

D E S I G N D I S C O U R S E

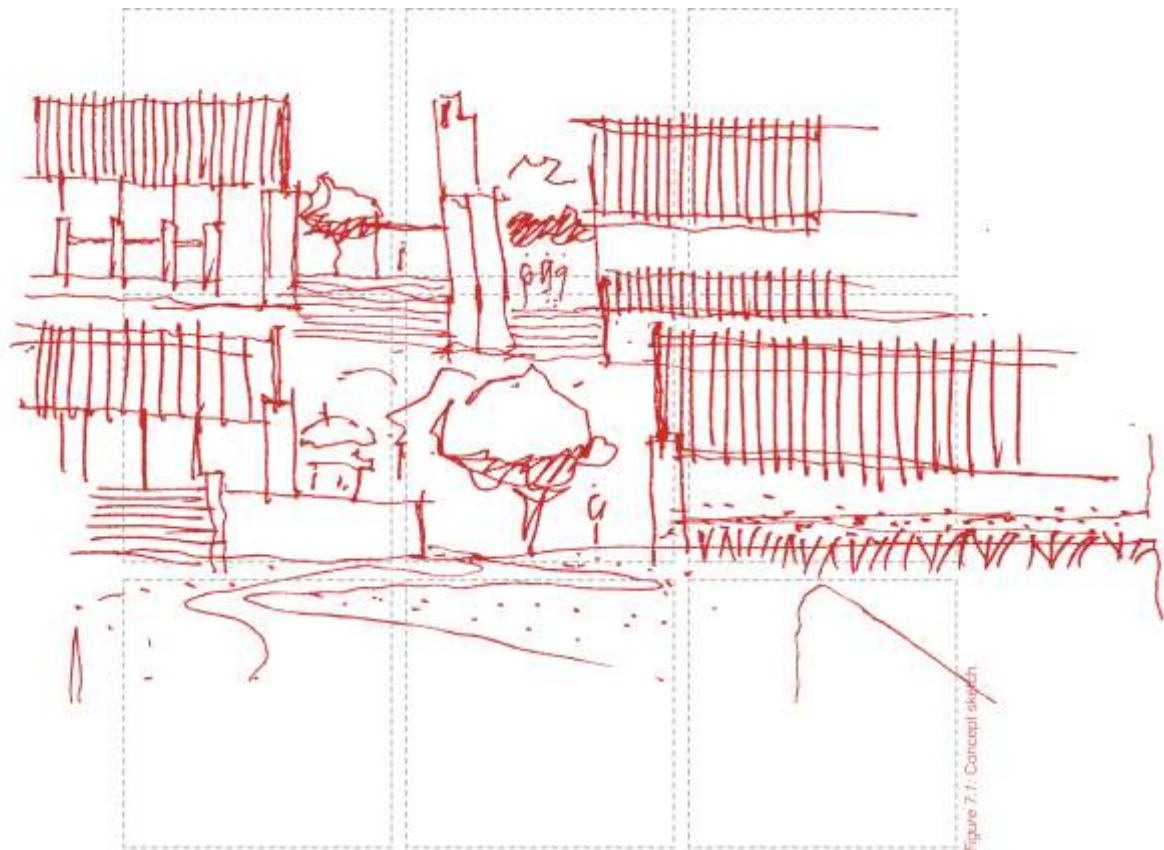


Figure 7.1: Concept sketch

"The truly serious attitude considers art to be a 'means' to something beyond it, which may be reached by giving up art itself".

