals of a place. In doing so, successful entrances or thresholds prepare its users to experience other cultural architecture of that region.

I argue that Sikandra (Akbar's Tomb) demonstrates important methods where architecture can negotiate between a place of departure and arrival. By comparing my experience of place with a description of specific architectural details, I leverage my travel experience as a

primary source that reinforces the ideals of the designer, which was in this case study Emperor Akbar himself. Four features make Akbar's Tomb a successful entrance architecture. Akbar's tomb succeeds in preparing users to experience the rest of the region through: 1) the use of a diagram, 2) intentional grounding devices and juxtaposed scales, 3) materiality that creates a visual identity of place, and 4) shadows that establish temporary situations. Each of these aspects reinforce the importance of Mughal architecture in shaping the landscape of Agra.

A Living Diagram

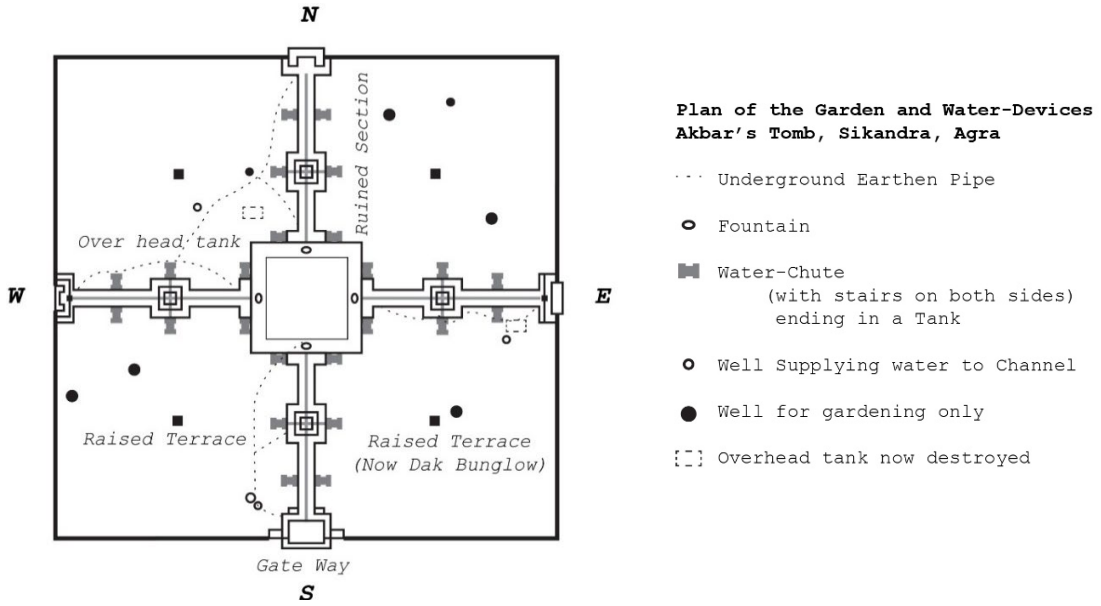


Fig. 7. Ram Nath, "Plan of the Garden and Water-Devices." in *Agra and Its Monuments* by Professor R. Nath and Ajay Nath (Jaipur: The Heritage, 21 November 2018), page 74.

Emperor Akbar adapted his tomb to the framework provided by his predecessors, while also making alterations to the framework as a personal signature. For example, Akbar's Tomb was designed with the symmetrical, quadrant floorplan of Humayun's Tomb, but chose to make

the cenotaph tiered and rectangular to reinforce the square grid, which differed from Humayun's octagonal floorplan. When travelling, I experienced these two tombs in the order of their creation, starting with Humayun's Tomb in Delhi. As I walked through the gardens of Humayun's Tomb, the elevated cenotaph draws enormous focus away from the landscape in which I stood. In contrast, Akbar's tomb elevates its visitors on "raised terrace"[2] walkways instead of elevating the architecture, eluding to an "eternal spring or paradise."[3] The result is an appreciation and a focus downwards to the garden below the visitor, while still allowing focus on the physical burial location based on its central location in the plan.

Fig. 8. Thomas Daniell, "Gate of the Tomb of the Emperor Akbar at [Sikandar] near Agra." *Oriental Scenery, no.* 9. 1795. [4]

Part of the diagram's importance was providing a consistent imagery of Mughal tombs that could impress foreigners and gain global attention through word of mouth and sketches (Fig. 8). The emphasis on the garden in Akbar's Tomb became an especially important selling point for the English travelers, who were already familiar with Western Europe's attention to gardens during the seventeenth century, like Versailles in 1638.[5] This garden focus and reinforcing it in the diagram helped travelers digest and describe Akbar's tomb. Edward Terry, a seventeenth century English ambassador and chaplain, wrote about his fascination with the tomb by describing it as, "The rest of the ground they planted with trees and flowers, as if they would make Elysian fields such as the poets dreamed of, wherein their souls might take their repose."[6] Peter Mundy, a British merchant, made connections between the spires at Sikandra and the Ottoman mosques of Constantinople, thus revealing the profound knowledge of other world architectures possessed by Akbar's Tomb.[7] This global connection and inspiration embedded in Sikandra's design encouraged several Englishmen to travel to India in order to gain appreciation for its gardens. Therefore, the symmetry, harmony, and dedicated green-space that was provided through the diagrammatic plan of Akbar's Tomb helped relate the cenotaph's complex to high art and architecture of the time.

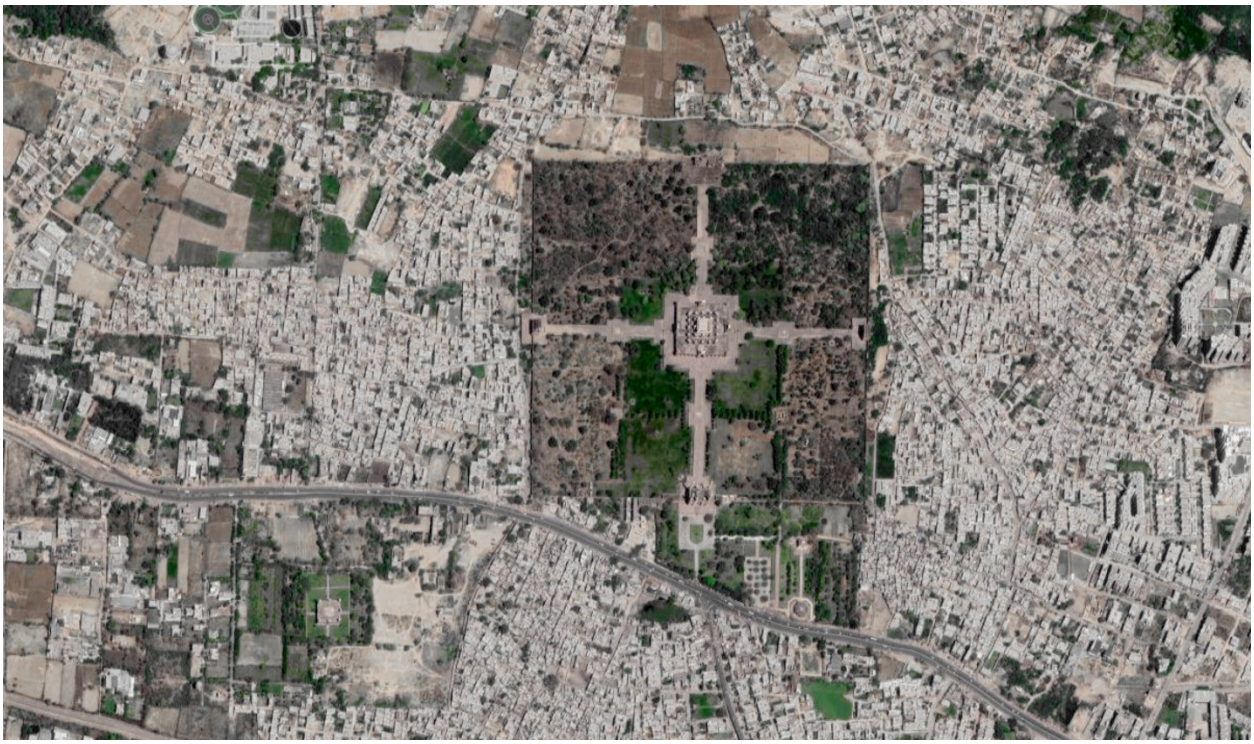


Fig. 9. Google (n.d.). [Google Maps View of Sikandra, Agra, India]. Retrieved December 01, 2019, from shorturl.at/moDEO

As described, the symmetrical plan of Akbar’s Tomb appealed to Western architecture and helped prepare them for visits into India during the seventeenth century. Yet, the innovation of this diagram helps continue to make it relevant and relatable in a contemporary discourse. For example, the cleanliness of lines and the scale of the gardens make the complex stand out in Google Maps imagery – my first perception of the site as a traveler in the twenty-first century. Immediately from an aerial image, the splendor of the tomb is reinforced, and one can realize just how powerful it is to have a garden at that scale compared to the earthen landscape around it. I consider Agra to be a desert city – not unclean, but inherently connected to its environment as a semi-desert through the presence of

dirt that lingers in the air. When I travelled in forty-five-degree Celsius (over one hundred-and-ten-degree Fahrenheit) weather, the garden further made me pause and appreciate the coolness of its trees provided given the harshness of the land around it. It provided a break from the dust that flew in my face on my voyage into Sikandra each day. This still appeals to locals today, who use the gardens for cricket matches or simple picnics, as mentioned, making it an important architecture for Agra residents. Also, in the same way, it continues to appeal and introduce me, a foreign traveler, to the arid weather of India through a familiar refreshing scene of parks and its gardens. Such rare moments demonstrate a successful entrance architecture that prepares the participant to transition and encounter the landscape outside of Sikandra while also allowing vistors to appreciate and understand the logics of the architecture regardless of their locality.

Materiality for a Visual Identity

In addition to the importance of the garden and its reflection in the Mughal plan, Akbar’s tomb strategically uses materials to serve as grounding devices that orient visitors in the landscape and in the city. For example, before even entering the mausoleum, visitors are presented with a jaali screen, a now-prominent feature of Indian designs, where the use of jaali screens begin to symbolize relationships to other architecture, like the preceding tomb of Humayun. It is important to note that although Akbar’s tomb is rectilinear, it does not completely disregard Humayun’s octagonal

tomb. Instead, it pays tribute to its predecessor through the subtlety of material through hexagonal-shaped jaali.

The use of jaali screens continues to this day, inspiring the twenty-first century Parliament Building of Chandigarh (Figure. 8), which allows Akbar’s Tomb to continue to serve as a successful entrance architecture that introduces cultural motifs and designs to visitors and reinforces these designs for locals.

This jaali screen at Akbar’s tomb helps preview the space beyond the South Gate’s wall but is especially important for its ability to actively manipulate one’s experience of the place. For example, the jaali screen filters air and light. Subtly, the material of the screen – red sandstone – reinforces the dominating material of the landscape, which visitors first encounter as a path leading up to the mausoleum complex. Thus, the screen becomes an extension of the streetscape, and just as it controlled the flow of people up to the monument, so too does it control the air and visual scenery through the space.

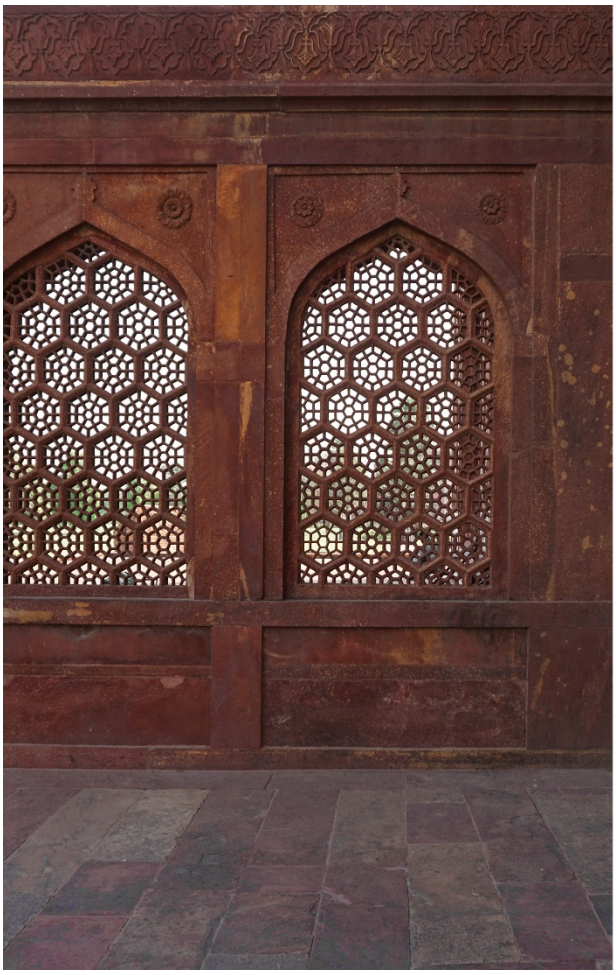


Fig. 10. Emperor Akbar, View of Jaali Screens, Sikandra, Agra, India, 1605-1613

Fig. 11. Le Corbusier, View of High Court of Justice at the Capitol Complex Screens, Chandigarh, India, 1951-1956

This reading of the tomb might not be common for those who have not visited the space – that the space is dynamic, that it captures flows (human or atmospheric), and that it actively changes its environment. But there is a sense of peacefulness that is highlighted in the interior of the garden. Birds begin to activate the trees as white noise to drown out any remnant noise of cars or city life that may pass through the screen. The screen becomes both a performative and visual extensive to the South Gate to mark the threshold

experience. As such, animals, weather, and other visitors begin to affect change on how the building performs.

