

## 2022-2023

# INTERNSHIP REPORTS

Internship at VRTICAL ARCHITECTURE STUDIO, Mexico City, Mexico

Dipon Bose

Curricular Internship and Advanced School of Architecture International Internship Internship supervisor : Prof. Pierre Alain Croset Internship office architect supervisor : Luis Beltran Rio de Garcia





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October 1, 2022 to January 31, 2023 640 hours

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Principal Architects : Luis Beltran & Andrew Sosa

#### INTRODUCTION

I had the opportunity of doing a four months internship at VRTICAL Architecture Studio at Mexico City, Mexico from October 1, 2022 to January 31, 2023 finishing 640 hours of compulsory internship as a part of my Master's degree and the international internship as a part of the Advanced School of Architecture programme.

Vrtical Architecture Studio is a young architecture practice in Mexico City that has been doing some ground breaking award winning work connected with the people and community in Mexico. It is a small size office of nine architects including me working for a range of architectural projects like residential, hospitality, recreational, educational, public and commercial. They have finished 76 projects so far in a span of nine years. The studio was founded in 2014 by Luis Beltran Rio de Garcia and Andrew Sosa Martinez. Luis graduated from the famous UNAM architecture university, which was the birthplace of many famous Mexican architects and further did his Master's in Urbanism at TU Berlin, Germany. He went back to Mexico to start his office with his friend Andrew who is his studio partner.

The practice is "dedicated to the democratization of architectural service," as the architects describe it, aiming to understand and respond to the needs of the individuals and communities it serves. Recent projects include:

- Casa Valentina, a rural housing prototype for a family affected by Mexico's 2017 earthquake.
- Threshold Temple, a low-budget brick temple for a Hare Krishna community in Guanajuato.
- Tlaxco Artisan Market, a transformation of an existing market as part of an effort to develop tourism in the region.

Luis holds a B.Arch from the Autonomous National University of Mexico (UNAM) and a Masters of Urban Development from the Technical University of Berlin. He currently teaches at UNAM and Universidad Iberoamericana. Andrew Sosa holds a B.Arch from Anahuac University, Mexico. He currently teaches at CENTRO.

Vrtical was awarded the 2018 Architectural Digest Design Icons award for its building renovation category. The practice was selected for the Young Latin American Architects exhibition at the 16th Venice Architecture Biennale.

#### **REASON FOR SELECTING THIS INTERNSHIP**

Internship for the Master's course in Architecture and Urban Design was a dilemma for me on whether to go for core architecture offices or core urban design offices. Having worked in architecture and urban projects in the past and learnt about the unique relation of architecture and urbanism over my two years of study at Politecnico, my interests were drawn towards a very specific theme of urbanism in the previous year of my study in my research thematic seminar of "The Global Architect", where we explored the role of the architect ranging from the trans-Atlantic transfers and exploring beyond the critical regionalism of the post war, post colonial architectures. The 20<sup>th</sup> century architecture and urbanism history shaped a lot of the modernist architecture styles and set the foundations of the contemporary architecture practices that are being cross questioned and cross bred by more and more by young architects of 21<sup>st</sup> century. With more access to educational opportunities across the globe and students and young architects moving across borders, the role of global architects is dynamically changing over time.

As my research in the Global Architect studio focussed on the theme of the Global South with particular focus on Global Cities and the works of Saskia Sassen, I started exploring the works of contemporary works in architecture of young architects in the Global South. Having myself grown up in India, a vibrant, Global South economy, gave me a good reference point to start looking at architectural projects in Africa, Latin America and South East Asia. The studio of the global architect laid emphasis on the changing nature of architecture practices. It gave me a way to look how trans-Atlantic transfers have shaped the architecture of the 20<sup>th</sup> century world. Through guest lectures of young architects, I was introduced how the needs of architectural projects are changing and how young architects across the world are responding to it.

The Mexican young architects were an attractive geography for me to explore after learning about them through popular publications like Domus and Arch Daily. Having reference of master architects like Luis Barragan, Felix Candela and Alberto Kalach's works in Mexico, encouraged me to explore young practices in Mexico.

VRTICAL architecture studio was one of the many offices I applied and got a positive reply . The studio laid emphasis on learning by hands on practice and real time projects which I had the opportunity to work on during the course of my internship. The principal architect Luis himself grown up as an Mexican and having learnt the European design pedagogy in TU Berlin was a great example of 21<sup>st</sup> century Trans Atlantic transfer that shapes the contemporary architecture of Mexico.

The very unique character of Mexican young architects is that, there is a growing trend to use local materials and develop contextual advanced materials that can suit the local climate, cost profile and popular architectural styles in the region. The office Vrtical itself has used many traditional materials like bamboo, Palmyra leaves and *barro* (terracotta) tiles in technologically advanced way marrying with seismic resistant structural design.

#### **PROJECTS WORKED ON :**

- 1. Edificio SLP residential apartment at San Luis Potosi, Mexico
- 2. Bar/Restaurant at Reyes Juarez , Mexico
- 3. Vinedos /Vineyard villas housing project at San Miguel Allende, Mexico
- 4. Hotel Arco Iris at Puerto Escondido, Oaxaca, Mexico

#### **RESPONSIBILITIES HANDLED :**

- 1. model making
- 2. archetypical analysis of seismic elements of buildings
- 3. detailing of wall cladding details in sketchup
- 4. ceiling details
- 5. spatial axonometric making
- 6. terrace garden detailing
- 7. conceptual design of villas
- 8. landscape design of vineyard site
- 9. section drawing for vineyard villa project
- 10. presentation drawing for vineyard villa project
- 11. change in design of Hotel Arco Iris project
- 12. section drawing using thin shell structure and wall screens

#### MONTH 1 : OCTOBER 2022

*Project Name :* Edificio SLP Apartment project *Location :* Santos Degollado 695, col. Alamitos, San Luis Potosi, , Mexico

Stage of project : nearing completion

#### Task handled :

- 1. physical model making of a five story residential apartment
- 2. architectural drawings for construction purpose

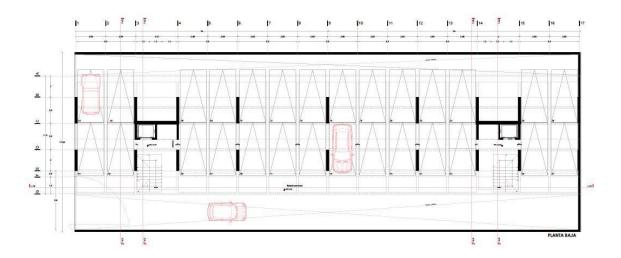
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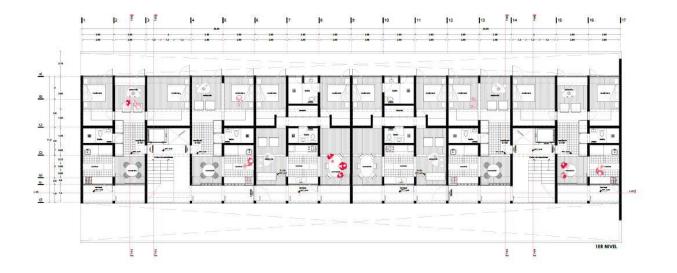
The project is a 2280 sqm . residential units projects split in 5 floors , with parking at the ground level, and common terrace facilities with garden at the roof level.

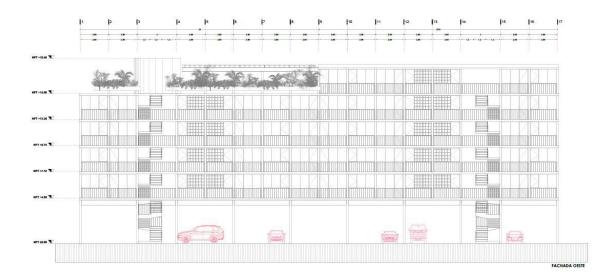
Being in the central plains of Mexico with a hot dry climate and a rich colonial history, San Luis Potosi is a city with good economic productivity from silver mining. Also this city belongs to the Zone C - third most susceptible zone for seismic hazard. Mexico has four seismic zoning. The hot dry semi-arid climate and the seismic prone area has an important impact on the architectural design of buildings.

*Construction type* : The five floor building is constructed with concrete frame structure with brick walls and exposed concrete walls in some parts .

Foundation and structural design : In order to withstand the seismic abilities, a simple structural logic of making the lower part of buildings heavier than the upper part has been used . The foundation is concrete footing foundation with concrete columns that act as shear walls till the bottom of slab of first floor. The dimensions are in range of 2000mmX200mm to 2500mmX200mm of concrete columns in lower level that keep reducing as they go up. They become 700mmX200mm from levels 1, 2,3, 4 and finally become 200mmX200mm columns at final terrace level 5<sup>th</sup> floor.









The walls are made of boutique bricks, Vintex bricks with additional reinforcement inside them and stucco plaster on them .

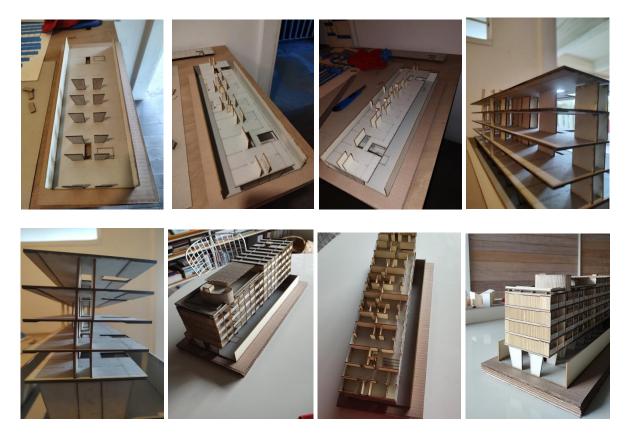
The two transverse facades are with exposed brick work and exposed beams that create an interesting style similar to Mexican modernist buildings of 1960s -70s

The longitudinal facades are very light in structure, with steel balustrades and full height glass fenestrations behind them that are the look out for the bedroom and dining areas

The two longitudinal facades also reflect the Le Corbusierian façade of Unite d' Habitation. The social housing plan layout that also reflect in the archetypes of the living spaces influenced many Mexican architects like Mario Pani and also this building in San Luis Potosi.

*Planning :* The plan of the residential flats is symmetrical along the central axis with three apartments on both the sides. The total of six apartments are continuous for the four floors, level one to level 4 and the last floor is half with only tree apartments. on one side and terrace garden on the other.

There are two central circulation cores with the stairs and the elevator on both sides that give way to a common breakout space where two apartments are accessed and one apartment is accesses by the corridor. The breakout space and the corridor at at the façade create a nice common portico which is airy and light.



Type 1 : the first type of residential apartment are of 131 sqm. with three bedrooms . 1 living room, 2 bathrooms , 1 small bathroom, 1 dining room, 1 kitchen, 1 balcony. This flat is the largest of all with direct entry from the elevator core.

Type 2 : the second type of residential apartment is 108 sqm. with 2 bedrooms, 2 toilets, 1 small toilet, 1 living room, 1 dining room, 1 kitchen, 1 balcony. This flat is smallest of all and accessed by the common elevator core as well.

Type 3 : The third type of residential apartment is 124 sqm. with three bedrooms . 1 living room, 2 bathrooms , 1 small bathroom, 1 dining room, 1 kitchen, 1 balcony. This flat is accessed from the corridor that opens up from the common elevator core.

The doors and windows of the apartments are glass doors and windows with steel frames

The terrace floor has seating and public leisure spaces, toilets and gardens. The stair and elevator well juts out of the elevation in the form of a Corbusierian curved brut wall.

This project is a different housing model, for the city of San Luis Potosi. It was designed in this style to break apart from the traditional residential typology of the city. This building using its unique grouping of families aims at generating a new way of community living taking cues from the Mexican modernist social housings.

The building uses vernacular slab construction system. It is in a site mixed with more densified contemporary projects. This building is for low and mid-income families. The project with a very economical budget and sale prices , is a negotiation given its architectural style, materiality and operational quality.

#### Learning Outcome :

The model making exercise enabled me to scale all the parts of the buildings in 1:100 scale. The model was made using laser cut technology. The lower part of the building was modelled also in terms of structural elements. The thick columns at the ground floor of the building give it enough rigidity for seismic resistance. The beams on the bottom of slab level of first floor are 600mm deep. They run all across the longitude of the building with centre to centre distance of 2.5 metre that act as tie beams for additional seismic resistance and provide stiffness to the concrete frame structure.

The walls were made in two types of cardboard. Carton Gris or Grey cardboard of 0.2 mm thickness was used for 200mm walls to represent the exposed brut walls. Batteria or off white cardboard of 0.1 thickness was used to represent 100 mm thick partition walls in plaster finish. The railings were made in PVC sheet panels and so were the doors and windows inside.

The CAD drawing editing of the project enabled me to visualise the distribution of rooms with respect to structural elements and how structural elements can be used in continuation with envelope walls and other building elements using rational geometry and proportions of dividing grid in multiples of 3m, 1.5m and 5 m.

#### MONTH 2 : NOVEMBER 2022

**Project Name :** Reyes Juarez restaurant project **Location :** Reyes Juarez in Ciudad Juarez in the border of Mexico-USA

Stage of project : nearing completion

#### Task handled :

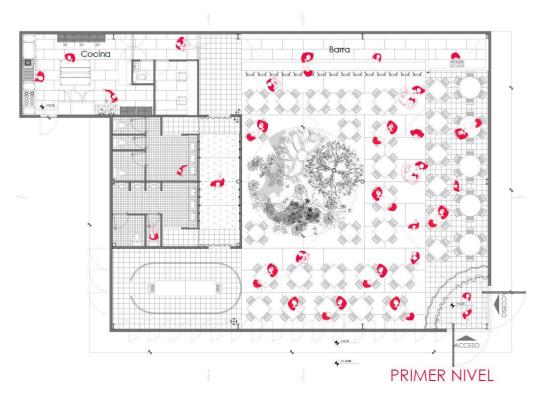
- 1. editing of sketchup model as per latest changes in site construction.
- 2. coordinating with site team for changes and updating the model,
- 3. making of an axonometric for publication purpose.



#### **Description** :

This restaurant is located in a natural setting in the arid landscape of Ciudad Juarez in Northern Mexico. The landscape of the site is very rustic and desert like with xerophytic vegetation of cactus. The color palette of the site and the vast expanse is well reflected in the project which was originally scheduled to be a restaurant with one open ground floor and a mezzanine, complete with bar, and dance club.

Due to constricted budget, the mezzanine floor and many building components were scrapped off. The target of changing the design and coordinating with site architects was to retain maximum design elements as much as possible.



The scrapped off design consisted of :

- 1. The mezzanine floor was scapped off. This mezzanine floor was located above the toilets with an additional spiral staircase. So, the cost-cutting was done with the reduction of an entire quarter floor and the stairs.
- 2. The mezzanine floor which originally had a private dining was now shifted on ground floor with a separate partial room creation using corten steel panels in the shape of an oblong ellipse . the corten steel panels stand on square box section steel bars.
- 3. The East façade of the building earlier had large windows. the new design scrapped off the windows and made them a plain wall.

The design consists of a large open plan restaurant with a circular recessed level of 500mm below the floor finish level. It consists of a xerophytic and endemic garden. This interior garden opens up to a square skylight at 7 metres above ground level.

The entire restaurant seating space along with bar and dance space is organised in a plan of 21m X 17 m. The kitchen space is 7.7m X 4.5 m and the toilets occupy 8m x 4.5 m having both male and female toilets.

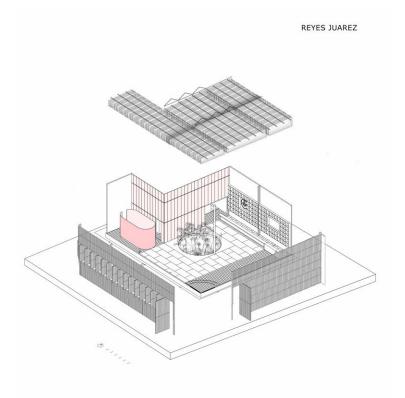
The private dining is a 12 seater dining room with 6.5mX3m oblong ellipse.

Construction Type : The construction is basically a retrofitting project which was already a built form which was repurposed for the restaurant . Five out of six walls were retained along with the foundation, ground slab, 11 steel columns and 2 circular columns. The roof trusses were also retained.

The ground slab was modified to accommodate the 6.5 metre diameter circular garden recess.

The structural columns frame the building envelope to create the restaurant seating space of double height 7 metre high. The entire restaurant and bar seating space is covered by a ceiling design of polycarbonate curtains handing from the roof truss.

The ceiling design is one of the most attractive features of the restaurant architecture. The existing roof trusses hold additional steel C-channels 20mmx70mm spaced 1.3 m centre to centre distance . A rectangular box section steel channel of 100mm depth spans the trusses over C-sections. The polycarbonate sheets which are 10mm thickness hang from this rectangular box-section. The polycarbonate sheets are of 2.7 m depth giving a clear height of 4.2 m from the floor finish level.



The wall design is specifically done to respect the vernacular traditions of Mexico. The 60mm and 100 mm brick walls are cladded with square terracotta tiles internally.

Portions of the wall are clad in rectangular corten steel panels of 2.4 m height, 6mm thickness mounted on two steel L-angles of 38x38x3 mm.

The private dining design is an oblong ellipse partition wall comprised of an enclosure of square 50x50x5 mm square box sections. There are 2.4 m height corten steel panels of 6mm thickness mounted on these square box sections. A 9mm deep steel railing runs all along the top edge of the enclosure perimeter to support white curtains hanging as privies.

There are curtains hanging right when you enter the restaurant from a quarter circle railing of 9mm depth running at a radius of 3m and 3.6 m respectively. This double layer curtain helps to shield the restaurant which is a public place from the harsh Sun and the heat of the exterior.

#### Use of lighting :

Natural lighting design : The series of curtain are also there at the entry of the toilets. The use of the curtains along with the hanging polycarbonate sheet from the ceiling protect the interior from the harsh sunlight at the same time creating a ambience of diffused light in the interior , perfect for the mood of the restaurant and the bar.

The open central skylight covered by the series of hanging polycarbonate sheets light the endemic and xerophytic garden at the centre. The light reflects with the deep green foliage of tropical vegetation to create a soothing reflected diffused greenish hue, that further reacts with the earth tone terracotta and corten steel panels.

Artifical lighting : Because it is a high end restaurant and bar with a night club, a series of floor lights light the 5.6mX2.6m dance area near the toilet area . The pattern of light on the floor also reflects on the ceiling hanging thin tube LED lights.

The area near the DJ hub is in one corner that preserves the ambience at the same time lets the acoustic of the DJ and the monitoring of the DJ, efficient, all across the room from the corner



#### Learning Outcome :

This project helped me to focus on the materials of corten steel, terracotta tiles and polycarbonate sheets as a part of my responsibility of making the sketchup model of all the structural and detail elements. The color palette and materiality of corten steel and terracotta tiles and their position helped me to understand the area of a particular material needed in a building as per function and how can we use them to create a definite aesthetic of color.

The sketchup model making of the roof truss and how they have been retrofitted to accommodate the rectangular and C -channels to support the polycarbonate sheets helped me to understand the detail making of commercial products to adjust to construction details of existing building.

The detail making of the corten steel panels and their respective square box-sections helped me to understand the way how corten steel can be used in interior spaces as cladding as well as how to make them as an envelope for a room within a room.







