

5 DESIGN DEVELOPMENT

iterations & analysis

In order to achieve a social relationship with food the design concept of decentralise, localise and empower physically manifests itself as a route. The food system is designed to move in one direction with the pedestrian route in the other.

The nodes at which these routes meet become interaction points, which empower the relationship between pedestrian and food. Bringing the food process and its various systems to public attention in attempt for individuals to gain an understanding of the energies put into food production and the outcome thereof, potentially limiting waste through a greater appreciation of food. Encouraging people and food to come together thus encouraging socio-economic opportunity.

It is important that these nodes are designed in a manner that encourages lingering social interactions and a variety of activities to take place, surrounding food and it's functions. The design of this gastronomic quarter is considered as a permanent fixture in the community that will focus on food and its encompassing multi-functional programmes, at a systematic, economic and social level. Emphasis is, however, placed on the production of food and the integration thereof into its following processes especially at a social level in order to ensure a sustainable food system.

Design development is thus critiqued throughout its various stages based on its economic, social and urban contributions to the site as well as the sustainability of resources.

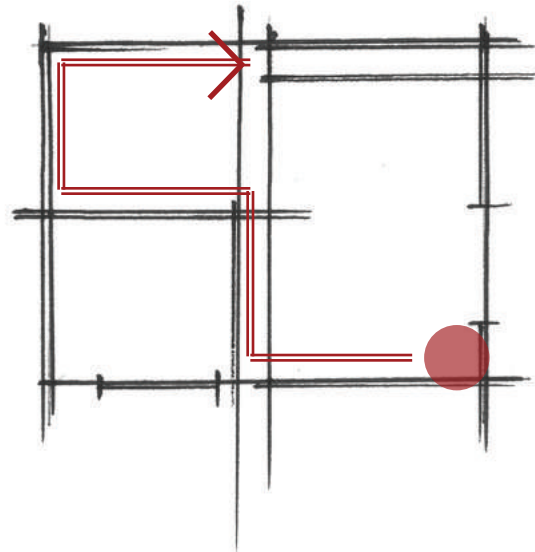


Figure 114 : Food production and processing movement (Author 2016)

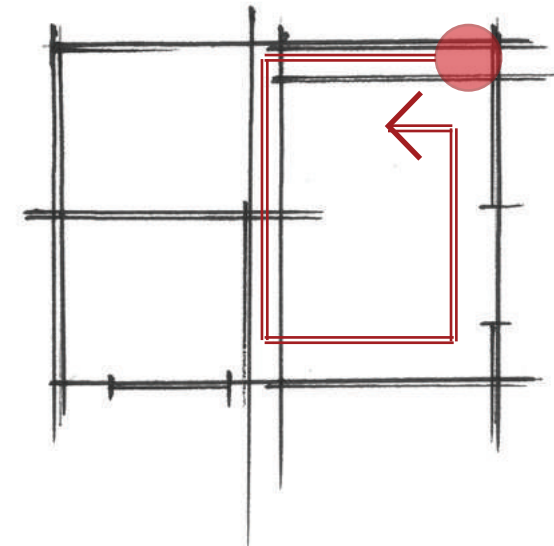


Figure 115 : Pedestrian traffic movement (Author 2016)

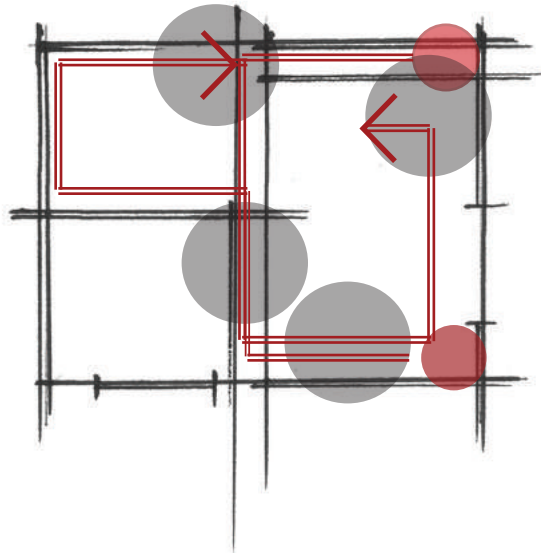


Figure 116 : Points of interaction between food and people (Author 2016)

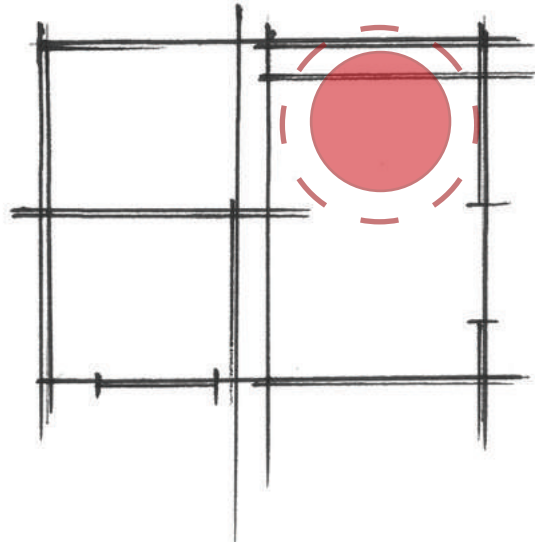


Figure 117 : Where both systems come together (Author 2016)

PUBLIC SPACES

seating

One of the most important provisions to ensure a successful public space is being able to have sufficient sitting opportunities (Shaftoe 2008:92).

People tend to sit most where there are places to sit. (Whyte 1988:110).

By designing a space that is suitable to a variety of people it is important to cater for the various social groups in terms of seating. Accessible, comfortable and well-maintained seating is crucial to successful place making (Project for Public Spaces). Social comfort aids in facilitating social interactions and activities.

Throughout the design, the desire is to create spaces that serve multi-functional purposes. Seating becomes an important focus as it serves as a fundamental node of interaction.

William H Whyte (1980) in his book and accompanying video, *The Social Life of Small Urban Spaces*, speaks about techniques that aid in transforming public spaces around the world into community places and making cities more liveable.

Due to this project taking on the role of a gastronomic quarter, it is important to ensure successful social spaces that allow for interactions not only amongst people themselves but between people and food.

The main principles, to be applied, that come across within Whyte's (1980) book will enable the design to take on a social yet functional role that will ensure the success and sustainability of the space as a whole.

- Sitting spaces should be built into design and not an afterthought.
 - Relationship to the street_there should always be a strong link to street scape
 - People like to sit in sun and shade and so this should not be a ruling factor. Absence of light, however, is bad.
 - Water is a good interactive element and can mask traffic sounds.
 - Trees provide a micro-climate and prevent glare by providing a canopy. They are also attractive and make spaces feel comfortable.
 - Food is important_a place with activity needs food as it attracts people through social function and collection.
-



DUALITY

Whyte suggests that in addition to benches and chairs, choice should be incorporated into the design by maximizing the seating possibilities in the inherent features of the place. This means making ledges or surfaces usable for multiple purposes such as tables and seating (Whyte1988:28).

Stairs should be low and accessible but at a height that still allows for it to be recognised as a seating opportunity. Corner stairs allow for a more social space.



SHELTER

People like to take shelter from the bright sunlight as well as winds. Innovative approaches such as partial screening, total enclosure and vegetation as barrier bring interest to a space.

Multi-functioning seating allows for interesting spaces such as planters doubling as seating. Seating that stands alone should be two backsides deep in order to allow for multiple manners of seating.



VANTAGE POINTS

People like to sit close to activity without always having to be involved. Thus seating should be located within view of the action without being in the flow of pedestrian traffic. Seating opportunities should allow users to choose the direction they would like to face.

Different places or locations within the same area, such as in the sun, in the shade, in groups, alone, close to activity, or somewhat removed from activity cater for a variety of user preferences.



MOVEABILITY

Allows for the social ritual of moving seating around and creates opportunity for more interaction as people will place the chairs in a way that suits them best.

Figure 118 : Images of seating opportunities taken from *Convivial Urban Spaces: Creating Effective Public Places*. (Shaftoe 2008)

ITERATIONS

model development

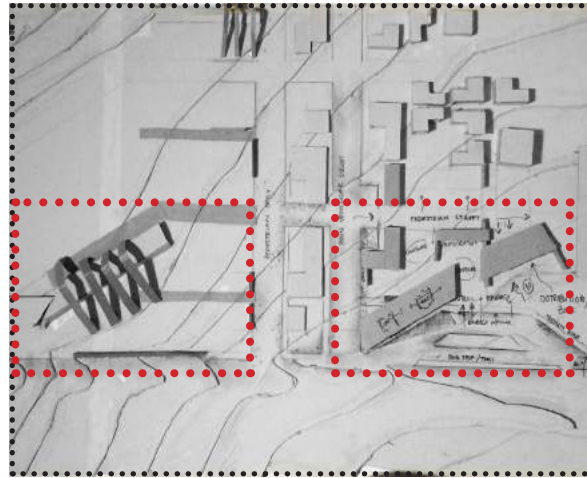
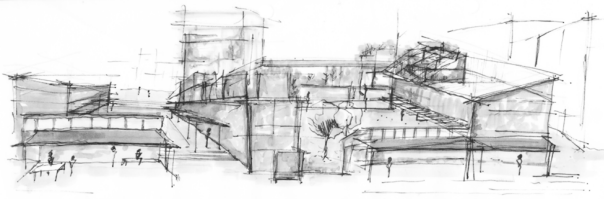
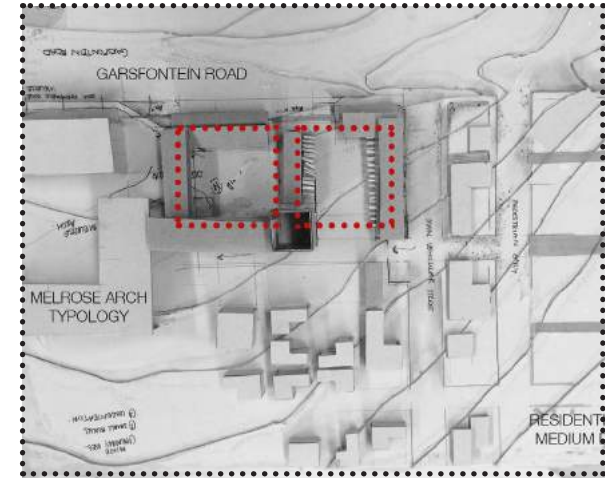


