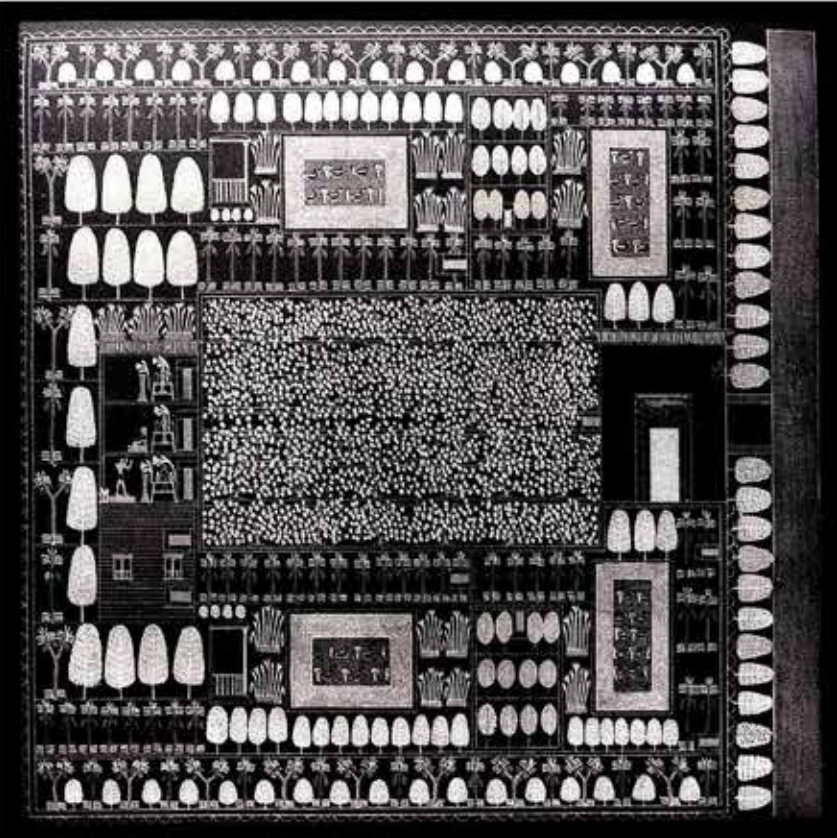


CULINARY MARKET SCHOOL

KAROLOS MICHAILIDIS



Religion, society, nature; these are the three struggles of man. These three conflicts are at the same time, his three needs: it is necessary to believe, hence the temple; it is necessary for him to live, hence the plow and the ship. But these three solutions contain three conflicts. The mysterious difficulty of life stems from all three. Man has to deal with obstacles under the form of superstition, under the form of prejudice, and under the form of the elements. A triple ananke (necessity) weighs upon us: the ananke of dogmas, the ananke of laws, the ananke of things.

[VICTOR HUGO]

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ACKNOWLEDGEMENTS

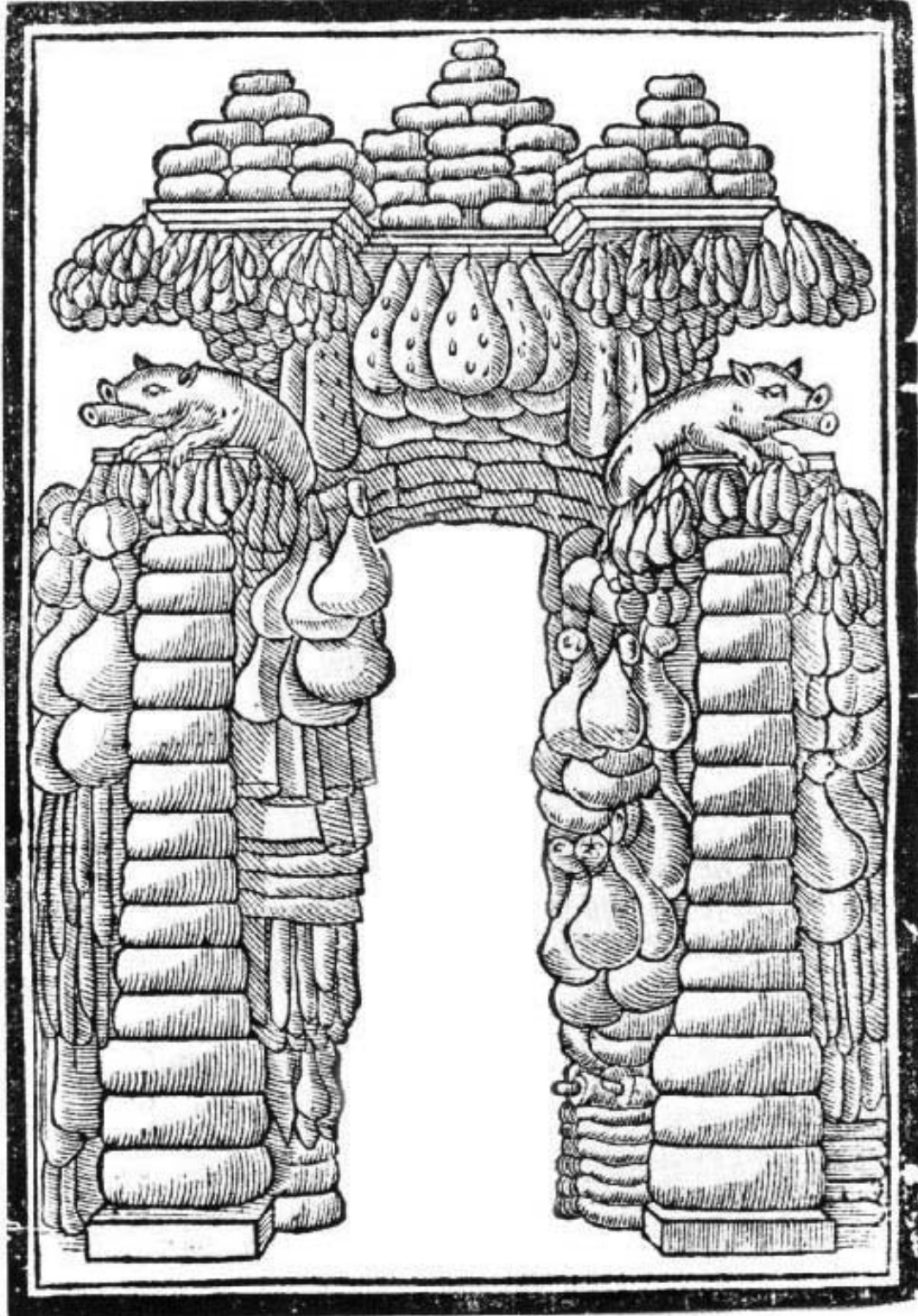
Sincere thanks to everyone who contributed to this project and its completion, especially my friends and fellow students from studio 4.9 (Nataly, Mat, Marta, Luis and Claudia) for having the patience and helping me enjoy this project and the journey towards its completion.

Elantha Evans | Personal/visiting tutor
Martin Gledhill | Head of year
Peter Norris | Oculus Building Consultancy | Regulatory compliance
Doug King | Energy & Environment

PROLOGUE: CUISINE AS ARCHITECTURAL INVENTION

To consider cookery through an architectural lens summons up a host of images at the same time culinary and art historical. First to come to some minds will be the romantic creations by the founder of modern French grande cuisine, Antonin Carême, following his dictum: "Most noble of all the arts is architecture, and its greatest manifestation is the art of the pastry chef." Others, more resolutely post modern, will admire or decri current obsession on the part of certain chefs with "plated" constructions that owe more to inspirations from Frank Gehry's imaginative craft of novel materials and visual delights than to gustatory pleasure.

From the fanciful art of shifting scales to the logic of measurement promised by a teaspoon or an inch arises the secret architecture of food, or perhaps the secret food of architecture. This quiet apposition of form and substance, found in a plate of tomatoes more Pompeian red than any wall fragment, enunciates the central questions of this collection. What can be learned by examining the intersections of the preparation of meals and the production of space? What can be made from the conflation of aesthetic and sensory tastes in architectural design and what is disclosed by their dissociation? Such questions guide this work toward an architecture found in the gestures, artifacts, and recipes that belie any distinction between art and life.



Arch of vigilance, celebrating the rule of the Duke of Alba, Naples, June 23, 1629. From Francesco Orilia, *Il Zodiaco, idea di perfectione di principi...* (Naples, 1630); courtesy of the Warburg Institute.

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INTRODUCTION



| History and Theory Essay |

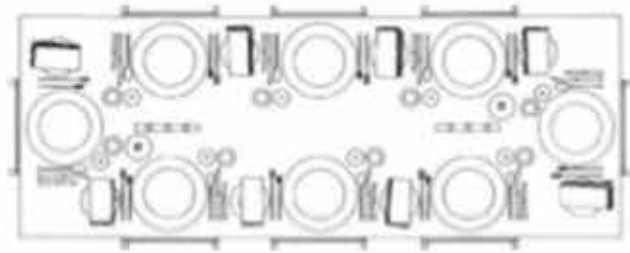
[...] The purpose of this essay is to investigate food and eating as a spiritual act and consider the spatial and performative aspects of eating in relation to architecture. In the first part of this essay we will be dealing with the idea of designing a space in relation to a preparation of a meal. We will discuss the ways in which shared meals are among the most perishable and preserved cultural artifacts. Ideas of memory, identity, ideology, conviviality and loss will be related to culture and setting, giving examples of how they bring architecture and food together. In the second part of the essay we will be using four typologies of buildings (household, restaurant, monastery, market) and looking to each one separately in order to see how does the space affect the performance of cooking and eating and what meaning does food have in each of these spaces. The relation of food and space is analyzed through both tradition and contemporary examples. The conclusion of the essay focuses on the globalization of the 21st century and the loss of identity due to the conflicting society and the debate between tradition and modernism. I was very intrigued to read and find links between these two areas, which both interest me and at first seem not to be related. However these two worlds seem to share so many similar ideas and are based on the same ethos and ideology.

TERITORIAL IDENTITY

[...] "Vernacular houses commonly are shaped around eating habits and related social customs, such as the Chinese tradition of families dining together and the Japanese separation of the sexes during meals". The example of ancient Greeks and the use of the olive tree can reveal a new way of understanding social development. A single tree provided food and olive oil, a fruit for trading, wood for building and construction. Similarly with landscaping a building, using trees, rocks, water, the ambience of a plate is determined by the colors, position, structure and compilation of ingredients aiming to provide an experience, a memory and an identity. Combining a single element with others, all keeping their initial identity and qualities an architectural mille feuille is created which can be architecturally parallelized to the design of Herzog and de Meuron for the terraces of Beirut in 2013, which acts upon its territory and reflects through its materials/ingredients.

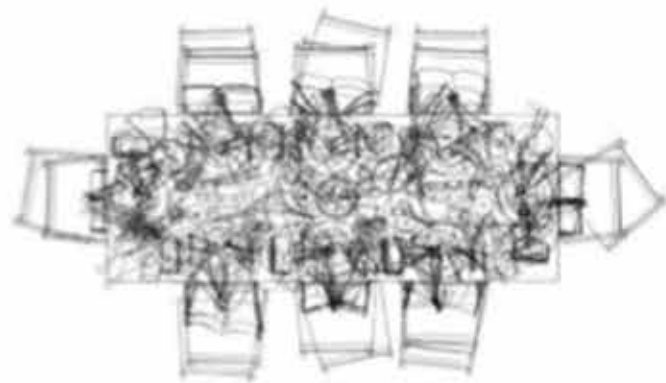


Robin Fox, "Food and Eating: An anthropological Perspective"(essay). Social Issues research Center, 2010.



THE LAY OF THE TABLE

An architectural ordering of place, status, and function. A frozen moment of perfection. This is how architects see.



THE MEAL

Use begins to undermine the apparent stability of the architectural order. Traces of occupation in time. The recognition of life's disorder.



THE TRACE

The dirty tablecloth, witness of disorder. A palimpsest. This is the reality of domestic life.



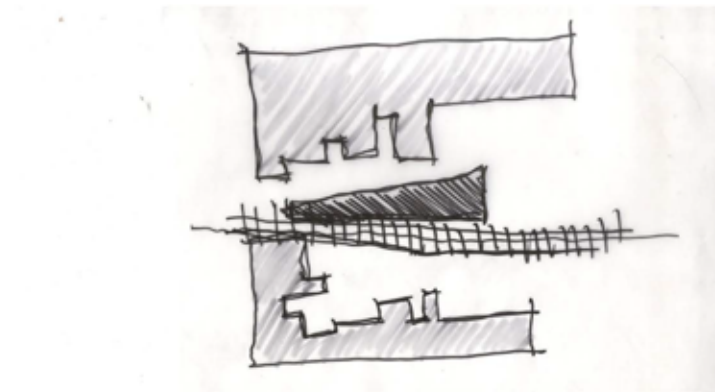
THE LAY OF THE PLAN

The trace transformed into the plan of our house. Clutter filling the plan(e). Domestic difficulties interrupting the order of the grid.

| Into the garden |

The term Hortus conclusus ("enclosed garden") was taken from the Song of Solomon (4:12) by medieval theologians who interpreted the reference as a prefigurative symbol of Mary's fruitfulness but perpetual virginity (like the "shut gate," Porta clausa, through which only God may enter, from the vision of Ezekiel 44:2). The symbolism was developed by numerous authors and gave rise, especially in later medieval art, to images of the Madonna and Child seated within a lovely garden surrounded by walls or a fence.

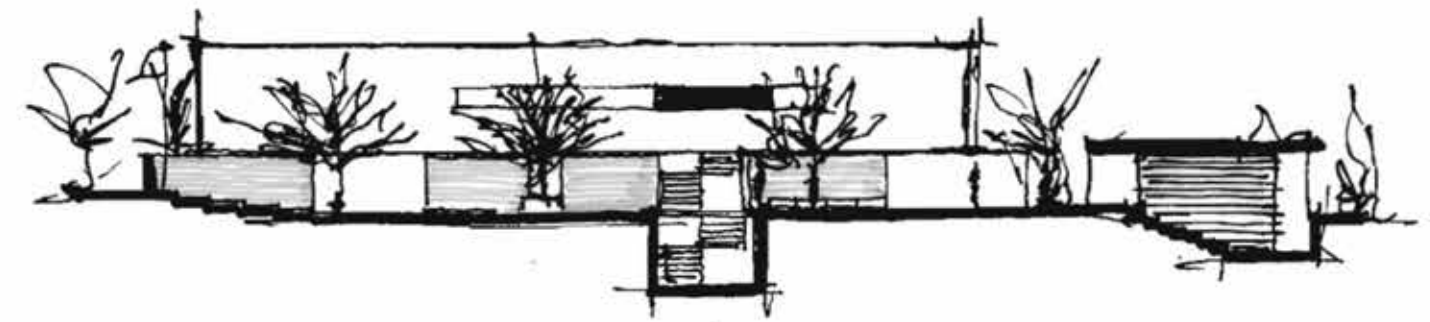
Abundant trees and flowers, especially roses and lilies may be indicated in the peaceful landscape setting. Sometimes a fountain (the "spring shut up," "fountain sealed," "well of living waters," from the Song of Solomon 4:12, 15) and angels are also represented. Mary may also be shown without the infant Jesus but accompanied in the garden by a unicorn, again a symbol of her purity. This image is sometimes conflated in late medieval art with scenes of the Annunciation; hence Gabriel may also appear within or outside the garden enclosure.



Medieval Art: A Topical Dictionary, Leslie Ross, Greenwood Press, Westport, CT, 1996.

Cleanness and orderliness define Culinary Art School, and it's really all needed when seeking to respond the project's requirements, located in Tijuana, Baja California, Mexico. At a quick glance, any stranger would say anything but a professional cooking school is housed inside these two volumes, which function as the main characters, and where materials like exposed concrete, steel, garapa wood, glass and metal structure are combined. It is located with not very much in its surroundings, which is why the two main volumes face each other, creating a transition space: the grand plaza.

The greater volume contains the administrative offices, classrooms, library, and the wine cellar. On the second main volume, the cooking stations, with absolute transparency between it and the plaza, as well as with the other workshops. "We are always in-between, inside and outside simultaneously", says Inés Moisset; a third volume is involved, which accommodates the cafeteria and a small auditorium, where the alumni is able to observe their professors' work. Graciastudio is characterized not only for solving functionality and aesthetics, but contributing with creativity in each project, as well as low-cost and use of new technologies and local materials, which translate into an innovative architecture. It is a great example for me to understand, grasp and feel the needs and flow a cooking school might have. Although the architectural designs for cooking schools were not many, the design by Jorge Gracia was fruit for thought. What inspired me most was the use of materiality and the flow through and into the building.



Associates: Jorge Gracia, Javier Gracia, Jonathan Castellon
Construction: graciastudio
Project area: 894 sqm
Project year: 2010

| A socio-political commentary|

Conflict Kitchen is a take-out restaurant that only serves cuisine from countries that the United States is in conflict with. The food is served out of a take-out style storefront, which will rotate identities every four months to highlight another country. Each Conflict Kitchen iteration is augmented by events, performances, and discussion about the culture, politics, and issues at stake with each country we focus on. It is currently presenting the second iteration of Conflict Kitchen via Bolani Pazi, an Afghan take-out restaurant that serves a savory homemade afghan turnover filled with either pumpkin, spinach, lentils, or potatoes and leeks.

Through food, wrappers, programming, and daily interactions with customers, Conflict Kitchen creates an ongoing platform for first-person discussion of international conflict, culture, and politics. In addition, the project introduces a rotating venue for culinary and cultural diversity in Pittsburgh, as future iterations will focus on North Korea, Venezuela, and more. It is a great example of how food acts in society and creates a strong commentary.

Conflict Kitchen is a project by Jon Rubin, and Dawn Weleski and is funded by the Sprout Fund, The Waffle Shop, the Center for the Arts in Society, and the sale of food. Graphic design by Brett Yasko. Architectural design by Pablo Garcia of POiNT. It is a great example of how food acts in society and can affect the social, economic and political life. It also proves how fundamental food is, and how important part of our daily social life. This is also the main focus of my project: highlighting and establishing eating and cooking as an important social act.



For more information please visit: www.conflict-kitchen.org

On a recent morning, before the midday sweltering heat had settled on Madrid, a statuesque fashion model clad entirely in white, her hair pulled tight and high into an elaborately wrought bun, posed with a bountiful head of lettuce in front of a fruit stand so beautiful it looked to be a still life. An elderly woman pushed forward past her, eager to get some tomatoes and move on to the next stall, photographer be damned. In Madrid even those paths most heavily trod by guidebook-toting package tour groups are also home to living and breathing city dwellers, fashionable and otherwise. That delicate balance of commerce and fashion, tourism and daily life, meets just outside the walls of Plaza Mayor where the long-dormant Beaux-Arts Mercado San Miguel has reawakened, like a city-market phoenix, after a multi-year restoration.

After visiting Madrid this summer, I spent a day in the market. This was a great source of inspiration. It is something which is not seen in the UK and I believe it would promote a completely fresh idea about food and its importance in our social life. The Plaza San Miguel has been a haggling haven for Madrid's homemakers and servants since the early 19th century. The iron-and-glass Mercado opened in May 1916, a monument to modernism and new ideas on hygiene, reminiscent of Les Halles in Paris. Eventually all but abandoned, the building fell into disrepair. Restoration began after private investors bought the building in 2003. In a nod to living green, instead of air-conditioning, the air is infused with water droplets; every few minutes shoppers are bathed in a blast of micro-rain.

Spanish Proverb: The belly rules the mind.

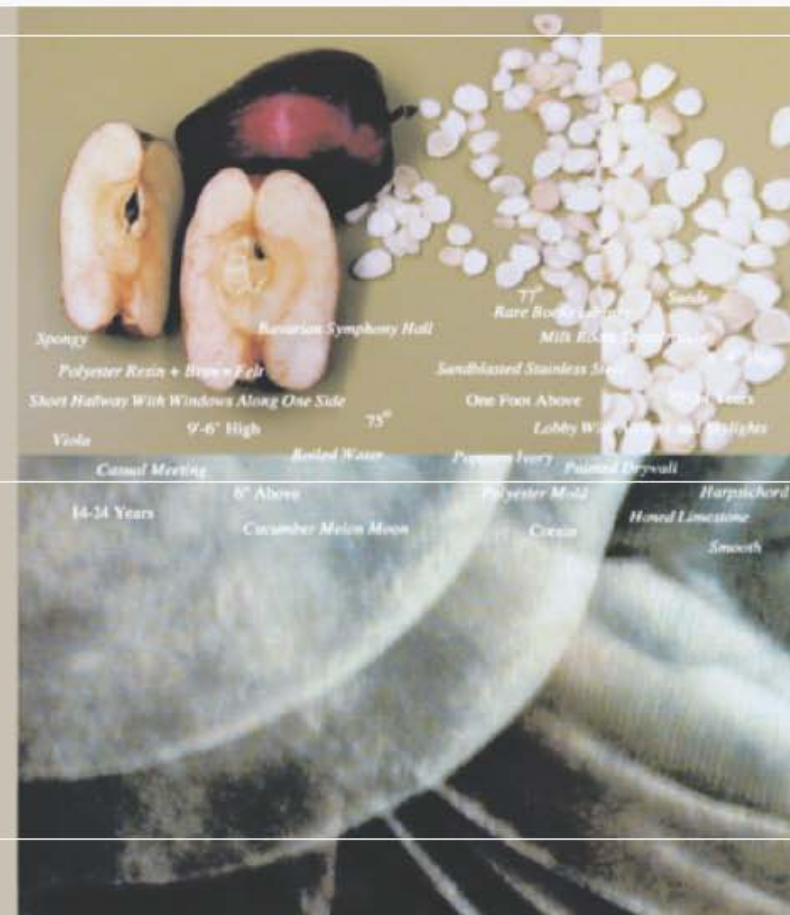


Barcelona Market-entrance



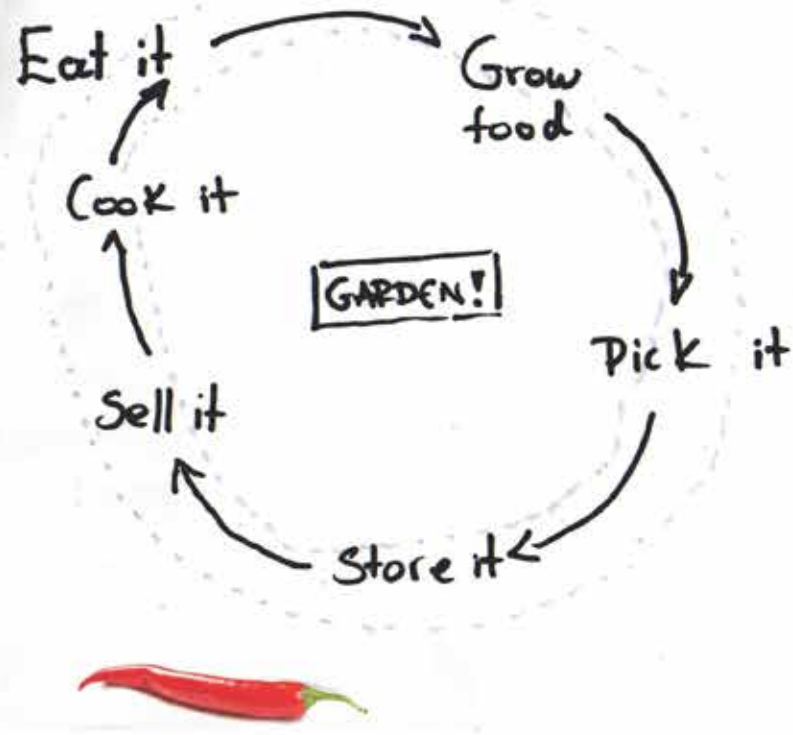
"It's a traditional market for the 21st century," said Ana Martin, a publicist for the 33 vendors loosely linked side-by-side under a soaring wood-and-iron roof.

By day the Mercado woos residents and visitors alike, with purveyors hawking everything from produce to fish, fresh pastas to pastries, cookbooks to cooking utensils. After hours, the crowd shifts focus to beers and tapas; the fruiteria closes; a wine bar draws a genial mob.

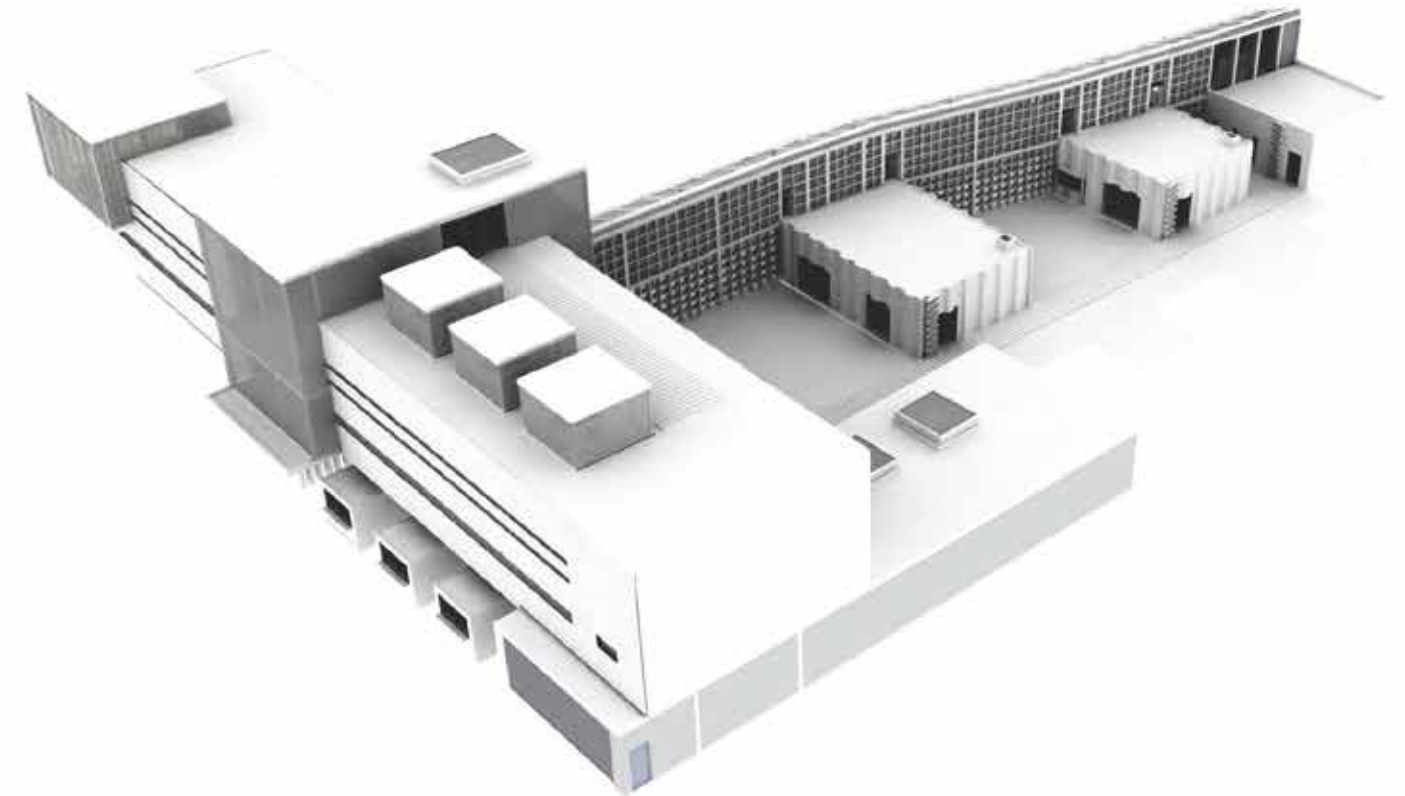


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My observation of today's society lies upon the loss of understanding about the importance of food in our everyday life. My aim is through my design to re-invent and re-enforce the idea of FOOD SHOPPING, COOKING and EATING. My school of Culinary arts will not only be about learning to cook but understanding the spirituality of food and making food an integral part of people's daily routine. As an aspiring architect and an admirer of good food I found this opportunity to combine these two forms of art and present in my own way the relationship between the two. Located centrally in Bath, it will attract the society of Bath but also bring people from all over England to experience food and its origins in the 21st century: **growing- picking- storing- selling- cooking- eating**



Hortus Conclusus is a Latin term, meaning "enclosed garden". The word 'garden' is at root the same as the word 'yard' and is both an emblematic attribute and a title of the Virgin Mary in Medieval and Renaissance poetry and art.





For me I see the idea of the market as an interpretation of the Garden city. The terms of Alienation, Nature and Re-conciliation I try to re-invent them through the idea of a market of the 21st century and create a modern "garden city".

The focus of the building program is to provide a place of academic study and active instruction for a short period (3 months-1 year) curriculum Culinary Arts program. Emphasis is placed on learning by doing, so the instruction and demonstration spaces become the primary elements of the program. A level of interaction beyond instruction is also to be provided by the juxtaposition of a restaurant within the school, where students will be doing their practice, allowing an active participation in the setting of the city.

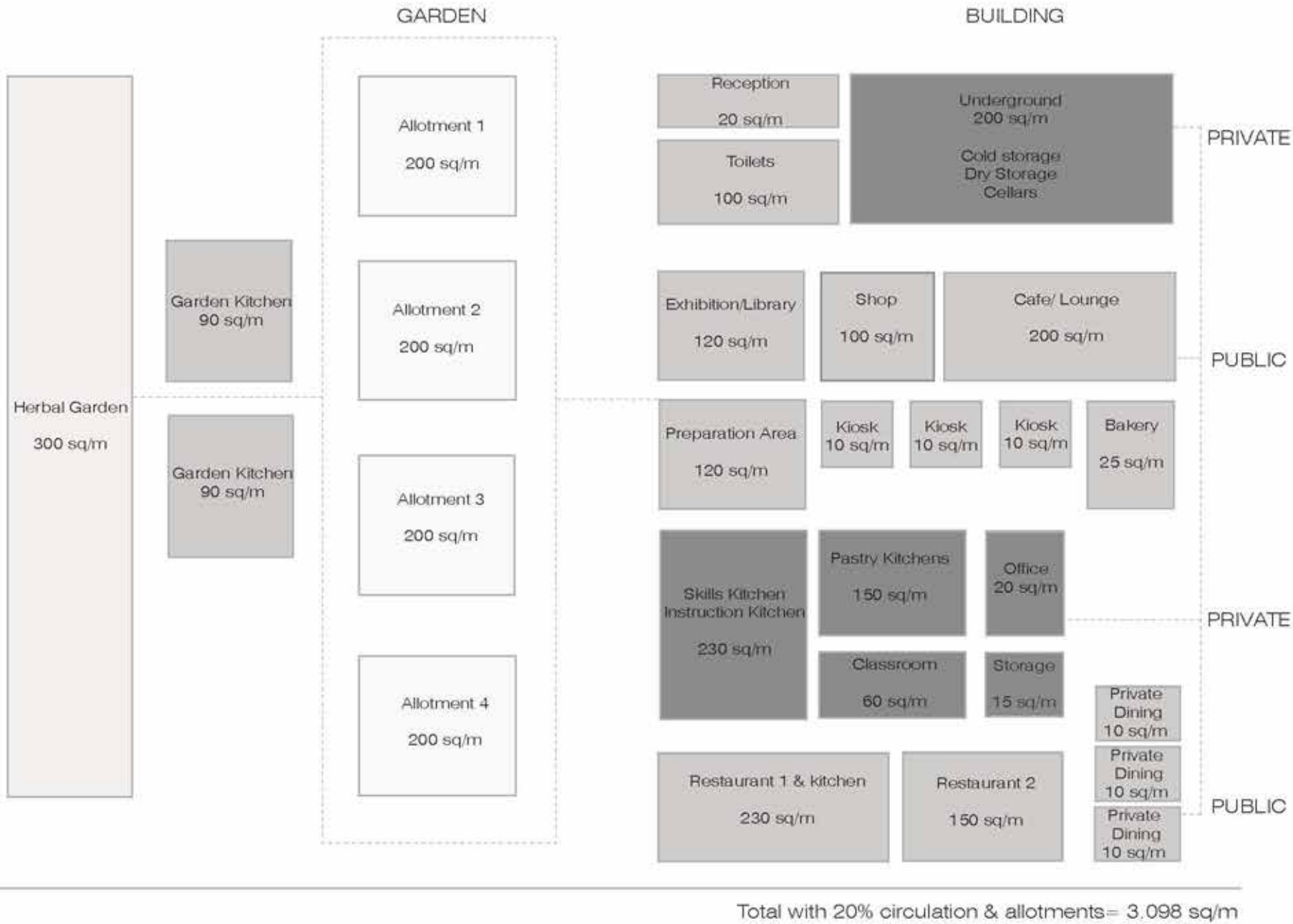
The arrangement of the school will defer a bit from what conventional cooking school would advise. Instead of having the main classrooms/kitchens in an underground level as seen in many culinary institutes and hotels in the United States, they will be in the first floor allowing views and positioning the students into the grains of the city. The structure of the course will work together with the architecture and the knowledge of the students will rise as they ascend inside the building.

