C

# The essentiality of contextual architecture

Isabel Gómez Alvarez

X

N

T





Context as a tool for Concept

Development

Acknowledgement

Project Motif

SBA's design philosophy

Title

Methodology

The relevance of Site-Analysis



Definition of Context in Architecture

Study and research of Hanegi Park House



The importance of Context in Architecture

Site Analysis of HanegiPark House Site Analysis of Cholula, Puebla

Context as the key for Project

Development

Site plan

Experimenting with the original blueprint in the new site

List of References

Floor plan level 1

Interpreting the intangible values

List of figures

Floor plan level 0

Functionality of the project in the new site

Letter of recommendation, Shigeru Ban Architects Floor plan level -1

Feasibility of the project

7 cv

Elevation

## **Proof of Approval**

Thesis that the student Isabel Gómez Alvarez, 152964, presents to complete the requirements of the Honors Program.

Director

Eduardo Gutiérrez Juárez

**President** 

Nicolás Esteban López Tamayo

Nicolas Esteban López Tamayo

Secretary

Melissa Schumacher Gonzá lez

## Acknowledgement

Writing a thesis is a personal task, but aside from one's own efforts, the achievement and success of any project depends on the encouragement and guidance of many other people. I take this opportunity to express my most sincere gratitude to the people who have been instrumental in the rewarding completion of my thesis.

First, I would like to thank my thesis mentor Eduardo Gutiérrez Juárez; his office door was always open for me whenever I ran into any question about my research. He always made me feel motivated and encouraged after all our meetings. I cannot say thank you enough for his extraordinary support and help. He consistently allowed this paper to be my own work, but led me in the right direction whenever he thought I needed it. I would also like to acknowledge my professors Nicolas López Tamayo and Melissa Schumacher González as the second readers of this thesis, and for giving me guidance, support and advice throughout my time as their student. I

have been extremely happy to have had them as teachers, and lifetime role models.

I truly acknowledge the opportunity I had to join Shigeru Ban Architects, it was an enormous chance for learning and professional development. I consider myself to be an incredibly lucky person, as I was provided with the opportunity to be part of the firm. I would like to express my deepest gratitude and special thanks to the Shigeru Ban Architects' team, who in spite of being extraordinarily busy with their work, were always willing to guide me and keep me on the correct path, and for trusting me in every step and allowing me to be part of the projects at their distinguished firm. This opportunity was a big milestone in my career development. I will strive to use the gained skills and knowledge in the best possible way, and I will continue to work on my continuous evolution, keeping Shigeru Ban as my inspiration, always.

Finally, I must express my very profound gratitude to my father, my brother and my sister for always motivating and inspiring me to follow my dreams. Numerous thanks to my mother, for providing me with unconditional support and continuous encouragement throughout the process of researching and writing this thesis, for her appreciated sacrifices, tolerance and patience over the five years of my career. This accomplishment would not have been possible without them.

Thank you.

Isabel Gómez Alvarez

# The essentiality contextual architecture

# THE ESSENTIALITY OF CONTEXTUAL ARCHITECTURE

It is of crucial importance for architects to study the surroundings in which their buildings will eventually arise. Even before the preliminary sketches, the context must be taken into account. Every location has its genius loci, its distinctive atmosphere, and taking it in consideration will result in the building being in harmony and unity with the context. Is it possible for a project to transcend its framework and therefore be able to replicate it exactly in different locations? The answer to this question must be no. Context is whatever is around the place and could have an impact in the design: nature, landscape, scenery, topography, climate, hydrology, the social, economic and historic conditions, to name a few. Not one piece of land is equal to another, and therefore, there must be variations in the designs. At the end, the architectural work should become an element of the whole, an integral part of the environment. There is no architecture without a concept, a general idea, or a diagram that gives coherence and identity to a building. Bernard Tschumi wrote in his article in the Arquine Magazine (2005): "The concept is what distinguishes architecture from mere construction." However, there is no architectural concept without context. An architectural work is always located on a specific site. "In architecture, the concept and context must be inseparable. Sometimes, they are in contention. The concept may deny or ignore the circumstances surrounding it, while the context may obscure or blur the accuracy of the concept of the building." It is imperative to understand that a building demands to be designed following a concept and a context. Every building should be unique in its nature, attending its different surroundings and harmonizing with it.

Comparing architecture to a puzzle can be thought of a building being a remaining piece, it should fit perfectly to create a clearer and beautiful picture as a whole. The key to designing a building is to thoroughly study the characteristics in which it is going to be set, considering both the concept, and context equally, so that the consolidation of the two will result in a harmonious space. Shigeru Ban is a Japanese architect from Tokyo who is different from other well known architects in that he does not simply build, he gets involved to discover the actual needs of the users, whether they are clients or victims of natural disasters. His work strives to bring pleasure to his clients. He studies the context and conceives the design an integral part of the whole, he contemplates architecture not just as individual objects, but as part of the existing surroundings. The way he builds, the materials he uses, the orientation of the building, it is all about where it is located. The project is thought and designed considering the setting. Shigeru Ban is a Pritzker prize winner who has developed a wide variety of projects throughout his career, he is also altruistic, he builds shelters and relief housing for those who have lost their homes in natural disasters. He believes in a balance between commercial and humanitarian projects. He often says: "I spend the same kind of energy and time regardless if it is a commissioned work, or disaster relief work, I get the same satisfaction building for the rich and the poor." (Ban & Watanabe, 2017). I had the opportunity to do my internship in the Tokyo office of Shigeru Ban Architects, and it then that Ι realized imporof context. The project assigned to me was a boutique hotel in the city of Nagano. I did all the models and helped in the design and layout for this project. One of the challenges we had was to preserve the trees and

plants, so the project had to raise around them. This task presented all kinds of issues that had to be resolved, but Shigeru Ban insisted that it was of the utmost importance to respect the context. Shigeru Ban Architects in Tokyo is located in Higashi Matsubara, Setagaya Ku, Tokyo. This is a residential area fifteen minutes away from cosmopolitan Tokyo. The setting is totally different from the hustle and bustle of the city; as one steps down from the metro station, a sense of peace invades you. Whereas in Tokyo the streets are wide, full of traffic and people, Higashi Matsubara is a quiet place with little streets and it is the perfect place to live for people in the middle and upper middle class. One particular house made me turn my head, I was struck by the perfect harmony between the home and the setting, and how much the architect had taken advantage of the context to produce an amazing living space that combined the use of natural elements, such as orientation and light with technology and design to create a wonderful feeling of satisfaction. The architect was Shigeru Ban, and thus I had the opportunity to study the house more in depth. The idea of trying to place the blueprint of such house in a different context, and trying to find a similar setting in a different country seemed most interesting as a thesis project. The ulterior motive of this venture is to prove that it is not possible to replicate a project in a different environment and have exactly the same result, the same feeling. The interaction of the building with the context, the different types of context, the immediate context, the interior context, the proximal context, even the cultural and historic context, and the traditions and customs of the clients are different, and therefore changes have to be made to the original architectural plan. I chose a site in San Pedro Cholula, a piece of land with similar conditions and similar in size to the one in Higashi Matsubara.

The original project at Hanegi Park will be situated in the selected site in Cholula, Puebla and the scope of the study will be to prove that changes must be made in order for the building to harmonize with the new environment.

# PARTI: INTRODUCTION

## Problem statement

Context analysis is the key element for a successful architectural project. To have a good understanding of the context is essential prior to any design. With it, the architect is able to perceive the present and future conditions of the site, and therefore is aware of any kind of restrictions. Context is important in order to be able to take full advantage of the environment and surroundings. For most people context is also important so that the new building blends with others nearby, but even for advocates of deconstructivism, context is important since the characteristics of the site such as size, topography, hydrology, immediate surroundings and many others, are fundamental for the design. Much has been said about ignoring context in the new era of deconstructivism architecture, a trend of the late 80's. Such trend was more about the infinite possibilities of playing with forms and volumes which made buildings stand out and be different from their surroundings, however, it did not completely ignore context, since these constructions could not overlook the adjoining buildings, their own context, and the site conditions. Brolin Brent in his book, "Architecture in Context", points that postmodern architecture fails to be contextual in the sense of being sympathetic to the immediate environment, but this only refers to the visual side of context.

(Brent, 1980.)

# Aims & & Objectives

It is the scope of this exercise to demonstrate that a project is unique according to its context. The same project, built in a different site with a different context will translate into a different result. The way the floor plan is laid out and how it will interact with its surroundings will produce different feelings. Context is about everything; design constraints and design aids have to be considered for every aspect of the building, and many times one aspect of design will be in conflict with another. For instance, how one particular building is oriented in order to have as much natural light as possible could be in conflict with the adjacent buildings in one particular site, but not in another one. When architects design floor plans for contractors to replicate in large developments, they have to consider that the context in each site will surely change in some ways, and therefore the same exact building will not seem exactly the same. Another famous Japanese architect, Tadao Ando, sums up the importance of context with the following:

"You cannot simply put something into a new place, you have to absorb what you see around you, what exists on the land and then use that knowledge along with contemporary thinking to interpret what you see."

Ando (2002b), what he means by this, is that a good design must in be in unity and harmony with the space around it, and it must complement it rather than destroy it. It is thus very important to create a design with a particular site in mind, rather than for a hypothetical one. The uniqueness of a design comes from elements of the site itself. Some of the tangible elements are climate, vegetation, terrain, land shape, and neighboring constructions. However as important as these may be,

the intangibles also need to be considered, like cultural, historical, social, economic, and of course the particular needs of the end users of the building.

Mies van der Rohe used to say:

"The architect must get to know the people who will live in the planned house. From their needs, the rest inevitably follows." Norman Foster when talking about context says: "Everything we design is a response to the specific climate and culture of a particular place."

The design in mind has to take into account its positioning in the chosen site, and its shape and size to take full advantage of natural lighting and scenery and therefore offer thermal and visual comfort. Another important consideration are the materials used in building the project. The most cost effective is to use local materials which will also give the design a sense of belonging by using some local crafts. The landscape is important as well, the building has to be able to blend with its natural surroundings, it would be awkward to try to create a landscape of pine trees in the desert. It is therefore important to consider both the site, and design so as to adapt the project to the specific place in order to have a successful outcome, architecture that works. This study will take a home built in a Japanese suburb of Tokyo and try to place the same project in Cholula, Puebla, in the process it will be proved that many changes have to be made so that the floor plan is suited for the specific site, and thus be in harmony with the context.

Why is it worth to uphold that a project is unique according to its context and that a layout designed for a specific site cannot just be placed in another site hoping to get the same results?

Many times, in order to save money, time and effort, projects are replicated in an alternate site where the context is completely different, and the result is far less rewarding. Shigeru Ban's ultimate purpose is to make architecture that brings happiness to his clients and this can be achieved not only when building monumental projects or homes for the very high-end clients, but it must be done for every project. The key element here is to design in coherence with the context to make the most out of the site. Architecture is for people, and therefore contextual architecture looks at the site, its surroundings, the historical features, customs and culture of the area, climate and setting. Every attribute of the site has an impact on the concept, and therefore on the final project. When a project is depicted in a different site it will most likely have a different if only slight outcome. Surely, it can be done, but it will not have the same meaning as in the original site. The foundation of a project is an idea, or a thought that develops into a structure, but in order for that development to happen in a coherent way, the context has to be fully explored, and that would be the inner context, the immediate context, the further context, and the intangible context. All this will influence the evolution of the concept. This does not mean that a building has to be in harmony with its surroundings, but it surely has to take them into account. Concept without context is like an artist without a canvas.

# Project motif

## **METHODOLOGY**

01

Chose a project in Tokyo that complies with the concept being in harmony with the context.

02

Obtain and study the architectural project.

03

Perform the site analysis of the chosen project in Tokyo.