Shadow and the Temporality of Space

This temporality and situational condition that nature provides is augmented through the shade provided by the South Gate. If Akbar's Tomb was built today, you could imagine the larger door serves as its virtual identity – the image of the door that visitors will keep with them after they leave, while the smaller door became the experiential one. I did not realize how important this distinction would be until travelling through both doors, because the smaller defined and focused my path into the tomb much like a telescope or binoculars, while also providing the tiniest amount of shade under the human-scaled door. This shade became a gathering point in each of the other Mughal Mausoleums I visited, and I noticed how most people sought shade under the South Gate at Sikandra.

But aside from relief from temperature, shade begins to highlight the masses that create the shadow. For the South Gate, which provides some of the darkest shade for the tomb's complex, visitors could admire the South Gate's various corridors and rooms that enclose the entrance gate to provide shadow. These spaces were only activated during the three-days of celebrating life that happened when members of the royal family passed. As my tour guide, Mr. Vinny Gupta, the swastika symbol (Figure 10) inlaid in marble represents peace and becomes appropriated with other symbols seen in Islam, Christianity, and Hinduism. According to Mr. Gupta, this indicates the ability for the South Gate to welcome foreigners and "link foreign architectural

practices," [8] while also familiarizing foreign ideas to local visitors. This shade performs as a consistent backdrop even as the space changes use diurnally and seasonally.

Fig. 12. Emperor Akbar, View of Exit with Swastikas in the Upper Left and Right Corners, Sikandra, Agra, India, 1605-1613.

Funeral processions became important programs that augmented specific conditions that would only occur at times in the mausoleum. For example, the cenotaph uses groin vaults around its perimeter. When drums are positioned at each center, as visitors and I simulated through clapping, the echo off the arch provided a resonance throughout the immediate landscape, transforming the architecture into yet another performative aspect, this time synced to a rare

occurrence. Therefore, not only do birds contribute sound through their presence in the trees, but the architecture begins to embody similar logics that make a seventeenth century building technological, without electricity or industry that would develop after its construction.

Conclusions

My experience entering Sikandra (Akbar’s Tomb) started with an initial voyage through the streets of Agra, a setting I only began to understand and fully appreciate after arriving in Sikandra. Although built in the early seventeenth century, the South Gate at Akbar’s Tomb presents key, innovative design moves that keep the architecture relative and applicable to modern visitors. The embodiment of a diagram, the use of material and performative technologies to heighten one’s sense of place, and the ability to adapt and design for specific events creates memorable experiences for the visitors. It allows foreigners to take these ideas and describe them in digestible ways as early Englishmen did, but also provides an important introduction into the Indian architectural landscape – where quiet moments of reflection are highly valued and where the connection to the land (whether embodied through red sandstone or ornamental reliefs) helps establish a shared connection among people back to the land. Visiting Sikandra and its South Gate as my first site in my four Aydelott sites helped establish a context of a land I knew little about, deconstructing my expectations so that I may be more open to understanding and seeing the relationships present in its design.

NOTES

1. James-Chakraborty, K. (2014). Early Modern South Asia. Architecture Since 1400, University of Minnesota Press: 109-124.
2. Nath, R. and A. Nath (2018). Agra and Its Monuments. Jaipur, The Heritage: 74.
3. Lannom, G. (2005). "Patron of the Arts and Crafts." Calliope: 31-34.
4. Daniell, T. "Gate of the Tomb of the Emperor Akbar at [Sikandar] near Agra." *Oriental Scenery*, no. 9. 1795. Acquatin, colored, 55 x 72.4 cm. Available From: The British Library, (accessed December 01, 2019).
5. Versailles, C. d. "Louis XIII and Versailles." Retrieved 10 December, 2019, from http://en.chateauversailles.fr/discover/history#today.
6. Henderson, P. (2010). "Elysian Fields such as the poets dreamed of': The Mughal garden in the Early Stuart mind." The British Art Journal 10(3): 41.
7. Ibid. 42
8. Gupta, V. (2019). Akbar's Tomb. Taj Adventure World Group. Personal Interview: M. Lidwin. Sikandra, Agra, India.

Yokohama Terminal

Soft beads dribbled down the glass, distorting the view beyond the car's dashboard, creating a gaussian blur of the harbor. The sea and the sky were indistinguishable. The incandescent bulb of the car became our beacon with its orange-yellow glow, complimentary to the otherwise bluish haze of objects. As the car approached the coast, a beast was waiting for us, arms extended into the landscape in the form of wooden IPE decking, slightly grayed and soaked – as if competing to join in the smear that was Yokohama's water and sky. The grain of its skin – barely visible through the rainy haze, ran parallel to our path, further pulling us inwards. The arms grew, ramped upwards to its shoulders. Its head lowered to meet us on the ground, so we drove head on, mesmerized by what sat perched in front of us.

At the last minute, we swerved left, unlocking a hidden passage and avoiding the monster straight on. We proceeded to ramp downwards in a seamless transition. I could not tell if this was the ground floor or a basement, as the stacking of levels in Yokohama – although layered in four stories – felt like one continuous ground surface.

"It's like entering a whale," Kenichi laughed as we proceeded to drive into the belly of said whale. The roof of the monster's mouth was ribbed much like origami paper folds, but we appreciated the roof for its protection against the stormy weather outside. We left Kenichi's car near the exit sign, which hung somewhere in the middle between where teeth should have been and where an asphalt tongue of parking lines licked the bottom of busses, vans, and cars (now including Kenichi's). Venturing upwards into the body, we must have

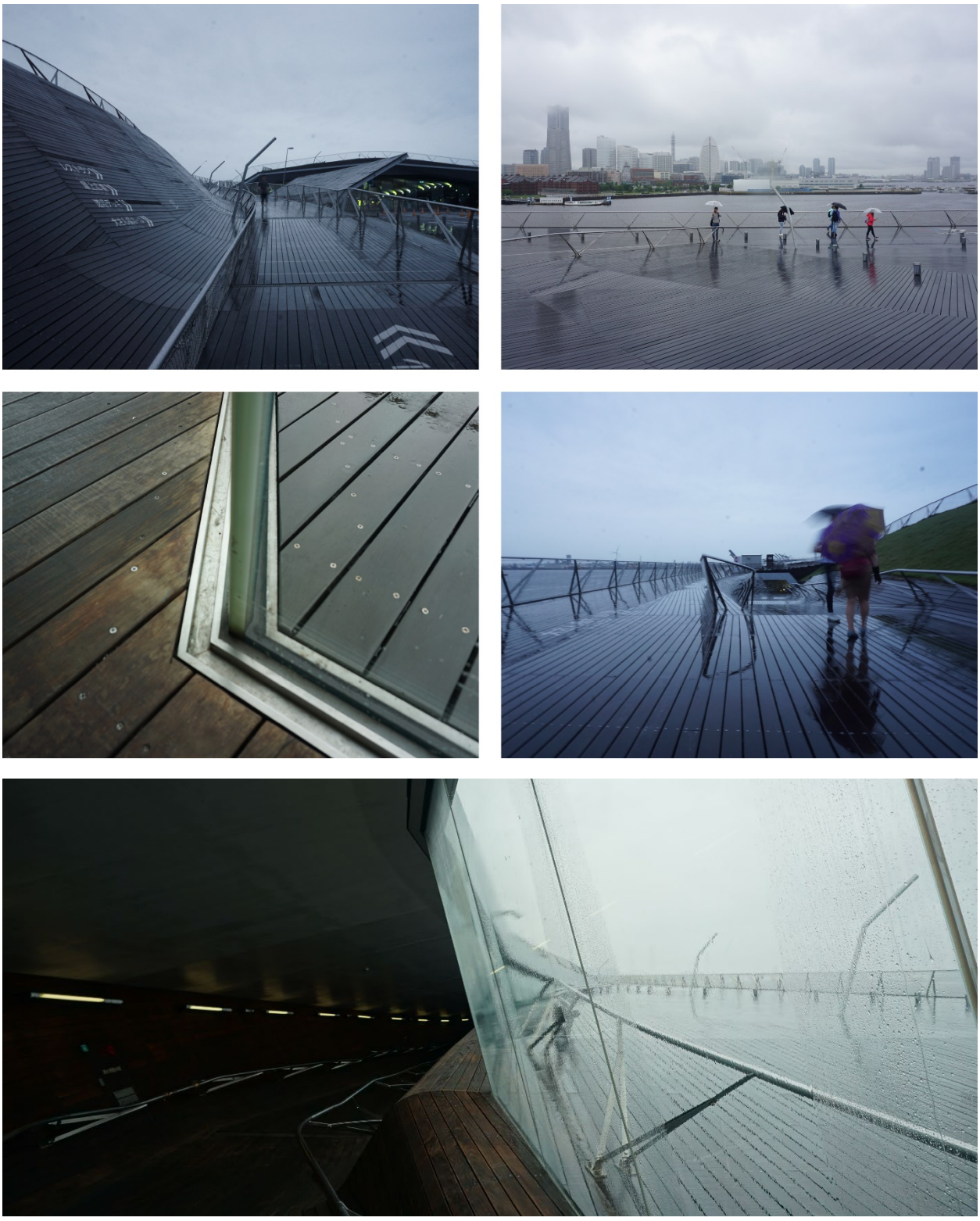


Fig. 1-5. Foreign Office Architects, Transformations of Wood in Rain, Osanbashi Pier, Yokohama, Japan, 1995 – 2002

resembled children at a zoo, pointing out features of the building and talking about the space as if each design move was a different exotic creature.

After arriving to my hotel late the night before, Yokohama Terminal was the first sense of place I received from the city, providing an overload of senses as I drew near. Professor Kenichi Nakamura, affectionately known as Kenichi, grew up in Yokohama and became an architectural professor, who now works closely with the University of Tennessee: Knoxville during mini-term programs. He graciously offered to tour me around Yokohama, as he admitted that he himself had not visited the terminal in a couple of years. So, an overwhelming awe and intensity was felt by both of us as the building introduced itself to us that morning. For me, it was my first meeting; for him a second reintroduction.

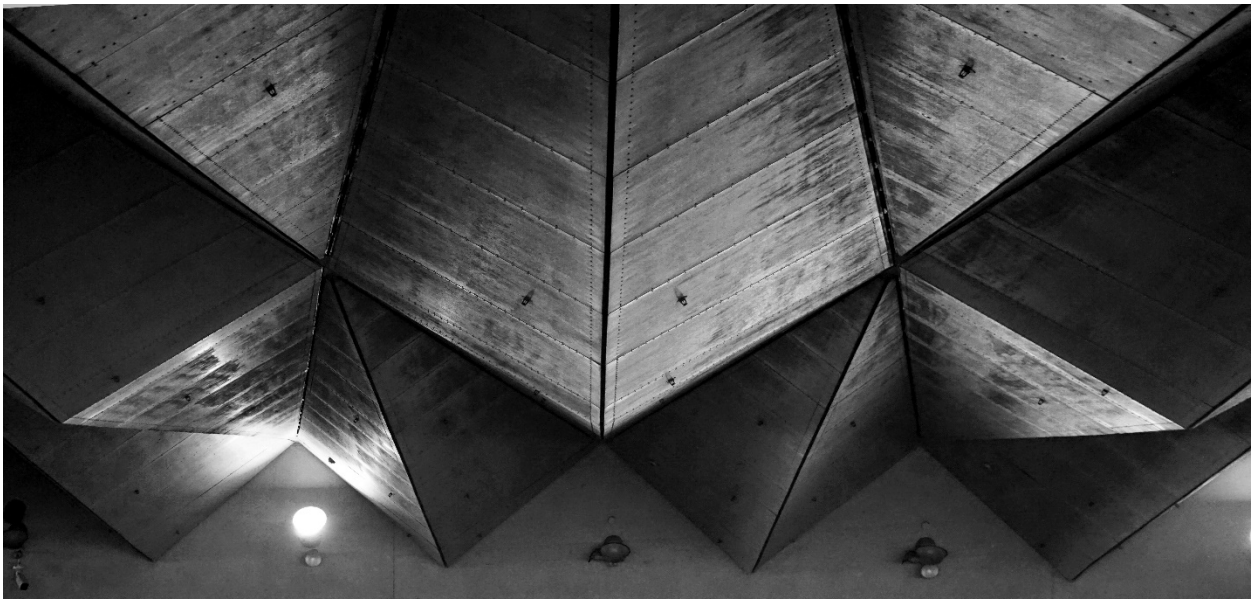


Fig. 6. Foreign Office Architects, Ceiling Detail, Osanbashi Pier, Yokohama, Japan, 1995 – 2002

This introduction led us to the great hall of the pier, which was the largest room and would have been our entrance into the port terminal had we continued to drive straight before swerving into the secret passage that became the garage. The rain on Monday, June 24th was an important setting to discover Yokohama, because it brought out the features that made Japanese architecture attuned to the elements of nature: wood that absorbed the rain, framed views of the harbor that highlighted the grayness of both sky and water, and a sense of retreat and security in the enclosed interiors, to name a few. The port terminal's growth is subtle off the coastline and the scale of its pathways embrace and comfort visitors in an otherwise vast open space.