In the first stage student will be learning about the raw food and goods. This will happen in the underground level where there will be classes and students will learn where each ingredient comes from, how it is stored and what process is needed in order to prepare it to use it in the kitchen. The school will focus more on goods that are relevant to bath (beer, mushrooms, cheese) but will have a more general cuisine providing a more broad knowledge to students.

The aim is for student to learn the skills to be able to cook from very fine dining cuisine to everyday simple plates. In the 'dungeons' students will work based on the ideas of a monastery, inside the cellars, in the base/core of the building.

In the second stage students will get into the kitchens to learn their core lessons. This will be the main part of their education and it will be all the classes and classrooms are. In this stage they learn how food is prepared, and cooked. Different techniques, different cuisines, and experimentations.

The third stage is the knowledge they get working in the restaurant. Except the food served in the market there is a restaurant that students run and they learn how to present and serve the food in order for their education to be complete. The public and private space will be connected through the reception/welcome area. This division will create the privacy needed for the school classes and intimacy that cooking requires but in the same time make the school a source of inspiration, movement, and interaction.



| Programatic Requirements |

The main functions of the design will be in the main building which will act as a threshold, or a 'gate'. The building itself although it will not have a convectional door it will be the entrance through to the core of the site and square.

THE HERBAL GARDEN

A main element of the design will be the herbal garden. Inspired by the English green houses and arches, some really beautiful that can be found in Bath. The Herbal Garden will act as a street used by the public to cross from one side of the square to the other. Forming this new street, the grid of the city is enhanced and anew route is created.

THE HORTUS CONCLUSUS

The second prevailing element of the design is the series of allotments, the enclosed garden. The aim is to create a green oasis in the centre of the city. This series of allotments, on different levels will introduce to the city an opportunity to grow vegetables and fruits next to their houses. Although Bath has a series of allotments there is none close to the city centre. Although the space provided will not be enough to grow goods for the whole school it will be more about the interaction between the public and the students and learning how to grow, the elements of soil and the importance of it in our lives.

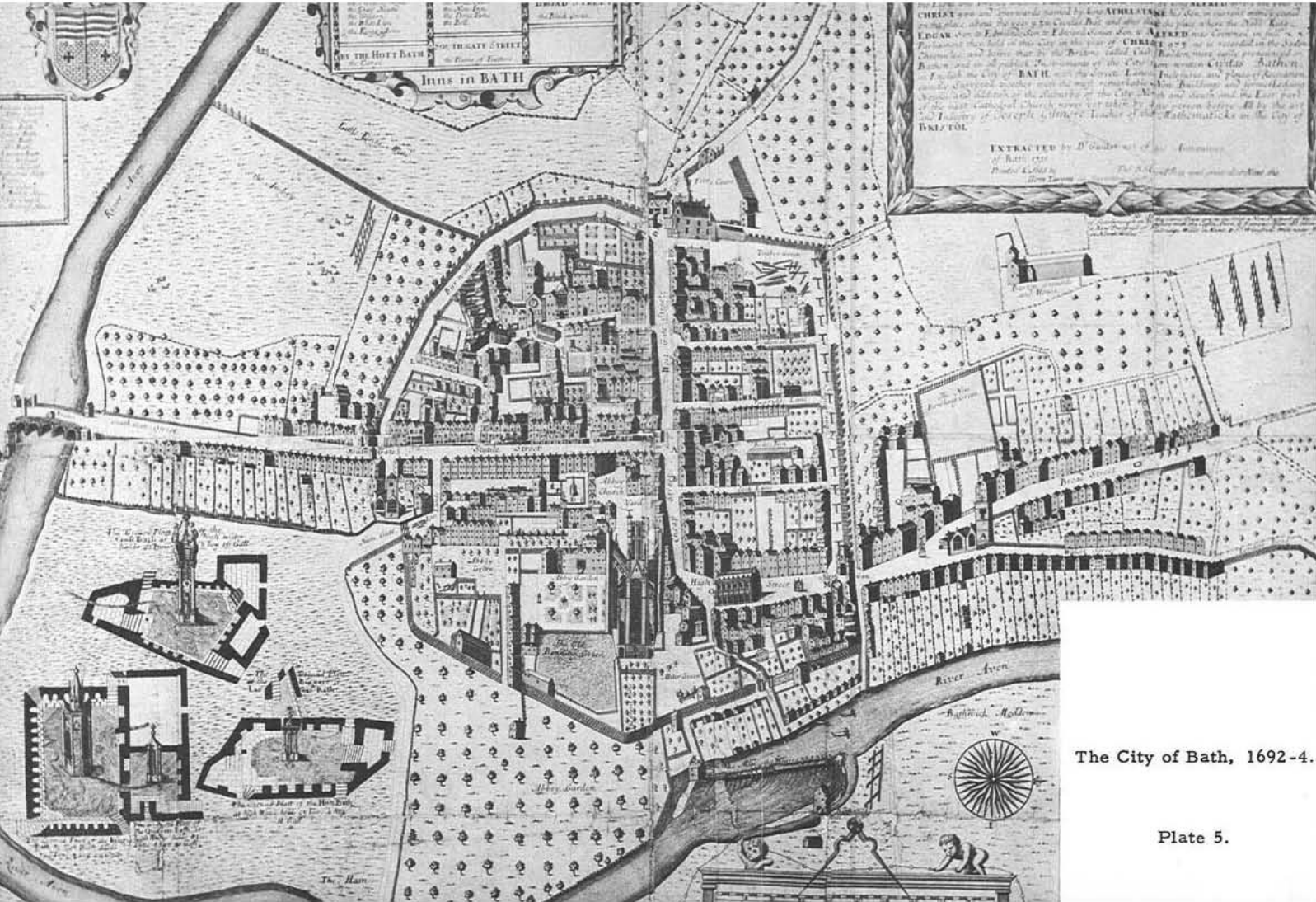
| Budget and Funding |

The idea about funding lies upon the collaboration of Jamie Oliver's association with the existing cooking school in Bath, the Bertinet Kitchen Cooking School. This collaboration would fund this project in order to promote healthy, quality eating and establish bath as a destination for fine dining. The creation of this association will form a resource for the school and many opportunities for been advertised around England. The idea is to include and consider all social levels of the city. Restaurants nowadays in bath have a superficial approach towards food and eating and the aim of the school and the market is to restore that and introduce a new approach making Bath a destination for visitors and tourists.

The allotments of the site will be rent to the public which will also be an income to the school. And the fees payed by the students together with the income of the restaurant will help the school function after its completion.

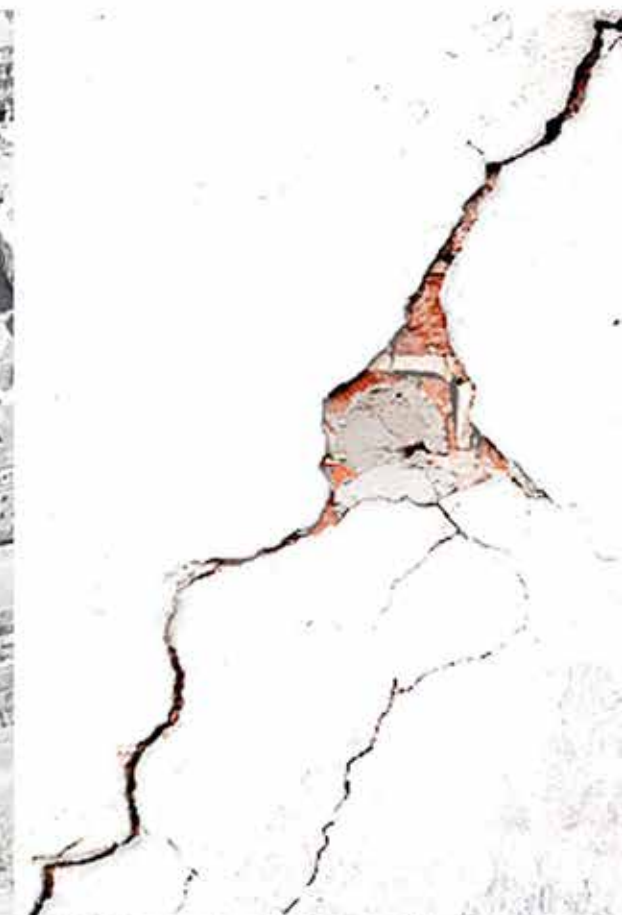
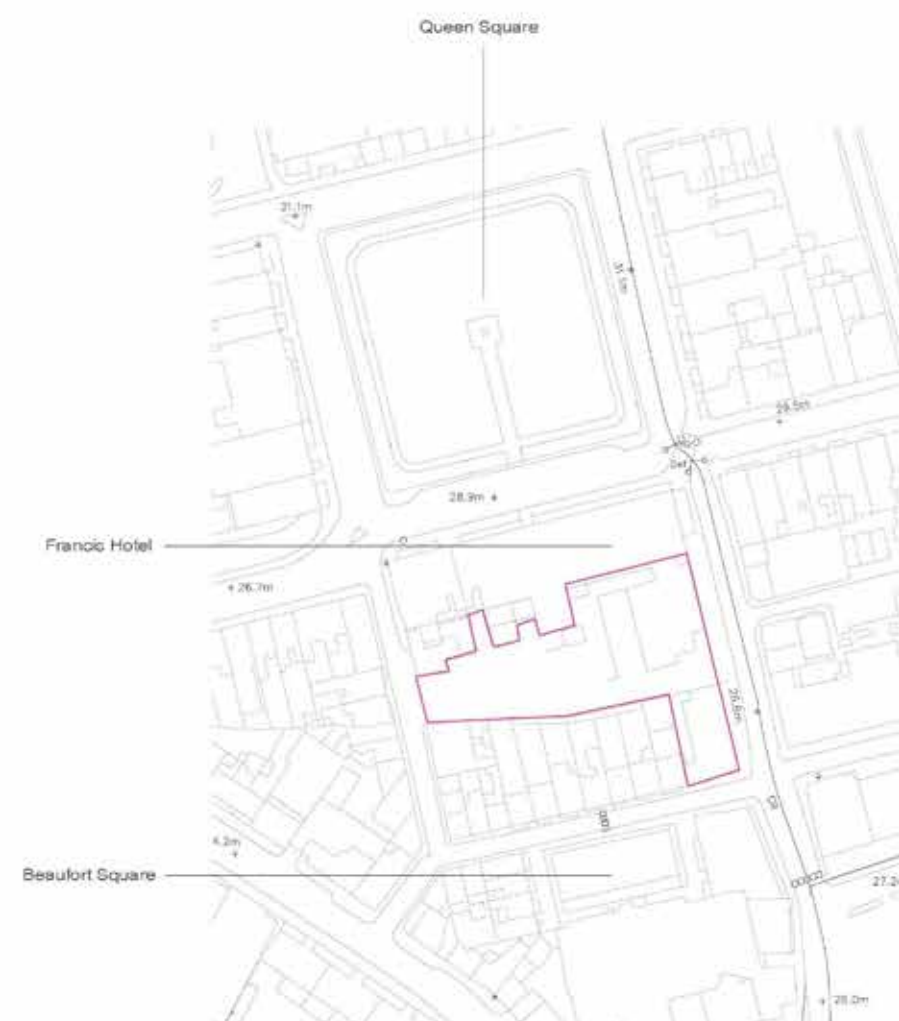
BUDGET

Taking in consideration the Project design life, the Life-cycle costing and the building maintenance together with variables like the unenclosed areas and landscape it has been estimated that the typical unit cost will be high, approximately at 4500£ sq/m and 2500£ for the herbal garden.



The City of Bath, 1692-4.

Plate 5.



URBAN POCKET

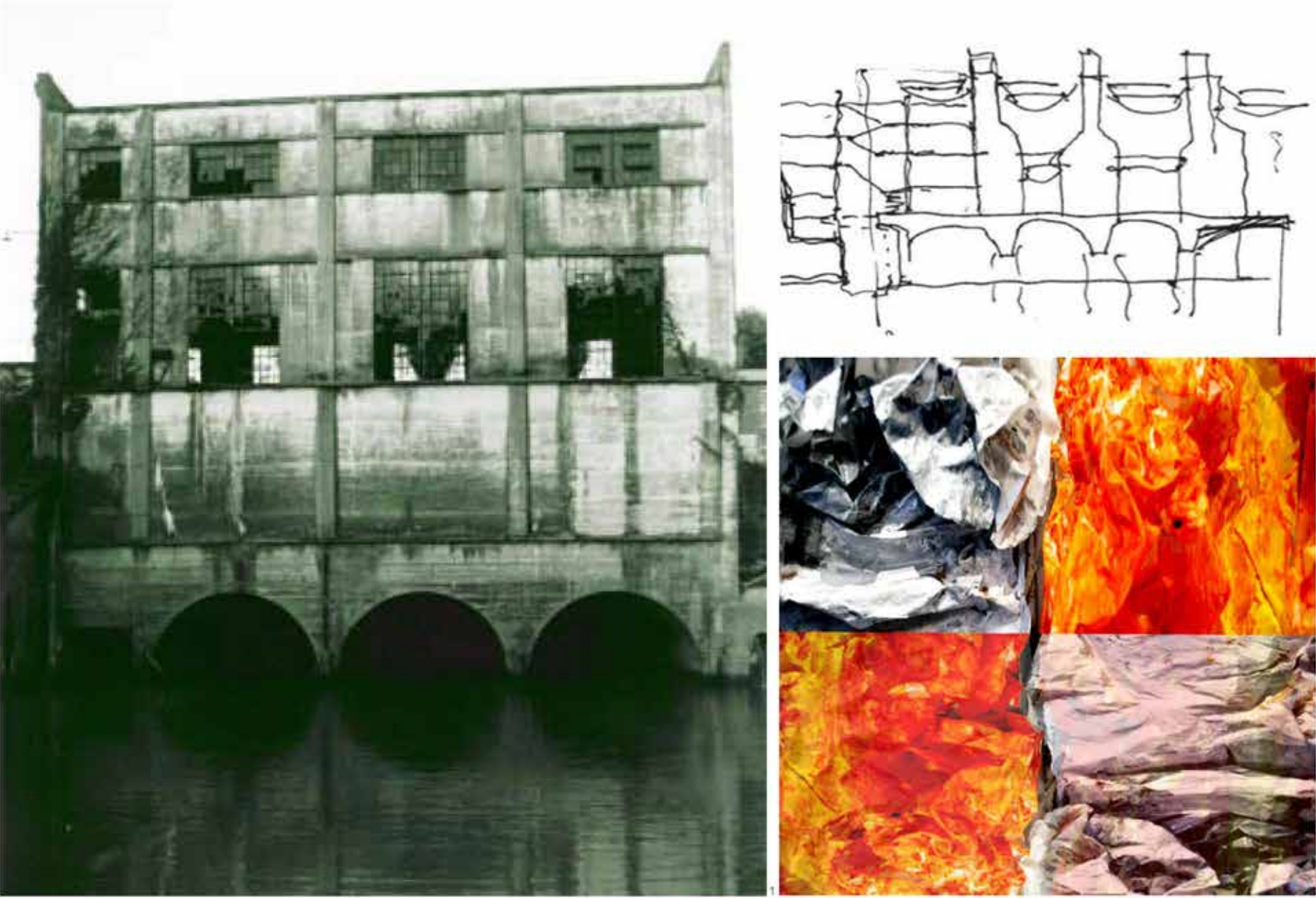
The choice of site lies upon the ambition to bring in the centre of the city a unique culinary experience. The city of Batn has numerous squares with internal courtyards. This site, being very strict in its boundaries makes it very intriguing and challenging to deal with and design something that will fit and merge with the grid of the square. The idea of an internal site is combined conceptually with the hidden enclosed garden. This urban pocket will be inhabited in between the busy , narrow streets of bath, isolating it but still keeping it right next to them. Finding these cracks in the city's pastiche allows the energy of the city to flow through the 'crack', through this new passage.

CULTURAL AND SOCIAL ISSUES

The project will become a school for approximately 50 students but also a destination for the whole city. Introducing many animated spaces and interests for all ages it hopefully will become a passage for everyone in their daily routine. The aim of the school is to remind the society about the origins of food, the importance of the family sitting all together around the table, the relation of food in our health and psychology. In England society does not appreciate cooking as a ritual. Thus, the school will re-ivent, re-cycle and re-present English cuisine in anew, modern way, inviting the public to learn, experience and travel through this process.

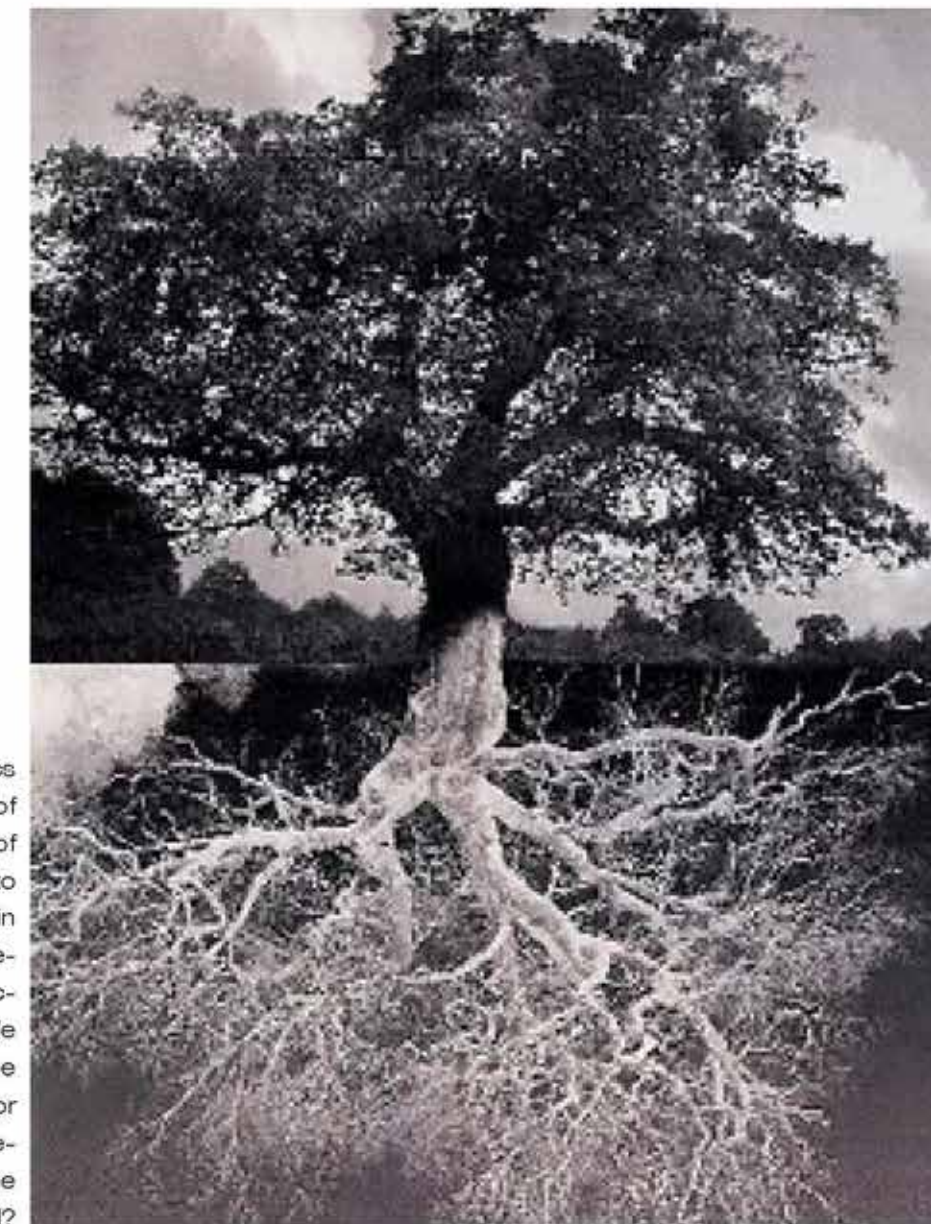
The school will provide packages for the older people of bath and other activities for the elderly. Taking into consideration the high number of old people in Bath it aims to engage them and give them a new interest and a new goal. Moreover, the herbal market will provide very cheap food, prepared by the students in the garden kitchens, so that it is accessible to everyone and provide food to the homeless people of Bath. Free seminars and presentations will also be available for them trying to integrate them too into the idea of social cooking and eating. The division between public and private will keep the privacy of the school but still retain the site as a destination for all ages and all social groups of the city and through the interaction between students and public the knowledge acquired will be transferred to the public , through growing into the gardens together, observing the cooking, and participating in the joint events of the school.

1. A collage study of the site's grains, experimenting with the blocks and voids of the site, expressing the horizontal and vertical axis





Architecture seeks to find harmony between pragmatics and poetics through phenomenological relationships of tectonics, placement, and culture. The choreography of these events, both physical and metaphysical, leads to a depth in the art of place making. The act of building in a certain way or attitude is read as aphorism – the statement imbedded in the physical existence of a construction is manifest in the way which its existence is made. We (civilization) make both out of physical need and desire, the question in art is whether our motive is purely physical or becomes spiritual. How is institution achieved? What defines place and how is it made? Does tradition bind us to the past or is it the freedom to inform the present and beyond?



And out of the ground made the LORD God to grow every tree that is pleasant to the sight, and good for food; the tree of life also in the midst of the garden, and the tree of knowledge of good and evil. (Genesis 2:9)

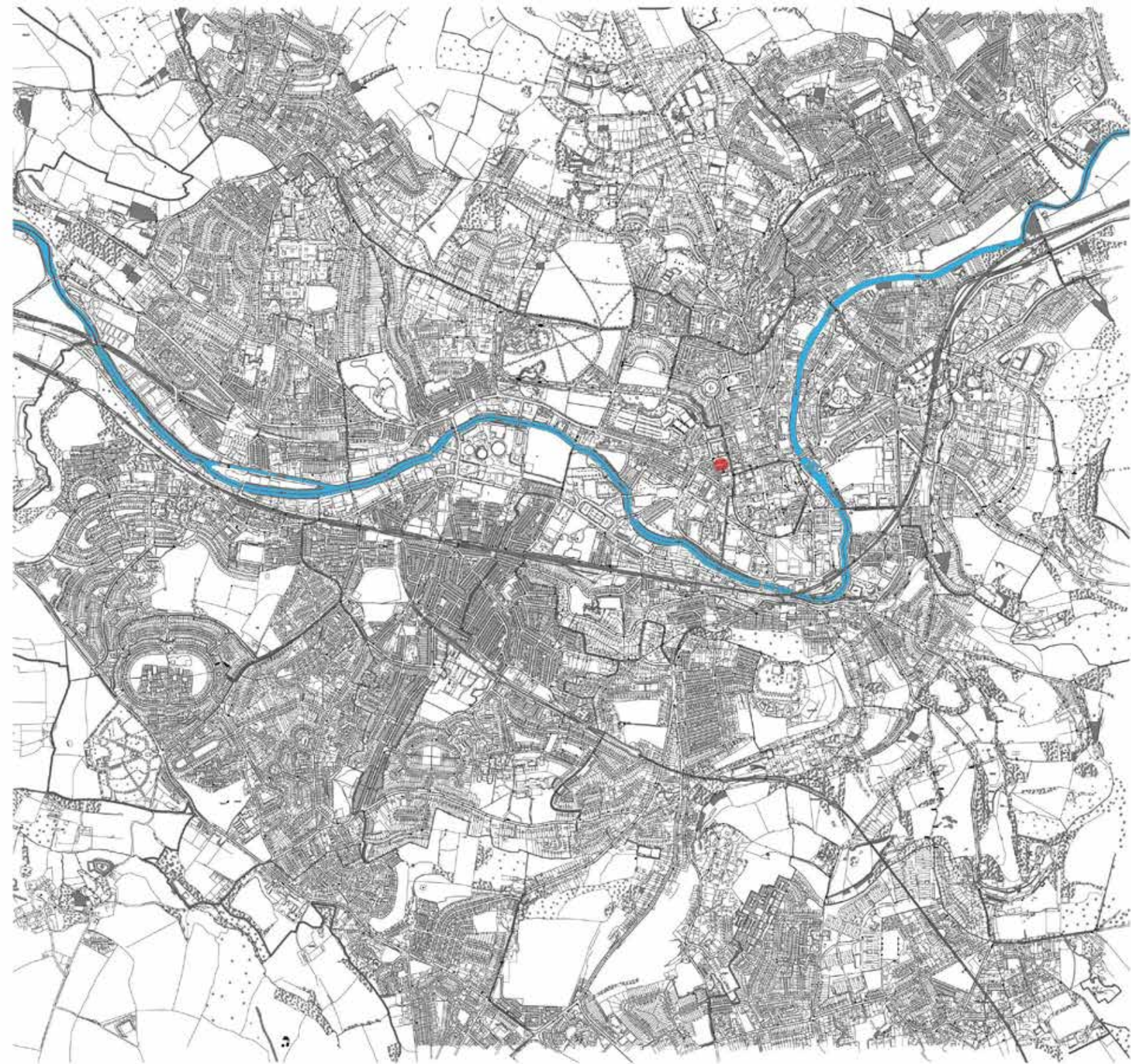
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SITE RESEARCH AND ANALYSIS



| City of Bath |

Bath is strongly defined by the river and creates strong forces connecting but in the same time dividing the city. As seen in the map the commercial centre is in a way enclosed and surrounded by the river. My first reaction when thinking about a cooking school i imagined of fields and Italian vineyards. The idea really excited me of creating a promenade of experiencing wine and food. But after discussing it and reading about Bath i realized that there is not a big cooking school in Bath. It is a city which many tourists visit and the number of restaurants compared to the size of the city is relatively high compared to other cities. In order for me to achieve my architectural aim it fitted better to situate my design somewhere central as mentioned before. This would enable people to access it easier and also it would benefit students too, being in the heart of the city, grasping its era, senses, motion and colours. For me cooking is a lot about people and place. Thus, knowing the city and its people is fundamental for the knowledge and inspiration of prospect students of the school.



THE PALETTE

Bath has a very limited palette of material making the city monochromatic but radiating its own colour. The strict adherence to the Palladian conventions, creates a unified character to the city. The whole city follows a horizontal axis since most buildings are narrow and tall, five or six storey Georgian terraces. This grain comes to contrast with the long, organized streets merging around the cliffs and valleys around Bath. Despite the rhythm it has, the master planning of Bath gives the city a more organic and natural quality. Most buildings in Bath are made from the local, golden-coloured Bath Stone, and many date from the 18th and 19th century.

THE MATERIALITY

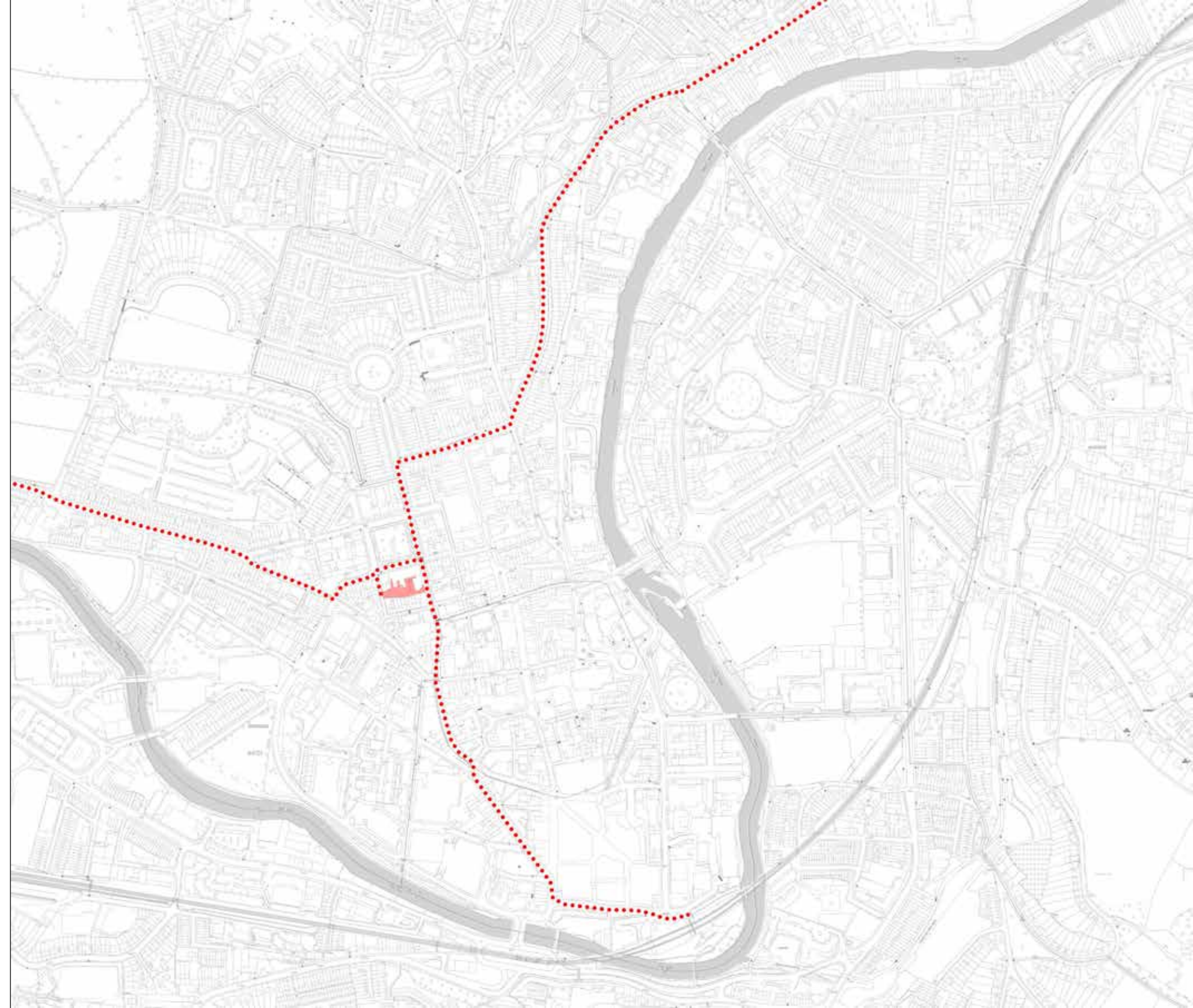
Bath Stone is an Oolitic Limestone comprising granular fragments of calcium carbonate. Originally obtained from the Combe Down and Bathampton Down Mines under Combe Down, Somerset, England. The mines were under the ownership of Ralph Allen just as the building boom started in Bath, and from his quarries came the distinctive “Bath Stone” used to build the Georgian city, making Allen a fortune.

This fine textured limestone was used by the Romans to build public buildings. The Georgians again revived the use of this stone and many world famous landmarks are constructed in Bath stone. The material naturally weathers to a honey colour and is ideal to form almost any architectural embellishments as well as masonry. The facades of Bath houses act as veils which hide everything behind them. Although they seem heavy and solid in reality the masonry used is really thin and ‘hugs’ the buildings .