Figure 119 : Model iterations (Author 2016)

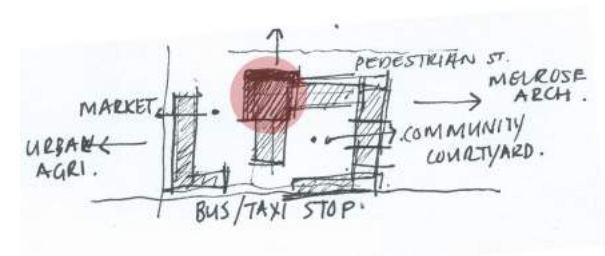
The initial design started as a market place and a production unit as two separate entities that were opposite each other over the main vehicular road.

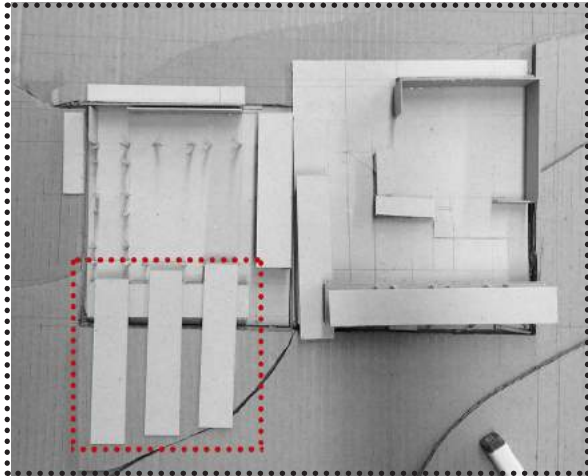
Through research and the intention to localise the food system, the design was changed to accommodate both on one site.



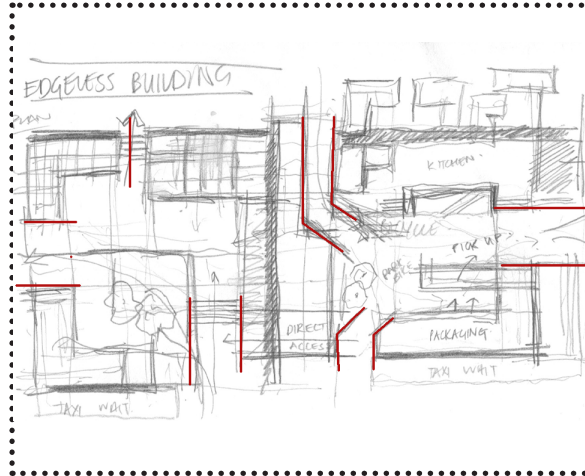
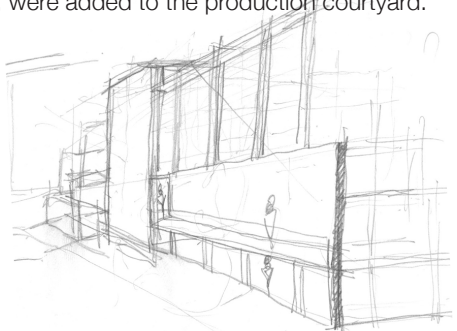
The two courtyards allow for functional separation of production processes and social activities.

The main core is for food production and systemic functions.

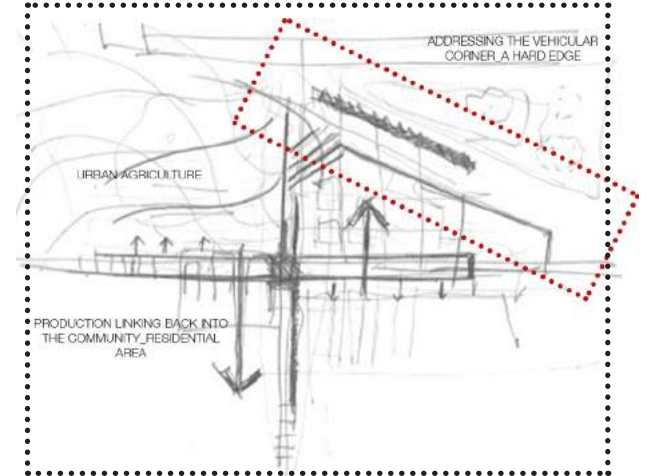




As a theoretical and practical model, the Moshav creates a space whereby 3 programmes, social, production and housing, overlap. The addition of a housing typology, live-work units, were added to the production courtyard.

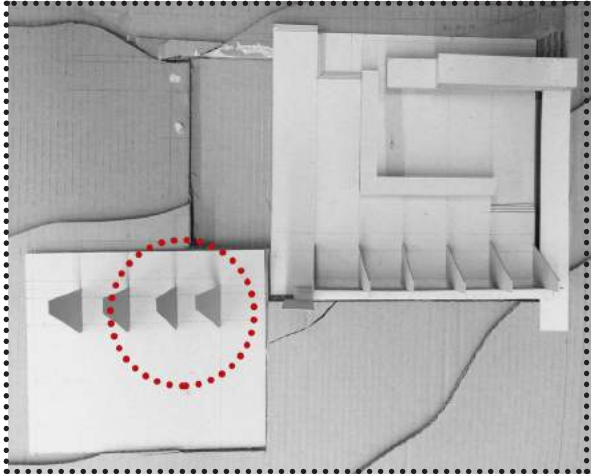


Following the principles of Camillo Sitte (as discussed on...), the decision was made to enclose the courtyards with limited entry points in order to keep attention within the space. Centres of the courtyards were kept fairly open to allow for activities as well as a good line of site from all sides.

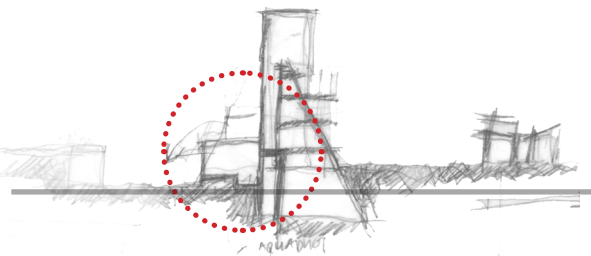


The two courtyards alongside one another made for a very rigid design. The decision was made to create a more dynamic building that addressed both sides of the design with regards to interactive edges through the repositioning of the courtyards. This also allowed for better control of the bus stop corner

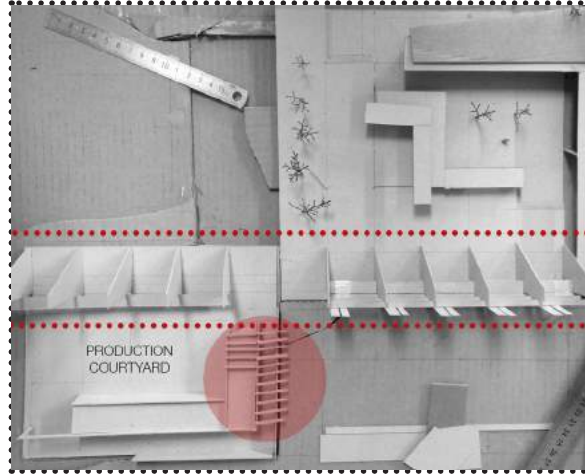
The production core was reconsidered as a singular element and used as a device that feeds into both courtyards,



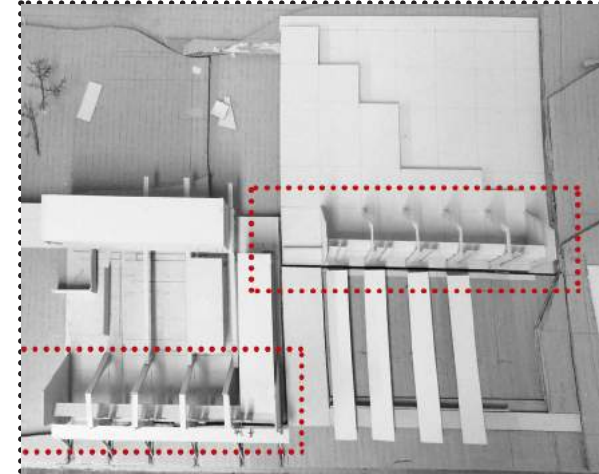
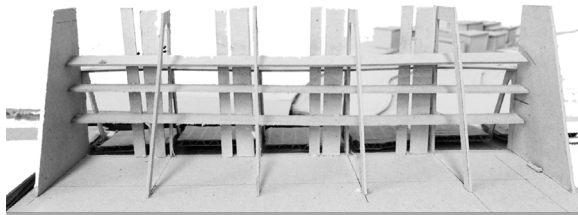
With the greenhouses facing into each courtyard the back of them created hard edges that did not allow for lively spaces to develop. Due to the size of the greenhouses there was a lack of human scale present making the spaces unapproachable. Camillo Sitte (1889), describes the importance of a variety of scales that create thresholds and interactive spaces.