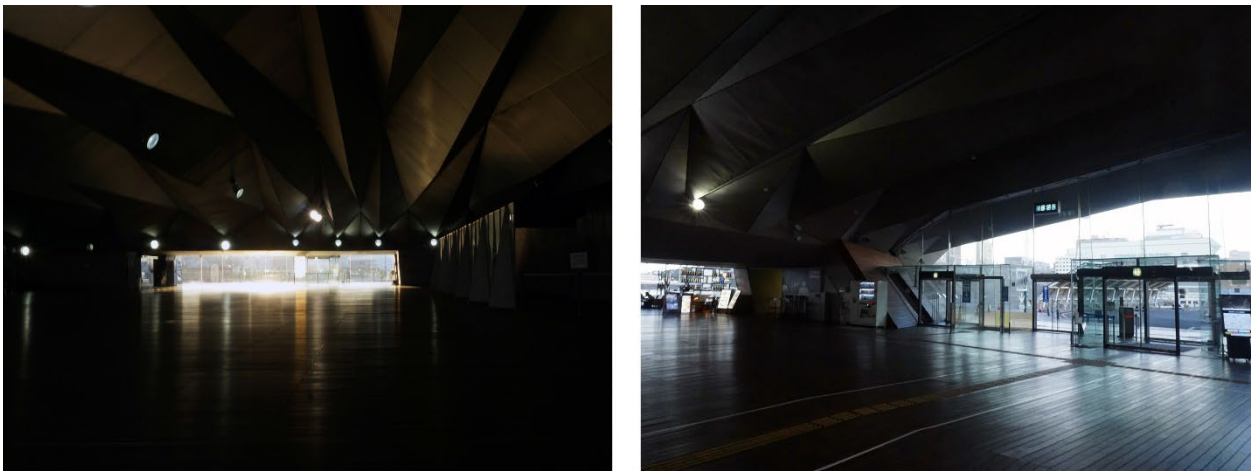


Fig. 7-8. Foreign Office Architects, Main Terminal Hall, Osanbashi Pier, Yokohama, Japan, 1995 – 2002

Like most Japanese architecture, Yokohama is significant for its ability to augment nature, even if Yokohama achieves this through more contemporary construction methods and highly technical structural

systems. Foreign Office Architects abandoned post-and-beam construction for the origami roof effect that was achieved through a "undulating honeycomb structure," in the words of Yasuyuki Morimoto.[9] During my week in Yokohama, I learned even more about the nuance of its space. Three tools became central in my personal and analytical approach to the terminal. As well, these three tools served as important *methods* for designers attempting to craft a public space that introduced visitors to Japanese values and the landscape of Yokohama while, at the same time, providing a space that continues to be equally engaging for residents. These three tools include: 1) dialogues among designer and non-designers alike (via archival records of juror comments and sourcing designs through a competition), 2) leveraging the ideas from a diagram to innovate structure and experience, and 3) establishing a cultural connection between the new architecture of Yokohama with a centuries-long history of rich, Japanese architecture.

Archives: Passive Conversations with the Jurors

One of the most memorable experiences of Yokohama occurred in a chair behind the reception desk – where the officials at Yokohama Terminal kindly allowed me to sit. The chair was loose and off-center, so it certainly was not for lounging. But, the required focus of not falling off the chair, complimented with an access to Yokohama's archives on the competition entries, juror comments, and drawings, allowed me to sit and experience the terminal from behind the reception desk. It simulated what it is like to work in the terminal and not just pass through. Passive conversation through writings of

the jurors revealed positions and comments on the submissions. I also gained an experience for life in the terminal during the weekday. Watching how within minutes the grand hall could transform to accommodate more than a hundred passengers from a cruise line, only to then usher them out through the movable partitions and lines the port authority would construct. It felt like I was reading the script of a play and conversing with the playwrights, only to see their visions come to life while they spoke – an image I've only experienced before through flashback/flashforward films. The terminal transformed into a performance, spotlights shown from the ceilings, and the dark wooden floors supporting the actors who traveled through it.

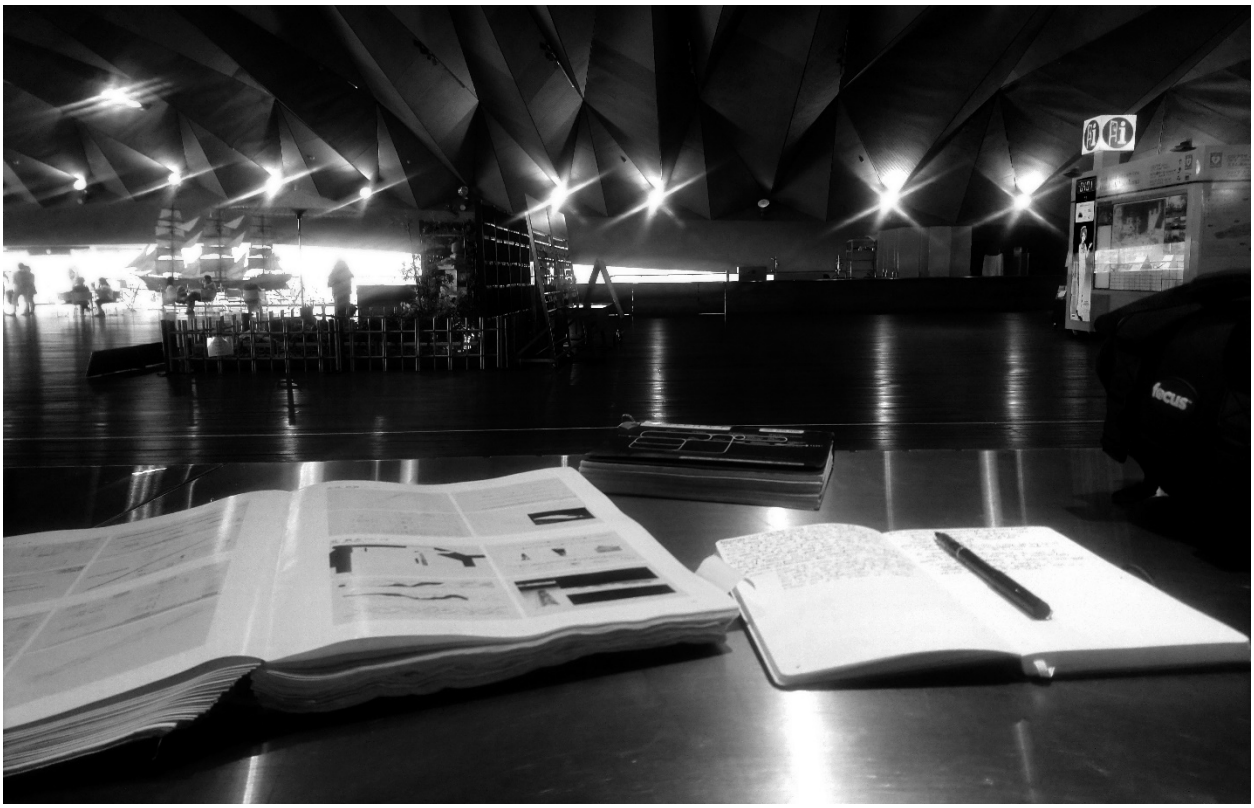


Fig. 9. Foreign Office Architects, The Stage of Terminal Activity from the Reception Desk, Osanbashi Pier, Yokohama, Japan, 1995 – 2002

Yokohama Terminal stands out as an important entrance architecture, because in the mid-90s, it joined a series of global projects that sought to reinvent their cities. From the conception of Yokohama's competition brief, designers were challenged to consider concept of Japanese *niwaminato*, which "values the first impression which sways the image of the country," [10] as "garden-like areas where people from all over the world can assemble and converse together." [11]

The jurors were a combination of architects, including Rem Koolhaas and Toyo Ito, as well as non-designers and practicing professionals in city government, engineering, cruise operations, or other fields. Through their comments, I learned about motives behind the design and how certain proposals resonated with certain groups over others. For example, I was particularly consumed with conversations, specifically by Juror Yoshinobu Ashihara, who wrote, "I feel there are two tendencies among the entry works; one is to solve the problems along with the realities and the other is to attach importance to the concepts seeking new opportunities."[12] As the jurors reflected on these comments and the entries, even their own perceptions changed. As a result, the competition nature of the terminal brought forward new ideas that exceeded the original brief. Juror Yasuyuki Morimoto, a former senior-vice present for NYK Cruises Co., identifies three new criteria that emerged after looking at the entries:

> I did not vote for [Foreign Office Architect's proposal] at the first screening… [but later found that] its completely low profile in comparison to the other works, citizen use plaza on the roof, and careful consideration for functions…are certainly what "niwaminato" asks for. [13]

This is particularly encouraging that designers can present key design moves that become embedded in the brief. In the case of Foreign Office Architects (FOA), their ability to transition between levels of the pier – thus providing an inhabitable roofscape, became a feature the jury used as a basis for other proposals. Several of these key design moves that became crucial selling points for FOA's proposal derived from the firm's use of circulation diagrams around the concept of no-return.

Innovating the "No Return" Diagram

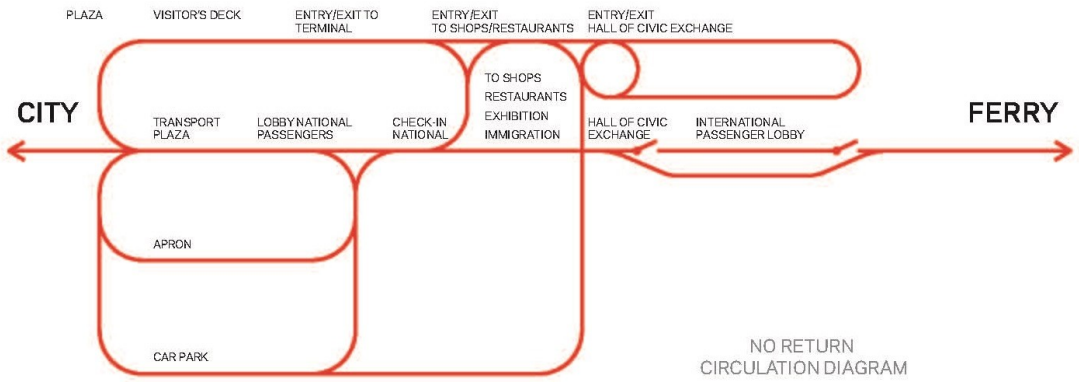


Fig. 10. Foreign Office Architects, "No Return Diagram," Osanbashi Pier, Yokohama, Japan, 1995 – 2002 [14]

The "No Return" diagram by Foreign Office Architects (FOA) allowed them to organize an important spatial sequence through the terminal that encouraged looped experience with programs placed specifically to encourage and allow this open circulation. That is, the topography became informed by areas where circulation may stagnate, providing programs for cafes, shops, ticket designs, etc.

For example, the plaza, shown as the top row of programs in the diagram (Fig. 10), represents just how connected the roof is to the rest of the building. As a result, the terminal could function less as "a limit, and more as a field of movements with no structural orientation." [15] Therefore, the diagram of "No Return," when utilized as a topographic tool, opened the building up away from the linearity that port typologies traditionally embody. The resulting elevation of the terminal (Fig. 11-14) demonstrates how this diagram varies transitional moments and type of spaces throughout the terminal.