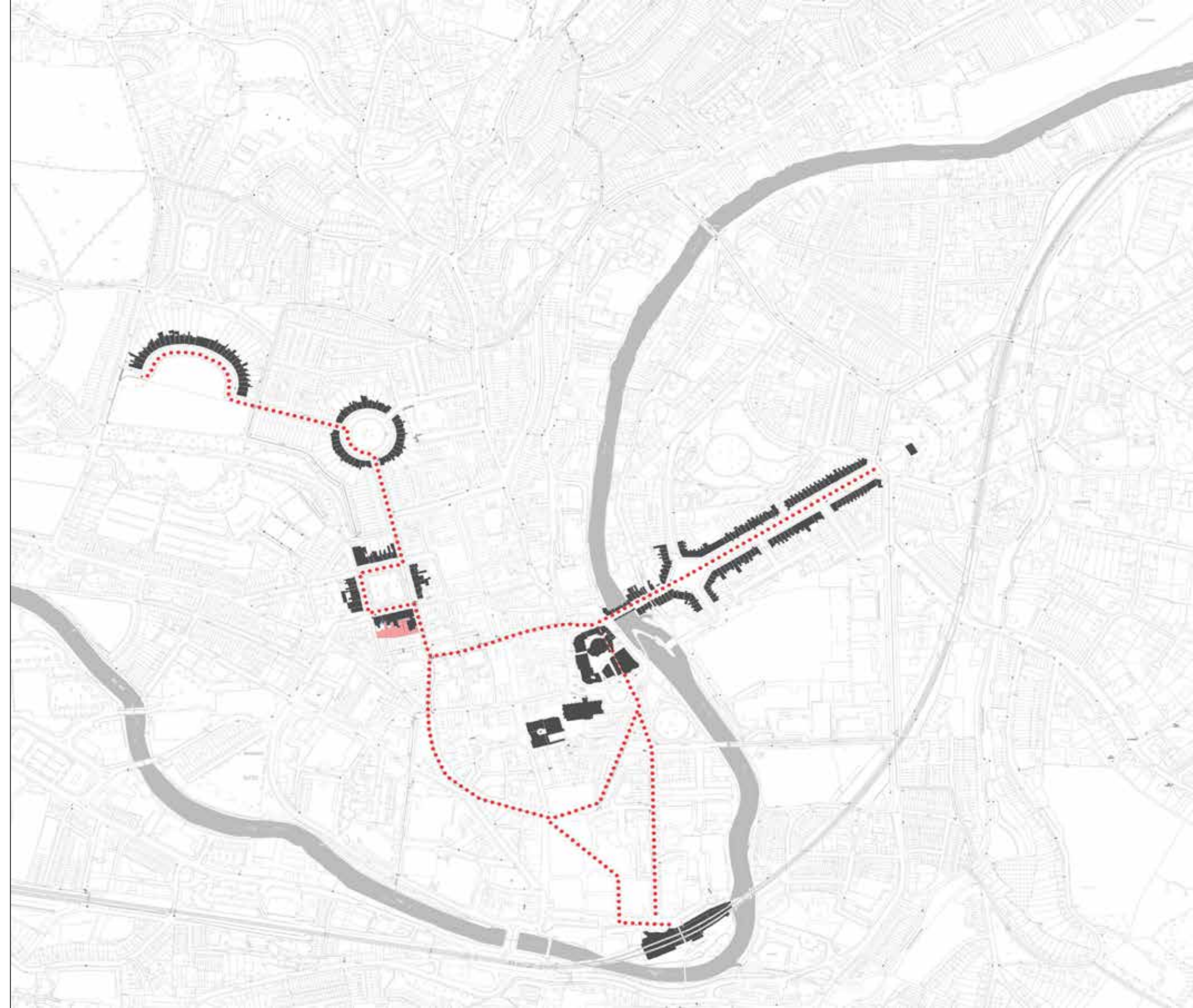
THE ROUTES

Located in the South West of England, Bath is easy to get to - only 90 minutes from London Paddington by train and a short drive from the M4/M5 motorways. Bath is 120 miles west of London and 20 miles from Bristol Airport. The train station is in the heart of the city centre. The 3 main routes shown on the map define the access to the site if arriving from outside Bath. Being next to the old city walls it makes it easy accessible and clearly define its position. The city, being compact, makes it easy to walk around and the site is situated on the route of several walks around Bath.



THE HIGHLIGHTS

The publicised city focuses on three major epochs: The roman settlement, the medieval town and the georgian city. However, there are two major periods of destruction that seem to fall under a collective amnesia: the World War II bombings and the 1970's systematic destruction of middle Georgian buildings. The map highlights today's important buildings of bath and their relation to the old Georgian town and the chosen site. The site is adjacent to the route, from the Royal orecent, to the circus and from there to Queens Square. The development of the site can possibly extend this riute and adapt it to the new development.



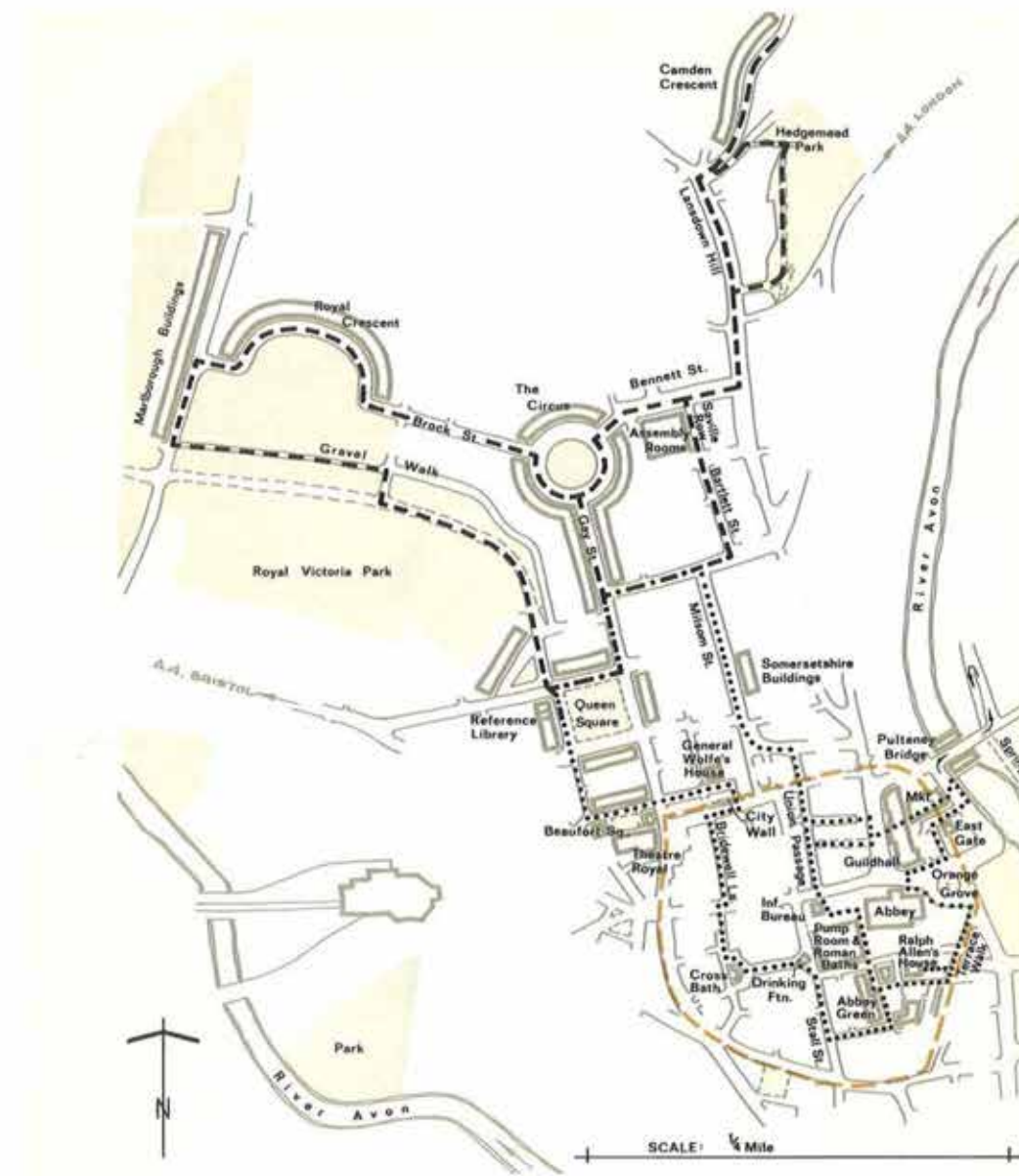
THE PARKS

The city has several public parks, the main one being Royal Victoria Park, which is a short walk from the centre of the city. It was opened in 1830 by an 11-year-old Princess Victoria, and was the first park to carry her name. Other parks in Bath include: Alexandra Park, which crowns a hill and overlooks the city; Parade Gardens, along the river front near the Abbey in the centre of the city; Sydney Gardens, known as a pleasure-garden in the 18th century; Henrietta Park; Hedgemoor Park; and Alice Park. Jane Austen wrote of Sydney Gardens that “It would be pleasant to be near the Sydney Gardens. We could go into the Labyrinth every day.” The choice of site lies a lot upon the existence of green areas around it. The city centre has few sources of green areas. The chosen site sits between and links Queen’s Square with Beaufort Square, two little, but still predominant green sources.

| The secret pockets of Bath |

Bath has a series of very special internal courtyards. Some are used by cafe terraces, others as car parks, and others are not accessible. Studying the position of the chosen site one can see that it is part of a series of ‘void’ blocks starting from the Guildhall market and continuing to the housing block after Queen’s Square. Although there is no clear route through them, the labyrinth-like route created around them creates a game of hide and seek trying to find the way to enter these hidden spaces, or urban pockets as I call.

I realized this when walking around Bath and found out so many more than what I knew. For some I had to climb walls, or break in other people’s properties but finding your way around these spaces was the best experience to understand the size and relation of a site to the city. Often because of the height of the adjacent buildings these voids are kept in darkness but the little moments of the day that the sun gets to them, they become magical. Eventually the chosen site has a housing block on the south side which allows direct sunlight throughout the day.



| Overview of site |

The chosen site requires the demolition of 2 buildings. The diagram shows the main routes and access points to the site as well as the the two main squares south and north of the site: Queens Square and Beaufort Square.





Internal North Elevation (Francis Hotel)

SITE OBSERVATIONS

The site is located between Princes Street and Barton Street, the latter of which forms a vital link between the latter two of the major epochs. The street connects the corner of the medieval City, Saw Close, with the beginning of the Georgian Wood's sequence, Queen's Square. At the moment Barton street is easily forgettable, since there is no building of interest and it seems under-functioning. Through the choice of program, the scheme aims to re-activate this lost link, therefore re-connect the upper and lower parts of the city centre and enriching the public realm.

Due to its position within Bath's 'gridded' fragment the site possesses strong orthogonal grains. Its dominant North-South grain is formed by the two neighbouring areas of significant interest: Queens Square to the North and Beaufort Square to the South. The site proposes the demolition of two existing structures shown on the next diagram. Barton Street which affronts the eastern portion of the site is one-way with limited means of vehicular access, thereby possessing a semi-pedestrian ambience. A proposal of the development of Barton street will be presented later on. Princes Street to the West is a rarely used link between Queens Square and Monmouth Street, which retains a 'backstreet' atmosphere and could be used for servicing, or connect it through the site with Barton street.



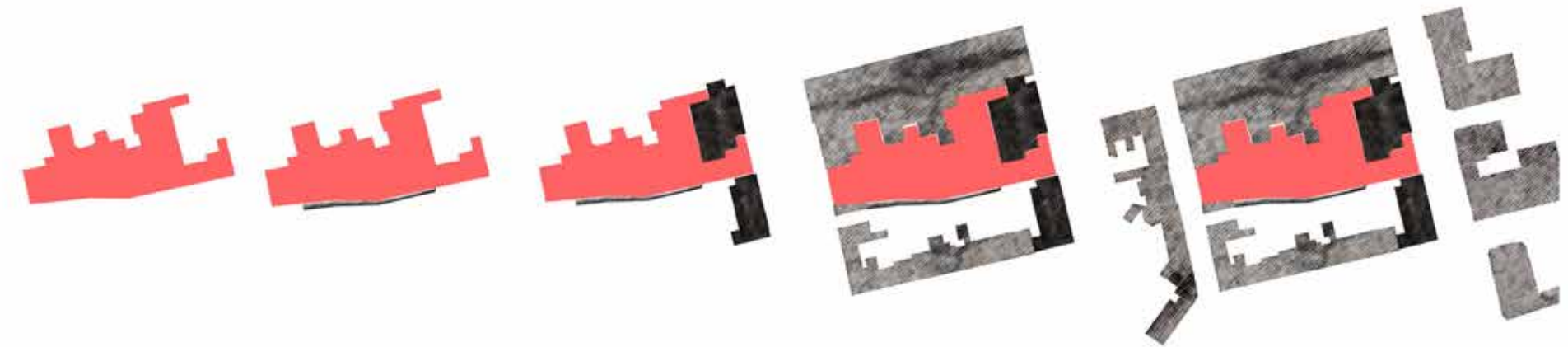
The second building proposed to be demolished is a relatively new building (60's) which does not really help the street become as attractive and important as it should be, being adjacent to the core of the old Georgian city of Bath. This southern retail unit, which presently houses a travel agents and restaurant faces Barton street on its large facade and Beauford Square on the South side.



This building is a development of the Francis hotel. The Francis hotel is situated in a unique and interesting position at the very heart of the Georgian city of Bath. As part of Queen square the Francis hotel stands as the first major work of John Wood- the great architect and creator of Bath's most prestigious buildings. Originally six private residences dating from 1729, the Francis was opened as a private hotel by Emily Francis in 1884 and has offered guests first class service for over 100 years. Many bedrooms overlook the splendour of Queen Square-named in honour of George II's consort Caroline. The Francis is a perfect example of 18th century elegance and good taste.

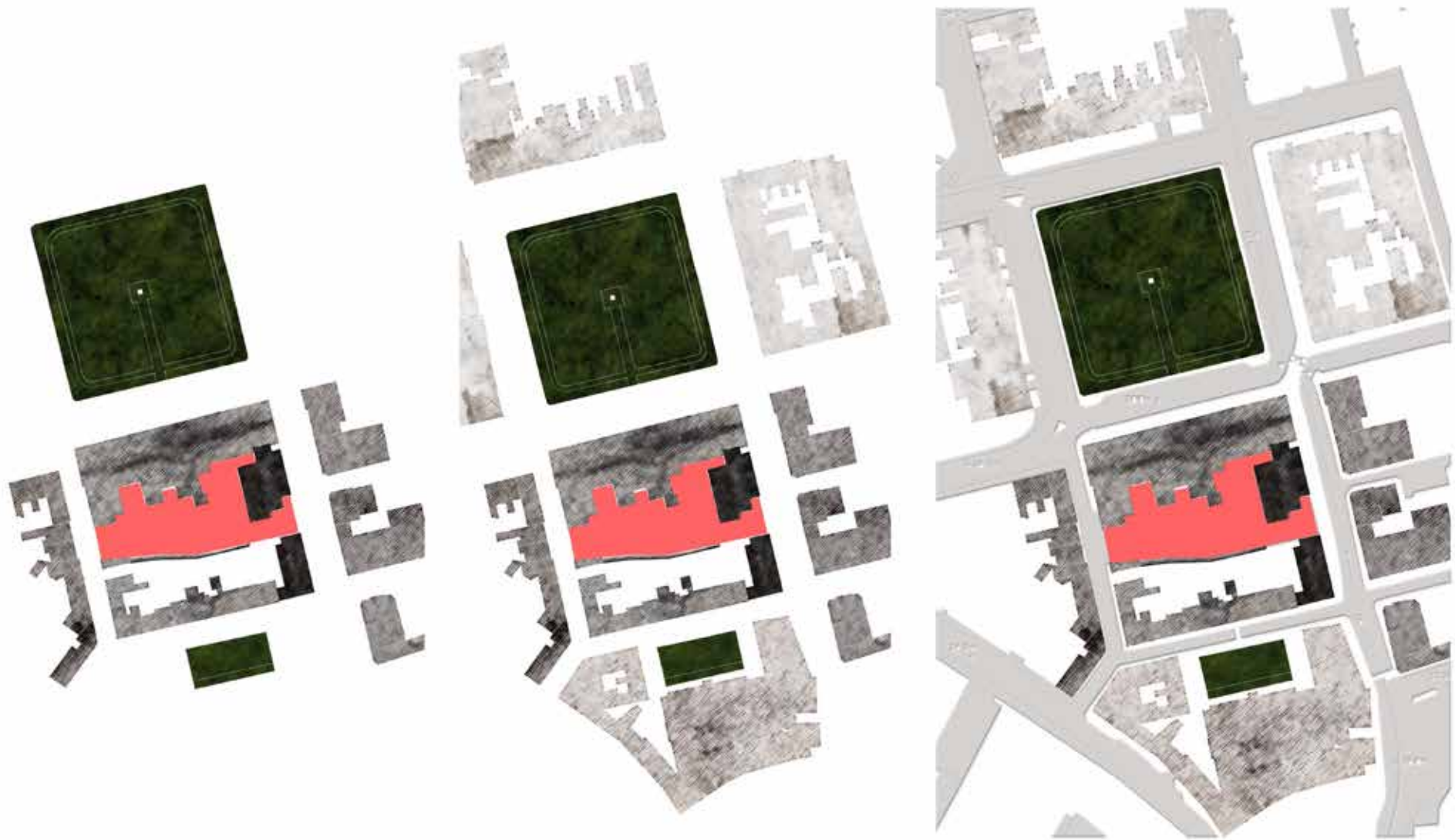
| History of the site |

Throughout history the site has experienced significant change. Its built content originated during the Georgian building boom with a series of residential terraces and small workshop units. Since then it experienced three points of major upheaval. The first being the amalgamation of the original workshop units into a single garage. The second involved the destruction of St. Francis Hotel during World War II, which led to a redefinition of boundaries within the block. The third, and possibly most destructive, was the demolition of the southern Georgian terrace in the 1970's 'sack of bath' to be replaced by three commercial units. This was followed in the 1980's by the construction of an extension to the Hotel. The change proposed in the present scheme sees the destruction of the two imposed recent interventions. Through time the 'void' existing now behind the Francis Hotel steadily was created. Going back to the idea of the architectural pockets, it is very interesting seeing how history has changed this block creating this 'dead' space which now is used as a car park.



| Site Composition |

The Site is really complex in its composition of different elements. It is surrounded by 2 main volumes and wrapped with streets all around having multiple other squares attached to them, creating a unit of complex but organized forms. There are 2 sources of vegetation, the Queen Square and the Beaufort Square having in between them the chosen site.



| BATH CITY ALLOTMENTS |

In Bath & North East Somerset there are 42 allotment sites scattered around the area. The average size of an allotment plot in Bath is 125 square metres, & generally plots range from 50m2 to 150m2.

“My Lords, the Government recognise the importance of allotment gardening for food provision, recreation and the sustainable regeneration of towns and cities. ... the Government are aware of the value of allotments to the whole community, as well as to the individuals who use them.”

Baroness Hayman, Parliamentary Under-Secretary of State, April 11, 1998

ALLOTMENT	LOCATION	No. PLOTS
1 Abbey View	Abbey View Gardens, Bath	58
2 Avon Park	Avon Park, Bath	10
3 Bloomfield Road	Bloomfield Road, Bath	143
4 Brookfield Park	Eastfield Avenue, Bath	10
5 Canal Gardens	Lime Grove Gardens, Bath	41
6 Claremont Road	Claremont Road, Bath	50
7 Combe Down	Church Road, Bath	62
8 Corston View	Odd Down, Bath	18
9 Eastfield Avenue	Eastfield Avenue, Bath	21
10 Fairfield Park	Charlcombe View Road, Bath	49
11 Foxhill	Combe Down, Bath	10
12 Hampton Row (organic site)	Bathwick, Bath	11
13 High Common	Sion Hill, Bath	32
14 King Georges Road	Lansdown View, Bath	8
15 Larkhall	Charlcombe Lane, Bath	79
16 Lower Common East	Upper Bristol Road, Bath	141
17 Lower Common West (organic site)	Upper Bristol Road, Bath	55
18 Lyncombe Hill Farm	Alexandra Park, Bath	50
19 Lyncombe Vale	Lyncombe Vale Road, Bath	10
20 Mendip Gardens	Banwell Road, Bath	15
21 Monksdale Road	Monksdale Road, Bath	133
22 Moorfields Road	Moorfields Road, Bath	35
23 Ring Common Paddock	Cow Lane, Bath	64

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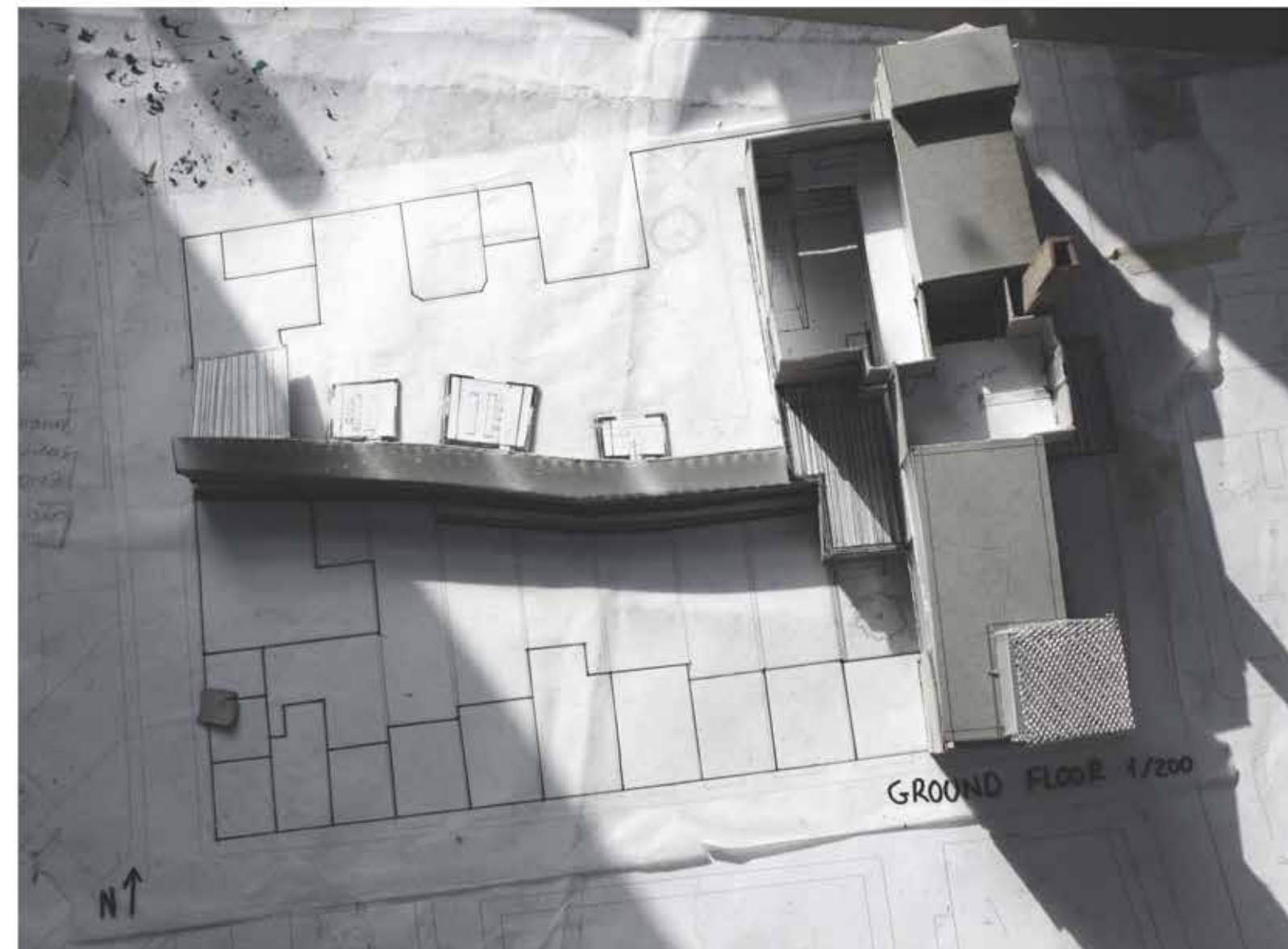
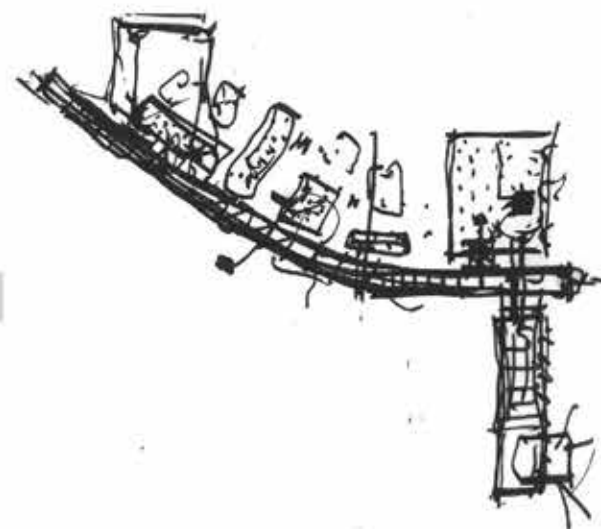
CONCEPT AND DESIGN DEVELOPMENT

|FIRST REACTIONS|

After analysing and defining the main points of the project it started coming to life through model. A model is the best way to explain a scheme since you can see it in any way and from any point you want getting a full grasp of the design intentions.

Because of the complex ideas and various themes i wanted to integrate initially the design started being very busy and there were many things going on. This was a criticism i received after the 2nd interim critique. After this point i tried to simplify the ideas and keep the language of the building as clear as possible aiming to create a scheme which is straightforward and understandable.

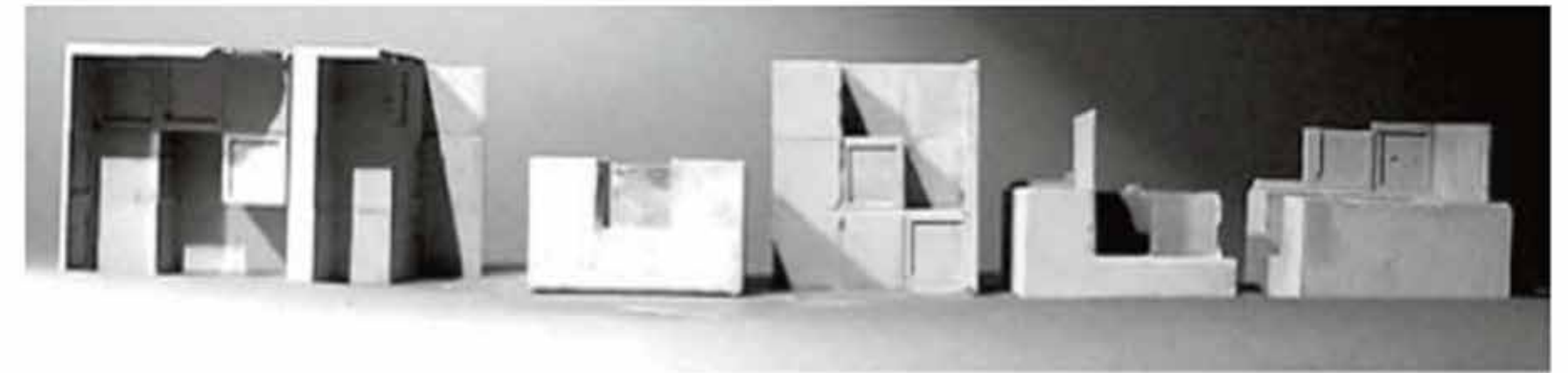
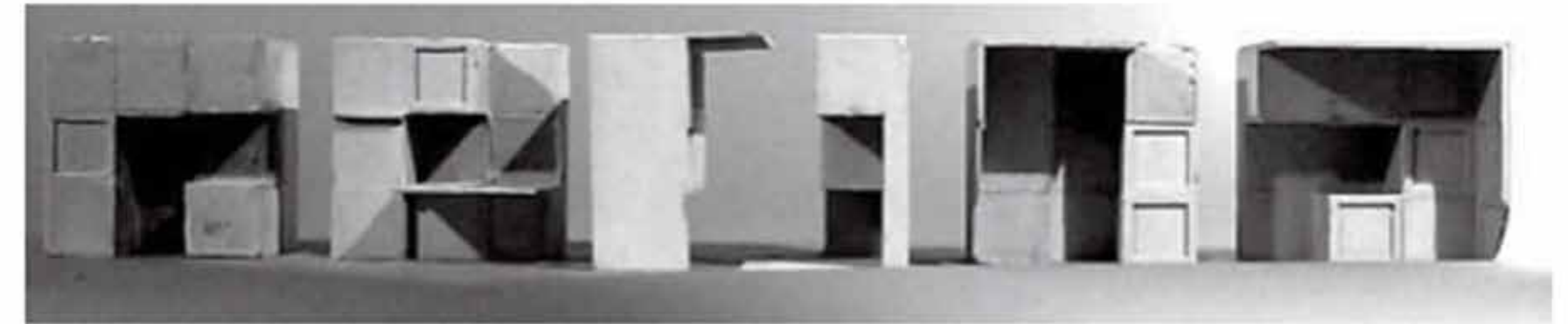
Conceptual representation: what are the constraints? Enclosed inside the block but internally free. Expression through materials, explosion of colors. Similar to the spices used in food.



INITIAL MODEL SHOWING AN OVERVIEW OF THE IDEA.

| Form Experimentation |

A series of models experimenting the concave and convex translating the voids and pockets of the site was the inspiration to integrate the design to the language that the site has in the urban fabric. These studies were very helpful for the whole process of the project giving ideas about how to interlock and interconnect the spaces, the relationship between them, what is high and what is low and the dimensionality of each element.

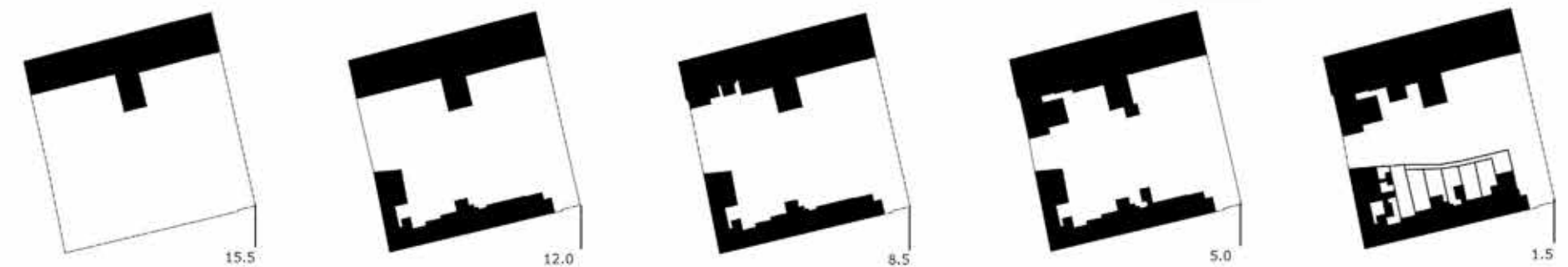


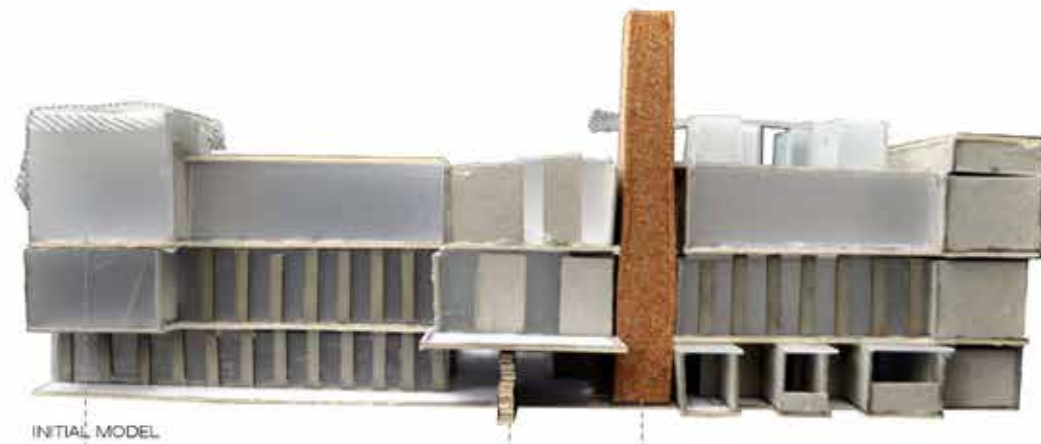
| Figure Ground Analysis |

The figure ground diagram study defines the voids between the buildings and exaggerates the expression of the un-built space by the built.

As we cut through the site at different elevation heights we can see how the void grows and spreads, particularly to the south of the site where the houses are lower, and becomes less defined.

