

CHAPTER 6

ARCHITECTURAL DESIGN DEVELOPMENT

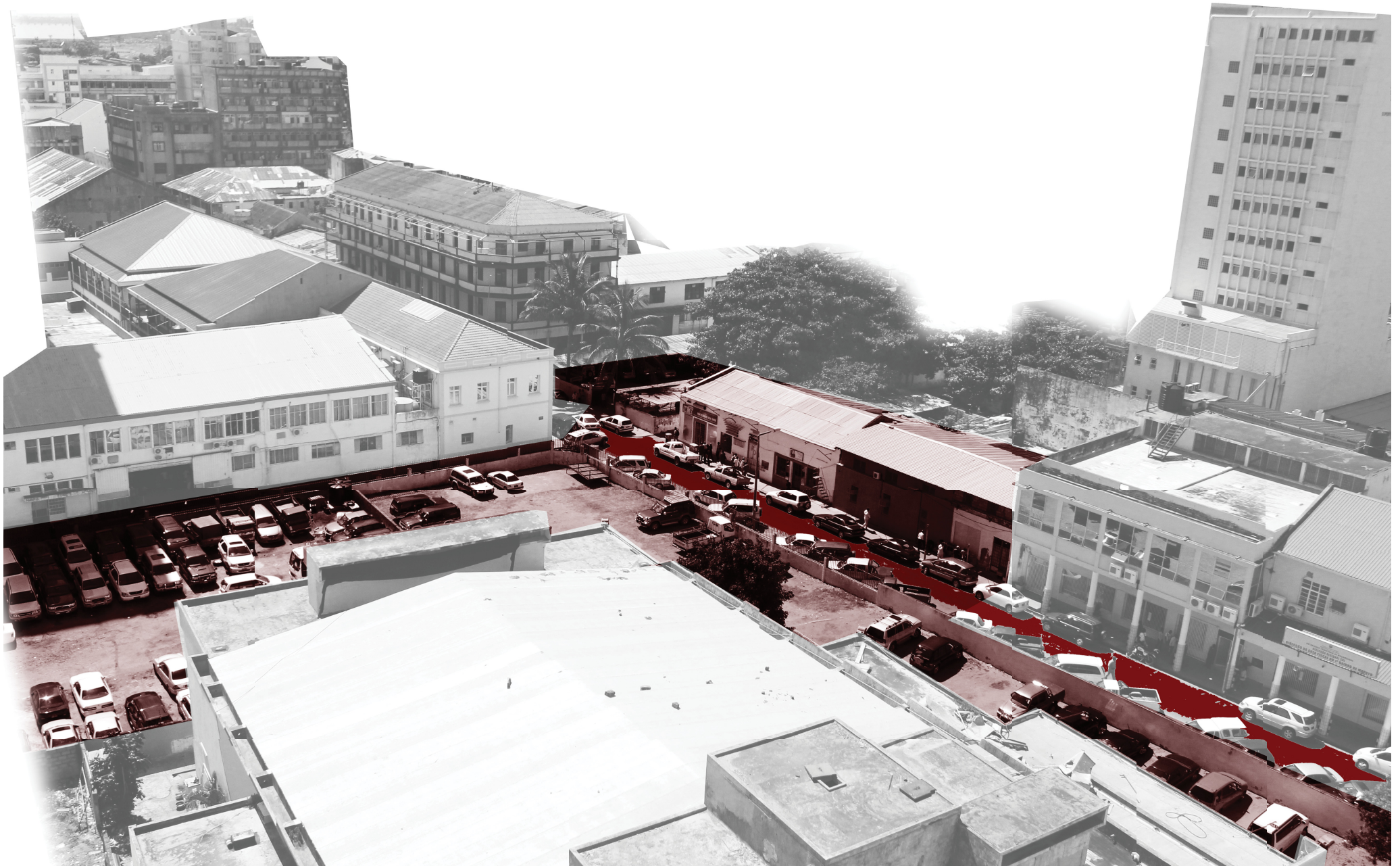


Figure 6.1 Photograph showing position of architectural intervention site plan. Photograph by Author 2011

CHAPTER 6 DESIGN DEVELOPMENT

6.1 INTRODUCTION.

As an architectural intervention a portion of the street is resolved using the prescribed criteria set out by the urban investigation. [Refer to 2.5]

The open site around the theatre is identified including the two abandoned hardware stores and the open site on the opposite side of the street. This area allows for the exploration both of the casino typology as well as that of a food court as per the urban layout.

It is necessary to investigate both sides of the street and how the relationship across the public interface can be achieved and what quality should be created.

6.2 PROGRAMME

As indicated in the urban plan this area is designated for a Gaming facility and food court. A food court in terms of the Maputo context would not be the traditional food court as imagined in the precedent like Montecasino or Emperors palace but should relate more to how food is served in the existing.



Figure 6.2 Plan showing layout of new intervention

6.2.1 MUSEU MARKET PRECEDENT

The Museu (Museum) market in Maputo has the components of a food court, small restaurant eateries as well as bulk alcohol stalls in the market. This creates a vibrant night life area, where there is the formal place-making and solid threshold of the stalls, coupled with the eateries spilling out into the street.

This particular market is marked by two towers of beer crates at its entrance. Bulk alcohol products are sold in this market as well as general goods, but out of the three major markets in Maputo, Mercado Museu specializes in the sale of alcoholic products and cartons of cigarettes, While Mercade Central is primarily a fresh produce market, Mercado focusses on bottled carbonated cold drinks and clothing.

Uniquely the Museu market also has an entertainment component of food service and bars, so the market becomes a destination at night.

Lessons to be learnt from this precedent are that the more permanent bulk alcohol stores are situated at the furthestmost site from the street. However, where public street edge interaction occurs smaller stalls distribute goods in smaller quantities. Some vendors are no more than a man with a cool box.

The small stalls create an interest and an articulated street edge that, coupled with the spill-out of tables, creates a vibrant night time activity space. Although this area is not a late night entertainment space, activity does continue until around 10pm on a Friday or Saturday.