Fig. 11-14. Foreign Office Architects, Four Elevational Views from Cruise-Ship, Osanbashi Pier, Yokohama, Japan, 1995 – 2002

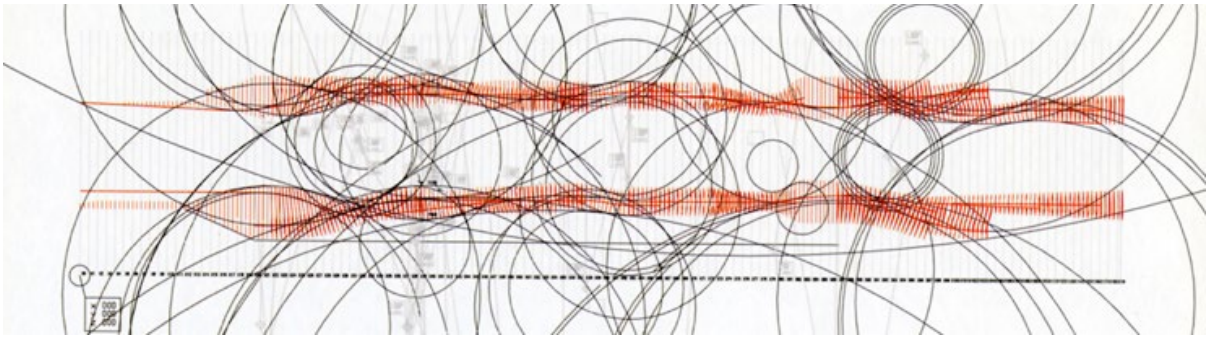


Fig. 15. Foreign Office Architects, Determination of Girder Geometry, Osanbashi Pier, Yokohama, Japan, 1995 – 2002 [16]

Cultural Landscapes: Historic Relationships

Although my visit with Kenichi began with a drive into Yokohama Terminal, our day continued with an afternoon spent in Sankei-en Gardens on the outskirts of Yokohama. The gardens are separate from the terminal, a twenty-minute drive south of Osanbashi Pier. Yet, Sankei-en Gardens helped reinforce aspects of Japanese architecture and values with the landscape, which is reflected in the "niwaminato" concept previously described. The rain, which continued to follow us from the terminal to the gardens, helped reinforce the connection each building had to the landscape as we sought shelter under each pagoda before venturing to other parts of the garden.

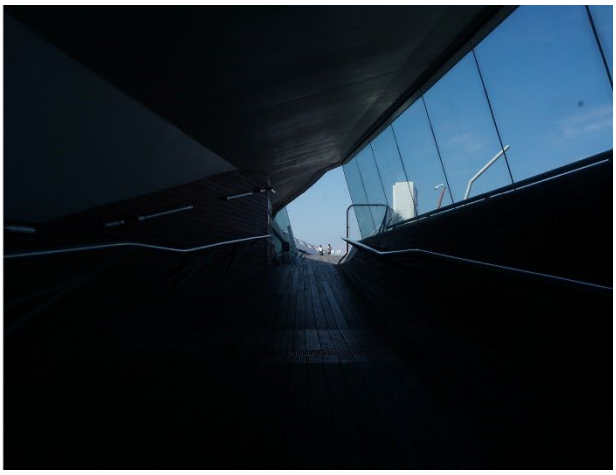


Fig. 16-17. Tomitaro (Sankei) Hara, Framed of Gardens on Bridge, Sankei-en Garden, Naka Ward, Yokohama, Japan, 1906. Fig. 16. Foreign Office Architects, Framed Promenade, Osanbashi Pier, Yokohama, Japan, 1995 – 2002

Japanese architecture has this subtle understanding of the ground plane and the scalable qualities as users transition between spaces or interiors to exteriors. It really becomes about this extended ground

plane, if at an exaggerated scale. This exaggeration solicited my interest in drawing these comparisons between the terminal, where the architecture succeeds at being distinctly Japanese while also being contemporary and technically progressive.

Sankei-en is both artificial and authentic, as historic Japanese architectures, such as Tomyoji Temple from Kyoto, had been transplanted into the garden, the surrounding landscape built up to accept and serve as an alibi for its presence in Yokohama. The entire garden functioned as a juxtaposition between historic sites with reconstructed contexts, but did not detract from the values it revealed. Stopping under the open enclosure on a bridge, the scene before me lay framed like a picture (Fig. 16) demonstrating the importance Japanese culture has to orientation and the appreciation of nature that is celebrated in each framed view. When I would return to Yokohama Terminal the next day, this perspective would dominate my focus. Approaching the ramp of the terminal, framed views on the right (Fig. 17) began to orient me back to the city and the coastline, encouraging a dynamic orientation consistent to historical examples found in Sankei-en.

Sankei-en became an important way of understanding the landscape as an important Japanese designed moment, especially as Kenichi and I participated in a tea ceremony, elevated in a great hall that seemed to float above an adjacent pond, allowing the ground to serve as both an important material and elevational device.

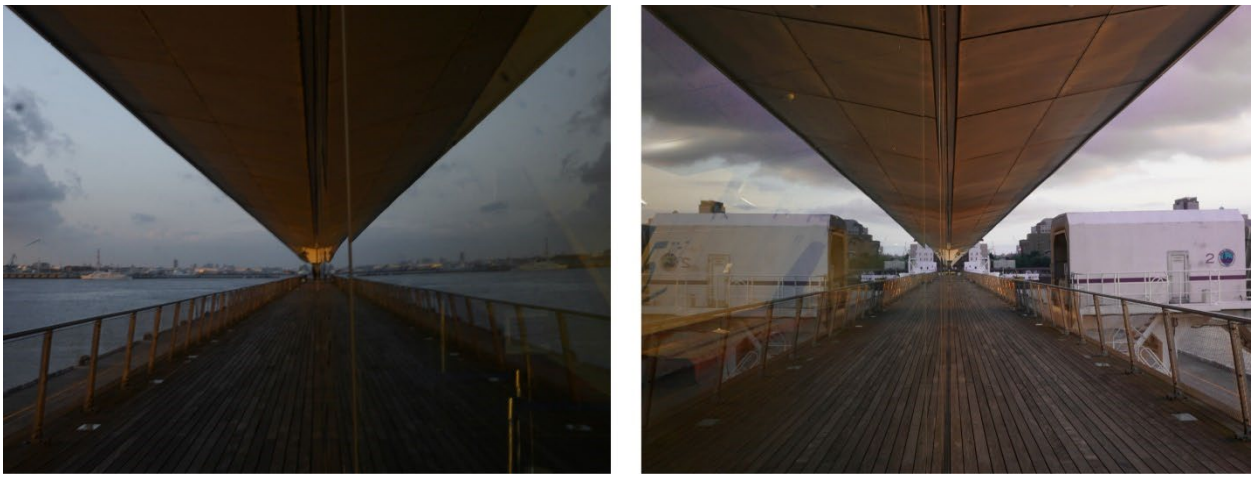


Fig. 18-19. Foreign Office Architects, Framed Reflections, Osanbashi Pier, Yokohama, Japan, 1995 – 2002

I read accounts of the terminal, questioning if it would be too technological and detached from the landscape,[17] yet through experiencing Sankei-en, one can understand Osanbashi Pier is still very much Japanese. Like Sankei-en, the terminal augments framed views and its positioning to the urban parks as an introduction in the architectural logics in Japan. I am reminded of Katsushika Hokusai, a famous Japanese artist who painted thirty-six views of Mt. Fuji to create different environments with the same grounding, orienting device of the mountain. In the same fashion as Italo Calvino's Invisible Cities, Hokusai's prints became situational stories within the same setting of the mountain.

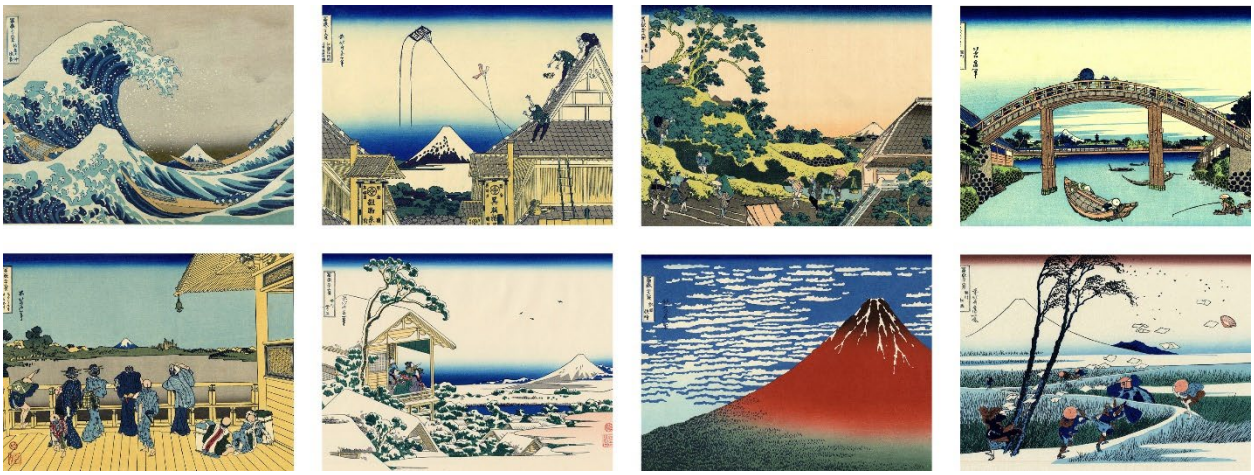


Fig. 20-27. Katsushika Hokusai, [8 Views of the Set]. *Thirty-Six Views of Mount Fuji,* 1830-1832. Color woodblock, 25.7 cm × 37.8 cm. Available From: Wikipedia, (accessed December 01, 2019). [18]

In fact, Hokusai becomes an important contributor, because in the same way, Yokohama bows to the landscape behind it (Fig. 18-19) – from the historic hotel Kenichi pointed out that served as an important US Naval Base, to the skyscrapers that represent Yokohama's growth in the 90s, or simply to the harbor. Reading juror comments helped solidify this analysis, because they wrote about discarding proposals that blocked the view of the shore for the boats. They wanted the boats to be able to seamlessly dock in to the landscape – not only as a practical attempt to allow Yokohama's skyline to orient ship captains, but also to celebrate the skyline and showcase the city to its users.

Therefore, the port became an extension of the city and furthered park systems along the coast (Fig. 28-31). It became an opportunity to address the various networks that would intersect at the terminal – from pedestrian pathways and roads tied to the city to the docking of boats and cruise-liners. The terminal would not serve as an icon in Yokohama's skyline – as some proposals attempted – but rather was

chosen because it highlighted the environment already present in Yokohama – an environment integral to the identity of the city.

> In last April, the jury members had a chance to see the site from the boat on the sea near Osanbashi pier. This place seen from the sea would be the same scenery as that seen from the passenger boats arriving the port, and it must be very impressive landscape with the greenery of Yamashita Park on the left. Therefore, this is not the place for designing only the terminal building isolatedly. The scheme by [Foreign Office Architects] shows the simple shape of the terminal protruding to the sea smoothly. This building is [therefore] united into the park as the total space of greenery without a sort of self-assertion. This kind of design is seldom seen in the other foreign port and it would be the most prominent urban design for Yokohama. [19]

Fig. 28-31. Foreign Office Architects, Yokohama Terminal and Its Urban Context, Osanbashi Pier, Yokohama, Japan, 1995 – 2002

Although a port and floating on top of water, the site is anchored to its site.

Conclusions

Fig. 32. Foreign Office Architects, Patagonia Fashion Show, Osanbashi Pier, Yokohama, Japan, 1995 – 2002

Understanding Yokohama Terminal required understanding Japanese culture and experience. The terminal became a reflection of how Japanese people saw themselves and the architecture that would serve as introductions into these values. Although built in the twenty-first century, the Yokohama International Port Terminal at Osanbashi Pier maintained a close relationship to use of framing, landscape, and

transitional elements that manifest in historic Japanese tea houses, like the ones displayed at Sankei-en Garden in Yokohama. Innovative diagrammatic concepts opened the building to visitors, maintaining a strong connection to its urban scape, while inspiring new structural systems that related to Japanese origami craft (Fig. 32). In the end, the architects achieved a purely experiential place, or in the words of Rem Koolhaas, "an experiment: an investigation in a new, more fluent way of organizing flows." [20]

NOTES

1. Yokohama-shi. *Yokohama International Port Terminal International Design Competition*. Yokohama: City of Yokohama, 1995. page 11
2. Ibid. 410
3. Ibid. 409
4. Ibid. 6
5. Ibid. 11
6. Ibid. 10
7. Ferré, Albert, Tomoko Sakamoto, Michael F. Kubo, Foreign Office Architects, Farshid Moussavi and Alejandro Zaera-Polo. “The Yokohama Project: Foreign Office Architects.” (2002). Page 11
8. Ibid. 93
9. Yokohama-shi. *Yokohama International Port Terminal International Design Competition*. Yokohama: City of Yokohama, 1995. page 6
10. Ibid. 11
11. Hokusai, Katsushika. "Hokusai's 36 Views of Mount Fuji Series." 1830-1832. Retrieved 10 December 2019, from http://hdl.loc.gov/loc.pnp/jpd.02450
12. Yokohama-shi. *Yokohama International Port Terminal International Design Competition*. Yokohama: City of Yokohama, 1995. 11
13. Ibid. 9

La Valletta City Gate

Fig. 1. Renzo Piano Building Workshop, La Valletta City Gate, La Valletta, Malta, 2009 – 2015

I watched the city dance thirty minutes before sunrise, from the view of a window seat on the 13A, a view that spliced imagery between the neighborhoods of Ta' Xbiex, boats along the Msida Yacht Marina, and the winding dirt road that led to Valletta. I looked out to the grand mall that welcomed our bus. The entire mall was paved in a soft yellow limestone that glowed with the waking sun but was currently covered with moving shoes – each walking towards the bridge that sat

beyond Triton Fountain. On the other side of the bridge, in Valletta, a square would be waiting to collect and disperse its guests. Arcades filled with vendors, cafes, and even a Burger King sat opposite from the island's Parliament.

