

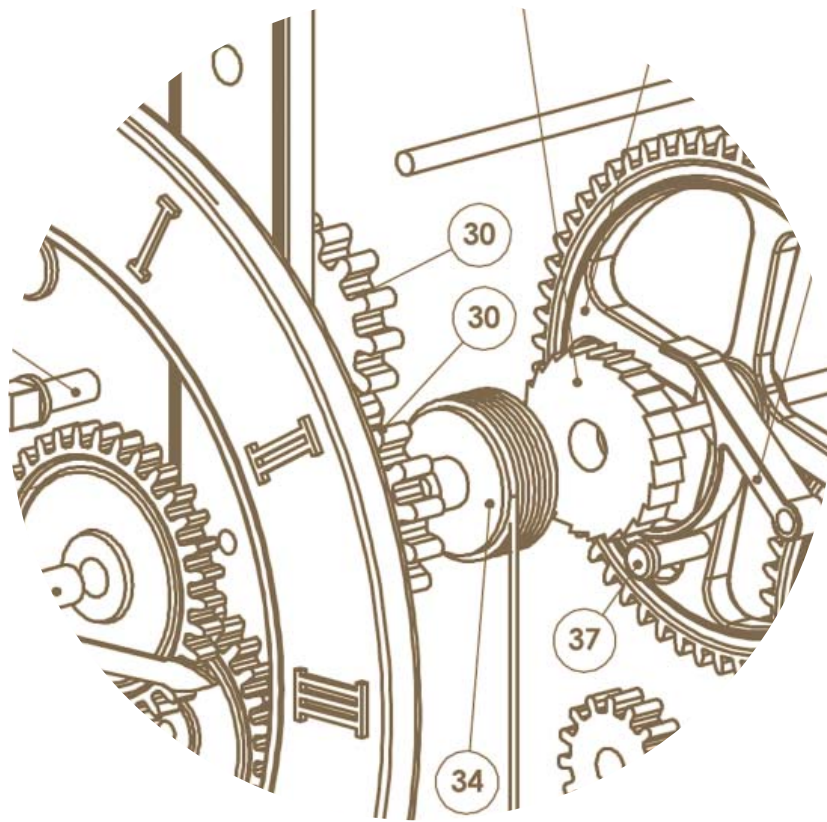


ASSEMBLY

- *design development* -

- *technology* -

- *conclusion* -





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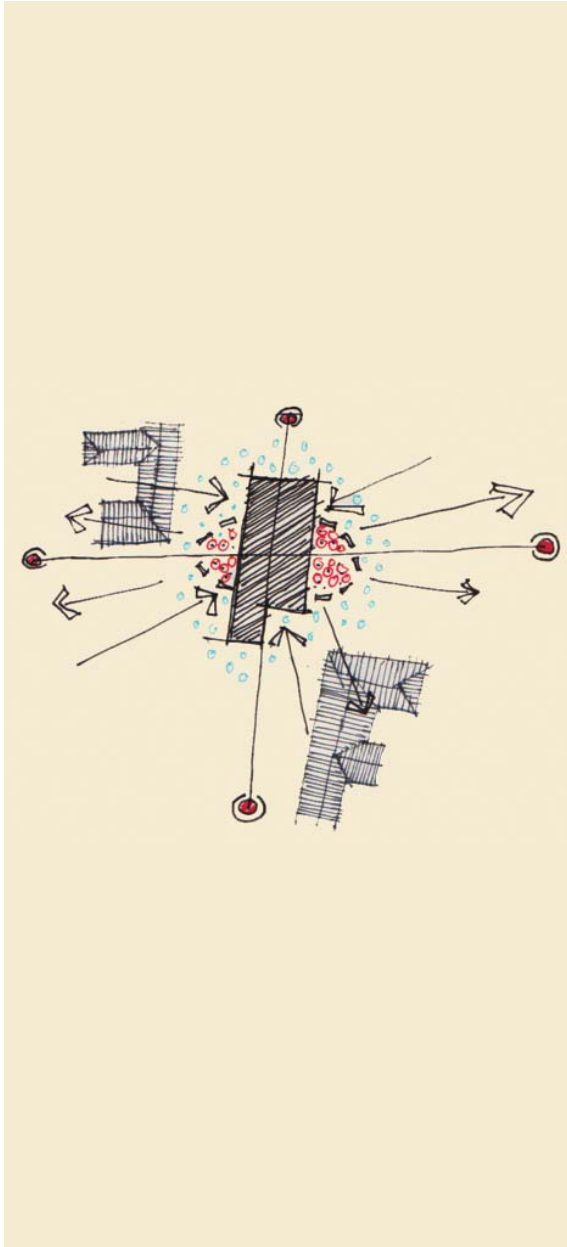
08

design development

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FORMALISING THE INTERFACE



Empowered by analytic informants, the research develops into fabricating a physical expression of the evidence developed from the previous chapters. Considered fragments of history and time, transitional communities, reduced vulnerability and improved exposure are condensed into an argument for architectural pursuit. Cultivated by an inquisitive process, the design development employs a succession of diagrams, maquettes, models and drawings to explore the possibilities of potential outcomes. Tempered through critique these explorations are all aimed towards arguing the position of this research document: through considered yet purposeful architectural intervention within a historically rich and culturally diverse setting, in which existing building stock can be re-appropriated and reinterpreted to create a sheltered environment for vulnerable members of society, becoming an agent of integration. In doing so, the resultant architecture is imbued with the ability to reflect the inherent nature of the present while at the same time contributing towards the passage of time. Layers of simultaneity converge to create a future environment that, through citing its past and present, becomes a transitional interface.

Figure 8.1: Initial diagrammatic exploration of design scheme.

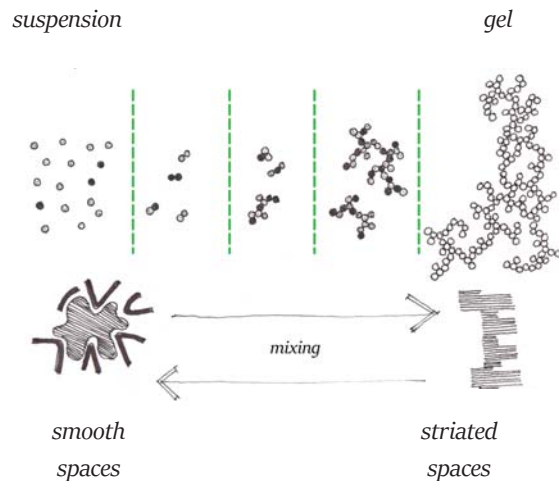
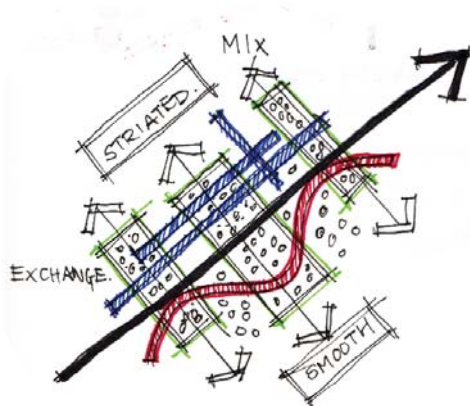
Concept One

the aggregation of shelter

The first conceptual approach devised to inform the decisions made in the design development process focused on the constituent aspects of shelter. These elements included the cave, the tent, the hearth and the ruin. Here, each component was considered for their ability to contribute towards the argument of building as a mixture of smooth and striated space, resulting in the concept of aggregation.

The cave, seen as a container of smooth space nestled in the striations of the earth, would encompass the manipulation of the landscape. The tent was viewed as a flexible and overtly tectonic structure that provided temporary

shelter for smooth space. The third aspect was that of the hearth where points of smooth space would emerge as a result of the common interests of individuals and communities. Focusing on the social aspects of the design these hearths would create space in the same way that a camp fire establishes a space of interaction centred on a single point of common interest. The notion of the ruin, indicative of the heritage aspect of the project, conceptualised that the existing building was a collection of striated spaces with potential that could be released through intervention. The selective crystallisation of these elements signified an aggregation process that would produce a more functional and engaging composite.