Péter Janesch

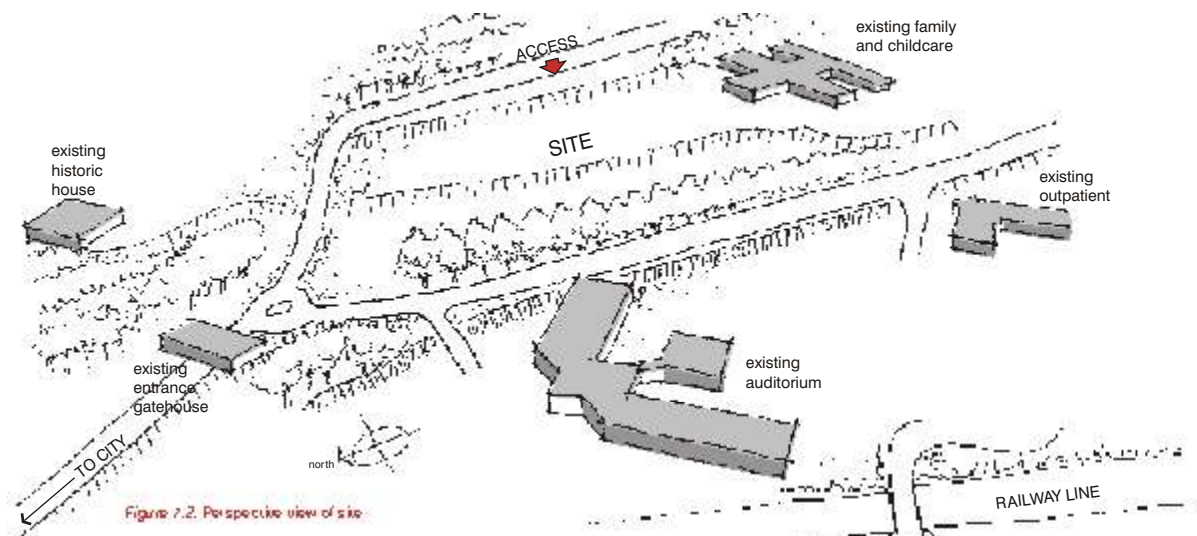


Figure 7.2. Perspective view of site

6.1 Site forces

6.1.1 SLOPE

The site has a slope of approximately 1:20 causing a linear axis along the fall.

6.1.2 ACCESS

Primary access to the site is as conceptualized in chapter 4 pg.59.

6.1.3 VIEWS

The site has landscape views approximately 360°. The main view, however, would be those focused on the slope and landscape of the site.

6.1.4 EXISTING BUILDINGS

All existing buildings are single storey.