This allows us to see that as we build upwards the site becomes more open towards the south, allowing in south light whilst the north retain a strong and more solid boundary. It also provides a clearer picture of where the site as a block within the urban fabric remains undefined and how pockets of space break into it as we rise higher.





INITIAL MODEL

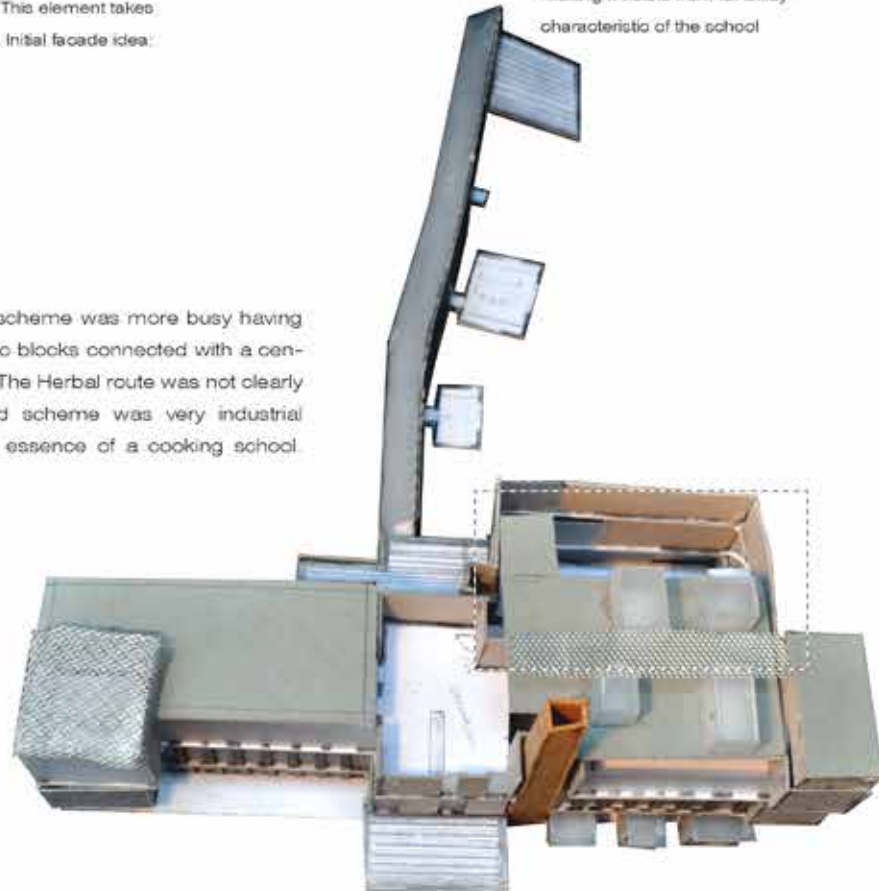
Glass box sitting on the edge of the building. This element takes up 2 storeys. Initial facade idea: vertical fins

Extend brick wall out to the street

Chimney element making it visible from far away - characteristic of the school

[STAGE 1]

Initially the scheme was more busy having 2 asymmetric blocks connected with a central atrium. The Herbal route was not clearly defined and scheme was very industrial lacking the essence of a cooking school.



2nd INTERIM MODEL WITH UN-DEFINED FACADES

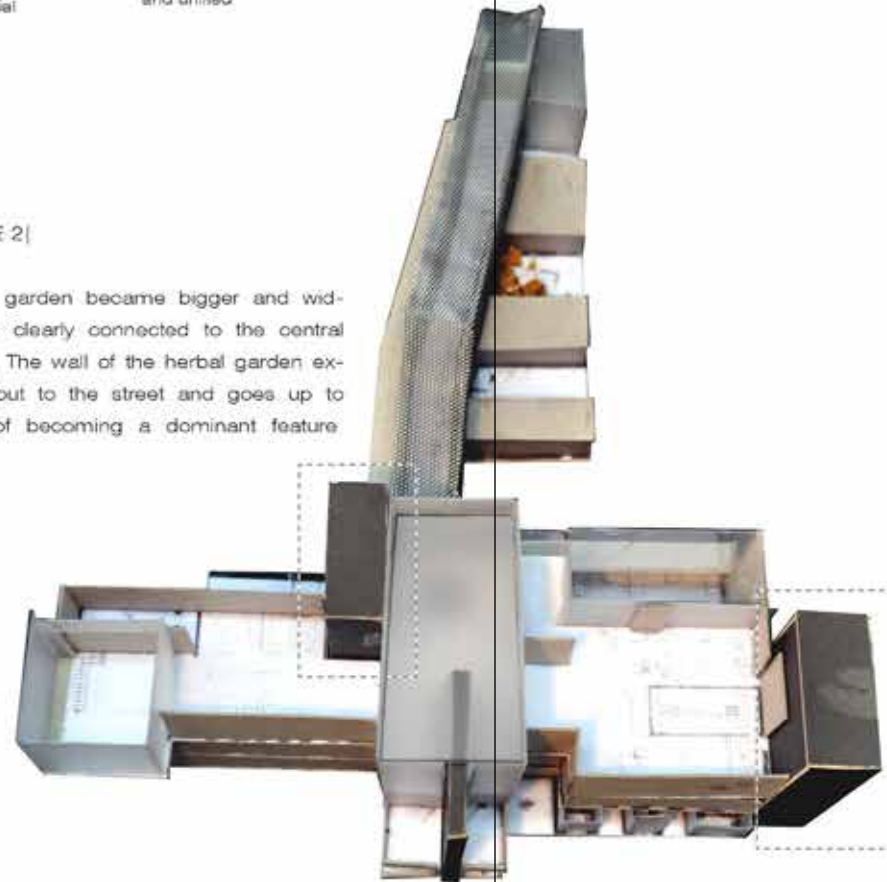
Glass box takes up only top storey, becoming part of the restaurant. More special

Front facade seen as blunt make the volume harmonious and unified

Service core visible from the street. Goes up to the roof

[STAGE 2]

Herbal garden became bigger and wider and clearly connected to the central atrium. The wall of the herbal garden extends out to the street and goes up to the roof becoming a dominant feature



3rd INTERIM MODEL WITH GARDEN DEVELOPMENT

Combining the 2 previous models the facades developed being richer but more busy

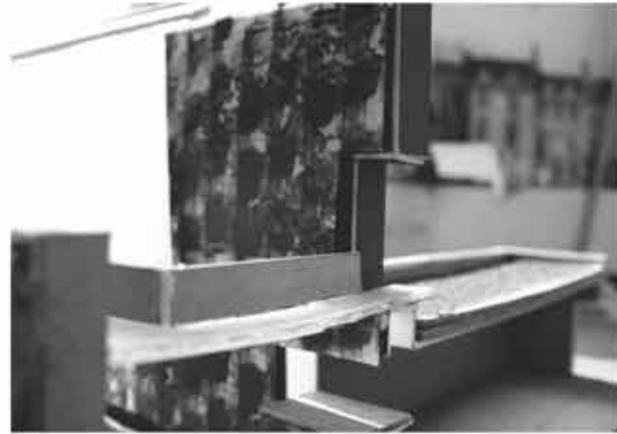
Central atrium becomes more dominant and clear. Balcony added on 1st floor

Roof terrace development with private dining and glass pavilions

[STAGE 3]

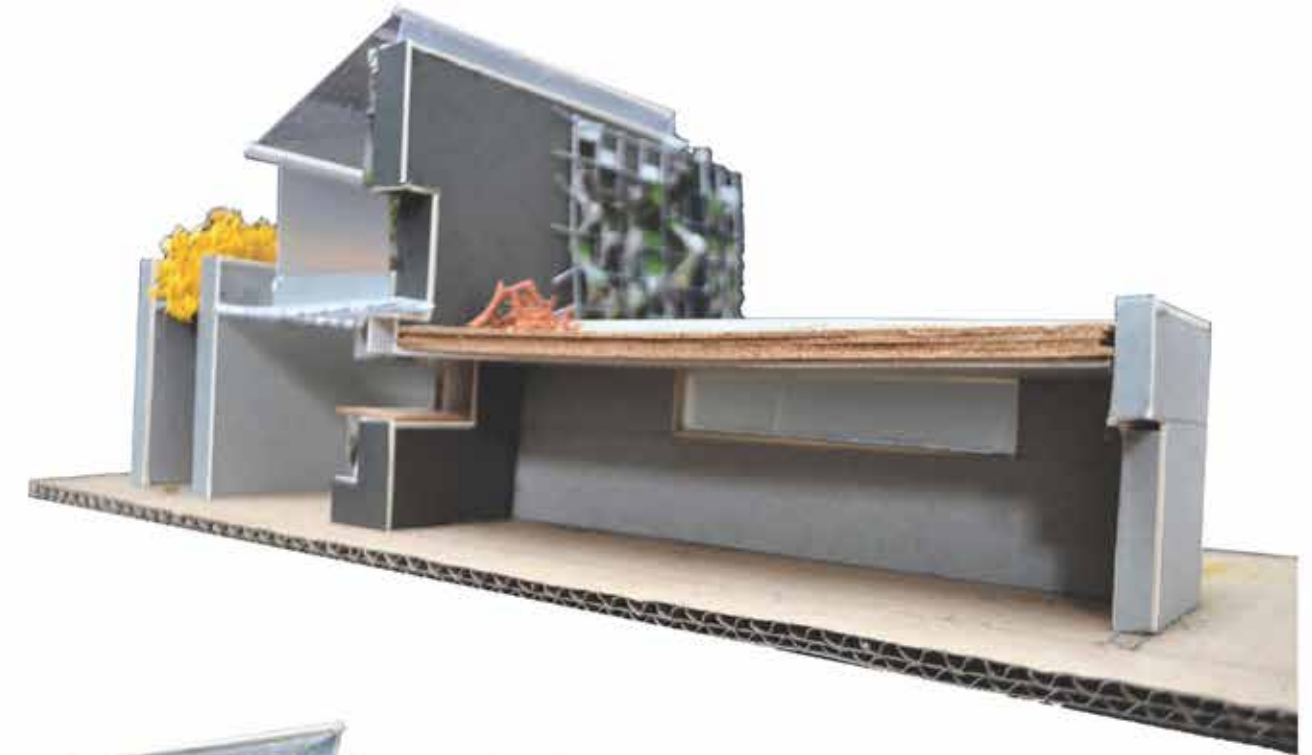
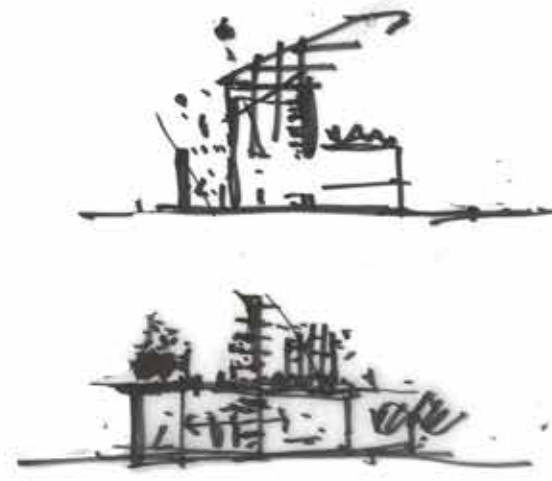
Main school block is broken into levels to work better with the garden development. Cultivation areas are introduced. Shop on the end of the herbal garden becomes 2 storey. Idea of private dining pavilion on the terrace it developed and arranged in order to have views of both the city and the garden.



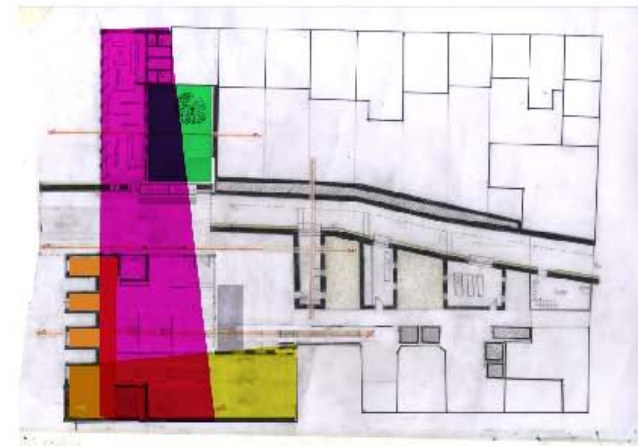
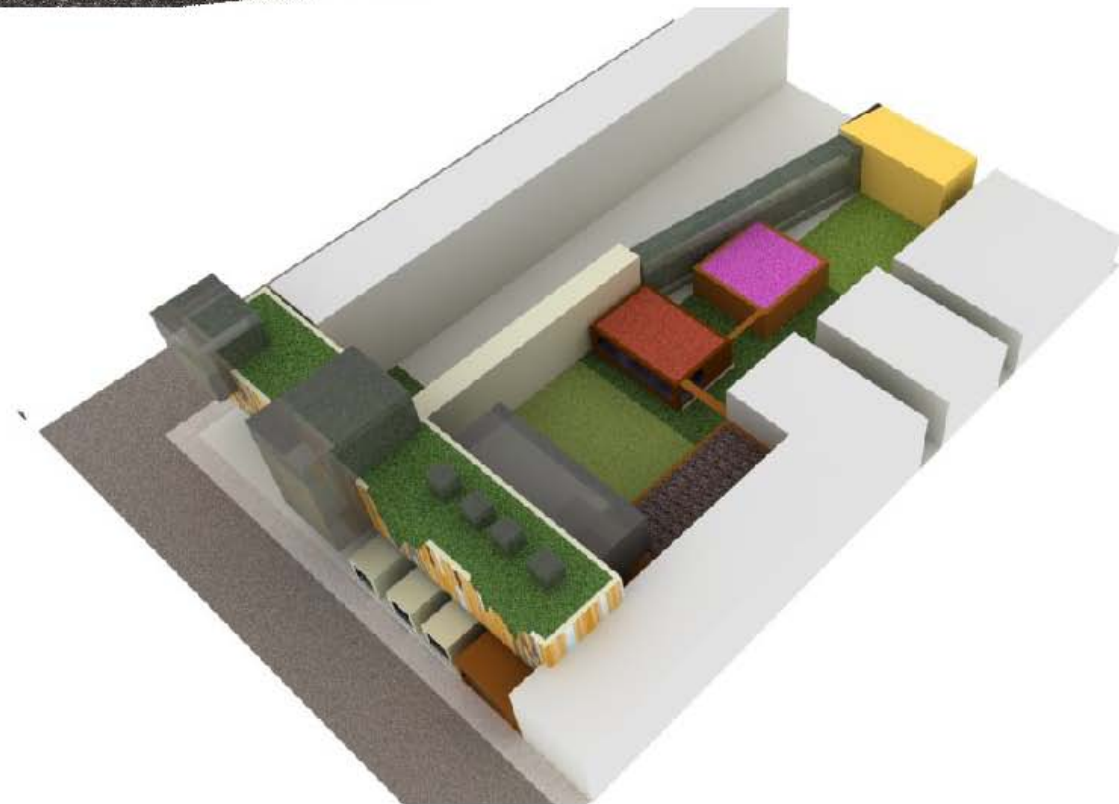


[A new street spread in two levels]

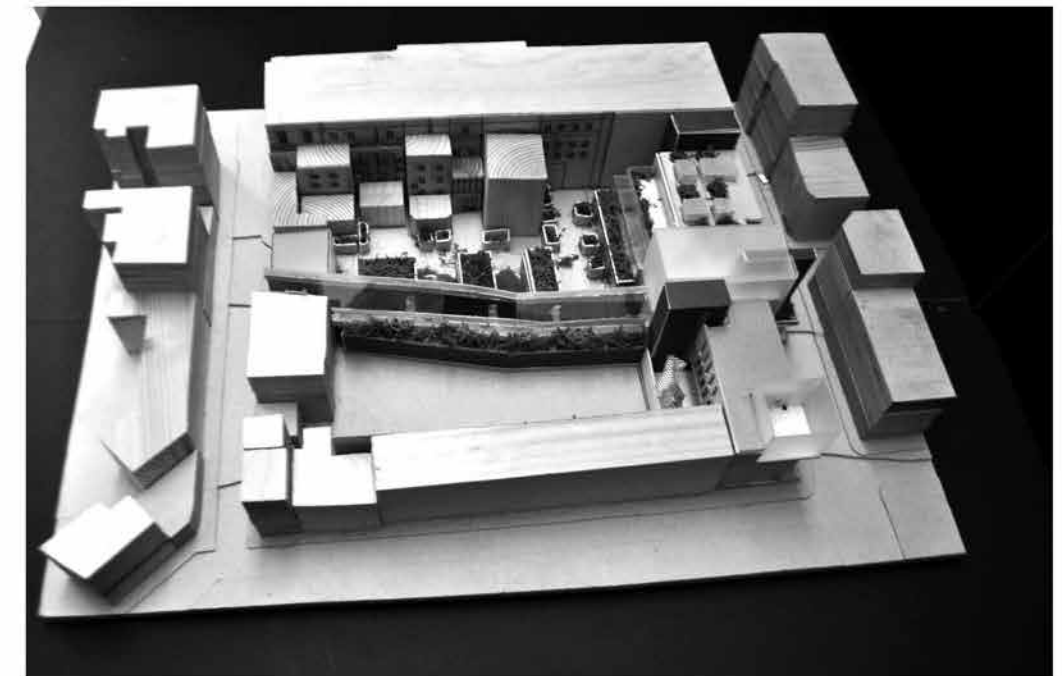
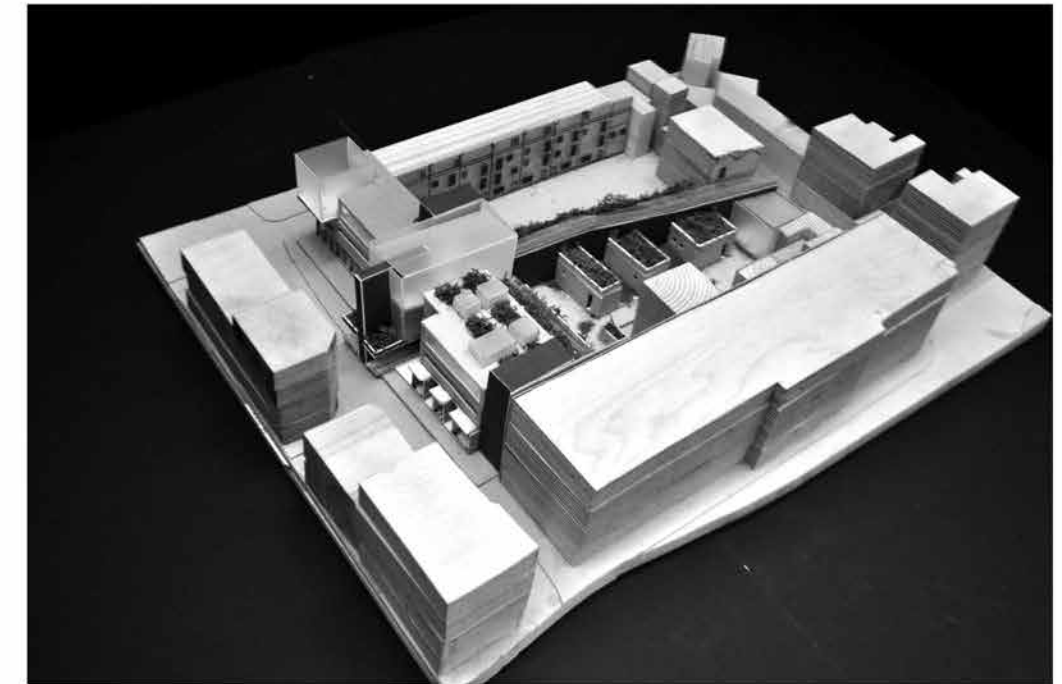
The design of the herbal garden went through several stages since it should not only be a street but also an animated space which would attract the public. The materiality of the herbal wall also changed through the design process from being solid to a metal structure filled in with plastic, recycled crates, in which soil is placed and vegetation is grown. The walkway on the 2nd levels serves the roof of the garden kitchens and provides access to the higher plants of the herbal garden. It also give a dimensionality to the route and is combined with the idea of having several functions and activities happening in different levels.



SECTIONAL MODEL THROUGH HERBAL GARDEN 1.50



Plan development after 3rd interim critique. Facade still not defined. But volumes start to become clearer and more defined, making each one a separate entity.



|Enriching the Scheme|

Although the main architectural decisions were taken early in the process the scheme continuously changed and developed through details and alterations. The narrow site some times did not help since in constrained a lot the architectural moves and freedom. The facade grain initially being vertical, after careful consideration it changed and became horizontal in order to make the volume of the school more dominant and unified. Moreover, the garden developed a lot by developing a whole landscape allotment organization. The garden kitchens became 2 instead of 3, and the shop became the end of the herbal garden, acting as a gate house, and as a 2nd entrance to the site, defining the boundaries of the herbal garden street. A more clear image of the developments and final decisions can be seen in the next chapter were each idea of the scheme is discussed separately.

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DESIGN PROPOSAL AND ANALYSIS



Site context model 1:1000



| Contextual Strategy|

1. The site sits between two blocks of buildings, the hotel and the houses. The position of them forms the two axis of the design.

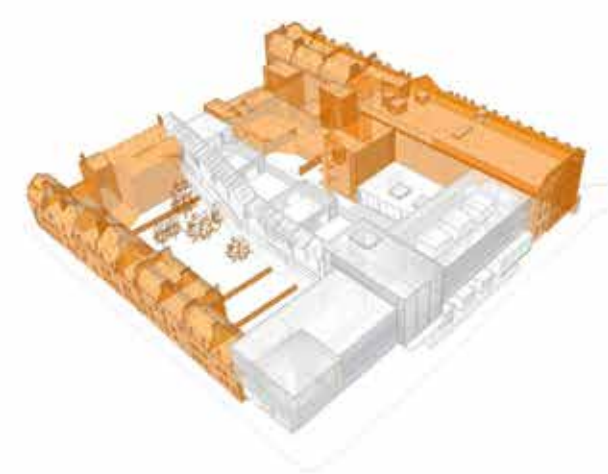
2. The design aims to re-activate Barton Street. The back facade of the hotel overlooks the gardens. Thus, it is important to consider the relationship between the hotel and the cooking school and how they can interact and interconnect.

3. The green areas and allotments merge with the pockets created by the hotel and the addition that is being designed.

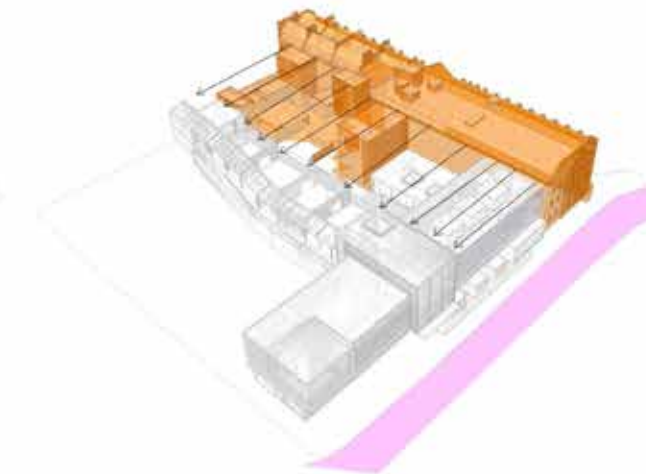
4. The old brick Palimpsest wall defines a strong spine for the vertical axis. It is an element that characterizes the site and 'ties' together all the particles inside the garden.

5. The journey through the herbal garden starts under the main glass atrium seen as the starting 'gate' and ends with the cooking school, adjacent to Prince Street. The garden sits between these 2 volumes, protecting it and enclosing it, creating a beginning and an end to the journey.

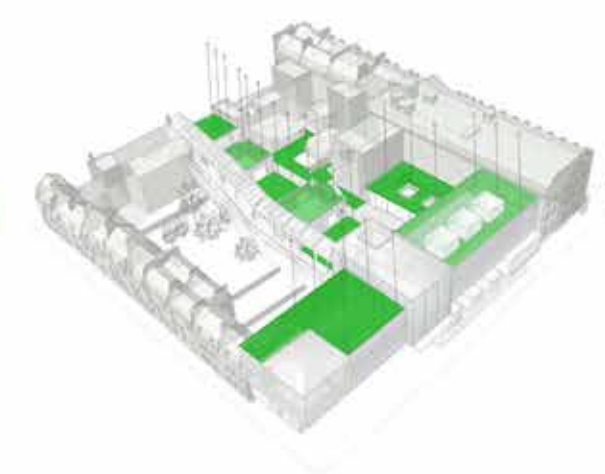
6. The idea of the particles and pockets is being created by the creation of 2 garden kitchens inside the garden area on ground level. The size and shape of them is determined by the pockets that the hotel already has. The concave and convex creates spaces in between and defines the different character of each one.



1. Site boundaries



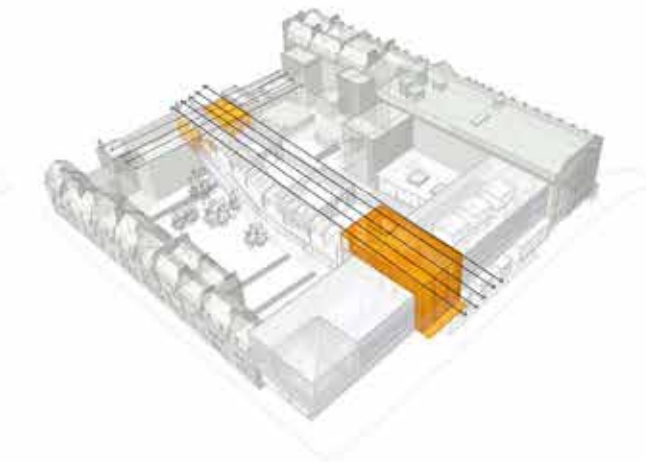
2. Relationship with Francis Hotel and Barton Street



3. Green Areas



4. Palimpsest wall as a boundary and as a spine



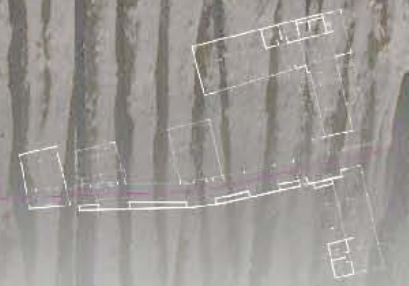
5. The 2 'gates' of the herbal garden

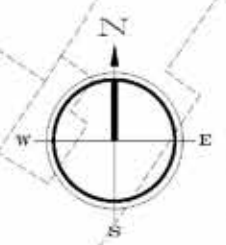


6. Volumes in the space- Garden Kitchens



PERSPECTIVE SECTION





UNDERGROUND LEVEL - THE CELLARS
1.200 @ A3

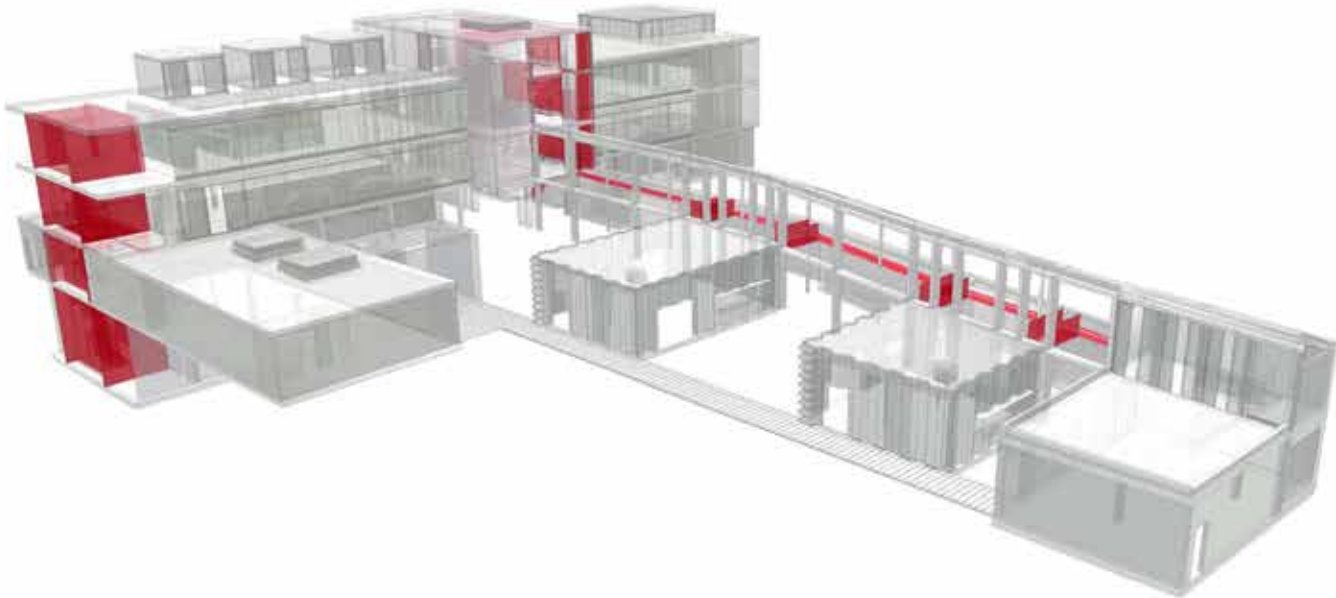
| UNDERGROUND LEVEL |

- 1 Disposal room
- 2 Private Circulation Core
- 3 Wine Cellars
- 4 Classroom/Ovens
- 5 Smoking/Drying
- 6 Wet storage (Fruit & Vegetables)
- 7 Cold storage (Meat and Fish)

The Underground level, the cellars, has a private use. It is used by the students of the school and it is were the first stage of their education takes place. Inspired by the roots of the tree the underground holds all the ingredients needed to ‘feed’ the rest of the building. In this level all the goods are stored and filtered upwards to the school and restaurant. Using the private circulation core, the raw ingredients are stored and organized. There is a big classroom where students learn the basic information about food, were it comes from, how to process it and how to store it. It is important for students to have an overall knowledge about food and eating, from the cultivation of fruit and vegetables to their transformation into culinary gastronomy.

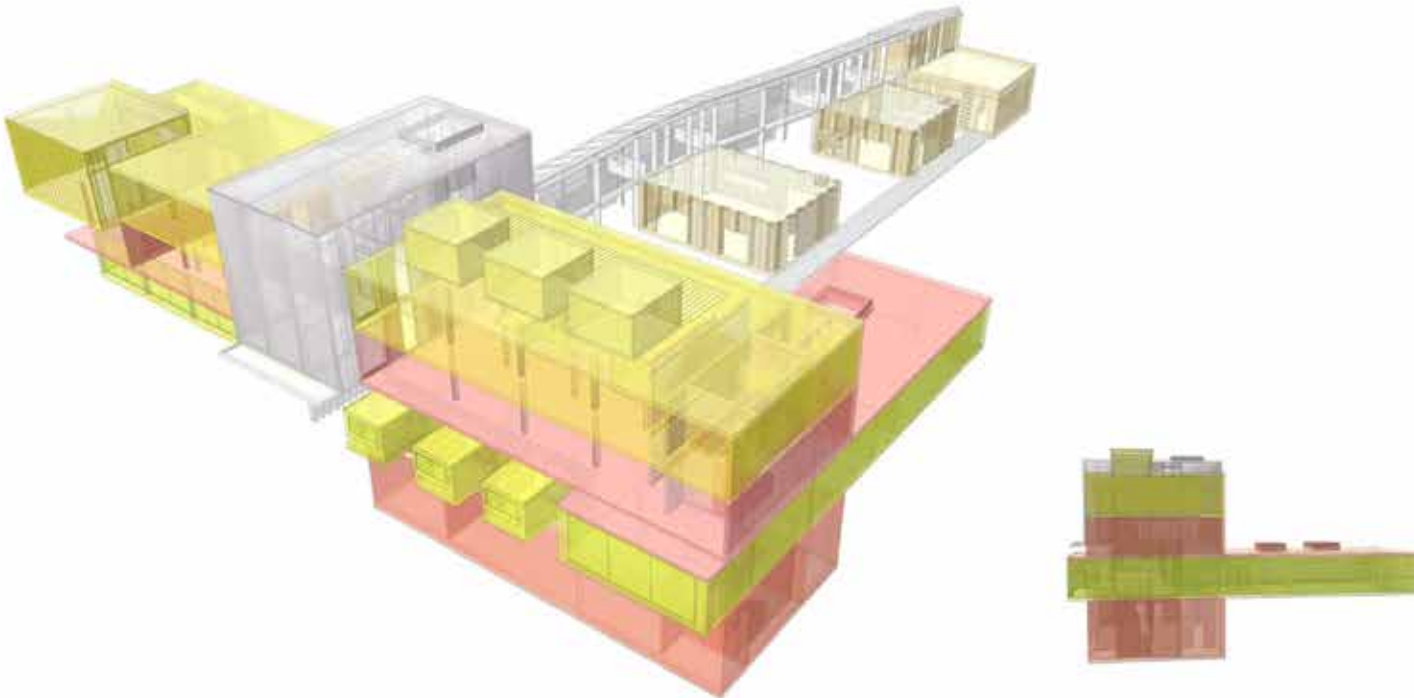
CIRCULATION

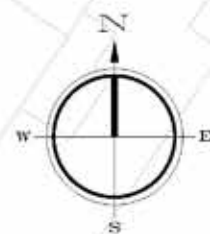
The building has two main vertical circulations and 1 horizontal. The 2 vertical are divided to private and public. The private one used by the school members, connects all floors so that the food can be taken to all levels and there is easy accessibility. The public goes up to the roof and runs through all levels in order to be able to take the public to the top floor, the restaurant, and roof garden. The horizontal axis runs through the herbal garden starting from the main central atrium and leading to the shop.