04

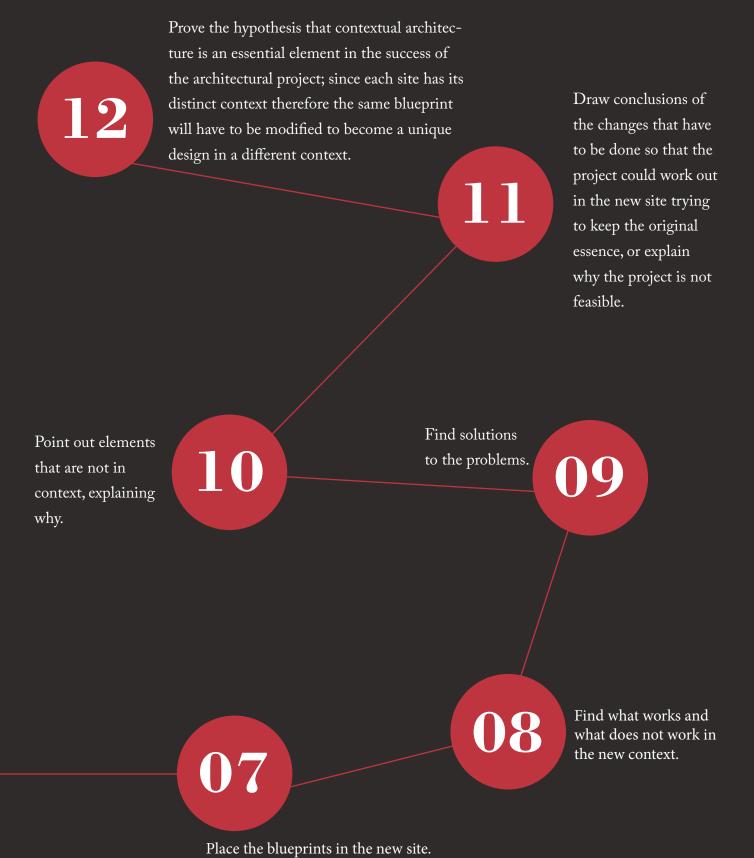
Choose a site in Puebla that shares similar characteristics.

05

Perform the site analysis of the chosen site in Puebla.

06

Make a comparative chart of both site analysis.



# PART II: THEORETICAL FRAMWORK

The word context comes from the Latin word *contexere* which means to merge together, to weave, to join. Contexture, the word is derived from the word *contexere*, meaning the putting together of words and sentences in connected composition, a mass of things interwoven together like a fabric, a fact or a manner of being woven together to form a connected whole. This makes sense in architecture, since it is about mixing elements, interacting with the soil and nature, and connecting the human being with earth's components to make a greater element. The role context plays in architecture is undeniable since in creating a building the basic elements at the site such as the soil, nature, local materials, climate, views, culture and so on cannot be ignored.

(Contexture,

n.d.) In architecture, context is the surrounding environment of a particular site or project. It refers to the social, physical, cultural, environmental, economic and ecological characteristics, therefore, the architectural design must respond to the conditions of the site. Its purpose is to give unity and harmony to the project and its environment. The building cannot exist in isolation, it should be designed to respond, support and enhance its surroundings. The building must have a sense of belonging, be part of a whole, but most of all it must relate and connect in some way. If the essence of its surrounding is embedded in the design, time becomes ephemeral and the connection and linking between the old and new can be achieved. From the beginning of times, when mankind started to settle and stopped being nomads, and the field of architecture commenced with edifications made of primitive concepts, then and there, men took contextual principles in consideration.

Definition of context in architecture

### Luis

### Barragár

They built their shelters oriented to the rising sun, used local materials that they learned to put together, they found ways to use vegetation to keep their caves dry. They were forced to use the natural resources around them, those that were responsive to climate and could shield them from the natural elements. This were the early beginnings of contextual architecture, since then, architecture responds to the characteristics of the site. In those early days the concept was associated with the physical lineaments and features of the proximal environment. Building with whatever was in the vicinity of their land. This refers to vernacularism or vernacular architecture which comes from the Latin word vernaculus, meaning "domestic, homegrown, indigenous, native." Architecture built with local resources and materials and by local people. Vernacular architecture gave the settlements a sense of belonging, a connection with their entourage

with their people, their community. The constructions used the same materials, colors and spatial forms, giving the greater environment a sense of harmonious architecture. This architecture responds to the vital connection between humans and the environment as a basic survival need.

(Vernaculus, n.d.)

There is one architect worth mentioning who was fond of vernaculism. Luis Barragán was a Mexican architect whose work was a legacy to Mexican architecture; he is a symbol of humanism since his designs are full of tradition and respect for the vernacular architecture that was with him since childhood. He grew up in Jalisco surrounded by local customs, folklore and Haciendas. He loved using local materials such as adobe, wood and lime finishing. His architectural proposal shows a deep understanding of the Mexican cultural tradition, he was inspired and influenced by prehispan-

ic and vernacular constructions, he played with compositions and forms, colors and landscapes. He was also shaped by the trends of the time; modern architecture that changed from the previous style loaded with ornamentation to one more simple, minimalistic with straight lines and wide spaces. He traveled to Europe and the US where he also added many concepts to his collection of feelings and precepts about design. It could be argued that Barragán was out of context with the proximal environment because of the contrast between his minimalistic work and the Mexican buildings in the extended surroundings influenced by French and Spanish architectures. Yet his edifications are very much in tune with many aspects of context. The buildings blend in with the landscape, nature is respected, the slope of the land is taken into account to enhance it and the orientation to take advantage of the

light and ventilation.



Figure 1: Casa de Estudio de Luis Barragán

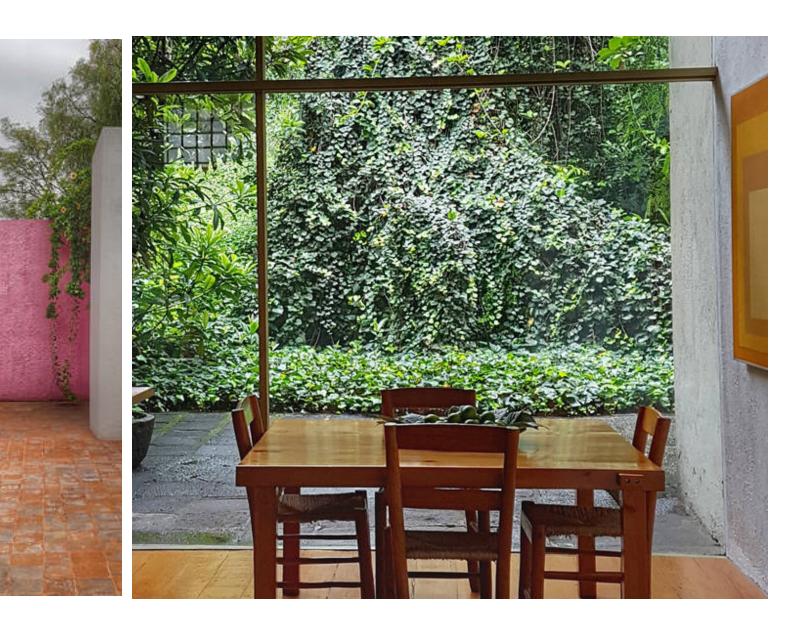




Figure 2: House in context, Luis Barragán

His work was so awe-inspiring that he was awarded the Pritzker prize in 1980, and Mexico has his name imprinted in the architectural development of the country. Another aspect of contextualism is regionalism or regional architecture which has to do with building in a particular area, regionalism is the type of architecture that follows vernacularism. This latter one is referred to as architecture without architects. Regionalism as well as vernacularism is about relying in the knowledge of the local climate, geography, topography, geology, and culture of the region. It reflects the specific needs of society and contributes to the political and family dynamics of the community. Regionalism is appealing to sustainable architecture in that it minimizes the impact of buildings on the environment, by reducing the use of energy, transportation costs, local use of materials, native landscaping and other strategies that are ecosystem friendly. The third aspect of contextualism is critical regionalism investigated in depth by Kenneth Frampton in his article "Towards a Critical Regionalism: Six points of an architecture of resistance." Critical regionalism is an attempt to counterbalance the lack of meaning of modern and postmodern architecture. It attempts to conciliate between the international and the local. Modern architecture used new and innovative construction technologies with steel, concrete and glass. With this trend, the value of local was replaced with that of different, imported and highly technological, even if this made a negative impact to the environment and the cost. Postmodern architecture which emerged in the 1960's is eclectic and colorful as opposed to modern architecture, which was more formal, austere and repetitive. This new era of architecture gave the world many famous names like Frank Gehry and Zaha Hadid. Many critics consider their architecture to deliberately disregard context. In a sense it is true, these projects commonly have no consideration for their surroundings. They stand out against the neighboring historic sites. Hadid's opponents say that these buildings were made to shine for her client's needs and her own fame, and that they crash context and locality. But looking at these constructions even with their particular forms and shapes, colors and sometimes obtrusive views, they definitely take context into account. For instance, many of them use the shapes and levels in a way that the use of the space is optimal and the connection with nature is exploded. Such is the case of Hadid's Issam Faris Institute at the American University in Beirut. The building seems out of place and invasive, it almost suggests that the surroundings are unimportant, yet the project is full of green spaces which is something that the city was lacking. Moreover, the building provides access to a forest area that was previously isolated, and there are ramps that serve as pathways to connecting different levels, making accessibility easier. Although the façades of these buildings might suggest that they disregard context, in reality there is a close connection between the architecture and context, the site was deeply examined to respond to the needs of the local situation. (Therhizomecowboy & Louderback, 2011)

Figure 3:

Issam Fares

Institue by

Zaha Hadid

Architects



The project was designed very much in tune with the terrain, making the most out of the footprint by making use of heights and floating part of the structure, which was helpful in preserving the greenery. This geometric concrete building fits in with the trees and nature of the site. Paul Ricour, rethinking critical regionalism posed the question: "How to be modern and to continue the tradition, how to revive an old dormant civilization as part of universal civilization?" The work of Zaha Hadid does not particularly answer this question, but Barragán's architecture does. He takes the local essence and blends it with modern and postmodern trends. (Therhizomecowboy & Louderback, 2011)

Frampton in his essay, Towards a Critical Regionalism, argues that "It is critical to adopt universal values of modernism, taking into account the geographical context of the building." Frampton does not want to refer directly to "folklore", but to the climate, light, topography, and "local tectonic form", which should be understood as historical and geographical conditions of the construction industry. (Therhizomecowboy & Louderback, 2011) Critical regionalism promotes a local architectural approach that envisions universality. In contrast, regionalism aims at connecting with vernacular architecture without regard to universality. Zaha Hadid's monumental project, the famous DDP (Dongdaemun Design Plaza in Seoul) is an overwhelming construction made of curved concrete surfaces with irregular contours, where the walls are completely covered in metal plates, the result is a peculiar yet exhilarating building. It connects with the surrounding park and fabulous landscape making a harmonious complex within itself. But it is not in context with the proximal environment, in fact to build it, the city had to remove two local sports complexes and displace local vendors to other parts of the city. The area is a historical site, surrounded by parts of the old city walls, during the construction ancient artifacts were found. It is easy to see why there are critics that feel that this futuristic, incredibly expensive project is out of place, out of context. On the other hand, a thorough

study of the physical context of the site was made prior to the design phase. The shape and slope of the terrain, the winds, indigenous vegetation, landscape, urban streams, the 30,000 sq. meter park, that resembles a traditional Korean garden. To many, this building is out of context, but in time we will see whether it is capable of harmonizing the area creating a unity with the proximal environment, the local people and visitors to Seoul.

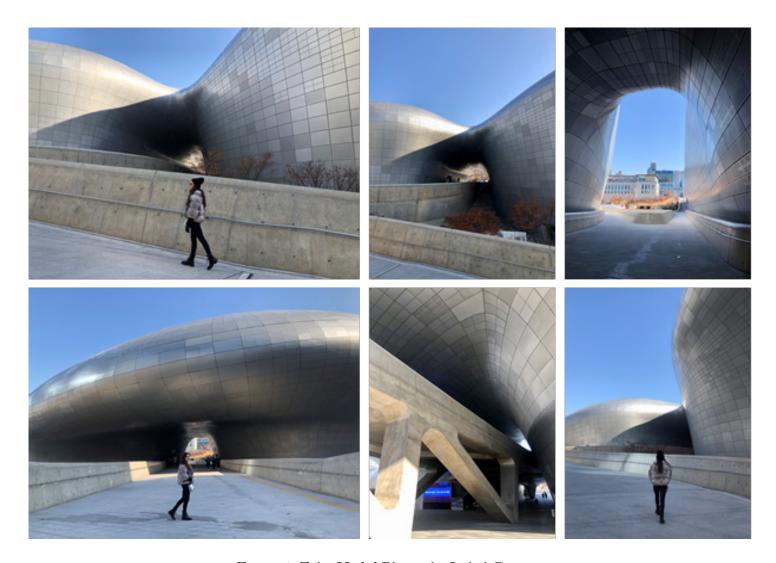


Figure 4: Zaha Hadid Photos by Isabel Gómez

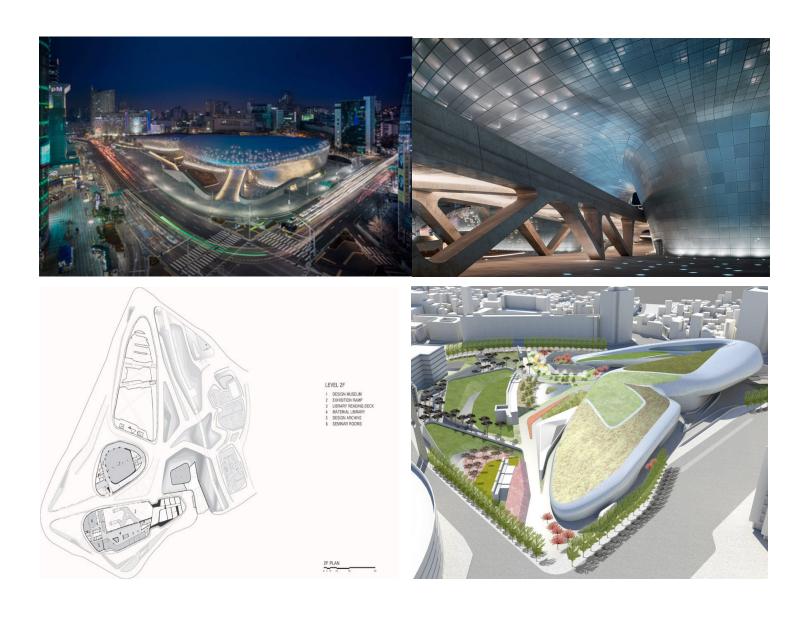


Figure 5: Zaha Hadid Dongdaemun Design Plaza in Seoul (DDP)

A completely different approach to design and engagement with context is this Shigeru Ban's project: A now famous boutique hotel in Japan called Shishi-Iwa House in Karuizawa, Nagano. This place makes the connection between architecture, nature and humans. The wooden building curves gently through the forest, this is not just part of the design, it had to do with respecting the natural context of the site. The trees could not be removed, so the building had to curve around them. The interiors are made of natural woods endemic to the place.