#### MONTH 3 : DECEMBER 2022

**Project Name :** Vinedos Vineyard housing project. **Location :** San Miguel Allende, Mexico

Stage of project : conceptual stage, first design presentation to client

#### Task handled :

- 1. conceptual design meeting with principal architect
- 2. understanding the site through site protographs
- 3. understanding site through topographic survey CAD drawing and sketchup topographic model
- 4. design discussion in a team of four architects
- 5. understanding the sketches of principal architect and converting them to CAD
- 6. making conceptual section drawings
- 7. making presentation drawings
- 8. vegetation analysis based on list created by studio team and photographs
- 9. wall design of brick masonry and rammed earth



#### **Description** :

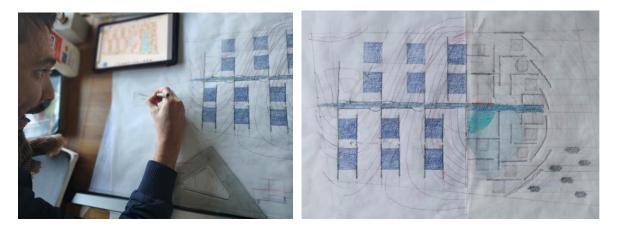
This project is set in a rustic, out of the city, locality having a site area of 32,500 sqm. The design program consists of making a commercial housing project along with ecological tourism project where patrons can enjoy the typical natural setting of central Mexican plateaus.

The architecture team worked to create a business plan for the client with three different kinds of products split into houses for sale and houses on rent. All the architectural products aim at giving specific experience to the inhabitants as well as create a common experience as a commercial marketing strategy of a clubhouse.

The three architectural products are :

- 1. a set of 12 single storey houses of 500 sqm each along with garden and vineyard
- 2. a set of 13 single storey airbnb room 100 sqm each with gardens
- 3. a set of 13 tents as glamping style along the edge of the site, towards the river.

*Site design :* The site design involved landscape and micro scale urban design using a axial pathway that run across the site splitting it into two symmetrical functional zones. This pathway is made of natural materials like rubble and sand and ends in a viewing deck before the river at the end of the site. A 500mmx600mm thin slit of water channel runs parallel along the pathway to end in a swimming pool after two thirds of the pathway length. The swimming pool is located at the lowest part of the site and a natural lake envelopes the swimming pool. The natural lake is designed utilising the potential of the low natural topography that drains all the rain water to this location.



The site divisions of subplots are mainly done using a series of orthogonal walls made of bricks and rammed earth. This L shaped orientation of the walls create a good balance of enclosure and opening to frame the natural endemic vegetation.

#### The saleable houses :

The saleable housing units of 500 sqm. each are on the entrance side of the site . The houses are sandwiched between 4 metre height, 0.6m thick two rammed earth walls. The other two side of the rectangular housing subplots are framed by two glass walls running floor to ceiling , supported on steel mullions of 2.7m height and 50mm thickness. The slab is 100 mm that has a green terrace with small plants on it This typology of houses have a private garden as well as vineyards for wine production.

A pair of house has 1.8m spacing between them creating a common recessed space common to both neighbours. The enclosing rammed earth walls never meet and maintain a thin slit gap of 200 mm to frame the views of the nature peeking from behind, just like Luis Barragan's famous walls at San Cristobal houses in Mexico City.

#### The AirBnB rentable room houses :

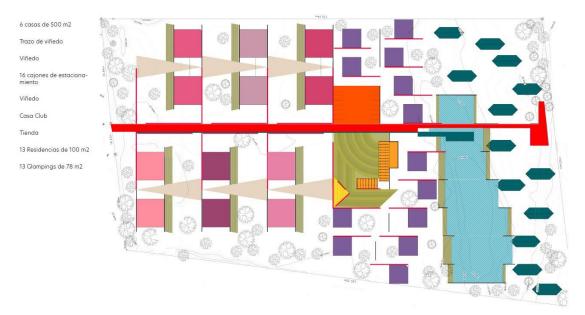
The set of 13 rentable AirBnB houses are each 100 sqm. organised in the second subplot after the residences to be sold. They are staggered in arrangement to let the endemic vegetation connect together to create a foresty appearance. The staggered arrangement lets the inhabitants get lost in the vegetation and enjoy the natural landscape.

This area also has shared clubhouses and a product store. This central area gives way to more public activities where all the inhabitants can spend leisure time.

#### The glamping tents :

The last part of the site after the swimming pool is more of natural and rustic in nature preserving the vegetation. This part of the site being in West side creates a dramatic Sun set view point from each of the glamping units. Also the pathway terminates near the glamping at a viewing deck giving view across the river and the setting Sun.

The glamping units are individual light weight structure each 14mX4m. They are precast U shaped concrete blocks 4mx1.5m with 200mm thickness resting on two ground beams. The central encloseed living space is a additional pine wood core of 4mx1.2m with a toilet and a bed on the 1.8m height on top of the kitchen unit. The central enclosure is made of a series of 100mmx50mm rectangular steel sections spaced 1m centre to centre. There are 20mm thick wooden plywood panels to create the envelope wall and the 600X100 mm pine wood slats are attached at an angle of 45 degree on the plywood partition base.

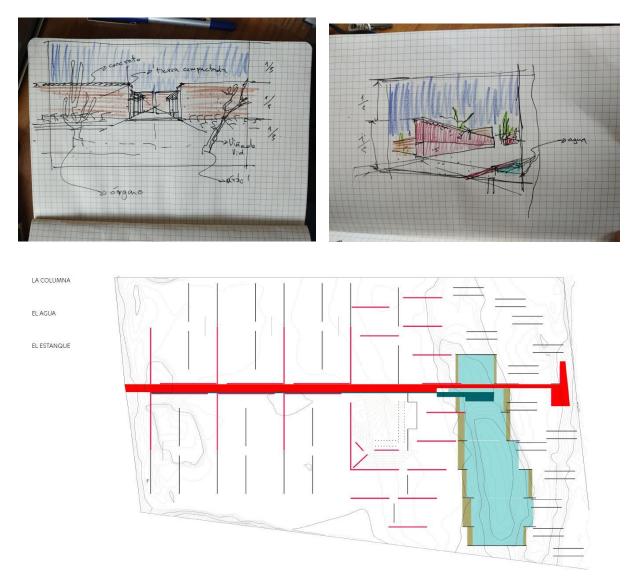


The rest of the space apart from the central toilet-kitchen enclosure has another bed looking out to the views and a small dining area. All of this is enclosed by pine wood doors on two sides.

Construction type of roof : The roof is designed using a cross braced frame of pine wood joined by movable steel flanges. On top of that there are 3.64mx0.9m triply wooden panels as roofing. On top of that the final waterproofing is done by metal sheets of Z profile.

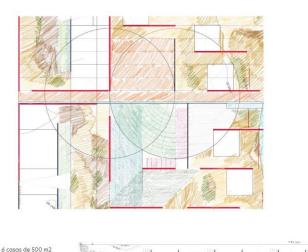
On top of this the final covering is of polycarbonate sheet a paraboloid vault resting on crisscrossing steel arches looking like groin vault edges.

#### Learning Outcome :



This project helped me to understand the Mexican topography and site through the initial site introduction of the trees. land slope and soil cover. As a design strategy, I learnt to preserve natural vegetation as much as possible and to respect the slope of the site.

Generally as architects, while dealing with a sloped contour site, we do cut and fill for ease of construction, but in thus project we completely respect the ground slope and move the buildings or pathways or water structures as per the slope, how much little it might be. This design principle helped me to understand the potential of natural building materials like rammed earth interacting with natural ground soil and creating interesting vistas and light effects.





The design of the walls specifically helped me go back to fresher school year masonry design and the importance of treating design brick by brick in construction process. I designed different models of brick wall of one layer thick and two layer thick to check how it complements with the thick rammed earth walls.

I was also allowed to try different permutation of brick wall and rammed earth wall height to create interesting views of the endemic vegetation. I also designed the water channel and swimming pool.

As a part of the wall design, I designed the detailed masonry structure of 1m height plain brick wall and then 1 m height diagonal brick pattern. The top capping stone structure was also designed.

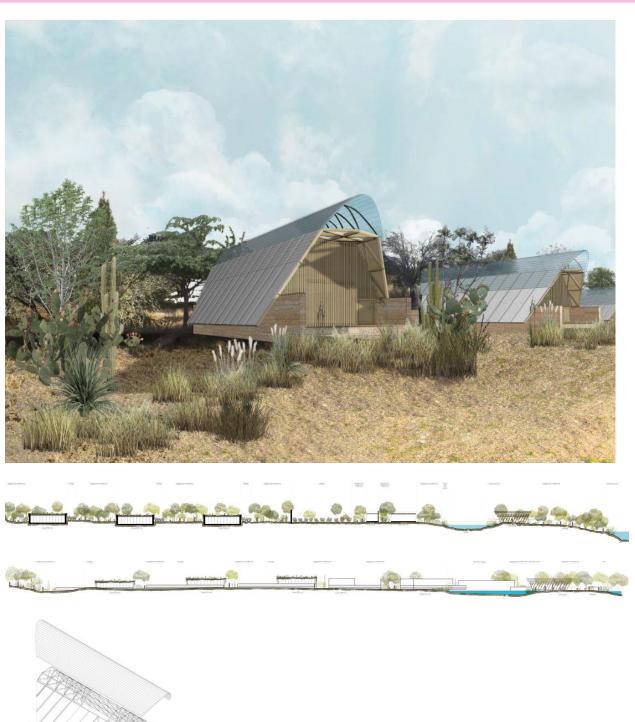
As a part of the design of the axial pathway cutting across the lake and swimming pool, helped me to consider the different level and take a design decision that at what level should the pathway bridge run across the lake, still respecting the natural slope as much as possible.

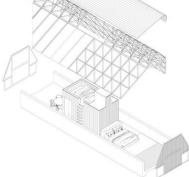
The design of the glamping structure helped me to design lightweight structures. the construction detail of the main roof cross-bracing frame structure helped me to understand the innovative use of carpentry joints to create easy to set up structures thus a combination of movable architecture and quick to deploy tent structure.

The section design helped me to look at the entire 226 m long site in scale with respect to the 4m height one story structures. The interplay of the different walls of three textures – namely rammed earth, plain bricks and diagonal bricks do not look monotonous because of putting the ground slab of the houses at different levels as per the site topography. The houses peek from behind the vegetation and natural topography, thus also gave an idea how the visual line and the body will move in the site as per the topography. While entering the site the ground slopes down 1.5 m and then again rises thus revealing the long enfilade of brick walls and rammed earth walls. This creates a gradual contraction of view after a short expansion due to the lower slope at start of the site.

At the central portion of the site, the ground again goes down to give way to the natural lake which is surrounded by natural shrubs and cactus. Then the ground again goes up to end towards the river as a terminating point and junction of all the sensory experiences gathered at the large site.







#### MONTH 4 : JANUARY 2023

*Project Name :* Arco Iris Hotel annexe design *Location :* Puerto Escondido, Oaxaca, Mexico

Stage of project : conceptual stage, second design revision

#### Tasks handled :

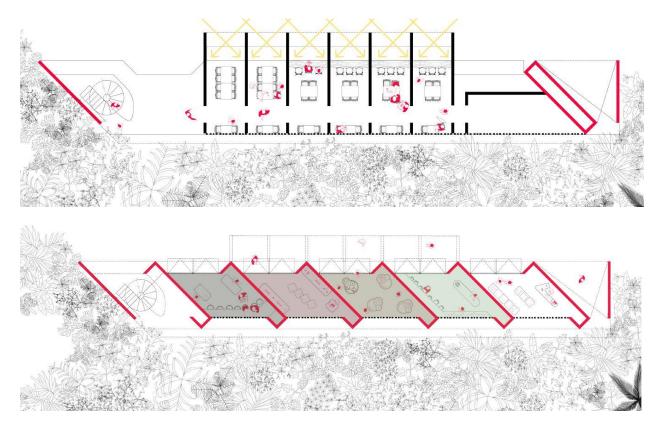
- 1. site study using photographs and existing site plan
- 2. study of old conceptual plan that was given revision by client
- 3. design of commercial spaces at entrance of the hotel site
- 4. design of boutique public spaces that can be used as an attractor for the hotel
- 5. design of service structures
- 6. section drawing of the annexe structure
- 7. model making in sketchup
- 8. brick screen design for the annexe building



#### **Description** :

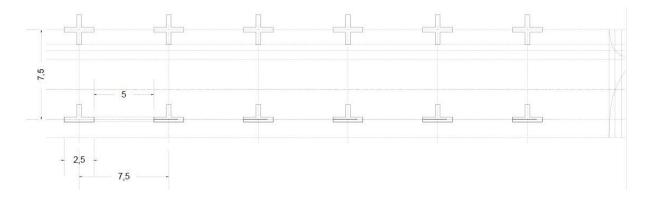
The Arco Iris hotel project is a redesign and up gradation project of an existing hotel in Puerto Escondido, Oaxaca, Mexico. Puerto Escondido is a popular tourist beach town in Mexico. The hotel site is located very close to the Pacific Ocean coast with slit views of the blue ocean from the first floor of the building.

the existing hotel is designed in traditional style with simple concrete frame structure and terracotta tiles over hip roofing. The site has a massive expanse of endemic shrubs and trees which was decided to be preserved as per site planning strategy. The climate of the site being tropical coastal has requirement of maintaining easy air flow and controlling humidity using air conditioners. The air conditioner load being quote high being used for a larger period of the year makes it necessary to have a control on openings and reducing the cooling load of internal space. The first phase of the project involved introducing a set of ten room commercial facilities spread across a single double floor building.



In the first round of design, there were slanted walls separating the spaces and giving view towards the dense forests inside the site. The design revision involved changing the entire plan into more compact design mainly focussing on reduced cost of construction and cost of air conditioning.

The site being in a tropical belt in South Eastern Mexico has a high solar incidence all through the year along with high humidity. Also being in the trans-Mexico seismic fault line, it is a highly seismic prone area.



In the new plan, the structural planning of the 358 sqm. ground cover space involved a series of 12 cross shaped columns of 2.5mX2.5m dimension arranged centre to centre 7.5 metres apart. This structural column system supports the beams on top, the first floor slab and the upper floor walls.



To reduce structural load on the columns and reduce the total volume of the rooms, vaulted roof have been used in the upper floor. This vaulted roof is good to reduce solar heating as vaulted roofs have lesser surface area being heated by incident sun rays. Also vaults reduce the volume of an otherwise cuboidal room thus reducing cooling load.

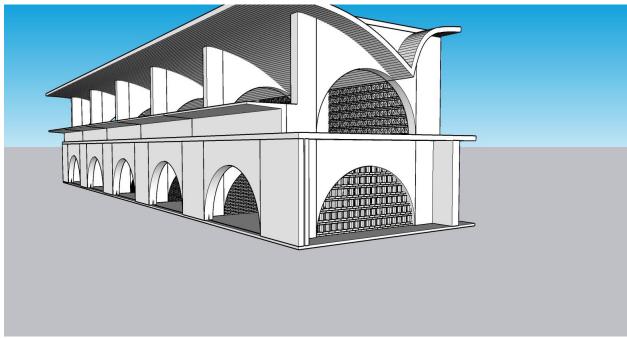
The upper floor roof vaults were designed as 200mm thick thin shell vaults inspired from the vaults of Felix Candela, which he experimented a lot in Mexico City.

The rooms have brick screen walls on the three sides to reduce the solar heating inside. Also the brick screens promote flow of cool air through Venturi effect since one side of the room has a large opening being the front of the shops and the other side has very small opening between the brick screens.

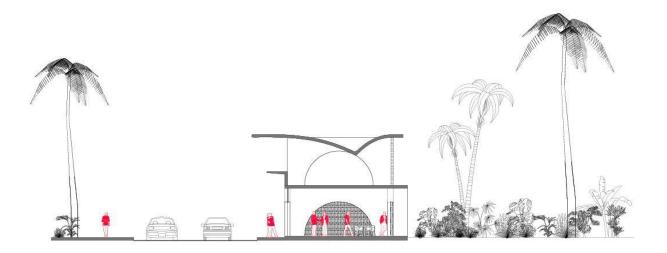
The entrance façade has been kept simple with large arches as openings, that complement the vaulted shell roof.

The vaulted roof also extends 2.3 m outside as cantilever to protect from the heavy rain carried by oceanic wind. The ground floor also has 1.5 m overhang to protect from heavy rainfall.

The section design involved the detailing of the brick screens, the vaulted roofs and the floor slabs in tandem with the footpath outside and the road in front.



The purpose of this additional new block of shops is to uplift the standard of the hotel by introducing high end cafes, boutique stores and high end show rooms. The access from lower floor to the upper floor is through a 3 m diameter spiral staircase at one end of the building.



There are two service blocks introduced at a distance of 6 metres from the main block inside the dense growth of shrubs. The existing parking space which was at a far distance from the hotels is relocated to a clear land between the dense vegetation behind the new designed building.

#### Learning Outcome :

This project helped me to understand the economic requirement of hospitality projects which might need a facelift. This kind of intervention must not always be the redesign of entire hotel but giving facelift to the business by additing certain urban artifact to complement the income as well as the aesthetic of the project.

The design of the new building helped me to understand a tropical coastal site an its unique climatic requirements. The design of the spaces starting from the cross shaped structural columns was an unique learning experience in architectural design originating from structural design and combined with mechanical HVAC design , coming together as one design language of the building.

The design of the brick screens helped me to try different iterations of brick spacing to understand the effect of opening in controlling the effect of natural light inside the shops and to control the views outside.

The site design helped me to understand the strategic placement of new facilities to rework existing circulation flow in order to make them more efficient.



#### CONCLUDING LEARNING FROM THE INTERNSHIP

The internship in Mexico was a very different exposure to the different conditions shaping architecture and urbanism in the Global South. Having spent two years in Milan, Italy in the refinement of the urbanism and architectural construction in Europe, Central America offered me a very enriching, resilient and complex understanding of construction process



The internship experience was not only limited to the inside office learning but also from my day to day commute passing through large number of building in construction, the construction process visible while my walks down the footpath, and the visits to the many masterpieces of modernist and contemporary architecture of Mexico.

The in office learning involved working with different and new construction materials and making their detail drawings on CAD, sketchup and axonometrics. The physical model making process helped me to learn new modelling materials and to formulate innovative ways to construct complex shapes based on CAD drawings.

The planning and design meeting with the architecture team helped me to learn the design philosophy of the office which in turn exposed me to the contemporary

architectural styles of Mexico City. The design constraints and design decisions taken as a team helped me to solve design challenges in a very different geographical and economic setting. The climate of Mexico being very varied ranging from temperate to tropical to arid influences small details in architecture design to the overall spatial narrative of the buildings.

The out of office experiences visiting the works of Luis Barragan, Mario Pani, Diego Riviera and many more helped me to understand the very mixed and complex nature of post-colonial architecture and tropical architecture prevalent in Mexico. The architecture and urbanism of Mexico City is very dynamic and wide ranging. the complexities involve the seismic vulnerability of the city, with high incidence of liquefaction during earthquakes which architects have to keep in mind while designing every single wall. The seismic resistance in design in ingrained in the design philosophy of Mexican architects including my office projects. The design is not only limited to structural strengthening of structural elements but also vertical reinforcement inside brick masonry, specific foundation types, certain spatial thumb rules like making the upper portion of buildings lighter than the lower part.

The range of post-colonial architecture that Mexico developed in the last 200 years also takes immense cues from the local building materials like *tezontle* stones, volcanic stones, lime plaster, *palmas* Palmyra leaves roofs and many more vernacular influenced modern construction technology. The pre – Hispanic architectural styles of the Aztecs and the Mayans, influenced the works of architects without architectural education like Diego Riviera in the design of the Anauacalli museum and Frida Kahlo's house. These examples of vernacular architecture which are in the period of modernism stand out to make a bold Mexican statement among the massive range of modernist projects. They reflect the multivalent, diverse expression of Mexico and reflect the wideness of the social acceptance of different architectural styles in the 20<sup>th</sup> century.