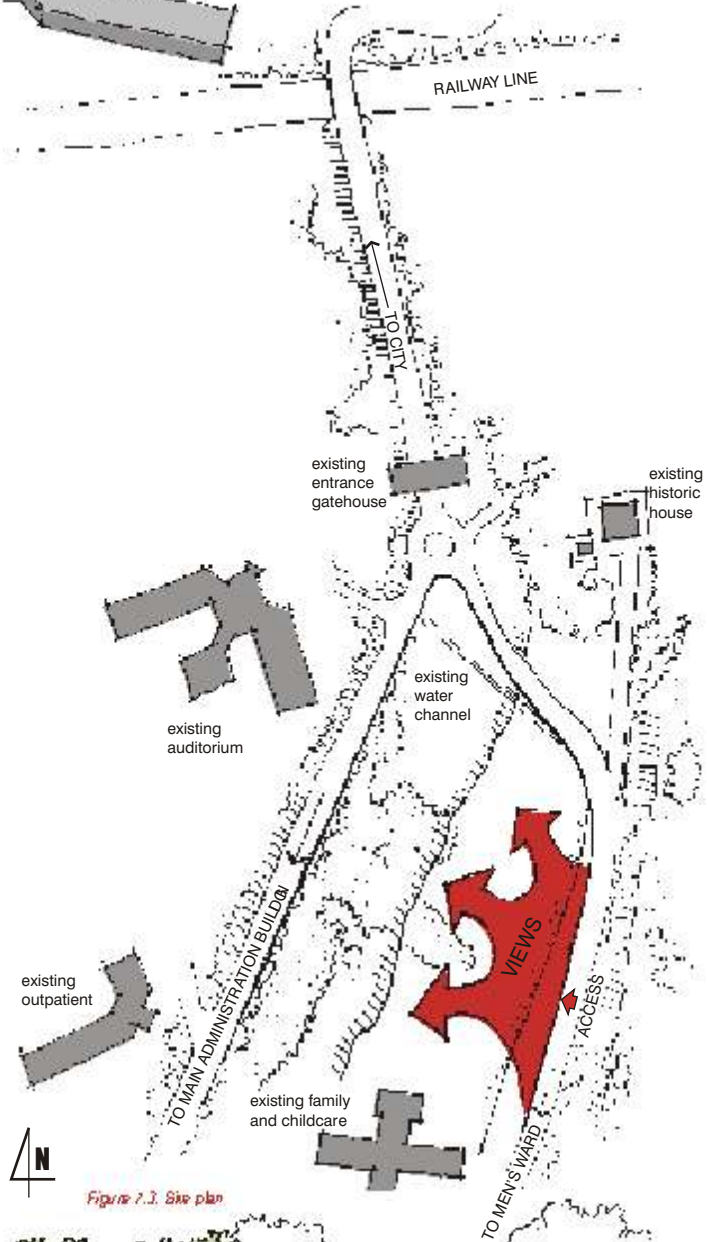


Figure 7.3. Site plan

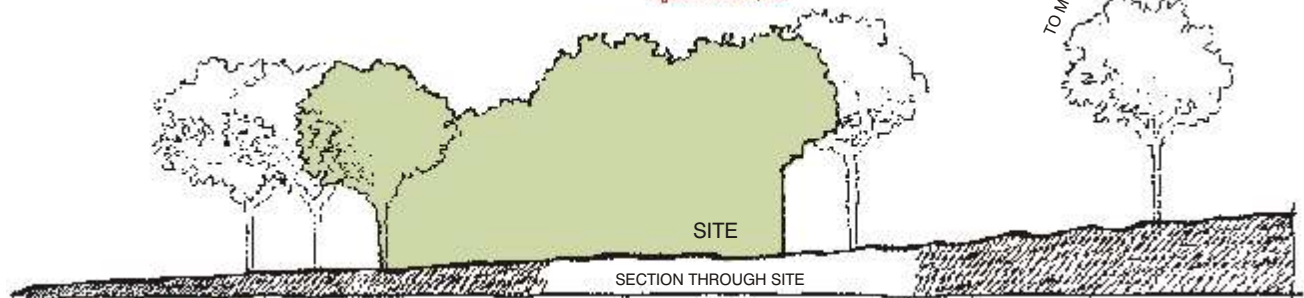


Figure 7.4. Section through site

6.2 Site implications

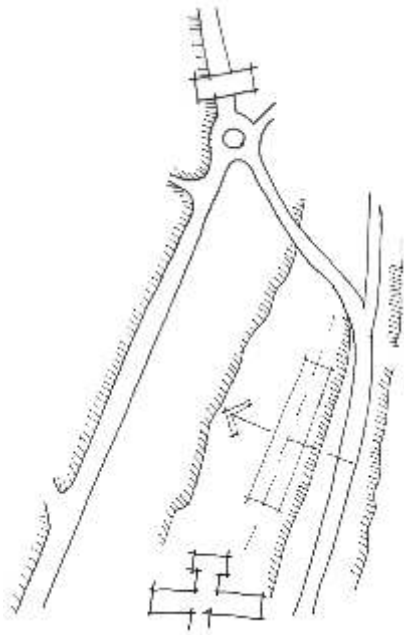


Figure 7.5: Building footprint reflect topography

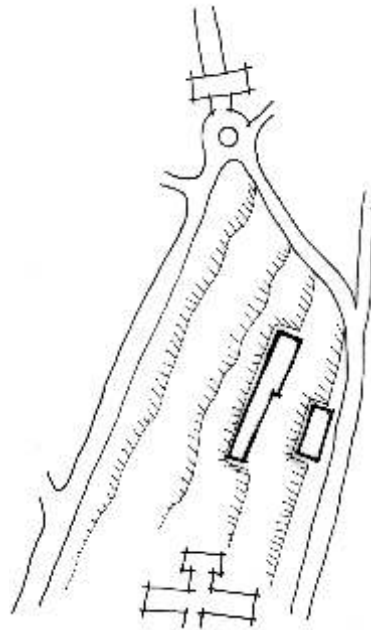


Figure 7.6: Place-making through elevated plane

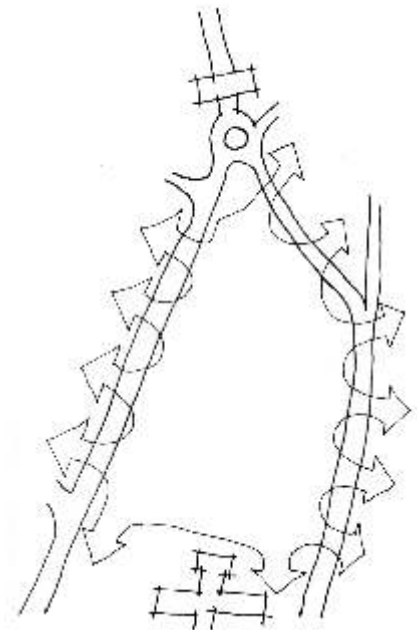


Figure 7.7: Site must be contained plane

Integrating the building with the site can be achieved by designing the footprint of the building to reflect the topography of the site. This allows the buildings to become one with the site.

Frank Lloyd Wright described this as one of the qualities of organic architecture. He described organic architecture as “pertaining to a certain organization not accidental”.

The first principle of any growth, according to Henry Russell Hitchcock is that the thing grown be no mere aggregation. In his book, *In the nature of materials*, he states that: “Integration as entity is first essential. And integration means that no part of anything is of any great validity in itself except as it be an integrated part of the harmonious whole.”

Through integrating the buildings into the site in this manner, it is hoped that the building and the landscape be one as to function as a therapeutic complex in its entirety.