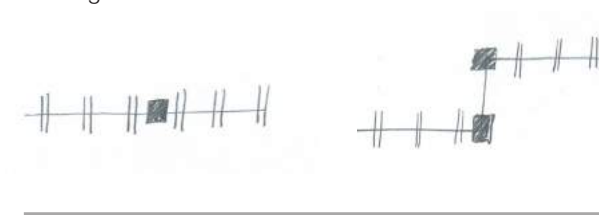
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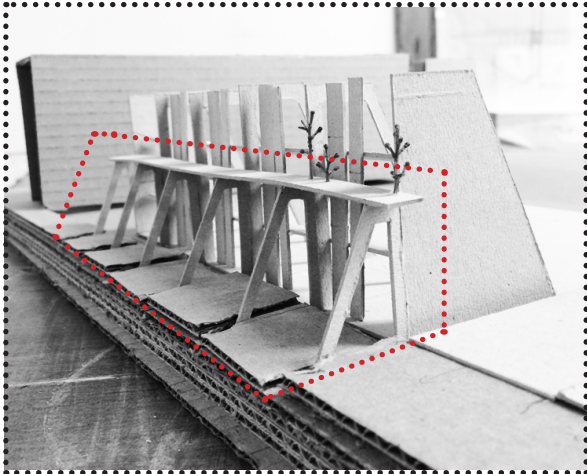


Production courtyard aligning to the production core. The element made up of the greenhouses, spatially, creates a very strong element in the urban fabric that divides the spaces quite harshly. Due to the proposed urban fabric being made up a variety of separate mixed density buildings it does not fit in as a single element.



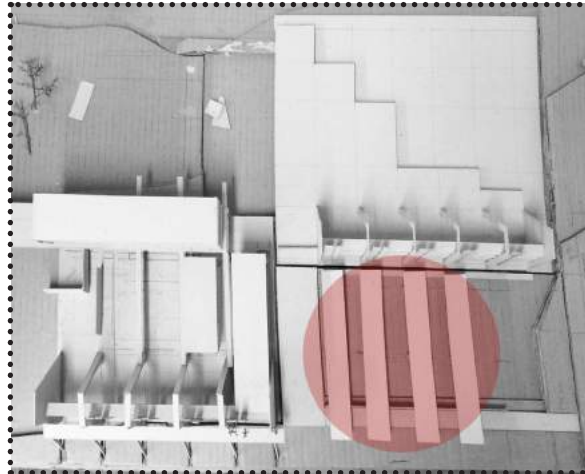
Splitting up the production core allowed for a better use of scale. The element is no longer overpowering and provides the opportunity for multi functional breaks between buildings such as Salat (2011), suggests. The reason for this being to break down the scale and prevent elements becoming too strong for the urban fabric, such as the greenhouses.





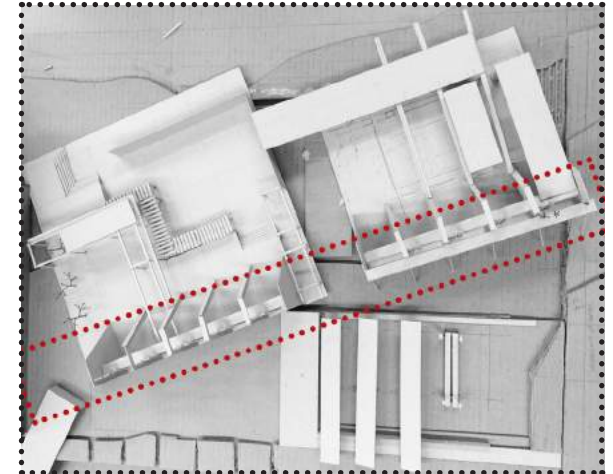
In order to combat the back of the production becoming a dead space, a scaled down version of the shape was attached to the back of the large structure to create a space for social interaction through a change in scale.

This structure effectively addresses the public edge and activates the urban fabric across from the residential buildings. The space could potentially be used for informal trade or just as a seating opportunity.



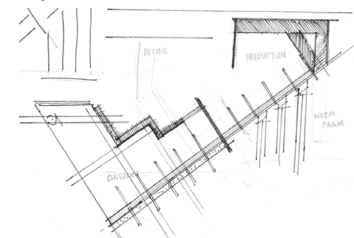
The addition of vermi-culture highlights Capra and Luigi Luisi's (2014) notion of a closed loop system. To ensure an ecosystemic approach, the design needs to include all aspects of the food production network, from production to waste management, on site.

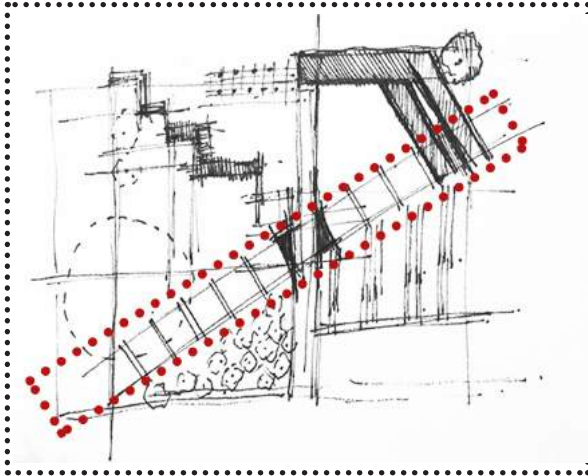
All organic waste on site, and from surrounding residential units, gets collected and sent to the worm farm. In turn the worm farm produces worm tea and compost for surrounding community gardens.



Experimenting with the orientation of the production core/ greenhouse facing direct north at 35 degrees.

After the conduction of a solar study it was noted that due to the structure not much sunlight was lost and thus it was not necessary to re-orientate the whole design.

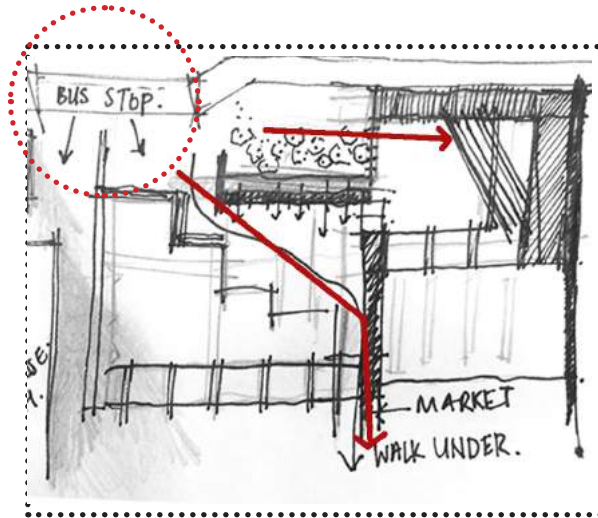




Before completely disregarding the shift in orientation, it was experimented with by keeping the courtyards in their original direction and just adjusting the production core.

Spatially the diagonal made for more dynamic spaces and an improved flow of movement from one courtyard into the next.

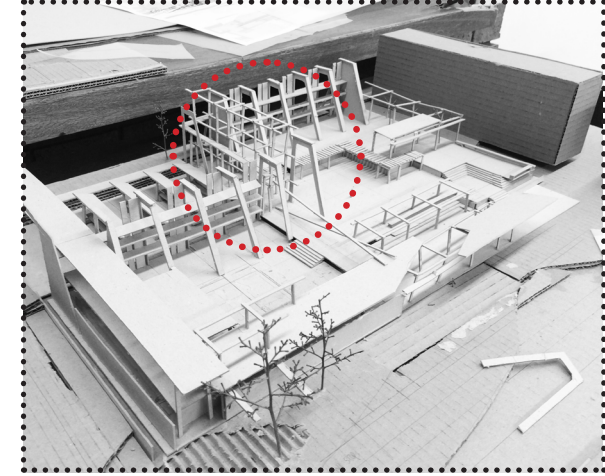
Systematically solar panels would be more effective facing true north and could sit within the structure. Space behind the production core works well for vermi-culture but not for urban agriculture due to shadows.



In the urban context the diagonal proved to be too overpowering thus it was disregarded and the courtyards were kept in line with the urban fabric. The courtyards were switched around to ensure better movement through the space.

The courtyard configuration incorporated the full enclosed loop that Capra and Luigi Luisi (2014) speak of.

The bus stop was moved away from the high activity edge in order to draw activity into and through the heart of the site.



Development of a structure to support the water tanks that supply the hydroponic system. The structure is also utilised as a means of connectivity between the two production cores and supports walkways between the two as well as creating a pedestrian threshold below.