LAYERS AND USAGE

The usage of the building is mixed. The underground is used by the school-private. Ground floor is used by both public and private and its the main interaction between the members of the school and the public. The first level is private, used by the school only, and the top floor being the restaurant is used both by private and public. All layers are joined by the central atrium core through which people filter into the building.





GROUND FLOOR LEVEL - THE MARKET
1.200 @ A3



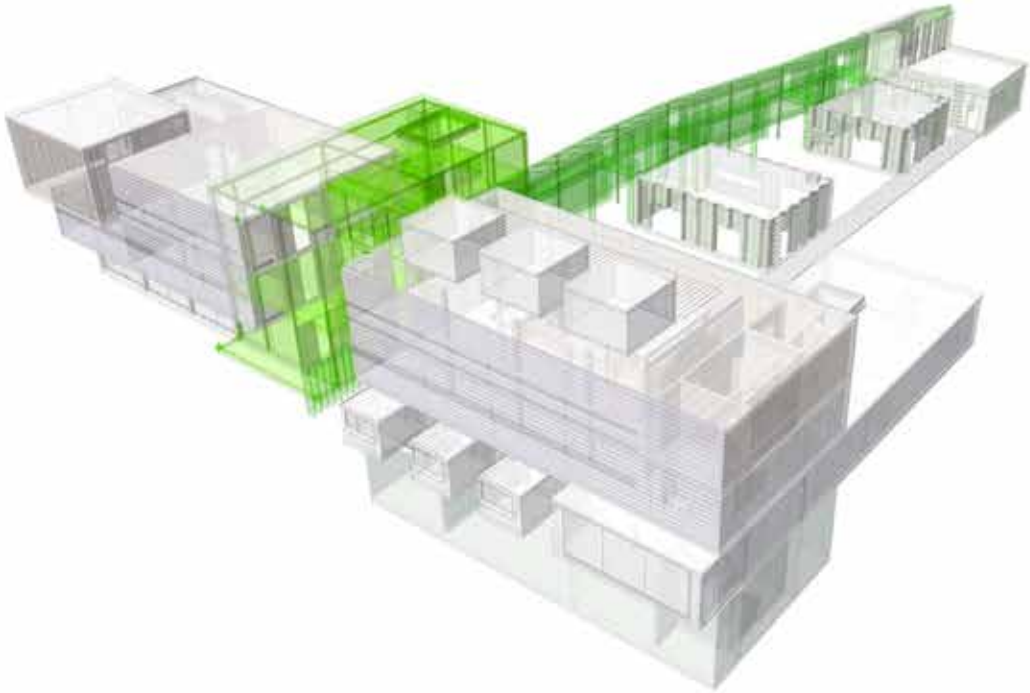
| GROUND FLOOR LEVEL |

- 1 Open/main entrance
- 2 Wine kiosk shop
- 3 Cheese kiosk shop
- 4 Bakery kiosk
- 5 Bakery Preparation/ovens
- 6 Preparation/packaging for shops
- 7 Private Circulation Core
- 8 WC
- 9 Cafe
- 10 Storage
- 11 Public Circulation Core
- 12 Exhibition/Demonstration Space
- 13 Library/Reference
- 14 WC
- 15 Herbal Garden
- 16 Garden Kitchen
- 17 Garden Kitchen
- 18 Cooking Shop - exit from herbal garden

The ground floor, the market level, forms the entrance through the building into the gardens and the inside of the block. There is no door, just an opening under the main circulation block through which you can see the beginning of the herbal garden and the green emerging onto the street. This level is transparent and flexible, used both by the public and private. The front part is composed by the shops looking on to the street and an exhibition/library area which is all glazed, inviting the public to come in and interact. Passing through the first stage under the glass circulation atrium, you arrive at the interior of the block in the gardens. The public circulation taking you up to the higher levels is in the beginning of the herbal garden inhabited inside the already existent wall. The glazed cafe/lounge is looking into the gardens bringing the activity into the building.

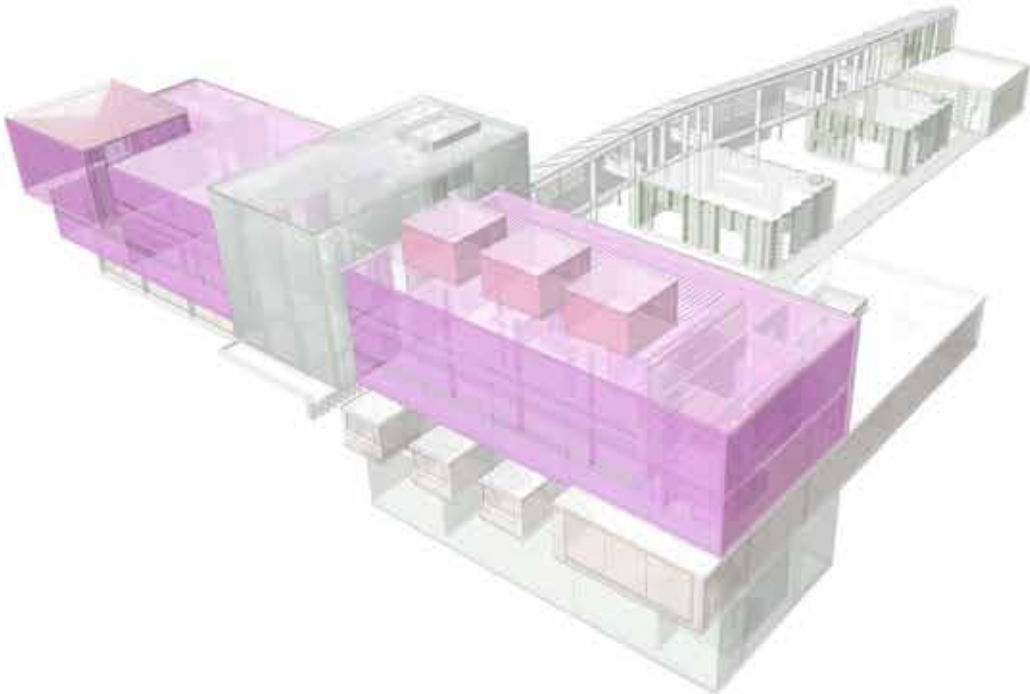
VERTICAL AXIS

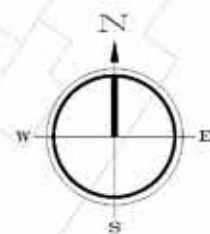
The vertical axis starts from the street front and crosses the site connecting the front and back street. The axis has as a starting point the main glazed atrium which transforms into the glazed roof of the herbal garden- green house. The two axis meet in the center of the building where it meets with the main public circulation. The vertical axis is introduced by a series of vertical fins under the atrium which transforms into the structure of the herbal garden.



HORIZONTAL AXIS

The main volume of the design is sitting on the transparent ground floor and cantilevering from both the front and the back. The whole volume is dressed with horizontal strips of copper in the front, as a curtain wall, and fine strips of copper, as louvers, on the back, differentiating the character of the two facades. This more solid element is interrupted by the central circulation core but is still the main and dominant part of the design.





1ST FLOOR LEVEL - THE SCHOOL
1.200 @ A3



| 1st FLOOR LEVEL |

- 1 Public Circulation Core
- 2 Cooking School Reception
- 3 Practice Kitchens
- 4 Herbs Rooms
- 5 Private Circulation Core
- 6 WC
- 7 2nd level of herbal garden-circulation
- 8 Head Chef's Studio/office
- 9 Pastry Kitchen Classroom
- 10 Lecture Room
- 11 WC/ locker rooms

The first floor is the school level. It is used privately by the individuals of the school and its the second stage in the education of the students. It is during this stage that students learn the basic information about cooking and preparing food. The floor is divided in two parts: the practice kitchens and the pastry studio. There is also a big lecture/classroom for the year meetings and some lectures given by external chef's to the students of the school. The school's reception is situated inside the central atrium, that is also an information point.

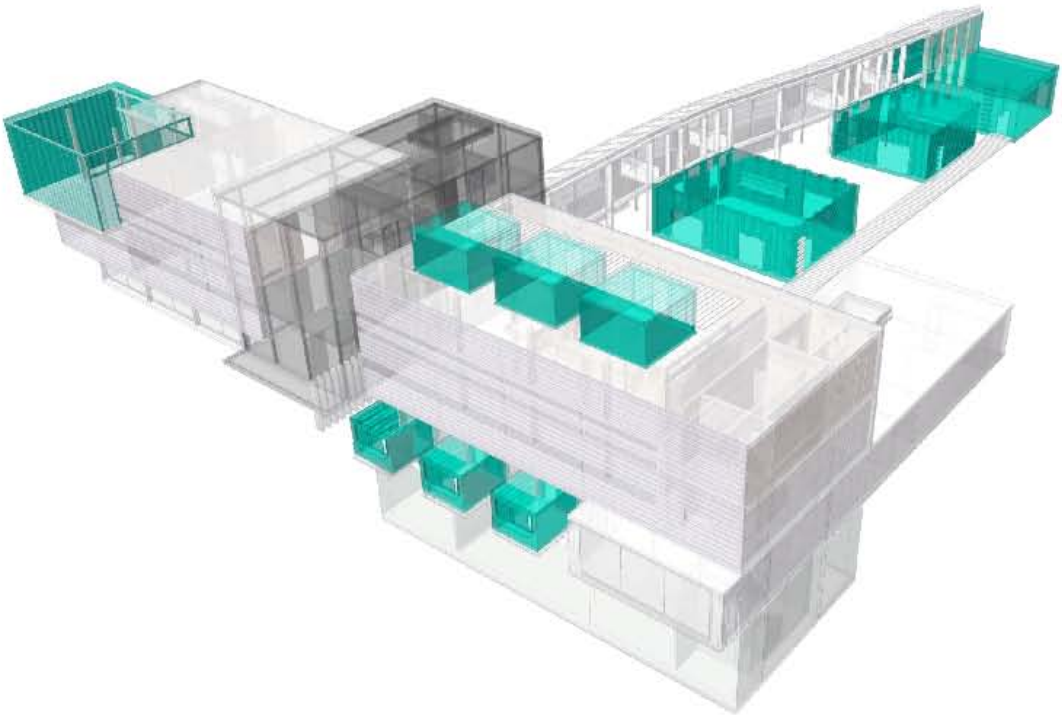
The reception separates the school and keeps its privacy from the rest of the building without isolating it. This level has open clear views towards the back and the garden and controlled views towards the street at eye level for the students to have a view out when standing and cooking. These windows slide open and are a source of ventilation and sunlight. From the central atrium there is an access to the 2nd level of the herbal garden from which you can get to the roofs of the garden kitchens. The end of the herbal garden leads to the head chef's studio/office which is connected to the shop and is the end of the journey .

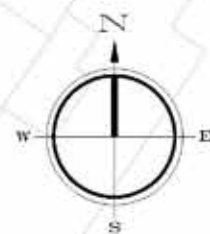
PARTICLES

The whole design is composed by smaller particles enhancing the main volume and adding or separating some functions and activities of the building. These additions aim through their different character and through their materiality, light and views to make the experience in each one of them unique and interesting. Inhaling the energy and elements from their surrounding and from the city's colors and essence. By extruding the main volume the whole design gets a more tactile and sculptural feeling creating gaps, cracks, in between them.

VIEWS AND OPENINGS

The openings of the main volume are following a strategy based on the initial concept. The front facade facing the street has long narrow strip windows following the grain of the facade and street, controlling the views. On the first floor there is a long window at eye level when standing for the students to have a view out when cooking and on the 2nd floor there is a strip at foot level having a view down to the street when walking and another at eye level when sitting providing a view for the restaurant when seated. The back facade is all glazed having a clear view down to the gardens and creating this more enclosed community, the hortus conclusus.





2ND FLOOR LEVEL - THE RESTAURANT
1.200 @ A3

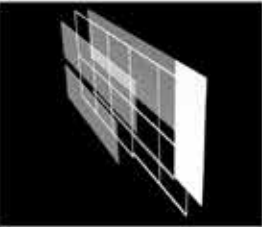


|2nd FLOOR LEVEL|

- 1 Public Circulation Core
- 2 Restaurant Reception/Bar
- 3 Main restaurant area
- 4 Open plan kitchen/bar
- 5 Storage
- 6 Private Circulation Core
- 7 WC
- 8 Restaurant- monastic square tables
- 9 Rentable space for events (private bar)
- 10 WC

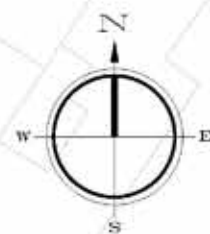
The 2nd floor level, used by both the school and the public, is run by the students of the school. When visitors get to the restaurant floor through the central atrium, they arrive in a large bar/reception looking out to the city where they wait to be seated to their table.

The restaurant is divided in 2 main parts. The first is the fine dining restaurant with an open plan kitchen where visitors are witnessing the preparation of their meal. The second part is inspired by the monastic tables: large square tables where people sit around it, even if they are not familiar with each other. A cook is positioned in the centre of the table and cooks everything you order in front of you making the preparation an interactive event. This also brings people closer and makes the 'eating in a restaurant' much more enjoyable. There is a large private room with its own bar and it can be reserved by bigger parties for events. The special thing with this space is that its cantilevering and is all glazed sitting on the edge of the building having amazing views all around.



FACADES AND SKIN
The horizontal volume sitting on the ground floor is all dressed in copper strips, following the grain of the street. This whole skin, works as a curtain wall, and is attached to the floor slabs of the building, unifying it and creating a colorful, tactile effect. Inspired by the colorful herbs and the color of the sun when falling on the buildings of bath, copper will represent the conceptual agenda in the best way. The front is covered with thick strips having very few long openings and the back facade has very fine, thin louvers allowing clear views out to the garden but communicating with the language of the front facade.





ROOF TERRACE LEVEL - THE PRIVATE DINING
1.200 @ A3



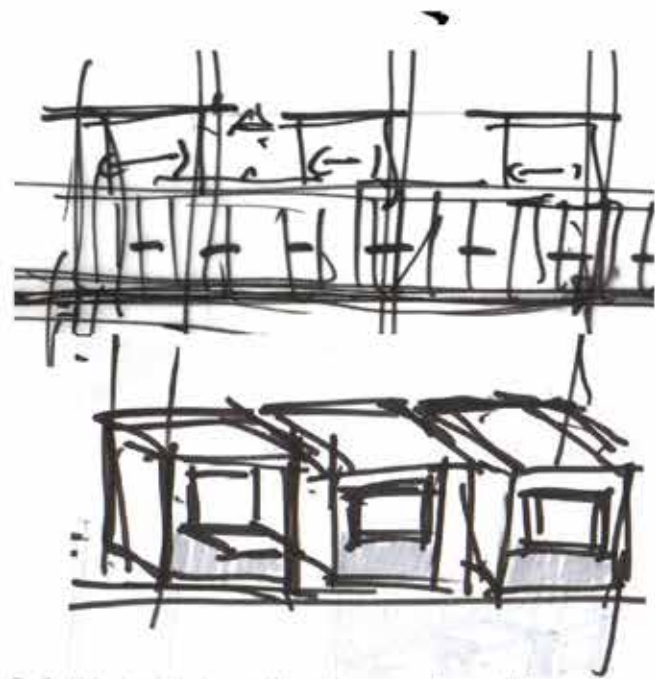
| ROOF LEVEL |

- 1 Public Circulation Core
- 2 Private dining restaurant

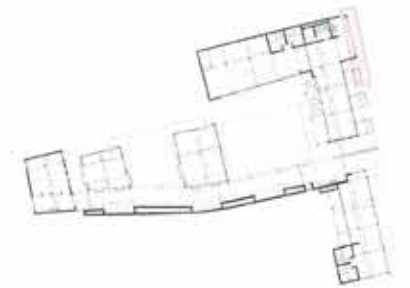
The rooftop, the private dining, forms the end of the journey in the vertical circulation of the building. The whole of the rooftop is used to grow fruit and vegetables as a planted roof terrace and holds the private dining. The idea is that from the central atrium at the restaurant level people who have booked a space in the private dining are directed to the top level. There, a dumb-waiter directs the couple to one of the three pavilions on the rooftop.

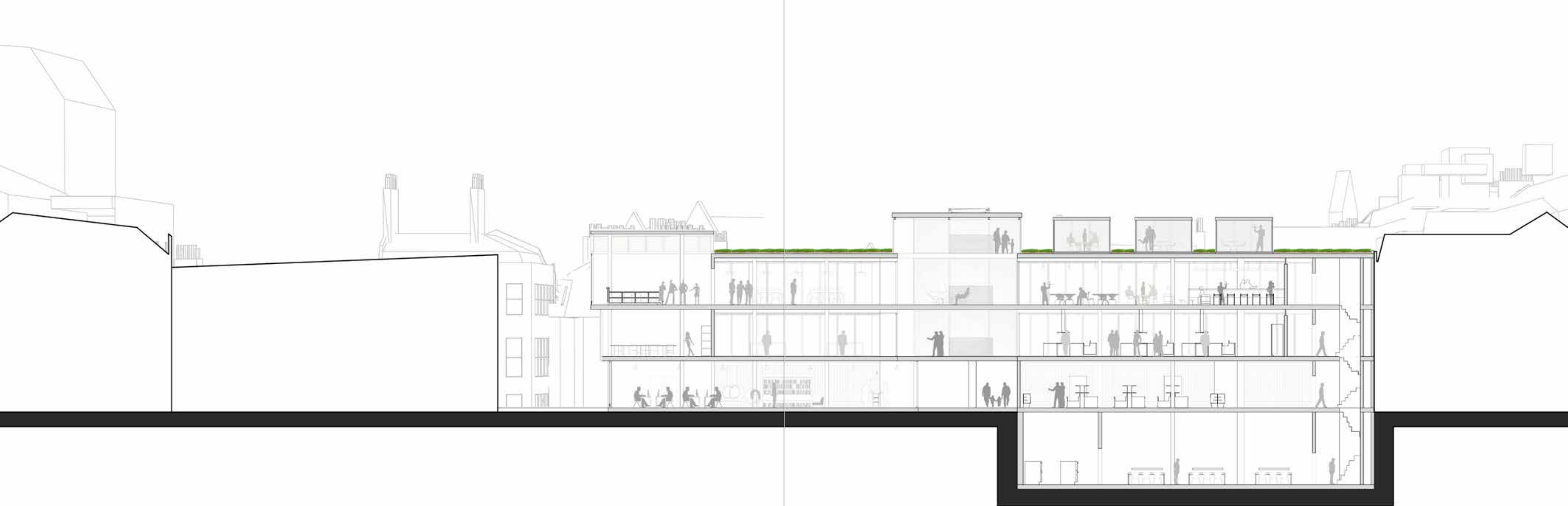
These will be probably used more often during the summer when the weather is better. The visitors will enjoy eating inside a garden having magnificent views above bath, having glances of Queen Square, and a view of the whole garden which is going to be lit during night, making the garden kitchens nice sculptural objects inside the garden. Only the Public circulation goes up to the rooftop. The preparation of the food will happen in the kitchen of the restaurant in level 2 and taken up when prepared, and kept inside the atrium until being served. During winter the three private restaurants will be used as garden studios by the students of the school. Conceptually the private dining will give emphasis on the ritual of eating and the interaction with the person sitting with you and experiencing the setting.





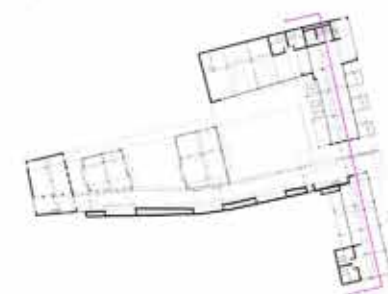
[...] "A bright yellow lemon is rolling down the sloping pavement. The old lady picks it up and hands it over to me with a big smile. On my right the glazed facade reveals the 2 men carrying heavy overfilled bags with flower onto the bakery working bench. The busy woman starts covering the table with flower. I can't stop staring into the bakery, moving closer minute after minute. I find myself almost being stuck onto the vitrine of the bakery like a little boy looking inside the Christmas shops craving for sweets and candy. I move down and decide to buy a bottle of wine for tonight's dinner. "Good morning", I say to the young lady. "Hello, how can I help you today?"

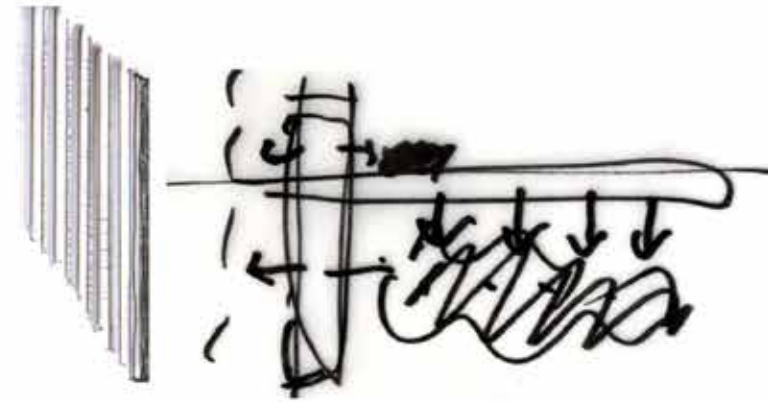




SECTION BB'

1.200 @ A3





[...] "I walk mesmerized down Barton street street when a mixture of fresh air and a sent of herbs meets my sensitive sense of smell. I notice people walking in and out a hole in the street face. I walk closer and I realize that there is an opening in the street...I am curious and I walk towards it. Suddenly I am in front of the entrance to a secret garden. A series of metal fins lead me deeper into this paradise. I lean on the metal fins feeling the roughness of the material, touching one by one feeling the cold metal on my fingertips. As I move deeper the street disappears behind me and I am welcomed into a complete different world... a garden city"

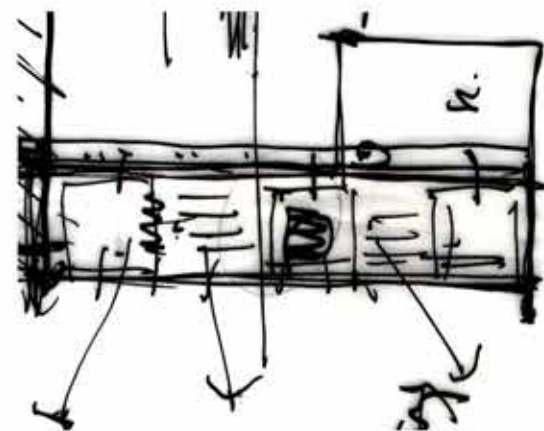


SECTION CC'

1.200 @ A3

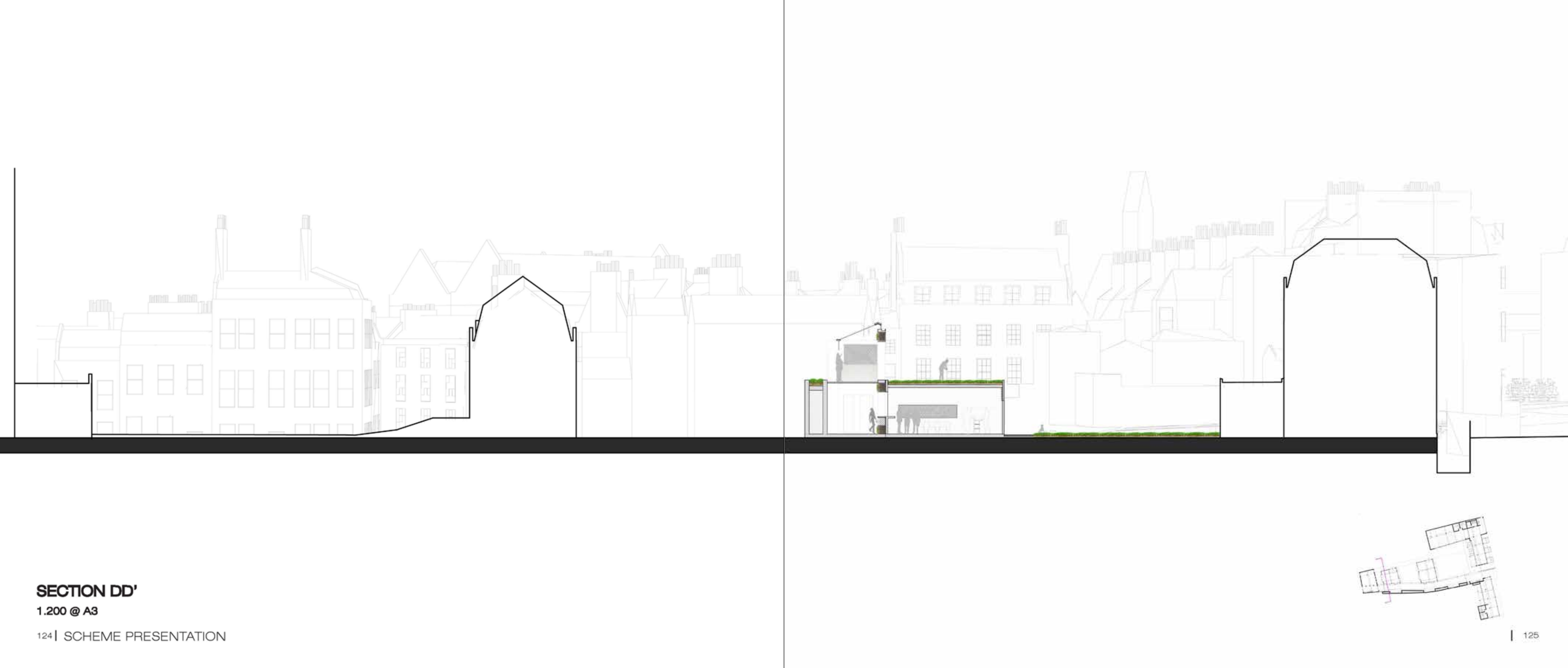
120 | SCHEME PRESENTATION





[...] "I sketch vigorously for my next design project and my 0.35 rapidograph spills ink all over the piece of tracing paper leaving marks of ink splattered around the glass surface of the desk. I decide to have a break and go down to the kitchen to cook something to eat. I pour some olive oil into the pan and I gaze at the oil as it warms up and starts dancing in the pan while light passes through it forming bizarre shapes on its edges. And I question myself, what is it that makes food and architecture so similar? For me designing-architecture and cooking-food simply require a pinch of something that we all have in us, which might be difficult to project: soul."





SECTION DD'
1.200 @ A3



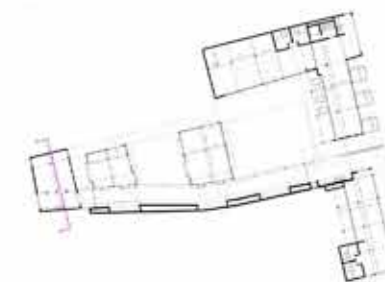
[...] "I never want this promenade to finish. I find myself walking extremely slowly and observing every single herb and flower hanging from the plastic baskets. The herbal garden is overwhelming. The little girl is climbing as high as she can trying to reach a large fine red strawberry. I go closer and help her reach it, pulling it carefully. The scent of the strawberry make me feel as if I am in a field in the countryside. Another young boy runs next to me chasing its dog. I smile remembering my own childhood, my worn dog. I sit in one of the benches in the pockets in the wall and sight. Sprinkles of water from the watering system of the garden drip on my face and make me realize that I have to leave."

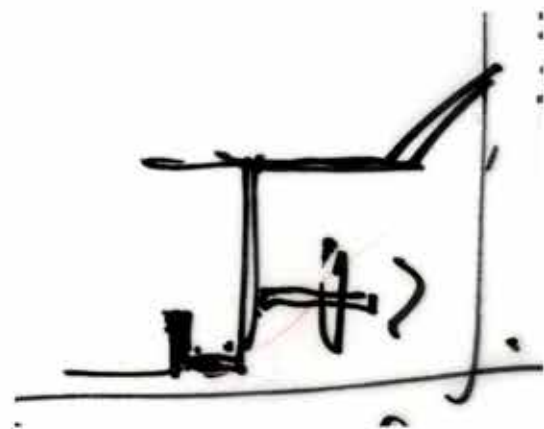




SECTION EE'

1.200 @ A3





[...] "I sit on one of the tables of the cafe to drink some cold water and rest. The day is really sunny so I decide to sit outside on the wooden deck to be closer to the garden. It's a busy Sunday and the garden is full of people digging. It's planting season. That explained why there were trucks with soil and plants parked outside. I stand up and walk towards the garden kitchen. The open doors welcome me in. I hesitate but slowly walk in. Three young students, Nataly, Mat and Marta-Luis invite me in. Immediately I become part of the preparation. They ask me to pick some peppers and bring them. I jump out from my excitement and look around to spot the peppers. I grab an empty basket being left next to the door..."