The heat was cruel, as was the mall, because the lack of shade allowed each limestone block to exude heat, further fueling the thick air that hovered. As the Maltese commuters ventured through the city's gate and onto the bridge, they bowed their heads in unison: one could not even look in front of them, blinded by the sun reflecting off the limestone blocks. The whole scene is both beautiful and cruel (Fig. 2). Only the fountain befriends those who pass with a slight spray of mist.

Yet once across the bridge, instantaneously, the surrounding buildings cast shadows onto the square, which was waiting to collect us. At the end of the bridge, right at the void in the fortress wall, the soundtrack of the city was suddenly activated by the clamor of store owners opening their shops and serenated by the sounds of an accordionist who sat at the foot of a building, playing the theme song to "Game of Thrones." Whereas the mall was cruel, the square was kind, relieving. The beauty of the Parliament Building, although made of the same grueling limestone that emitted heat just moments before, now felt soft as it hovered above the square like a shield against the sun. The carved rock revealed two floating masses that complimented an open theatre next door. As I looked around from where I stood, it was as if a medieval city had been recreated, just briefly, before I remembered a Burger King sat to my left.

Fig. 2. Renzo Piano Building Workshop, Triton Fountain and Mall, La Valletta City Gate, La Valletta, Malta, 2009 – 2015

This specific analysis investigates the impact La Valletta City Gate had on me as a visitor, as well as the city it serves. In addition to performing its function as a gateway through a medieval fort wall, Renzo Piano Building Workshop (RPBW)'s recent completion of La Valletta City Gate crafted a specific experience through public space, fostering an abundance of urban activity that fed off the newly established square, replacing the road and complicated side streets that used to exist (Fig. 3+5). Now in its fifth iteration, the gate of La Valletta was originally built in 1569, when it served as an entrance into the medieval Valletta city. [21] As the city grew and transportation into Valletta needed new infrastructure for British troops and later cars, the city gate was enlarged. However, in 2015,

the most recent gate marks a transition back in scale, seeking to reestablish the original width of the first gate. This eliminated the access for cars amongst the bridge and reclaimed the city entrance for the twenty-first century pedestrian, revealing the underlying values of the Valletta City and the effort to encourage urban activity instead of isolated flows through a car.

Fig. 3+5. Col. Thompson, Porta Reale (former City Gate), La Valletta, Malta, 1853 [22]

Fig. 4+6. Renzo Piano Building Workshop, La Valletta City Gate, La Valletta, Malta, 2009 – 2015

The new La Valletta City Gate exemplifies an active and slightly unorthodox approach to respecting a historical, UNESCO site, while

still allowing its programs and uses to adapt to the city's current demands. By focusing on how the gate 1) relates the threshold to the city, 2) allows materiality to author design, and 3) supplements the entrance condition with public programs, I demonstrate how La Valletta City Gate becomes an important entrance in the vitality of its namesake city.

Defining the Threshold

Thresholds exist in literature and film, and commonly involve bridges, such as Katherine Paterson's 1977 novel, Bridge to Terabithia, or Hayao Miyazaki's 2001 film, *Spirited Away*. In the same fashion, La Valletta City Gate utilizes the importance of the bridge to narrate one's experience entering Valletta, as the bridge has remained a consistent image for the city despite the iteration of its many gateways. In fact, this shared threshold provided by the bridge became immediately apparent as I crossed the threshold where the ground before me disappeared. Valletta's bridge floated across the ravine momentarily before docking to the other side. The new design of the bridge, although subtle and largely unprogrammed, is important to its overall experience because its context over the ravine and cross-over moment is something each visitor experiences arriving from the mall with the Triton Fountain.

Although a breach in the wall may seem like a superficial design decision, it is actually a very significant statement for RPBW to make by opening the gate. Unlike the gates that preceded the fifth iteration, RPBW's design is literally a breach in the wall, distorting the original, defensive function of the gate, which was meant to keep

the enemy out. Instead, the gate invites visitors, and natives alike, inside, becoming a clear reflection of Malta's intent behind the gate's renovation in the first place. Malta has gradually been using the gateway as a means of opening themselves to the world. The first iteration opened through a drawbridge, but "the gate used to close at night so [one] could not get out." [23] The second and third iterations provided a permanent bridge. The fourth iteration removed the physical doors but kept the archways and architecture around it. It was not until this final, fifth iteration that the gate became completely open. The absence of any doorway turned the entire experience into an open-door.

Fig. 7. Renzo Piano Building Workshop, Markers of Past Gates, La Valletta City Gate, La Valletta, Malta, 2009 – 2015

As a result, the concept of the "door" became experiential. Sound crafted an important threshold as the wall silenced the city's clamor until visitors emerged through the wall's breach. Sight established a second important threshold – not in the visibility of a doorway, but in the visibility of urban life. The bridge works with the remaining fort wall to shield the city from outsiders until entering the wall.

Renzo Piano sought to play off a balance of solid and void by rebuilding the line of the fortifications. The void becomes stitched together through its connection to the bridge. In fact, although the bridge was shortened in width, Piano used metal divisions in the stone to mark how wide the gate had once been. These metal markers serve as memorial transcriptions that still retain the gate's history, while encouraging adaptation and prioritized pedestrian activity.

I believe there is a misconception with UNESCO heritage sites. During my travels to historic Japanese sites in Kyoto or even Akbar's Tomb (both UNESCO World Heritage Sites), I encountered the diligence the two countries had in preserving the monuments as they had been created. In some cases, historians worked to undo renovations that had occurred throughout the centuries. In my conversations with Perit Konrad Buhagiar and Erica Giusta of AP Valletta, we discussed the danger this assumption can have, because it encourages entertainment parks, rather than adaptable urbanisms. [24] Akbar's Tomb overcame this rigid entertainment park by simply embracing its park potentials like the cricket matches and picnics, where the public used the site as they saw fit. In this sense, La Valletta City Gate has an extreme importance for the architectural community, because it embraces

historic preservation with dynamism and adaptability. In a way, the Gate's several iterations helped justify an additional reinterpretation of its site. Thus, designers could focus on the mission of the gate rather than its aesthetics. In fact, the addition of a Parliament Building and open-air theatre to the Gate's complex not only disregarded the former aesthetics of the place, but also challenged the previous programs. This is supported through the slight additions of ornamentation on the existing building that sat across from the Parliament building. Other than the column cap, the building was left untouched. Therefore, the column reinforces the gate's potential as a cohesive square that bleeds into the city.

Fig. 8. Renzo Piano Building Workshop, Column Cap, La Valletta City Gate, La Valletta, Malta, 2009 – 2015

Through redefining the threshold of the gate, Renzo Piano Building Workshop chose to augment the experience of the gate. They focused on how one experiences sounds, visuals, and activity, rather than simply passing under a gateway. Piano's design rejected the former programs and uses of the gate. He removed automobile traffic in favor of a pedestrian square that connected to a newly relocated Parliament Building. Having the ground floor of the Parliament Building open to the square becomes a democratic symbol, inviting its city to take part in government and the identity cultivated by the gate. Consequently, the City Gate has now become a symbol for the changing values of Malta and the openness it has towards public discourse.

Branding through Materiality

Stone was more than a material selection for La Valletta City Gate; it dictated construction methods, façade patterns, interior seating of the Parliament building, and connections between other city spaces. [25] As Chris Forges writes in the *Architectural Record*:

> "Architecture is about time," says Renzo Piano, and, because the Valletta project unfolded over many years, he repeatedly walked the site. "Everything starts with wandering around, getting the sense of history or the way the sun touches the surface of stone," he says. "Every place has a story, and in Malta the story was stone." [26]

As such, stone became the site context for an otherwise shifting ground plane. Removing the stairs and prior gate created a partial blank slate for Piano to reconsider how the bridge would be married into the rest of the city. Therefore, the designer grounded the work in the characteristics and logics of stone – relying on traditional processes for stonework to help dictate form.

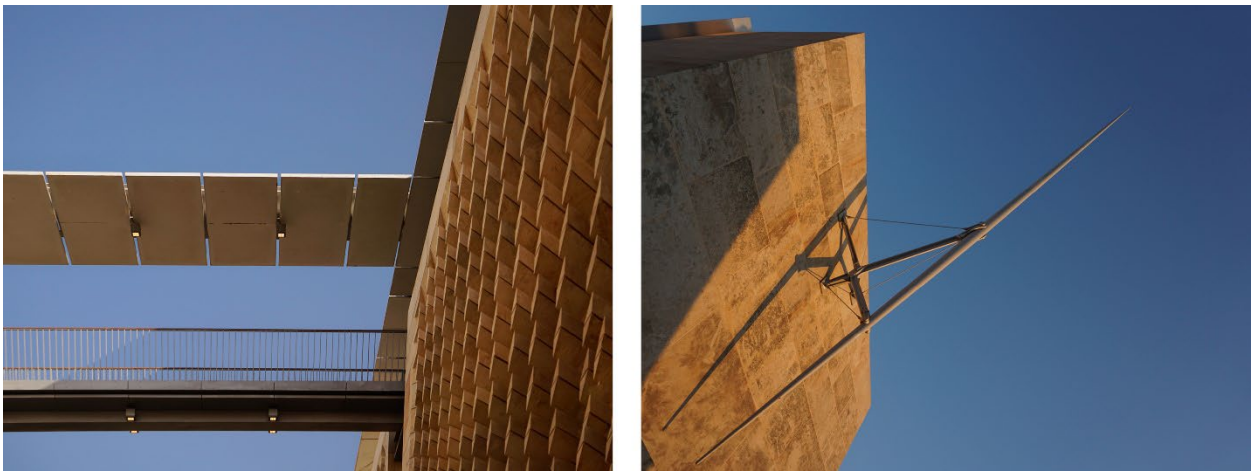


Fig. 9-10. Renzo Piano Building Workshop, Entrance Spire, La Valletta City Gate, La Valletta, Malta, 2009 – 2015

Perit Konrad Buhagiar recounts the resultant, film-like scene produced by Piano. When walking into the construction site:

> Walking into the gate and suddenly hearing the site, banging and tinkling of metal, and it was like something out of a [Ben-Hur movie] and I thought, is this possible that an Italian architect with all that tradition behind him (even if this sounds crazy) even brings with him the sound of Renaissance? It felt like a series or a film. [27]

The Valletta Gate is unique in that the architecture does not derive its sense of place through visuals alone. Even the spectacle of construction plays a role in creating a powerful image for Valletta, one where the city's history gets appropriated through medieval construction techniques rather than medieval styles. This power is detailed in the documentation of the demolition of the former gate, the construction of the new gate, and a current livestream video that constantly broadcasts the gate online. Renzo Piano used stones bigger than three meters high and the construction method adapted to the monolithic material – requiring masonry tools that created an

atmosphere of the Renaissance. [28] For that time during construction, Malta became a medieval town once again, but this time in control of its own government. The identity, which was created through construction processes and sounds, connected the gate to its past identity as a fort, while projecting a modern image of Malta.

If one steps into the Parliament Building, the interior resembles a rock quarry – as if the very stones used to raise up the entrance of Valletta were sourced in the chambers where law was governed. Even the windows appear deteriorated and scarred from the acquisition of the stone. In place of window frames are recessions in the stone, to appear carved. Although the Maltese affectionately joke about their "cheese grater" façade, the light passes through the building, creating a unique shadow on the surrounding complex, allowing the Parliament Building to function as a sundial. Its dial, the shadow, becomes a symbol that highlights the site's spatiality.

Yet, in order to make the architecture more impressive, it was important to the design team and city that the architecture appears ancient, established. Therefore, AP Valletta, design collaborators with RPBW, researched ancient techniques where Greeks and Romans built their structures to look monolithic. Hiding joints was a technique Malta emulated. In addition, the "gate itself was sand blasted before it was even finished" to appear ancient, so it feels like it was always there. Thus, in addition to the sounds of the Renaissance that Piano was able to bring with him, he also brought an Italian appreciation for the ruins.

Fig. 11-13. Renzo Piano Building Workshop, Parliament as a Quarry, La Valletta City Gate, La Valletta, Malta, 2009 – 2015

Fig. 14. Renzo Piano Building Workshop, Shadows, La Valletta City Gate, La Valletta, Malta, 2009 – 2015

Malta does not just shape stone to produce its gate and government building, but also uses the stone to shape its space. Before 2015, Malta did not have a building specifically built to house Parliament. Instead, the country dedicated rooms in important civic buildings to hold congressional meetings. As a result, the 2015 iteration of La Valletta City Gate helped establish a lacking symbol for Malta. Architecture challenged how Malta's Parliament should look, function, and be positioned in the city. It became an opportunity to detach from British colonial influences and rebrand Valletta as distinctly Maltese.