The 21<sup>st</sup> century young Mexican architects are experimenting with wide ranging construction technology and architectural archetypes which are not limited to a single architectural style. The projects worked in my office also range from diverse styles and cannot be fixed to a certain design style. The rationale of the project requirements, the climate, the material cost and the client requirement shape the projects and yet create a unity among the many masterpieces of 21<sup>st</sup> century contemporary Mexican architecture and the wider fraternity of Latin American architects in the global perspective.





END OF REPORT



## 2

## WULF ARCHITEKTEN

## Fulya Basak GENC

### WULF ARCHITEKTEN

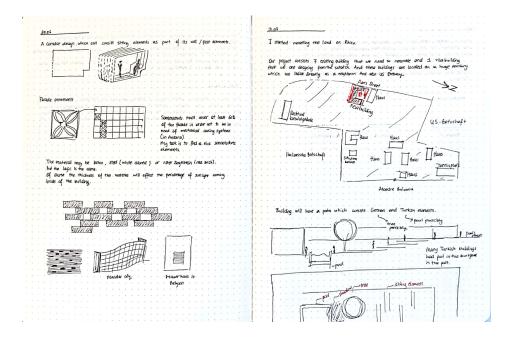
### Fulya Basak GENC

Internship Report 2022

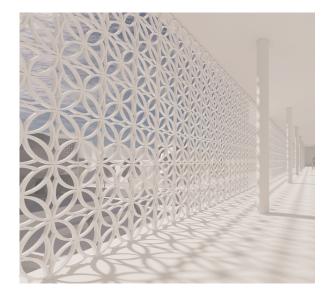


My internship is a six months internship in Stuttgart, Germany at Wulf Architekten which has two other offices in Berlin and Basel. The acceptance procedure is after applying through email, they give an appointment for an interview which the appliant explains their portfolio, they answer some questions and give feedback.

After having done with the visa works, I came to Wulf and had a very nice welcome from lovely people.



I was especially very excited on the project I am going to work (it was defined even before I come here) because it was related with my thesis work, and my cultural background. Germany and Turkey had good relationships in the past which ended up Germany had many guest workers from Turkey. This situation is something that keeps me excited in this country and especially on the project I worked for the whole time. The project I was working is Deutsche Botschaft Ankara, renovating the existing consulate building and designing an additional visa building. This new building is supposed contain elements from both cultures, and designed by a German company, but has both German and Turkish architects in the team. Moreover, some of these Turkish architects are children of the guest workers from 60s! As a bonus, we have an Italian architect, who has a guest worker background in his family. All these facts made me very excited about the project, the team and the environment I was working. I felt like we are designing a reflection of our situation in a much bigger scale.



In Germany, every project has nine phases which they call as Leitungsphase. LPH-1 is basic determination, LPH-2 is preliminary design, LPH-3 is design planning, LPH-4 is approval planning, LPH-5 is execution planning, LPH-6 is preparation for construction on which determination of individual quantities and documents are prepared, LPH-7 is participation oft he construction contracts, LPH-8 is construction supervision, LPH-9 is the property management and inspection.

Our project is on LPH-2 phase which we take the main design ideas and draw on 1:100 scale and sometimes draw some details. The program using for 2D drawings in the office is Nemetschek Allplan. We can use it also for fast renders, but my team leaders asked me to do all the modelling works on Rhino. Since this project is chosen through a competition, it already completed ist first phase before I come. All the plans and sections are planning now on the scale of second phase.



One of my tasks was to design the possible facade and inside elements such as sun protection elements or schalterhalle. Sun protection must cover at least 60 percent of the facade according to the mechanical calculations for Ankara. Material was not defined for sure, so I developed 3 different types from 3 different materials. And I modelled the land, the building and sun elements on Rhino.

Our project consists of seven existing buildings that we need to renovate and one visa building that we are designing from scratch. And these buildings are located on a huge territory which has Italin Embassy and the US Embassy as a neighbour. The thing about working on such a project is I have a very limited documentation approval from the office because the plans and details must stay safe and so I cannot share them with noone.

What I like the most in the office ist hey take me to all the meetings even though I sometimes understand very less. After a while I started to understand more and more since I was taking German course, and trying really hard to learn and speak. Thanks to these meetings, I learned how the team meetings in Germany went, what was discussed, the subordinate-superior relations and how the design decisions were made. We look at everything in detail, every week everyone including me talks about how much they have progressed and sometimes things like this happen; For example, a decision is made the previous week, but while the person is working on that job, he sees that there are some problems. The next week, he shares it with the team and a solution is reached together. This showed me both how a team should be and the real logic of doing things together. Of course, architects can sometimes be fixed on their own views, maybe this is an architectural disease.

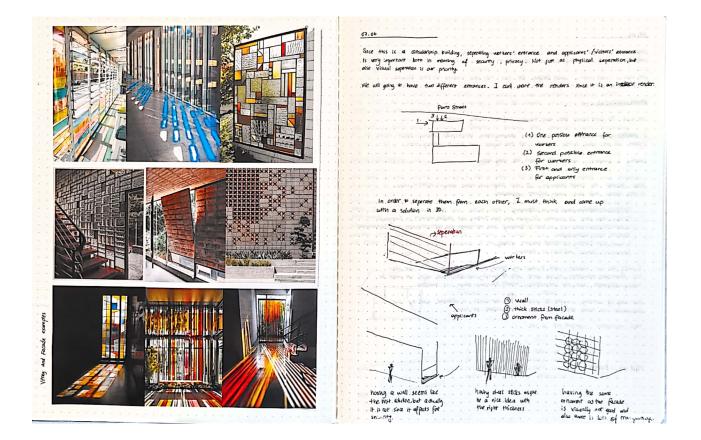
But I saw and felt in the team I was working with that nothing was the product of an individual. Everything progressed collectively and everyone gave importance to each other's opinion. They also took my opinion on design and considered my ideas. I believe that this situation is both a part of their culture and the working principle of the office. I have worked in many teams throughout my architectural education and I have seen very little of this situation. In this team, the goodness of design and collective consciousness were at the forefront rather than the desire to dominate and stand out. At the end of internship we had a lunch together and I received a photoshoped picture of the team saying goodbye to me.



If we go back to the design, one of the things I should pay attention to in the design of the facade was the angle and times of the sun. After designing the façade elements, after each sunprotection element design, I adjusted the sun exposure angle according to the summer and winter seasons, rendered videos of one day, and we used these videos in the presentations. It was my first time doing this job and my team has always supported me in this regard. Feeling this support and understanding makes you more comfortable psychologically and you do much better in the long run. I was also trying to learn German, and I was doing research for my thesis. For this reason, my days were very busy. Even though I didn't realize it at the time, looking back now, I can say once again that I enjoyed the working environment I was in.

	· · · · · · · · · · · · · · · · · · ·
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Having a courtyard comes with many possibilities on a building; thaving different angles	Main task I'm working on is modelling the land and all the existing buildings nearly.
and directions with the shadow (different than expected), , having level differences that	Today I started modelling Italian. Concularship and other buildings in fort of the German
needs to be solved during design process 2. (we have land schapt architects for this).	Consularship
<ul> <li>A state of the bootstate of the state of the</li></ul>	
Therefore, today I must design three different facade work, render them by Inscape with	. At 10 a.m. we had a team meeting and talked about what to do next. Site plan
summer and winter seasons on differen hours (preferalby in the months and in the	needs to detailert on Alliplan for the main meeting tomorrow we will have with Steppen.
afternoon).	
	I must all the indian malds and variations render, and print them for tomorraw.
/ 6	In addition to this. I worked on three different variations for the favode or naments, so we will
	hove 6 aptars tamonau.
	05.04
	I rendered of videos with the Acades that shaws sunlight all alay long. (white Isomorar).
V total of	
Variante 02 Variante 03	The meeting sharted at 19:30 am.
	. We have talked about facades which has to much sunlight inside both on the east and
	the west. Since we want this building to be a presivibuilding , we must come up with

Polimi also provided me a solid background. In the second semester of the master's program, I took point cloud courses. In these lessons, we learned how to make measurements with point cloud and how to use them in 2d. While I was working on a project with seven existing buildings, I learned that all the drawings were obtained with the help of point cloud. Even when we needed detail, we would open these images, look at the building in three dimensions and complete our drawings. My familiarity with this situation, which provides both speed and convenience, contributed a lot to me during my internship.

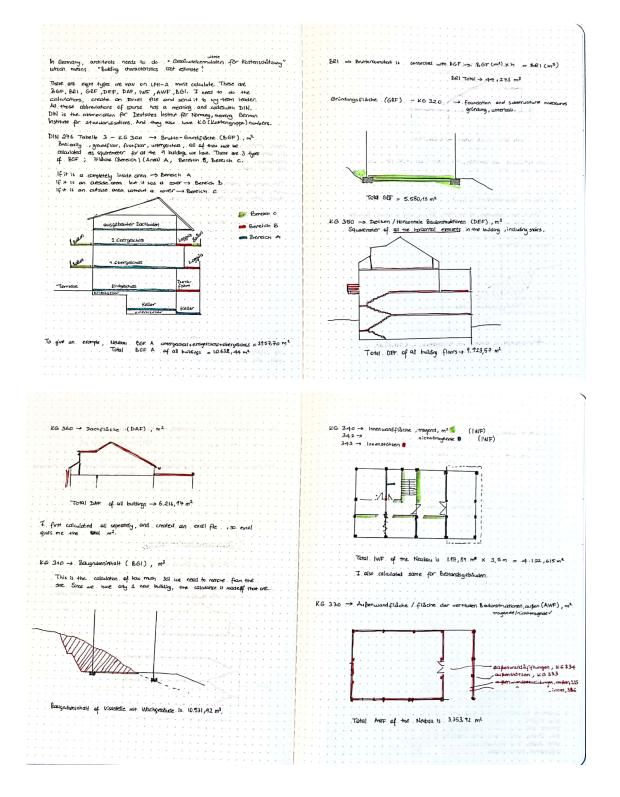


While renovating existing buildings and adapting them to their new functions, one of the most important elements we had to pay attention to was adapting the buildings to people with disabilities. There are big height differences in buildings, especially on the ground floors. Since the access to the upper floors is provided by stairs, it was necessary to add an elevator. For example, in building F, the level difference was high even in the courtyard, and because of this, we added a ramp instead of the stairs in the garden. we generally use ASR when designing and drawing such things. ASR stands for Arbeitsstätenrichtlinie and it contains all the rules that architects must follow. But for example, for a building to be suitable for people with disabilities, there is an additional catalogue and we need to check it. And sometimes the customer determines the rules and the project needs to be designed by combining all of them. I can say that although the normative structure of Germany sometimes causes chaos in my opinion, it actually brings equality and order to everyone in this situation.

Besides the meetings and these design rules, my main task is to make the plan section and elevation drawings of the eisting buildings and place them on the layouts. In addition to this, modeling, rendering and developing ideas on the facade design of the new visa building. I always felt that I was very busy during my internship, and I was always very happy because of the tasks given to me. I never thought that I was doing any unnecessary work. We were also sharing online what everyone is doing and what their next task is and I like this transparency in the office.

02/03/09/06.05.22	<u>Ø.0522.</u>
We finally received die Ansichten of Haus F After this ore , I must work on Have J.	$v_{01} \rightarrow 0$
Haus F has 7 facades , this is the most complicated building in my opinion.	1
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A . So third's all about this one.	steel Stricks should be replaced
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Ch some bouildings; ASR ?	Vo4 → same as vos
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ever specific rules for them. And plus that one who architect. 	VOG-5 WHELE STARLS
The priority of the rule may change according to the building, But mostly, the architect must find "the middle" and design the building through h	
	-> shicks
We had a reefing on Price about the facede design. I therefore anow as vanisms on Afghan, and 30-matelled them. And sont these files as a presentation to better.	
Vie had talked shortly hart we will have the main meeting next week.	

While Wulf Architekten was making designs at the building scale and making general landscape design decisions, a landscape office was agreed with for the landscaping of the newly designed visa building. This office is only concerned with the landscaping of its new building, and their employer is Wulf Architekten, not the German government. As this is the case, the feedback was given by our team in the meetings with them, and they made the changes and arrangements accordingly. I also added the landscape plans they sent to the 3d model in Rhino. Then I took renders of the new visa building with the landscape and we printed them on large paper and hung them on the wires in front of our team. In these wires, there are renders and drawings of the project every group are working on in front of each team. So everyone in the office has a chance to get an idea of what is being done in that team, and about other projects in the office. Another job I did was to help calculate the excavation budget. I made the calculations of the land to be excavated by the newly added visa building, and the land to be added afterwards. Again, I modeled it with rhino and draw on Allplan the sections and the plans, and calculated in accordance with the excavation rules. My team leader multiplied them with certain coefficients and included them in the calculations at a rate of +/- 10%. It was the first time I saw how much a budget was required for just the excavation and I was quite surprised. I have clearly seen that the construction of a building from scratch is not environmental at all. This once again brought me to the idea of transforming the old factory building and making the necessary minor additions, which I had planned for my thesis location. I defended this in my research thematic seminar, but looking at the calculations, labor and waste, these concrete facts in my hand still surprised me.

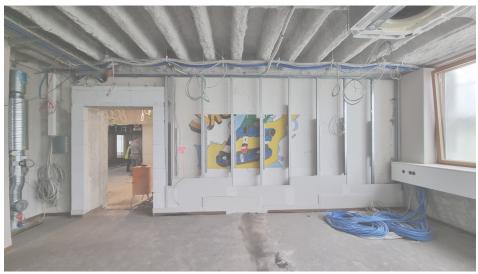


Since I couldn't share many photos or videos due to the confidentiality of the design of the building, I asked my team leader to take me to the construction of another project. I always wanted to see the building in another phase, to take photos and put it in my internship no-tebook. As an Advanced School of Architecture student, I would prefer to have photographs that I can show in detail in the internship notebook I will write at the end of this long internship. My team leader took me to a Realschule building in Gerlingen.

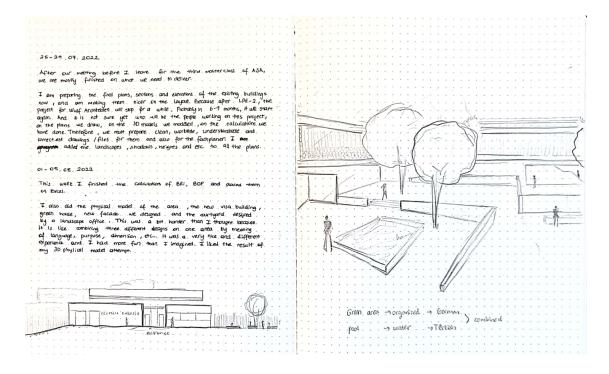
First of all, a meeting was held at the construction site with architects and engineers working in the field. Everyone explained the current situation and problems they are having on the site. My team leader guided them and told them how to proceed. Then we went inside to see the building, and I saw that this realschule building was actually designed attached to an existing building. It was very useful for me to see how the old building was transformed with the new entrance structure and classroom areas added as the old realschule structure needed to expand and grow. My thesis project will be the reuse of a building in germany and there will be additional buildings. Therefore, it was good to see how the path was followed and to ask questions. With the newly added building, the entrance level was moved to a lower level and administrative works were assigned to the ground floor of this building.



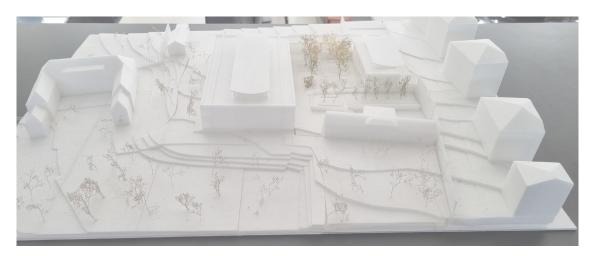
The newly added classrooms are arranged very spacious and designed by arranging folding doors and intermediate common classrooms to adapt to different purposes. I liked the building a lot in terms of considering solutions to possible problems not only of the present but also of the future, and allowing buildings with two different construction techniques to meet on a common denominator.



Another task of mine was Gebäudekenndaten für Kostenschätzung, ie Building characteristics cost estimate. Different calculations such as BGF, BGI, GRF need to be done in LPH-2. I made their calculations on allplan and then created an excel file and continued the calculations from there. All these codes are made according to DIN and separated by cost group numbers. The heavy surface areas inside and outside of the building are calculated separately and all vertical and horizontal elements are calculated separately and a cost estimate is made. This is a large part of budget preparation. Since both material, labor and time cost are affected by these calculations, the budget is created accordingly. I am very happy with my team leaders and the office I work in because it gave me the opportunity to learn about all this.



Before the end of my internship, it was my last task to make a model of the newly designed visa structure. I made a 1\_100 scale model using tools that I have not used before. We have a model room on the roof floor and a terrace where we chat together on Friday evenings. This place both enables people to get closer to each other and provides a comfortable and spacious environment for model works. I added trees and lanscape design to the model and completed the model after a few days. I am very satisfied with this last request that I have submitted. I would like to thank both wulf architekten, polimi, my previous university itu and ASA. All this knowledge and experience has accumulated and made me a more sensitive and knowledgeable architect and continues to do so.



# 3

## Yi Xing Chow

# at Riegler Riewe Architekten GmBH, Berlin



Advanced School of Architecture 2021-2022 Advanced Design Practice

Yi Xing Chow at Riegler Riewe Architekten GmBH, Berlin



**Foreword for non-EU students:** My internship formally started around the end of September, but the struggle to formalize this internship began in June, with the unexpectedly lengthy visa and work permit application process for Germany, because I am not an EU citizen. This legal process has been a very exhausting and inconvenient process for both me and Mrs. Bernhart, the office secretary. It is my wish to inform you all that: Your citizenship precedes your academic status in Italy; should you wish to partake in an internship in EU countries, you and your firm must be prepared to handle the ridiculous amount of paperwork coming your way, and the university is not responsible for helping you.

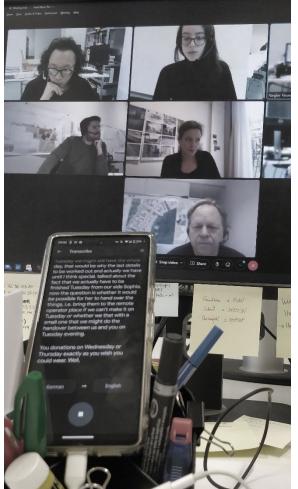
My 600-hour-long internship at Riegler Riewe Architekten (RRA) in Berlin began with a relatively quick on-boarding. With my prior work experience in Tokyo, I acclimatized to the working environment easily, but unlike Tokyo, the atmosphere here is more relaxed, calm, and respectfully informal yet professional. Also, unlike Japan, the office here are more welcoming to foreigner employees, as depicted by the variety of nationalities present in the office roster.

In total, RRA is made up of 30+ people with offices in both Graz and Berlin, but the Berlin office is only staffed by 6 architects during my time there. Throughout my internship, I was mainly tasked to work on a closed competition project in the decommissioned Berlin Tegel Airport, together with intern Rachel and staff Carolina under the supervision of Miriam.

Roger Riewe, co-founder and principal architect of the studio, has been very supportive throughout my internship. It has been a great pleasure to work for him, because of his pragmatic attitude towards architecture, the sharing of his valuable insights derived from his decades of experience, and the occasional candid moments in the office. Personally, I do enjoy his particular brand of humor.

Roger would travel between Graz and Berlin, so we would conduct staff meetings in person if he were in the office, otherwise it would be online through Webex. Due to my not speaking German, the internal meetings are usually done in English when I was present. However, if we were meeting with external project collaborators i.e., a landscape architecture firm, it would be conducted in German. Therefore, to follow the conversation, it would require me to improvise a method of generating near-instant translations using the Google Translate app on my phone connected with the microphone from my earphones. Even though it wasn't perfect, at least I wouldn't be completely clueless for the duration of the meeting. Also, my colleagues often debrief me with a quick summary afterwards, but one would eventually understand bits of German after some months of constant exposure to the language.