PERSPECTIVE SECTION

|View from above|



AERIAL VIEW 1



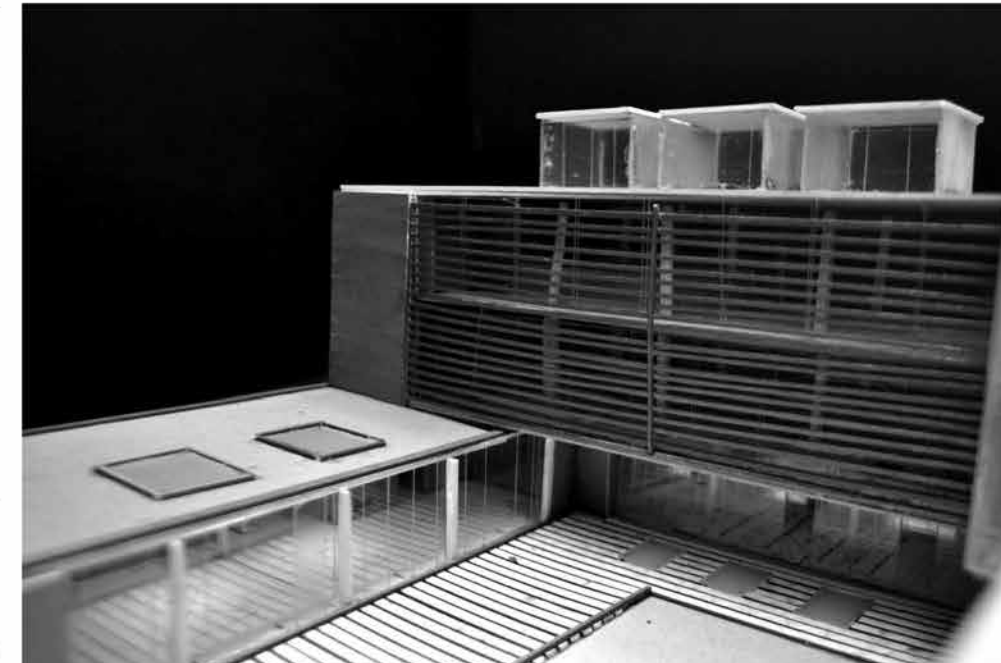
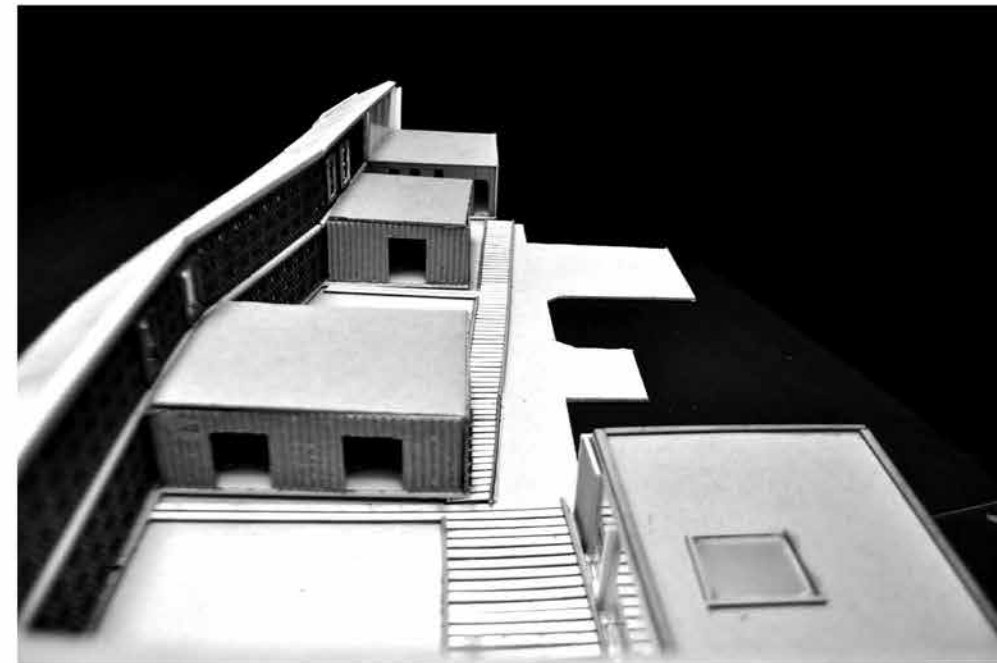
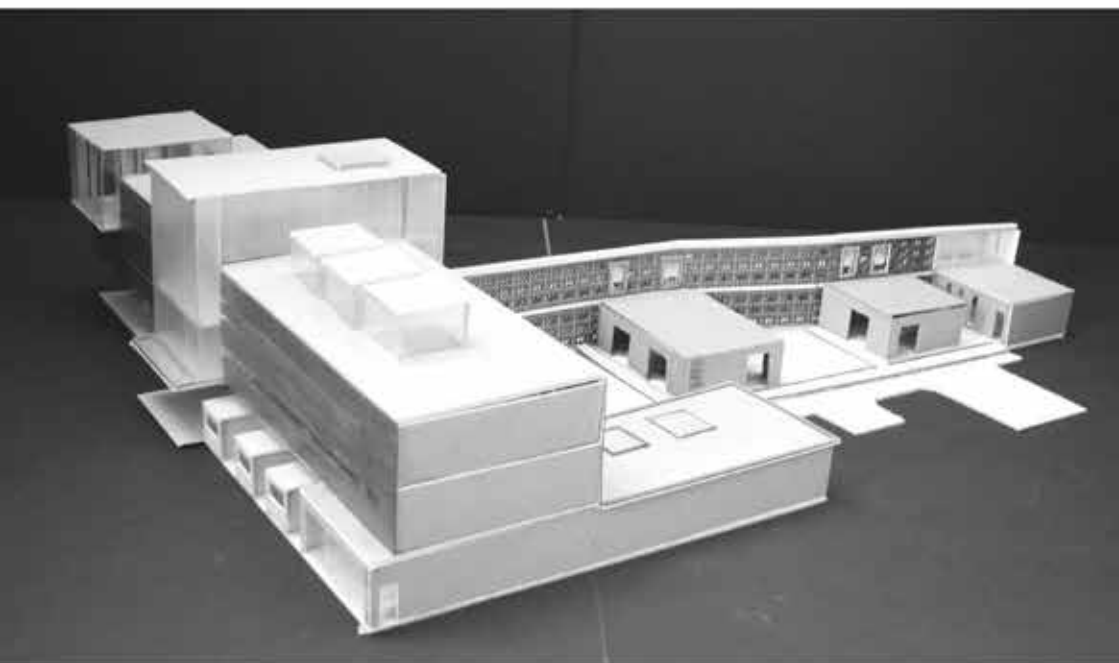
AERIAL VIEW 2

| Landscape Arrangement |

An important aspect of the Culinary School is the position of the gardens and allotments in relation to the surrounding and the volumes of the design. The routes between the gardens are defined by the wooden deck blending in with the soil creating a homogenous environment. The wooden deck varies in size and length based on the situation. As seen in the sections the created paths form routes from and to each part of the building. The areas of cultivation are interconnected with sitting areas and circulation. These three diagrams present in plan and section different aspects of the landscape arrangement and how these are combined with the architecture.







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CONSTRUCTION AND FABRIC

Structure and External Finish



Concrete

In-situ concrete will be used to form the central circulation / service cores, underground retaining walls, and garden kitchen bases. Pre-fabricated elements will be used for the shops on the street front and internal divisions in the cafe and school level.



Treated steel

The spine beam and columns of the herbal garden, structure of central atrium and glass restaurant, and all fixings are made out of stainless steel.



Copper

Very cost-effective cladding and roofing material. With good building design, materials choice and craftsmanship. Lasting colour, durability, maintenance-free and lightweight nature of the cladding was one reason for using copper strips to clad the front facade.

Garden Kitchens



Sheet piling

Steel sheet piling is made up of different interconnected panels that gets driven down into the earth using a vibrating hammer as well as other impact tools to create a solid and rock-hard barrier that can hold the weight of the soil above.



Siberian Larch

The wood is a golden yellow colour with a strong grain pattern. It will give a nice natural effect in the kitchen gardens. It is very durable and in case of a fire it burns much slower than any other wood cladding.

Internal Finishes and Glazing



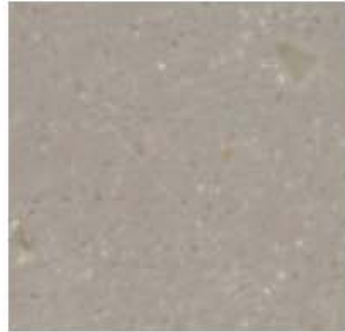
Stacked glass

Parts of the central atrium and private rooftop restaurants will have stacked glass instead of clear glass. This will allow privacy, diffuse the light evenly and create a nice lighting effect during the night making the elements glow.



Glass blocks

Form a shower screen, allowing light to pass through and make the ground floor permeable without showing exactly what is happening behind. Glass brick wall facing Barton street will reflect the garden that is behind onto the street.



Concrete finish

Granolithic concrete floor provided colour contrast with the lighter wall finish and concrete columns. Fire resistant, easily cleanable.

Herbal Garden



Plastic

Recycled plastic crates will be used to fill the metal structure to compose the herbal garden. The fixings will be removable so that the crates can be removed and replaced.



Vegetation

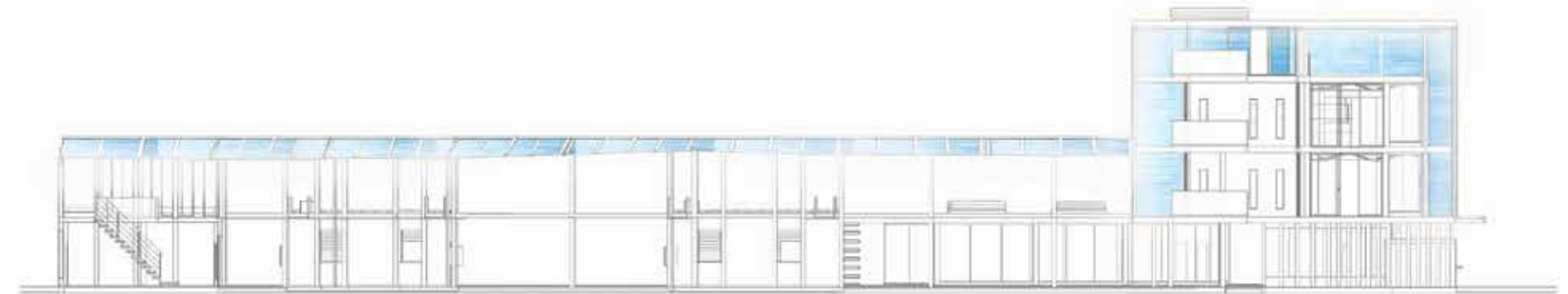
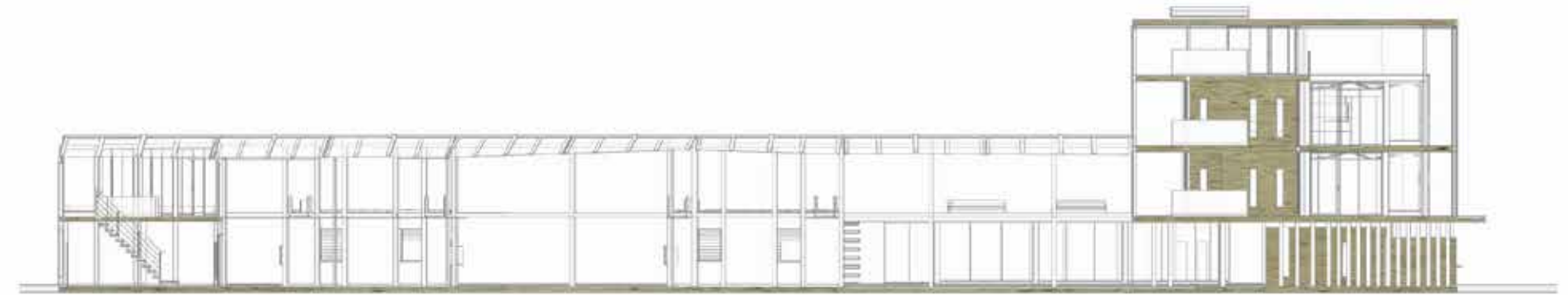
Different vegetables and herbs will be planted inside the crates. Stimulate senses, create an innovative, ecological herbal garden.

| Concrete framework |

The Concrete floors labs and columns wrap around the herbal garden creating a strong framework for the other materials to hung on and enrich. The two edges, the school atrium and shop have concrete as their main structural element, being connected by the concrete slab running through the herbal garden, forming a stable base for it.

| Glass Filling |

The central atrium seems like a patched collage of concrete and framed glass. The glazed roof or the herbal garden continues and wraps up around the central atrium and floor plates into larger longer pieces. From the outside you can see the floor plates on the 2nd and top floor being inset

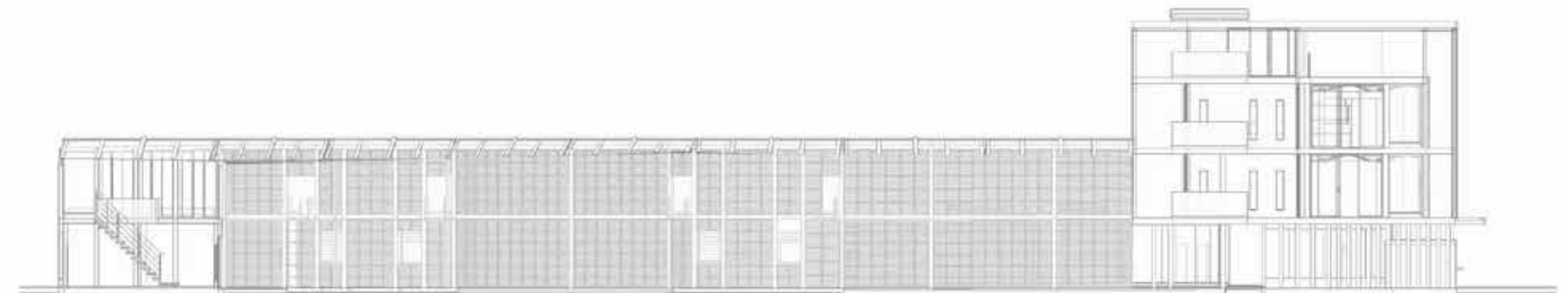


| Steel Members |

The structure of the garden starts from the edge of Barton street and goes all the way to the edge of Princes street. The two structural strategies meet in the beginning and the end, where the herbal garden merges with the atrium and the shop respectively. The grid of the metal structure, creating the herbal garden's spine is organized and clear in order for the filling of the gaps with the baskets to be easy and precise. The materiality of the primary structure continues on the glazed, greenhouse like, roof of the herbal garden, where the metal members join and holds the roof in an angle in order to get maximum sunlight.

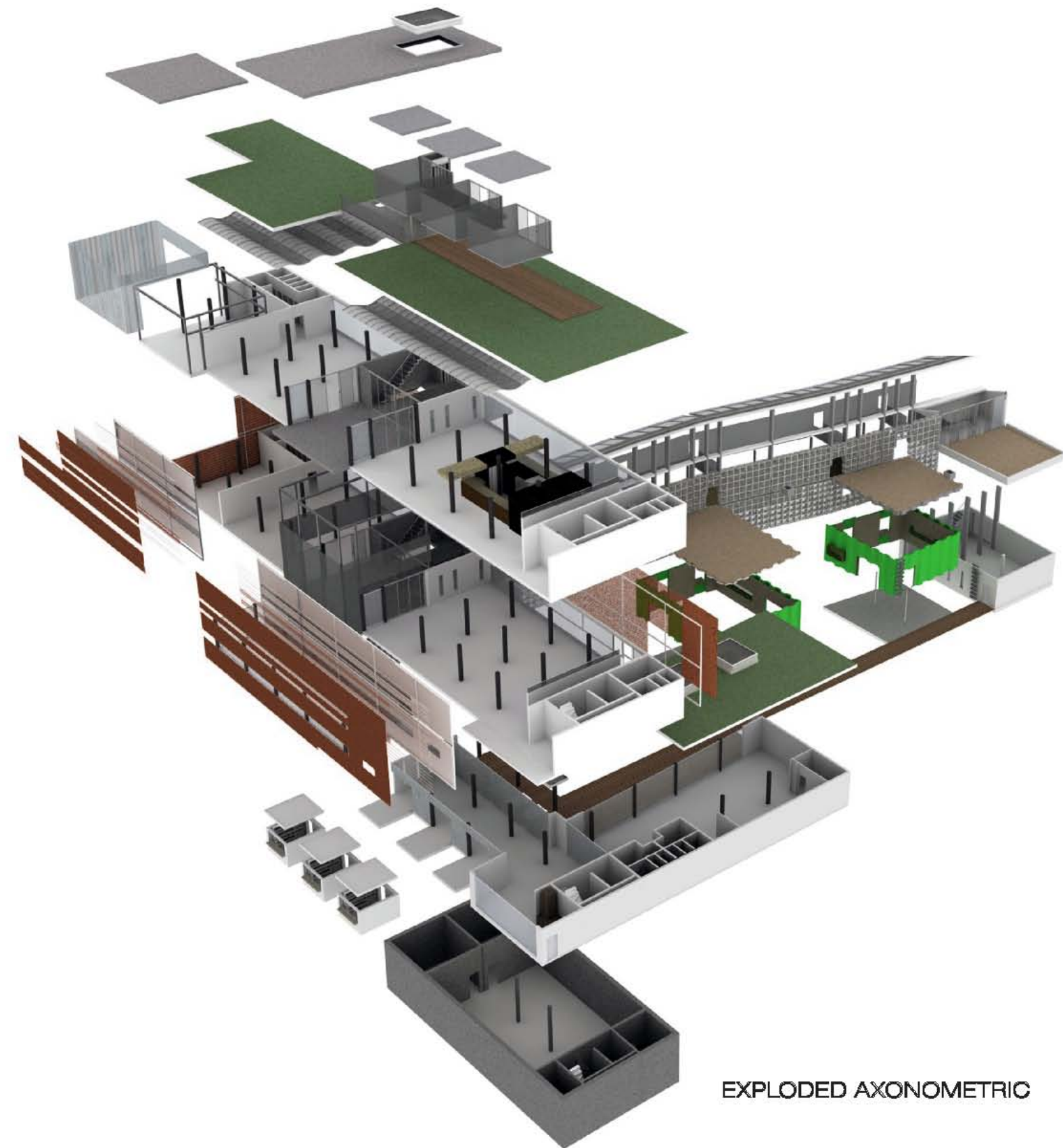
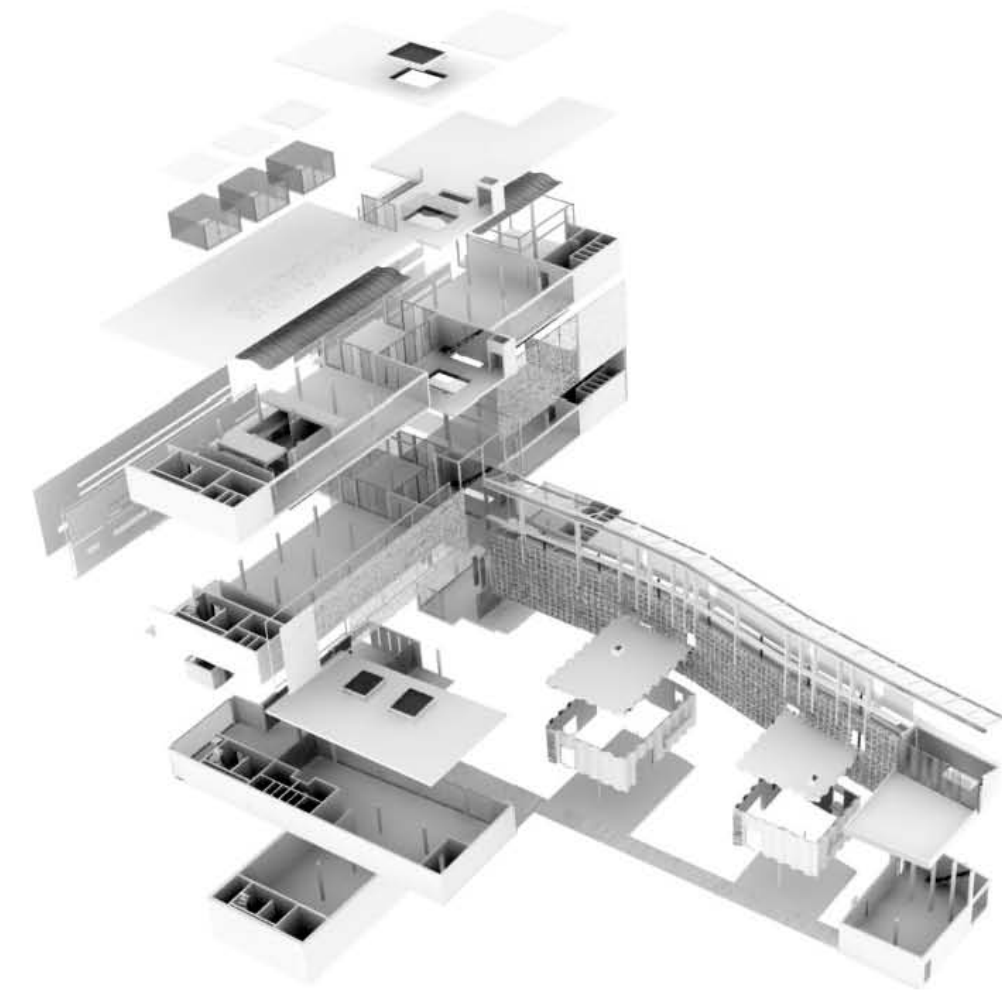
| Recycled Plastic |

The Recycled plastic baskets that compose the wall of the herbal garden are stacked on top of each other in between the metal members. The perforation of the baskets will allow light to pass through to the other side of the garden. Although sun might destroy the plastic, it has been taken into consideration and the baskets will be accessible individually and able to be changed if necessary.



| Construction Sequence |

1. Contractor Mobilisation and protection of building fabric (Palimpsest wall)
2. Demolition of existing buildings and clearance of site. Storage of materials that can be re-used and recycled.
3. Excavation and retaining structures. Retain foundations of already existent underground floor and reinforce them to be used for the new development. Conservation of money and energy
4. Underground services to be installed.
5. Cast of ground floor slabs and position on site
6. Concrete superstructure to be constructed- cores cast in situ, precast columns and division walls to be installed.
7. Mechanical, electrical, public health 1st Fix
8. Facade structure to be attached and fitted to floor plates
9. Secondary Framing for wall and roof cladding
10. Glass pre-fabricated panels to be constructed for central atrium and restaurant
11. Internal lining/ MEP 2nd fix
12. Kitchen appliances to be installed and connected with service cores
13. Plastic baskets to be made and attached to herbal garden structure
14. Landscape works- after the completion of the garden kitchens
15. Internal Finishes and commission of all systems



EXPLODED AXONOMETRIC

|Structural Strategy|

The materiality and the structural strategy of the building had been an important factor in the decision making from the beginning of the project. The mixed use of structural techniques makes the combination of the elements complicated but yet interesting and innovative.

The main structural decisions were to be made for the language between the building and the garden. The structural strategy of the garden lies upon a grided steel beamed system covered with a glass canopy, whereas the building has a concrete structure 'dressed' with a lightweight facade system, which acts as a skin.

The underground floor, being the base for the North part of the building, is surrounded by retaining walls. The concrete columns on the first and second floor are inset 1.6 meters from the edge of the floor plate, allowing freedom of movement and the ability to be able to manipulate the edges or hung from them the facade structure. The ground floor being smaller than the 1st and 2nd ends up having the West series of columns exterior, holding the cantilevering floors above.

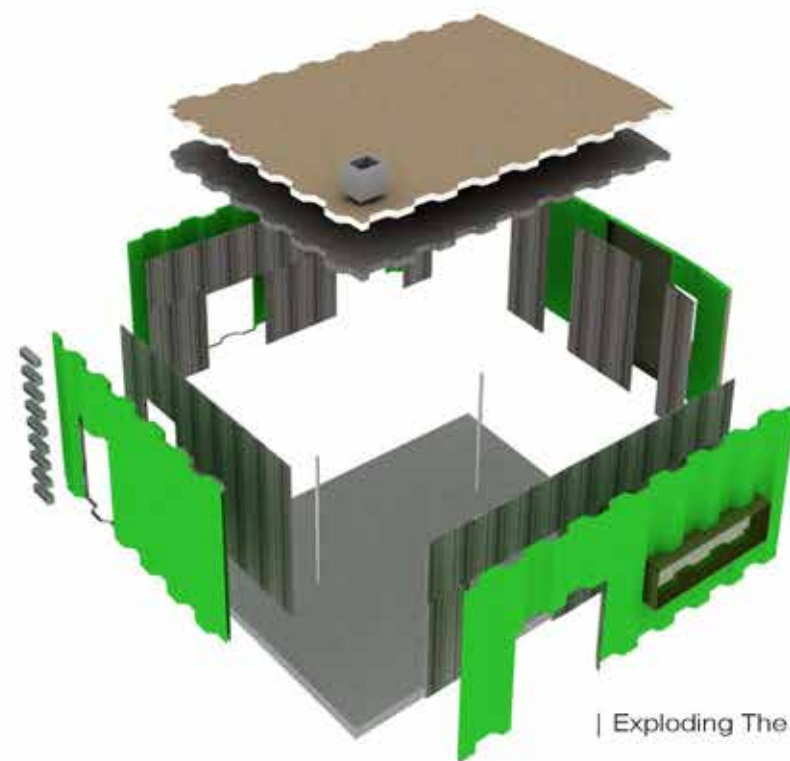
Extra care and rigid insulation will be required in the junction between the vertical glass roof system of the herbal garden and the horizontal glass panels of the central atrium, to prevent leaking.



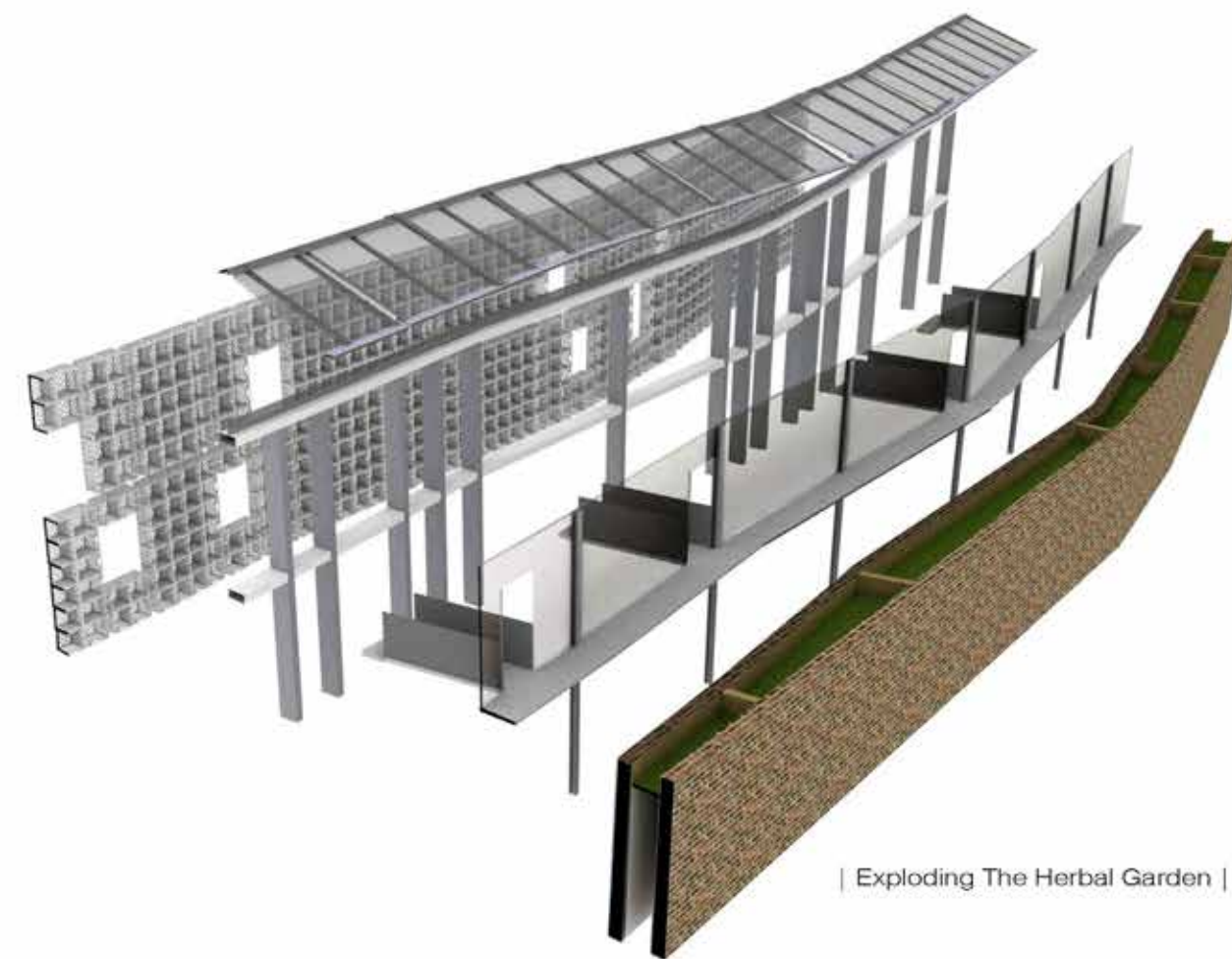
Structural Plans key

- Concrete structural grid- 300mm reinforced columns
- Insitu concrete cores-contribute to overall stability
- 200mm steel columns in herbal garden
- Insitu fin walls- resist EW winds
- 150mm round steel beams
- Shared, load bearing wall
- Beam projection
- Insitu concrete floor plate- acts as beam to take loads to concrete columns that are inset from slab edge-ties exchange