Note Just a Gate: Supplementary Programs

As the Parliament building shows, La Valletta City Gate is not just a gateway, bridge, nor square. The buildings that feed into the square also become part of the experience. When walking through the gate towards the center of Valletta, visitors see metal framework rise from the ruins of a neoclassical stone building just beyond the Parliament Building. La Valletta City Gate reimagined the ruins of Malta's former, British-designed theatre as this open-air theatre was brought into scope.

Fig. 15. Renzo Piano Building Workshop, Pjazza Teatru Rjal, La Valletta City Gate, La Valletta, Malta, 2009 – 2015

The theatre serves a particularly successful role in reinforcing the open nature of the square:

> It is different from a closed theatre in a sense that when there are airplanes, fireworks – you hear them. You feel like you are in the city, it is part of the city. It was really tough to get people to understand this – that the city becomes your host when you are up close.[29]

According to the Director for the theatre, Christopher Muscat, the function of the theatre is evident in its name.[30] The word "pjazza" for the square is the same in Italy, referencing Mediterranean culture that gathered after work to sing folk-music in a square. As an open theatre, spectators can peek into the shows, just as audience members are able to look out. Thus, the city becomes part of the performance, transforming each show that performs becoming markedly Maltese.

However, part of the structural addition of the theatre represents a complicated history. The theatre exists over the ruins of its former theatre, which was a Beaux-Arts inspired, British-designed building. According to Buhagiar, before World War II (when the theatre was destroyed), Maltese were trying to establish themselves as "a Latin race, Italian … [not] a civilization which is completely separate from the rest of Europe." [31] Therefore, Maltese residents loved having a traditional theatre to celebrate operas like Italians. Some Maltese find nostalgia in the old theatre, because their grandparents valued and frequented the traditional opera house.

Yet, when Italy and Malta became enemies during World War II, Malta tried to distinguish themselves from Italians, including developing their Italian dialect into their own Maltese language. This language debate bled into the architecture of the theatre.

As a result, the theatre presents a compromise between the two factions. Everything in the theatre is removable and leaves the stones of the ruin untouched, in case the city decides to rebuild the old theatre back to its original glory. At the same time, the theatre does not sacrifice the cohesive design and symbolism present throughout the rest of La Valletta City Gate. I toured the backstage areas, walls covered in a bright green – the reoccurring color throughout La Valletta City Gate as a symbol for Parliament. Traditional backstage areas were buried underground around the ruins to avoid any permanent damage.

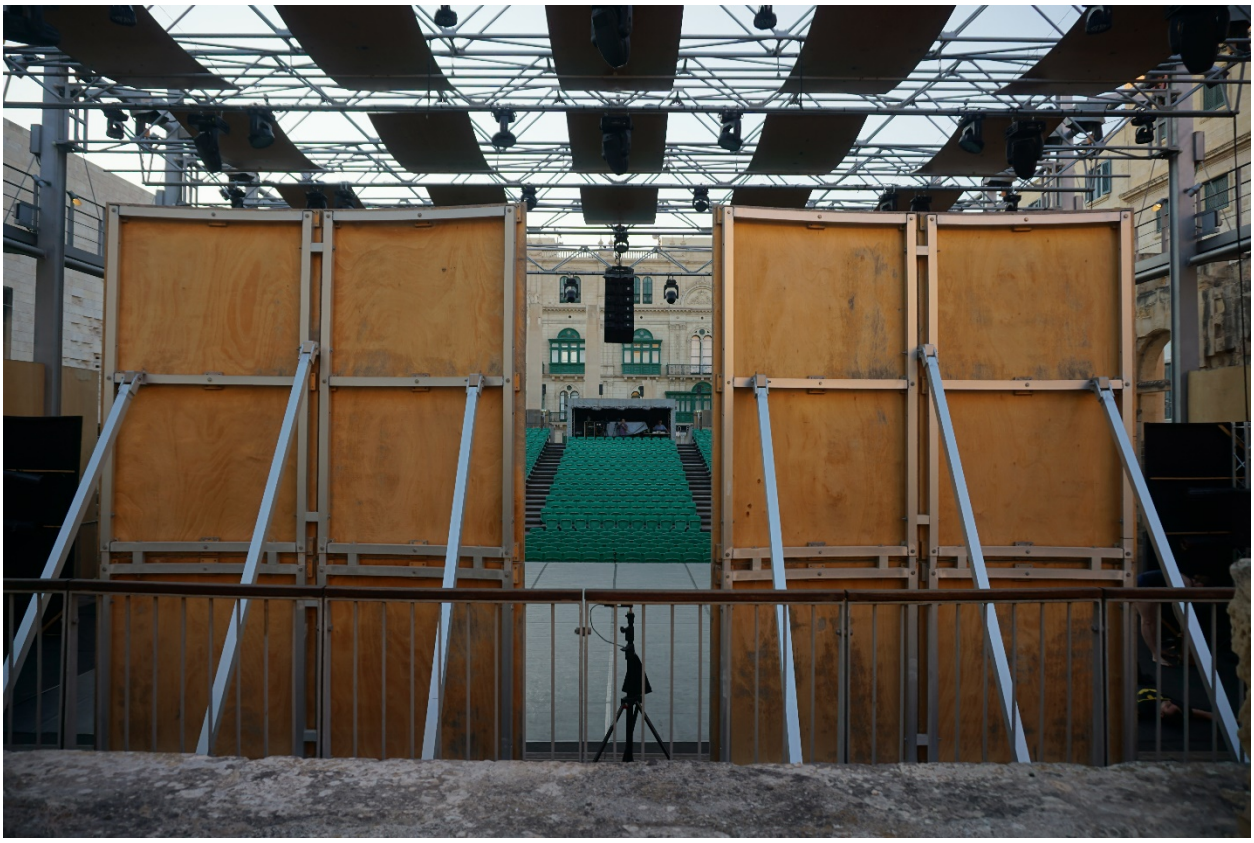


Fig. 16. Renzo Piano Building Workshop, The View of Pjazza Teatru Rjal from a Passing Spectator, La Valletta City Gate, La Valletta, Malta, 2009 – 2015

Consistent with the material palette of the entrance gate, Pjazza Teatru Rjal celebrates its underlying base of stone. The metal becomes the additive contemporary juxtaposition that hybridizes the city. This metal is scene in details throughout the Parliament Building, as well as the markers that denote the bridge widths in the fort wall. Thus, the theatre became an opportunity to extend issues of identity present in much of Renzo Piano Building Workshop's design decisions.

Conclusions

Fig. 17. Renzo Piano Building Workshop, A Ruin Pillar Juxtaposed with the Column Caps, La Valletta City Gate, La Valletta, Malta, 2009 – 2015

The La Valletta City Gate redefines the extent of Valletta's urban threshold to create a sense of place through materiality and a supplementary program: the Parliament Building open-air theatre. As a

result, Valletta's gateway becomes an important cultural experience for visitors who are welcomed into the heart of Valletta's cultural, political, and commercial life. At the same time, the gate is specified for the country and truly becomes a gate for its people. It raises questions about what it means to preserve a UNESCO World Heritage Site as well as the ideals that shape Maltese culture. In doing so, the gate succeeds at fostering a vibrant inclusive urban space. Here, architecture becomes a catalyst for a larger discussion on cultural identity.

Notes

1. Claffey, A. (2013). "Valletta: City Gates." My Malta: Blog.
2. Bay Retro. (2019). Rear View of the King's Gate in the 1920's. Vintage Valletta. Malta, Image: Facebook.
3. Buhagiar, K. and E. Giusta (2019). La Valletta City Gate. AP Valletta. Personal Interview: M. Lidwin. Valletta, Malta.
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6. Foges, C. "Gateway to the Past." *Architectural Record* 204, no. 5 (May 2016): 150. https://search-ebscohost-com.proxy.lib.utk.edu/login.aspx?direct=true&db=ulh&AN=115243187&scope=site.
7. Buhagiar, K. and E. Giusta (2019). La Valletta City Gate. AP Valletta. Personal Interview: M. Lidwin. Valletta, Malta.
8. Ibid.
9. Ibid.
10. Muscat, C. (2019). La Valletta City Gate. Pjazza Teatru Rjal. Personal Interview: M. Lidwin. Valletta, Malta.
11. Buhagiar, K. and E. Giusta (2019). La Valletta City Gate. AP Valletta. Personal Interview: M. Lidwin. Valletta, Malta.

Arnhem Central Station

Fig. 1. UNStudio, Arnhem Central Station, Arnhem, Netherlands, 1996 – 2015

The intercity train chugged into the station like clockwork every twentieth minute and ready to leave the next. I was surprised at how fast I had arrived - only taking an hour and a half from Amsterdam Central. This was the perfect amount of time to transcribe the interviews I had recorded in Amsterdam just earlier that day. I passed sceneries of gorgeous Dutch landscapes, filmic in nature reflecting on my start in a train station that was untouched from the glory of the industrial revolution that created it. The steel frame of Amsterdam's Station contrasted significantly from the place upon which I was then standing.

I grabbed my computer, bags, and half eaten candy bar I had forgotten to finish, heading off the train into yet another new city. Night was falling fast, so the glow of the Arnhem Central's lights already illuminated the platforms that ran parallel to each other. I followed the canopy to my right, past the benches that bled into the sheltered platforms. I took the escalator down, weaving inside. Concrete panels on the wall morphed into wooden ceilings on the interior of the station. Others walked faster past me. They seemed focused on where they were going and probably in a mindless routine upon which I was just being introduced. I did not realize the extent of the station I was entering, so perhaps my slow pace was an attempt to absorb the spaces I kept transitioning between. It was not until the turnstiles that marked my transition into the transfer hall that I realized I was already inside the architecture I had travelled to study.

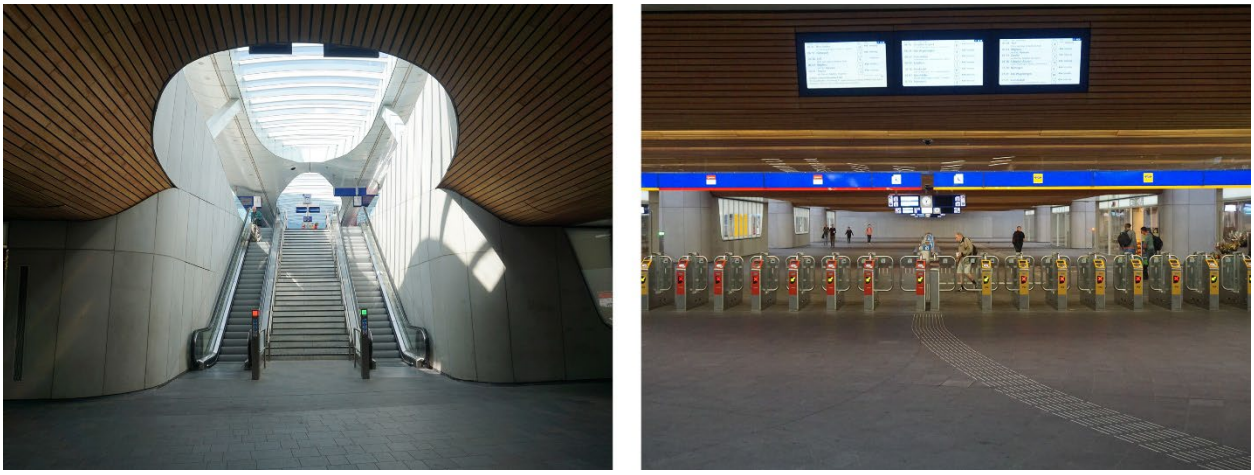

Fig. 2-3. UNStudio, Arnhem Central Station, Train Terminal, Arnhem, Netherlands, 1996 – 2015

As I entered the great hall, the ceiling appeared sliced. It peeled and melted down into the atrium much like clocks from Salvador Dali's "The Persistence of Memory." In fact, Arnhem Central reflected an array of colors on its ceilings, capturing the activity from the street and representing it as artwork along its walls. An escalator led up to office buildings and car loops. But straight ahead, my path broke into three. The two ramps going down would take me to bus lanes, bike storage, and carparks, while the path that extended on a slight upward angle seemed to run forever. It was unbounded by the glass enclosure of the terminal station. Rows of shops continued to line the path outside and it disappeared amongst the complicated network of intersecting transportation modes. Oh, and Burger King seemed to follow me, this time cleverly embedded in the décor of the transfer hall. It too had its boundaries blurred into the swirling mixture that became Arnhem Central Station.