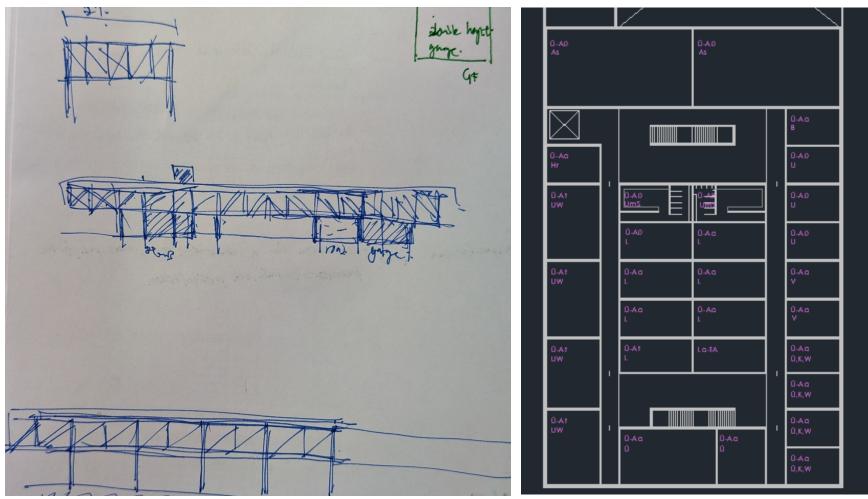


Alas, I couldn't go into detail about the project out of respect to the NDA clause of my contract, but I will attempt to elaborate the details of my work without specific context:

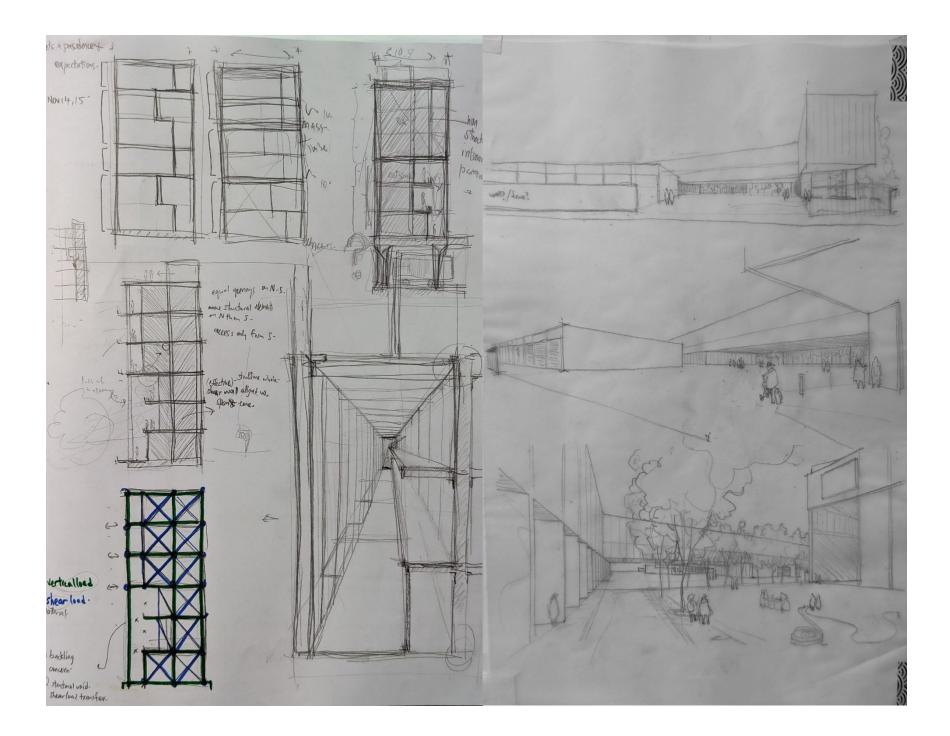
Generally, my work is very self-driven, independent, and autonomous, intertwined with regular communications and queries between other members of the same project. We are a very small team, so we cannot rely much on others to aid in our own tasks. Hence, I was very grateful for my prior working experience, for it made my internship much easier to handle – I needed neither any handholding nor directions, I simply did what I have been tasked to my best abilities.

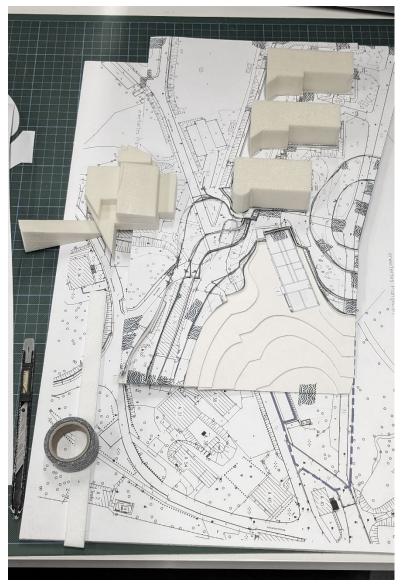
Also, the overall workflow at this stage of the project is familiar for my skill levels. I mostly work on AutoCAD for architectural drafting and Adobe illustrator/Photoshop for graphical reproductions, with the occasional SketchUp for making 3D graphics. With my prior knowledge in the software, I was proficient in my work. Sometimes, I would also help visualize certain perspective views with hand sketches and physical models. It was a rather interesting experience for me to be able to compare the work process between Berlin and Tokyo, but the most important takeaway for this experience would be that I understood how to adapt to new ways of working, adopt different processes and how to work efficiently when working in different offices.

Periodically, I would present my work together with the other project staff to Roger and Miriam which may include my findings, analysis and designs on specific buildings or presentation infographics that I am responsible for. We would then have a discussion together, and then update according to the feedback received. Unless I have a specific order, I often plan my schedules for the work independently, following the deadlines of the project, my own skills and schedule, office resources and with other colleagues' priorities, hence I must proactively develop my work without always being told what to do, and present them spontaneously at a moment's notice – Autonomy is key.



One such example where my technical knowledge in structures, construction methods and design skill were tested would be this 3storey (18m) structure with width 40m and length 100m. The function program requires the ground floor to be free of walls, which means that the 2 floors above are essentially a floating volume supported by an outer perimeter of pillars. To make this construction feasible, I had to support the two floors with huge 40m-long, 1-floor tall truss structures integrated into the design of the first-floor plan itself. While the structural constraints limited the freedom of the floor plans, making them functional greatly expanded my spatial problem-solving skills and my understanding of building technology.



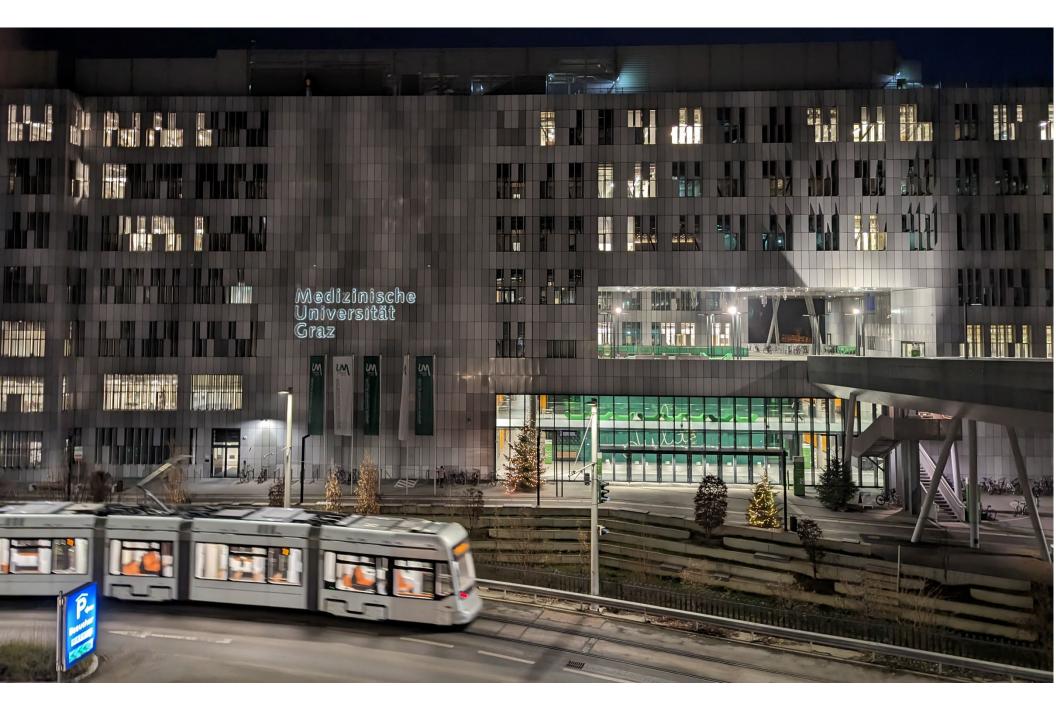


Another problem-solving example at work would be this other project that we received, where to understand the intricacies of the sloping terrain, I reconstructed the terrain contours with only terrain height data points to make a physical model of the landscape. While I was hardly involved in this project, I hope that my work will help the others to come.

Competition projects aside, I also helped in office management tasks, such as the reorganization of workspaces for new employees. For instance, since I have some experience in IT and engineering, I helped move and set up additional workspaces, to assemble computers for new staff, to cover for the lack of IT personnel present in the Berlin office. I also did some in-office network cable organization and checking office supply inventories, to report on material shortages to the person in charge. Also, when no one was available, I helped answer the office phone; the callers will very often speak English if you kindly ask them to do so.

Nearing the end of my internship, I was given the opportunity to join a site visit to a newly completed project, thereby experiencing first-hand the spatial experience of a real space in relation to what is drawn in floor plans. I am very glad to be a part of this excursion because they are invaluable for bridging the gap between my theoretical and practical experience in the field of architecture.

In a nutshell, my internship with RRA, a small, highly professional, and self-driven design studio, has helped me in further developing my critical thinking, planning, communications, and autonomy at work, which will undoubtedly benefit my future studies and career. It has been a pleasure working with everyone from RRA, and I can recommend this office as one's first professional internship office. If given the opportunity in the future, I will consider working for Roger again (but I will probably learn German beforehand).



# Journal de bord Juliette Sainlez

# ASA 2022 Internship at Diener&Diener Architekten, Basel



MARCH 2022-FEBRUARY 2023

Journal de bord Juliette Sainlez ASA 2022 Internship at Diener&Diener Architekten, Basel The office Diener & Diener was originally established by Marcus Diener in Basel in 1942. In 1980, his son Roger Diener established Diener & Diener Architects four years after joining the practice. The Basel offices are located on Henric Petri-Strasse 22, in a building designed by Marcus Diener in 1963. Today, Diener & Diener employs 50 architects in Basel and Berlin from many different nationalities.

Diener & Diener Architects is an office present in both the construction and theoretical field. This practice has held a very innovative way to approach the debate and exchanges between historical buildings and contemporary visions. The office has accomplished iconic projects in terms of extension/refurbishment such as the Swiss Embassy in Berlin, the City Museum Aarau, and the East Wing for the Museum of Natural History in Berlin for which they received the DAM Prize for Architecture in 2011.

Roger Diener was also a teacher at ETH Zürich, together with Professors Marcel Meili, Jacques Herzog and Pierre de Meuron. They created an urban research studio called Studio Basel. As a team, they have realized projects such as *Switzerland: an Urban Portrait*.

With their particular and innovative approach to the urban context and architectural themes, the office Diener & Diener has developed a very strong design identity.

Also Known for their very inventive housing projects such as Hammerstrasse in Basel designed during the 80s, this office has a large scope of expertise.

Being part of the office for eleven months allowed me to get to know better their projects, look into the archives, but also to understand the process and the different design implications called in during the discussions.

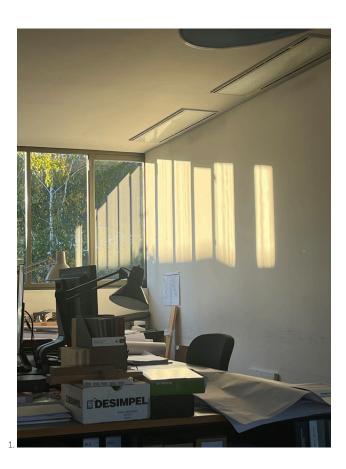
The research was always held differently and adapted to the context.

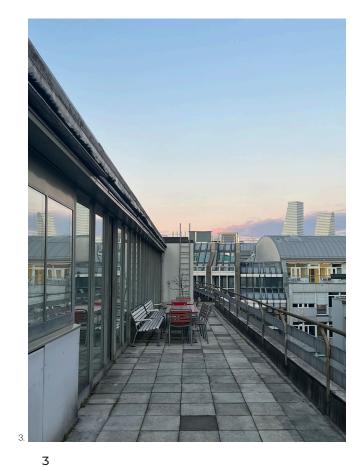
I appreciated a lot how the design and detailing phases were carried out. I could always see a transversality between the conceptual ideas and the feasibility of the proposed design.

With a very high culture of well-finished architecture, being part of a Swiss office gives the possibility to understrand the role of the architect until the end of the execution phase and to get into a very realistic and rational approach of design.

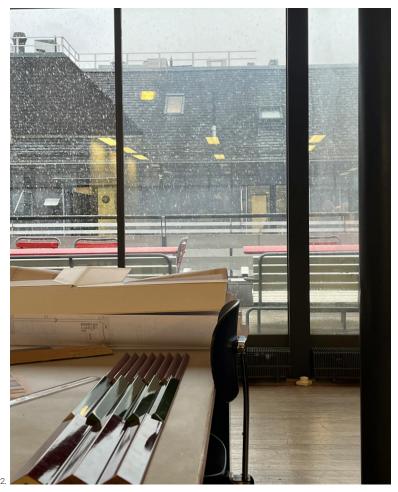
Diener & Diener is overall a very specific and beneficial working environment, composed of very talented and passionate architects using traditional or very modern tools but always in a very efficient and coherent way. They create together a very remarkable architecture with its particular identity.

working stations of my coworkers
 my working station with samples
 terrace of the office
 view on Roche Towers from the terrace





2





After being part of a competition for two weeks, I joined the project of a house for a private client. We were a team of 3 people in the beginning before getting enlarged to 5 people. The project was in the execution phase. I had the opportunity to work at different scales. I started by doing a model 1:20 of the staircases in order to present the new design to the client. This introduction was a way to get accommodated to the team and the project. When the design of the stairs was completed, I was asked to take over the 1:50 plans and redraw them with exact measurements. While drawing the new proposal I understood the spaces better and started to explore the architectural gesture of the practice. I also had the opportunity during this period to try out some different layouts for the design of the plans.

In the first part of the project, the meetings were held in English. So, I could assist to most of the meetings and take part when my work was discussed. I had several occasions to participate in internal discussions between the partners and the team.

During the second phase of the project, we got a new project leader: a senior architect. The designing phase being almost over, the work became mostly about detailing and responding to specialist planner's requests. Three months before the end of my internship, Diener & Diener were asked to take care of the interior design for the project. I was then asked to produce

several conceptual designs for interiors such as a piece of furniture for the corridor, sliding doors, and a fireplace.

During the second phase of the project, the meetings were held in German. I then decided to start classes in order to be able to understand what was discussed during the internal discussions.

Being part of Diener & Diener has been a very enlightening experience. The objective of this experience was to use it as a transition between studies and professional life. Being an intern in an architectural practice gives overall many possibilities. It teaches us to observe, listen, and step into discussions when it is appropriate.

Doing an internship abroad is more than an architectural experience. It is a wonderful exercise for a young architect to discover a new culture, learn a new language, and exchange with people from different backgrounds. It gives the possibility to become an open-minded student aware of the possibilities which are given by the architectural discipline to act locally on a global scale. Moreover, it gives a sense of the necessary collaboration between cultures to make universal and sustainable projects.

model of the stairs in the trophy room
 model for meeting
 working model in model room
 in going model

### MODELING





5

4







The project I worked on was a villa for a private client. Being a very specific project for the office, four partners were involved. The site is located in Switzerland, surrounded by a park and facing a lake.

When I joined the team the project was already very advanced. The construction phase was just starting and we had to address the design proposed in the previous phase. With a very strict agenda of the topics which had to be discussed, we could see the design progress throughout the meetings with the client and specialist planners.

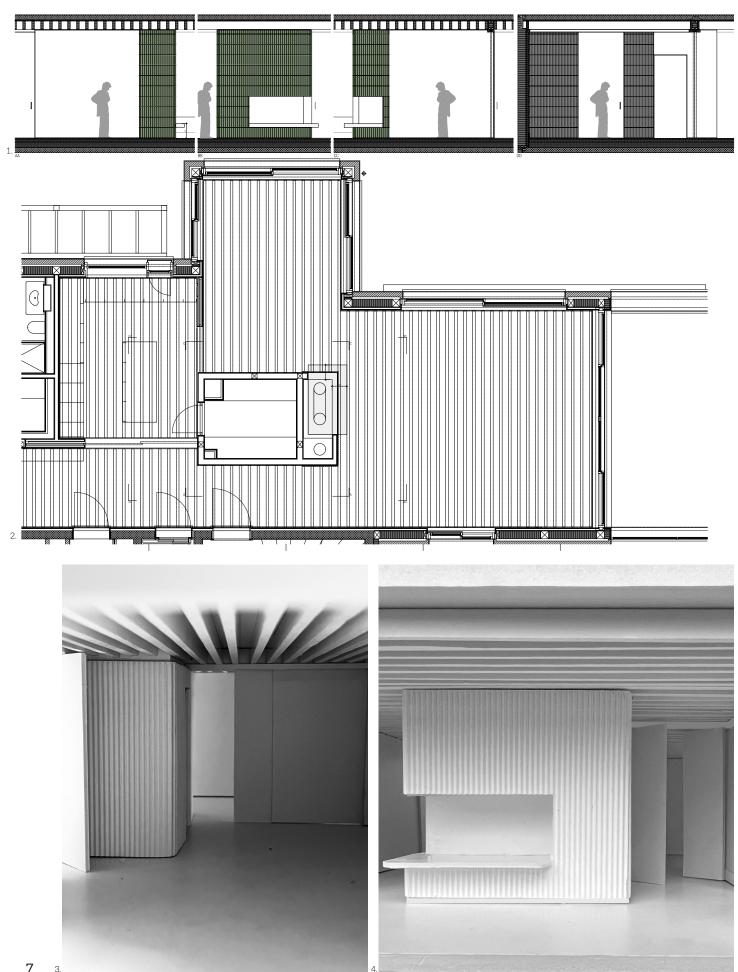
This house was implemented with traditional architectural elements and a very advanced building technology.