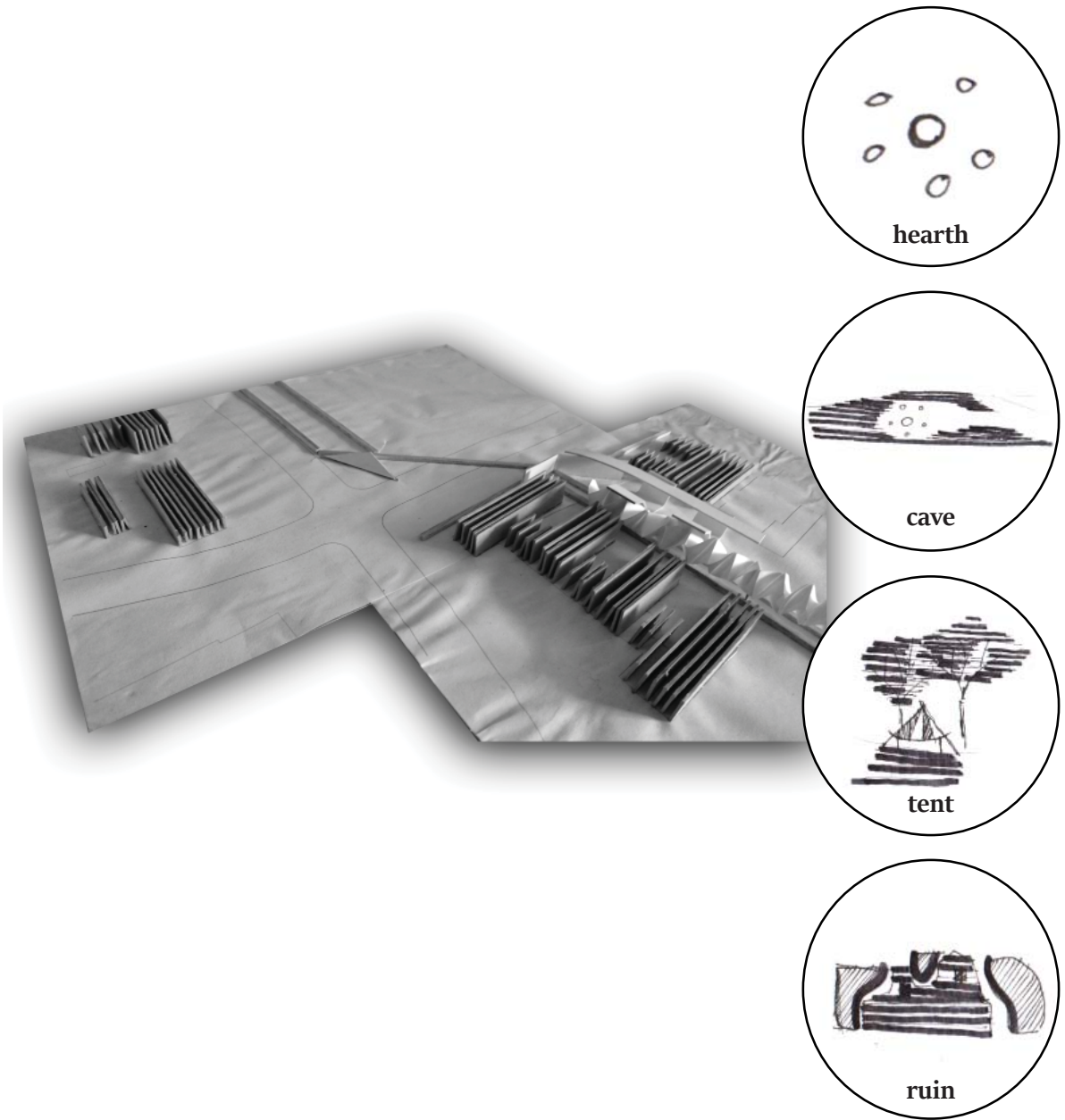


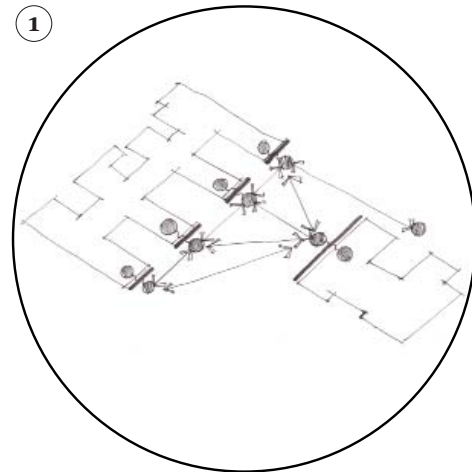
Figure 8.4 (left): Photograph of conceptual maquette, indicating the a preliminary investigation into the formal qualities of smooth and striated space.
Figure 8.5 (right): Diagrammatic representation of the occurrence of smooth and striated space associated with elements of shelter.

Concept Two

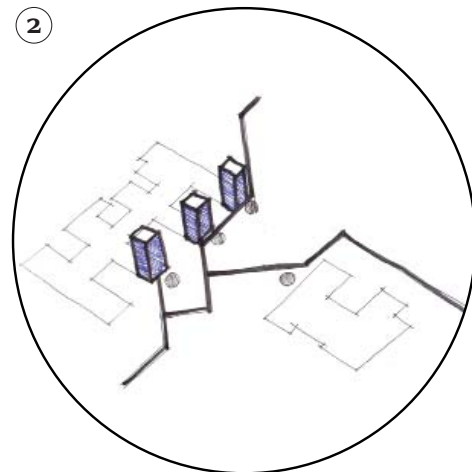
a collaborative exchange

Driven by the programmatic potential between the organisations that occupy the Old Native Reception Depot and the Old Clinic buildings, this second conceptual approach focused on establishing a number of collaborative exchanges between the two buildings. The repercussions of these exchanges of skills and information would create a more purposeful engagement with the surrounding context. The exposed latent potential of the existing building would be strengthened by the provision of adaptable service zones, thus providing potential sites for productive exchange. Thresholds and intimate spaces are provided by manipulating the landscape between the two buildings. Finally, elements are positioned according to their programmatic requirements and ordered through the implementation of an open and connectible tectonic structure.

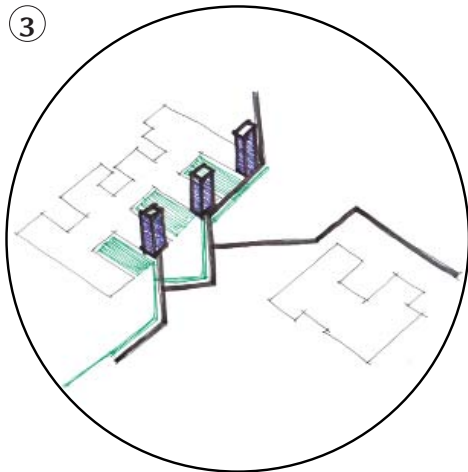
Critique of these concepts revealed that although well considered in their argument, they neglected the primary needs of migrants and lacked decisive engagement with the heritage of the site. Additionally, the diagonal geometry presented was too reminiscent of Postmodern ideals. Complexity of space could be better created through the social exchanges rather than complicated angles and geometry.



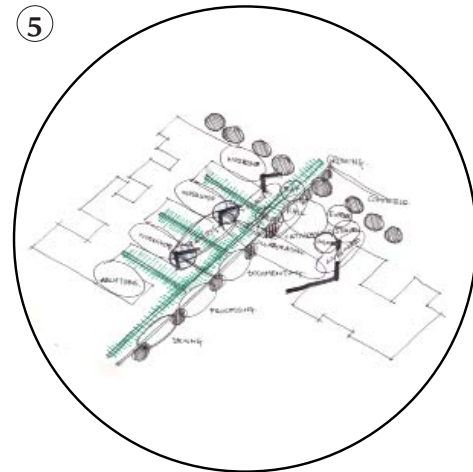
Exposing the latent potential.



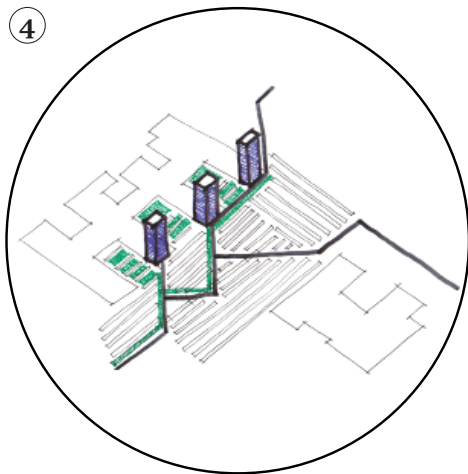
Provision of service zones.



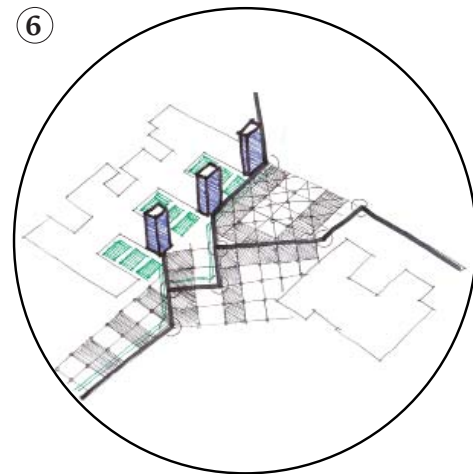
Productive spaces established around service zones.



Positioning of programmatic elements.

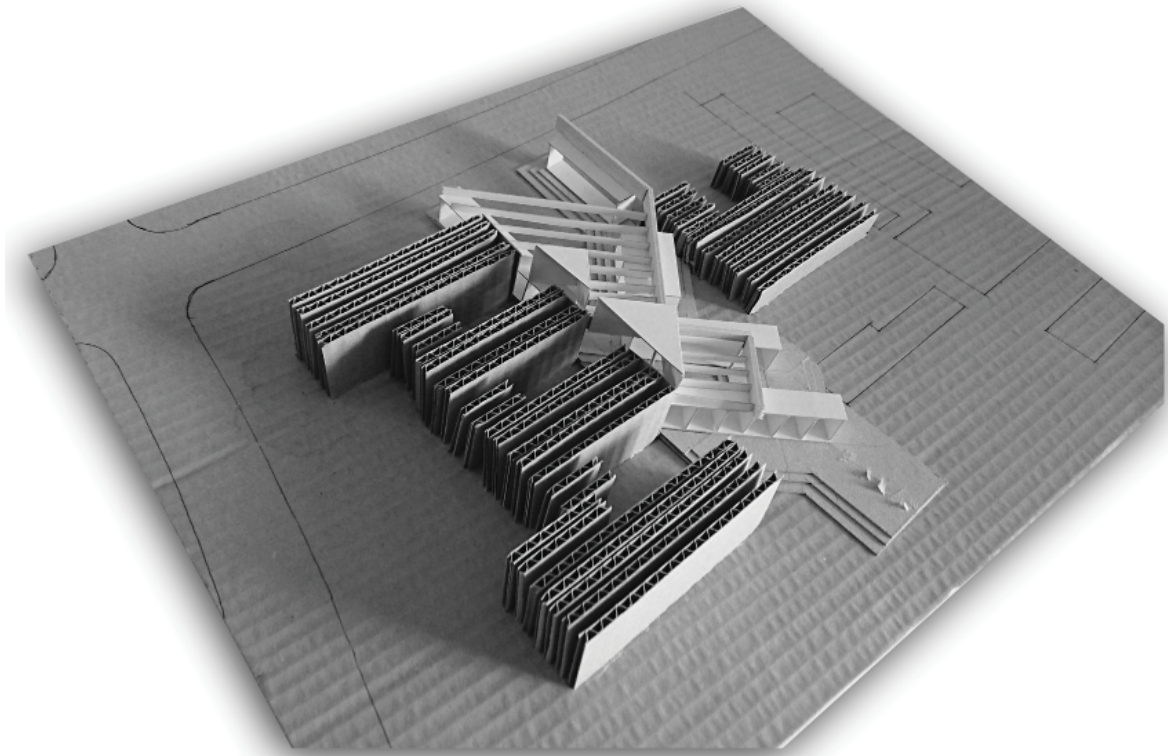


Thresholds established through the manipulation of the landscape.



Further definition is provided through the provision of a tectonic structure.

Figure 8.6: Diagrammatic exploration of the second conceptual approach.