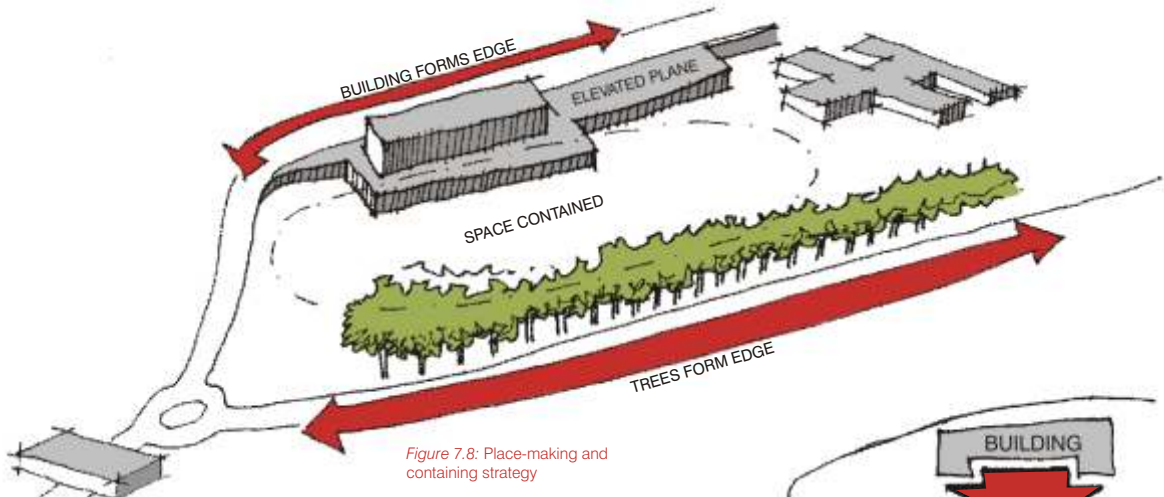


Figure 7.8: Place-making and containing strategy

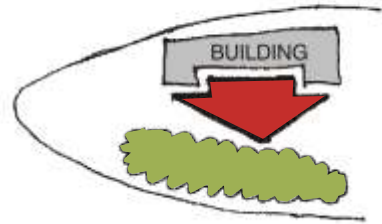


Figure 7.9: Site development concept

6.3 General strategy

6.3.1 ELEVATED BASE PLANE

Elevating a portion of the base plane will create a field of space within a larger spatial context.

6.3.2 MOVEMENT

The pedestrian desire lines and the movement from the parking area to the park break up the building footprint.

6.3.3 OVERHEAD PLANES

Overhead planes create a sense of enclosure and contain the space. This creates a continuity of space from the buildings to the landscape.