Figure 6.3 Map showing positions of large markets within baixa and surrounding areas. (Google earth 2011)

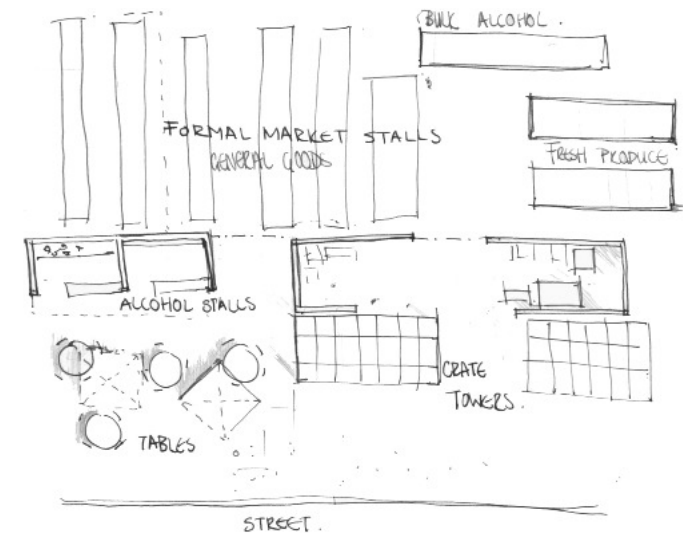


Figure 6.4 Sketchplan of market layout diagram by Author 2011



Figure 6.5 Photograph of the alcohol section . Photograph by M BOHEEMAN 2011



Figure 6.6 Stacks of crates mark the entrance to the market .
Photograph .M. BOHEEMAN 2011



Figure 6.7 Food stalls and alcohol stalls use tables and chairs to spill out into the street. Photograph M. BOHEEMAN, 2011



Figure 6.8 The market becomes a recreational space.
Photograph M. BOHEEMAN 2011

6.2.2 INFORMAL FOOD SALES ON STREET LEVEL

On-site observation made it apparent that food sales by street traders occupies a large portion of that informal economy.

During the day pāo (bread) and badjia (a variety of small deep fried items such as potatoes, vegetables... etc) are sold across the Baixia region as well as a myriad of other items. Similar vending occurs late in the evening.

With reference to the **harmonic analysis of night-time activity [section 2.5]**, the visibility of food vendors and frequency of sales on Rua de Bagmoyo coincides with the **Graph of a Night Out**. Street edges become animated by small fires cooking chicken and selling bread.

An informal interview conducted on Saturday, the 25 June 2011 at 22:00 with Carlos Chuale, an informal vendor, suggested that “night life” provided an environment very conducive to entrepreneurial opportunities in the informal sector. The vendors fill a gap in the market where late-night restaurants or take aways are not catered for within the Baixia. [**section 2.6_ formal functions**]

“ People get drunk and then they are hungry, this makes a good business for me.” Carlos Chuale, Informal Vendor, Sat 25th June 2011, Rua de Bagamoyo.



Figure 6.9 Sales woman selling beer and cold drinks. Photograph by Author 2011



Figure 6.10 Sales women sells hot food with a mobile kitchen. Photograph by Author 2011



Figure 6.11 Food sales occurs in the shade. Photograph by Author 2011

6.2.3 APPLICATION OF PROGRAMME TO A PARTI

Learning from the existing, a similar informal vending typology can be applied to a new intervention, while still catering to the need for a more formal fast food establishment for the comfort of tourists.

The different types of food and drink service providers should exist simultaneously (both formal and informal). This can be achieved architecturally by applying the concept of threshold. Degrees of permanence and formality can be determined by gradients of threshold spaces between them, setting up a framework for determining relationships between the formal and informal. See Fig 6.12 Food service applied to Parti.

The same logic prevails when applied to the casino structure. In Venturi's typological study of Las Vegas (Venturi et al 1972) and the architecture of its casinos, patterns of table and slot position suggest a similar gradient. Where the tables should be a more protected private environment and the slots and machines more public due to the nature of machines.

Slot machines are more secure than tables as they can be secured to the ground and act similarly to a public ATM.

Public facilities such as bathrooms are necessary around a food service area and can be considered part of the servant spaces.

The first floor areas determined by the framework to be areas of private-public contradiction are then the most private of functions. To the south a changing and preparation space for the sex-workers and to the north, the privé section of the gaming space.