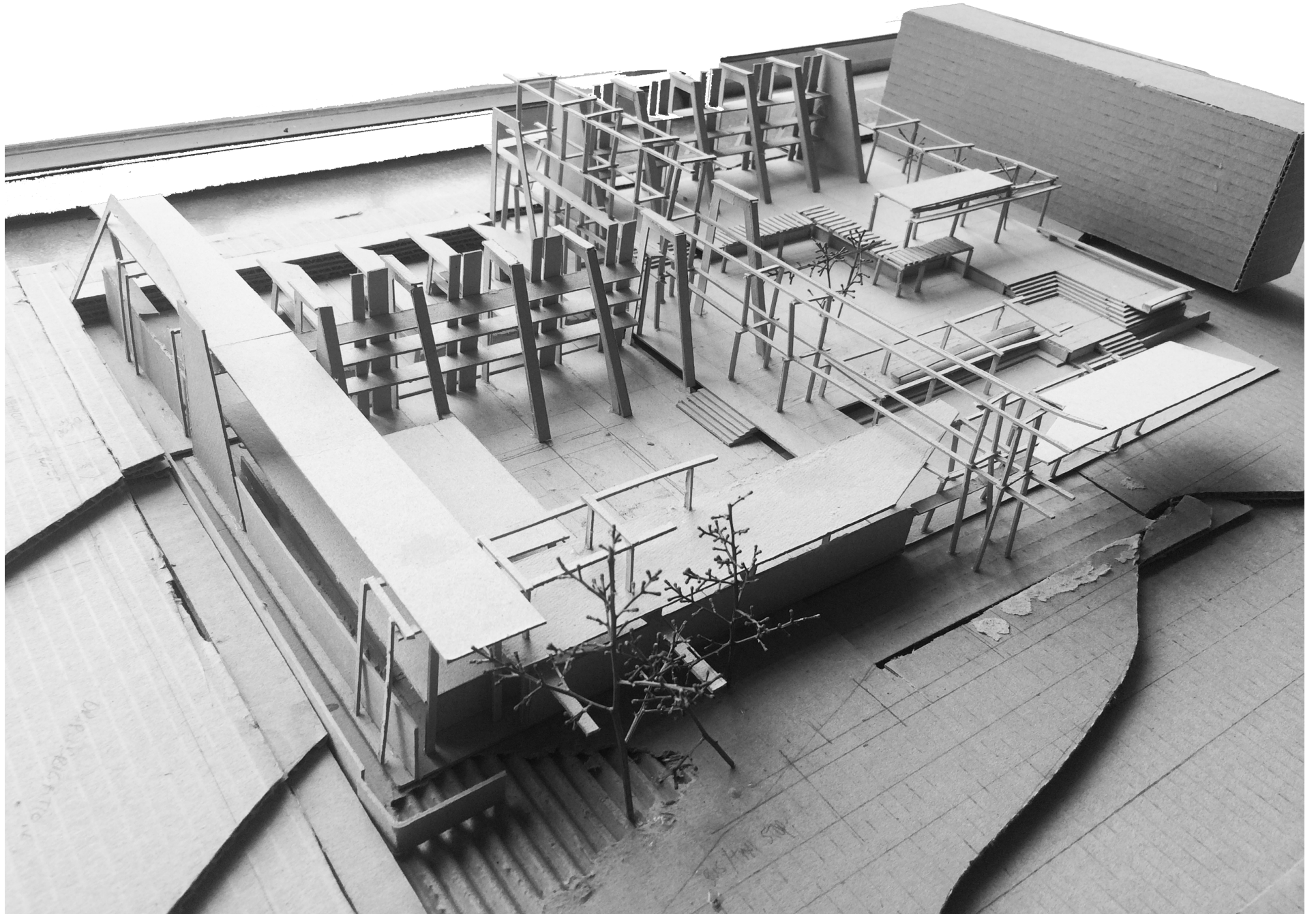
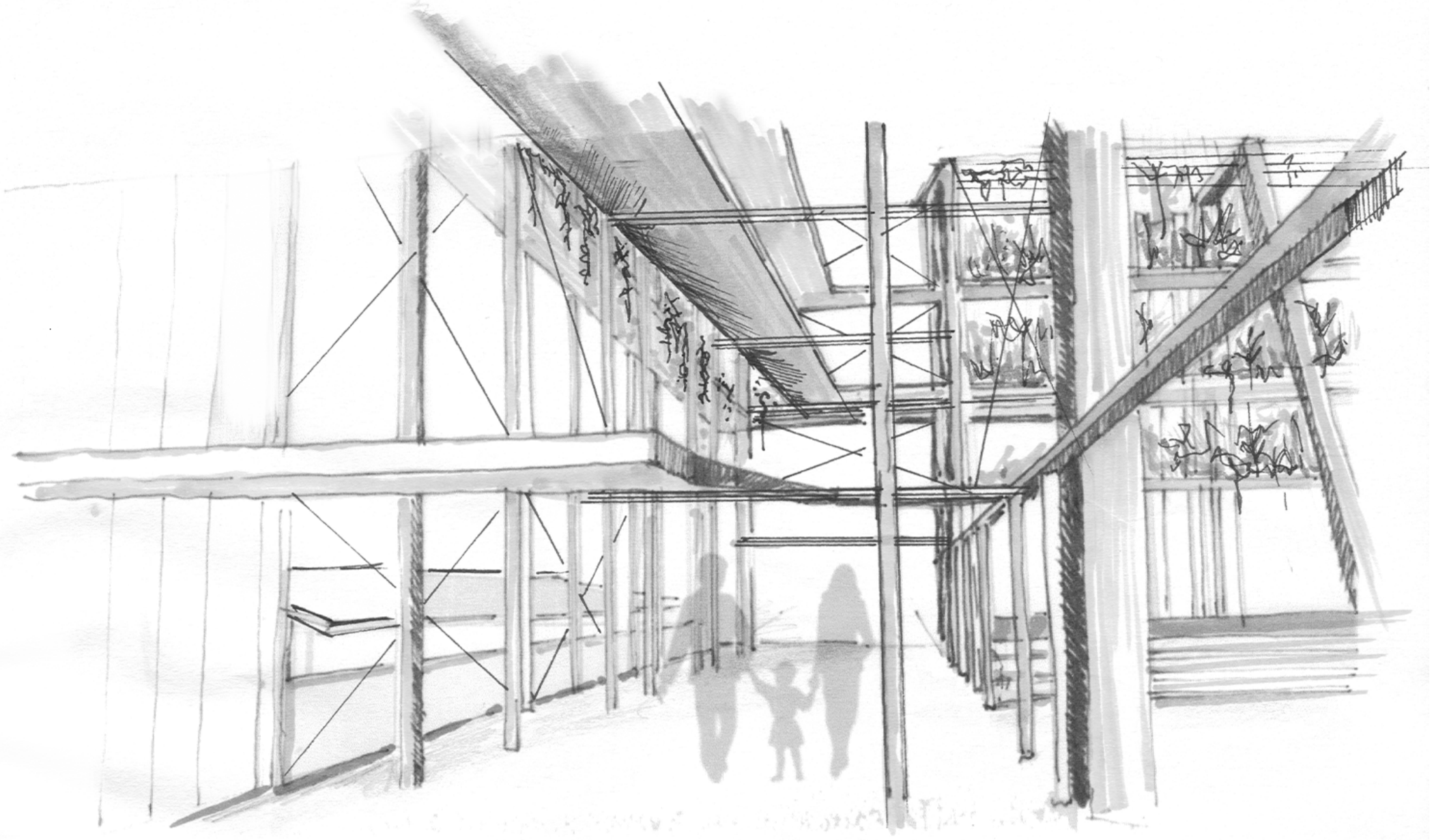
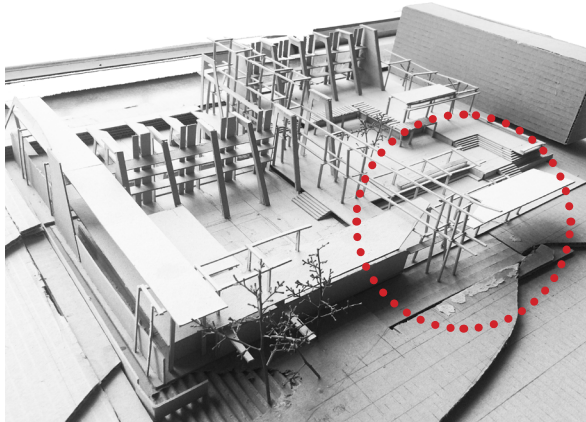


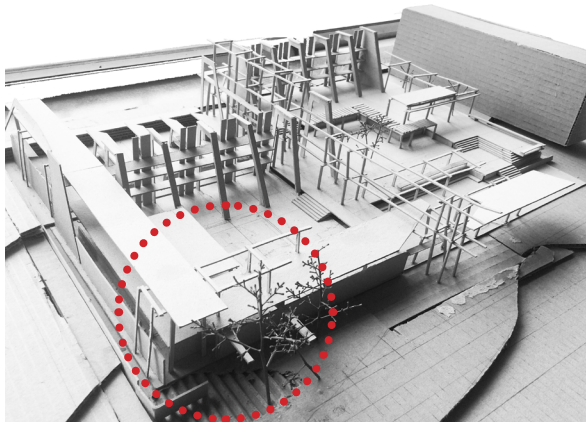
Figure 120 : June final exam model (Author 2016)



109. Figure 121 : Perspective from underneath water towers (Author 2016)

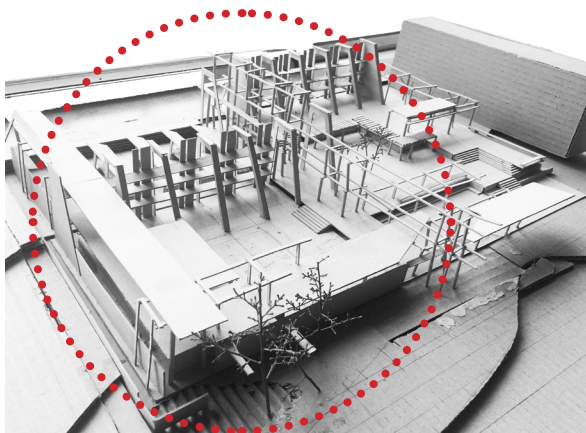


The structure supporting the water tower stopped very abruptly and needed to be reconsidered in terms of function.



The production courtyard, situated on the vehicular street, was too overpowering and created an unapproachable street edge.