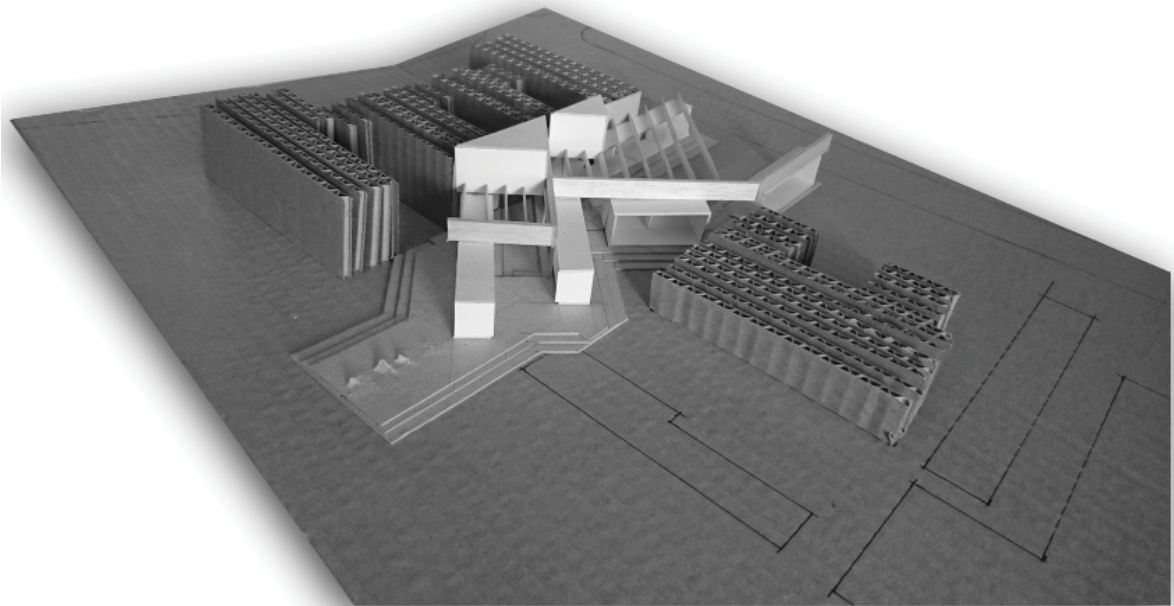


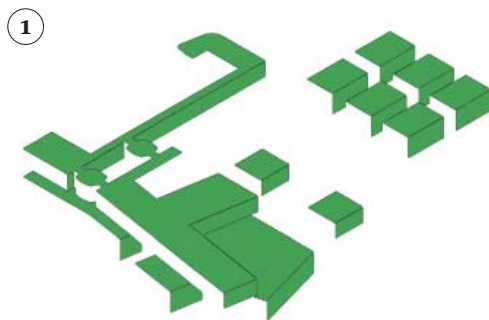
Figure 8.8: Photograph of the second conceptual maquette indicating the possible spatiality.

Concept Three

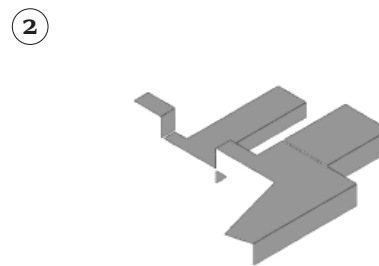
an intersection of routes

Following the critique received regarding the initial conceptualisation process, a final conceptual scenario was developed. In this instance spatiality and ordering were derived from the experiences undergone through the various phases of migration. These phases, identified as migration, suspension and integration, were developed into three major routes or organisations of space within and around the existing heritage building. These groupings not only represented the trajectory of migratory citizens but also reflected the history of the site and its previous intents. Migration spaces primarily addressed physiological needs and the need for esteem, including components such as memory recorders, trauma counselling and ablution facilities. The second grouping, suspension spaces, represented the existing

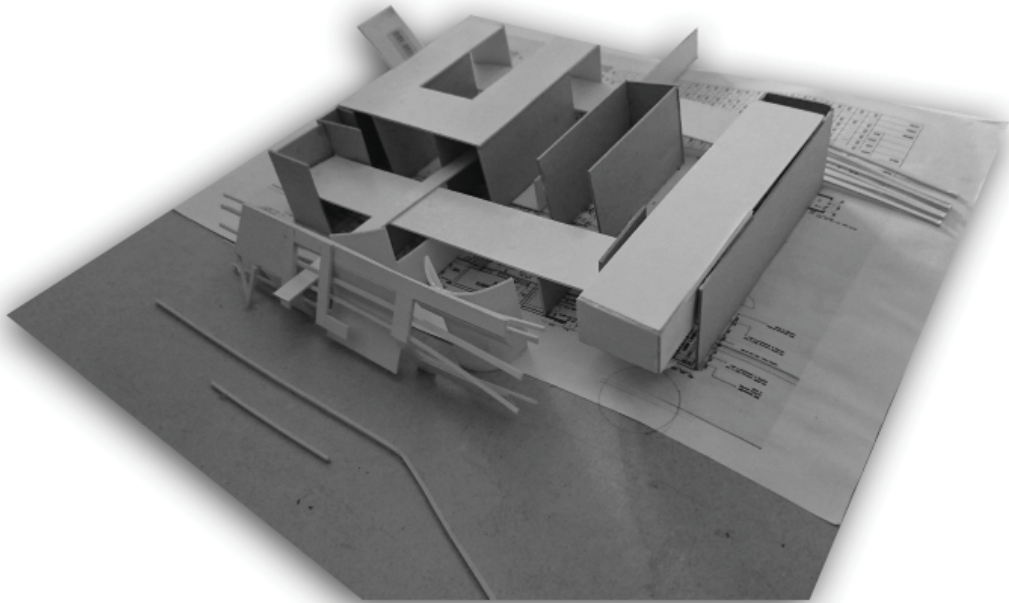
spaces that were historically intended to control and segregate. Through appropriation and release these areas were subverted to facilitate the needs of migrants, in a state of suspension, while awaiting decision on their residency status. Elements such as language classes, skills workshops and meeting rooms answered the needs of safety, esteem and self-actualisation. The final route of integration lead to the arrangement of spaces intended to easily allow transient citizens to settle in their new home in an integrated manner. Here, the conceptual intent envisioned spaces that promoted the position of internationals as contributing members of society; exposing their capabilities and restoring agency. This arrangement, including the information centre, community radio station, document production, and career centre, provides long-term security and a sense of belonging within a typically unwelcoming context.



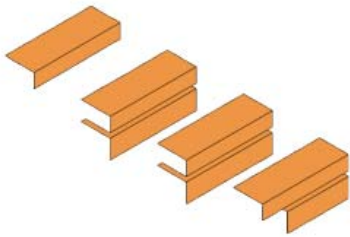
Integration phase.



Migration Phase.

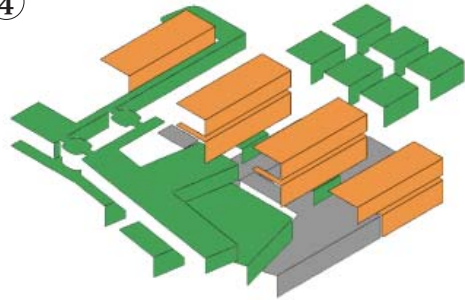


③



Suspension Phase.

④



Spatial Organisation.

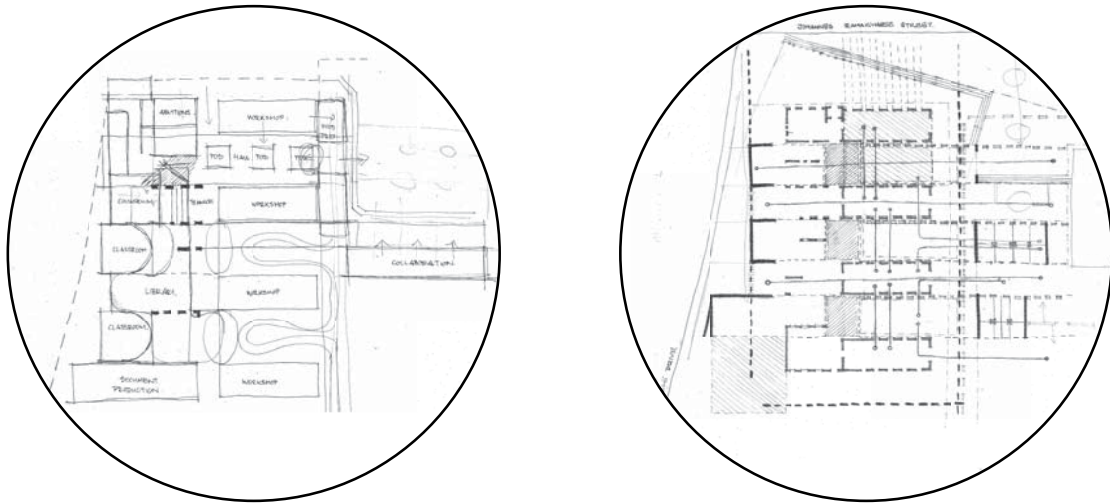
Figure 8.10: Photograph of maquette exploring the phases of migration.

Design Iteration One

appropriation of voids

Developed from an exploratory model, the first design iteration utilised a series of sketch plans and three dimensional investigations to allocate the programmatic requirements of the design brief. Here, the existing courtyards created by the wings of the Old Native Reception Depot, once used as a symbol of control, were envisioned to become new public social spaces for the exchange of information and narratives. By locating the kitchen in the most Northern wing of the existing building, it was proposed that the adjacent cafeteria area would allow for the exchange of ideas through conversations over a shared meal. These stories could then be captured by sound recording booths, translated

into music through overhead music studios and, finally, transmitted via the community radio station on first floor. Furthermore, the voids of the courtyards were extruded towards the Western street perimeter where language classes would frame the information centre and thus establish a more responsive street edge. A collaborative market established between the Old Native Reception Depot and Old Clinic buildings would provide a marketable platform for individuals to make use of the skills acquired in the workshops and sell the wares produced. The introduction of a raised plinth intended to communicate the heritage building as an object in space is established while at the same time creating a more hospitable waiting space for those occupying the spaces surrounding the Home Affairs Office.