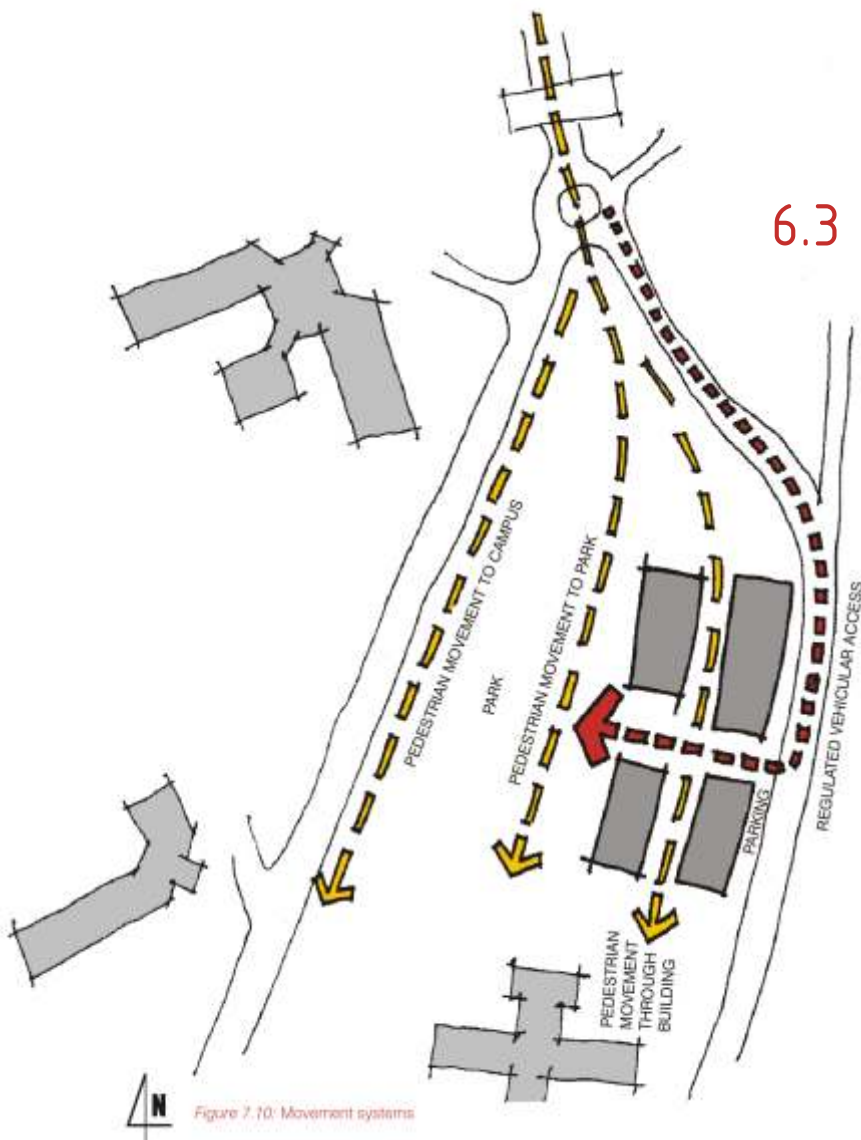


Figure 7.10: Movement systems

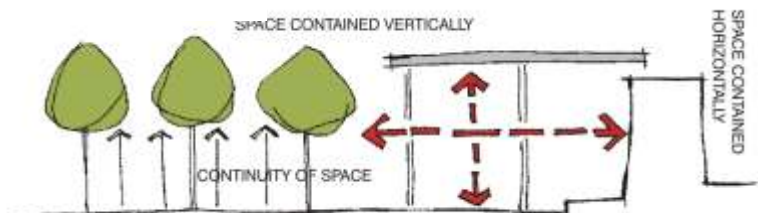


Figure 7.11: Space containment strategies

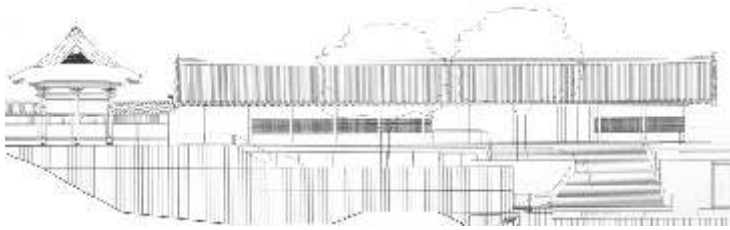


Figure 7.12: Saikan: east elevation



Figure 7.13: Saikan

6.4 Influences

The characteristics of therapeutic environments are difficult to establish, and the delivery of mental health care is continually under review. Current research indicates that the best type of environment is one that has a domestic ambience and promotes a feeling of comfort, security and self-esteem in consumers.

There is one type of architecture that possesses all these qualities and that is the traditional Japanese architecture. Japanese architecture is inherently peaceful, tranquil, calm and serene.

In trying to understand what some of the underpinning principles of this architecture might be, a superficial study of a contemporary Japanese building project was undertaken.

The project is Project Konpira by Ryoji Suzuki, constructed in Kagawa, Japan in April 2002. The project is a Shrine town consisting of a number of buildings located 238m above sea level on Mt. Zozu. The following principles seemed to constitute the design.

The concept would be to apply these principles in the design of the community mental health care center in order to create a therapeutic environment for the consumer.



Figure 7.14: Shrine facilities



Figure 7.15: Saikan: cross section



Figure 7.16: Juyojo: first floor plan



Figure 7.17: Artificial ground



Figure 7.18: Juyojo: north elevation

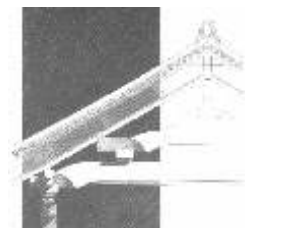


Figure 7.19: Detail: Juyojo

6.4.1 INTEGRATION WITH THE LANDSCAPE

The project achieves complete integration with the landscape through:

- creating a complex of small buildings instead of one big footprint
- the restructuring of open space through place-making
- a building focus on vistas

6.4.2 SCALE

The architect has an understanding of human scale which was very appropriately used in this project. Of a form or space's three dimensions, its height has a greater effect on its scale. While the walls of a room provide enclosure, the height of the ceiling plane overhead determines its qualities of shelter and intimacy.

6.4.3 LAYERING

Layering in the design is achieved on a vertical and horizontal level. The effect of layering is created through the degree of enclosure of space, as determined by the configuration of its defining elements and the pattern of its openings. The layering sets up a hierarchy of spaces to be utilized and creates a range of spaces from public to private.