The edge was also very dead and needed to facilitate a variety of functions in order to maintain social and urban interactions.



The courtyards needed to be reconsidered in terms of positioning. The corner, due to pedestrian and vehicular traffic, is an important node of high activity and thus needs to enable continuous energy transfer.

june critique

There was concern that for a very public space there were too many dead edges that made the space unapproachable. The bus stop was too far removed and should be kept on the corner to maintain the high activity edge. Due to the bus stop being the first point of acupuncture, it is vital to consider its positioning and the growth that would stem from it.

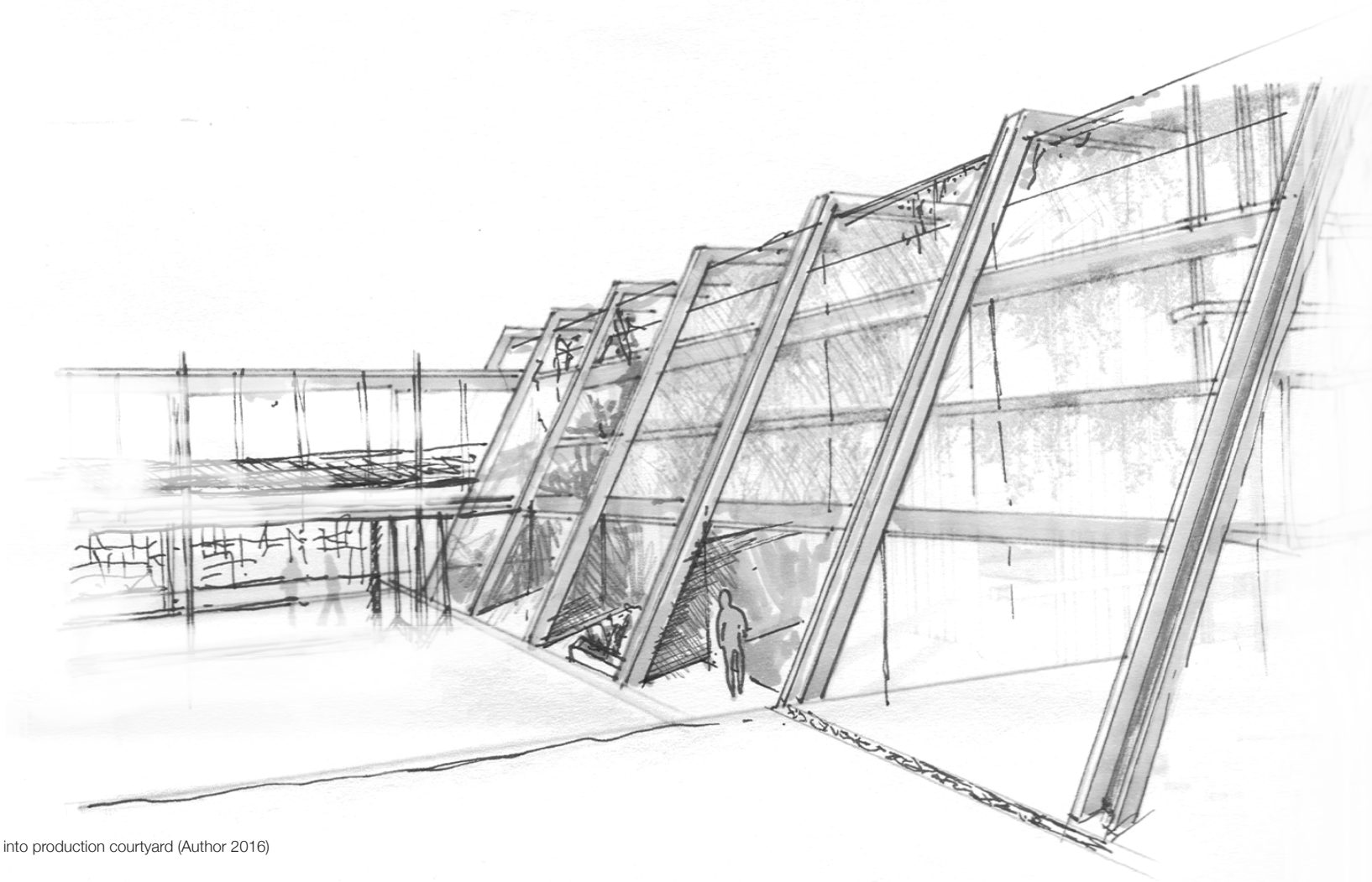
The structure supporting the water towers seemed excessive without any other function. What could it become?

In regards to the comment of the bus stop being removed from the active edge, it was questioned whether the courtyards themselves should swap in order to keep the highly pedestrianised courtyard as an active node.

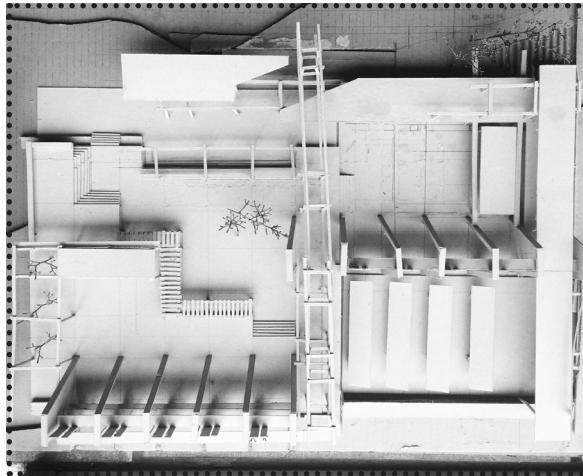
Overall the critique focused on ensuring and reconsidering aspects that lost energy and the social aspect that is vital to a successful gastronomic quarter.

DESIGN REFINEMENT

iterations



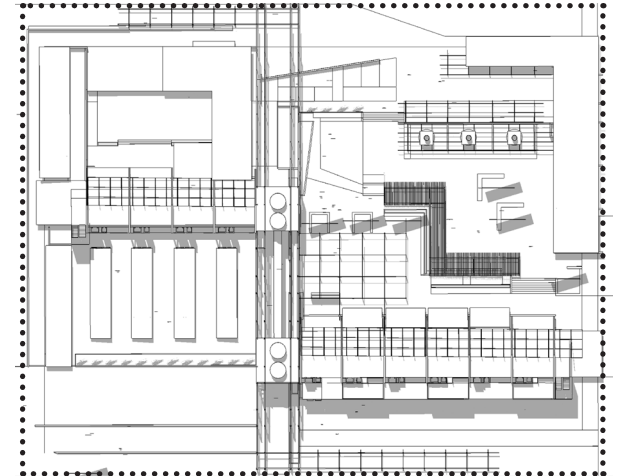
111. Figure 122 : Perspective looking into production courtyard (Author 2016)



June 2016

Based on critique from the June exams the plan was reconsidered in terms of the courtyards and the functions thereof.

Instead of rebuilding the model, the decision was made to build the model on SketchUp in order to allow for changes to be quicker and easier.

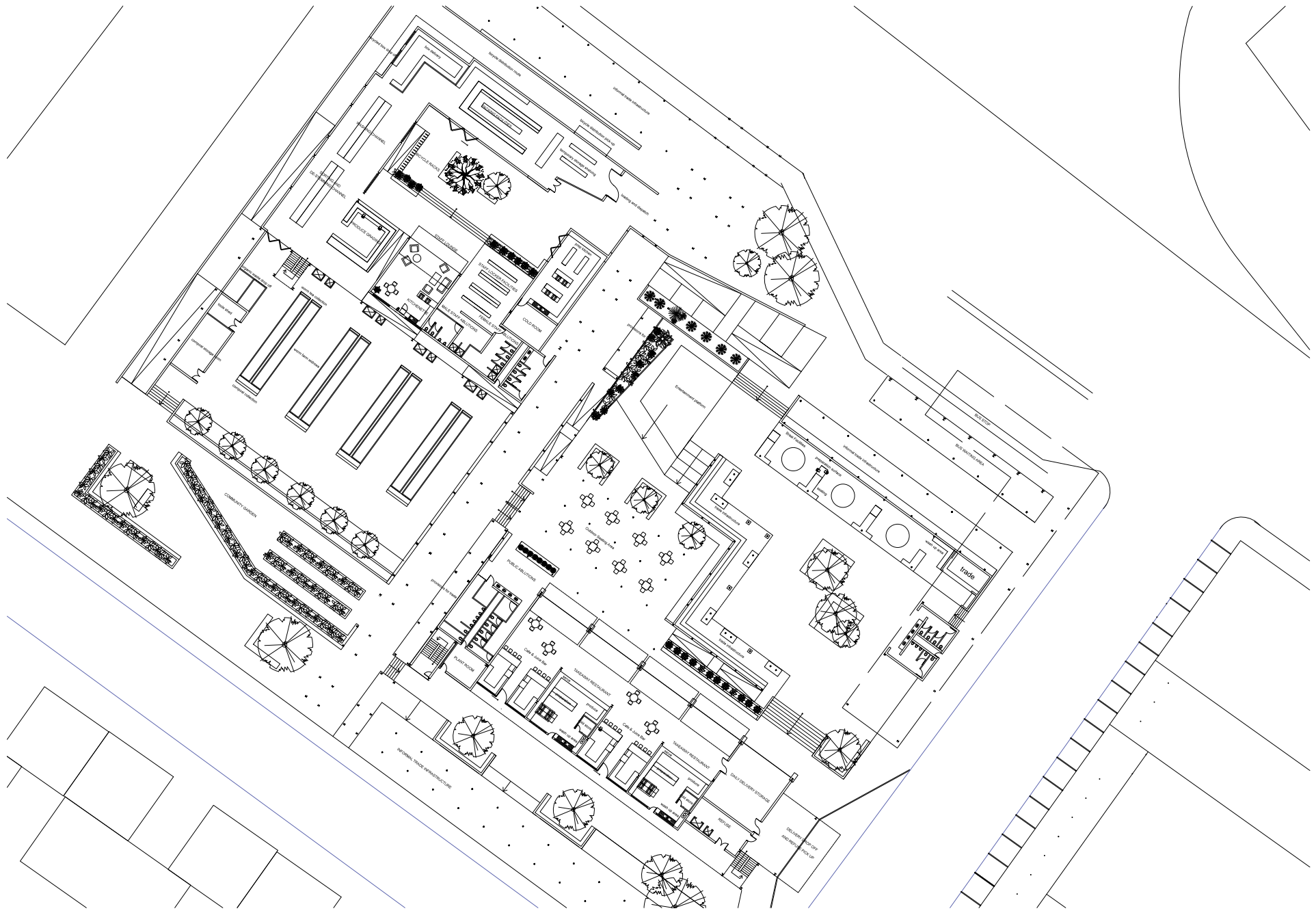


September 2016

The plan has developed extensively with a lot more focus on ensuring that every edge is active and contributes to the urban fabric.