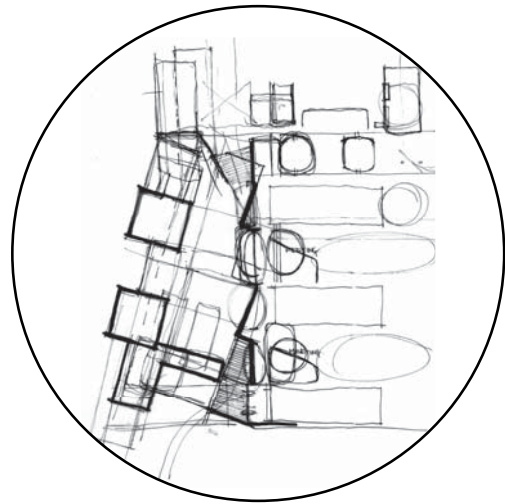
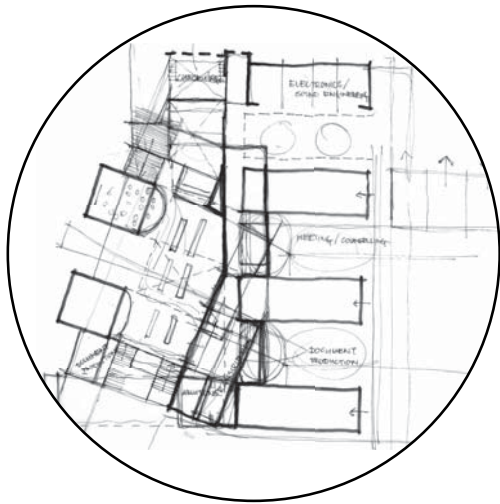
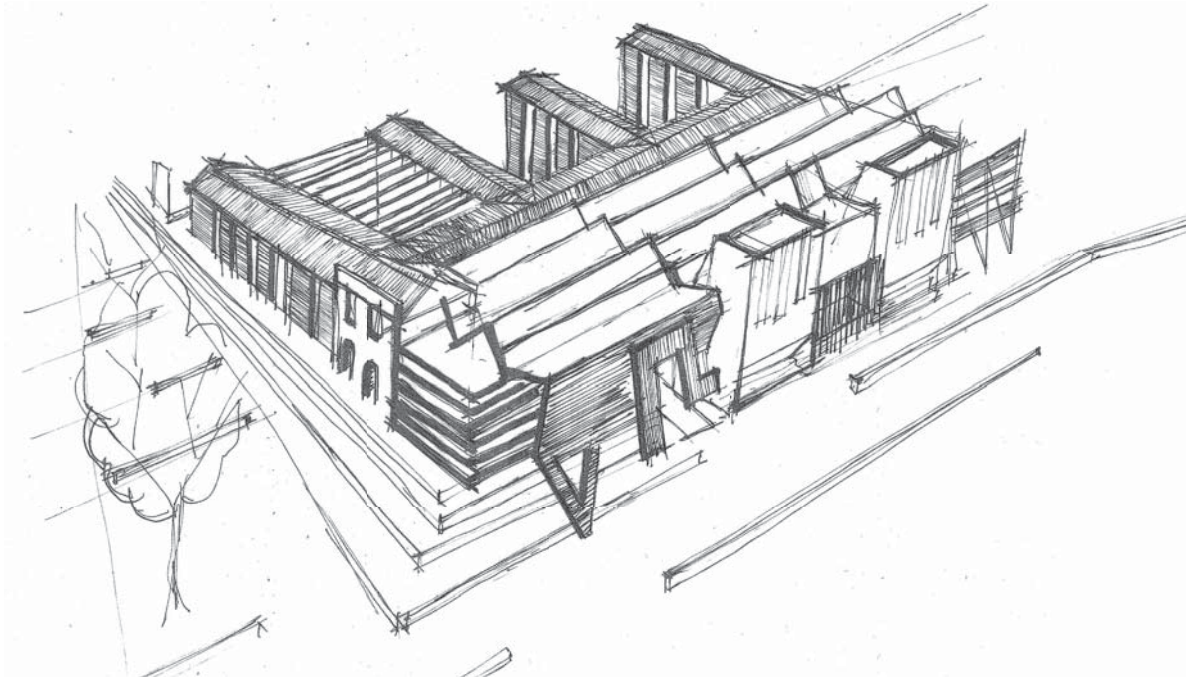
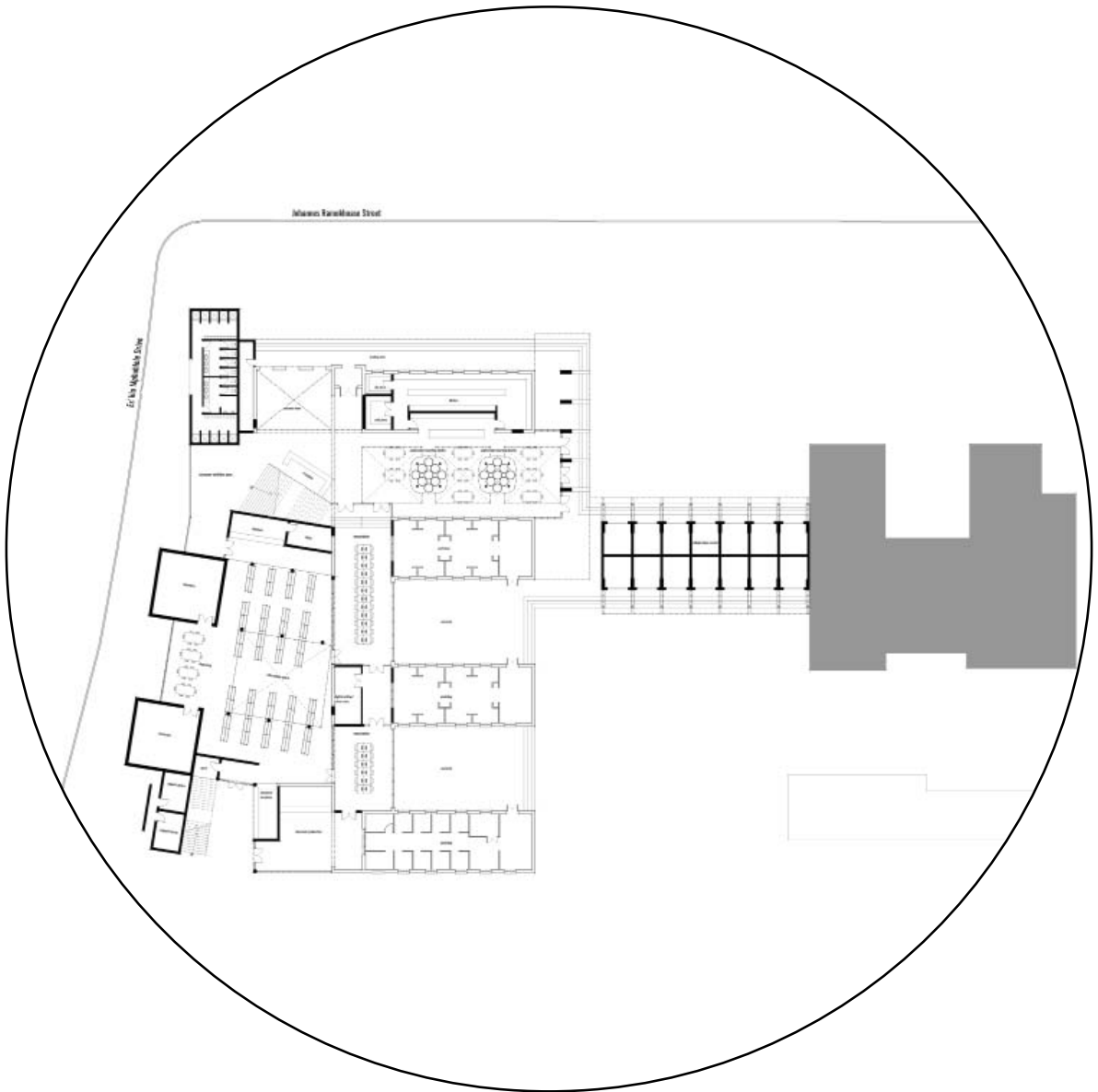


Figure 8.12 (top): Birds-eye view of initial three dimensional exploration of the design scheme.



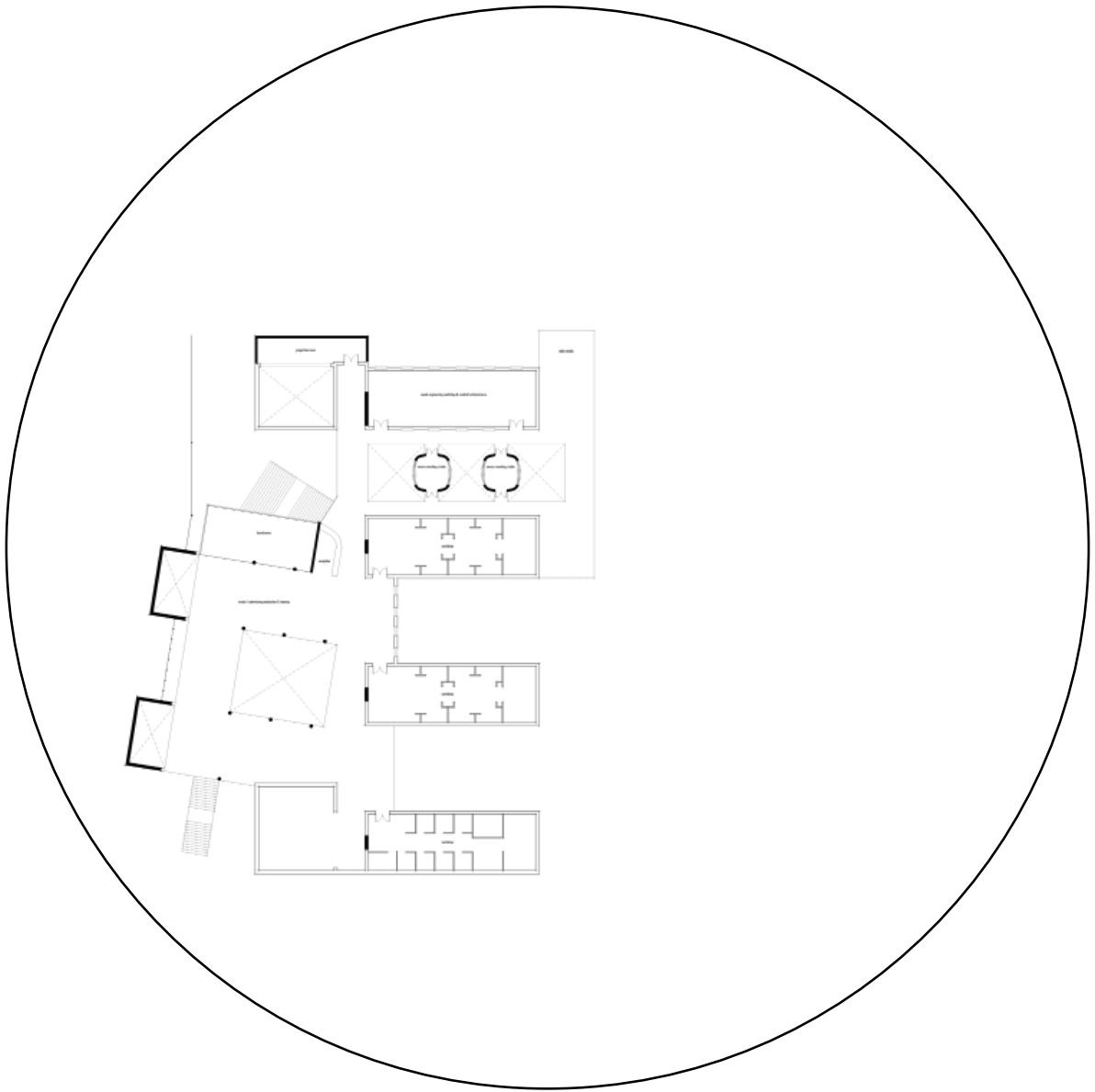


Figure 8.14: First floor sketch plan of initial design response, May 2016 (not to scale).