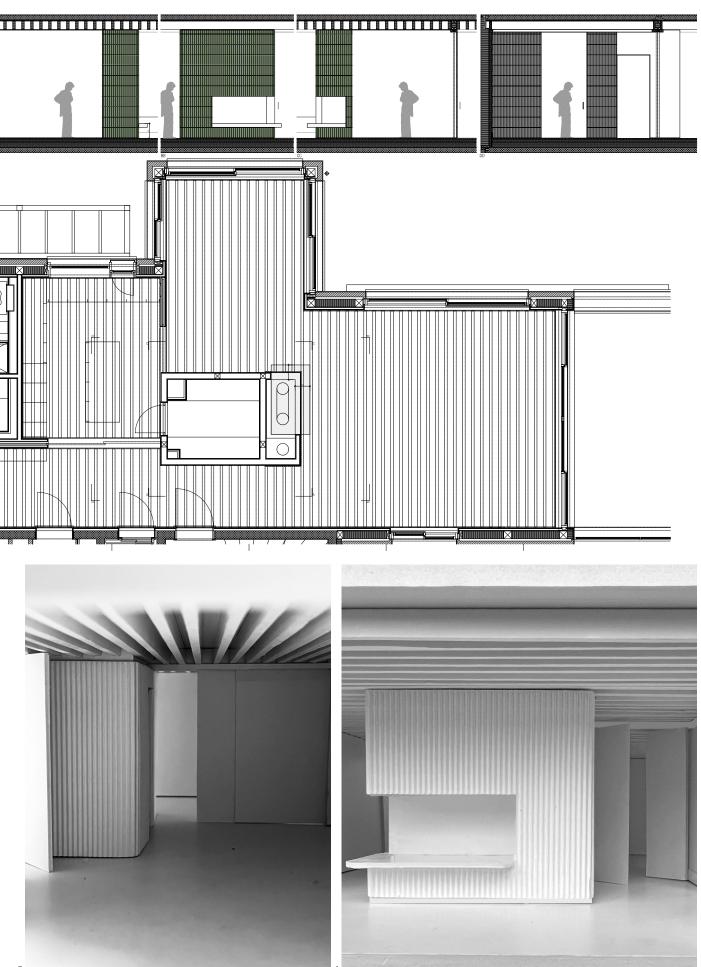
With sgraffito on the facades, wooden pillars for the upper floor, and a metal door at the entrance, this house will be a great representation of the possibilities to make tradition inhabit with modernity.

My experience on this project was unexpected. I am very thankful because I have learned a lot and discovered topics that were completely new to me. It gave me a wide range of knowledge in terms of details, execution, and traditional architecture in Switzerland. But also in technical terms, concerning the construction of a roof, an evacuation system, or the principle of a bunker. I am grateful that I could be part of this team which taught me many things and gave me a lot of input. Together with the partners, the team succeeded in accomplishing a very refined project, unique and particular.

As I experienced during my previous internships, I had to develop strategies for interacting with people I was collaborating with in order to launch a discussion and get input on the proposal. The most efficient way was to prepare a presentation composed of a plan, some sections and elevations supported by references they could refer to. When possible I produced a 1:20 model.

> 1. interior section elevation of the fireplace 2. plan of the fireplace in the context 3. model picture : from the kitchen 4. model picture : from the living room

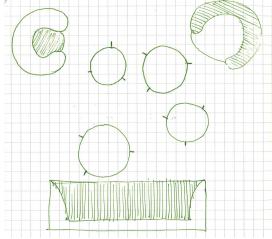




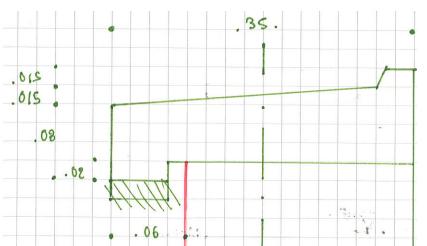
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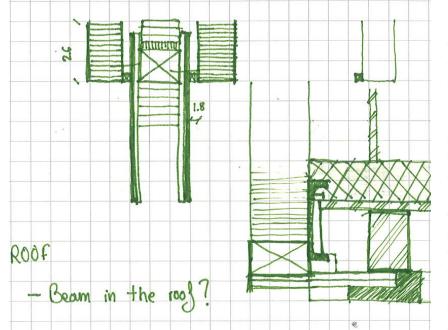


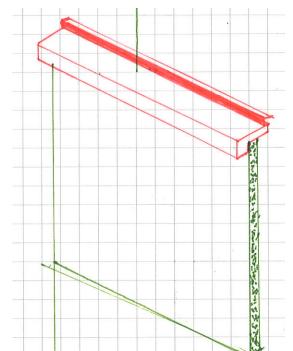
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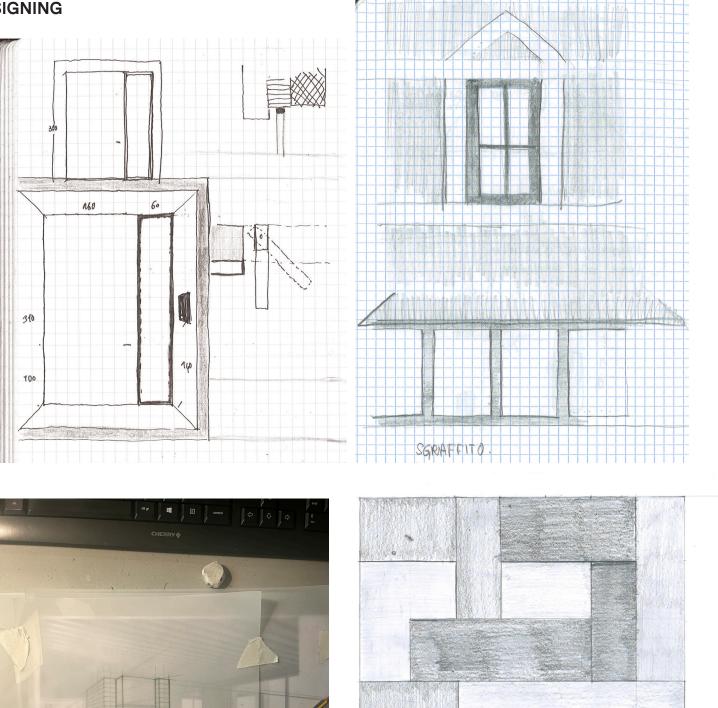
## DETAILING

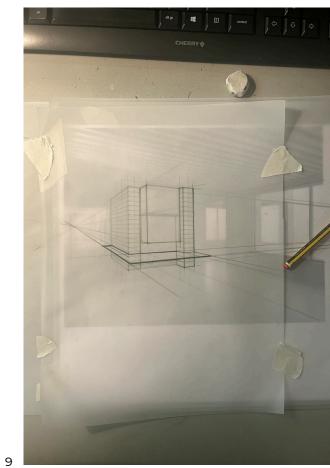






## DESIGNING





8

KAMINE A:00 INMENANSICHT KORRIDOR

Being very cultural and innovative, Basel is a city where many young architecture offices are established now. It is also the city of remarkable architectural practices such as Herzog&De Meuron and Diener & Diener Architects who have influenced the International Architectural scene over the last 30 years.

Assuming its role of transmitting knowledge, the Architectural Museum of Basel is organizing many exhibitions, lectures, and workshops to which everybody is welcome.

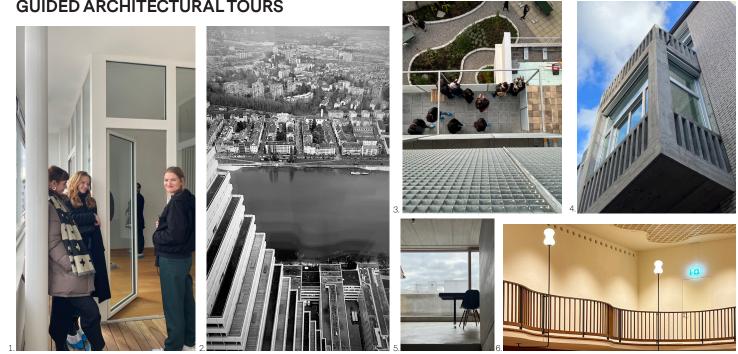
Even if Basel counts less than 200 000 inhabitants, the cultural offer of the city is huge. With 40 museums, the art fair Art Basel and all the events organized by the city such as museumnach, citizens are encouraged to access culture. Basel is also taking advantage of its middle position in Europe. With many European influences, this city works as a laboratory for Architecture. Merging powerful innovations and progress, the architectural network is an open community trying to find together sustainable solutions for our cities in architectural and urban terms.

The everyday life in Switzerland is a great exercise to understand how important the behavior of each individual has an impact on the common well-being. With a very organized system of transportation, housing, cultural offer, trash management, and encouraged interaction between people from different environments, this city is an open-air school.

Basel is a very stimulating environment with many possibilities.

Crossed by the Rhein, this city is a place where well-being, social interactions and self improvment are key.

### **GUIDED ARCHITECTURAL TOURS**



### LECTURES AND EXHIBITIONS









1.Luca Selva, Housing project in a former printing industry 2. Roche tower, Herzog&De Meuron 3. Lukas Raeber, Housing project 4. Buol & Zünd, Jazz Campus 5. Wallimann Reichen, Housing project 6. Tonhalle, Zurich, Diener&Diener 7. New Directions, SAM 8. New Beginnings, SAM 9. Rudolf Steiner, Gotheanum 10. Diener&Diener, Housing project 11. Herzog & De Meuron, Casino Sadt 12. Workshop REUSE organized by SAM 13. Social Housing, Bruchler & Brundler 14. Meili + Peter. Fachhochschule

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10

## VISITS













Thank you and see you soon Basel

# 5

# MIRA SPASOVA at

# CF MØLLER ARCHITECTS

# Internship report



# **MIRA SPASOVA**

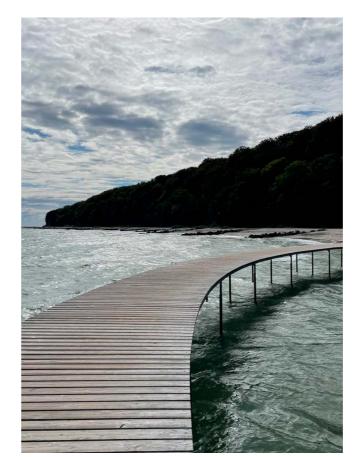
CF MØLLER ARCHITECTS

# Arriving to Denmark









## **First impressions**

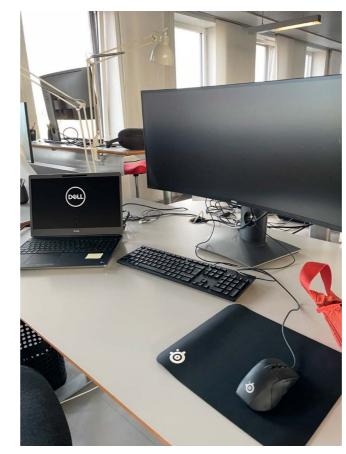
I decided to go to Denmark to do my internship even though I have never been there, and I can say it is one of the best decissions I have ever made! The country is extremely beautiful and very well organized. The city I have been living in is Aarhus, it is located in northern Jutland and is of medium scale. It is the second biggest city in Denmark after Copenhagen and recently there have been many building/urban developments going on. I think the size of the city really brought charm to its character since almost everything is located withing wallking distance but still there are many events and places for you to explore. I was extremely fascinated by the natural landscape surrounding me. There are series of forests which seem almost wild and one can get lost while walking in them. The most astonishing thing is the proximity of those to the sea, opening towards breathtaking views. I often found myself wondering in those landscapes when seeking for a mind-freeing experience. The architecture of the city is typical dannish low to mid-rise builidngs and few modern neighbourhoods with skyscrapers. This duality is very enriching for days when I had to stroll around looking for inspiration.

# The office









the week.

## First impressions in the office

My first day at the office was extremely exciting. We had a series of welcome seminars aiming at showing us the usual workflow as well as to get us familiar with the modelling lab and different departments of the office.

Moreover, during my stay in the office there were few 'skills workshops' led by different architects aiming at enriching our knowedge about the values of the office but also the different departments and their work. For me personally it was extremely interesting and inspiring to listen to the partner Julian explaining about the values and attitude towards architecture. In addition, we had seminar by the sustainability department where they showed us the various tools they have for evaluating a building and also explained some of the main goals for sustainable architecture in the next 5 years.

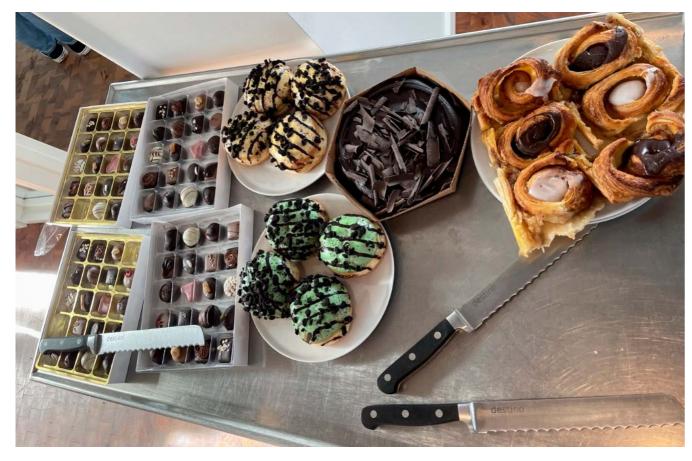
It is not all work thought! Danes really value worklife balance and I believe this is a key element which made me so motivated and productive during my stay.

I am extremely positively surprised with the many team building activities that they organize. For instance, every thursday there is a 5km jogging club which I joined most of the weeks. We would go around the city and explore different paths while chatting with various people form the office. In addition, Tuesday mornings there are free yoga classes to encourage movement and fresh start of

# The office









## **Family atmosphere**

only work.

is... CAKE,

Everyone in the office is so friendly and suportive! I have a suspervisor and she is ready to answer all my questions weather they are work related or personal. Every Friday we finsih work at 2pm and everyone gathers to have a casual conversation and a drink. I find this a great way to enrich my insight as to what other people are working on and what problems they might have but also sometimes it happens that we organize to do something in the weekend together like go to the cinema and expand our relation to leisure not

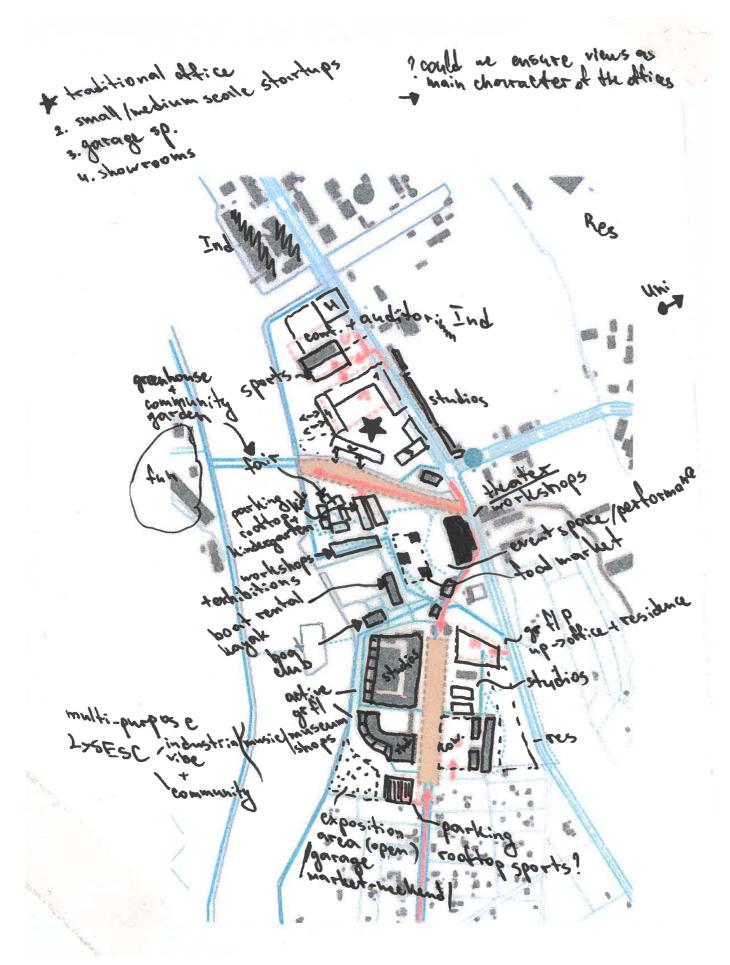
In addition, each semester the interns are responsible for organizing a thematic Friday bar for the whole office and this was an extremely fun activity which everyone enjoyed!

My department organized a `family dinner` so we can get to know each other and spend some time outside work. We cooked delicious traditional food together and prepared drinks and some games. It was a beautiful night with lots of smiles and positivity!!!

Another activity fostreing productivity in the office

Cake was served every Wednesday so it highens the endorphines and keeps your energy to push till the end of the week!

# **Professional experience**







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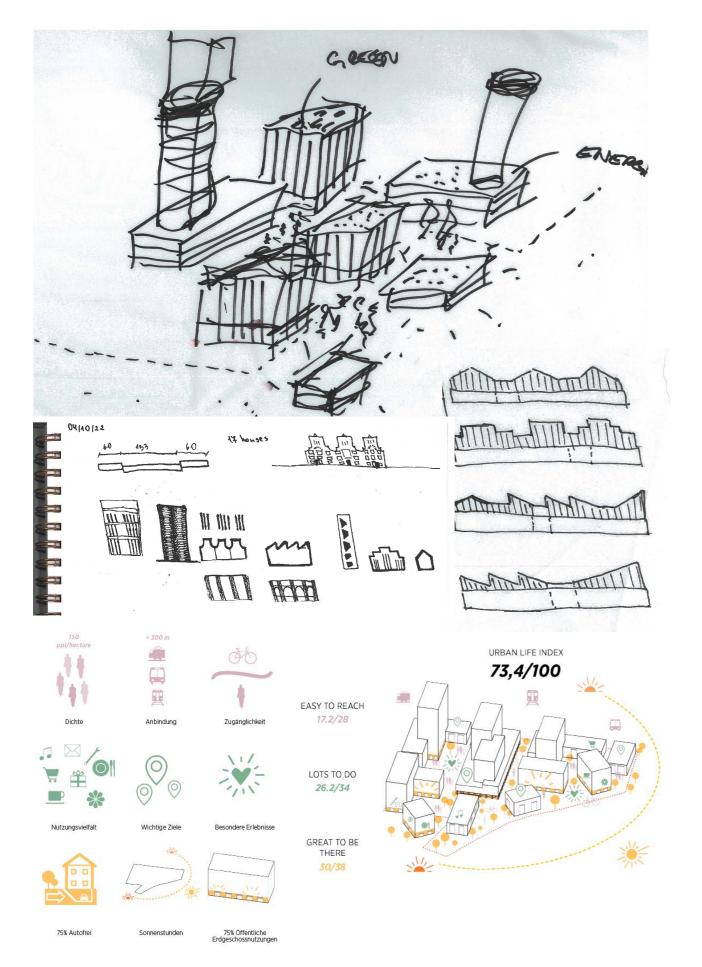
### **Spreekuste competition**

During the internship period I had the opportunity to have an insight in various projects at different level of development as well as various scales and functional programs.

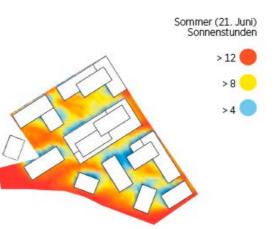
In the second week of my internship a competition project was started. I believe this experience was vital for me since i managed to follow a whole process from concept development to the more detailed phase of the project. The team consisted of landscape architects and building ones so I also enjoyed working with the landscape department and integrate our concepts in a final coherent proposal. During the process many meetings with different partners were carried out and they worked as valuable input for the development of the project. Throughout the work I could really find correlation between the competition project and the thesis on which i was working on in the evenings. Some inspiring talks or references brought up at work made it to an interpretation in my thesis project.

My involvement in the competition started with conceptual sketching and brainstorming ideas for volumes and functions . Those ideas were then discussed over a weekly meeting where every member of the team would come forward and reason upon their finidngs but also challenge ideas of others. I have to say that I really appreciated the non hierarchical atmosphere and the encouragement from my colleagues to put forward my ideas and raise questions.

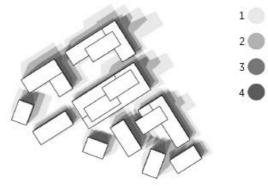
# Professional experience







Sommer (21. Juni, 12:00-16:00 Uhr) Stunden mit Verschattung



The competition was in two stages consisting of midterm and final presentation which were both presented to the jury and the public.