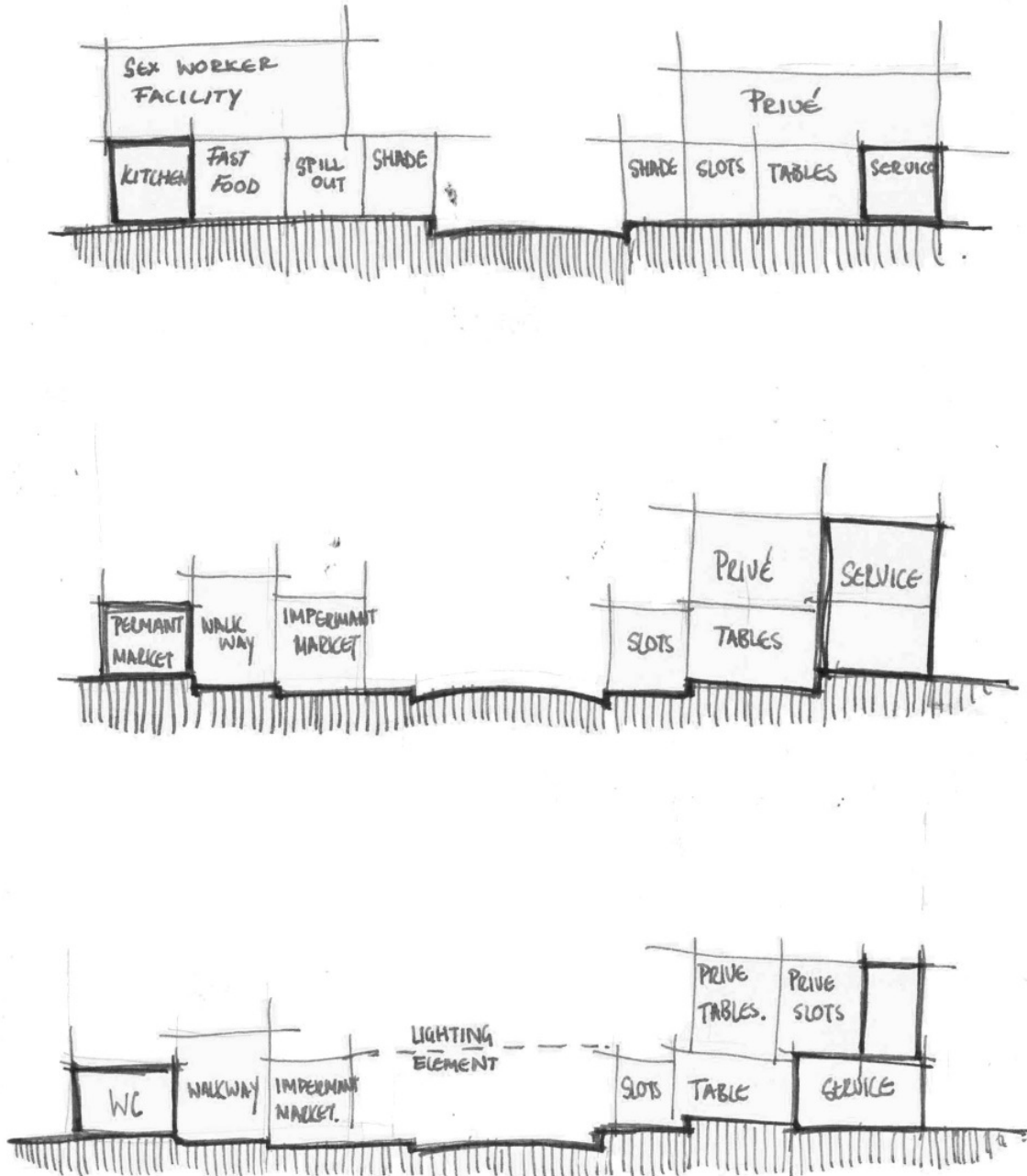


Figure 6.12 Parti development with the inclusion of functions.

6.3 SECTIONAL DEVELOPMENT_ PARTI- PARTY

The concepts of harmonics of energy requires the spaces to create atmosphere in terms of light, sound and activity. Through a series of conceptual sections an understanding of how feeling should be created is determined using mediums that can express direct and reflective light as a means of creating that atmosphere

Using atmosphere as a generator informs how form and volume can be created in section .

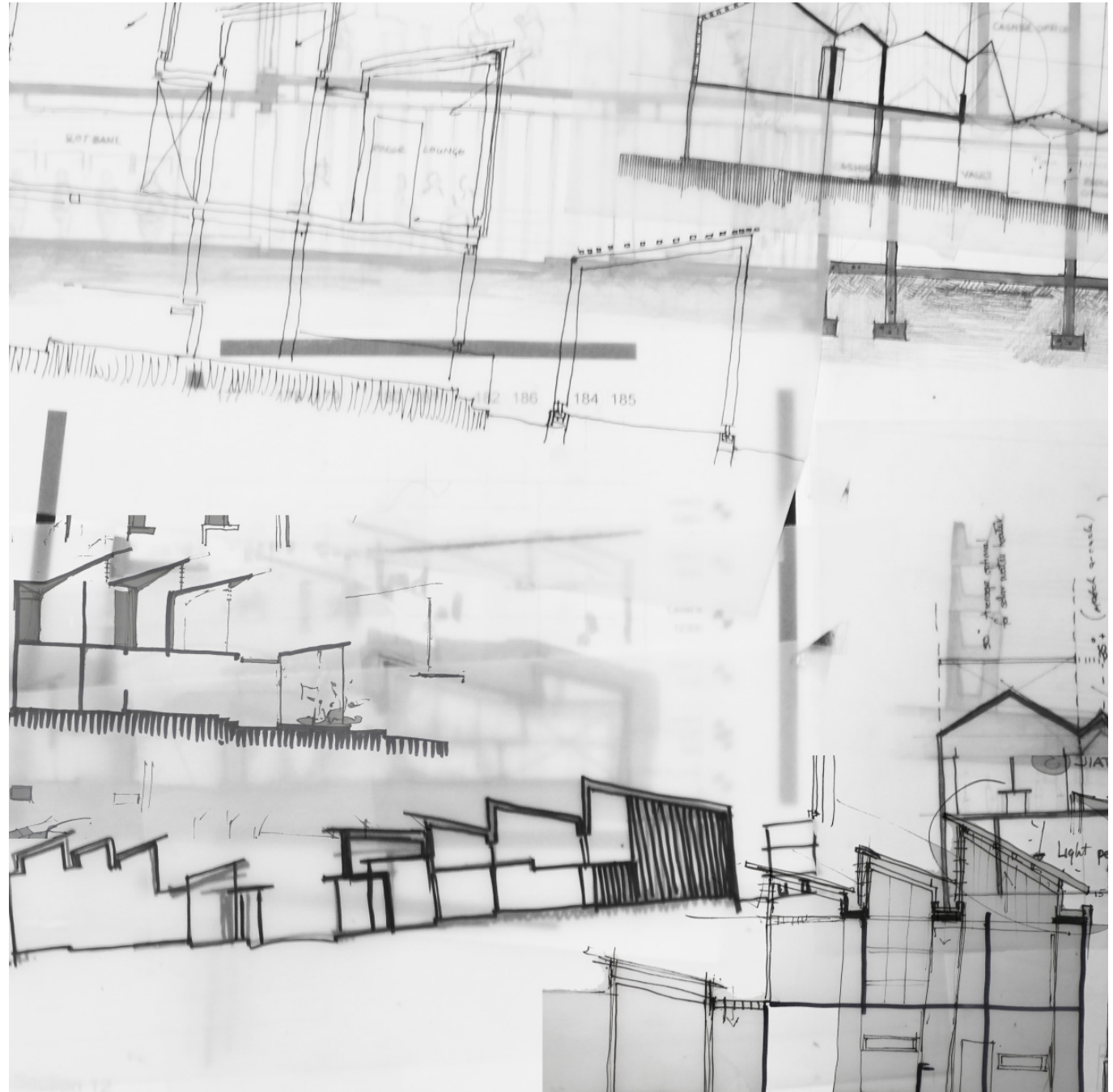


Figure 6.12 Collage showing various sectional explorations.