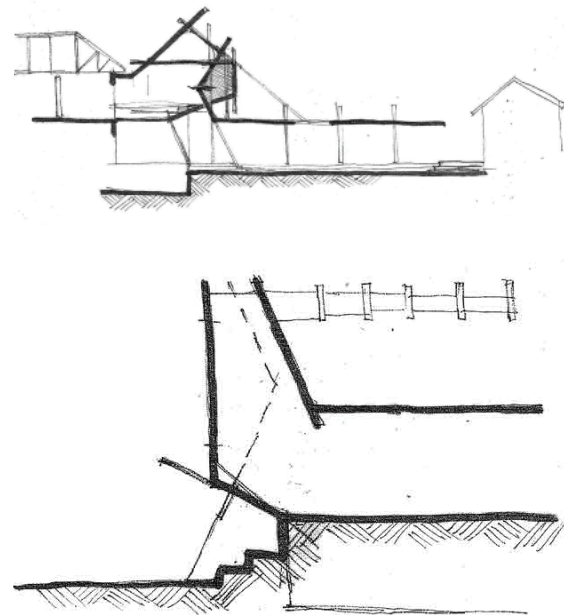
Design Iteration Two

resolution and refinement

With an expanded understanding of programmatic and spatial requirements the design process began to resolve and refine the associated formal elements into a more defined architectural response. Selective demolition of the existing masonry walls allowed the internalised nature of the heritage building to interact with its surrounding context and new insertions. In the same vein, the levels of the existing circulation corridor were manipulated to raise an experiential awareness of the compressive restrictions placed on migrants by legislation. An alternative private entrance was established towards the South-West corner of the site. Here, the confined spaces within the existing building were appropriated to accommodate elements which addressed the needs of migrants who had undergone traumatic experiences, offering a degree of intimacy and privacy away from the more public aspects of the programme. Giving further definition and meaning to the existing courtyards, based on differing degrees of exposure and intimacy, resulted in private, semi-private and public spaces between the existing wings of the historic fabric. The introduction of new collaborative workshop spaces on the first floor not only created a threshold into the courtyards from the public realm but also aimed to cultivate a participatory exchange between the previously separated building elements of

the existing structure, where skills and tacit knowledge could be shared and mixed to create new learning experiences.

A new roof structure was placed over the Northern-most public courtyard space in an effort to undermine the disparity created by the existing courtyard typology, thus creating a sheltered environment for social exchanges. Further definition was given to the notion of a hospitable and sheltering urban environment by introducing overhangs and pockets of space to the exterior limits of the building, offering respite from the city and the environment.



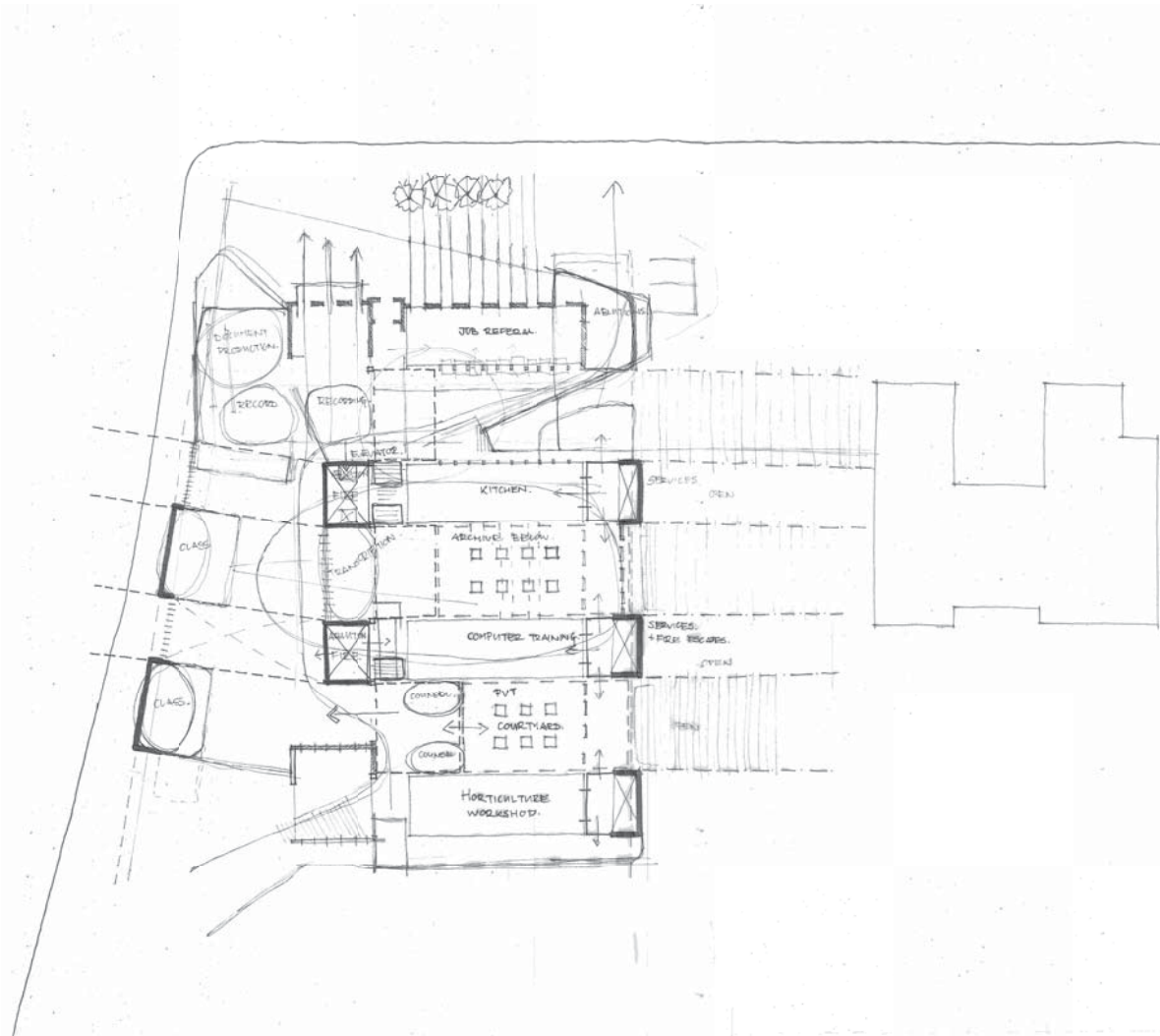


Figure 8.16: Development drawing of ground floor plan.

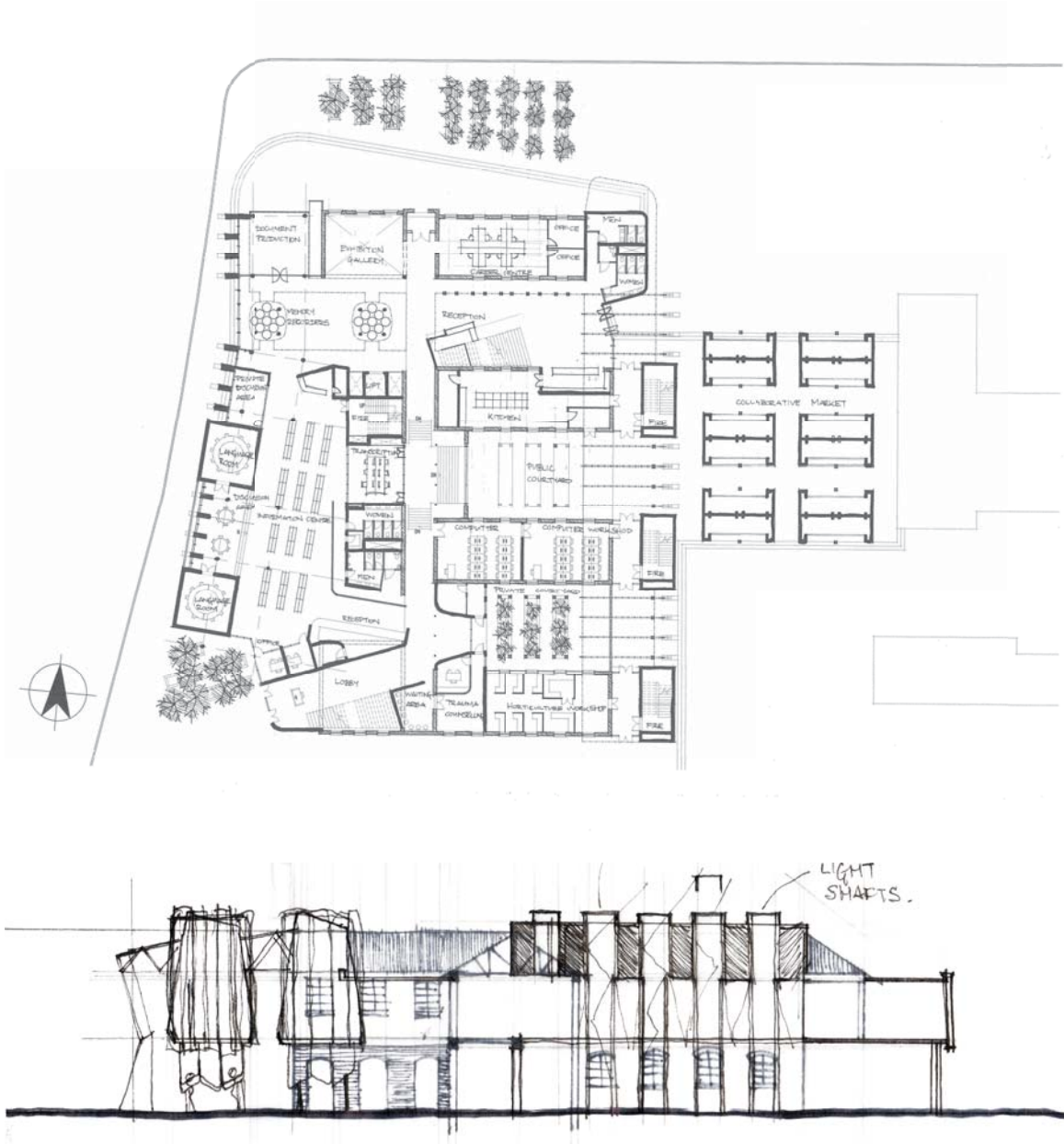


Figure 8.17 (top): Ground floor sketch plan of design investigation, June 2016.
Figure 8.18 (bottom): Sectional view of design investigation, June 2016.