Shigeru Ban is famous for the use of paper in many of his constructions, and this is not the exception, he used cardboard rolls for headboards, chairs and lamps, the latter as a homage to Frank Lloyd Wright. The insides were carefully designed to achieve optimal human interaction, serene ambiance, and enjoyment of the communal spaces. This project is in splendid harmony with its surroundings and within it. Proximal and visual context as well as site context were thoroughly studied, the building is thus in perfect unity with nature and the environment. This exemplifies vernacular architecture since it is sourced from local materials while simultaneously deploying futuristic shapes in its design, and using smooth curves that appeal to the most sophisticated guests. In accordance with critical regionalism, Shishi-Iwa is being modern, while maintaining tradition.







Figure 6: Shishi-Iwa House

While sometimes architects, especially those of the postmodern era, tend to reject or ignore visual or surrounding context, it cannot be completely overlooked. Topography, geology, winds, climate, locality and many other factors have to be considered, otherwise the building could fail to achieve its purpose in that specific site. Context many times poses issues that need to be overcome, but it can never be ignored.



Figure 7: Shishi-Iwa House Photos by Isabel Gómez Alvarez

The importance of context in architecture Formally, contextualism came about in the second half of the 20th century, but in reality, it has been a factor in designing for a very long time, even before formal architecture existed. People have always built according to the site and its surroundings, even when proper studies were not part of the construction methods. Modern architecture, which emerged in the first half of the 20th century, was all about the uniqueness and individuality of the building. The simplistic, minimalistic forms of the modernistic designs did not engage with the environment and the surroundings, on the contrary, the buildings seemed to be isolated from the environment. The only context was that of the inner building within itself. Context had a physical border that was the spatial limits of the building. Context is the setting in which a development or a construction is located, and moreover it is the area that it will impact. The context of the site will surely determine what can be done and how the design can be developed, but the project will impact the environment in many ways: scale, height, landscape, views, setbacks, neighboring shadows, noise, traffic and activity, to name a few. Before even planning the building, many of these elements have to be taken into account. For instance, in world heritage cities there are many restrictions as to what can be built in terms of height, the demolition of old constructions and what new buildings should look like, in order to provide harmony to the immediate environment. A thorough analysis must be performed in the area, so that the relationship with context can be optimized. One should consider what opportunities the site offers, such as scenery, sunlight and ventilation, or existing vegetation that in many cases cannot be removed. What is the landscape like? Is the immediate context similar or does it have distinct types? Are there positive elements in the context area or is it degraded

and underdeveloped? Is there anything that stands out in the region such as a natural or cultural feature? Since the impact of the development has to be considered as well, will it have a negative or a positive impact?, Will there be constraints because of this impact? A design meant for a specific site where all these elements were taken into account cannot just easily be placed in another setting like a ready-made solution. Sites change, even the ones next to each other. If we were to take an existing project and place it in a new site, many things have to be taken into account, like the slope of the land, to see if the elevation and the slope in the new site are in accordance with the design. This is very important, because if the original design was made for a site with a determined slope, then it will be very difficult to find a site with the same slope and vice versa. A design made for a flat terrain needs a solution to flatten a site with a slope and the costs of filling the land have to be considered. What to take into account?

- The neighboring constructions, to see how this will affect the window design for solar and ventilation purposes. Frequently, the surroundings are different in each site and the way to place the windows for light and wind flow might not be ideal in the new site.
- The orientation also will have an impact on how rainwater can be collected or will be disposed of.
- Scenery and landscape are very important and connected to a specific site, will the design fit in with these characteristics in the new site?

- Is the design compliant with the climate of the new location? Materials for a design on one site might change for another site for insulation purposes, because of availability and cost.
- Culturally speaking is the design in consonance with the customs and lifestyle of the users in the new location? Is it functional? Are the end users' needs met for the new location? It is very different to build for Japanese family rather than for a Mexican family. Their traditions are different, the ways spaces are used are different, even the way homes are used are different.

### - Can future construction of the surroundings affect the design in some ways? Can present views be obstructed?

An in-depth study must be made before trying to place a design meant for a site in another site. Most likely many changes have to be made in order for the building to adapt to the new context. This is the purpose of this study, to prove that changes need to made in the design in order for the house at Hanegi Park by Shigeru Ban to be placed in a site in Cholula, Puebla. This is a different country, with different needs, climate, uses, topography and soon. It is more meaningful when the design suits the local people and gives consideration to its surroundings rather than disregarding them. As Jean Nouvel is usually heard saying:

### "Each new situation requires a new architecture"

It is of utmost importance for an architect to know the site and culture well so that the design responds to context. Cities are living organisms that change every day, they have a unique culture that has developed over many centuries and this is its contextual history, it also has a future where new buildings will interact with the existing ones, responsible architecture is thus the one that engages with its proximal and further context.

## Context as a tool for concept development

Context as a tool for concept development

Concept in architecture is the means to an end, it is an idea that needs to be developed to become an architectural project. Therefore, every architectural project must begin with a concept, it will be the inspiration throughout the project. The concept is not static, it will start as a thought or an idea and transform many times until it becomes a finished piece of architecture. For the architect to be able to have a concept for a specific project, there are a few essential things that need to be known: the client's requirements in terms of building type, use, size, budget and site. It is this last one that becomes essential in building the concept.

Much like when an artist is asked to paint a mural, the first thing to know is what the mural will be about, but it is also important to see the area where the mural is going to be painted, the size and dimensions of the wall, how it is aligned towards the sun and so

For the mural, these characteristics become the context of the site and to be able to come up with the concept, the context must be deeply evaluated. The same is true for an architectural project, the site and its context becomes a fundamental pillar. If a client wanted to build a condominium, the first thing to consider is the location, because site is extremely important to making the right decisions. It cannot be the same to build a project in the mountains of Aspen or in the beaches of Cancun. Everything in the design has to take into account the particular aspects of the place: scenery, ventilation, sunlight, neighboring buildings, topography, materials depending on the climate and many, many other factors that are particular to a site. The architect cannot begin to have a concept without a context, because many variables are dependent and directly related to the specific nature and characteristics of the site.

on.

Concept begins with an idea, the architect starts to imagine what the building would look like, but to do this, the first thing to consider is the size and dimensions of the land and the many aspects that have to do with the site itself and its immediate context. The neighboring constructions are the proximal context, and the locality becomes the further context. It is fair to say that context in every sense is a vital element in creating a concept, it becomes the tool for concept development.

### SHIGERU BAN ARCHITECT'S design philosophy

### How does context shapes architecture?

While working at Shigeru Ban architects, I learned that his philosophy is all about context. He takes into account every aspect of context, interior, proximal and further context, as well as, and maybe most importantly, intangible context. Ban is different from most architects in that more than money and fame, he strives to design buildings that people love. Riichi Miyake in the book by Watanabe, "Shigeru Ban Material, Structure and Space", in reference to Ban, states that "It is tantamount to discussing professionalism with relation to human nature in the greater context of humanity itself. This is because he is no other than the person who opened up the common perception of the professional function of the architect from one who simply builds to one who engages directly with the happiness and misfortunes of man and leads people suffering in poverty and despair towards salvation." Architecture of love is his outmost interest regardless if it is commissioned or humanitarian work. (Ban & Watanabe, 2017) For Ban, the intangible contexts such as culture and customs are key to the success of the project. The intangible context along with the needs and preferences of the user are the first steps in the design process. He emphasizes the importance of understanding the users, their needs, culture, and customs, because it is from this information that the concept can be developed successfully. Shigeru Ban takes the time to talk to his clients or users, so he is able to grasp what they want and feel and in turn, what they need. He tries to get to know his clients personally so that he can truly understand them, he has frequent meetings along the process. He has a firm with three offices in New York, Paris and Tokyo, and operates with fewer architects than firms with similar number of projects because each person is very productive and engaged. Everyone at Shigeru Ban Architects follows the same philosophy as the founder himself; make architecture that works. He firmly believes that architects must take full responsibility of the buildings people live in and use. His work is divided into five categories shown in the following figure. As can be seen, they interact with each other.

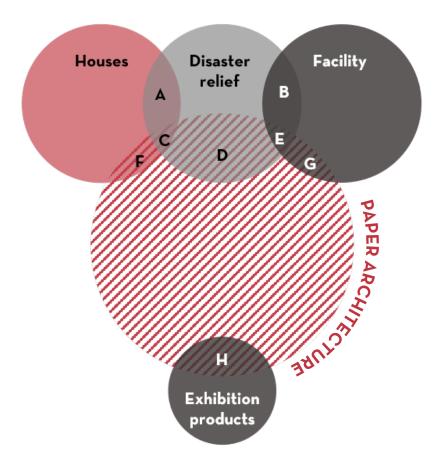


Figure 8: Shigeru Ban Architects' work represented in five categories by Isabel Gómez

Alvarez

In all these areas, he pursues the same principles about context. Following the intangible context, much attention is set on the site to determine the interior context. The project is worked out for the site and around the site, the natural elements in the site are to be preserved as much as possible, and every other aspect of the site itself is studied and analyzed to be able to establish how to set up the plan. The proximal and further context are also considered to see how the project will interact with the surrounding buildings and how to harmonize with the community. Even in his humanitarian ventures he affirms that he must travel on site to see the suffering of the people to come up with the best project for them, in these cases he tries to use solutions from other projects to save time which is always essential, adapting them to the particular place. He is always concerned with supplying the people in grief with housing and privacy in hard times. (Ban & Watanabe, 2017)

While traveling through Europe with a photographer, Ban found the works of Alvar Aalto interesting and was taken by the way his buildings interacted with context, how they engaged with the location where they were rooted. From then on, Ban took contextual architecture as one of his premises. Busckminster Fuller and Frei Otto also made a profound impression on Ban, and the reason being is that they dared to be original in their buildings regardless of what was trending. In order to do this, they had to experiment and develop new structures and materials by designing exposition pavilions to experiment. Much like them, Ban does not like playing by the rules, he loves to innovate and seeks different solutions in the creation of spaces, the use of new materials and technology. Ban began to develop the "Paper Architecture" around 1988. To do this, he used recycled paper tubes, he believed that weaker materials could be used to create buildings if their particular properties were taken into account. Around 1994, he realized that he needed to diversify his work, designing and building for the rich was not enough for his soul. He began to feel that his experience could be used for people that had lost their homes in natural disasters. He became involved as a consultant for the office of The UN High Commissioner for Refugees to improve the shelters at a Rwanda refugee camp. He was involved in volunteer work in Vietnam which he found extremely painful and thought that he was not going to pursue it further, but then Kobe, in his own country was hit by a terrible earthquake, and Ban built the paper house and church for the city. After this, Ban has continued his disaster relief activities around the world and has perfected the use of materials such as the paper tubes. The church in Kobe was later moved to Taiwan where it is still standing after many years. The use of waste and recycled materials was quite appropriate in building relief homes, since most of these materials are readily available everywhere and he made a point to have it approved by the authorities in Japan as a safe element in construction. To do this, he built a vacation home for himself and had them make all the necessary tests to approve them. Ban always tries to have an extremely flexible mind, which allows him to experiment with forms and materials and this in turn lets him present designs that are innovative, functional and contextual to his clients. Building for the site with local materials and with the needs of its clients in mind, he succeeds in designing buildings that people love and that are in context in every sense of the word.