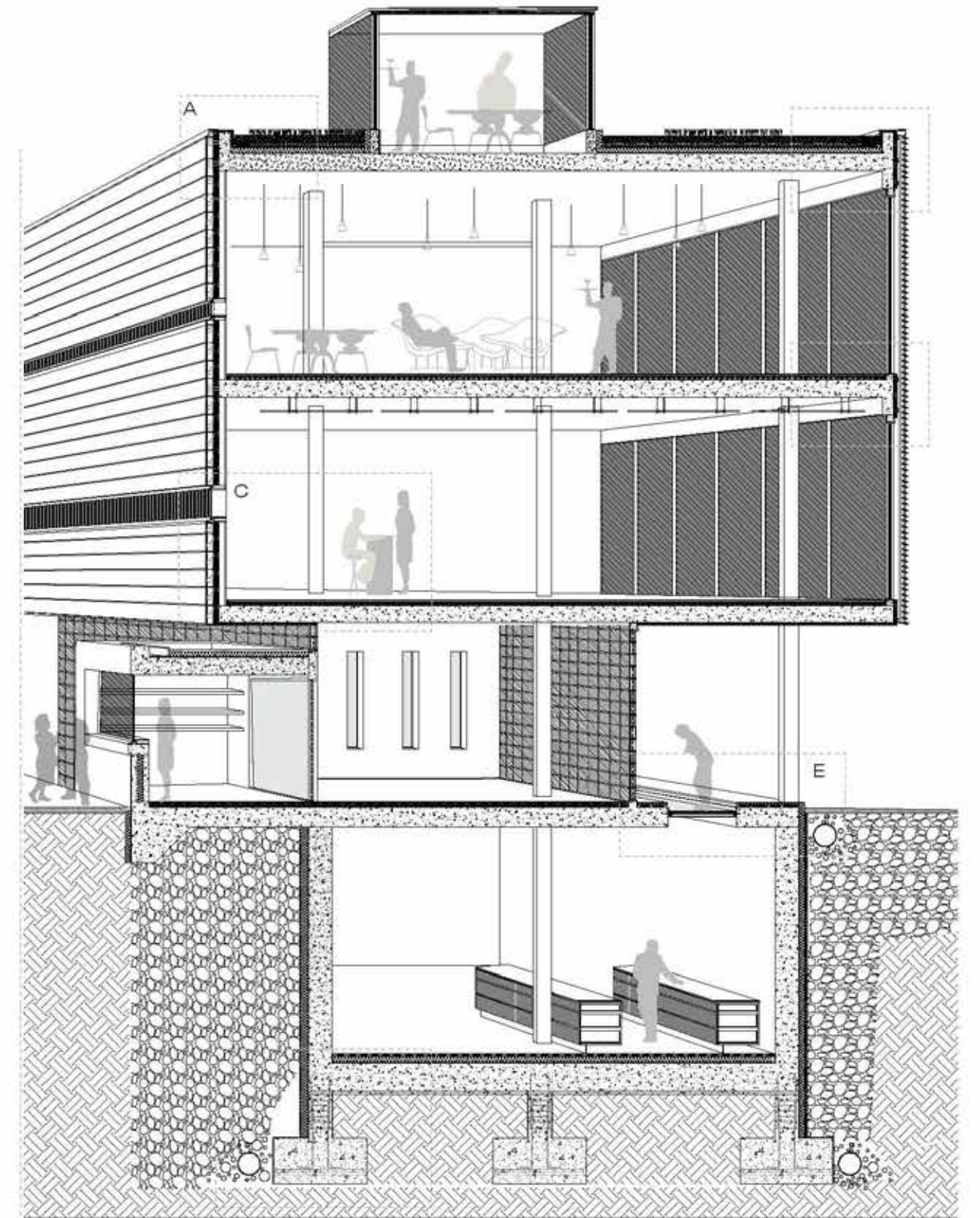
| Exploding The Garden Kitchen |

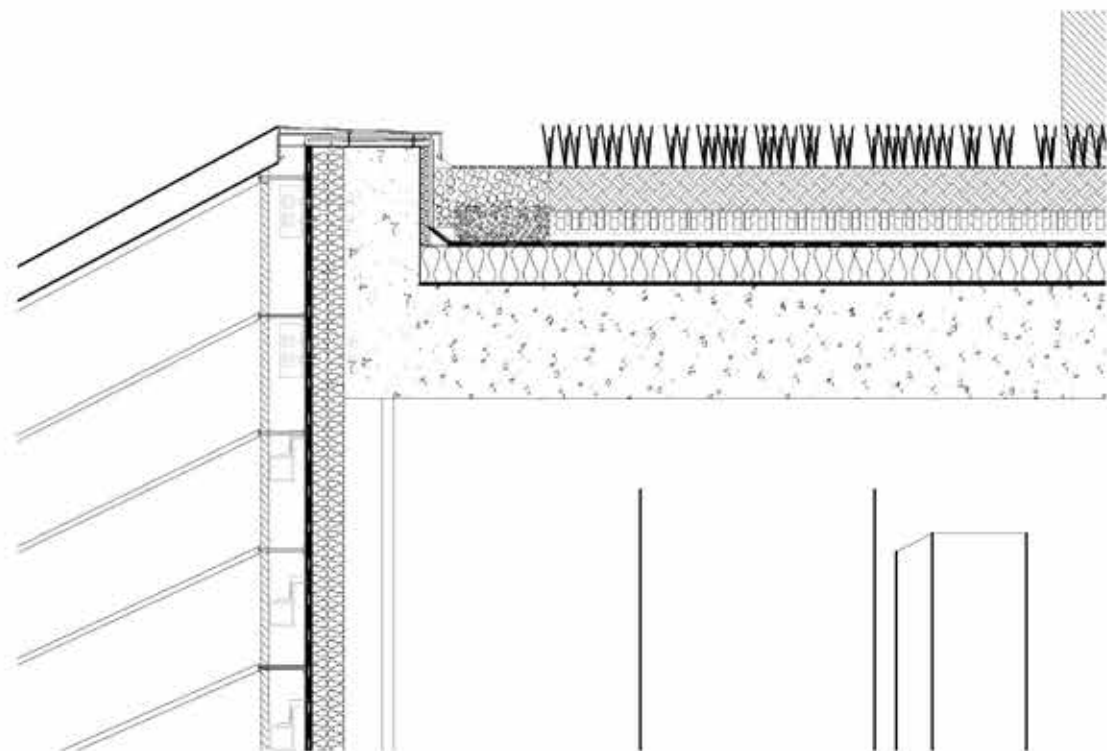
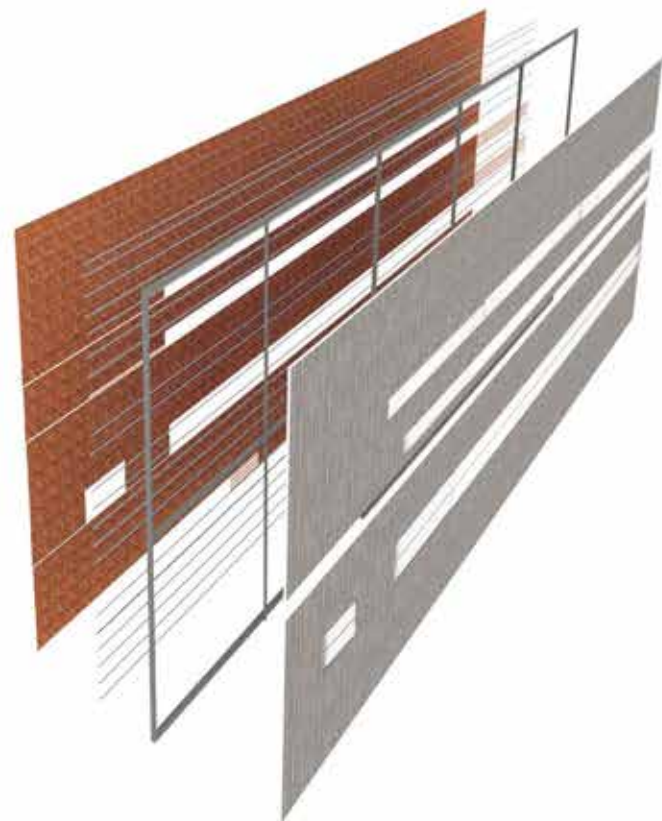


| Exploding The Herbal Garden |

| Detailing |

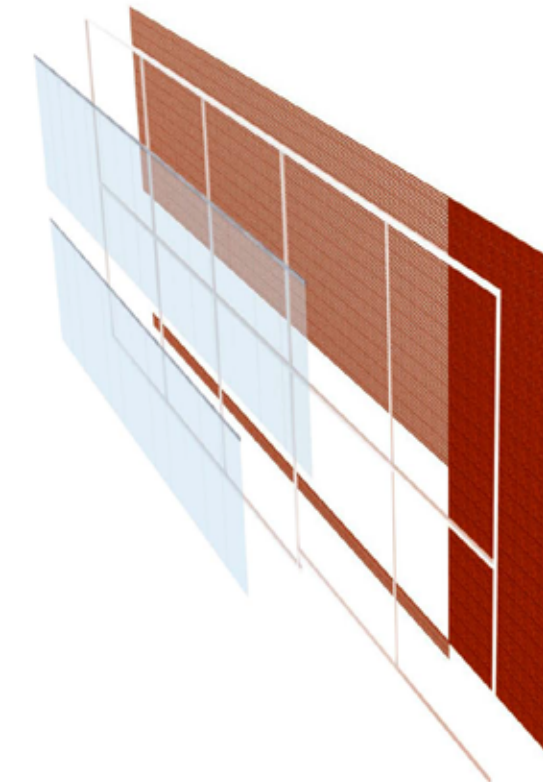
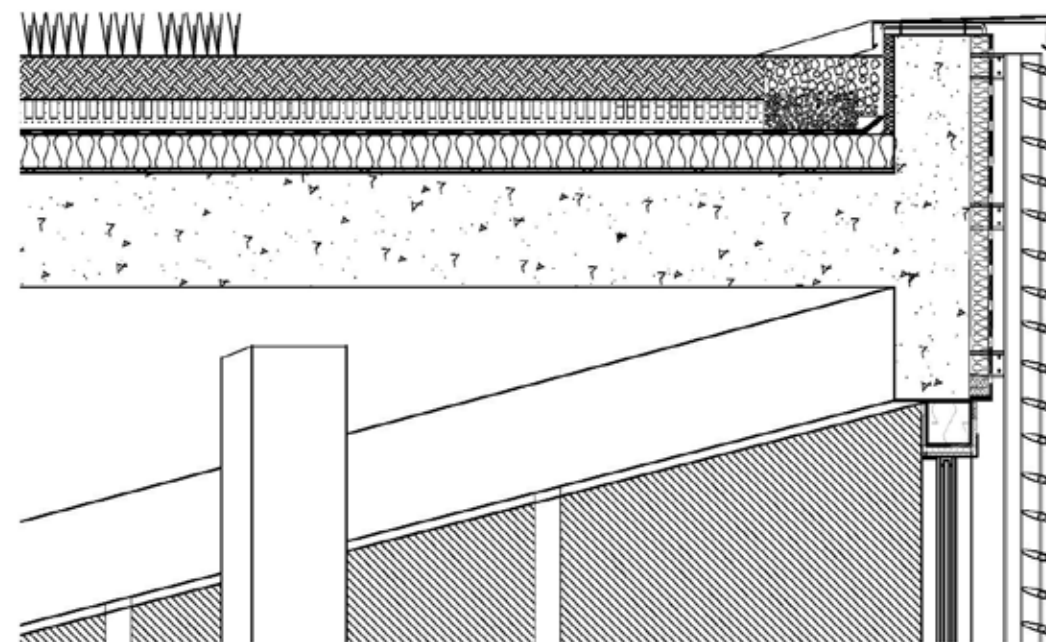
The chosen section shows as many details as possible and different conditions of the scheme. It is interesting to notice how the language of the facades change although they use the same materials.



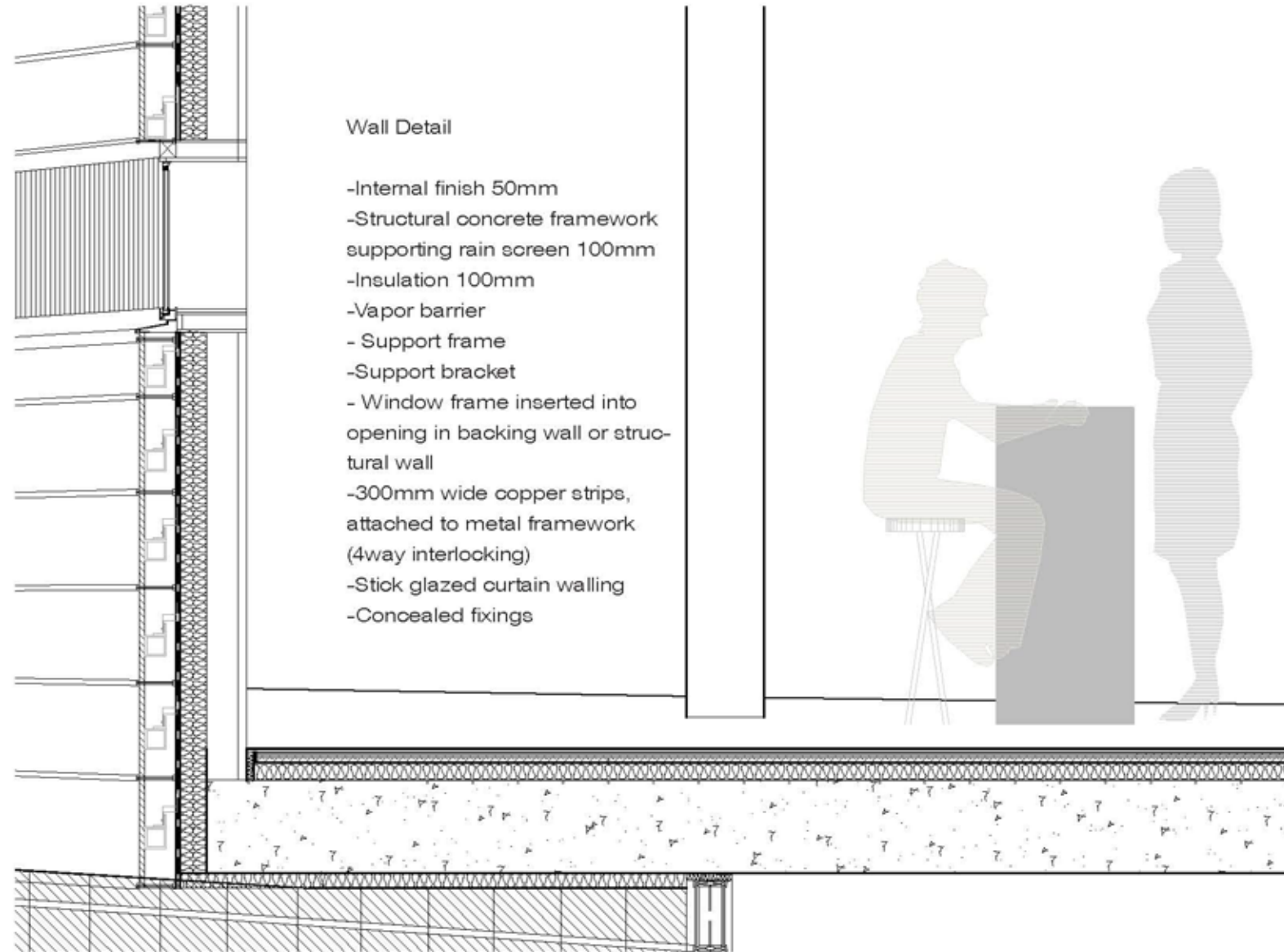


ROOF DETAIL

- Heavy Vegetation
- Filter Barrier
- Enriched organic soil 100mm
- Polystyrene drainage boards 50mm
- Waterproofing barrier
- Thermal Insulation 100mm
- Vapour barrier
- Reinforced Concrete Deck
- Edge gravel
- Parapet coping with drainage system

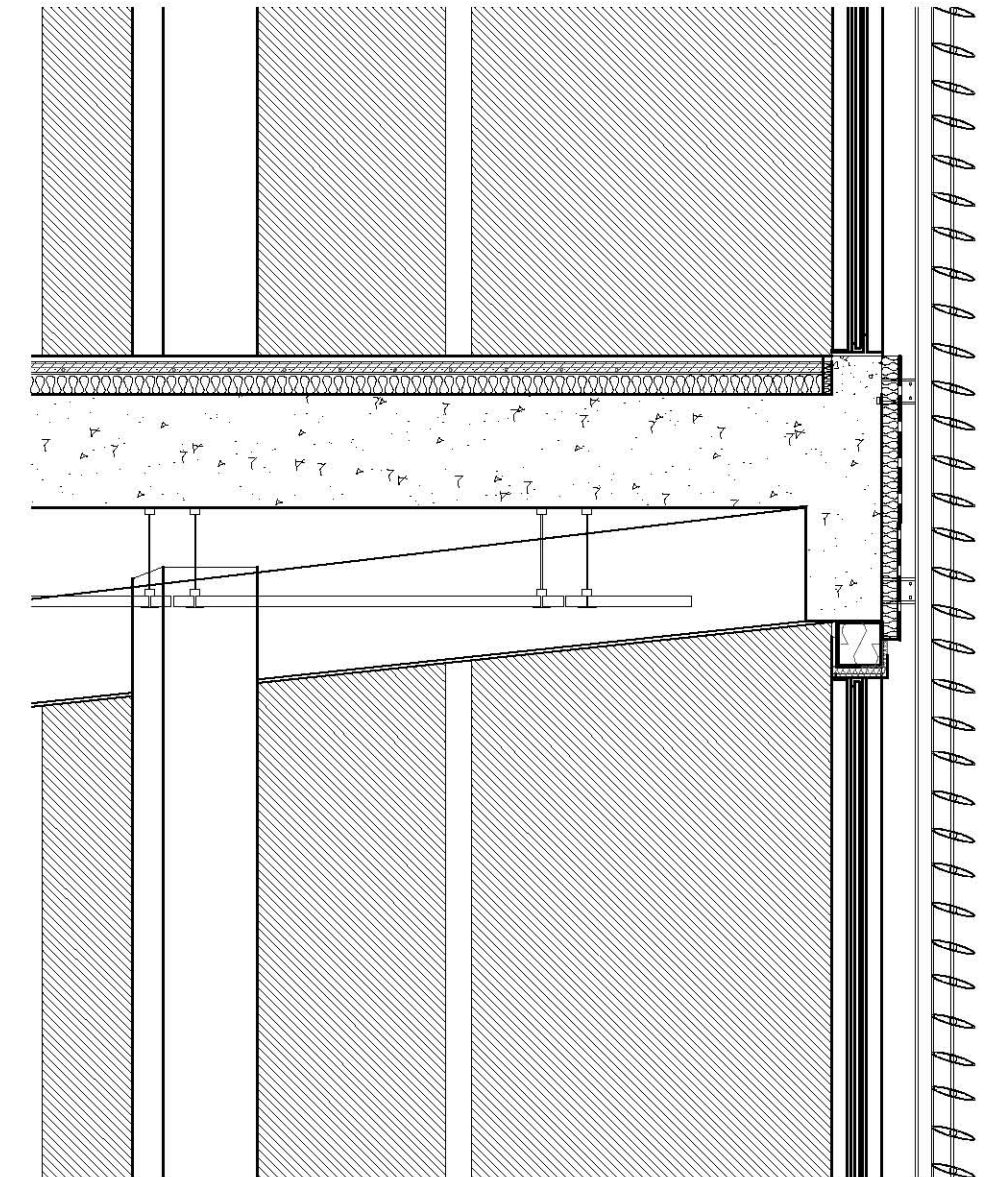


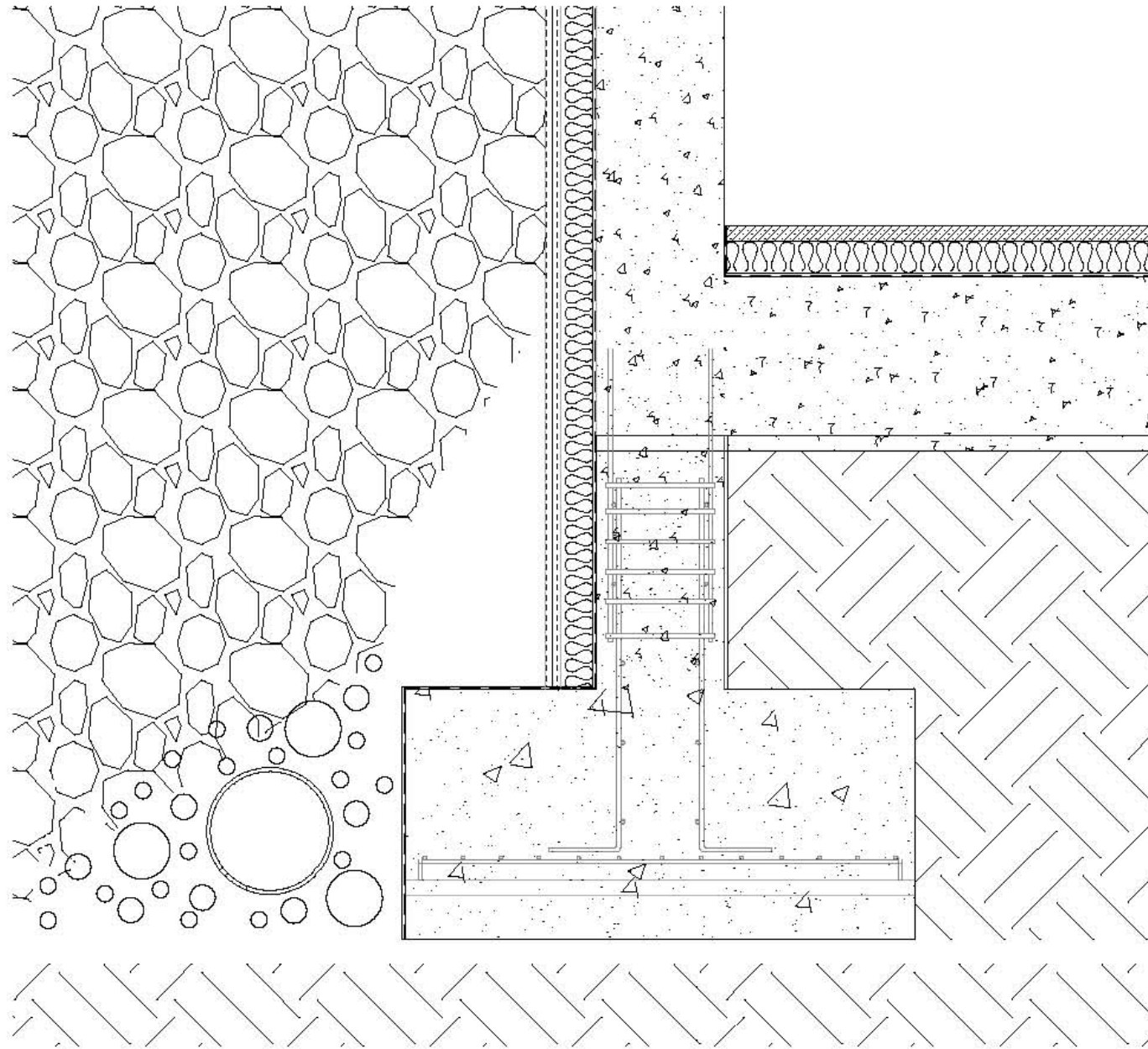
The louvre system is supported by 150mm steel beams which span 2000mm between the primary supports at 1200mm c/c. This is supported by steel columns at 2000mm intervals which are attached to the floor slabs.



Window Detail

- Double glazing (8mmx12mmx8mm)
- Aluminium facade rail
- Vapour barrier
- Air gap for ventilation
- Aluminium section, insulated with thermal break
- Cast in slotted channel
- Stainless steel fixed anchor



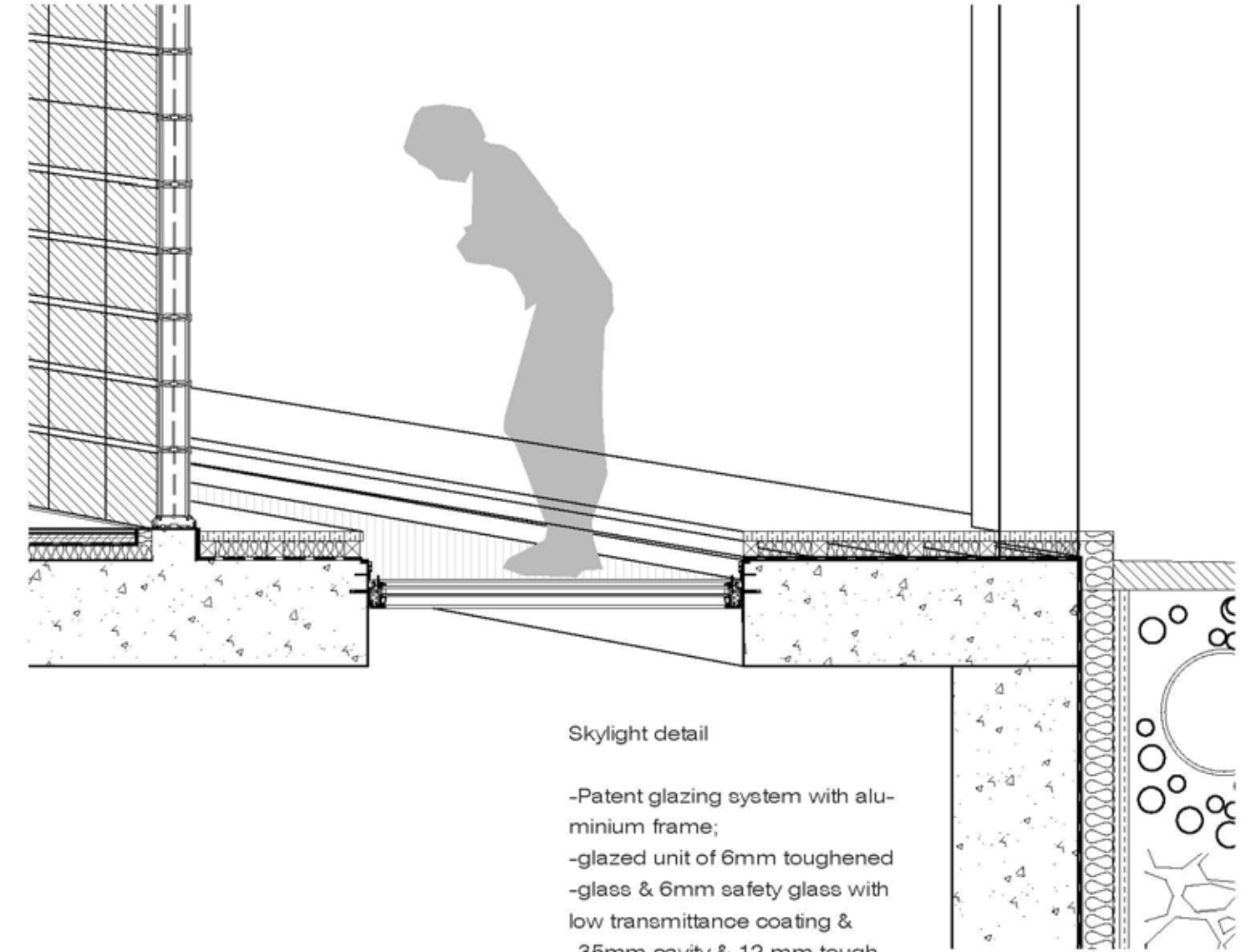


Foundation detail



Glass block wall detail

- Glass block (200mmx200mm)
- Mortar joint
- Border
- Reinforcement
- Movement joint
- Corner profile
- Steel channel section
- Masonry anchor
- Permanently elastic seal



Skylight detail

- Patent glazing system with aluminium frame;
- glazed unit of 6mm toughened glass & 6mm safety glass with low transmittance coating &
- 35mm cavity & 12 mm toughened glass, silicon glued to glass
- Zinc flashing nailed to above
- Welded steel L-sections to support rafters

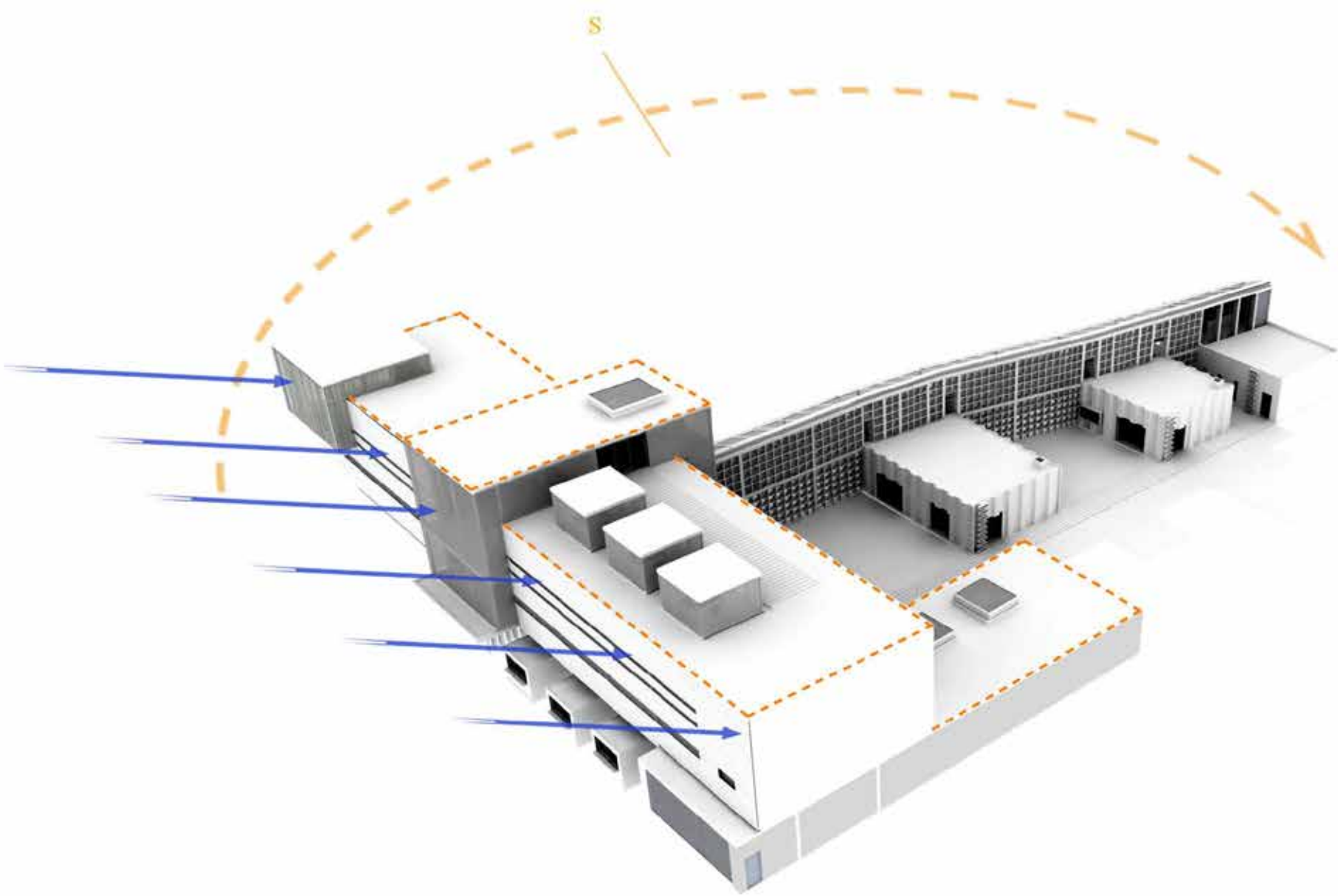
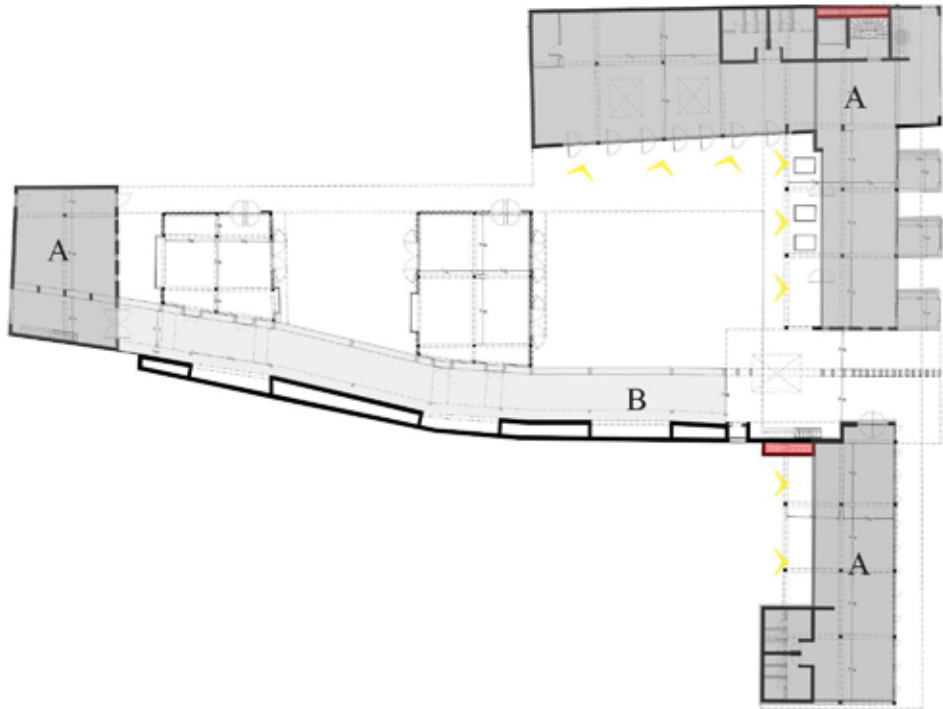
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ENVIRONMENTAL STRATEGY

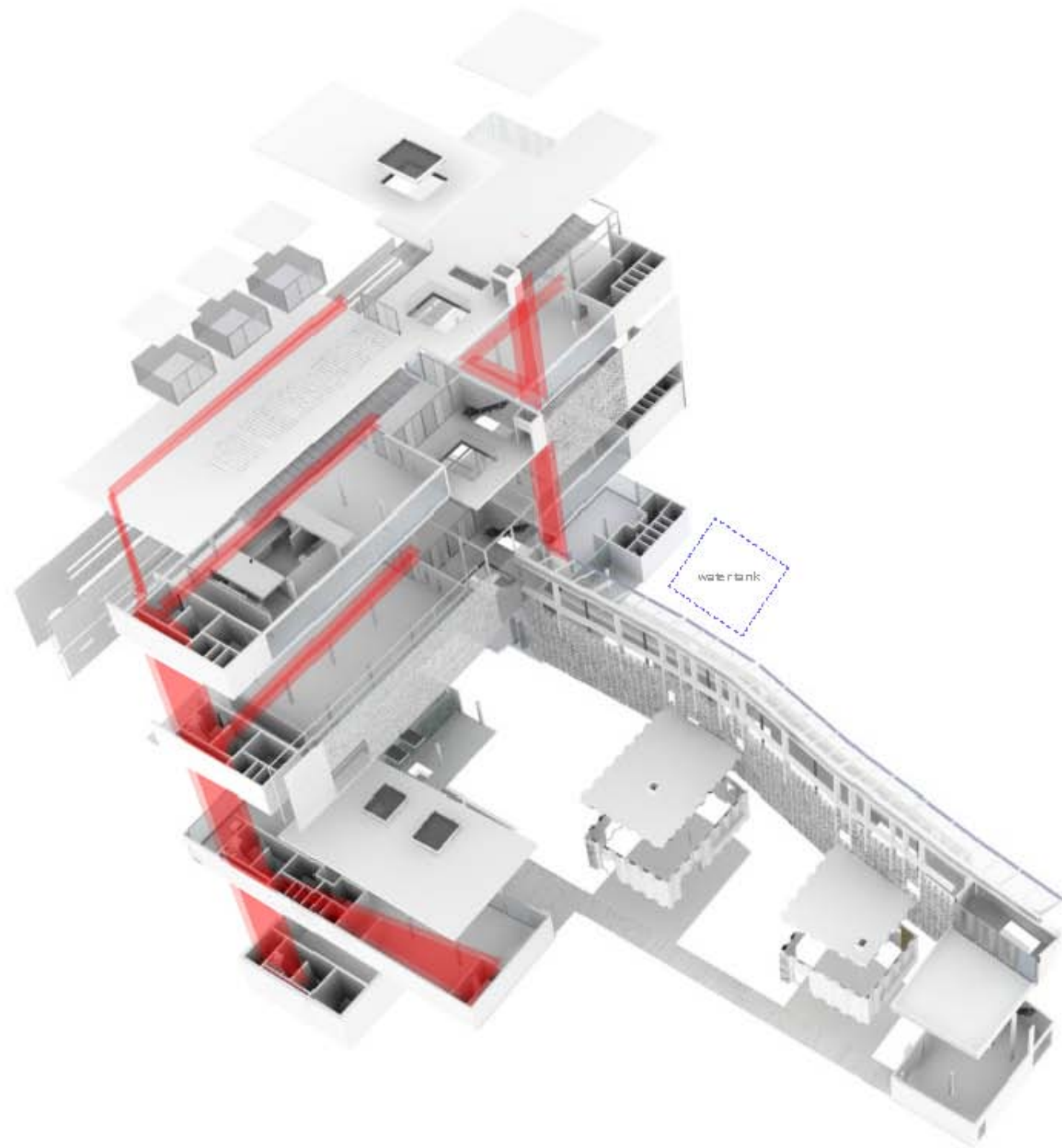
In order for the building to function coherently, the scheme is divided into zones based on their usage: the spaces that need extra mechanical ventilation, the spaces that do not need and the external spaces. Thus, this will help conserve energy. Because of the building usage, only during the day, the building does not need nay heating during night time. The school level and the restaurant level due to the kitchens and high energy, do not need any mechanical heating since the heat produced by the kitchen appliances, ovens and electrical devices, together with the south sunlight will be adequate to keep a moderate temperature in the spaces. The herbal wall , although covered is dealt as an external space thus no heating will be provided. The Underground level, because of the cellars and storage areas does not have to exceed 15°C. It requires therefore minimal heating.