6.3.1 THE ATMOSPHERE OF RUA DE BAGAMOYO

Atmosphere, according to Zumthor is an aesthetic quality (Zumthor 2006).He defines architectural atmosphere as, "this singular density and mood, this feeling of presence, well-being, harmony, beauty... under whose spell I experience what I otherwise would not experience in precisely this way.(Zumthor 2006)



Figure 6.13 Initial attempt at showing a duality between masculine and feminine spaces as stereotomic and tectonic expressions.

The atmosphere of *Rua de Bagamoyo* is largely attributed to its different day-night activities, where the private is displayed in the public and the public introverted to private space.

Dependent on time it is either exposed or veiled by the architecture of the everyday, in a spectacle made dramatic by the changing light quality :piercing, projecting, reflecting, filtering and transformed by built form.



Figure 6.14 Expression of concept into a form exploring light as a method of creating atmosphere.



SIMPLIFICATION OF FORM
TO NEGATE UNNECESSARY
VOLUME

RESTRICTION OF ACCESS TO STREET

VOLUME REACTION TO
BARRIERS AND DEFINITE
THRESHOLD

EXPRESSIVE CONTINUITY
FROM STREET INTO GAMING
SPACE

EXPLORATION OF DIRECT
REFLECTED LIGHT

INTRODUCTION OF OPPOS-
ING LIGHT THRESHOLD

EXTRUSION OF PRIVATE TO
CONTRAST THE ENCLOSURE

ALLOWANCE FOR SERVICE SPACES

Figure 6.15 Simplification of form based on where light reaches. Further expression of the street as a vibrant place with the introduction of the mask and veil through

REGULARIZATION OF
FORM TO ALLOW FOR PV
CELLS

ARTICULATION OF ROOF
PLANE TO ALLOW FOR
NATURAL LIGHT

INTRODUCTION OF LAYERING
ON HORIZONTAL PLANE

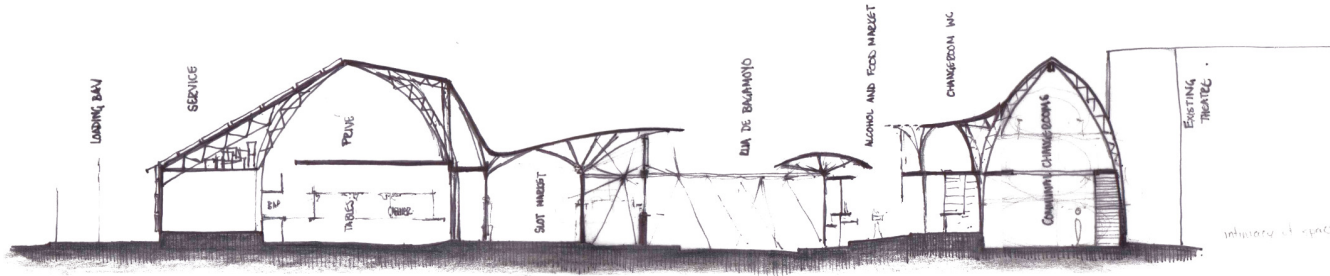
CONTINUATION OF ENCLOSURE

EXPRESSION OF STREET EDGE
THROUGH INTRODUCTION
OF SHADE

CELEBRATION OF NATURAL
LIGHT AND ACCESS TO
STREET



Figure 6. 15 Further simplification to allow for photovoltaics on the north and the introduction of natural light to the tectonic spaces.



6.3.2 DIRECT FORM TRANSLATION

Using the atmospheric response as a direct form generator creates a complex section of various different construction typologies to create the different volumes necessary. The plane of roof structure is then separated into two skins, that of direct light and that of reflective light, based on the concept derived from the prostitutes method of dressing to show glimpses of her underwear in a veil type architecture.

Figure 6.16 Section showing a building solution as a direct response to the conceptual development