ARCHITECTURE IS I DESIGNING SOMETH FREE, FANCIFUL ID DISCOVERING AND ONE'S OWN PRINCIPALITY ONE'S OWN PRINCIPALITY OF THE PRINCIPALITY OF REGULARITY -FI INDIVIDUAL FORMU ONE'S BUILDINGS.

# NOT ABOUT HING FROM A EA. IT IS ABOUT ESTABLISHING PLE, SOME KIND NDING AN ILA TO APPLY TO

SHIGERU BAN

## Relevance of site analysis

Peter Zumthor often states: "When I concentrate on a specific site or place for which I am going to design a building, I try to plumb its depths, its form, its history and its sensuous qualities."

The importance of architectural site analysis is undeniable, it is the process of understanding and evaluating a location and finding its physical, social and cultural characteristics in order to come up with a solution to heighten and address its context. Each and every site is unique, it is a composition of various characteristics: geology, topography, watercourses, trees, wind, views, habitats, and weather patterns, to name a few. The design process must include all of the above to make adequate decisions. A thorough analysis of the site is the basis for the design in terms of placement, orientation, size, form and materials to be used. To develop a truly successful project, in the broadest sense of the word, its site must first be studied in detail.

Site analysis should contain the following

A.- Genius Loci
Geographic locations
Historic landmarks
Topography

B.- Of the site itself
Site (Dimension, proportion and size)

### Site

### **Analysis**

Site security

Utilities

C.- Movement and stillness

Circulation (Daytime and nighttime)

Type of roads (Private or Public)

Public Transportations

D.- Sensory

Views (Private and public)

Temperature

Texture and colors

Noise levels

E.- Sun and light, wind and views

Sun paths

Light paths

Shading

Winds

F.- About the proximal context

(neighboring buildings)

Distances

Heights

Uses

Style(s)

Façade study

G.- Landscape and vegetation

Trees or other vegetation

Green areas (Natural and Manmade)

H.- Legal Restrictions

Conservation areas

Tree preservation orders

Permits

I.- Human and cultural

Attitudes towards site and area

Population density

Family size

Age range

J.- Possible hazards

Pollution

Landslides

Flooding

As Norman Foster is always known for saying:

"As an architect you design for the present, with an awareness of the past, for a future which is essentially unknown."

The site analysis should result in valuable information for the architect: the past is reflected in the proximal context of the site, the detailed data of the present conditions of the site will be essential in the design and thus taking into account the past and the present in the design itself, the architect is able to incorporate elements that conform with the future.

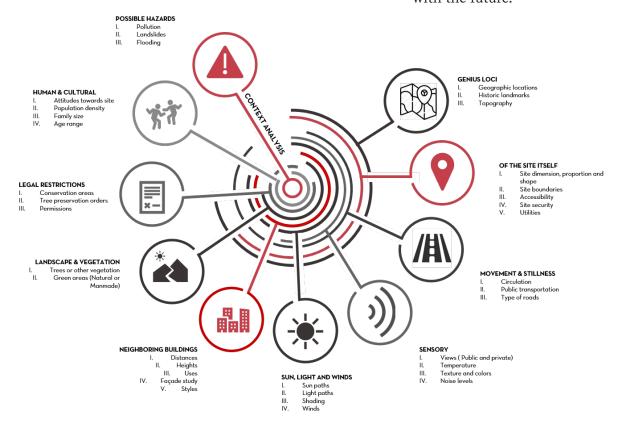


Figure 9: Site analysis figure, elaborated by Isabel Gómez Alvarez

### PART III: PROJECT DEVELOPMENT

### Study and research of the architectural project, House at Hanegi Park

The House at Hanegi Park by Shigeru Ban Architects is a single-family residence, located at the top of a sloped street on the corner of an L shaped bend in a typical residential area in Higashi Matsubara, Tokyo. There is a long straight row of houses of approximately the same dimensions and size. On the backside facing Hanegi Park, the user can feel as if the park is incorporated to the house, it evokes a feeling of living there. The front façade and the back side of the house are two contrasting scenes, and this is why Shigeru Ban created picture windows. To the east, a curved outline was purposely used to softly cut the linear streetscape. The project has multiple openings, creating an airy and fresh interior space. At the street entry, there is a screen of cables covered with vegetation that generates a contrasting texture with the adjacent houses. It provides privacy to the user by blocking the view for the lower level interior rooms. The zigzag stairs can be observed from the outside, going from the ground level to the mezzanine and are presented with a corridor that passes through the kitchen. The main window facing the street has a curved shape following the intersection of a vertical and curving wall producing the noticeable roof form. In front of this configuration there is a horizontal rectangular window of sliding panes that can be overlapped and concealed. Below the sliding panes we can see steel panels covering the kitchen. Shigeru Ban Architects developed new ideas in the house, designing a successful, interesting and well thought layout and design. The area has a potential to create a very attractive relationship between the ambient surroundings and the architecture. The House at Hanegi Park considers the area outside the site. The curved wall creates a space expanding effect, allowing light and reflections of the exterior vegetation, and when this happens it feels like the plants are inside the house, when they are only reflections from the park. Their belief on the importance of the relationship between things, and their interest in light is clearly shown in this project. They wanted spaces to look bigger, so they incorporated narrower spaces, like the interior staircase. The first thing they considered while designing was the surroundings. The planning of a house is usually conceived from the inside. This way of designing divides the outside from the inside. The House at Hanegi Park luckily has rooms facing two sides of the outside. The atmosphere felt inside the house

is like being outside.



Figure 10: Outside view, front façade of House at Hanegi Park courtesy of Shigeru Ban



Figure 11: Exterior stair leading to first floor courtesy of Shigeru Ban Architects.





Figure 12: The left picture shows the living space and part of the stairs that lead to first floor mezzanine. The right photograph gives a view of the living space from mezzanine, courtesy of Shigeru Ban Architects.



Figure 13: These two photographs show the view of the living room from first floorcorridor and the view of stairs to the second floor from the first floor corridor, courtesy of Shigeru Ban Architects.



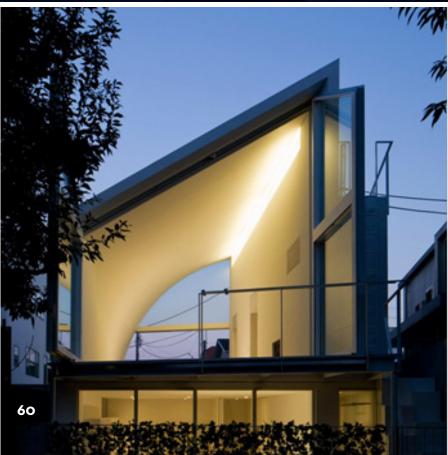
Figure 14: This interior photograph displays the kitchen and the dining area of the project. The picture on the right shows the entrance to the dining area courtesy of Shigeru Ban Architects.



Figure 15: The view to the west from the dining area with a curved wall-ceiling which encloses it, courtesy of Shigeru Ban Architects.



Figure 16: Front and backside of house at night courtesy of Shigeru Ban Architects.



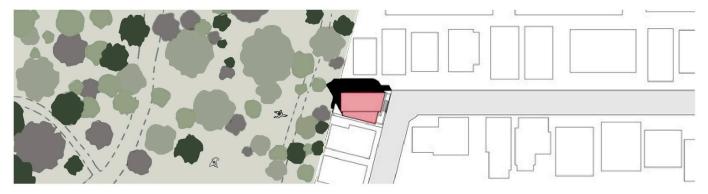


Figure 17: Site plan, elaborated by the author

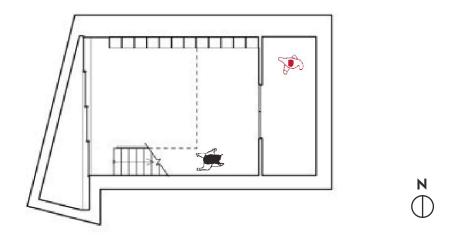


Figure 18: floor plan / level -1 elaborated by the author

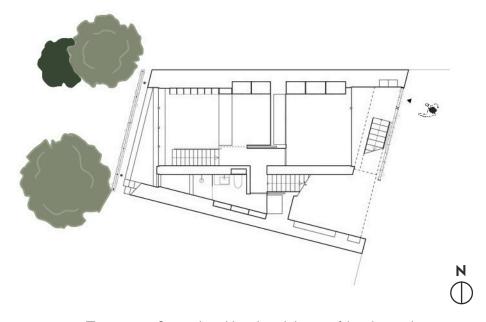


Figure 19: floor plan / level 0 elaborated by the author

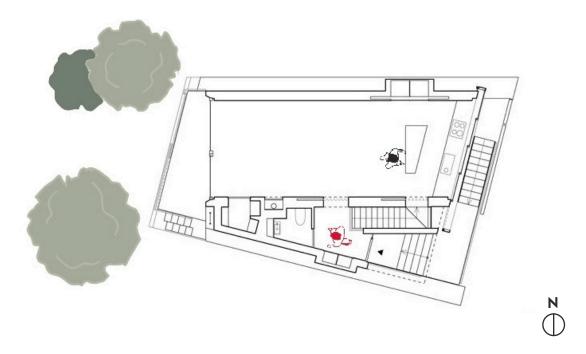


Figure 20: floor plan / level 1 elaborated by the author

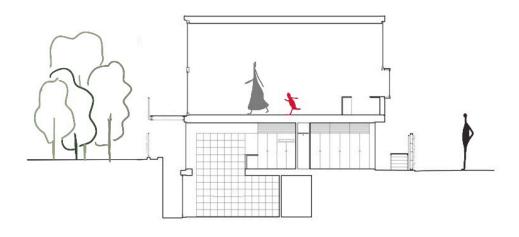


Figure 21: Section, elaborated by the author

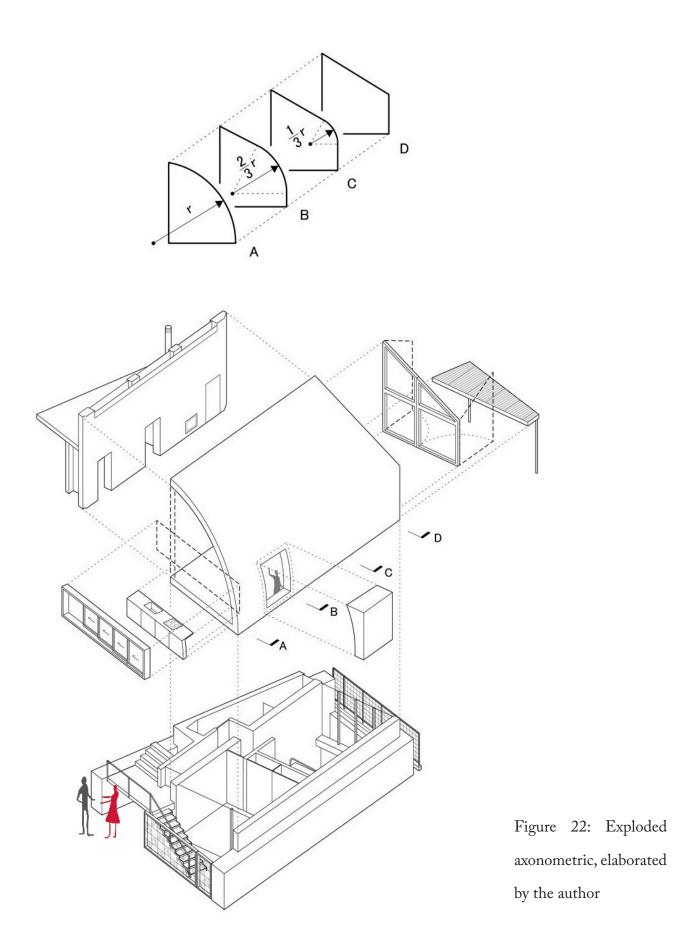






Figure 23: Photographs of the front façade by Isabel Gómez Alvarez

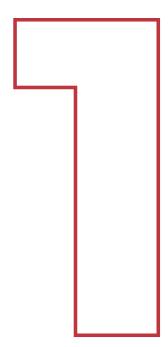








Figure 24: Photographs of the backside facing Hanegi Park by Isabel Gómez Alvarez



### Phase I: diagnosis

### SITE ANALYSIS OF HANEGI PARK HOUSE

### A.- Genius Loci

Geographic locations

"4-chome-33-10 Daita Setagaya City, Tokyo-to

155-0033, Japan

35°39'28.5""N 139°39'23.2""E"

Historic landmarks

Hanegi Park, Shimokitazawa, Gotokuji Temple,

Daita Hachiman Shrine, Shoin

Shrine

Topography

33m elevation

### B.- Of the site itself

Site (Dimension, proportion and size)

99.74 m<sup>2</sup>

Site boundaries

South boundary: 2 level residential house 85m2

North boundary: 2 level residential house 92m2

West boundary: Hanegi Park

East boundary: Street

Accessibility

7.2km by car

By train Inokashira line (11min), walking distance

(500m)

Site security

Public street, 2m high fence, opened garage, no site

security

### C.- Movement and stillness

Circulation (Daytime and nighttime)

Traffic:

Morning: Low

Afternoon: Low

Night: Low

Type of roads (Private or Public)

Public

Public Transportations

Trains

Inokashira Line (Local)

Umegoaka Station(500m)

Shindaita Station(800m)

Higashi Mstsubara(600m)

Setagaya-Daita(750m)

### **D.- Sensory**

Views (Private and public)

Hanegi Park, Mount Fuji

Temperature Warm and temperate.