6.4.4 COMPLEXITY AND SIMPLICITY

The buildings and configuration of spaces and elements have a complex, yet simple quality that puts the user at ease, while still capturing his interest. This is due to the use of simple elements, configured in a complex layering with deep meaning and symbolism.

6.4.5 PROPORTION

Proportion of the buildings and spaces is derived from mainly three sources:

- Material proportion: materials is used in a rational and honest fashion that is reflected in the proportions
- Structural proportion: the size and proportion of elements are directly related to the structure
- Modular unit: the ken is used as measurement

6.4.6 ATTENTION TO DETAIL

The intense attention to detail lends a superior quality to the design of the buildings. This conveys the noble and honest intention. It expresses thoughtfulness and care toward the user.

Characteristics of cluster organizations



Figure 7.20: Clustered pattern

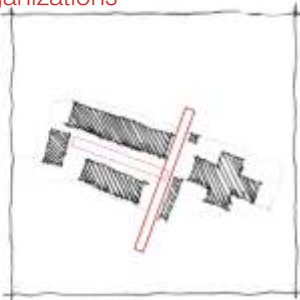


Figure 7.21: Grouped along a path

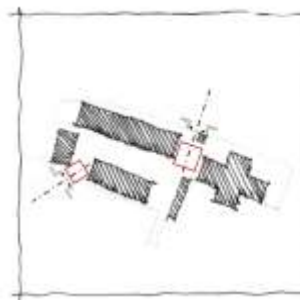


Figure 7.22: Clustered around an entry

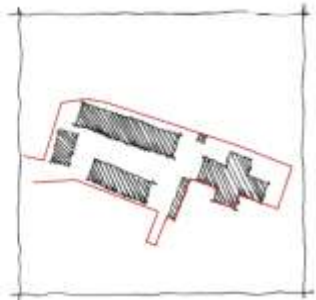


Figure 7.23: Contained within a space

6.5 Cluster organization

6.5.1 SPATIAL ORGANIZATION

The building complex is organized as a cluster of forms and spaces. This was due to three main considerations:

- To allow for movement through the complex.**
The traditional institutional building is one that is enclosed and unaccessible. This is the cause for great speculation as to what is happening inside the buildings. The stigma around institutional buildings can be contributed partly due to this. Through the design of permeable structures arranged in an accessible configuration, a transparent process is communicated
- To allow a range of users to utilize the facilities.**
Visitors will utilize the facilities in a number of ways that might not include necessarily all the functions of the center. Through grouping suitable accommodations together in separate buildings, the visitor can use spaces without disrupting others
- To create different types of spaces with varying levels of publicness.**
The site is so vast that it became necessary to distinguish smaller spaces in order to allow the patient to choose setting in which he/she would be comfortable