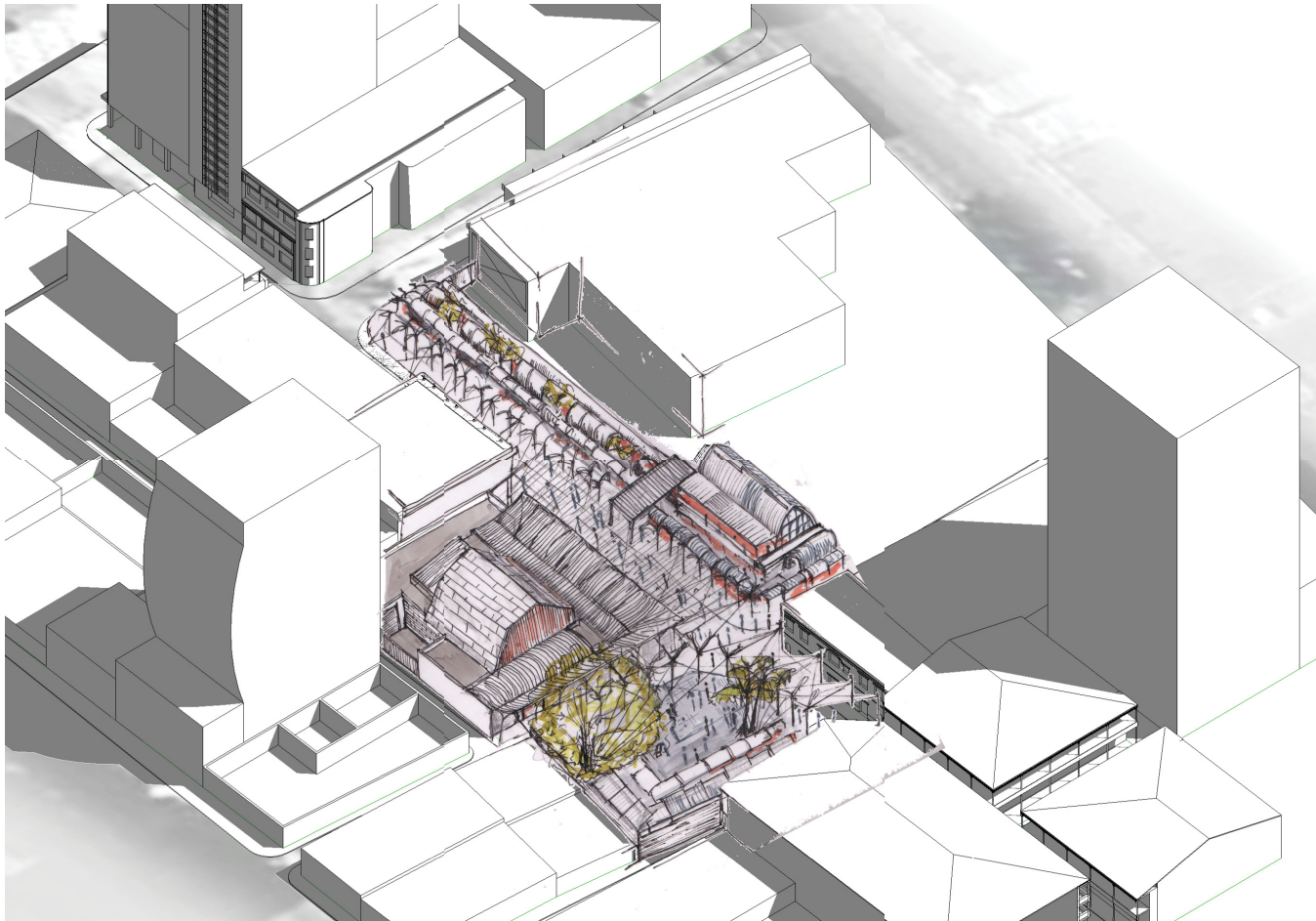


Figure 6.17 3-dimensional exploration showing the roof structures as a series of tapestries weaving an enclosure.

6.3.3 TRIANGULATION

To simply the form and create continuity as well as attempting to simply the construction triangulation of the form to create a planar translation was attempted.

While this approach creates a sculptural object in the space and responds to the energy and atmosphere beneath it, it does not conform to the aesthetic of the street and does not relate to the visual context.

Although the form looks interesting it feels un-justified and to a point it is an unfounded approach.

This approach was a necessary exercise and while it does create a continuity between both sides of the street, more than the first approach the continuity with the rest of street is lost.