Average temperature: 15.3 ° C

Coldest: -9°C,

Warmest: 46°C

Texture and colors

Warm colors, Very few textures, Simple façades, wood,

concrete, brick, stone

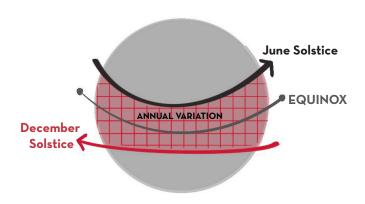
Noise levels

Low

E.- Sun and light, wind and views

Sun paths

Figure 25: Sun path, Tokyo Time Winds elaborated by the author



The average hourly wind speed in Tokyo experiences mild seasonal variation over the course of the year. The predominant average hourly wind direction in Tokyo varies throughout the year.

### F.- About the proximal context (neighboring buildings)

Distances

Hanegi Park (5m)

Hanekko General Store (90m)

Umegaoka Library (155m)

Japan Post (336m)

Family Mart (375m)

7 Eleven (375m)

Sushi restaurant (330m)

Ki Coffee shop (200m)

School (195m)

Protestant church (203m)

Childcare (430m)

Hospital (1.8km)

Japan Folk Museum (1.5km)

Tokyo University (2.5km)

Police Station (350m)

Shibuya (3.5km)

Shoin Shrine (1.6km)

Gotokuji Temple (1.33km)

Daita Hachiman Shrine (300m)

Heights

Maximum 2 level height

Uses

Residential area

Style(s)

Postmodern and contemporary

Façade study

Warm colors, Small plots, single family housing, uniformity in the use of materials (mostly limestone, brick, wood and concrete), Mostly 2 level buildings, well preserved.

### G.- Landscape and vegetation

Trees or other vegetation

Plum trees, grass, mulberries, variety of flowers,

camphor, oaks, and ferns

Green areas (Natural and Manmade)

### H.- Legal Restrictions

Conservation areas

Yoyogi Park, Hanegi Park, Tokyo University Campus, Gotokuji Temple,

Daita Hachiman Shrine, Shoin Shrine

### I.- Human and cultural

Attitudes towards site and area

Positive attitudes, long term conservation of areas.

Population density

Setagaya: (58.06km2) 939,099 hab

Family size

2.4 people per household

Average age

46.5

### J.- Possible hazards

Pollution: high 65.00

Noise and light pollution: Moderate 46.45

Water Pollution: Low 37.99

Air quality: High 61.98

Quality of green parks: High 60.00

Clean and Tidy: High 72.78

Water Quality: High 62.01

Landslides: High

Flooding: High

### SITE ANALYSIS OF CHOLULA

### A.- Genius Loci

Geographic locations

64 Av. Benito Juárez, Cholula, Puebla 19°04'06.3"N 98°19'48.4"W

Historic landmarks

Zapotecas Hill, La Concordia Plaza, Santa María

Tonantzintla Temple, San Francisco Acatepec Temple,

Cholula Pyramid, Cholula Archeological area

Topography

2175m elevation

### B.- Of the site itself

Site (Dimension, proportion and size)

450 m2

Site boundaries

South boundary: 2 level residential house 130m2, North

boundary: Empty lot 1 750m2 green area

West boundary: Zapotecas hill

East boundary: Street

Accessibility

From Cholula Centro:

Head southeast on Av. 4 Ote towards Calle 2 Nte

(110m), Turn right towards Cale 2 Nte (200m), Turn

right towards Av Morelos (180m), Continue on Av.

Miguel

Hidalgo (1.4m), Continue by Tecnológico avenue

(450m), Turn left towards Av.

Benito Juárez

Site security

Public dual carriageway road, No site security

#### C.- Movement and stillness

Circulation (Daytime and nighttime)

Traffic:

Morning: Low

Afternoon: Medium-High

Night: Medium-High

Type of roads (Private or Public)

Public

Public Transportations

Buses Bus stop: 15 Sur - 9Pte

Bus stop: Tecnológico - 21 Nte

Bus stop: Tecnológico - 21 Sur

Bus stop: San Pablo Aguilar

Bus stop: Cholula-Puebla- Allende

Bus stop: Internacional- Constitución

Bus stop: I.Allende-21 Nte

#### D.- Sensory

Views and scenery (Private and public)
Volcán Iztaccihuatl, Popocatépetl, La Malinche

Temperature

Volcanos, Cholula Pyramid, Zapotecas Hill

Warm and temperate.

Average temperature: 16.9 ° C,

Coldest: -2°C,

Warmest: 35°C

Texture and colors

Bright colors, many textures, brick, concrete

Noise levels

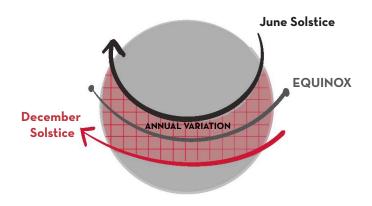
Medium-high

#### E.- Sun and light, wind and views

Sun paths

Figure 26: Sun path, Time Puebla

Winds elaborated by the author



The average hourly wind speed in San Andrés

Cholula experiences mild seasonal

variation over the course of the year. The predominant average hourly wind

direction in San Andrés Cholula varies throughout

the year.

### F.- About the proximal context (neighboring buildings)

T	٠						
D	1	C	ta	11	0	00	•
17	1	0	La	ш	•	L:	۱

Sports Centre Cholula (450m)

Convenience store (75m)

Convenience store (140m)

Zapotecas Hill starting point (65m)

San Cristobal Tepontla Church (386m)

Elementary School (950m)

Pharmacy (500m)

Grocery store (350m)

Place of worship (940m)

Supermarket Gran Bódega (1.6km)

Zerezotla Plaza (500m)

Health Center (1.2km)

Cholula Hospital ISSTEP (1.10km)

Pharmacy (1.3km)

Golf Club La Huerta (930m)

Santa Maria Xixitla Church (2.25km)

Cultural Complex Cholula(3km)

Mall (920m)

Cholula Historic Center (2.5km)

Santisima Trinidad Church (1.8km)

San Juan Calvario Church(1.85km)

Cholula Archeological Area (3.5km)

Heights

Maximum 2 level height

Uses

Residential area Style(s)

Variety of colors, non uniform constructions, different sizes, different styles,

different materials and qualities and difference in preservation of constructions.

#### G.- Landscape and vegetation

Trees or other vegetation

Pinus Moctezuma, Pinus Ayacahuite, Pinus Pseudostrobus Lidl, Quercus

Latifolia, Encinos, Musgos y Líquenes, Pastus (Zacate), Lobelias, Cactáceas,

Convolvulacias, Flores compuestas, Mimosas, Cupresus,
Plantas herbaceas,

Nispero, Hongos terrícolas, Eucalyptus,

Green areas (Natural and Manmade)

Cerro del Zapotecas, Centro Deportivo Cholula, La Huerta Club de Golf,

Parque Soria, Zona Arqueologica de Cholula, Plaza La Concordía, Parque Cholula, Canchas Deportivas,

#### H .- Legal Restrictions

Conservation areas

Cerro del Zapotecas, Plaza de la Concordia, Templo de Santa María Tonantzintla,

Templo de San Francisco Acatepec, Pirámide de Cholula, Zona Arqueológica de

Cholula

#### I.- Human and cultural

Attitudes towards site and area

Positive attitudes, long term conservation of areas.

Population density

Cholula de Rivadabia (111,03km2) 275558 hab.

San Cristobal Tepontla: 200 (96 men, 104 women)

Family size

4.2 people per household

Average age 29

#### J.- Possible hazards

Pollution: Low 38.03

Noise and light pollution: Moderate 48.34

Water Pollution: High 71.44

Air quality: Low 36

Quality of green parks: Moderate 46.68

Clean and Tidy: Low 33.34

Water Quality: Low 28.58

Landslides: Low

Flooding: Moderate

## experimenting

with

# the new site

The chosen site in Cholula shares some of the characteristics with the site in Higashi Matsubara, they are both considered suburbs of a larger city, not as populous and crowded.

#### **Each site is unique**

They both have narrow streets with moderate traffic. The ambiance is peaceful and not as hectic compared to their larger neighboring cities, namely Puebla and Tokyo. Both sites are oriented similarly and have the same sun paths, this is especially important in this project, since the sunlight plays an important role reflecting the shadows of trees in Hanegi park in the curved ceiling of the house. There is one important difference, and that is that the house at Hanegi Park is located in an L-shaped street, and although it is a public street it is for local transit and that gives the area privacy. In Cholula, the street is wider and it is a two way street, which essentially provides for a higher traffic flow. The L-shape is one of the key elements in the Hanegi site since it allows the front view of the house to be seen straight from the street while walking or driving, and the house is precisely what one comes across at the end of the street. The piece of land in Cholula is much larger than the one at the site in Hanegi Park, 450 m2 as opposed to 99.74 m2 so the first important difference is that the layout of the house placed in Cholula will not cover the whole land widthwise and lengthwise. The relation between the land and the building is quite different since the site in Cholula has larger dimensions.

Both sites are close to nature, the Hanegi site is right next to Hanegi Park and the Cholula site is close to the Zapotecas hill, yet the Zapotecas is much further from the back of the house. Japan has more green areas close to residential spaces, while in Mexico it is harder to find a site next to a park or a green area. To find a site that is located in an L-shaped street and with the same characteristics as the one in Higashi Matsubara, with the neighboring park in the west side of the house is a nearly impossible job, whether that is in Tokyo or in Puebla.



## Phase II: Analysis

## Interpreting the intangible values

Context are the circumstances that influence or could influence the surroundings of the architectural entity. Context has tangible and intangible elements. The tangible elements have been evaluated in the site analysis. The intangible elements are as important as the tangible ones because from them is where the real needs of the users are derived. The intangible elements are mostly cultural, social, and historic, along with these, customs, traditions, values and trending fashion also determine the needs of the clients. In architecture, the intangible elements represent ideas that are cultivated, ideas that change over the time of the design phase, they evolve and turn into a more definite form which will later influence and manifest in the built form. Following is a compilation of some of the intangible elements in Japan and Mexico. Japan is a very old civilization, influenced by the Chinese culture, yet they have their own language, traditions and religion. In Japan there are two main religions: Shinto and Buddhism. Their most important celebration is the New Year's for which they gather in public places. The family structure is called Kazoku, and in the past they often lived with elderly parents, but it is now becoming less common, since young adults frequently live in different cities. The Japanese are fish eaters, they consume 12% of the world's caught fish. The art of painting is common and has been part of the culture for a very long time. Their traditional clothing is the Kimono which they wear for festivities. Nature is very important in their culture; gardening has the status of artwork.

The Japanese people are very kind and respectful, and many times they are introverts or even loners. Mexico is an old civilization as well, it is a mixture of cultures. The main religion is catholic, and the main value is family. There are strong connections among the family members. Families are quite large, and they get together often sharing festivities, weekends and parties. Food and drink are always present in the many gatherings with family and friends and unlike the Japanese, these get-togethers are mostly in the homes, which usually have a large common area. Mexico has a varied gastronomy blending Indigenous and European cultures. Tequila and mezcal are its famous drinks. Mexican arts and crafts go from clay to silver, pottery and textiles. Mexican people are very creative but less structured and committed than the Japanese.