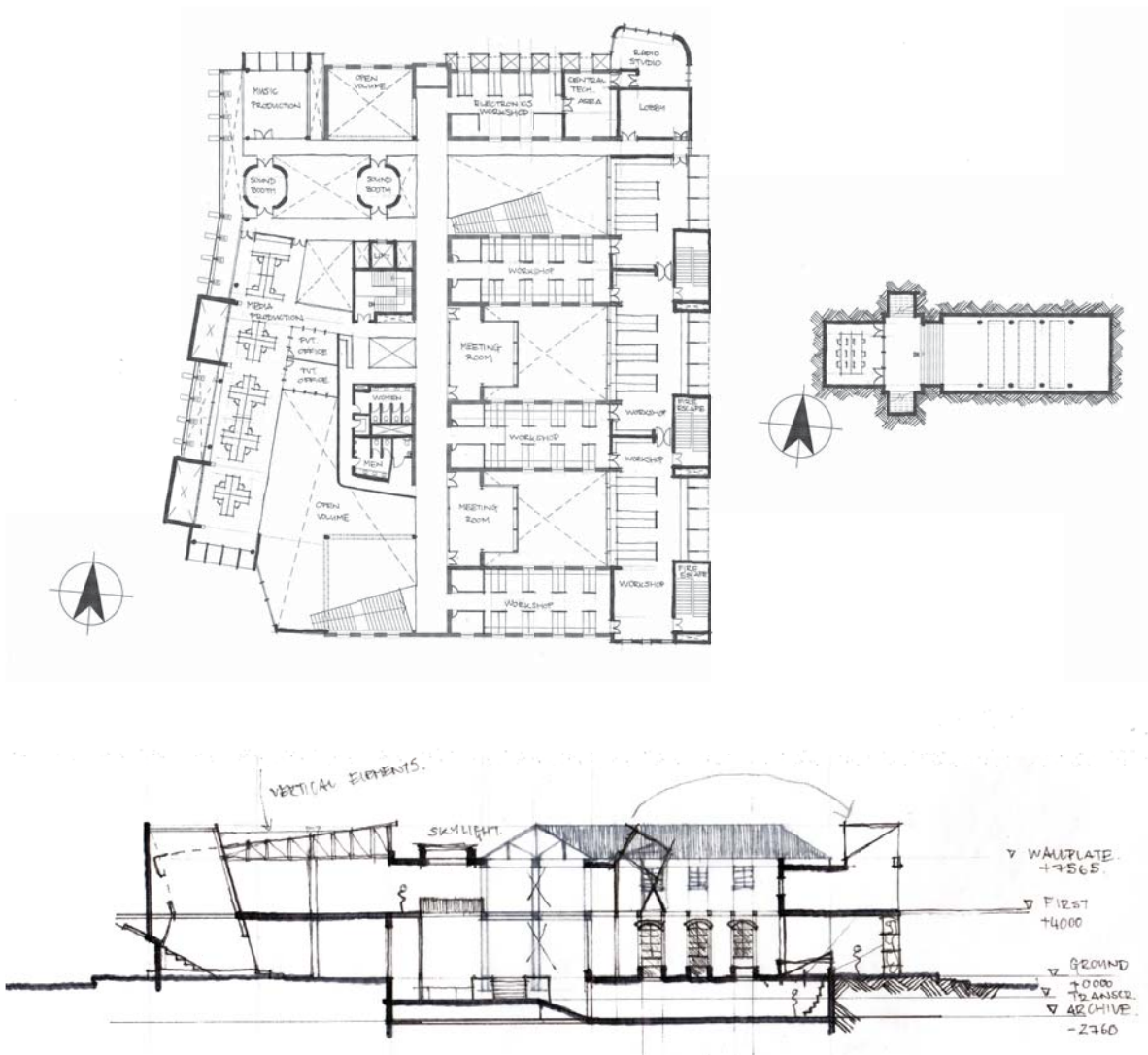
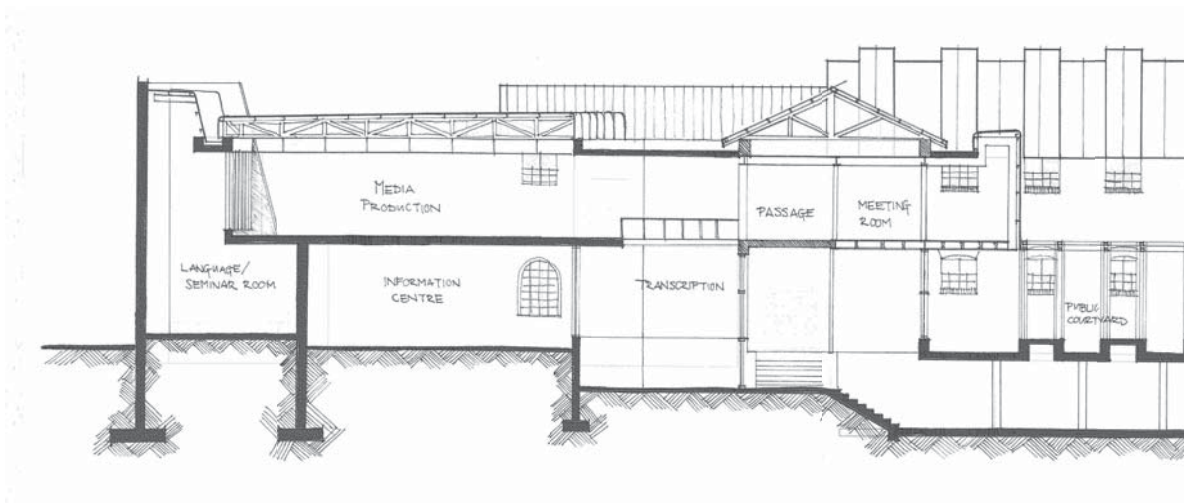
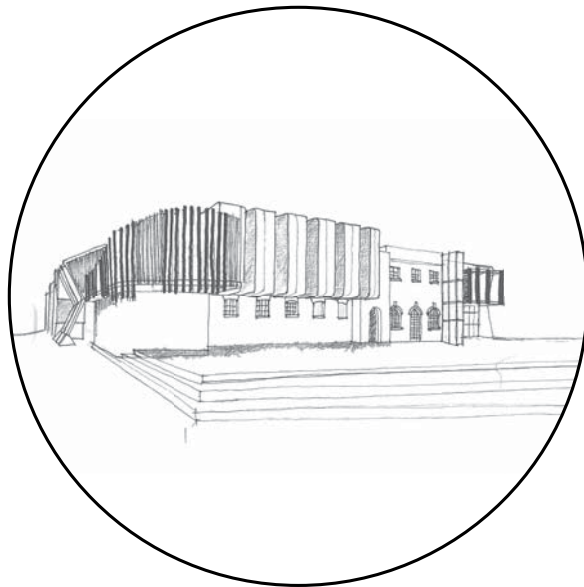


Figure 8.19 (top): First floor and Archive level sketch plan of design investigation, June 2016.
Figure 8.20 (bottom): Sectional view of design investigation, June 2016.



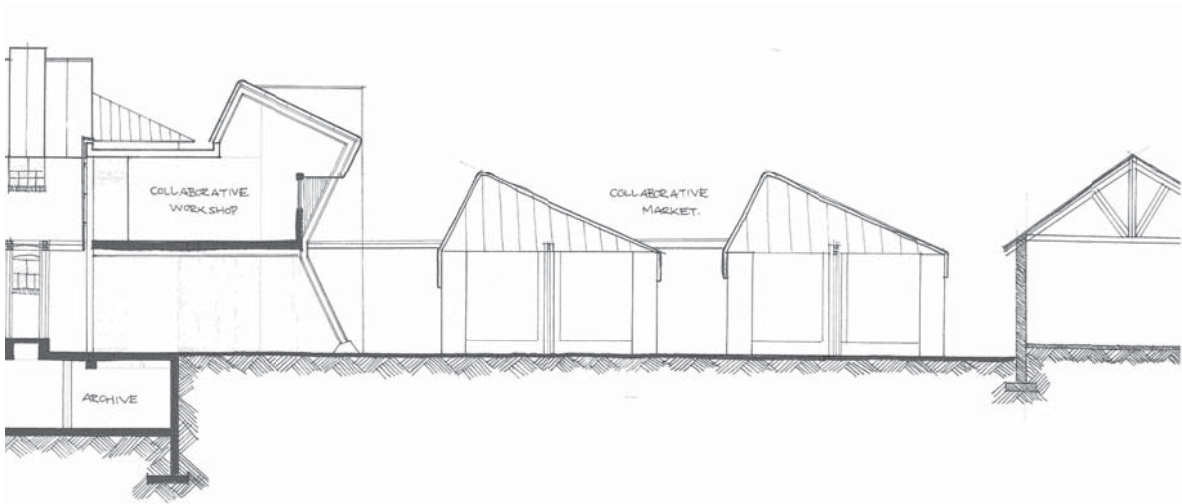
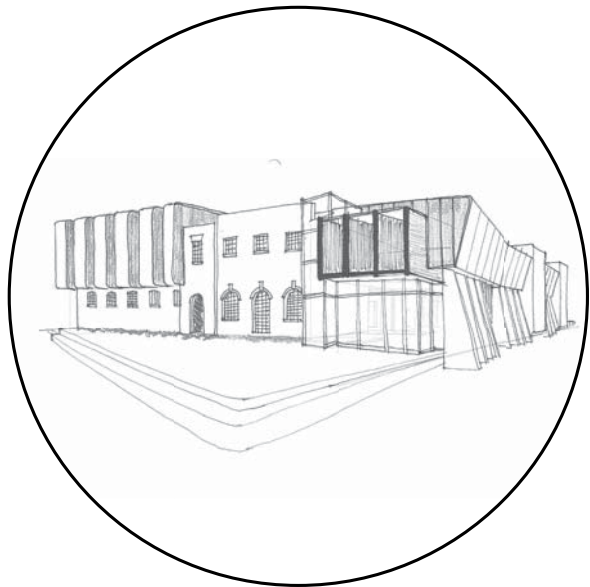


Figure 8.23 (top): Perspective view of design investigation, June 2016.