The courtyards were swapped around and mirrored in order to maintain the high activity within the space.

The water tower support structure has developed into a multi-functional element. It decreases in scale and becomes a platform for informal trade.



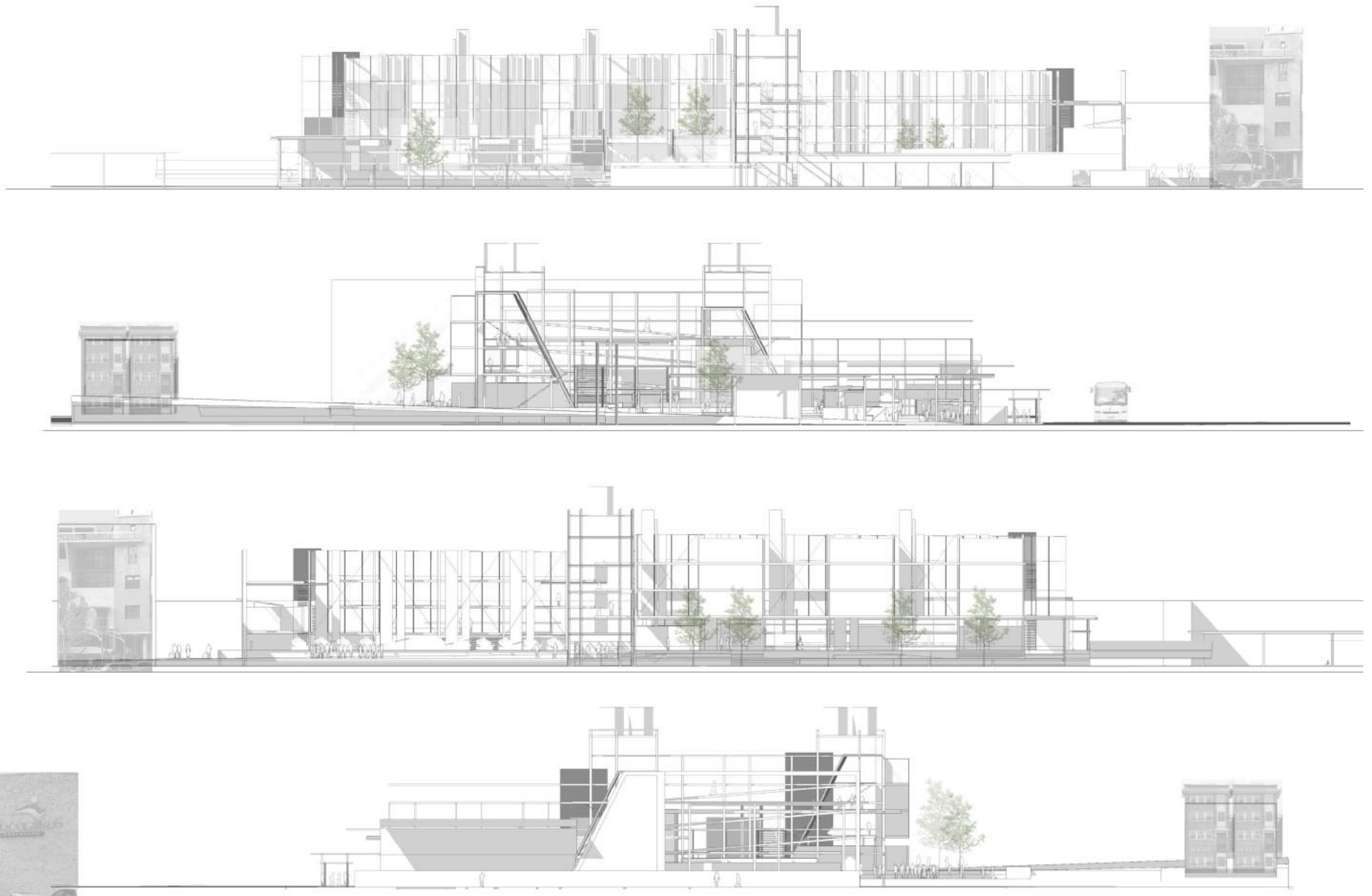


Figure 123 : September crit elevations (Author 2016)

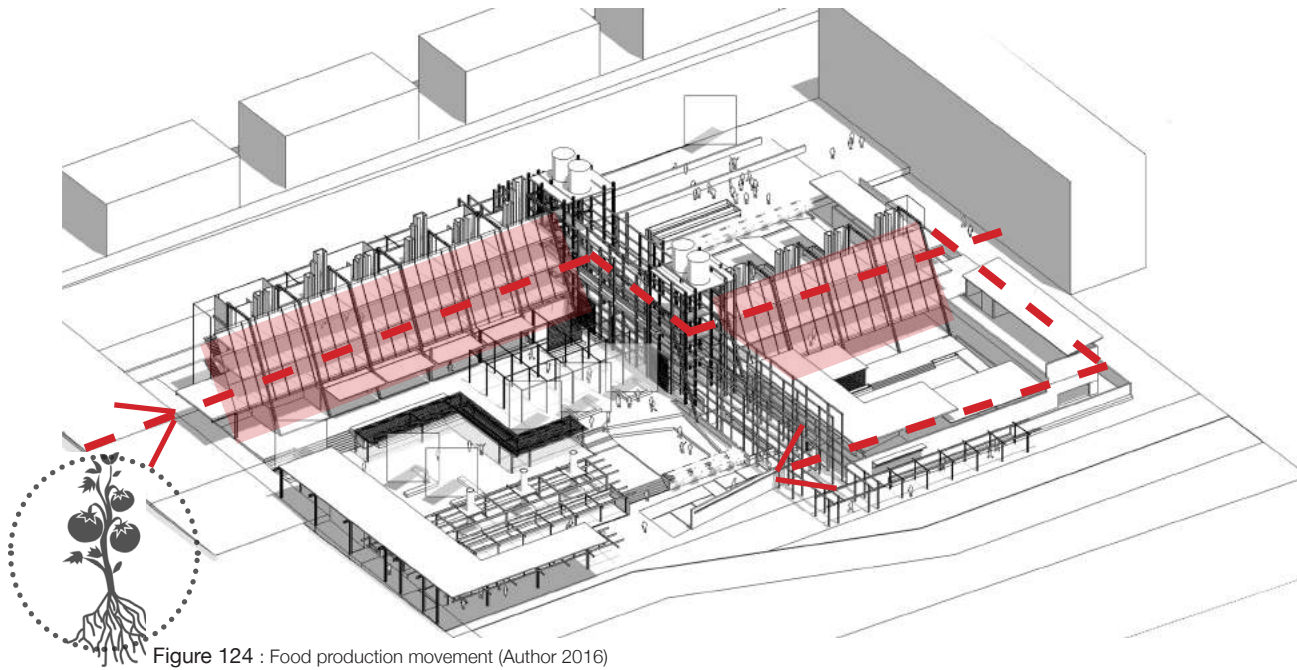


Figure 124 : Food production movement (Author 2016)