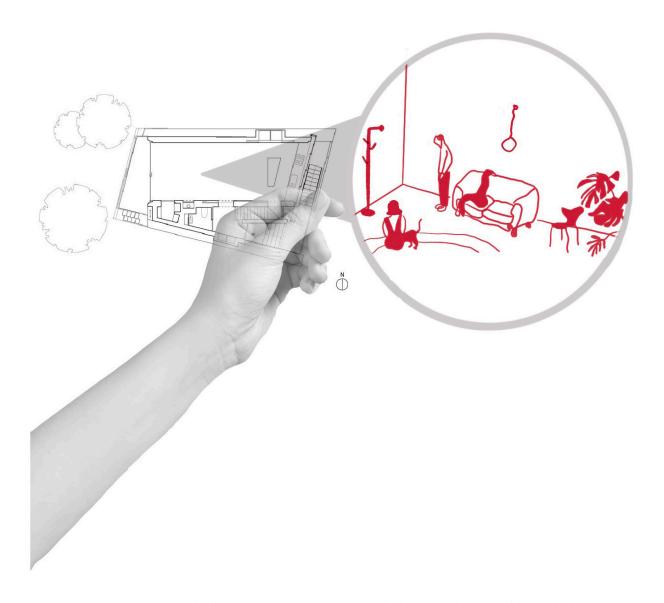
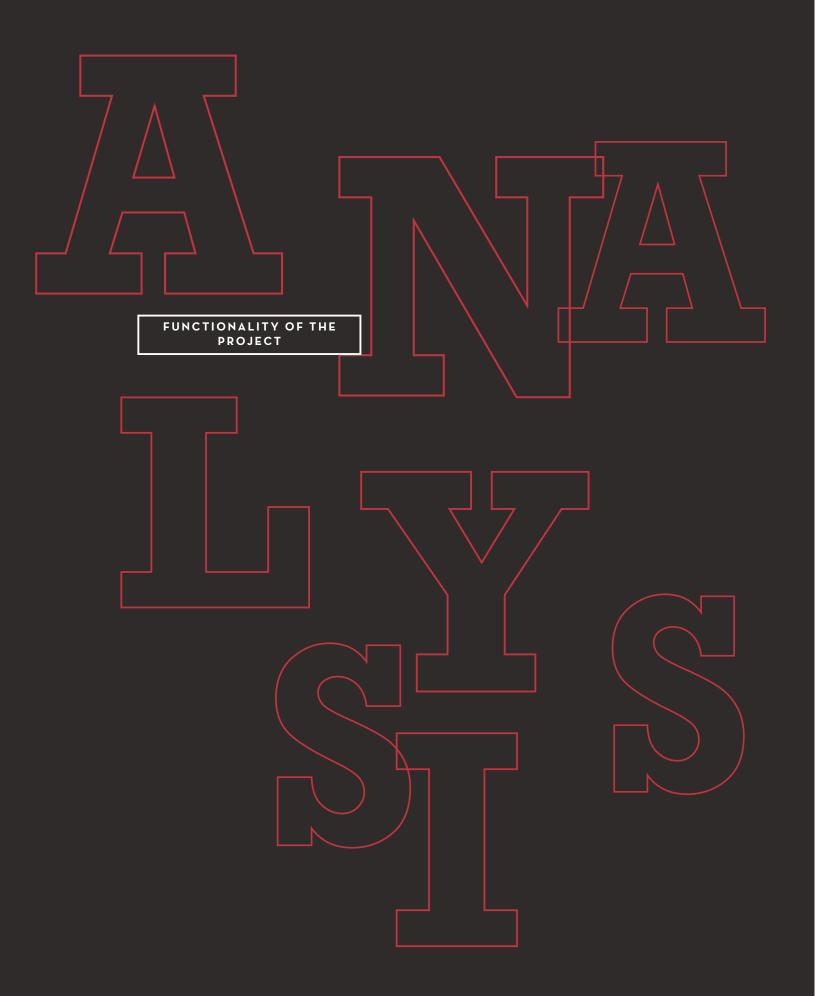


Figure 27: Need of larger common areas inside homes, elaborated by Isabel

The intangible elements come from all this habits and customs which in turn originate from culture and social structure. The intangible establishes the link between a person or a group with a specific space which in turn is appreciated because it concentrates the ties to the emotional senses and certain elements that are considered fundamental for the representation of values and visions. Architects therefore transform the intangible into tangible. At the end when you contemplate a piece of architecture, the intangible and tangible values aspire to work together in harmony and provide a visual delight for the users. Architecture produces a physical object but the feeling and reaction it evokes are intangible. Architects must strive to create objects that generate a positive feeling and reaction for the user or viewer.



Shigeru Ban Architects are known to take context seriously and make the most out of the site's characteristics. One of the magnificent features of this home is its frontal view.

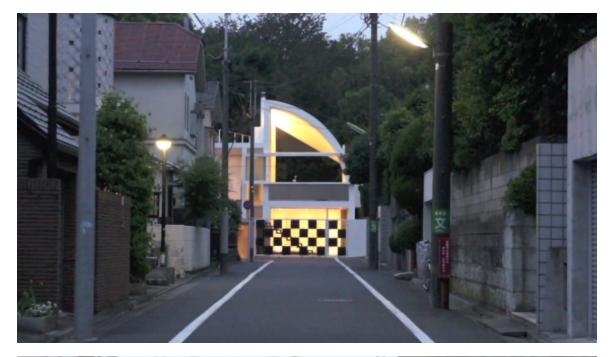




Figure 28: Frontal view Hanegi Park House, courtesy of Shigeru Ban Architects

The front façade is a composition of forms, rectangular forms that at some point overlap the curvature of the ceiling.

## Shigeru Ban likes to innovate, his projects are usually daring, playing with forms, shapes and geometry.

This house looks amazing, specially at night when it is lit. The ceiling starts with a curve, the angle of curvature keeps reducing until it finishes with a straight line. It looks like the ceiling is fading as if the frontal side were higher than the back side (see figure 28 for the illuminated house). This is not feasible in the Cholula site; while the house at Hanegi can be seen from far away in that L-shaped street, the house in Cholula could not be seen head-on, it would have to be seen sideways or head-on only from the sidewalk across the street. This would be true in many sites including right next door in Hanegi Park. Therefore, it proves that a project designed for a site cannot just be placed in another site and yield the same result, the same feeling. Continuing with the front façade, it has a screen of steel cables covered with vegetation, but this is the only element that restricts entrance to the house, it is two meters in height. Tokyo is the safest city in the world, and therefore this screen is enough in terms of privacy and nothing else is necessary for security purposes. The same is not true for Puebla, the home with this eement as a security fence would be vulnerable, the same is true for the stairs which are readily accessible to climb and thus the entrance could be transgressed. Houses in Mexico are usually protected by a surrounding fence or if that is not the case, whatever is accessible to protect them, like glass windows with metal bars. Doing either of these would totally ruin the façade of the home.

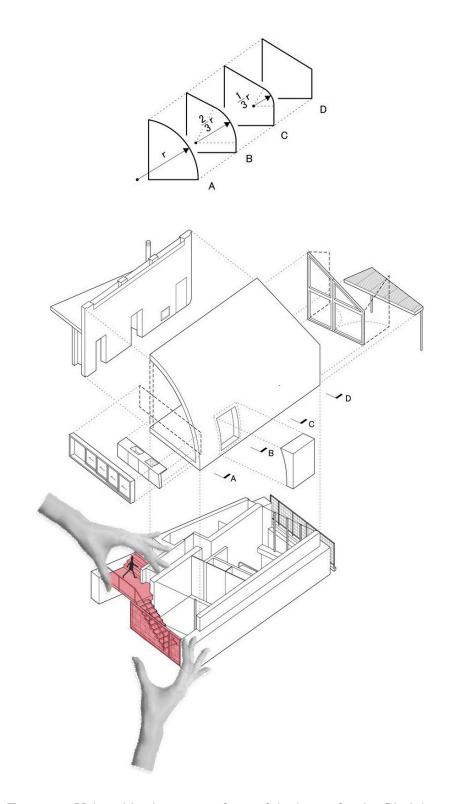


Figure 29: Vulnerable elements in front of the house for the Cholula site, elaborated by Isabel Gómez

The bedroom is located at the street level and although the vegetation in the fence provides some privacy, if looked closely it is quite easy to glance into the room. Japanese people are very respectful and retreated, while Mexican people need physical barriers to achieve privacy.

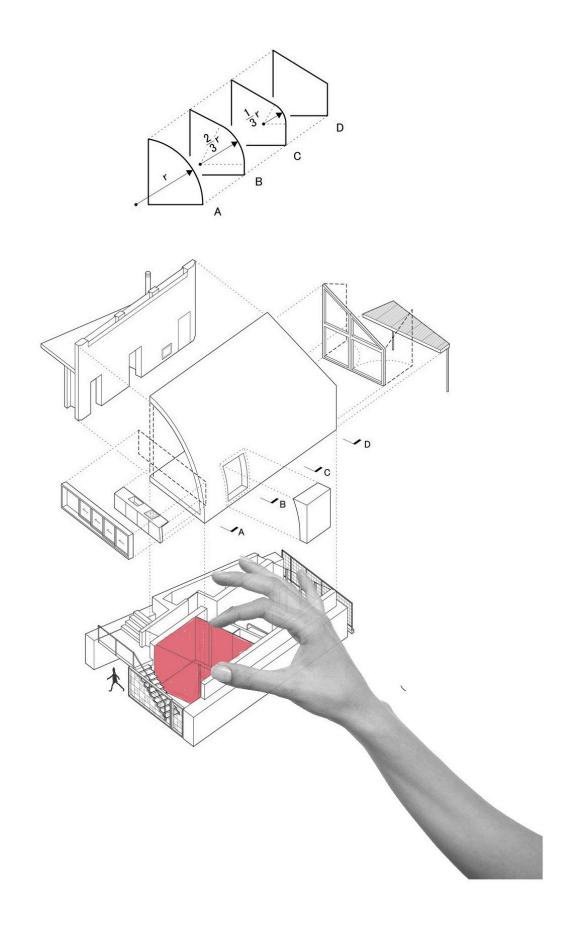


Figure 30: Inadequate place for a bedroom for the Cholula site, elaborated by Isabel Gómez

The front façade then fails to provide the same result in Cholula, on the one side because the house cannot be seen head-on, and on the other side because of security reasons modifications would need to be made. The other amazing feature of the construction is the west side facing Hanegi Park. The second floor has a wide-open space with a kitchen and living area. The kitchen faces the street through a rectangular aperture containing sliding panes which overlap and hide and provide abundant light and ventilation to the dining and living area. On the other side, this space faces the park, the curved ceiling in the front of the house turns into a straight inclined line in the back of the house and the doors open up completely to give way to a terrace or balcony.

#### The resulting feeling is that the park is part of the house or that it is collaged to the back wall.

What is even more fascinating being that when the sun is setting the park's vegetation reflects on the curved ceiling creating a sense of having those trees inside the house.

# West Side facing Hanegi Park

This be cannot achieved in the Cholula site because Zapotecas the hill further away. If the house were to be placed in the back of the land, the vegetation stands higher in elevation and thus the only view would be the raw hill. The only way to create a similar effect would be to bring down to the back of the house the greenery of the hill, and even by doing so it would be awfully hard to accomplish the same feeling.



Figure 31: From a curved to a straight line in the same space, courtesy of Shigeru

Ban Architects

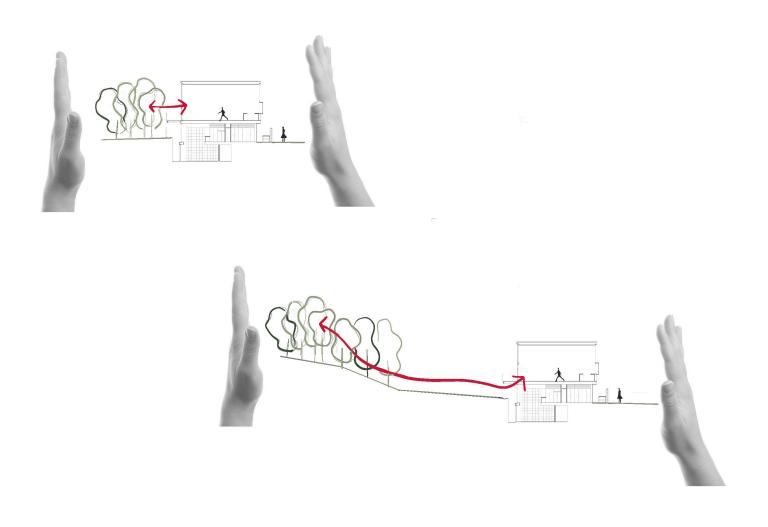


Figure 32: Proximity of the greenery, elaborated by Isabel Gómez

Cultural and social elements have an important weight in the functionality of a home. Japanese people are used to living in small spaces and therefore they buy the necessary things day by day, they do not overstock. Their kitchen spaces do not have large refrigerators or cabinets to store food. Their diet is based on raw foods that they do not freeze, these foods are readily available in convenience stores where they also find fruits and vegetables and all their nutritional needs. The Japanese do not own a large wardrobe and therefore closet spaces are limited. They do not accumulate things, not even for sentimental reasons like Mexicans do. All this has to do with the price of space. Land is scarce in Japan and therefore expensive.