My involvement included varioous tasks from 3D printing model prototypes to working on diagrams, running sustainability analysis, creating facade options, etc.

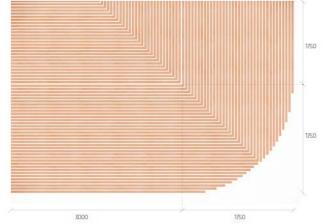
The working environment between the colleagues is very open and I rarely felt like a minor or less important than the other members of the team. My colleagues encouraged me speaking up and bringing as many ideas as possible saying that there is no "bad idea". This made me feel valued and responsible but also more confident when speaking in front of people with higher position in the office. One of the things I am most proud of is that I brought forward a tool for evaluating Urban life factor which is done based on a research carried out in Stockholm. The tool was developed by our sustainabiltiy department but it was never used in a project. However, when they presented it to us I got very interested and thought myself how to use it and the team appreciated a lot my curiosity and encouraged me to carry out this type of analysis throughout the whole process. This enriched our project by providing the jury with concrete data based "proof" of the quality spaces we are creating.

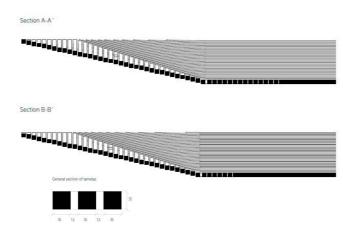
# Professional experience

### lonity

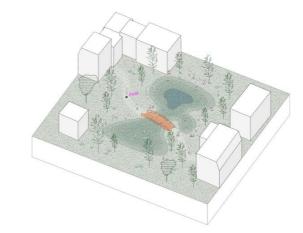
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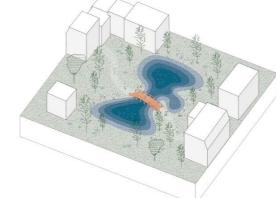




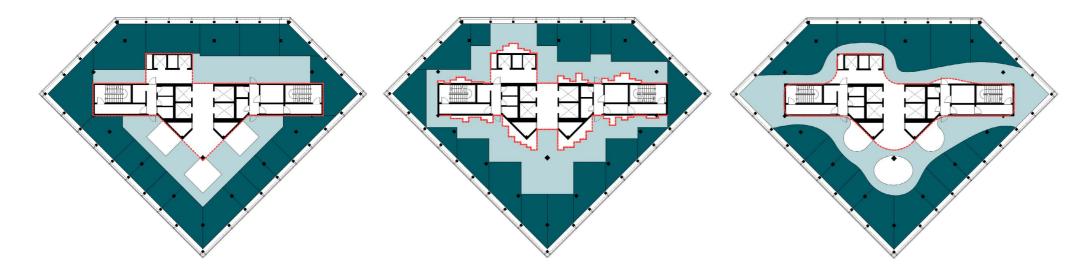








Prismet



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In the begining of the internship I was helping a colleague for concept interior project of office spaces for a lawyers office layout. It was an adaptive reuse project and we made different schemes for approaching the space making it evident to the client the different possibilities he has and what would be the benefits/drawbacks of each.

In addition, I also worked on preparing a file for 3D printing and helping on few model making workshops for different projects. I did enjoy working in the model lab and explore different tools they have.

In my last month, I was assigned to work in a team with one of the landscape architects on developing an urban planning project of a neighbourhood in Aarhus. It was interesting task since we got to think and develop rainwater strategies and I understood some of the policies in Denmark.

## Additional tasks

Other projects i have worked on included modelling of ceiling options which were then send over to the manufacturer to do prototypes of them, so it was a big responsibility for me to prepare as well as it was an opportunity to directly work with the lead architect of the department.

# Personal experience









## **Cultural and social aspects**

During my stay i managed to make friends both from the office but also outside. In my first week in Denmark I joined a volleyball team and this gave me the possibility to get in contact with another type of community and also meet more dannes. The team atmosphere was amazing and I really loved the different weekend days when we would have a game in another city and we traveled to there which was an opportunity for me to explore new places. The team was of very good level and we were first in the ranking of the seasonal championship.

In addition, I formed a strong friendship with few of the other interns and we sometimes organized one day trips. We visited some interesting architecture in north Denmark as well as a lot of beautiful landscapes.

Fortunately one of my colleagues from ASA was having her internship in Copenhagen and I visited her for a weekend which was very nice as I saw her working atmosphere and she showed me around the city.

# Goodbye and thanks!







To conclude I think that my experience as an intern at the office of CF Møller architects in Aarhus, Denmark was very enriching both in personal and professional aspect. I believe this opportunity to work in a medium-sized architecture office right before graduation is extremely valuable in my preparation for the upcoming search for job. I know what I will be looking for in a work environment and I am aware of my strengths and weaknesses in the architectural field. Moreover, I prove to myself once agin that I am very flexible and adapt quite easily to different cultural settings so I believe my scope for development is not restricted by location, laguage or culture.

A big THANKS to ASA and CF Møller team!

# **TABEA REBECCA FAHR**

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at

# Tatiana Bilbao Estudio Mexico City, Mexico



**TABEA REBECCA FAHR** M.Sc. Architecture and Urban Design

ADVANCED SCHOOL OF ARCHITECTURE

Internship in Tatiana Bilbao Estudio Mexico City, Mexico September 2022 - January 2023



### FIRST DAYS

I arrived in Mexico City after a many hours of travel and started in the office directly the next day. When I arrived I was quite nervous but someone directly took me on a tour of the office spaces, including the model building lab on another floor and the archive.

I was then introduced to my team leader, who explained the office structure as well as the project that I would be integrated into. We also took photos for the internal directory of the office.

For the entirety of the first week I was busy with onboarding, which included listeneing to various lectures by Tatiana Bilbao, reading press releases of some of the most important projects of the studio, and familiarizing myself with architecture texts that the office uses to guide their design process.

There are around 50 people working in the firm so it took a few days to get used to all the new faces, but everyone was extremely kind and I began to make a few friends already. There is a good number of architects from other countries employed at the firm, but 99% speak spanish. It is good that I am fluent because it would be much more difficult to partcipate in daily office life speaking english, not to mention client meetings.

### **PROJECT WORK**

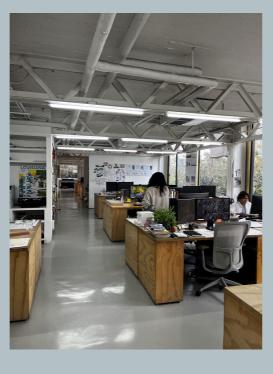
My team was working on the design development of a residential building in Mexico City. In the first weeks we made a trip to the site so that I and another colleague could see the area. The project is extremely flexible and centers around the idea that the future inhabitants of the building will buy the square meters that they need for their apartment, as well as design the interior layout themselves. Because of this interesting and unconventional approach, a large part of my months in the office were spent problem solving, for example brainstorming ideas on how to organize the design stages, since usually buildings go into construction with the details of apartment sizes and layouts already set. This was also important in order to convince the client of the idea, and make sure they would support us in continuing the concept.





## **OFFICE EVENTS**

MEXTRÓPOLI is an international festival of Architecture and City and the 2022 edition was held at the end of September, in combination with the Bienal Iboamericana de Arquitectura y Urbanism (Iberoamerican Biennale of Architecture and Urbanism). Tatiana Bilbao inaugurated an exhibition titled "Dibujar con las Historias" in the Museum of Mexico City during the festival and in the weeks prior, I was included along with all members of the office in the production of materials for the exhibition.





In September I also worked on feasibility studies for a second residential project in Mexico City. During this work I made many models demonstrating construction possibilities based on the city code for buildings. I was a part of client meetings where we discussed the possibility of adapting the city ordinances and presenting different solutions to officials. This was an important experience for me because I was able to see the firm's dedication to modernizing architectural practices and the influence that architects can have on the urban development and image of a city.

September was a really busy month in the office. The partners were constantly traveling for various exhibitions around the world as well as client meetings and presentations in different countries.

On September 19th we also had a earthquake in the office, a historical day in Mexico. Fortunately it was not very strong and the office was well prepared with protocols and routines.

## SECOND PROJECT + COMPETITION

I was moved to another team for two weeks in October to work on a Request for Proposal that the firm had received. We developed an initial design for a museum ampliation after analyzing the history and surrounding area. We submitted visualizations and collages for the RFQ.

### HALFWAY POINT

At the halfway point of the internship, time was flying by and I really felt it had only been a couple of weeks. I felt more established in my poition and was really surprised to feel like just another member of the team, not "just the intern". I noticed how important equality was in the culture of the firm. Everyone has ideas worth sharing and is given the space to express those.

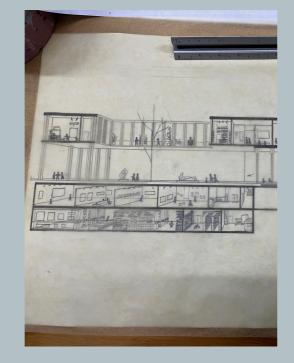
The majority of my work had been done in visualizations on the first residencial project, meaning that I expanded my skills in Photoshop and Illustrator. It is really amazing to see how much everyone else knows, and the amount of tips and tricks you can learn from just asking them to show you their way of accomplishing a task.

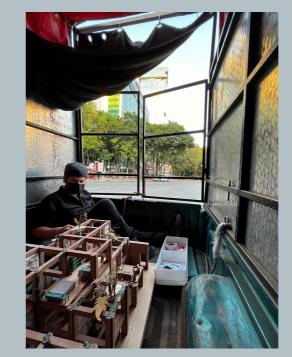
I was also working on developing the floorplan of the public ground floor of the residencial building using AutoCAD. The office is moving to Revit, but also uses Sketchup and Rhino, meaning that the skills I learned in univeristy and my previous jobs in architectural offices were more than suitable.

I was definitely noticing the long work hours, but the amazing team and atmosphere made it easier to continue. I felt grateful to already have been trusted to work on a competition project and was excited to be part of the process of procuring another residential project for the firm.

In general, my work was more guided than independent. As part of a team, our team leader delegated tasks where we sometimes needed to work together, and othertimes develop something on our own. There was always to opportunity to revise when we needed, and we had clear deadlines for submitting our work. I also noticed the focus on referencing and backing up our design decisions during the process. We were always asked to look up various possibilities and provide more than one option when deciding on a design aspect. I really enjoyed this as it reminded me more of my experience in my bachelor degree studios.









### **PROJECT EXHIBITION**

In November, the clients of our residential project asked us to prepare a large conceptual model of the project for display in an exhibition during Mexico's Design Week. It would be displayed at the project site, where another company called Maison Diez would be inaugurating a lighting exhibition. We worked intensely on this model, with over 10 people involved over the course of two weeks. The display area was also decorated by hand with drawings and collages of various visualizations of the project. This was one of my favorite parts of the internship and I really enjoyed working as a team to produce a physical product.

During this time, we further developed the interiors of the project and I worked mainly on visualizations as well as floorplan design. Because the building has a split-level design in some apartments, I built a simple model to help the client visualize the division of spaces in 3D. I was also part of many meetings with the structural engineer and the civil engineering team this month, where I realized how complicated it can be to design and then fit necessities such as water cisterns and meters into the building.

#### **FINAL MONTH**

December was the last full month of the internship and full of various activities. For one, the entire firm took a trip to the city of Mazatlán, Mexico, where we toured the almost-finished aquarium project that the office has been working on for many years. It was amazing to see such a large project being realized and I was also able to experience some communication between the architects and the construction leads.

Later in the month we also went to visit a project within Mexico City that was at a similar stage of completion. From these experiences I realized my interest in construction supervision, which I had never experienced before. In the future I would like the opportunity to be more involved because I really enjoyed seeing the on-site problem solving and direction.



I was very supported during my time in Tatiana Bilbao Estudio and I feel that I learned a lot. I was able to improve my design ability both digitally and manually, software skills, architecture vocabulary, and my teamwork skills. Most importantly, I was exposed to various types of work that need to be done during the design of a project, and I saw how the structure of the firm allows this work to proceed almost seamlessly. I was able to participate in meetings directly with clients as well as professionals that collaborate with the studio and understand how teamwork extends beyond the architecture office.

I was offered an extension to my internship and although I would have loved to stay In Mexico City, I had to decline as I need to finish the thesis in Milan and graduate. I received really positive feedback from my team leader, supervisor, and Tatiana herself which was very gratifying. I think that my previous work experience was most helpful in preparing me for this internship. The expectations are definitely high and you need to be self-motivated and driven in order to succeed. It was a priviledge to work in such an amazing team of architects and designers, and I would recommend the firm to future students as well.



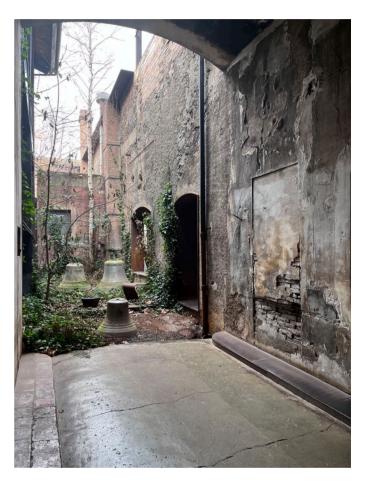
Tatiana Bilbao Estudio Tear



#### PERSONAL REFLECTIONS

# **Toma Murtic** at RCR Arquitectes

7



My Internship Log

Toma Murtic Working for RCR Arquitectes Year 2022

#### Saturday 5.2.2022.

I arrived! After 3 means of transport, more than half a day and many experiences along the way, I reached Olot in Spain. I had one day to prepare mentally and physically to start my six-month internship as part of RCR Arquitectes. I finally met my roommates, who work at the same place as I will. They introduced me to some other colleagues, all my age. They all made me feel very welcome, showed me the town. Most importantly they made me feel at ease to enter the office on Monday. Straight away they explained the hard work and long hours in the office, its atmosphere and the boredom of Olot.

Let's see!

#### Monday 7.2.2022.

The building and the atmosphere of the office are more spectacular than I could imagine. The office is situated inside an old factory called Barberi. The architects approched it with minimal interventions and in their well know usage of materials. I was introduced to the office and employers by my future mentor Davide. The atmosphere is mysterious with meticolous alteration of outdoor and indoor spaces, new and old materials. I was placed on the ground floor overlooking the main "atrium" and entrance. My first task is to continue the already started model of this project, their office for an exhibition that will take place in May. I was very excited. The materials and the scale of the model were new to me and I started learning quickly and efficiently.

Only in this first week did I learn to use rhino softwere to 3d model parts of the physical model, as well as how to work with wood and how to paint it. By the end of the week I had made almost all the furniture on the first floor. That Friday I got my first big praise from one of three main founders, architect Ramon. At that moment I was sure I was doing well. I started to feel comfortable.



Entrance of the office

My First Models





#### **Second Week**

The second week I was more tired. I realized how hard it is to work with high concentration and efficiency for 10 hours a day, including physical work on the model. During this time I was learning simultaneously how the office works, how to do the physical and computation model, and what is expected from me. I was enjoying seeing the big model grow with time. I started making little movies of the process that my mentor Davide and his boss Ramon loved. We then decided to continue doing these movies for all the future projects also. Another interesting part, which was new for me, was that I started feeling more comfortable using the lasercut machine and cutting all the pieces myself.

My mentor started showing me all the other models and projects. I was immersed and drawn to being part of this. I couldn't wait to learn of other projects I would work on as part of a huge exhibition that the office was preparing for the Soulage Museum in France.

I got to go to another space of the office across the street, called the Bunker, where all the most prized possesions of their work are held such as models, sketches, magazines, books, sketches and pictures. This is definitely my favorite part of the office thus far.

In this building a model had just arraved and I was supposed to help Davide fix it. We had to remove and adjust a 3d printed facade shell.

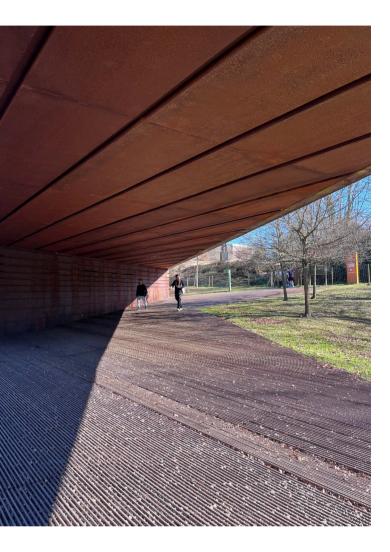
#### Weekend

Several of my colleagues and I went for a walk. The beauty of Olot is that it is surrounded with beautiful nature and many project by the RCR Arquitectes. We took the route that leads from the city to the Bath Pavilion, the Tossols Basil Athletic Stadium and the Parc of Pedra Tosca.

I am getting used to the work environment, the hard rhythm, and the long hours. I am finding pleasure and learning about my skills by working with models. I think I have found a new passion through it. During my education, it turns out I was missing time to devote to the physical models and representation of architecture. Now that I was given enough time I have found out I am precise and quick. The Tossols Basil Athletic Stadium, Olot

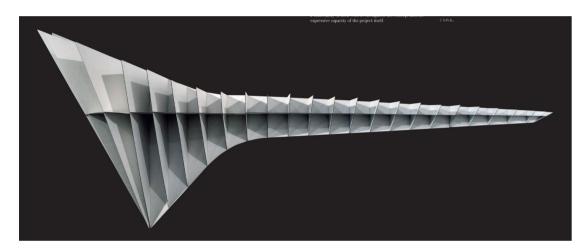


The Bath Pavilion, Olot



#### Month Two

As the weeks go by, I continue to focus on work and find less time for other things such as writing this diary. I have made visible and great progress with my model and in the meantime, I have also been given a new responsibility with a project of Faro. This is one of the first projects this office has made, for which they have been awarded first prize. Due to unfortunate events, the project has never been built. The project itself is a lighthouse on top of an island of Gran Canaria. Because of a new possible opportunity to realize it, we quickly started to re-adapt the project to new conditions and to re-design what had to be adjusted or improved. Luckily, I was the one, alongside my mentor, working on it. I have made different section proposals, and different paths to reach it and have worked on the images representing the ambiance and main views of the project. After three weeks, we had a meeting with an investor and everyone seemed satisfied. I hope we finally get to build it.



#### **Month Three**

Time is going by fast. I feel fully confident and an equally valuable part of the team. I have learned my values and my weaknesses, and I started to work on them. I continue to learn immensely. All the projects are progressing according to the schedule and I have been given many more different tasks for the future.

One incredible piece of news! I have been offered a job as part of RCR Arquitectes! My team described all the amazing opportunities that I would have - the projects I would work on and the magazine that I would prepare content for. I was thrilled. I felt the accomplishment and the approval of my work and abilities. It wasn't something I was expecting or hoping for. Unfortunately, it also made me sad. I still had a master thesis to finish and Olot was not a place I saw myself living in. Moreover, for a short period of time, I didn't mind working all the late hours but I felt like working each day until evening without having time for family and hobbies was something that wouldn't make me feel fully satisfied. It was a very hard decision that I had to accept and enjoy the rest of my time there fully. I expressed my gratitude and continued giving my best at the office. Exciting day! It is here! Our new 3d resin printer has arrived! Davide told me he would buy one for us to work on many things and learn it. I was bursting with excitement! I had never worked with a 3d printer before, I never had the opportunity and this was a perfect one. I quickly started my research and got prepared for its arrival. By surprise, it turned out it is messy work. It requires wearing protection and being in an outdoor area because the resin is toxic. We made a perfect setup. Everyone started gathering around the printer in awaiting of first prints and tests. After several hours, we made the first test and it went well. We saw that we needed to learn the basics of how to prepare the files to print and how to work with different resins. I mastered the technique of cleaning the printed parts as well as preparing the machine. During this time Davide learned how to prepare the digital 3d model and afterward taught me too. In no time, we were ready to print our first model the Yola chair designed by our office. This process was very demanding. The printing requires a lot of time, depending on how high it is. We had to learn by trial and error what the problems can be and why the prints fail. I could write a whole book on this but I will instead just say that it is hard and you have to think about all the aspects in advance. I have to also admit that I am still now, uncomfortable about being around all this toxic material. After some time, I started enjoying the process less because of this and because most of the work around printing is the cleaning process. When I look at all the Yolas we printed, also some chairs and bells for the Barberi model, I don't regret learning and working all these hours on it. I believe this is a great experience and very useful no matter if I continue to use the printer in my career. I have learned how to think in advance and how to approach possible problems.