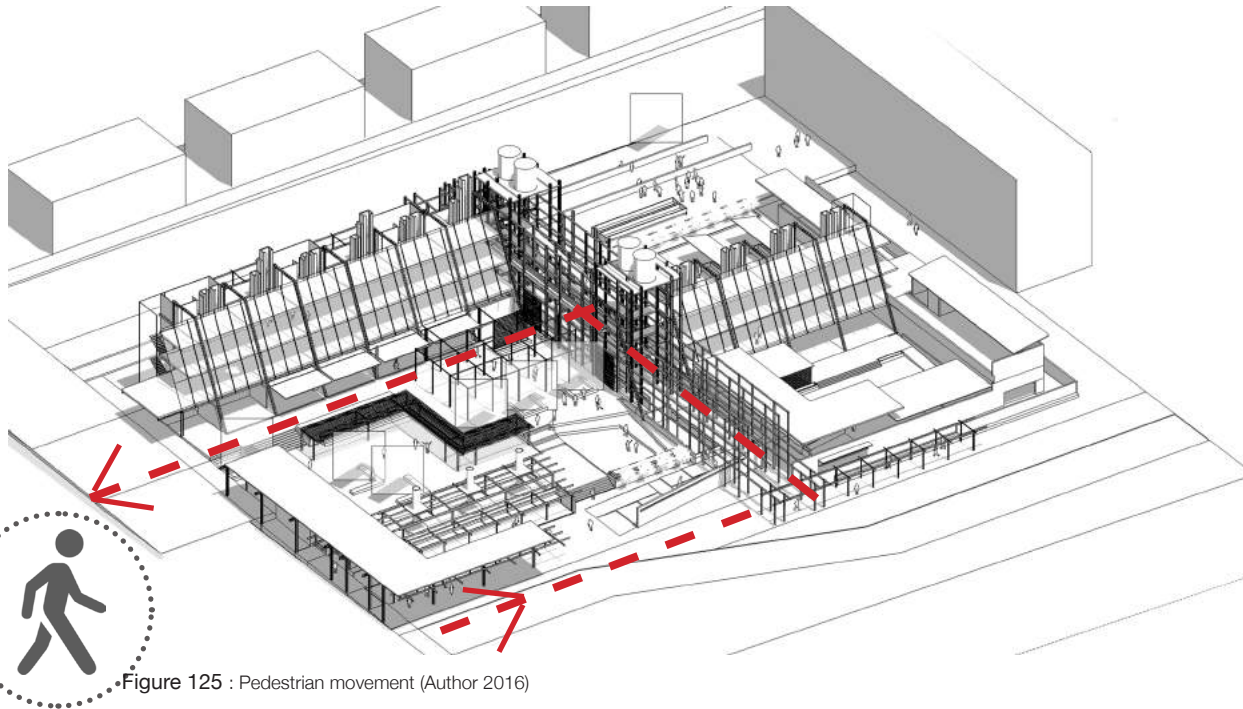
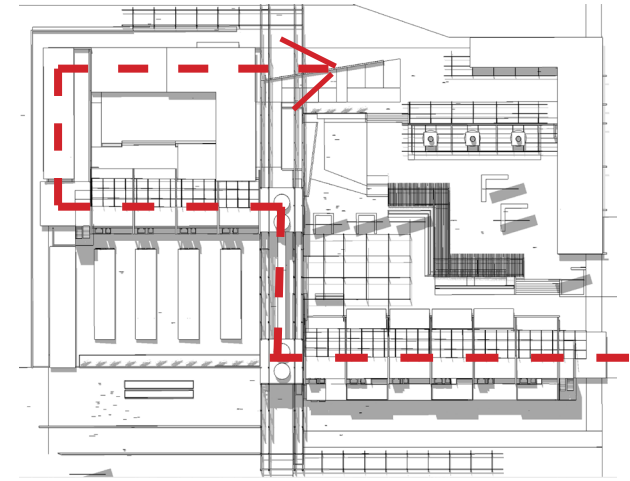
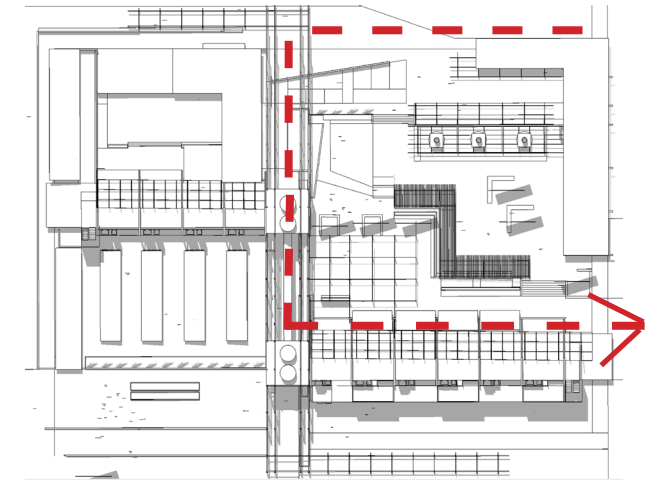


Figure 125 : Pedestrian movement (Author 2016)



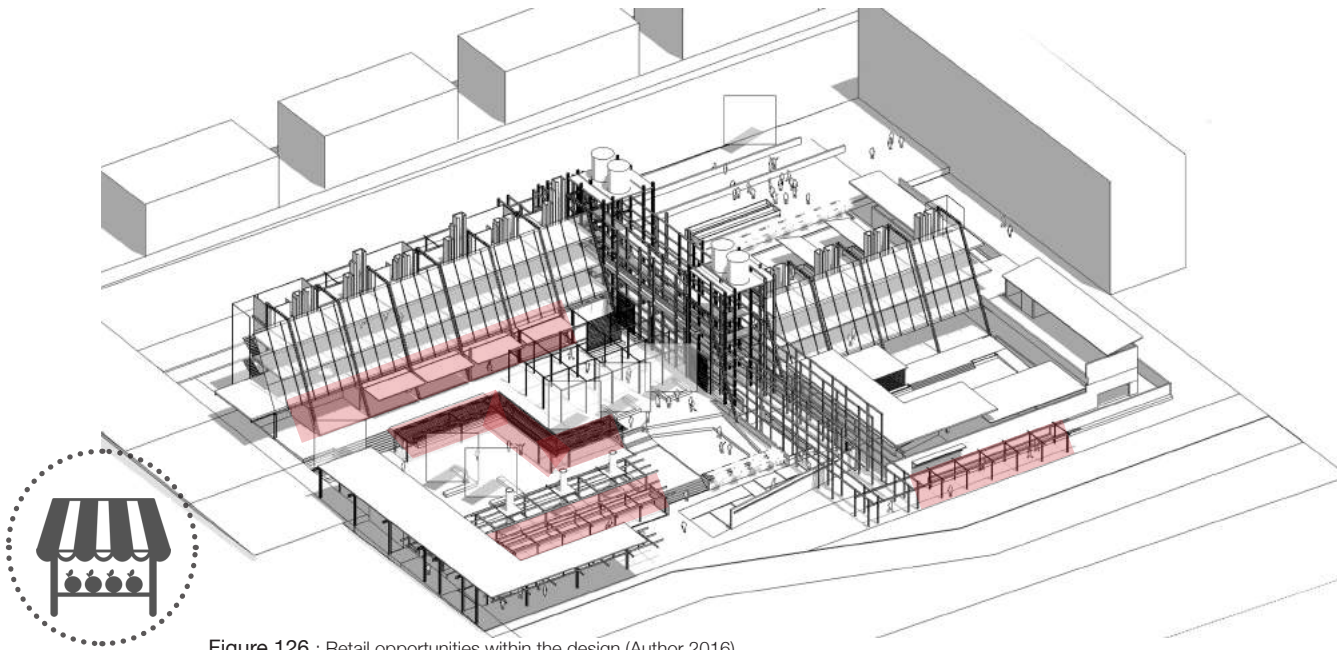


Figure 126 : Retail opportunities within the design (Author 2016)

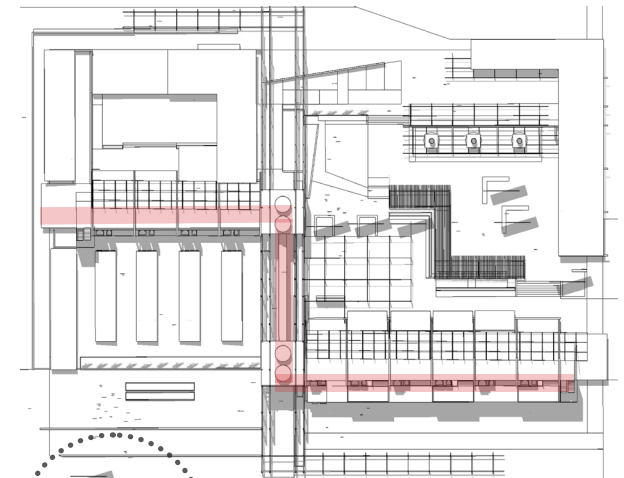
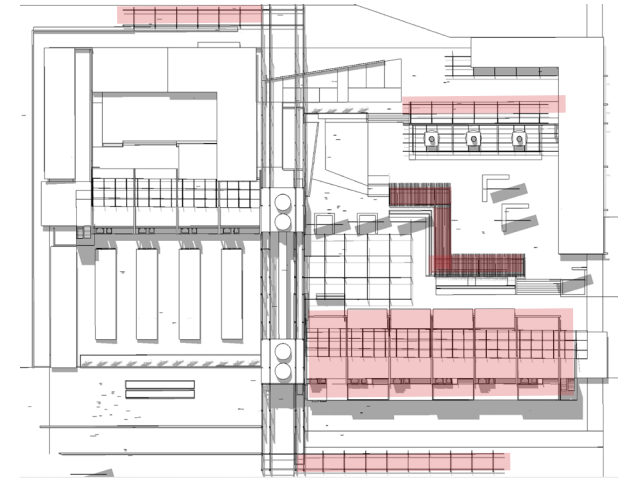


Figure 128 : Service core movement (Author 2016)