The central atrium is a bufferspace between the external spaces and the internal spaces and relies on passive gains and the sunlight. Only the ground floor will need some mechanical heating due to the large amount of glazing. Therefore, the ground floor will be heated and the rest of the building will be heated naturally.

The scheme proposes several ways for reducing waste and conserving energy. First, grey water from the roofs will be used for watering the gardens and also for flushing the toilets. Solar water heating on the central atrium roof will minimize the use of energy to heat up water. Moreover, a heat recovery system will be set up in the restaurant and school areas. The gains of heat in these spaces are higher than what needed, thus the heat will be recycled to the rest of the spaces that need a higher temperature. The copper stripped facade is very cheap as a material and the process to prepare it for use is much less harmful for the environment than other metals. The position of the underground level will be the same with where the already existing underground level in order to minimize excavation cost and energy.



Prevailing winds and sun orientation on overall scheme



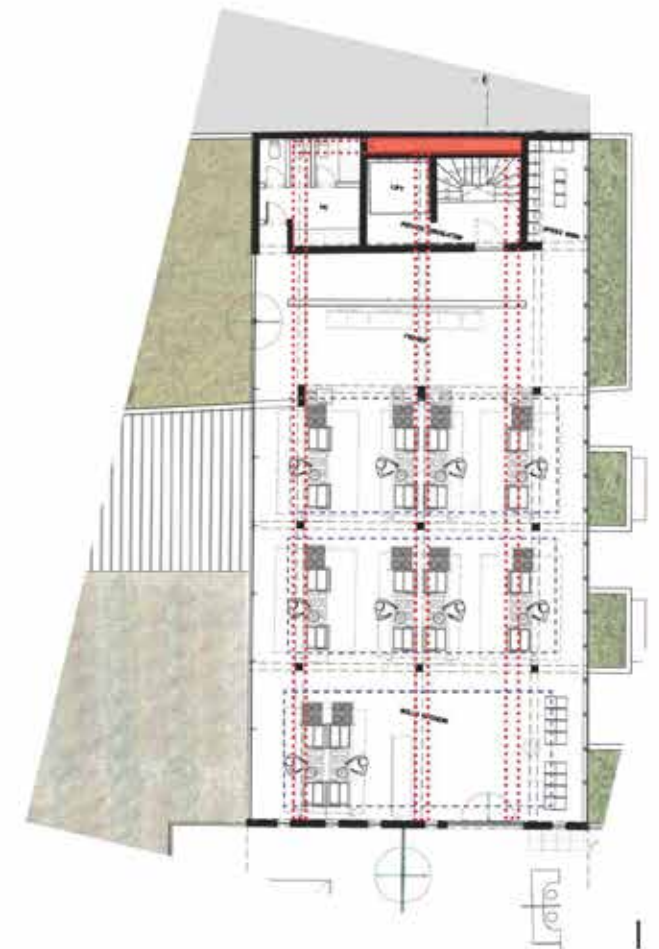
| Service cores |

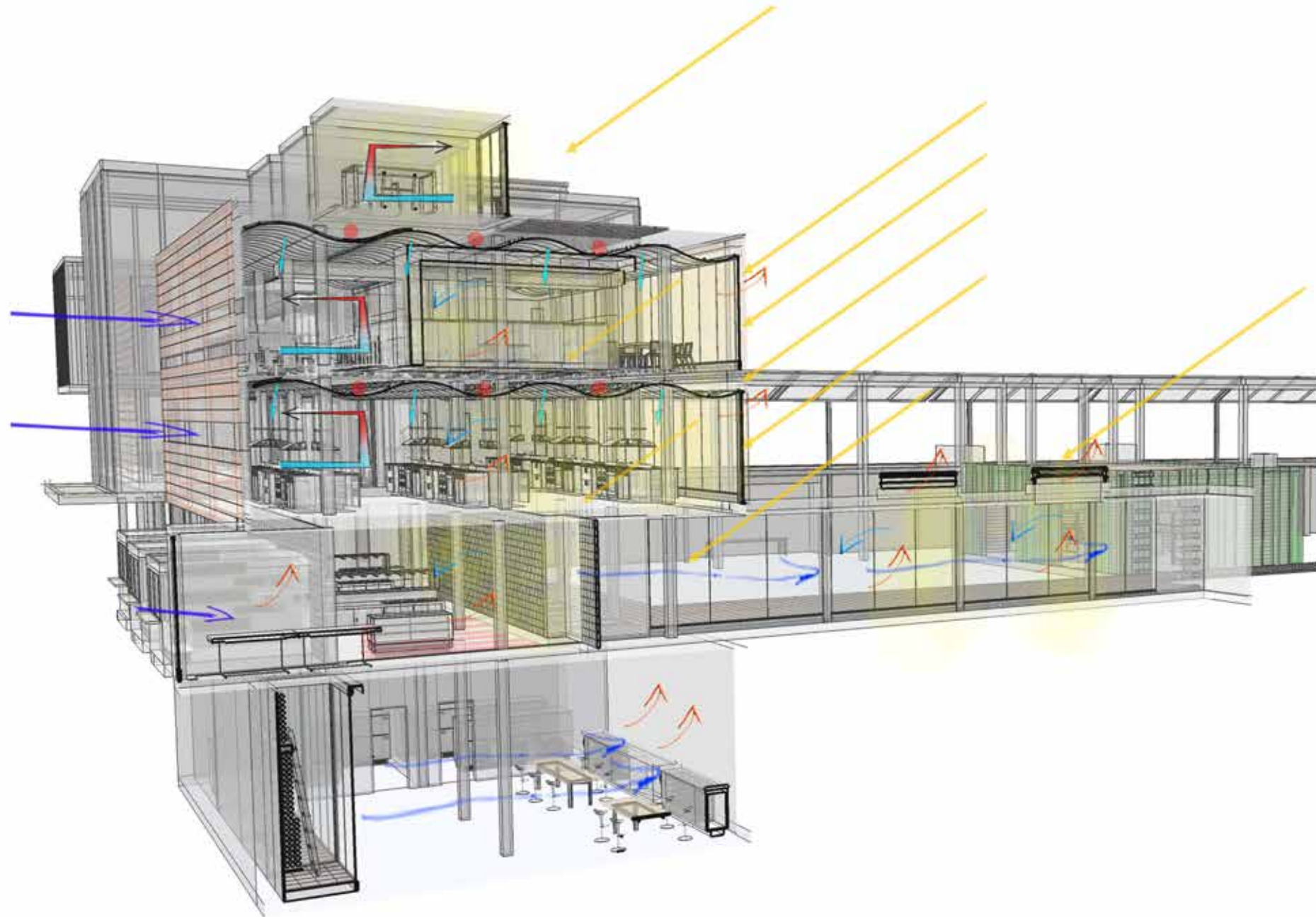
There are two service cores, both attached to the circulation cores. All piping and ventilation happens above the suspended ceiling and is connected to the service cores. There are also 2 water tanks adjacent to the service cores, in which the rainwater is collected and pumped up for flushing the toilets and for use in the gardens. In the underground level there is a disposal room in order to collect all disposal from the school and restaurant and safely remove them from the school.

Thermal Control

The ground floor that has a high glazing ratio and has many doors need to be highly insulated. Because of the high use of the ground floor spaces from the public the doors have to be controlled in order to minimize the time that they stay open. During summer these spaces will have sufficient sunlight to keep them in a balanced temperature.

The 1st and 2nd floor will need little heating in very few occasions due to the high internal gains due to the kitchens and appliances. The excess gains can be dissipated through automated vents in the timber pod's ceiling. Thermal control is also achieved by zoning the scheme and separating the spaces. The ground floor has the garden and herbal garden which are external spaces whereas the rest of the spaces will need heating, except of the bakery. The top floors are also independent and sealed from the central atrium in order to keep their function clearer and more sufficient. The central atrium will provide sunlight and ventilation when needed and acoustically separate the two blocks of the building. No heating will be provided in the central atrium since it has great solar gains and will be a buffer zone between the external and the internal spaces.





Lighting

The building's narrow floor plan allows natural light to flood the entire depth of the spaces. Direct sunlight is diffused by the copper louvers on the south/west facing facade. Based on the weather and time of the year the louvers can be controlled to allow more or less light into the space. The cafe receives light from the two skylights and also from the front glazed facade. Excessive solar gains on the ground floor are prevented by the overhang of the cantilevering above floors. During summer the vegetation and plants of the site would cool down the temperature and make the setting more pleasant.

Ventilation

The narrow plan of the building also allows single-sided ventilation through the narrow windows on the front facade and through the openable sliding glazed doors on the back. Ventilation in the main spaces of the school and restaurant is also achieved through the glazed central atrium. The herbal garden has a sprinkle system to keep the temperature moderate during summer. The school level due to the extensive use of kitchen will need some mechanical ventilation and fans above each kitchen counter to ensure that the spaces are properly ventilated.

Acoustics

The building has no areas that require good sound insulation since most of the spaces are public and used by a large number of people. However the external skylights looking down to the underground level will have to ensure that are well insulated since there is a classroom.

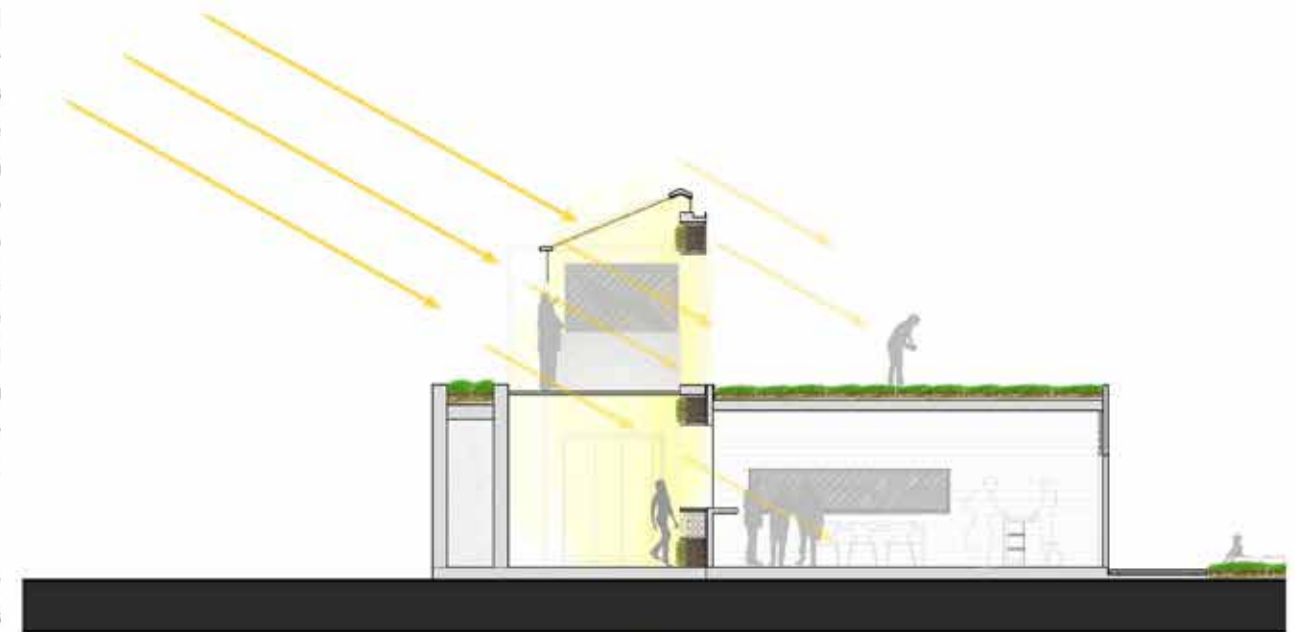


Diagram showing the lighting of the herbal garden. Sun can pass through the plastic perforated crates allowing light to fall on the soil beds behind. The intensity of the sunlight will be controlled by the ventilation system of the herbal garden. During winter the Glazing of the roof will act as a greenhouse and will store heat and radiate it.

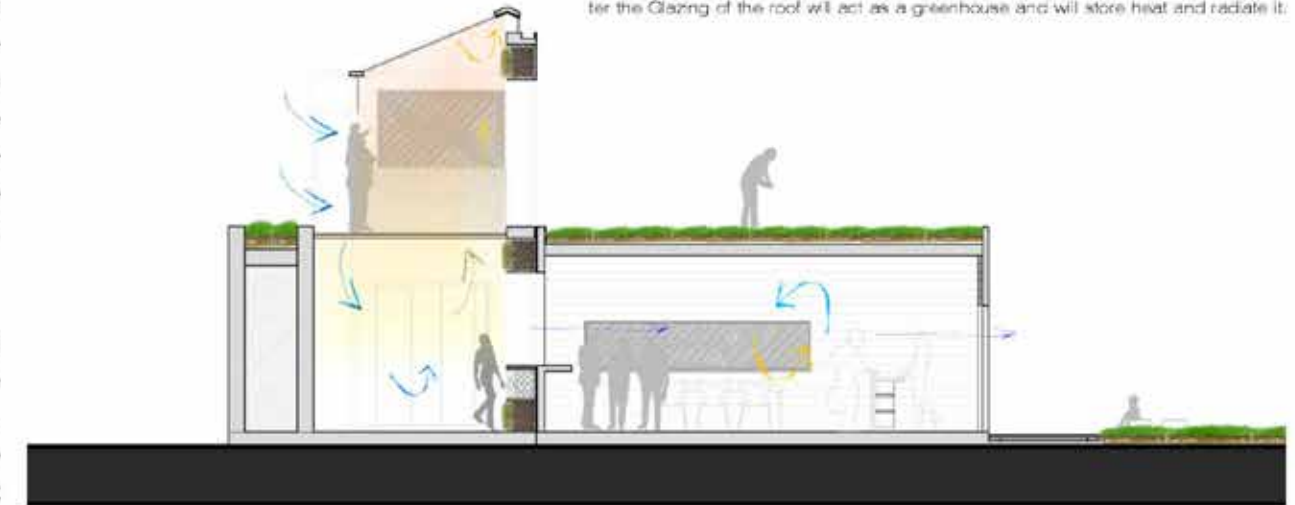


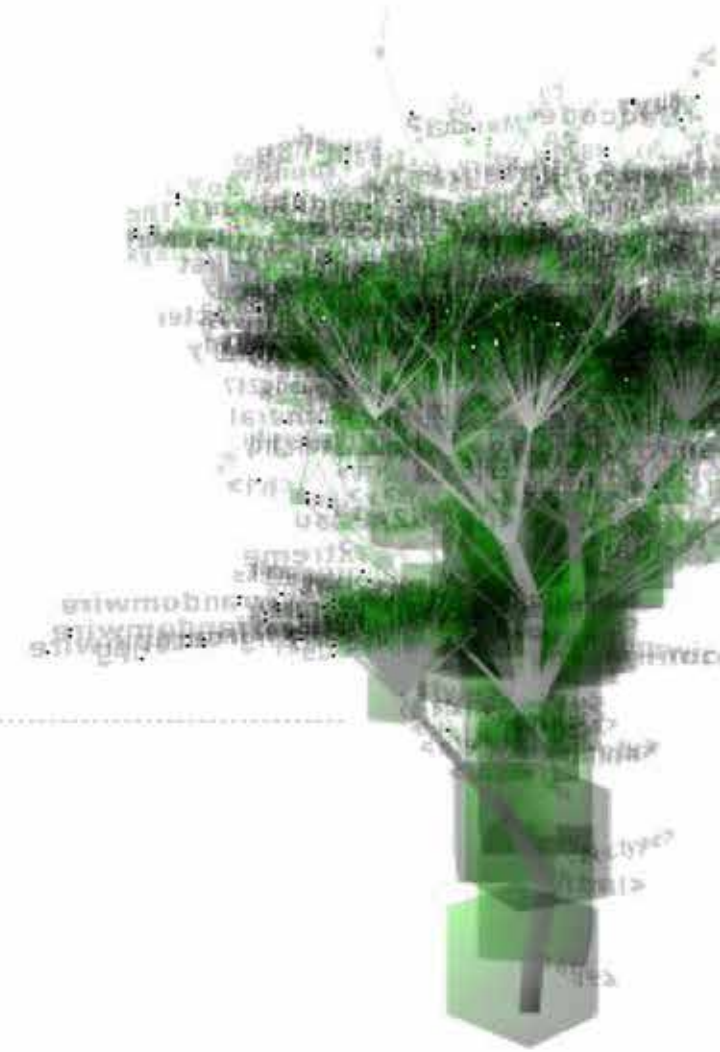
Diagram showing the ventilation and heating of the herbal garden. As mentioned before the herbal garden is conceived as an external space. However during winter the heat will be trapped inside the garden whereas in summer it will be released from the rooftop.



Rain water collection system from roof

| Rain water administration and recycling |

An important aspect of the project are the green areas and their management for them being watered. The natural element of the scheme add towards the sustainability of the project. The allotments and herbal garden both are a responsibility not only of the students but also of the people of Bath. Although the production might not cover the need of the school it promotes an aspect of cooperation and a knowledge about the basic features of cultivation. The soil used on the roofs and garden kitchens act as insulation, both thermal and sound. The different vegetables being grown will also give a different character to the school garden and make it change based on the month and the colors the garden will have (see page 72-73). Rain water is collected from the roof through the gutters and being stored at the water tanks, under each service core (see 166-167). From there it will be pumped to the sprinkle system of the herbal garden and through the pipes connecting the green roofs of the garden kitchens.



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REGULATORY COMPLIANCE

Although the design has spaces which are of high risk because of the cooking and the heat that is radiated in the kitchens, the access in and out the building is very well organized, making it easy to separate each space and prevent any space to be blocked in case of a fire.

B1 WARNING AND ESCAPE

- Building fitted throughout with an electrically operated fire and heat detection and warning system in accordance with BS5839-1.
- Provision of voice alarm system providing both an audible signal and verbal instructions in the event of a fire, using the schools announcement system
- Glazed doors to central atrium are fitted with automatic closing device in case of fire.
- All areas of the building are within 45m, in two directions, or 18m, in single direction, of a storey exit.
- All exit routes (at least 1100 mm wide) clearly sign posted and lit by means of an emergency lighting system compliant with BS5266:2005.
- Stair cores kept free from combustible materials and contain a disabled refuge

B2 INTERNAL FIRE SPREAD (LININGS)

- All areas of the building and herbal garden to be fitted with sprinkler system.
- Additional hand-held extinguishers in 2nd floor for each kitchen counter as being high risk area
- All interior fixtures and finishes treated to resist flame spread over their surfaces.
- Fire resistant glass used on all levels and capability of enclosing completely the large classrooms to prevent fire from spreading in the central atrium and circulation core

B3 INTERNAL FIRE SPREAD (STRUCTURE)

- Primary concrete structure inherently fire resistant
- Concrete cores as primary support and main access points-circulation
- All metal and steel elements in the kitchens are fire resistant to prevent structural collapse.
- All party walls to have a 60min fire resistant rating

B4 EXTERNAL FIRE SPREAD

- Separation of building into paricles prevent fire spread. Elements in the ground floor (cafe, garden kitchens, shop) have less risk and can eb separated from the rest of the building.
- Installed sprinkler system in kitchens and restaurant will reduce extent and intensity of fire.

B5 ACCESS & FACILITIES FOR FIRE SERVICE

- more than the minimum of 50% of the façade accessible
- Primary Fire vehicular access from Barton Street with additional access from Princes Street to service tthe garden , shops and garden kitchens
- water valves located within the structural cores, and throughout the garden and the 2 adjacent streets



The provision of easy access and clear circulation horizontally and vertically into the building has been one of the main considerations when designing the cooking school. The building works as a threshold thus its premability and circulation through and into the buildign has to be clear, coherent and easily used by all members of the society.

SITE APPROACH

- Main access point to be appropristely signed and lit
- Public transport links by bus within 500m
- Parking, with disabled parking spaces, within 200m from site
- For the visual impaired differing floor surfaces within the circulation and programmed rooms enhance navigations but also in the external spaces and the pavement adjacent to the build- ing.

ACCESS INTO BUILDING OTHER THAN DWELLINGS

- No change in internal floor level on any floor and all circulation and corridors have widths more than 1000mm (to meet part M requirements) for weel chair users.
- Reception point on both first and second floor provides point of orientation from which visi- tors can gain information
- Service entrance into bakery is close to the street and service core to make the tranfer of foods easy to the underground level
- Automatic swung doors 1200mm wide in central atrium allow universal access to each level

HORIZONTAL AND VERTICAL CIRCULATION

- Vertical Lifts located in circulation cores (both pivate and public), serving all four floors
- All circulation spaces and stairs designed accordingly to the permitted width, allowing going and risers
- Main public circulation situated in central atrium, close to the main access point, giving a ligibility to the building layout.
- Internally the private vertical circulation serves the underground level. The lift is big enough to accomodate large trolleys and large loads.

SANITARY PROVISION

- Male and female disabled toilets are positioned 60m from any point on site, and 20m internally from any point of the building.
- The walkway on the 2nd level of the herbal garden is not accessible to disabled people but the handrails and surfaces are provisioned to be used by visually impaired occupants.



SITE MANAGEMENT

- Early employment of CDM within the design team to ensure sufficient advice and regulations throughout the process
- Inform and ensure that all members of the design and construction team are clear on their roles, position and responsibilities
- Due to the narrow front street and the proximity to the city center, hoardings will be erected around the site to ensure security (4)
- Scaffolding will be implemented across the site.
- Materials and bigger objects will arrive from Barton street where the main site entry will be.
- Barton street might need to be closed to the public for a short period of time till the site is prepared and the scaffolding is set. (5)
- Materials and equipment to be stored and cover overnight centrally on site (2)

WELFARE

- Safety equipment will be worn at all times, and adequate protection will be taken for external visitors or client visits. (PPE)
- Extensive training about health and safety to all members of the team
- Facilities provided on site for the workers, including toilets, food preparation area, emergency space and meeting room. This space will temporarily be where the shop is positioned, easily accessible to Princes street (1)

SPECIFIC RISKS

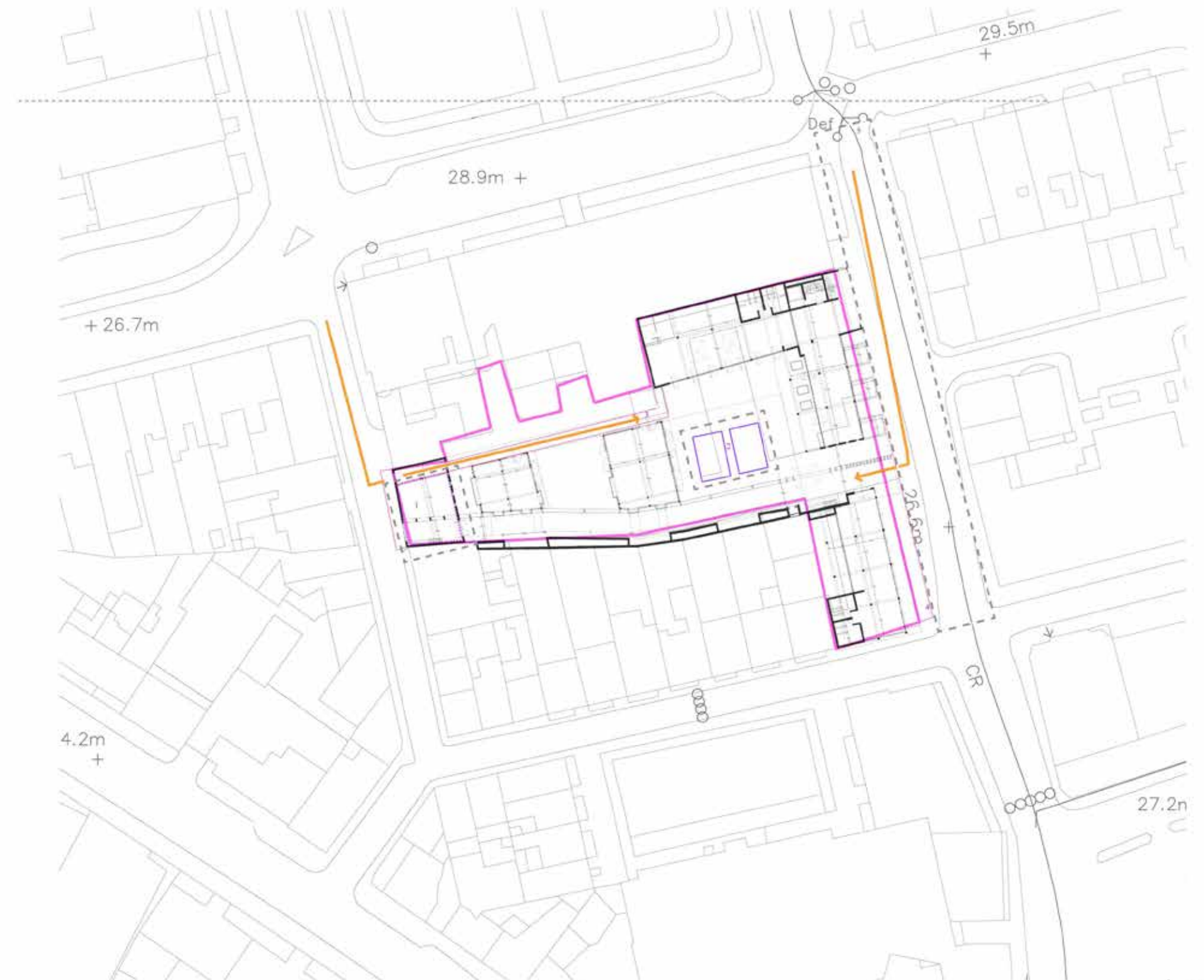
- Soil tests will be carried out in the areas that vegetables will be grown.
- Stairs to be installed as early in the construction as possible
- All vertical glazing above first floor to be inward opening to allow ease of maintenance internally
- Areas of overhead working will be clearing indicated and nets employed to avoid risk of items falling from above

MAINTENANCE

- A service route will be created throughout the construction completely isolated and protected in order for the hotel users to be able to circulate and access the back of the hotel (3)
- Windows cleaning will require specific systems and professionals in order to ensure the safety of the public while cleaning the windows and facades
- Allotment maintenance has been made safe by specifically placing them on the edge of the roof reducing the risk of falling from height.

USE

- Slip resistant materials to be used throughout the site. External paving will also be treated with a non-slip coating
- Access to roof through central atrium circulation core
- install 1100mm high balustrades in all places, atrium balconies, herbal garden walkway, roof terrace, cafe terrace, stairs.
- No change of floor level on entrance of building
- Parapets on all roofs reduce the risk of falling- harness points to be provided



|Budget Calculations|

Design Factors that need to be considered which can affect costs:

- Project design life
- Life-cycle costing
- Future Maintenance

CONSTRUCTION ESTIMATE (at 2nd quarter of 2011)

Building: Underground	210.75 sq/m	2572.85 sq/m x £4000 (high typical unit cost excl. VAT)= 10.291,4 £
Ground Floor	853 sq/m	
1st Floor	685.6 sq/m	
2nd Floor	703.2 sq/m	
Roof Terrace	120.3 sq/m	

Herbal Garden (un-enclosed covered area) 525.5 sq/m s x £2000 (low typical unit cost excl. VAT)= **1.051,00 £**
Landscape (entrance and gardens) 1161.6 sq/m x £1500 = **2.492,4 £**

+ Complexity factor at 10%= £13,834.8 x 10%= 15,218.28 £

SUB-TOTAL A: **15.218,28 £**

+ Contractor preliminaries and profit at 15%= £15,218.28 x 15%= 17,501.022 £

SUB-TOTAL B: **17.501,022 £**

+ Design and construction contingencies @10%= £17,501.022 x 10%= 19,251,124 £ (net contribution estimate)

SUB-TOTAL C: **19.251,124 £**

+ Consultants fees @15%= £ 19,251,124 x 15%= 22,138,8 £

SUB-TOTAL D: **22.138,8 £**

+ Statutory Fees
(Planning Application + Building Control or Approved Inspector) @0.025%= £ 22,138,8 x 0.025%= 22.145 £

TOTAL PROJECT COST ESTIMATE (excl.VAT)= 22.145,00 £



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CONCLUSION

"There are three forms of visual art: Painting is art to look at, sculpture is art you can walk around, and architecture is art you can walk through"
Dan Rice



FINAL REFLECTIONS

The past few months have been really tough but in the same time creative and interesting. Although this project seemed immense as a task in the beginning, when dealing with it step by step, it slowly but steadily came alive. Overall I am really satisfied with my work presented seeing my architectural skills and understanding grow exponentially from the previous group project and even more from last year's individual project. Although there were moments that I felt incapable to deal with the amount of detail required, especially because I am a perfectionist, in general the project developed steadily. The initial idea for this project, started from my essay "Eating Architecture" where I discussed two areas in which I am highly interested. What was really useful was my enthusiasm about the topic which made the process much more enjoyable and interesting. I would like to hope that this enthusiasm has been embodied by my work is evident within the pages of this brochure. I believe that the final result is in the same time sensitive to the city and its context but also modern and current. The developed scheme and the adoption of growing in the city centre made the design concept very rich and proposed different ways for the creation of an innovative design that would fit perfectly in a city of the 21st century.

FURTHER DISCUSSION

In architecture there will always be someone that would envision a project differently than what it is. That makes the field so broad for discussion. My choice of topic seemed to interest most of the architects with which I worked or had discussion with during critiques. However, it seemed that each one of these people received my project in a very specific way, each differently. This was interesting because I received a lot of enthusiasm and many ideas which some times were overwhelming. This also sometimes caused me to go into circles and return back to ideas which initially I had decided not to move forward with. Nevertheless, this helped me test my scheme and sometimes it was useful, since it made me realize things that I had not thought of before. Food and cooking is something that offers excitement and pleasure, thus my ambition was to translate these features into architecture and make a building that would have a social, economic, and psychological impact to the city of Bath.

As always there are several parts of the design that would need more investigation, in their detailing, their construction and their usage. But this process is never finishing, and as in real life, there is always a deadline. I feel confident with the level of detail and understanding of the scheme and I hope I have achieved to explain, both verbally and graphically, my architectural ambition and my conceptual aim. I believe this experience has helped me grow as an architect and as a person, realizing both positive and negative things about myself. It also made me reach my limits and sometimes overcome them, setting new limits for myself.



FINAL CRIT LAYOUT - MAY 2011



*Authors and artists in general, know relatively why they
choose the media or the
forms they work with. It is merely a fact of life, a primitive
need. Neither can they
even begin to understand how the process works ...But the
important thing is:
a poem, and art in general, is a childish thing. And, like all
childish things, it is
simultaneously a very serious thing. It represents the revolt
of our basic instincts
against a dead and stifling quasi-rational formal language.
Poetry and art are
among the few essential rituals left to us with which to get
life to live.*

| Birgitta Trotzig |