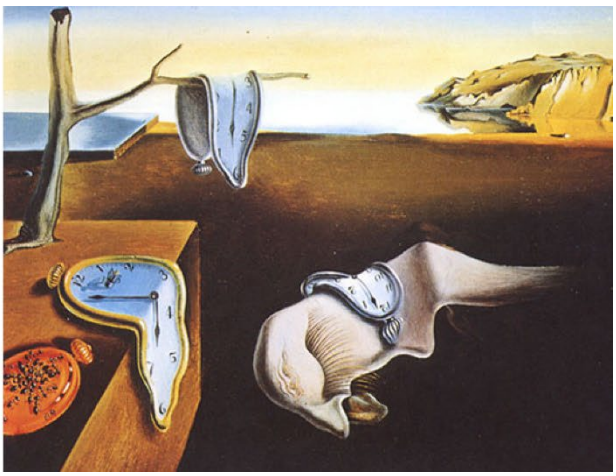

Fig. 4. UNStudio, Arnhem Central Station, Arnhem, Netherlands, 1996 – 2015

Fig. 5. Salvador Dali, "The Persistence of Memory," Museum of Modern Art, NY, 1931[32]

It is important to acknowledge that Arnhem Central Station has a deceiving name. The "station," when compared to Rotterdam's or Amsterdam's, suggests a legacy of dominating train terminals. It is true that Arnhem Central began as a reconstruction of a former train station – as part of the country's efforts to rebuild train centers across the country. Quick reconstruction after World War II provided minimally functional stations that were rethought at the end of the twentieth century after the country had time to rebuild. However, unlike the other stations in Netherland – of which I visited Rotterdam Central the summer before – Arnhem Central became rebranded as a "transportation hub" to reflect the complex transportations modes it accommodated. This includes a train station, bus station, bike storage, carpark, office buildings, and several pedestrian walkways.

These ideas are reinforced in the experience of Arnhem Central Station. The train portion of the station feels tamed, for it is kept behind turnstiles and tucked away in the corner around escalators and stairs that carry passengers out of sight. The other transportation modes were ones that parade and dance around the hub causing chaos. Arnhem Central is simultaneously rich with program and activity but restrained in the logic and organization that anchored such events. For example, pedestrian walkways bled into benches that became railings and even transformed into fast food locations.

Arnhem Central Station presents an exhilarating threshold for visitors who enter, catering the station not only to train passengers, but to urban dwellers, bus commuters, shoppers, and cyclists alike. It becomes a successful entrance condition, because it challenges ideas

of what a station must be, redefining the train station as a "transportation hub" [33] instead. It captures these complicated networks of transportation through diagrams that author the shape of the transportation hub. Finally, the design of the station, like the three other entrance conditions studied, becomes a moment of cultural reflection, where the values of the city are transcribed in the design decisions and experiences of its entrance.

Convergence of Transportation Flows

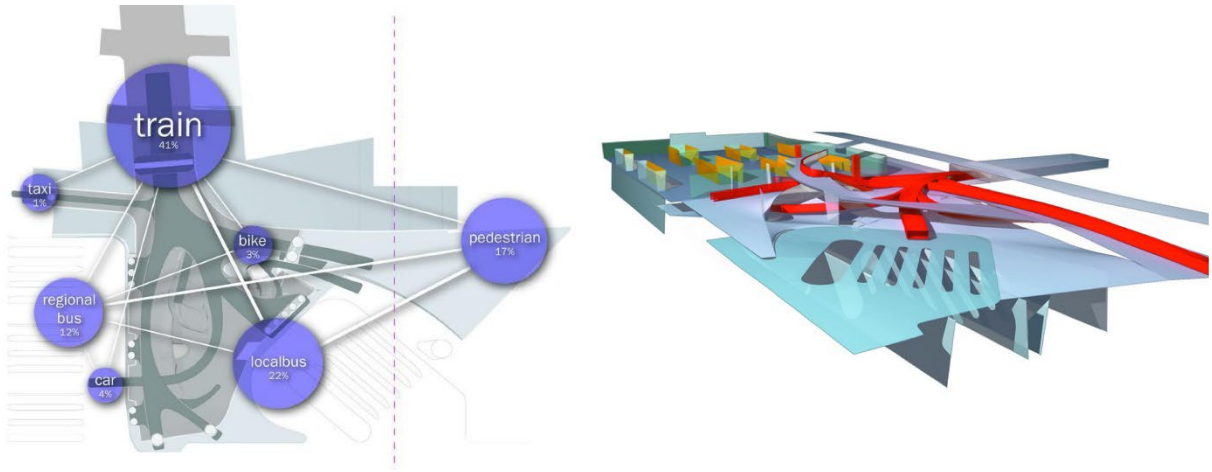

Fig. 6-7. UNStudio, Transportation Studies, Arnhem Central Station, Arnhem, Netherlands, 1996 – 2015 [34]

Ben Van Berkel and Caroline Bos, founders of UNStudio and designers of Arnhem Central Station, talk about the importance of designing for flow structures. That is, designing for various transportation modes across a site. It was expected that Arnhem Central would revive its former train station, but:

> Scanning [this] site for its flow structure [uncovered] its real problems and potentials. The flows of physical movements of

> people and goods…reveal the relations between duration and territorial use.” [35]

As such, I learned from UNStudio designer, Misja van Veen, that a flow structure analysis revealed that train transportation only made up 41% transportation modes (Fig.6). While this forty-one percent is the largest of all the combined networks, there is nearly sixty percent of activity that would be disregarded had UNStudio only designed a train terminal. Thus, the terminal was rebranded as a “transportation hub”.

Fig. 8. UNStudio, Path Along the Roof of the Transfer Hall to Connect to Shops Below with Train Platforms on the Left, Arnhem Central Station, Arnhem, Netherlands, 1996 – 2015

This rebranding of the station as a transportation hub reflects the true distribution of programs, but also represents a highly Dutch

tactic when it comes to urban planning, where attention and appreciation to nature results in humble design moves. As Misja van Veen described it, Holland does not have "a history of big avenues and big buildings" [36] that you find in Western European countries like England and France. As such, the monumental scale of buildings is reduced, and the Dutch tend to be a humble people – choosing not to display their wealth. The result on architecture are buildings that bow to existing systems rather than reinvent their contexts, thus supporting van Berkel and Bos's ideas of flow structure.

Diagrams as Spatial Solutions + Identity

Since Arnhem Central Station would not seek to reroute and change its site context, the architecture learned from it. Designers leveraged flow structures as a way of authoring the space. UNStudio used four diagrams (Fig. 9) to learn from the existing site conditions and flows. This allowed Arnhem to become completely urban: the scale in which it operated, the context it referenced, and the impact it had on the city.

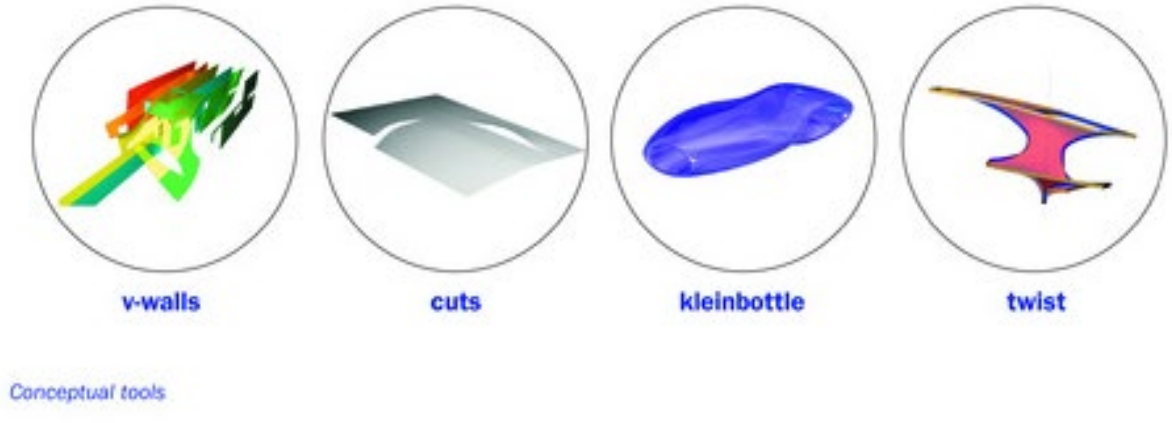

Fig. 9. UNStudio, Diagrams, Arnhem Central Station, Arnhem, Netherlands, 1996 – 2015 [37]

One of the key diagrams, the twist, resulted from UNStudio's intent that at any point in the terminal, one can see two other modes of transportation. Openings provided by the twisted central structure provide visual connections, eliminating the conflict of floor levels or structural systems that may otherwise block these sightlines. Thus, the transportation modes themselves become forms of wayfinding. As one leaves the office floor at the top of the escalator (Fig. 10), they can see two paths to transportation: the train corridor and the pathway extending outside to the street. The journey towards each transportation mode becomes vital to one's sense of place.

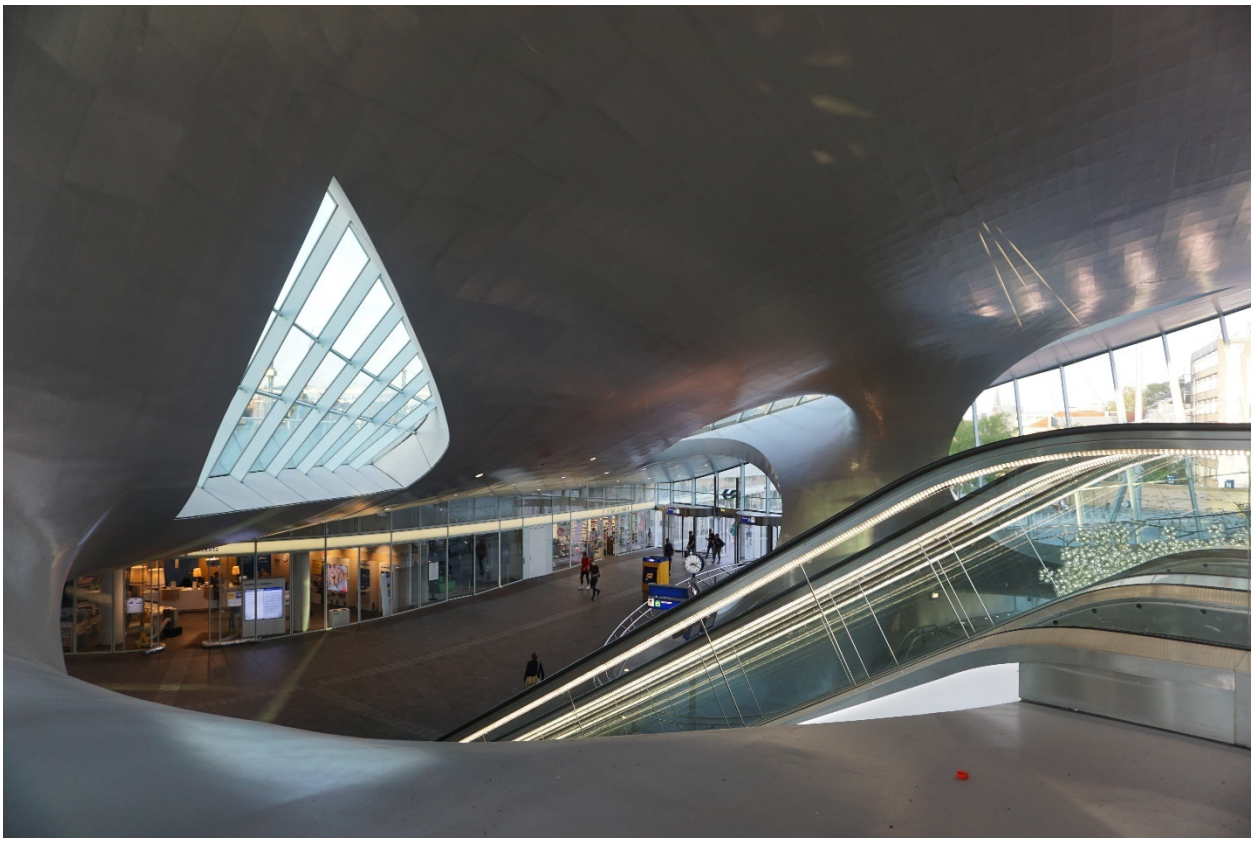

Fig. 10. UNStudio, View from Top of Escalator, Arnhem Central Station, Arnhem, Netherlands, 1996 – 2015

Additionally, the "cut" diagram operates from an understanding that people do not walk in 90 degree turns, and most people will walk up hills than stairs, especially as travelers carry bags and other heavy items. [38] As a result, ramps form out of cut surfaces to connect spaces. These ramped transitions become occupiable space as stadium seating, stages, and even skateboard slopes. For example, the topography that resulted from this has encouraged numerous skaters to gather and utilize the station as an extended park – easily blended into the sloping street infrastructure around it.