In this particular home the kitchen is in the second floor and for the Japanese this does not present a problem since large market purchases are not common, but in Mexico people tend to buy food for several days, refrigerate it, freeze it and store it. So, having to go up the stairs with the groceries could be uncomfortable. The Hanegi Park house was specifically built for a couple, as can be seen in the floor plans it only has one bedroom. In Mexico it is very rare to find a house with only one bedroom, especially in the upper middle-class segment. The average size of a family in Japan is 2.4 while in Mexico it is 4.2. When a couple in Mexico buys, rents or builds a home, it almost invariably has an extra room for future children, or family and friends that stay over.

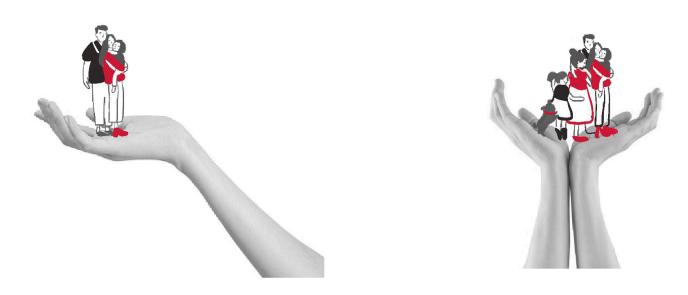


Figure 33: Family sizes in both contexts, elaborated by Isabel Gómez

In the West in general, houses have traditionally been built with rooms that each have a dedicated purpose like bedrooms, living room, dining room, or home office. By contrast, Japanese houses are built to use spaces as they are needed, furniture is brought in to suit whatever need of the day or season. Beds are sometimes stored in the wall and other furniture is replaced in the room, so that it can serve as a home office, a place for tea or other uses. Again, all this has to do with the lack of space.

The Japanese work long hours and children go to school longer than in the west, and therefore their time at home is limited to nights and weekends, they do not socialize at home like Mexicans do. Another important distinction is public transportation; Tokyo has a metro system that moves millions of people daily in a very efficient manner. Most people use this public transport for everyday life and if they own a car that would be for weekends or trips. It is more convenient to use the metro system. Most people in Mexico use their own cars, and many ride buses. The upper middle-class mostly uses cars, a family has at least two cars depending on the ages of the children. So, having a garage suitable to fit only one car is not convenient, even more so when parking in the street is not usually safe. Japanese people have the habit of taking off their shoes when they enter a house and therefore flooring in Japanese homes is different and not suitable for heavy traffic. From these, we can infer that many adjustments have to be made to the original project to meet the needs of the Mexican user and to adapt to the site, and even with those changes the same result would not be achieved, precisely because the site is not the same. If this house were to be placed in another site in Tokyo, fewer variations would be needed, but it would be extremely difficult to find a site like this one with the L-shape and the park behind it, the same dimensions and so on. This house was built with a specific couple in mind, even this would change if the clients had been different. A house designed for one site cannot just be placed in another site and hope to have the same outcome and effect.

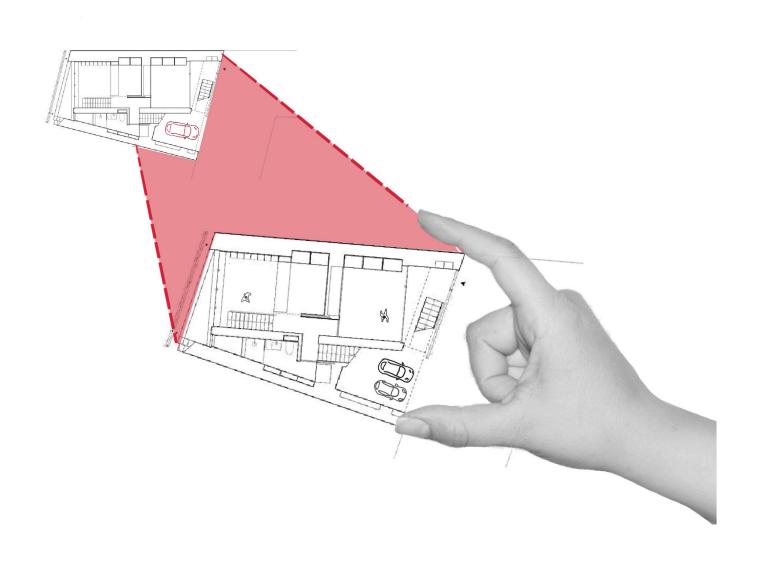


Figure 34: Dimension of rooms, elaborated by Isabel Gómez

# Feasibility of the project.

Through a thorough analysis of House at Hanegi Park and its context, we can observe how this project works and comprehends its context in depth. It responds positively to its proximal context, attending its surrounding spatiality, whether natural or constructed. In trying to accommodate the layout in the Cholula site, we observed that many of the key features in the original project did not work as well. Four of these aspects are worth highlighting: Two of them have to do with relationship between the building and its exterior context, the frontal view of the house which is very attractive and the back of the house which interacts directly with the woods. These two would be poorly accomplished in the

Cholula site. There would be no far frontal view and the proximity to the natural environment would be hard to achieve.

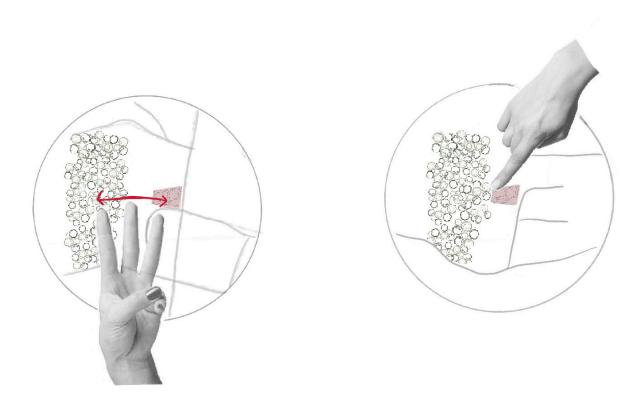


Figure 35: Proximity of the greenery, elaborated by Isabel Gómez

In order to overcome the security issue, changes would have to be made to the front façade. And lastly, due to the different social and cultural lifestyles between these two cultures, spaces and uses would have to be modified. New strategies have to be contemplated in order to find a solution to the lack of relationship of the building with its proximal context. If we replicate House at Hanegi Park in the new site, it will develop in conflict, and it will affect the functionality of the building itself and its surroundings. The architectural richness of a project is to manifest a contribution in favor of an evolution or significance of architecture, saying that a project does not articulate the context appropriately is to have a regression. The relationship to context is projected productively by seeking a deep connection through design to the exterior context of the project.

# PART IV: FINAL CONCLUSIONS

#### Context as

The present study attempted to demonstrate the vital importance of context as a tool in the design process and the intimate connection between concept and context. It is critical that the architect engages with the contextual conditions in order to understand the tangible and intangible elements to be able to succeed in developing effective solutions with a sense of place.

The House at Hanegi Park is the perfect example of the concept and context being in perfect harmony. The detailed site analysis of this place resulted in an architectural work that took enormous advantage of its privileged location. The house can be seen from afar at the end of the L shaped street, the front façade shines at night, the curvature of the ceiling with its decaying angle when illuminated seems like the frontal side is higher than the back side and this gives a sense of amplitude. The back side is adjacent to the park, at sundown the shades of the trees are reflected on the surface of the curved ceiling as if the trees were inside the house. This achieves the purpose of projecting nature to be part of the house. Just these two aspects of the house, makes it impossible to replicate the same project in another place. This exercise contemplated placing the floor plan in Cholula, there was an effort to find a lot in an L shaped street with nature or a park in the back, but it was impossible.

**Project Development.** 

#### Context as

It can be argued that there are many differences between Japan and Mexico therefore requiring changes because of the social and cultural context, and this is absolutely true as detailed in the previous pages, yet if this floor plan were to be placed in Japan, more concretely in the same prefecture, even in the same neighborhood or in the same street, the project would turn out different, and alternate solutions would be needed. Let us imagine we could move the house to the lot right next to it on the left, then The focal point of the design process must be the study of context, it is indispensable to establish a dialogue with the environment, the culture and social aspects of the site and the users. The architect must be empathetic, and sympathetic with context and be able to harmonize it with the concept.

Shigeru Ban thinks that making architecture appreciated by the people is what is most important, he strives to design buildings that people love.

He takes into consideration every condition of context, interior, proximal and further context, and perhaps most significantly, intangible context. For Shigeru Ban the context, primarily the intangible context such as culture and customs are key to the success of any project. He devotes time engaging with his clients, understanding them, their needs their culture their way of thinking, he gets to know them, so he is able to grasp what they feel and what they want and translate this information into architecture that they love.

**Project Development.** 

#### Context as

Shigeru Ban seeks to create meaningful and functional spaces, his teams strive to attain a deep understanding of the environment before undertaking any project, even if the project is that of disaster relief. He is admired for his simplicity, attention to detail, contemplative atmosphere and his emphasis of material lightness. Ban's projects have an ultimate goal and that is to make a conscious connection between the buildings and the users in order to transmit an indelible memory

As Khan commonly expressed, "What does the building want to be?"

If buildings were able to express their sensitivity, we would know if the architect accomplished a good relationship with context in its broadest sense. Architecture and context are inseparable, recognizing therefore the essentiality of contextual architecture.

The front façade could not be appreciated from afar. What if it was moved to the other arm of the L-shaped street? Then it would not have the park in the back. In both cases, the location of the windows on both sides and other elements would have to be changed. Even in the same neighborhood with many things in common, the immediate context is unique to each piece of land and therefore various aspects of the original project would have to be modified. In this example, moving the house next door defeats the purpose of the front façade or proximity to nature and the effect created in the curved ceiling. The study of context is a key element in making architecture that works.

#### LIST OF REFERENCES

Atkins, C. M. (2008). Towards a critical regionalism.

Ban, S. (2013). How to make houses. Tokyo: Heibonsha.

Ban, S. 1957-, & Watanabe, H. (2017). Shigeru Ban: Material, Structure and Space. Tokyo: Toto.

Burden, E. E. (2012). Illustrated dictionary of architecture (2nd ed). New York: McGraw Hill.

Contexture: Definition of Contexture by Lexico. (n.d.). Retrieved from https://www.lexico.com/en/definition/contexture

Curtis, W. J. R. (2013). Modern architecture since 1900 (3rd ed.). London: Phaidon.

Frampton, K. (2000). Seven points for the millennium: an untimely manifesto. The Journal of Architecture, 5(1), 21–33. doi: 10.1080/136023600373664

Jodidio, P. (2015). Shigeru Ban: complete works, 1985-2015. Köln: Taschen.

Jodidio, P. (2017). Shigeru Ban; architecture of surprise. Köln: Taschen.

Jodidio, P., Bosser, J., & Köper Kristina Brigitta. (2013). Hadid: Zaha Hadid complete works, 1979-today. Köln: Taschen.

María Buendía Júlbez José, Palomar, J., Barragán Luis, & Eguiarte, G. (1997). The life and work of Luis Barragán. New York: Rizzoli.

Nuijsink. (2012). How to Make a Japanese House. Rotterdam: NAi Publishers.

Pollock, N. R. (2015). Jutaku: japanese houses. London: Phaidon.