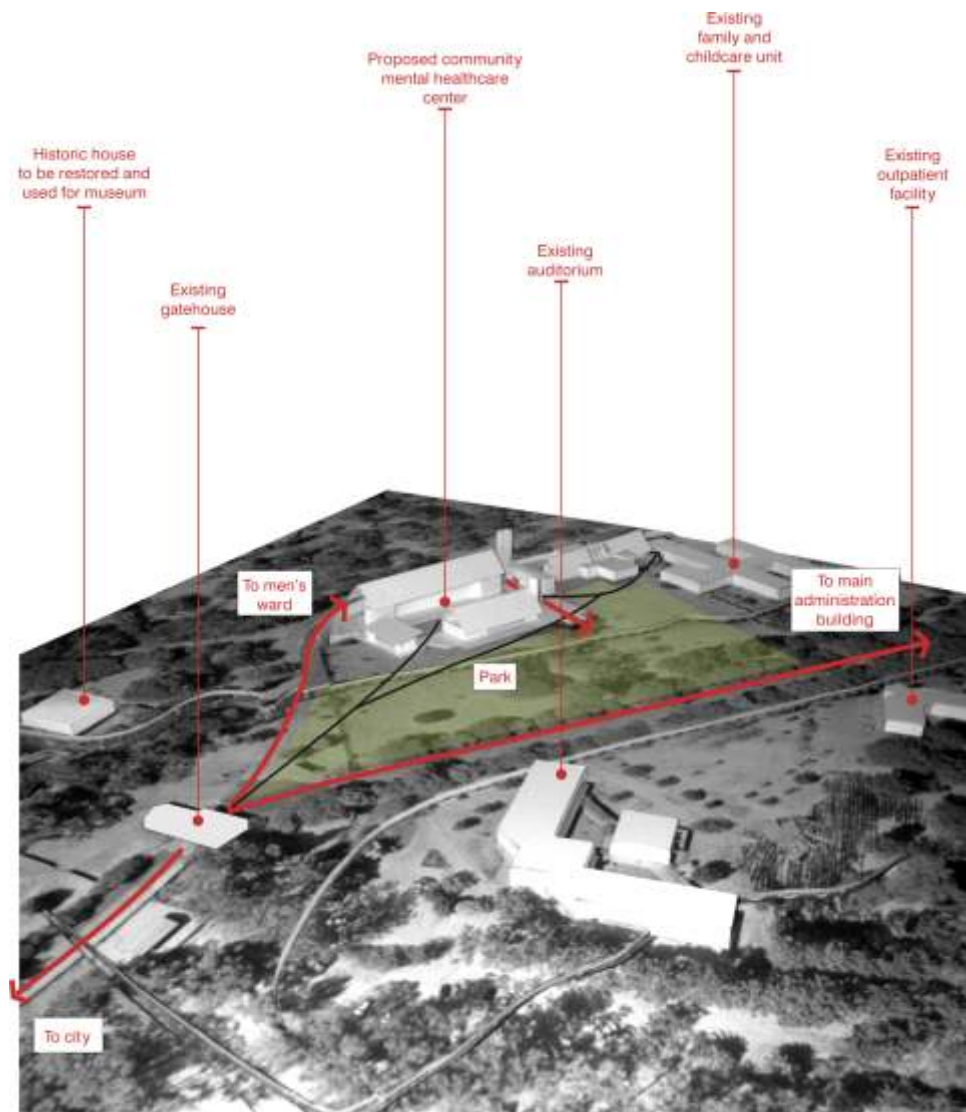


Figure 7.24: Concept model

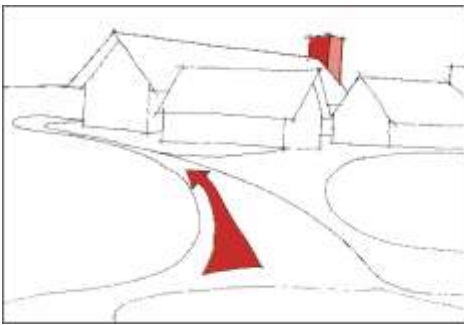


Figure 7.25: Spiral primary building approach

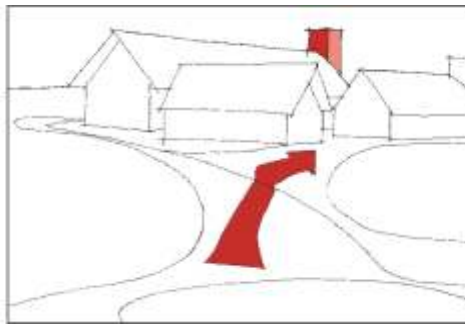


Figure 7.26: Oblique secondary building approach

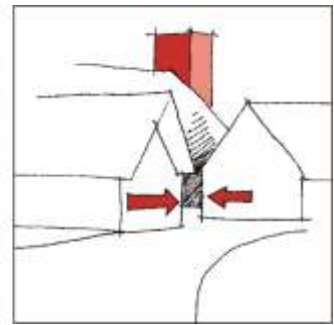


Figure 7.27: Secondary entrance

6.6 Circulation

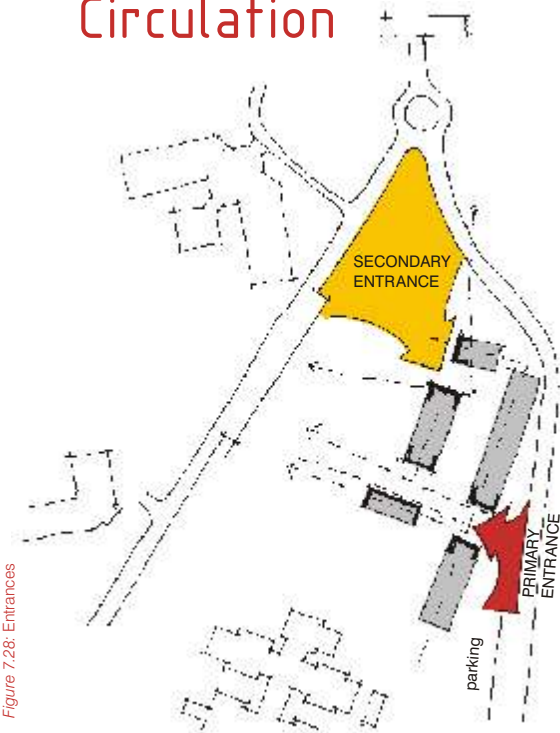


Figure 7.28: Entrances

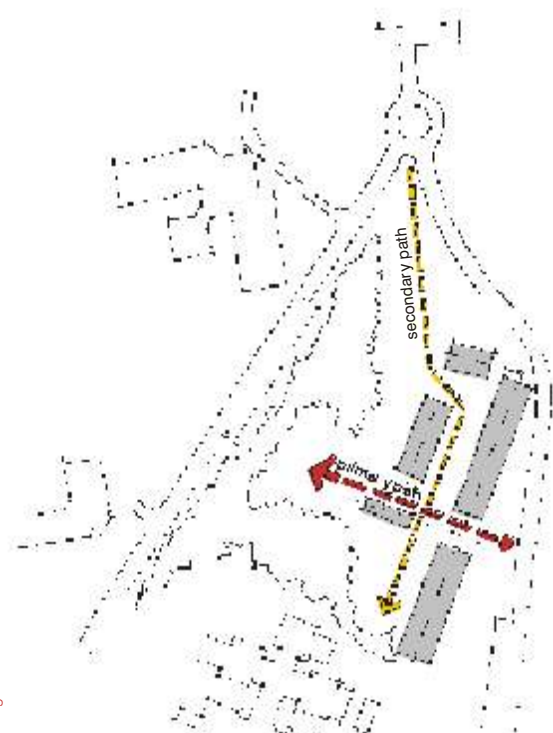


Figure 7.29: Paths

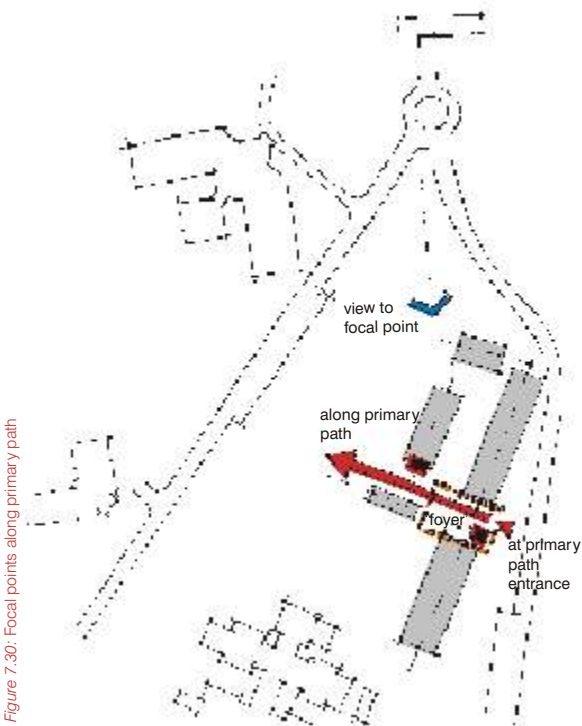


Figure 7.30: Focal points along primary path

6.6.1 BUILDING APPROACH

The primary approach is spiral which prolongs the sequence of the path and emphasizes the tree-dimensional form of the buildings parameter.