#### **Month Five**

I did it! I finally finished the model of the Barberi Factory! I was suspicious of whether it would be done in time. I am stunned at the first model I made in such meticulous detail and scale. The results are amazing too! Both my mentor and my boss a thrilled at the site of this model. At that time, also my friend started to work on the exposition and I found out where the model would be situated. It will look amazing! I am honored and proud to see it one day in Soulages Museum.

A second after the model was done, with all the excitement of seeing it done, we straight away burst into many ideas about new models for the exhibition. At the same time, I was full of ideas for a small book that we would do to present the model of Barberi.

The new models! Again I started by finishing and setting up Rhyno digital models, transforming them by taking into account the physical model - its details and materials. The first model we continued doing was one of a bridge in Paris that will be open to using this year. We had to come up with a structure for this model which will be two meters long! Moreover, we had only a month and a half to do it. At the same time, I started doing another model of a round table and its chairs. This is supposed to be built inside a house owned by RCR Arquitectes, La Villa it is called, which will be used for new directions and experiments inside their work. I started by printing the Yola chairs and testing colors to reach an imitation of steel.



Dear diary, I have been avoiding you and focusing on the many duties that I had and wanted to finish before I leave. It is my last month and many more exciting things are happening in it.

Firstly, the office is hosting its annual workshop for three weeks for students of master's degrees. It is the start of a very crowded and exciting period. Almost every day there are lectures in the evening by many interesting architects that are involved in this workshop. We also had a tour of the La Villa house where we could see the pavilion that has been part of the Venice Biennale. As far as my work, I managed to finish the model of the bridge in less time than previously said. I worked during weekends, extra hours, and much effort and concentration. I wanted it to be precise and clean, and most of all I wanted to start another model and prepare it before I leave the office. The model in question is from steel. I wanted to learn how to work with steel. On one hand, I managed to work on this model, but on another hand, it turned out to be much harder than I thought.

The time to leave was getting closer. Three more people were leaving the office at the same time and we all wanted to celebrate and enjoy our last days. We organized as many parties and dinners as we could. And soon... we all said our farewells and left for a new beginning.







The team of RCR Arquitectes

# 8

# Mengyuan Li From Sep.2022 to Feb 2023 Internship at Ensamble Studio

## Internship at Ensamble Studio



My internship at Ensamble studio lasted 6 months, from September 2022 to February 2023. As advised by the studio, it was divided into two phases: 2 months online and then onsite. But due to the problem with my visa, I had to return to Italy and do online internship for the last two months, so it was eventually a 2+2+2 mode.

During the first 2 months, I worked with colleagues online from home, using the company's digital platform and tools. During this first phase, I got used to the Ensamble way of working and designing, and get familiar with the workflow of the studio.

For the second phase, I was offered to work on-site with colleagues, going to one of the three Ensamble nodes: Ensamble Fabrica in Madrid, Spain. During this phase, I focused on hands-on work, creating models, developing up to 1:1 prototypes, and assisting in projects under construction. In this phase, I not only worked but also lived together with my colleagues in the flat offered by the studio, so it was a unique experience.

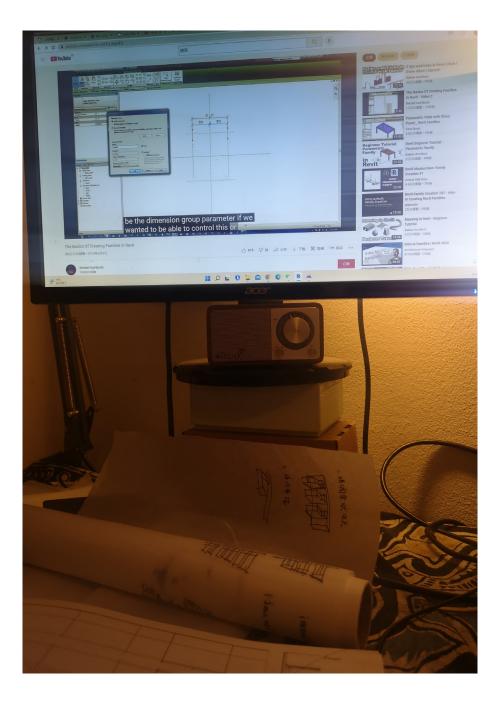
And the last two months were also in online mode, I continued with the residence design which I had been involved in, helping with the 2d drawings. The day when I finished my internship was also the day that the project was submitted to the client. It was a really perfect ending.



Ensamble Studio was founded in 2000 and led by architects Antón García-Abril and Débora Mesa. Balancing imagination and reality, art and science, their work innovates typologies, technologies and methodologies to address issues as diverse as the construction of the landscape or the prefabrication of the house. Currently, through their startup WoHo, they are invested in increasing the quality of architecture while making it more affordable by integrating offsite technologies. The workplace which I came to, Ensamble Fabrica, is their new research and fabrication facility in Madrid, built to support this endeavor.

There are many reasons why I chose this studio as my internship studio for ASA. The way they work and think is the first. This is written on their website as the menifesto: "We think with our hands, we experience. We seek to control the processes more accurately than the results. Because finding the logic in the development makes it harder to be wrong."

The physical construction experience of the first ASA masterclass in Bollate prison made me very interested in the construction process. So it is fascinating to me to have the chance to be involved in the construction process again and think with my hands. Material and structure are also common aspects that we care about. So I almost immediately decided to come to Ensamble studio after receiving the offer.



The first two months of the internship were carried out online. I almost started from scratch, since the main workflow of Ensamble is based on Revit and Enscape, while I had always been a Rhino and V-ray user. So it took me about one week to learn and get used to the software. I started working as a part of the Woho team, helping to do 2d drawing, rendering and modeling for standard components like walls, chassis, slabs developed by Woho, and worked with different layouts. This process was like accumulating building materials before the real construction, because shortly after that, I was involved in a residential project in Madrid, which uses many Woho standard components.

During this period, I also got familiar with the studio's strict work mode. For example, we need to work from 8am to 6.30pm, always keeping camera on and sharing screen, and do check-in, mid-check and check-out posts in which we introduce what we do in the morning and in the afternoon. The atmosphere is a bit strict, but I think this is the way they organize and manage the whole team together and guarantee efficiency, because many of the colleagues are always working online.

The beginning was not easy, also because of the language reason. During my past time of the Master, although staying in Milan and taking English track lessons, I had been always living, staying and collaborating in team work with other Chinese friends, since we are really " a lot" and don't have that real needs to make much contact with people from the other countries except for communicating with professors. So I also took some time to get familiar with the language environment, especially English with a Spanish accent.





▲ The first day of internship, visiting the studio led by colleagues

 Fully equipped with protective suit to protect against fiberglass



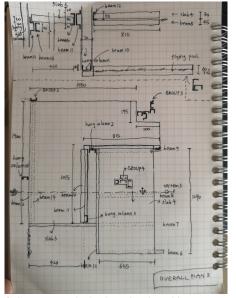
After two months of online work, I flew to Madrid and began my on-site internship.

I was so excited to see all those scenes becoming real that had been being the meeting background in the camera, the office, the exhibition area, the fabrication area, all those process and research models ... Everything is familiar but kind of strange.

During this time, I mainly helped with two projects, one of them is a "crystal stone" design. We made 1:20 physical models using wasted fiberglass panels. We cut them into pieces with a chainsaw, fold them, tie them, and glue them together, trying different ways to test the shape. Glass fibers are a dangerous material due to their extremely fine molecules, as they are thinner than a strand of hair, and can penetrate a person's skin and enter the body, causing itching and stinging. We worked in our own clothes for the first few days and it didn't take long for me to notice that the fiberglass would stick to my clothes and cause skin discomfort. When I found out about this situation, the company equipped us with protective clothing. We also tried several different materials like crystal, concrete and lime after that.

It was also a unique experience to operate the crane which is directly equipped in the Fabrica. Actually, the workplace itself is fascinating to me and worth exploring. All those booths used for exhibiting models are made by Ensamble, also the light steel staircase. The pipes and wires equipped in the 1:1 woho components are visible so I can always check how the chassis works. Actually, it is the way how Fabrica is designed and built that makes everything possible.





My temporary workstation in fabrication area

▲ Some measuring sketches, learing from the model joints

Another project that I was involved in is the residential project. In this project, I got familiar with Ensamble way of developing a project. Normally we start from a physical model, and then turn the data to matter. And during this process, we resolve the constraints of various building codes, cope with various problems, and meet the requirements from the client while trying our best to retain as much of the original concept as possible. I got more aware of how a real project works, and also realized that to a large extent, how a project design is presented is more important than the design itself.



Living with my colleagues was also a memorable experience. Every morning we walk or cycle to the company, and after a day's work, we come to the residence together, and cook food for dinner and also for lunch of the next day. We share food with each other and thanks to this, we tasted authentic food from all over the world. On weekends we would grab a drink, bake and watch movies, or go to the Madrid center, walk around and see art exhibitions. We become not only colleagues, but also close friends.



A Barcelona



▲ Valencia



A Bilbao



A Porto



During this time, I also found that I barely have extra time for myself during working days. Since the working hour is from 8 am to 6.30 pm, and colleagues living in the residence have a common hour, we need to wake up at 7 am to do our morning routine and walk to Fabrica. After the whole day working and coming back to the residence, we need to queue to cook and take a bath. I have little energy for extra activities. So weekends are really important to me. I never realized that time is so limited and precious than before. I took the first month visiting the fascinating places in Madrid, and then I decided that I would go to one city in Spain each weekend by myself and visit the masterpieces in the city. In Barcelona, Bilbao, Valencia and also Lisbon and Porto in Portugal, I met Gaudi, Mies, Calatrava and Siza... It is time for charging myself.



In short, the internship at Ensamble Studio was a pleasant, rewarding and memorable experience. I got much more improved not only skills in software, communication, stress management and organization, but also my way of thinking, my understanding of architecture and design, how much the role of an architect could be and how an architect could work.

Thanks to Ensamble Studio for this unique experience. Thanks to my host tutor Borja, Anton and Debora for all the guidance during the internship. Thanks to my professor Pierre-Alain Croset for the helpand

support during ASA activities.

Mengyuan 21/03/2023

# 9

# Krzysztof Lichocik

# Internship Journal pool Architekten

2022/2023







ASA Internship Journal Krzysztof Lichocik pool Architekten 2022/2023

#### First Week

#### Sunday/Monday 18/19.09.2022

It is 02:15 am, I just arrived to my flat with my new flatmate whom it turned out I knew for 10 years. We traveled by car from Poland to Zurich and took us around 14h to get there in a huge rain, constantly following us for almost an entirety of the trip. The only moments for a clear road were either tunnels or a close proximity to the Swiss soil. In the morning after sleeping very little I had to go to the administrative building and sign up. It was a very quick, painless experience. Didn't know that bureaucracy can be working so smoothly. I also got some strange token for radiation pills in case of the atomic power plant failure or nuclear war. What a start of the new day in the new country and new office. I thought it must be a good sign and a strange but interesting start for so long awaited internship. When arrived to the office I had a tour around all floors, met partners and other coworkers. After "Gipfeli break" which is always occurring at 10 am on Mondays I was introduced to my team leader who filled me in what we are going to do together in Urban Design department and Competition team. The rest of that day I spent familiarizing myself with a Vectorworks, German UI and the office way of working.

#### Tuesday - Wednesday 20/21.09.2022

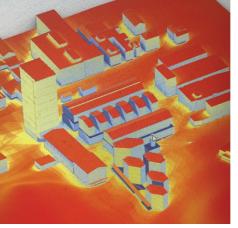
I started the day working for Hombrechtikon project, both in Cad software stitching up the plans for the existing buildings and stacking them on top of each other as well as simplifying them. The other part of the work was physical model for the same project which is going to be one of our main assignments and we had to figure out what are our possibilities, strengths and weaknesses for the area. Build a probable Variants and play with them. At the same time I was also helping with our office side, humanitarian project called "Windows for Ukraine", where we donated and loaded a full container of windows from our building after having them changed.

#### Thursday 22.09.2022

It was a very intriguing week full of things to do as well, but today was special. We went for a trip as part of the Competition team to Bill/Benne to sightsee, walk-around and explore multiple projects for commercial and cooperative housing, schools as well as other places in a very picturesque and only officially bilingual city. We were using bikes to travel between points of interests. The first stop was a family cafe where we were given a full coverage about history of the city and the region from ancient to modern times, later we went to the sight were pool Architekten, my host office has a site for the new university campus waiting for the approval from one of the sides to continue the dig site (they got it in early march 2023). Later, we rode to the center of the city to see an adaptation of modernism building into a mix use function, with church integrated with a commercial ground floor, 2 stories of offices and housing on upper levels. Next we rode to the lake where we had a break, and right after we saw a cooperative housing from both outside and inside and the local architects living there and responsible for its design gave us a tour. The last part was a school which was located in the middle of agricultural fields on the outskirts of this lovely city. We were also given a tour inside by the architect in charge of that project and it was interesting to see and to understand all of the design choices, especially that the building was very well oriented for children with different needs.

#### Friday - Saturday 23/24.09.2022

Back to work, back to Hombrechtikon full of energy and awaiting new challenges. On Saturday I went with my flatmate to sightsee Zurich.

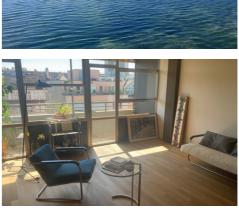












#### 2

Solar Analysis and first work on the physical model variations

Windows for Ukraine





Bill/Benne field trip

#### September to October 2022

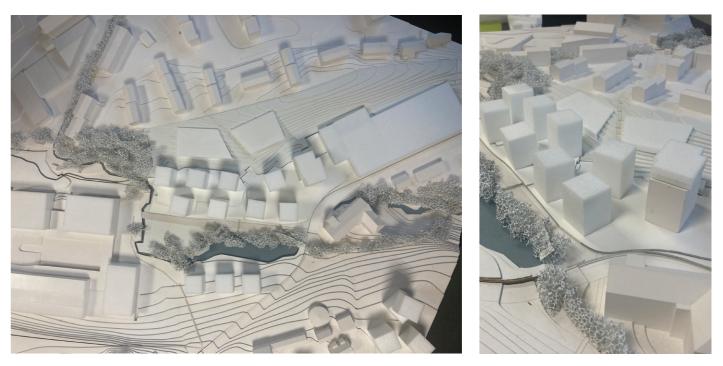
#### September 2022

After first week I was feeling that I am barely able regenerate. Working on a very fast pace, trying to give 100% of what you can do at the same time trying to find a way to speed up, optimize the work was very tiring. During the second week I was able to propose something extra. I did some solar and PV analysis for the competition project in Ashwill, helping other team. At the same time we had to start working on our second project which is a huge area around Wetzikon train station while maintaining progress on the first one. Wetzikon is a project which model was exceeding 1,8m length and 1,4m width. Our main assignment was to create a strategy for the redevelopment with new bus stations on both sides of the main station, redesign the parking spaces, establish new functions as well pedestrian connections and parks. Last and not least was to improve the existing state of affair. The first submission we had a semi public hearing in the beginning of October. To prepare for that we had to create 5 Variants which later we reduced to 4. I had to do models for all 4, draw a situation map, as well as do a photo shoot in our photo studio and later retouch all images and do same alterations showing what is existing and what is new. In the meantime I started to work on possible developments for the first project. We had to achieve a high-tech industrial park with affordable housing on top, or on the slope of the valley or whenever we would be able to fit them. It was a long process which I was going to finish in January 2023.

#### October 2022

First week of October started very stressful. We had very little of time to finish everything for the hearing of Wetzikon initial proposals and a less then a week later we had first big meeting with Hombrechtikon clients. This is how it is gonna look like till the end of the year. Working in a constant rush, but happy with what we are doing. On Wednesday 5th of October I had to grab a car from the local mobility car sharing center, pack it with everything we did and had and deliver it to the Wetzikon city council and prepare room for presentation. We had 4 Variants and one small alteration in models (1,6m long), a main model, maps of analysis, boards with our propositions and a small leaflet sum ups for each project to have people better and quicker familiarized with. I had to ask a fellow intern to help me load it and unload it at the sight because of the weight and size. We drove together there and prepared everything. It was very stressful and fulfilling for me to prepare the room the way I thought is the most logical at the same time putting the emphasize on projects we would like to be selected for further development. Next day we had presentation and all of the pressure and anticipation vanished leaving a big tiredness. After that we packed a car again and drove to our office, where we unloaded everything and continued working on our first project, where we also had 5 variations and we needed them to be built, drawn situation plans and show some initial sketches. The whole week and the weekend we working to deliver that, at the same time discussing a lot what can we change for the next submission in 3 weeks as well as how can we approach it quicker and smarter. For that project presentation I had to build the physical models from the styrofoam, laser cut the base boards for us and clients to move the variants easily without loosing time on constant rebuilding, as well as did some situation maps drawings in Vectorworks. After we prepared everything and spent a lot of hours during previous week, whole weekend and Monday we packed a car again and drove to Hombrechtikon, where I could witness a negotiation and clever conversation steering from our office partner side in order to already determine some useful concepts and show clients that the one they liked the most is not ideal for this site. On our way back I was talking with a partner about cinematography and photography, sharing our favorite directors and movies.





#### Wetzikon: October public presentation



#### Hombrechtikon: Variations



#### November to December 2022

#### November 2022

November was looking similarly to October, however the amount of work and intensified. With Hombrechtikon we started to have a very complex problems with terrain and calculation one of the most important factors in Zurich Kanton which is Mass Above the Ground, called BMZ. In order to start proposing more relevant Variants we have to achieve a factor of BMZ equal or higher than 3.0. In order to achieve that in this specific type of terrain we had to explore numerous options from short and high industrial buildings with multiple tenants and multistory delivery options, to very long, behemoth size buildings long for 200m and tall to 6-7m. All in all after so many tests and also many checks if our 3d terrain which I did in September is good, we decided to propose an approach with complex roof structure allowing us to fill more function under roof and create a mezzanine or even in some cases a double mezzanine. Another thing which allowed us to fill and manipulate the BMZ factor was a shed roof.

During free weekends I was able to go hiking with my flatmate visiting beautiful Swiss mountains in Schwyz Kanton and visited our neighborhood hill Uetliberg.