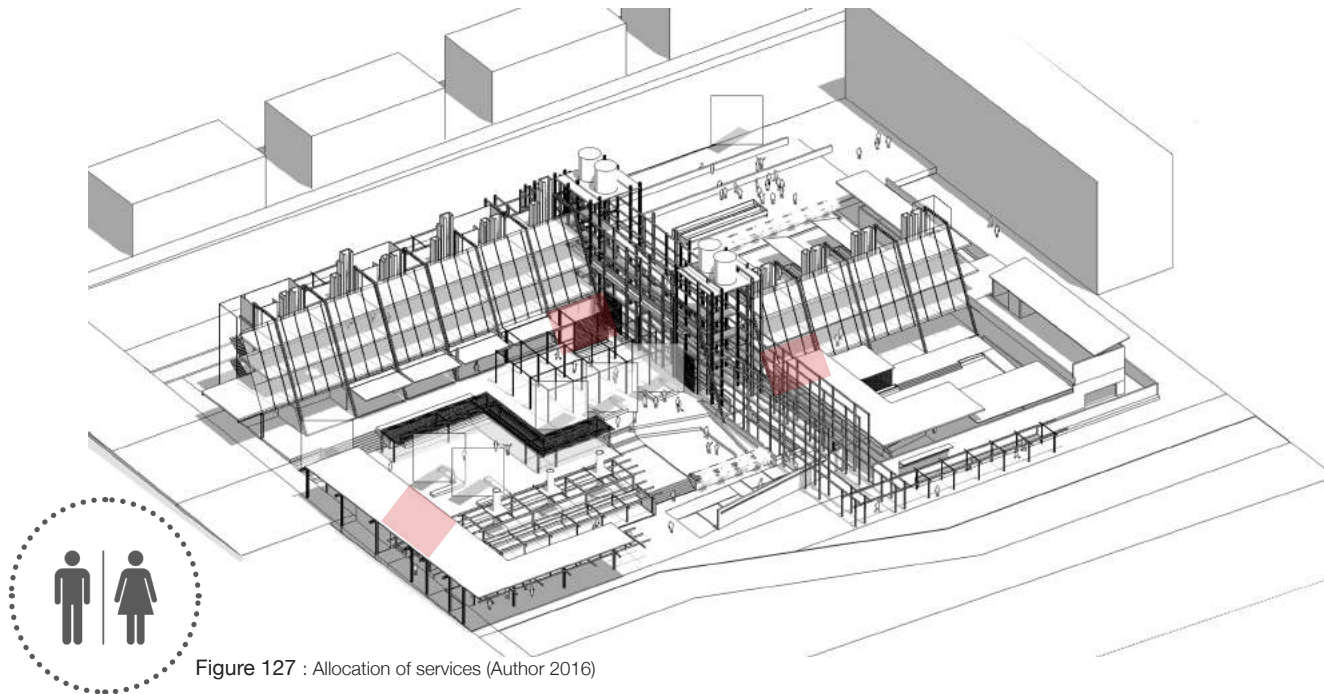
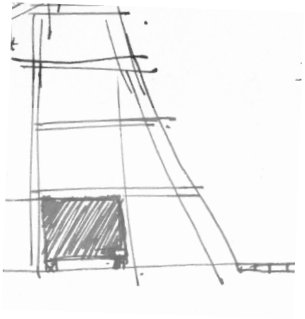


Figure 127 : Allocation of services (Author 2016)

restaurants



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The edge was also very dead and needed to facilitate a variety of functions in order to maintain social and urban interactions.



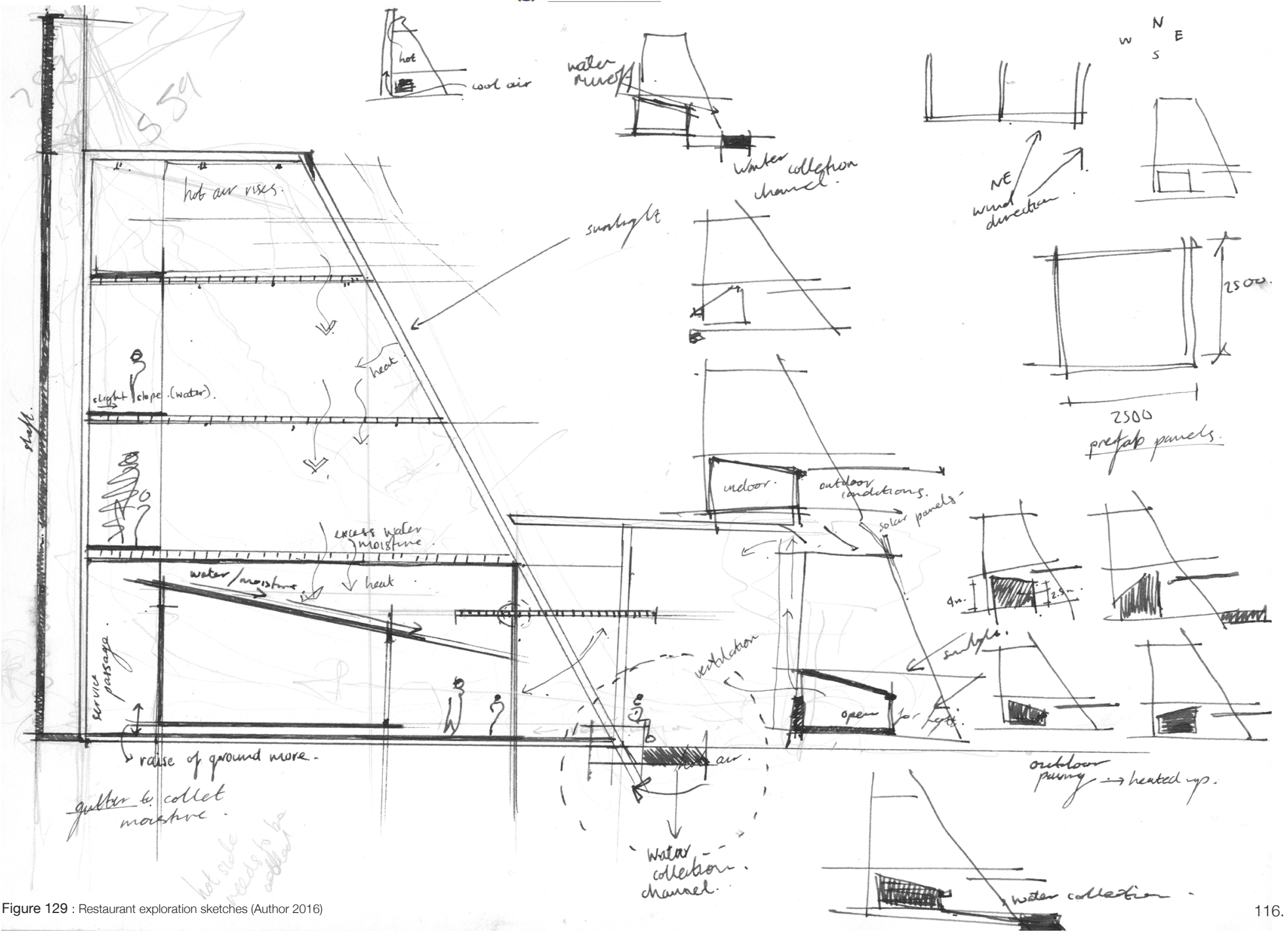
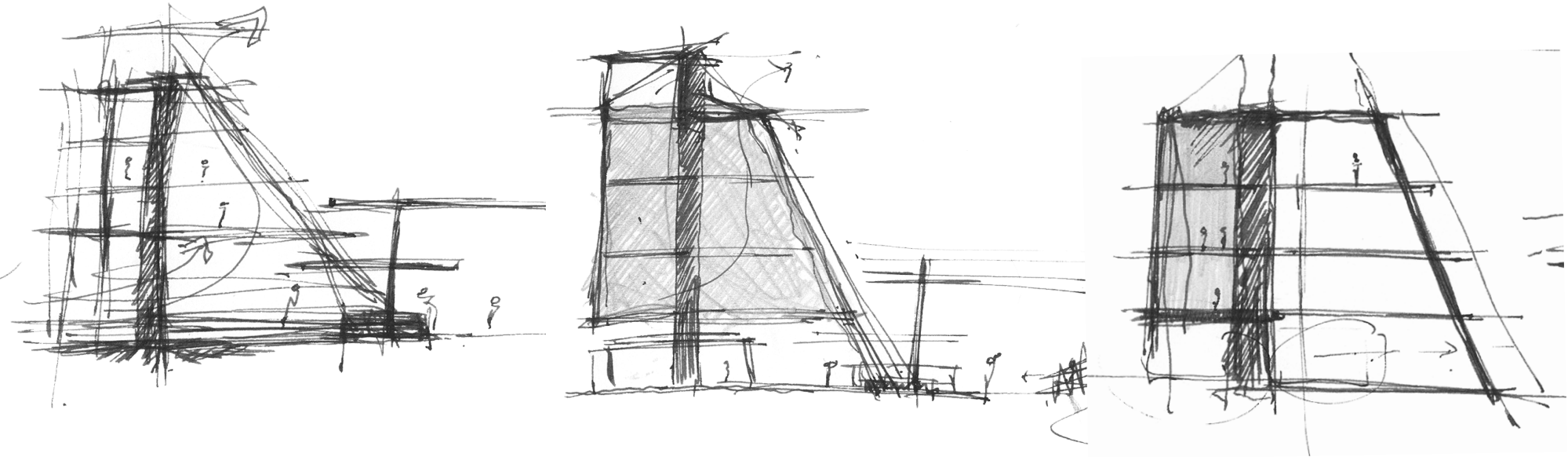
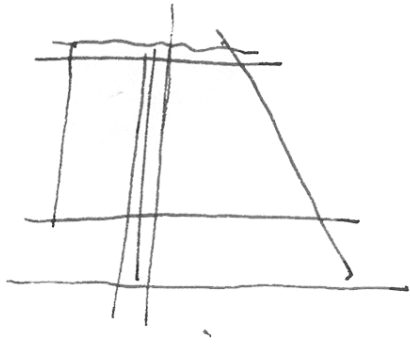


Figure 129 : Restaurant exploration sketches (Author 2016)

accommodation addition



117. Figure 130 :Accommodation exploration and development sketches (Author 2016)