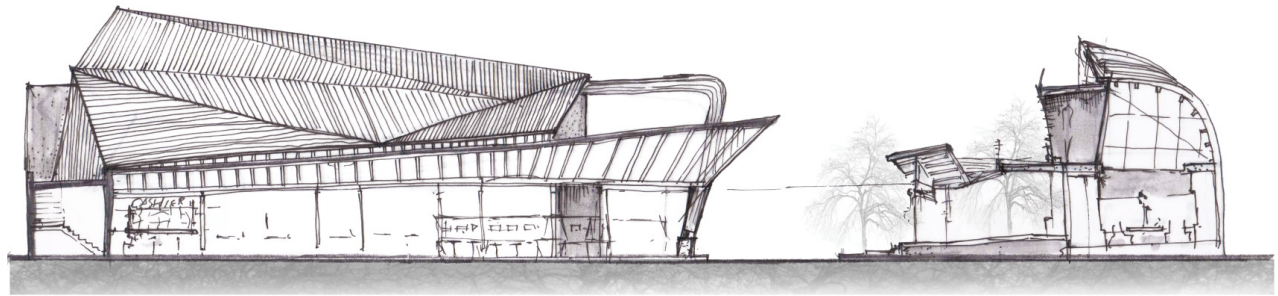


Figure 6.18 Section showing simplification of form through triangulation

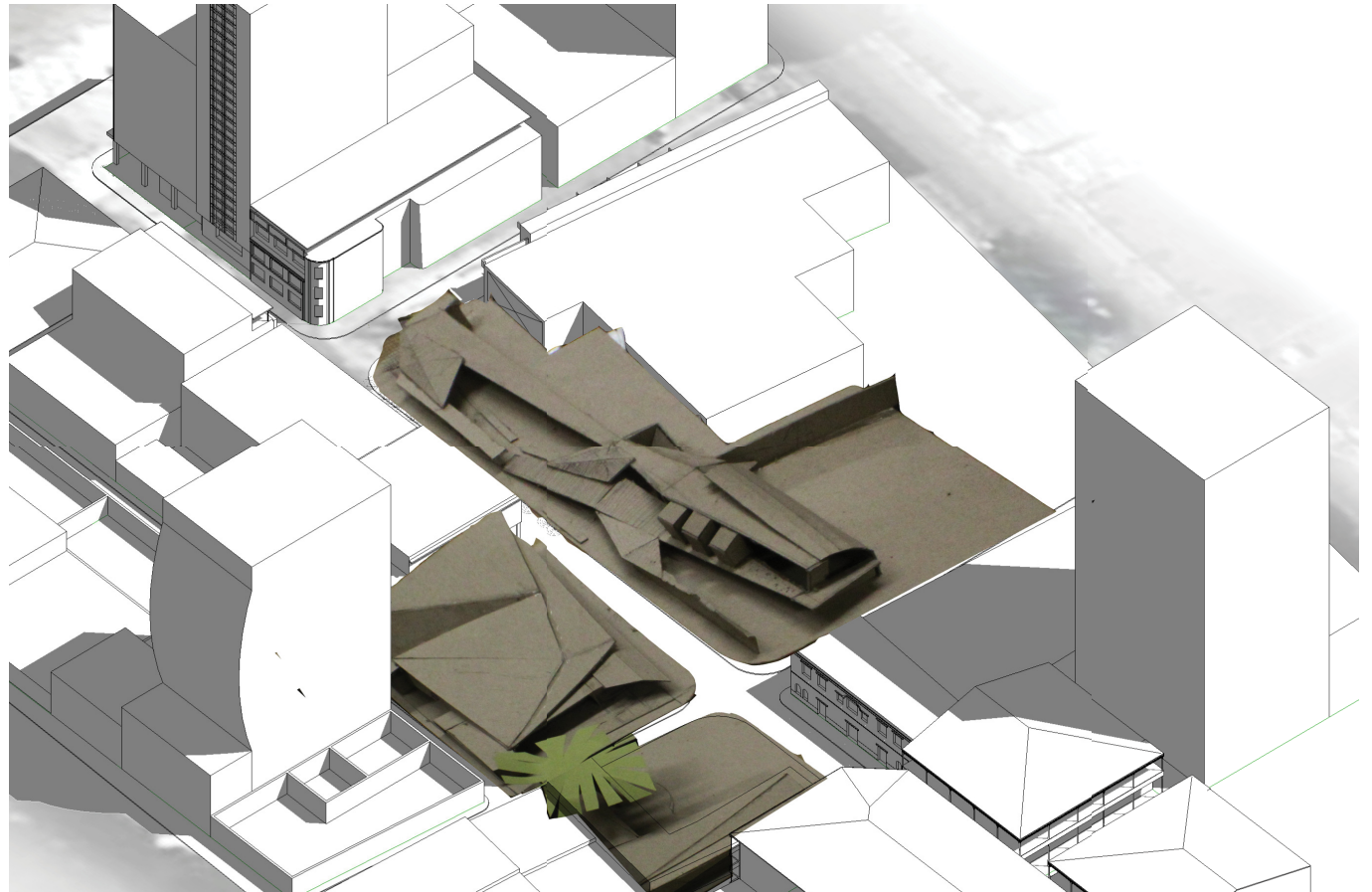


Figure 6.19 built concept model in context to show the translation of simplification

6.3.4 CONTINUITY

The triangulated response, whilst valuable in its reaction to light and volume and the contextual harmonic, does not represent the continuity required to create a unified precinct.

An attempt to re-instate the continuity that was not achieved in the triangulated version involves a simplification of the roof skins and a more obvious separation between them. The first skin is then triangulated for structural reasons and the form becomes angular and the curved response to atmosphere simplified.

The second skin then becomes an element of continuity and light filtration. That stretches across both sides of the street enveloping the energy based on the need for control as stipulated in the urban design lighting layout.

While this response responds both to the harmonic and the continuity it does not relate to Jane Wolford principles of visual contextualism and the form is foreign to the context.

To construct such a structure in the Mozambican context would also be increasingly difficult, as the material required would need to be imported and the labour would have to be trained.

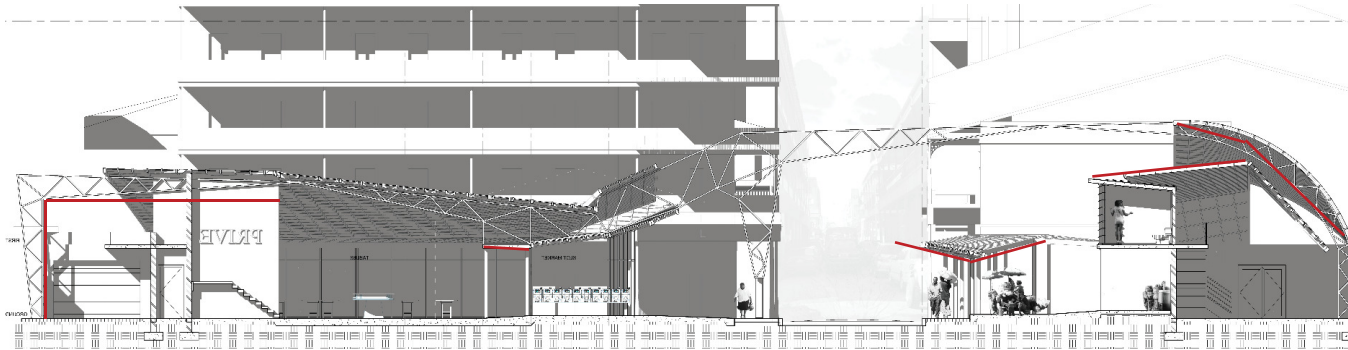


Figure 6.20 Section showing the re-introduction of a continuous element spanning across the street