Tadao Ando (2002b). "Interview with Architectural Record" (May): http://archrecord.construction.com/people/interviews/archives/0205Ando.asp 86

Therhizomecowboy, Therhizomecowboy, & margaret louderback on 21/02/2012 at 17:38 said: (2011, March 2). Kenneth Frampton & Paul Ricouer: A Dialogue. Retrieved from https://criticalregionalismdotcom.wordpress.com/2011/03/02/kenneth-frampton-paul ricouer-a-dialogue/

Tschumi, B. (2005). Revista Arquine, volume (34)

Vernaculus; Definition of Vernaculus by Engyes. (n.d.). Retrieved from http://engyes.com/en/dic-content/vernaculus

Wright, F. L., Tomás, D. A., & Aguirre, A. G. (2018). La estampa japonesa. Vitoria-Gasteiz: Sans Soleil

Zimmerman, C., & Rohe, L. M. van der. (2017). Mies van der Rohe: 1886-1969: die Struktur des Raumes. Köln: Taschen. Frampton, K. (2000). Seven points for the millennium: an untimely manifesto. The Journal of Architecture, 5(1), 21–33. doi: 10.1080/136023600373664

Figure 1: URL1: https://www.timeoutmexico.mx/ciudad-de-mexico/arte/casa-estudio-luis barragan

Figure 2: URL2 https://www.google.com.mx/search?q=Arquitectura&tbm=isch&hl=es 419&hl=es 419&tbs=isz%3Al%2Csimg%3ACAQSkAIJag82ZbFTGnQahAILELC-MpwgaYgpgCAMSKOgK3Qq1FUKhgHiDMUKsBfXBaMX2CrNItwigT-

Figure 3: URL 3: https://www.zaha-hadid.com/architecture/issam-fares-institute-for-public policy-international-affairs/

Figure 5: URL4: https://www.inexhibit.com/wp-content/uploads/2015/12/Seoul-DesignPla-za-Zaha-Hadid-render-01.jpg

Figure 6: URL5: http://www.shishiiwahouse.jp/index\_en.html

Figure 25: URL6: https://www.gaisma.com/en/location/tokyo.html

Figure 26: URL7: https://www.gaisma.com/en/location/heroica-puebla-de-zaragoza.html

Figure 28: URL8: https://vimeo.com/50284298

#### LIST OF FIGURES

Figure 1: Casa de Estudio de Luis Barragan	26
Figure 2: Obra, Luis Barragan	27
Figure 3: Issam Fares Institue by Zaha Hadid Architects	29
Figure 4: Zaha Hadid Photos by Isabel Gómez Alvarez	31
Figure 5: Zaha Hadid DDP	32
Figure 6: Shishi-iwa House	33
Figure 7: Shishi-iwa House Photos by Isabel Gómez Alvarez	34
Figure 8: Shigeru Ban Architects' work represented in five categories	44
Figure 9: Site analysis figure, elaborated by Isabel Gómez Alvarez	51
Figure 10: Outside view, front façade of House at Hanegi Park courtesy of Shigeru Ban Architects.	54
Figure 11: Exterior stair leading to first floor courtesy of Shigeru Ban Architects.	55
Figure 12: The left picture shows the living space and part of the stairs that lead to first floor mezzanine. The right photograph is an overlook of living space from mezzanine courtesy of Shigeru Ban Architects.	56
Figure 13: These two photographs show the view of living room from first floor corridor and the view of stairs to the second floor from first floor corridor, courtesy of Shigeru Ban Architects.	57

Figure 14: This interior photograph displays the kitchen and the dining area of the project. The picture on the right shows the entrance to dining area courtesy of Shigeru Ban Architects.	58
Figure 15: The view to the west from the dining area with a curved wall-ceiling enclosing it courtesy of Shigeru Ban Architects.	59
Figure 16: Front and backside of house at night courtesy of Shigeru Ban Architects	60
Figure 17: Site plan elaborated by the author	61
Figure 18: Floor plan / level -1, elaborated by the author	61
Figure 19: Floor plan / level 0 elaborated by the author	61
Figure 20: Floor plan / level 1 elaborated by the author	62
Figure 21: Section, elaborated by the author	62
Figure 22: Exploded axonometric, elaborated by the author	63
Figure 23: Photographs of the front façade by Isabel Gómez Alvarez	65
Figure 24: Photographs of the backside facing Hanegi Park by Isabel Gómez Alvarez	67
Figure 25: Sun path, Time Tokyo elaborated by the author	73
Figure 26: Sun path, Time Puebla elaborated by the author	73
Figure 27: Need of larger common areas inside homes, elaborated by Isabel Gómez	81
Figure 28: Frontal view Hanegi Park House	84

Figure 29: Vulnerable elements in front of the house, elaborated by Isabel Gómez	86
Figure 30: Inadequate place for a bedroom for the Cholula site, elaborated by Isabel Gómez	87
Figure 31: From a curved to a straight line in the same space, courtesy of Shigeru Ban Architects	89
Figure 32: Proximity of the greenery, elaborated by Isabel Gómez	90
Figure 33: Family sizes in both contexts, elaborated by Isabel Gómez	92
Figure 34: Dimension of rooms, elaborated by Isabel Gómez	94
Figure 35: Proximity of the greenery, elaborated by Isabel Gómez	96

# PARTY: ANNEXES

#### SHIGERU BAN ARCHITECTS

5-2-4 Matsubara Ban Bldg.1F, Setagaya-ku, Tokyo Japan Telephone: +81-3-3324-6760 Facsimile: +81-3-3324-6789

#### LETTER OF RECOMMENDATION

February. 19th, 2020

To whom it may concern,

It was a pleasure having Ms. Isabel Gomez Alvarez work for our architectural office from August through December 2019. During this period, she has contributed to projects as follow:

- Hotel Project, Concept Design to Schematic Design, Karuizawa, Japan
- Paper Partition System Installation at Evacuation Centers for Typhoon Hagibis, Nagano, Japan
- Public Toilet, Concept Design, Tokyo, Japan
- Hotel for Zen, Schematic Design, Awaji, Japan

During this time, Ms. Isabel Gomez Alvarez was exposed to our office design process as well as to different aspects of the architecture profession.

Ms. Isabel Gomez Alvarez worked under the direction of several senior staff, all who appreciated working with her. She handled well the pressures of working under tight time constraints and deadlines and performed all tasks asked of her and in many cases surpassed our expectations. Her dedication and enthusiasm were evident in the high level of quality and integrity of the work which she produced. She adapted well with her peers and showed excellent composure within a professional working environment.

We thoroughly enjoyed having Ms. Isabel Gomez Alvarez with us and I hereby certify her internship at Shigeru Ban Architects.

Sincerely,

Shigeru Ban

min

株式会社坂茂建築設計 東京都世田谷区松原 5-2-4 〒156-0043

Telephone: 03-3324-6760 Facsimile: 03-3324-6789 http://www.ShigeruBanArchitects.com



CONTACT

isabel.gomalv@gmail.com +521 2223 5859 14 @isagomz



Puebla, México

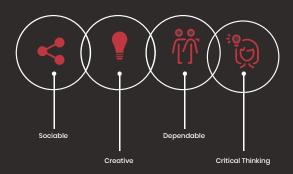
#### **AROUT ME**

I'm 22 years old, passionate about architecture and design. I want to inspire and broaden minds with my work.

Seeking for experience, knowledge and an opportunity to make a contribution with what I have learnt during my studies. I am full of energy and eager to learn.

I have the ability to meet deadlines, work under pressure, good communication skills, talented and extremely hard working. I am a highly ambitious designer with hopes of improving urban issues and the quality of life of people through architecture and design.

#### PERSONAL SKILLS



#### **DESIGN SKILLS**

01 Computer

Adobe Photoshop

Rhino
Sketchup
Adobe Indesign
Adobe Illustrator
AutoCad

02 Knowledge

Interior Design.
Architecture Design.
Product Design.
Landscape Design.
Good sense for typography.
Color theory knowledge.
Image editing.
Graphic Design.

#### ISABEL **GÓMEZ ALVAREZ**

Architect undergraduate

#### LONG STORY SHORT

1996

Birth

2011

Middle School Abroad

Grier School, Tyrone, Pennsylvania

2015

Graduated from High School

American School of Puebla, México

From 2015 to 2020

Architecture student

University of Las Américas Puebla, México

2018

Exchange program

University of Copenhagen, Denmark

2019

Internship in Tokyo, Japan

Shigeru Ban Architects

#### **WORK EXPERIENCE**

No.

Free lancing in interior design and furnishing apartments and homes.

No. 2

Restauration of the upper levels of a 1910 home in the city center to turn them into mexican contemporary lofts.

No. 3

Participation in an architectural installation at the design week in Puebla, México.

No. 4

Project development and design of new offices for a Government building in Tlaxcala.

No. 5

Restyling of a men's clothing store in the historic center of Puebla, La Nueva España. Furniture and store layout design.

No. 6

Collaboration in a hotel boutique in Karuizawa, Japan as part of Shigeru Ban Architects

#### **RECOGNITIONS**

Q

Granted 100% Scholarship to the school of architecture, this prize is awarded to the valedictorian of the American School.

Ž

Honors Program of the School of Architecture.



Chosen to participate in a National Contest for the design and development of emerging housing.



3rd place winner of the International Ideas Competition, 110 Anniversary Félix Candela (1910-2020)

#### **HOBBIES & INTERESTS**









Books

Fitness

Travelling

Music

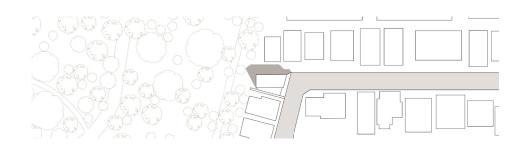
#### LANGUAGE SKILLS







4-CHOME-33-10 DAITA SETAGAYA CITY, TOKYO-TO 155-0033, JAPÓN



#### SHIGERU BAN ARCHITECTS

**SCALE:** 1.100

DRAWN BY: ISABEL GÓMEZ

ALVAREZ

DATE: APRIL, 2020

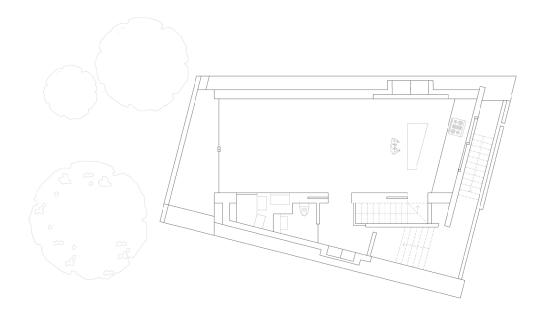
**DRAWING TITLE:** 

SITE PLAN

DRAWING NUMBER:

**A** - 1

4 - C H O M E - 3 3 - 1 0 D A I T A S E T A G A Y A C I T Y , T O K Y O - T O 1 5 5 - 0 0 3 3 , J A P Ó N



#### SHIGERU BAN ARCHITECTS

**SCALE:** 1.100

**DRAWN BY:** ISABEL GÓMEZ

ALVAREZ

DATE: APRIL, 2020

N

DRAWING TITLE:

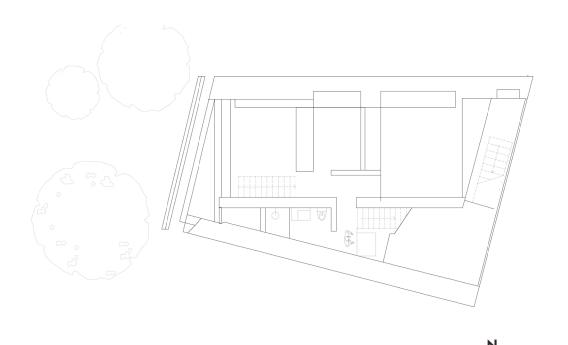
FLOOR PLAN / LEVEL

1

DRAWING NUMBER:

A- 2

4-CHOME-33-10 DAITA SETAGAYA CITY, TOKYO-TO 155-0033, JAPÓN



#### SHIGERU BAN ARCHITECTS

**SCALE:** 1.100

DRAWN BY: ISABEL GÓMEZ

ALVAREZ

DATE: APRIL, 2020

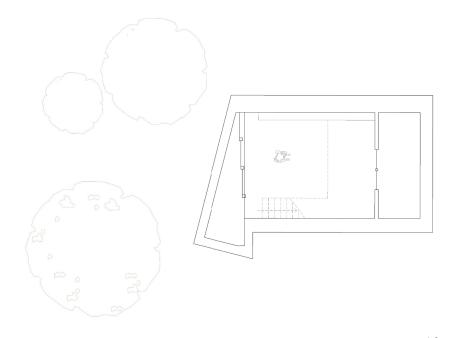
DRAWING TITLE:

FLOOR PLAN / LEVEL ()

DRAWING NUMBER:

A - 3

4-CHOME-33-10 DAITA SETAGAYA CITY, TOKYO-TO 155-0033, JAPÓN



#### SHIGERU BAN ARCHITECTS

**SCALE:** 1.100

DRAWN BY: ISABEL GÓMEZ

ALVAREZ

DATE: APRIL, 2020

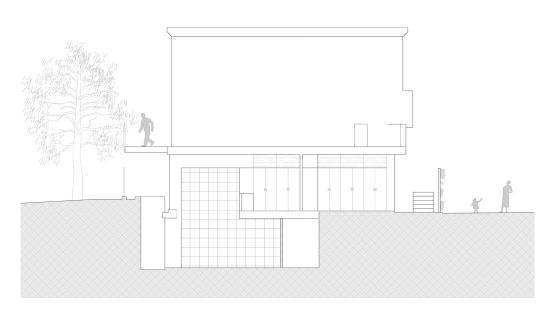
DRAWING TITLE:

FLOOR PLAN / LEVEL -1

DRAWING NUMBER:

A - 4

4-CHOME-33-10 DAITA SETAGAYA CITY, TOKYO-TO 155-0033, JAPÓN



#### SHIGERU BAN ARCHITECTS

**SCALE:** 1.100

DRAWN BY: ISABEL GÓMEZ

ALVAREZ

DATE: APRIL, 2020

DRAWING TITLE:

**ELEVATION** 

DRAWING NUMBER:

A-5