#### December 2022

December was one of the hardest and shortest months in the office,. however it and end of November was one of the most stressful and filled with tremendous amount of work. Our team in the middle of November has lost one team member due to other projects and from that moment we had to do everything just two of us. It was real roller-coaster. We had a final submissions of those two major projects a week before my holidays, and we were working almost everyday day and night, on Saturdays and Sundays, which in the end gave me 3 free weeks to compensate for Christmas. At the same time being the first person in the office history breaking a rule of having too much time used for compensation which later led to change in "the house" rules. For submissions we were doing tons of physical models, trying to finalize our ideas and having them digitalized, drawing sections, figuring out 3d model for buildings, creating a special 3d model for BMZ and a function calculations, as well as the calculation for the ground extracted during probable construction in order to choose the least invasive options. That was just one project for the second one, we had to rebuild everything, we ended up with new options in our half way to the submission. It ended up with me rebuilding every new building for this year final submission, new situation maps. Due to time limitation and us having just 6 days with weekend counted in, we had to came up with a decision no to do a photo-studio pictures instead we used a 3d model renders, which I was preparing from the middle of November in the meantime when I was done with other tasks. In one day before submission when all the renders of 5 different options were done I had to draw on top and Photoshop for all 5 variants 6 different information views from: bus stops and transportation axonometry, to building functions, green areas and parks, pedestrian connections ending up with a condensed and cleaned summary image. Next day we had the public hearing in the city of Wetzikon as well as with the main client the SBB (Swiss Federal Railways). I have not imagined to see so many people interested in what we were doing so far. It was an amazing experience to have an actual possibility to talk not only with clients but also with people living there or with other teams such as landscape architects or traffic planners. During that presentation I came up with multiple ideas, which I am going to share later. All came to me after seeing that we used a sticky notes for people to write down what they thoughts on multiple aspects, as well as using the train station for the first time on my way back.







Wetzikon: Working on options after

Hombrechtikon: Working on the model and visual testing of Variants and sketches of probable soloutions





#### January to March 2023

#### January 2023

At the end of December I was also helping with multiple other projects such as bench and post box design or helping out with competitions to create a script for self forming pillar. In Christmas I had a quite long break which was 3 weeks long. I came back to the office on 9th of January. We started already with a very fast pace due to upcoming submissions in the beginning of February with the Hombrechtikon project for private clients and quite a handful of meetings before almost final submission for the current phase for the Wetzikon train station area. For Hombrechtikon we ended up with 2 Variants and during finalizing the ideas and making hundreds of sketches and checking all the factors if we are good to go, I was able to move to drawing couple of typologies for the housing. After that I was building up a final physical model, drawing visualizations, creating a layout for the calculations as well as drawing roof plans, sections, situation plans, schematic layouts which were construction walls and staircases as well as underground parking layout with specific amount of car slots. After that I was also in contact with landscape architecture office in Basel, with which were cooperating, to finalize our masterplans.

#### February 2023

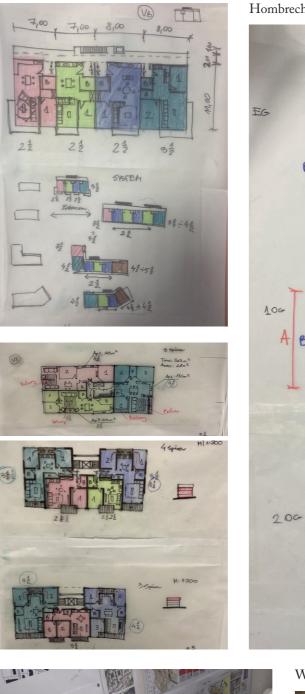
In the first week we have a final submission and big presentation in front of the clients, municipality, people who were handling also communication with local newspapers and us planning teams. It was very interesting to see how our hard work turned out and how the clients were finally on the same page as we were. All in all we don't know yet if the project will become a competition or it will be a direct commission for pool Architekten. After that I had to take 3 days off to rest a little bit and regenerate. I visited my best friend in Winterthur, also not so far away from Zurich. After a small break I started working on our last project finally being able to utilize a time to test and being able to implement some of ideas I had at the end of last year. First of all I was able to start drawing very detailed sections with a representation of what is happening from the plan perspective as an extension of them as well as laser cut and create a prototypes for new inserts with very sublime and special handlebars to take the elements out of the model. After that I prepared laser cut files for all of the base boards as well as checked if we can cut cars, buses and bikes in scale 1:500. I was able to experiment and find a specific scale for tokens for bikes stops, underground parking as well as to try finding proper bus stops representation, at the same time finding a way to bridge multiple planning teams working in so many areas. February was also a month of most farewells of my new friends which was a very sad moment, but expected.

#### March 2023

In March I was executing and finalizing what was not done yet as well as I was giving an inside to the projects for the new intern who would be replacing me in pool Architekten. For my last two weeks we were working closely together. We submitted everything on 16th of March and on the weekend with two of my close friends we went for a trip to St. Gallen and ended my internship going to the cinema in one of the nicest cinemas I have seen so far called Kinok. We saw After Sun, a very moving movie which was perfect for a Farewell and a feeling of leaving my one and half/two "baby" projects.

#### Farewell

Last week was very emotional. Saying goodbye to so many nice people working there as well realizing that the itnernship has just ended.



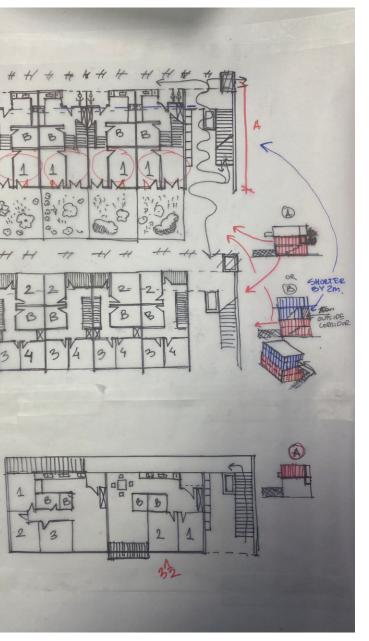






8

#### Hombrechtikon: In search for typologies



Wetzikon: Prototyping and working on final submission



poolies winter intern team

# 10

# EDUARDO GÁMEZ RUIZ

Internship Report Burckhardt + Partners

2022/2023

### **Burckhardt + Partners**

Basel, Switzerland



## Internship Report Advanced School of Architecture

by Eduardo Gámez Ruiz 2022-2023

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- 01. The projects / my contribution
- 02. The work process / my experience
- 03. Analysis and urban scale approaches
- 04. References and searching the concept
- 05. Detailing and refining of the architecture
- 06. Specialists and technical approaches

**Burckhardt+Partner** is a company with headquarters in Basel, Zurich, Laussane and Berlin. Despite presenting itself as a versatile and fresh company, it is backed by many years of experience in the field of architecture, always being involved in contemporary architecture and among recognized names in Switzerland and in the city of Basel.



### 01. The projects / my contribution

Throughout the internships I had the opportunity to assist the competitions team. The type of projects carried out could stand out for the high standards, where renowned ofices from Basel and Switzerland were always involved. The team consisted of 7 people including me and the activities were always supervised by the Architect in charge.

My contribution during this period can be summarized in the following 4 projects:

#### 1. Housing in Basel:

- -Volumetric proposal on urban scale
- -Construction of physical and 3D model
- -Conceptual development
- of sections and facades
- -Constructive and facade details -Boards and diagrams for final submission

#### 2. Housing in Solothurn (1st prize):

- -Conceptual development
- of sections and facades
- -Constructive and facade details -Boards and diagrams for final submission

### **3.** Housing in Muttenz:

-Volumetric proposal on urban scale -Construction of physical and 3D model -Conceptual development of sections and facades -Constructive and facade details -Boards and diagrams for final submission

#### 3. Retirement home in Basel:

-Conceptual proposal on urban scale -Conceptual development of landscape and green areas



# 02. The work process / my experience

During my stay in the company, I especially enjoyed the creative and work processes. All employees had the freedom to own boards which became creative tools throughout the project. In them references and sketches were pinned according to the stage of the project. This turned out to be very practical when talking to colleagues and discussing ideas and proposals.

Throughout my contribution I was able to use these boards to show progress, sketches with ideas for the projects and graphic proposals for the final submissions. At the same time, they were a trigger for dialogue between other areas of the company, since curiosity led us to ask our colleagues what projects they were working on and have interesting conversations.

Along with the above, the creative processes were always made with physical models and hand drawings, which are activities that I consider essential and that I enjoy very much in the early stages of projects.



a) My personal boards with sketchesb) Model made for volumetric purposesc) My workspace + personal boards

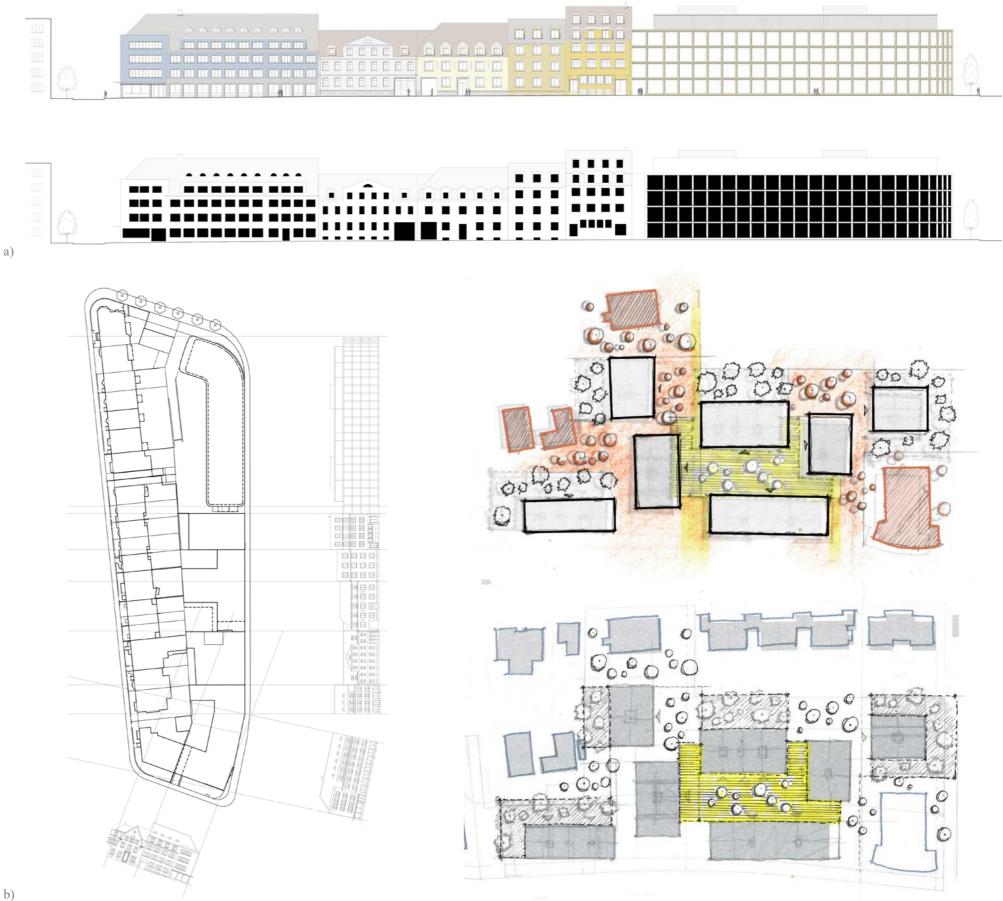


c)

### 03. Analysis and urban scale approaches

During the beginning of all the competitions in which I participated, we always carried out an intensive analysis at the urban scale in order to define the first design steps and properly understand where intervention is taking place.

Depending on the typology of the project and its scale, the analysis could be more meticulous and detailed. During these stages of analysis it was very common to express our ideas and important points through sketches and infographics made digitally or also by hand. These graphics and sketches were always pinned on our personal boards in order to have a correct understanding of the project during its development period. It was also easy for the other colleagues to understand what steps we were following.



a) Street analysis for housing in Basel b) Block analysis for housing in Basel

c) Urban sketch for housing in Muttenz

d) Urban sketch for housing in Muttenz

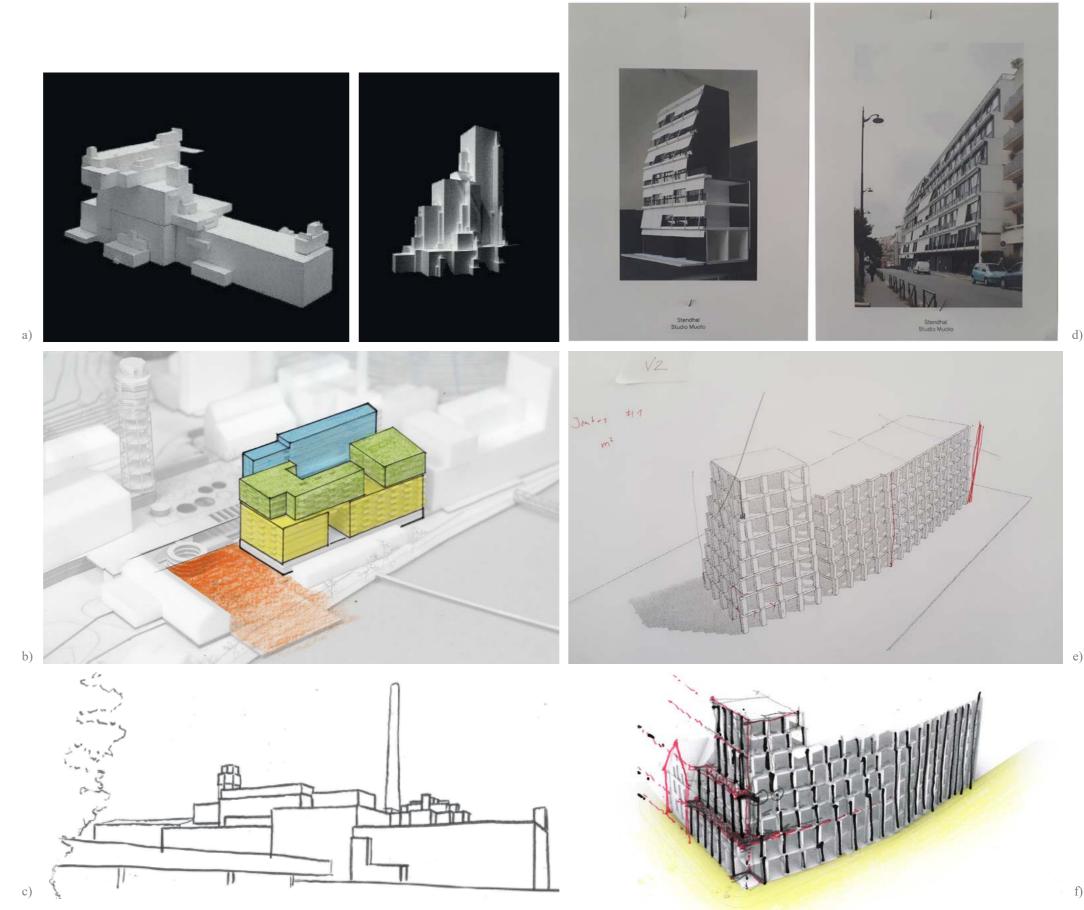
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d)

### 04. References and searching the concept

In the development of the projects we were always motivated by the use of references, both from architecture and from art and history. The references were always a topic of discussion since they gave us practical learning on different scales that could be useful for the development of our projects. This practice was very enriching for me since personally in my creative process references are always important, however due to the multicultural backgrounds of the office I was able to broaden my knowledge and get to know the perspectives of my colleagues.

These discussions about references and motivations in search of the concept resulted in the first formal design decisions, both volumetric and spatial.



- a) Reference for housing in Solothurn b) Volumes for housing in Solothurn c) Urban sketch for housing in Solothurn
- d) Reference for housing in Basel
- e) Concept sketch for housing in Basel
- f) Concept sketch for housing in Basel

f)

### 05. Detailing and refining of the architecture

During the 4 projects in which I had the opportunity to collaborate, I was able to detail and refine important components of the final proposal. It was common to make by hand and digital proposals for the detailing of the typology of the projects, which were discussed between me and the architect in charge. These discussions sometimes were also open to the rest of the colleagues from the competitions team, so they could give an opinion and discuss the approach of the project too.

These exercises were my favorites since I enjoy drawing by hand and after searching for the right references and concepts, I consider that defining and detailing the appearance of the proposal is the most important step to refine the work.





a) Main fassades for housing in Muttenzb) Fassade details for housing in Muttenzc) Material sketch for housing in Muttenz

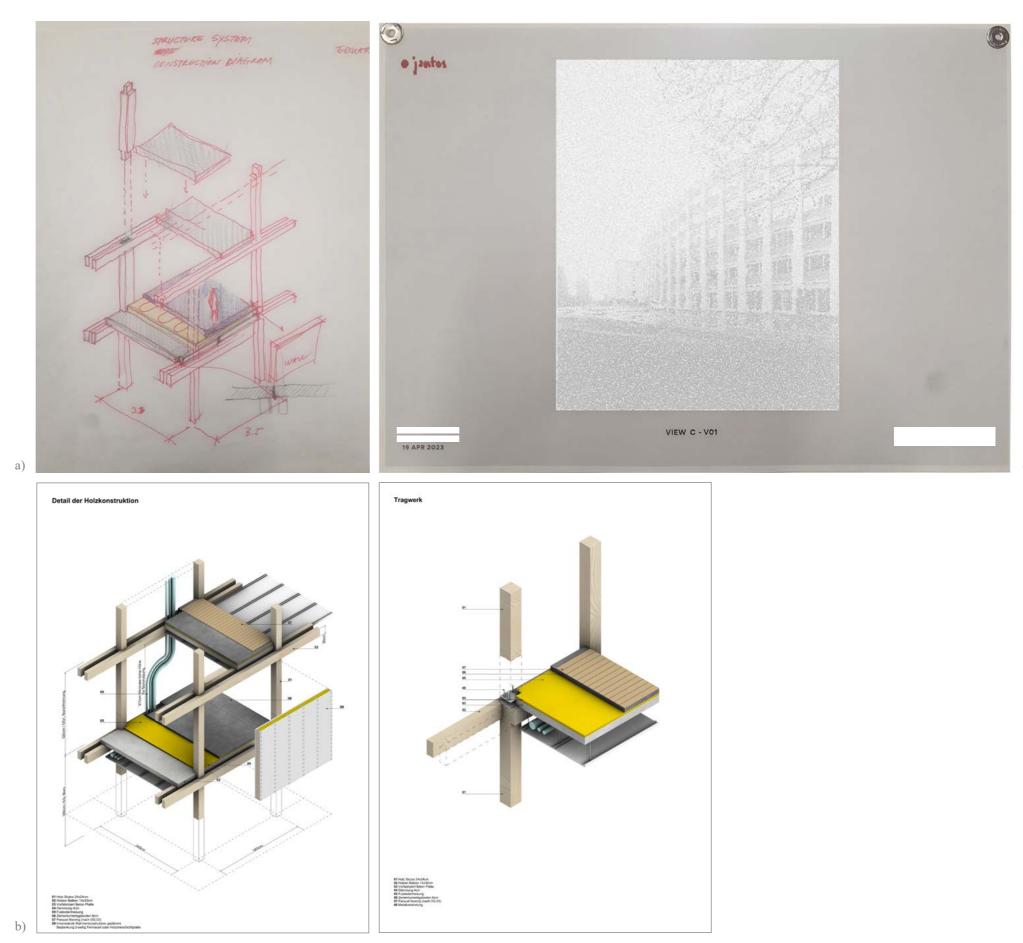


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# 06. Specialists and technical approach

An important part of the competitions in Switzerland is the support to the project by specialists in different fields. It is common for topics such as landscape, structure, sustainability, sociology and visualization to be delegated to external companies that throughout the competition provide support to the architecture office in order to guide the design proposal.

During my stay I was able to be part of many meetings and interesting discussions between specialists and us. In these meetings, specific issues regarding the project were addressed in order to understand guidelines, city regulations and physical restrictions of our proposal, as well as validate the feasibility of what is designed in the final submission. These discussions were very enriching since I was able to learn new things from all the specialists involved in the project and in turn participate with the several proposals and graphic material that was produced for the team.



a) Structure sketch for housing in Basel

b) Structure detail for housing in Basel

c) Visualization draft for housing in Basel

c)

## Thank you!