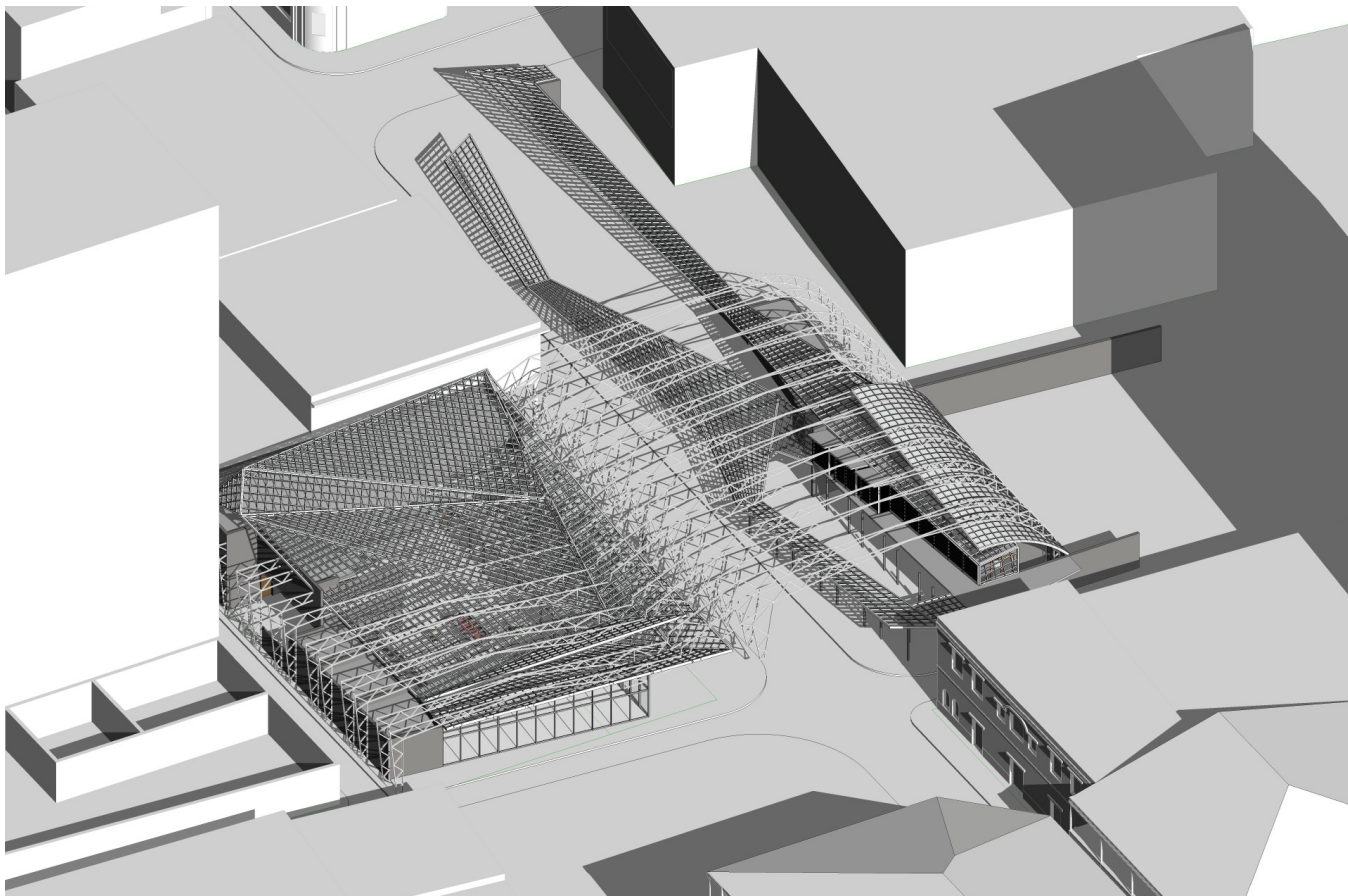


Figure 6.20 Computer modelling of the structural implications of a dual roofed structure.

6.3.5 SIMPLIFICATION

Further distillation of the idea is then required to have a simpler construction method, more visually contextual response without losing the atmosphere and continuity.

Firstly a series of sectional explorations were done using various forms and roof plane shapes, thereafter logic prevailed and the parti was considered as a possible form generator.

This method allows the atmosphere to be determined by volume and light and not by shape. The continuity is created through smaller connections and due to the aesthetic continuity, where the contextual relations to texture, rhythm and scale are valued.



Figure 6.21 Section showing roof as a method of creating implied continuity

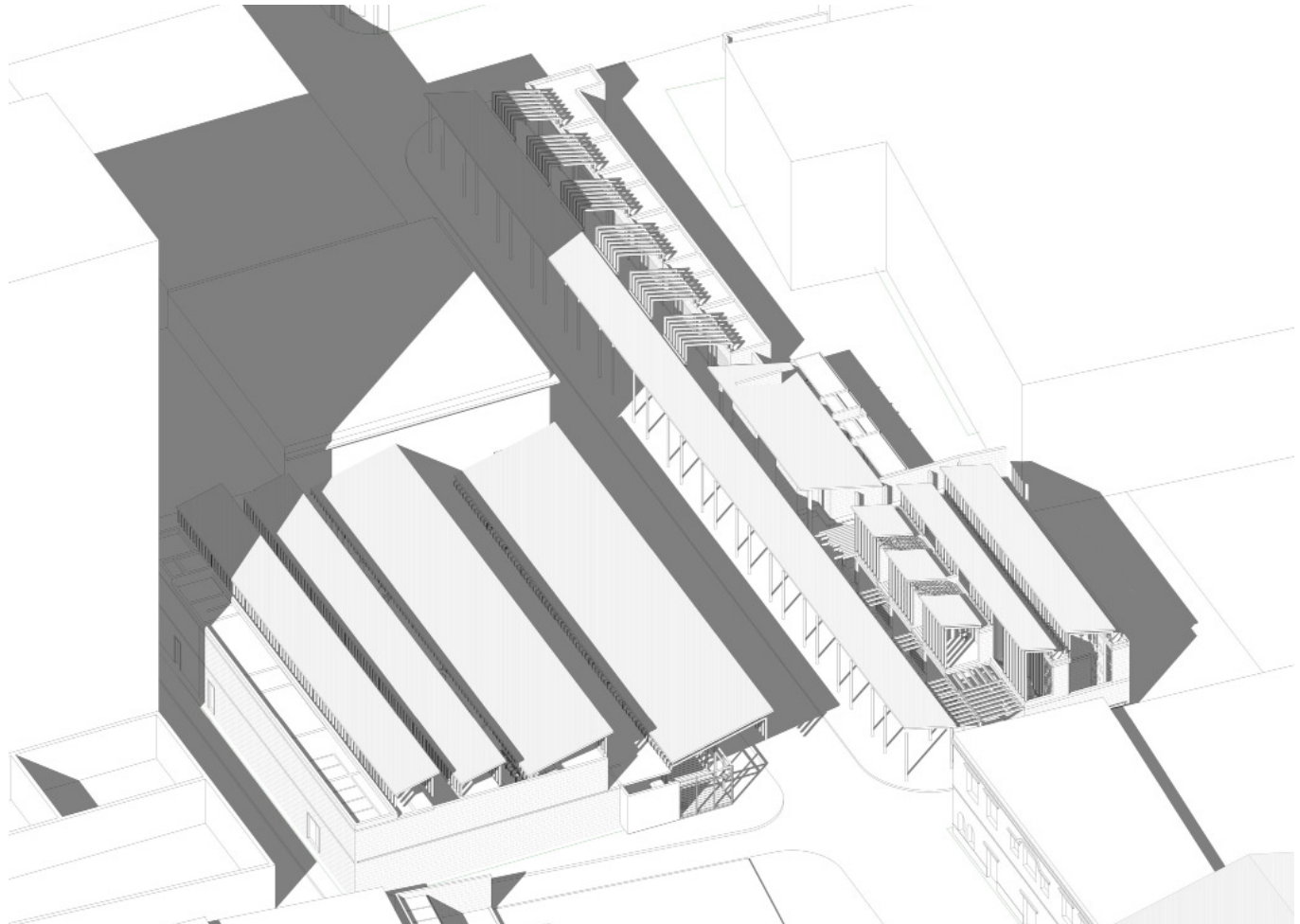


Figure 6.22 3-Dimensional exploration of the simplified structure expression in volume the thresholds of transition.