Design Iteration Three

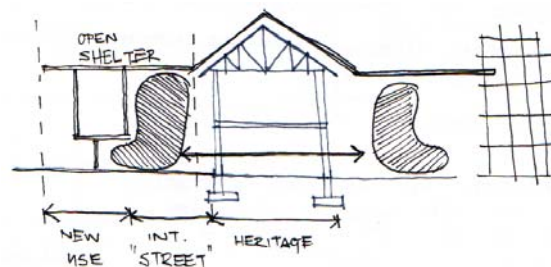
relax, release and refine

The design decisions presented during the design review held in June were generally well received. Thought processes that led to the development were clear and succinct and the design was functionally well controlled. The main section indicated potential whereas the overall three-dimensional resolution required more attention in addressing the relationship between solid and void. Concern was raised regarding the claustrophobic nature of the intervention; new spatial elements were argued to be uninviting in addition to cluttering the existing heritage building. Further explorations were to be more directed towards addressing the need for shelter and defining the external realm.

Moving forward, serious reflection was given to the previous conceptual approaches and intentions. In addressing the concerns raised, potential was discovered in reverting back to a combination of the first and second conceptual models. Allocating the majority of the new intervention to the open space between the Old Clinic and Old Native Reception Depot buildings allowed the design approach to free up the previously cluttered spatial arrangement. A re-evaluation of the insights gained from the precedents resulted in a rectilinear plan configuration that clustered the support and service spaces together along the Eastern periphery. This arrangement allowed for the

formation of a singular semi-public space capable of interacting with the courtyards of the existing building and provided select moments of interaction with the public walkway to the east. Towards the South, another rectilinear form provided an end to the new L-shape plan, to form a more prominent semi-private space adept at addressing the already established needs of the privacy and intimacy.

A singular roof element not only serves as the primary provider of shelter but is also used as an architectural device that binds the separate spatial components into a cohesive whole. Elevated pods, that occur within the newly conceived double volume space, house more specific programmatic functions and in doing so allow for the complexities of social interactions to occupy the spaces below and in between. Glazed punctures into the existing wings allow for visual communication between the workshops and main information space and are physically connected at first floor level via an elevated walkway. Furthermore, this walkway element serves to negotiate the connection between new and old structures.



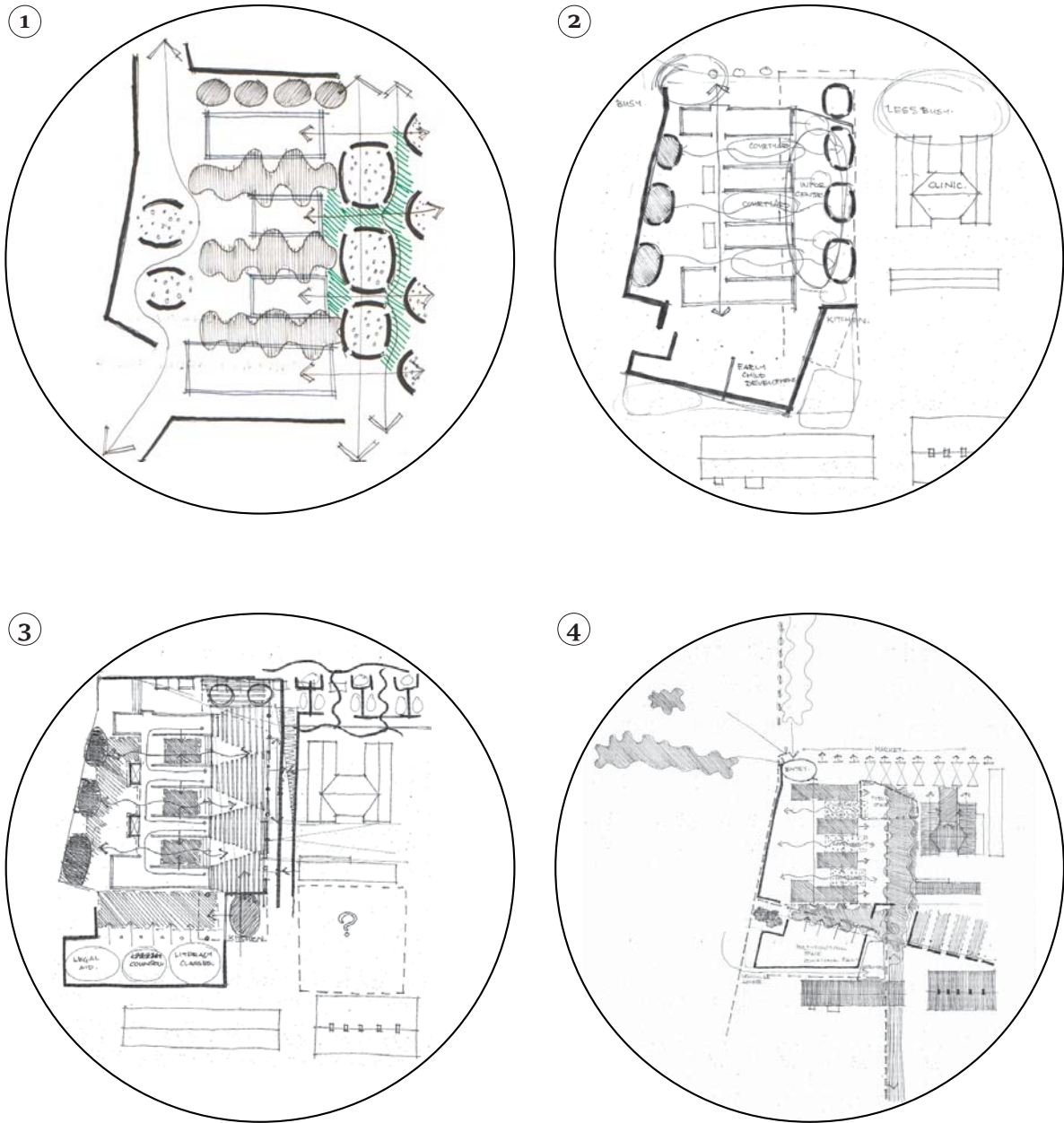
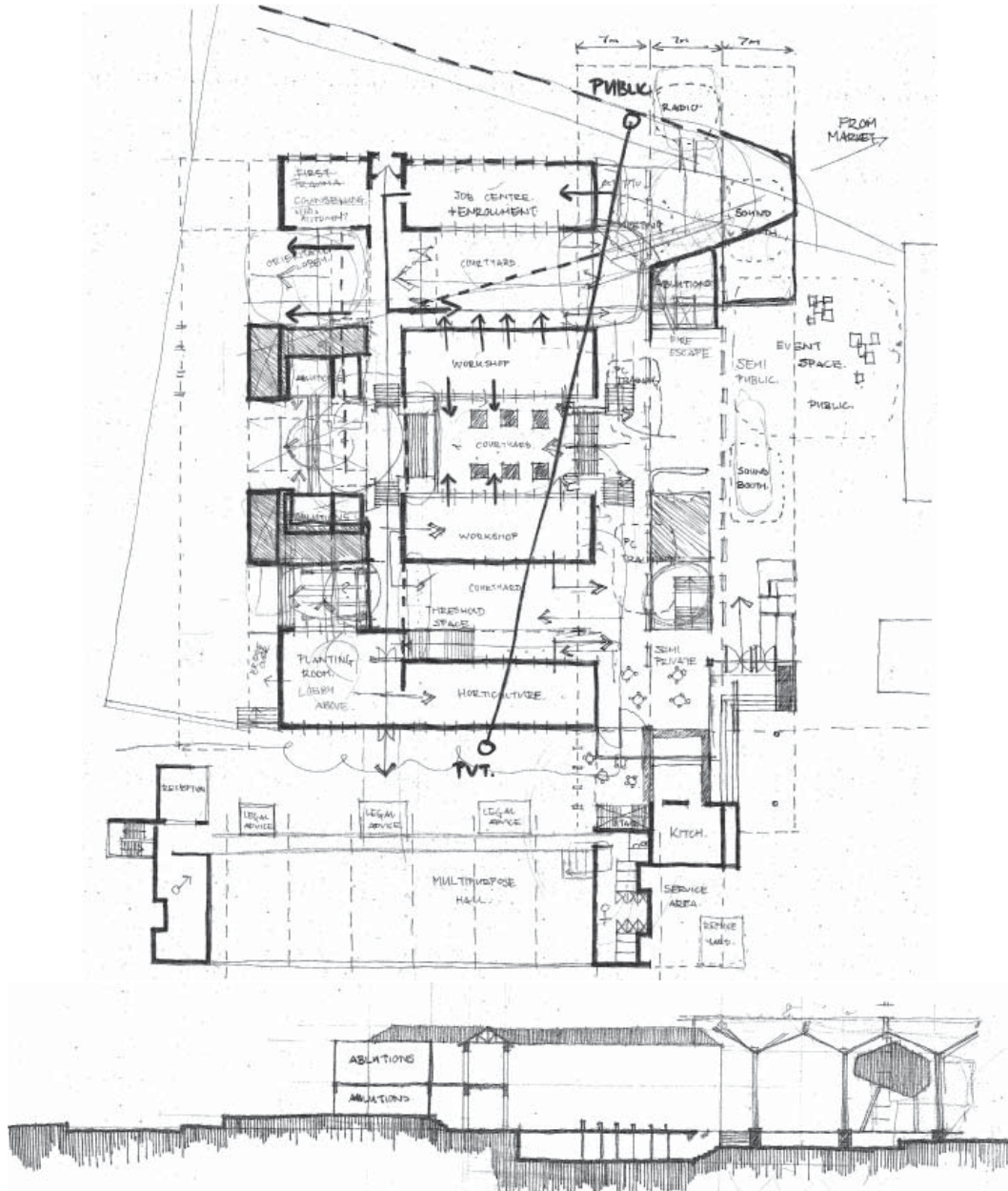


Figure 8.25: Diagrammatic plan development indicating a better response to the site.



Design Iteration Four

exploring the shelter

Progressing from the third iteration, the design process focused on finding an articulate argument for the assembling roof element. The device was required to establish a spatial hierarchy, achieve a level of sensitivity towards the roofs of the heritage building, and allow for spatial flexibility and possible reconfiguration below.

A number of variations were tested against these prerequisites. These variations included multi-directional roof beams supported by an array of columns, a butterfly roof that mimicked pitch of the existing roof, and a single-span mono-pitch roof.