Fig. 11-12. UNStudio, View of Seating Produced by the Topography, Arnhem Central Station, Arnhem, Netherlands, 1996 – 2015

The kleinbottle and the V-wall also seek to adapt the topography to fit specific programs. For example, the v-shaped walls slant and converge on the bottom floor, providing large structural spans that give more room to cars. However, the taller floors effected by the V-walls are slanted inwards to provide smaller structural bays that accommodate offices. One can experience this v-shaped construction by

traveling up the stairs or wall that occupy the venter triangle formed by the "v." It is in this stairwell, that one gets a sense of scale between the spans of the garage versus those in the offices above, and how one structural system can begin to accommodate both. This provides a cohesive landscape between the bottom and top floor, helping achieve a fluid topography in experience, even though the actually topography may be stacked for the sake of practicality and space. The kleinbottle, on the other hand, is similar in that it modifies to fit the function of the space. A kleinbottle does not have a differentiation between interior or exterior surfaces, because the entire bottle is shaped of a continuous surface folded in on itself. UNStudio optimizes the kleinbottle to serve as an "organizational model for passenger movement throughout the project, efficiently stitching together internal and external programmed spaces."[39]

Fig. 13-14. UNStudio, V-Shaped Walls, Arnhem Central Station, Arnhem, Netherlands, 1996 – 2015

As the paths through Arnhem Central become important, the consistent materiality further reduces the need for conventional wayfinding. For example, the grain of the wooden ceiling becomes oriented to the direction the pedestrian should travel in the same way metal dots line the pavement much like movie-theatre aisles. The material palette is so important to the sense of place Arnhem Central provides, that even Burger King conforms to Arnhem's materiality, rather than asserting their own corporate palette.

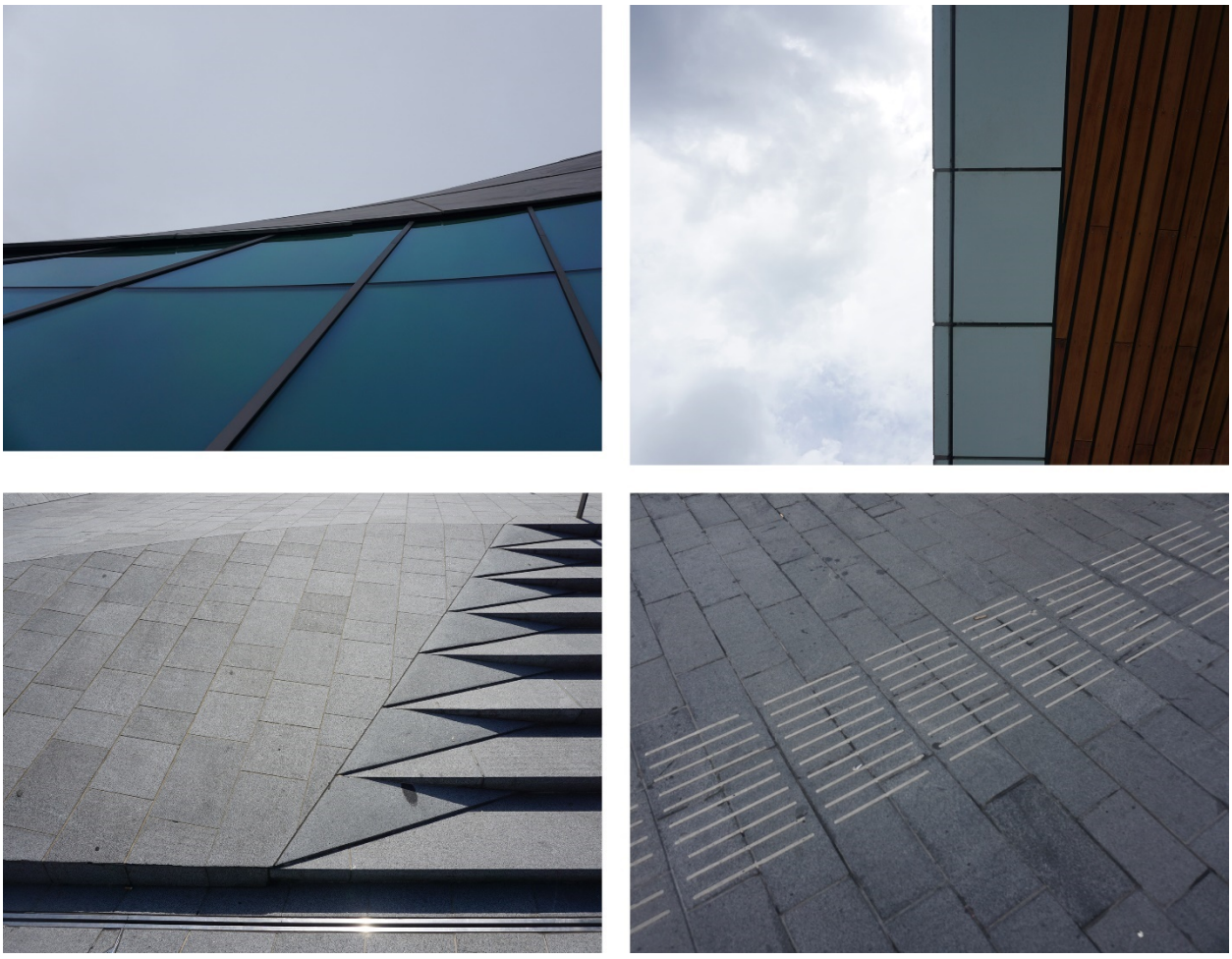

Fig. 15-18. UNStudio, Material Palette, Arnhem Central Station, Arnhem, Netherlands, 1996 – 2015

Connective Landscapes + Values

Arnhem Central uses diagrams and materials, not only as a form-finding solution for its transportation hub, but also as a means of connecting the entrance condition to the city, thus providing a clear introduction for visitors. Urban systems flow through the station, uninterrupted. In fact, Arnhem Central augments the systems by allowing them to continue beyond the confines of the hub. In a way, Arnhem Central Station is not a terminal, nor a destination, but rather a curation of multiple networks already existing on its sight. For instance, bus cable lines act as architectural spiderwebs that begin to claim the airspace around the station, disappearing into alleyways, side streets, and the main road that goes on for miles. It reminds users that although the station exists in its specific location the network extends beyond. In doing so, Arnhem Central Station becomes the most inconspicuous urban entrance I travelled to, but is equally successful at getting residents to interact with the larger urbanscape, understanding the motives and cultural values.

In fact, even shops attach like tentacles to Arnhem Central, providing a culinary corridor of restaurants immediately adjacent to the bus loop. The careful attention to pavement types and transitions of pavement encourage pedestrians to continue walking down the corridor despite the overlap with bus and car systems. These stores that are part of Arnhem Central's Masterplan relate to the same, quaint streets that meander along the historic Arnhem district through its scale and positioning in relationship to buildings.

Fig. 19-22. UNStudio, Spiderweb Cable Lines, Arnhem Central Station, Arnhem, Netherlands, 1996 – 2015

In addition, the well-designed pavement attracts groups of people to Arnhem Central Station, who may not have been originally designed for when the designers identified their user groups. While interviewing Sybren Lempsink, designer for the landscape firm, Bureau B+B, he discussed how the roles of his firm developed as the project began to attract unanticipated users. Specifically, sloping ramps were initially meant to aid passengers traversing through the transportation hub, but quickly became appropriated by local skaters. "In the end, it really became a skate paradise, due to our calculated

slopes and [chosen] materials – even to the point where we had to return and take more measurements [for the skaters]." [40]

Yet, the act of orienting a landscape for skaters (or even bicyclists in some cases) remains a very traditionally Dutch feature that Arnhem relates to quite well. The most awe-inspiring trip in the Netherlands was during an excursion using the buses that departed from Arnhem Central. I wanted to experience waiting and arriving through each of the modes of transportation on the site, deciding to use the buses to travel to the Kröller-Müller Museum, north of Arnhem. The museum is situated within a park, where visitors purchase their ticket at the entrance to the park before renting a bicycle. I biked for three miles through untouched Dutch landscape before arriving at the museum, where an entire gallery of Vincent Van Gogh reveals itself to those who make the venture. It is designed as if passengers were required to step into the paintings and experience the landscape Van Gogh painted. Only then, can visitors see his interpretation of the Netherlands, in which they had just traversed themselves.

During each of my daytrips around the Netherlands, I witnessed a reoccurring theme, where Dutch architecture drew attention to the path of movements across a site. For example, at the Schröder House in Utrecht, architect Gerrit Rietveld used movable partitions that could be adjusted to accommodate daily activities. This was an important architectural moment, because it addressed the same urban issues Arnhem Central Station designed for, but at the scale of a single-family house.

After each of these daytrips to other cities around the Netherlands, I returned by bus and train back to Arnhem Central Station. This experience gave me a glimpse at what it would be like to commute through the station as a local resident. Upon my return, I became more aware of the station's attempt to tap into this Dutch logic of promenades and shifted flows. For example, one could make continuous loops of figure eights through the train station with the option to remain outside on the ramped slope up to the office buildings, or walk inside on the same path, just partitioned by glass (Fig. 23). The following day I witnessed a short woman in sweatpants, equipped with weights in her hands, walking this route as if exercising along a high school track. These little moments of use – although not in the initial brief of the project, energizes Arnhem Central Station. This urban life is encouraged through having a connected landscape, which captured spatial flows well enough to provide other appropriations such as skating and walking laps.

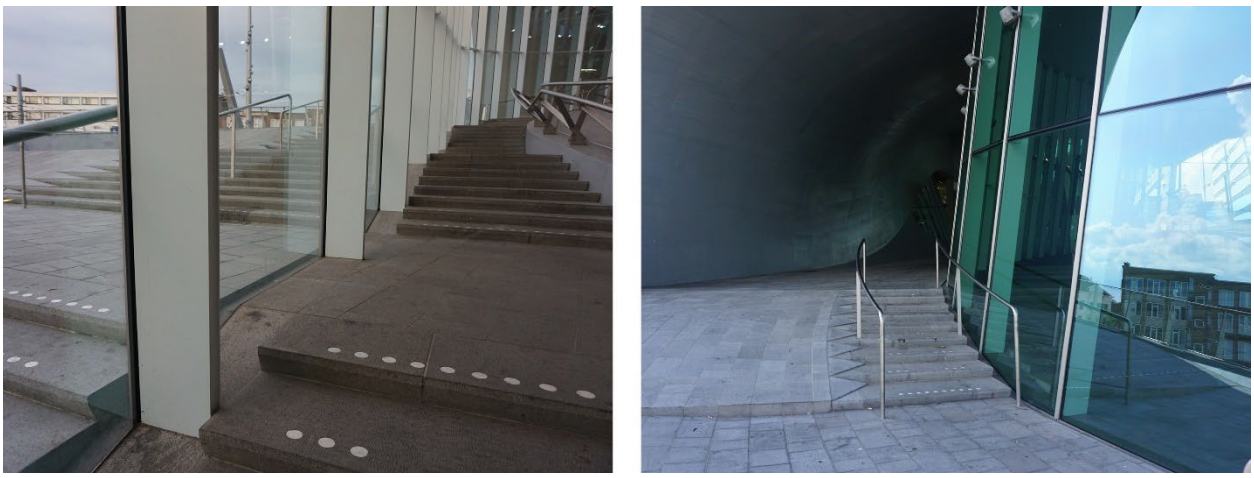

Fig. 23-24. UNStudio, Spiderweb Cable Lines, Arnhem Central Station, Arnhem, Netherlands, 1996 – 2015

Conclusion

Arnhem Central may be the smallest renovated train station among the big cities in the Netherlands: Utrecht, Amsterdam, and Rotterdam. Yet, although smaller in square footage, the building is performatively dense. Because UNStudio developed a deep understanding of the city's movements and simulated flows through diagrammatic models, they were able to provide a transportation hub that optimized and celebrated the various movements across the site. This reduced the need for wayfinding signs and allowed materiality to both guide and create a sense of place in Arnhem's urban landscape. Thus, Arnhem Central Station functions just as much as an alternative urban downtown as it does a practical train station. The architecture serves as an important entrance architecture for Arnhem and the Netherlands at large, because its humble scale introduces visitors to the subtly of Dutch lifestyles, while reminding locals of the scenic beauties that are provided when architecture is restrained.

Notes

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The Diagram of an Entrance

This analysis focused on four entrance architectures, which all leveraged design in order to reinvent or reframe their collective urban identities. The analysis exploited my perspective as a foreign tourist by questioning the architecture through a primary account of my experience as a visitor. This was complimented through dialogues with local residents and designers that gave insight into the impact architecture had on local cultures and politics. In both perspectives, the architectural diagram became the grounding conversation for which we could share ideals, experiences, and understandings. In some cases, especially in Agra, the diagram allowed contemporary visitors to understand the motives of designers who have since passed.

Entrance architecture, because of its dual qualities of welcoming visitors while also solidifying local values, becomes the epitome of the cross-cultural dialogue that architecture can encourage. Architects, first and foremost, have a responsibility to listen to the people who will be affected by their designs. Although four entrances is not nearly all-encompassing of the richness and diversity that urban entrances can embody, this experience began my career as an architect: a life-long act of listening to people and researching the influence of space on urban life.

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