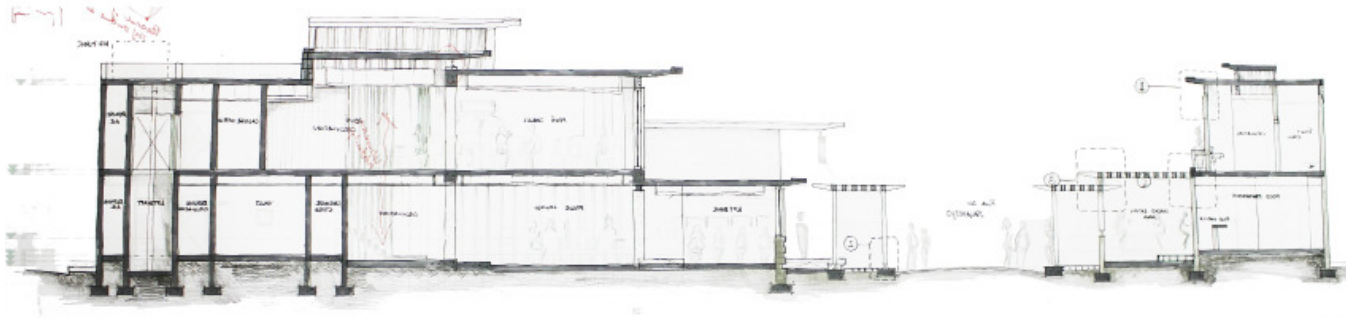
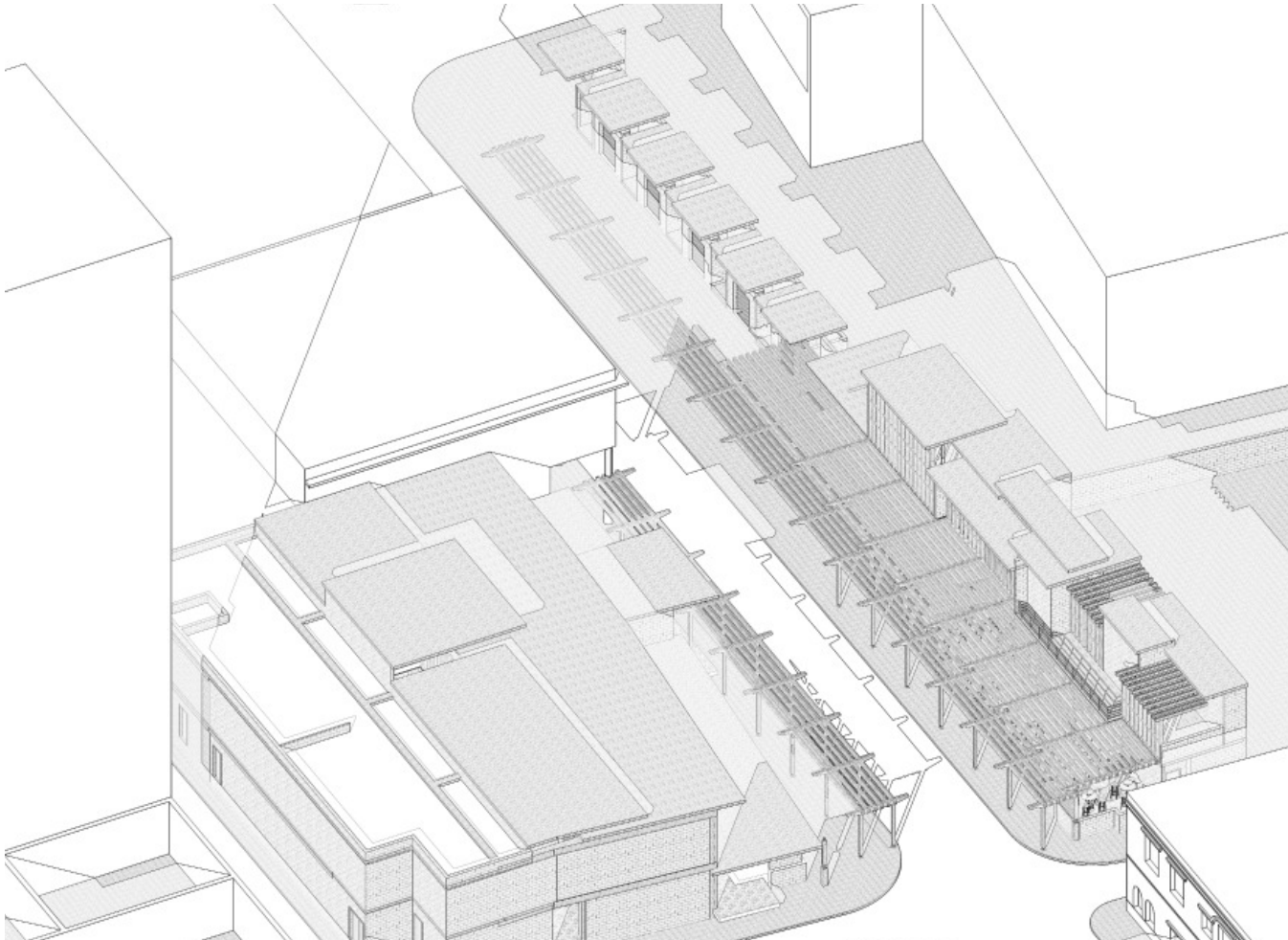


Figure 6.23 Section showing an even further simplification expressing the continuity by the tapering of the soffit.



3-dimensional exploration of the simple solution showing layering in the horizontal plane to continue the thresholds as enclosure.

6.3.6 EXPRESSION OF THE PALIMPSEST

Having the simplified spatial volumes that express the threshold in the vertical, the last thing lacking is then the layers of the veil. To achieve this, the angle of the roof plane is simplified down into a horizontal plane, allowing for a layering of light filtration and shadow creation.

Spatial qualities are created simply by the volume and vertical scale and the method of dealing with light. Transition through thresholds is dealt with by the density of column size and spacing, Rhythm is created through the repetition of the columns and the transition from street to service space is dealt with in the way lightness of structure transitions into the solid and continuous.