The multi-directional roof proved problematic with regards to drainage. Additionally, the

regularity of columns required to support the roof became limiting in terms of flexibility. The second option of the butterfly roof created an awkward junction between new and existing that would prove difficult to resolve. The final investigation, inspired by the lean-to typology present in Marabastad, demonstrated that a single-span roof supported on either end would be most beneficial to the scheme and most capable of addressing the criteria above.

At risk of forming a monotonous spatial experience, the Eastern edge of the roof structure was punctuated with two main masonry towers. These not only contained the supporting colonnade structure between but also offered a more enriched spatial experience along the Eastern facade of the building.

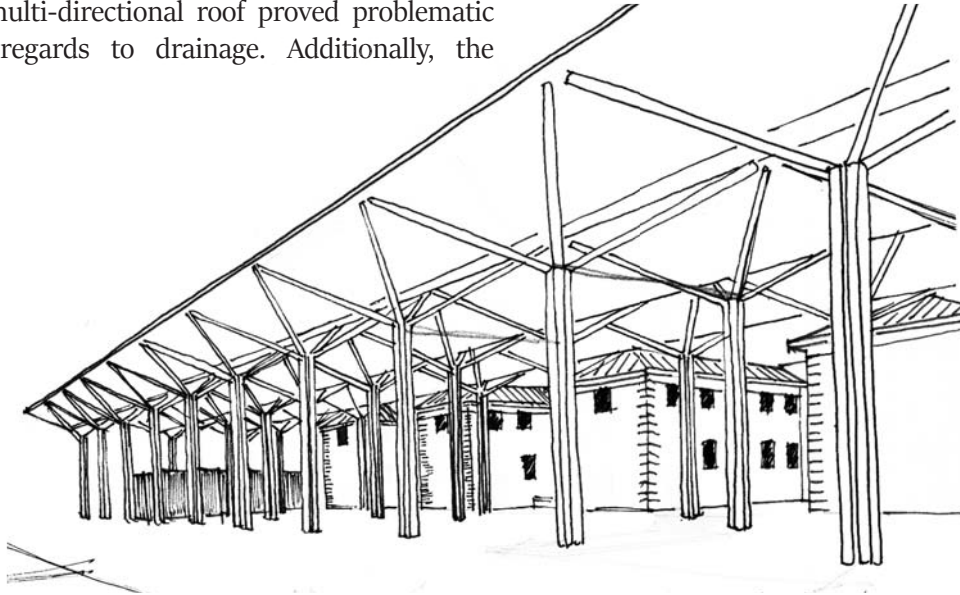


Figure 8.28: Perspective drawing of the multi-directional roof and its limiting support columns.

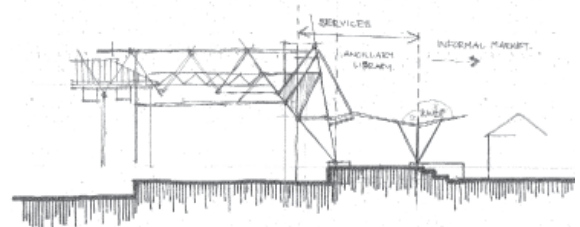
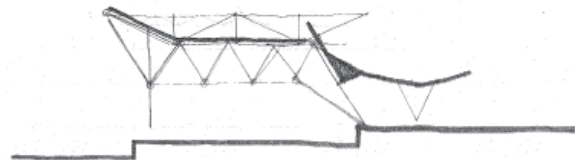
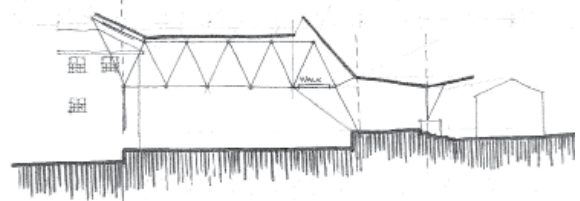
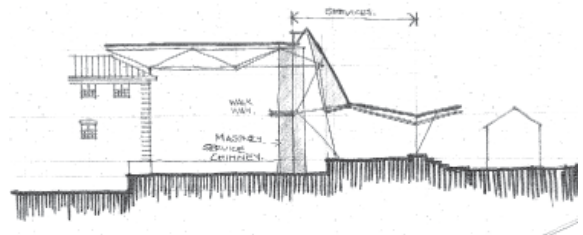
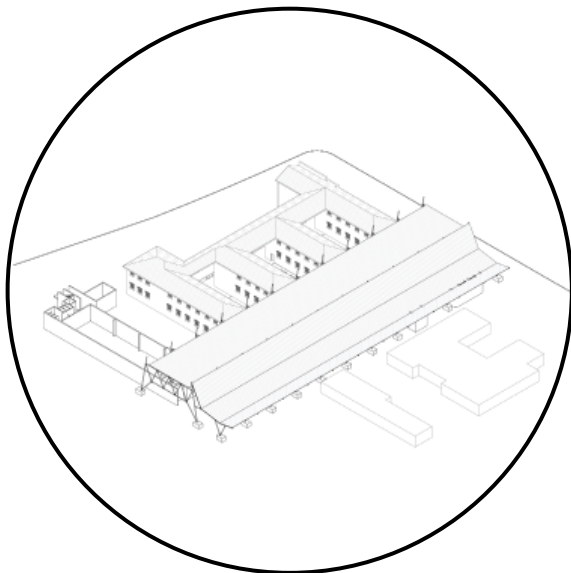
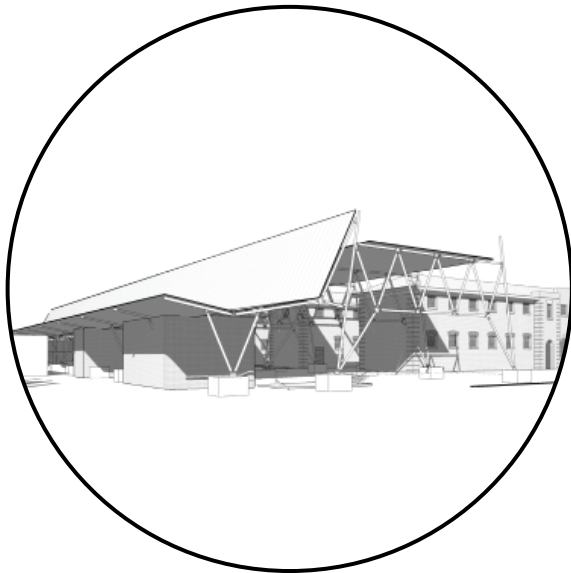


Figure 8.29 (left): Three dimensional drawings investigating the single-span roof structure.
Figure 8.30 (right): Sectional development of the single-span roof structure.

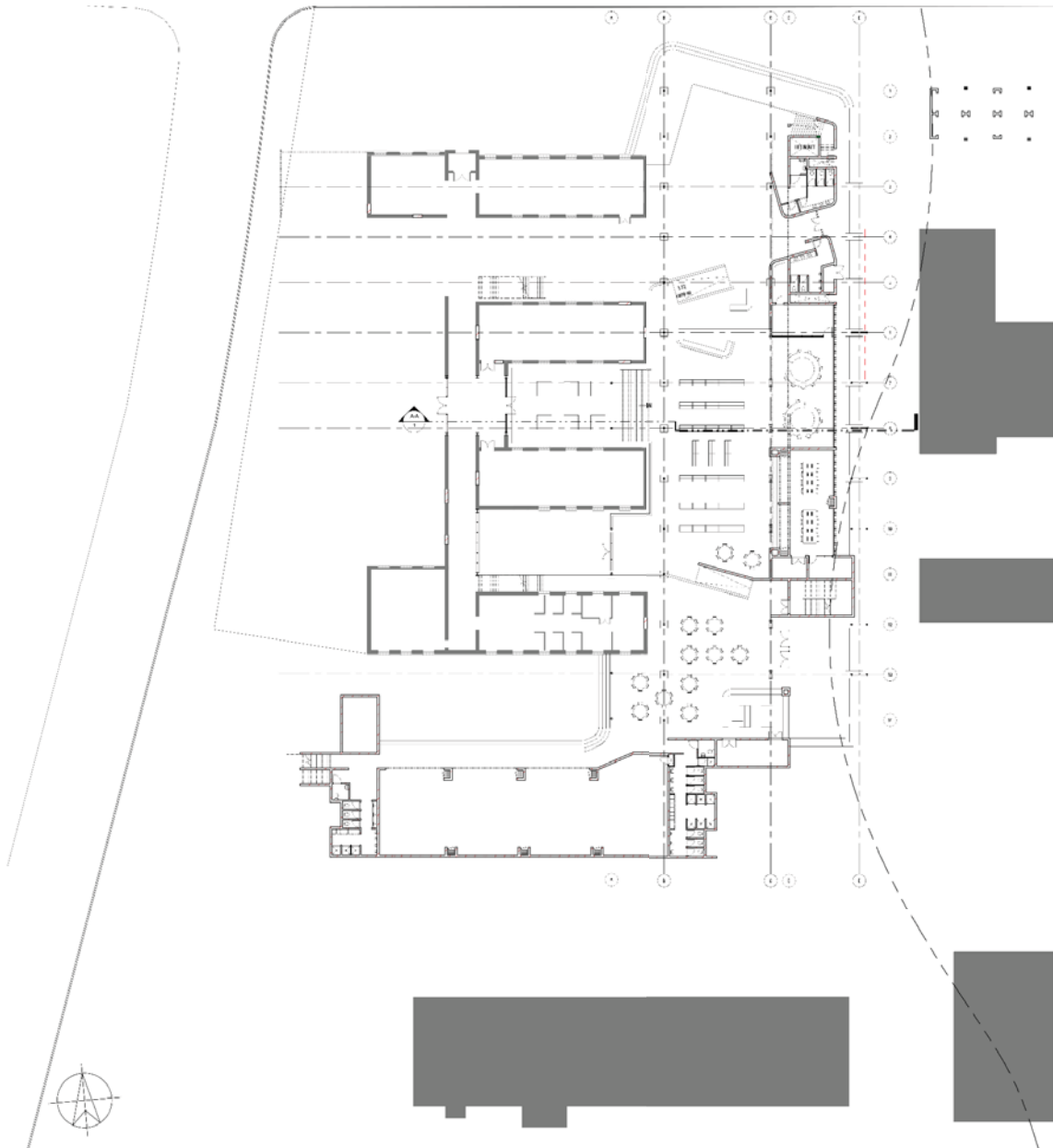


Figure 8.31: Ground floor plan drawing indicating refinement of the fourth design iteration (not to scale).