The secondary approach, which is oblique, enhances the effect of perspective on the buildings front facades. Since the path is re-directed two times, the sequence of the path is also delayed.

Both these approaches strengthen the awareness of the park and the threshold object.

6.6.2 ENTRANCE

The primary focal point celebrates the primary entrance. The secondary entrance is visually enforced by making it narrower than expected.

6.6.3 CONFIGURATION OF PATH

Both primary and secondary paths are linear and organize a series of spaces.

6.6.4 PATH-SPACE RELATIONSHIPS

The paths pass by spaces. This maintains the integrity of each space and allows the paths to be flexible.



Figure 7.31: The park will play a significant role in place-making on campus and as part of the community platform.

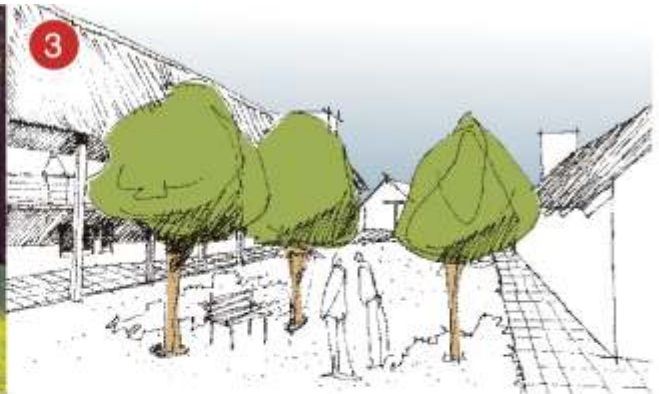


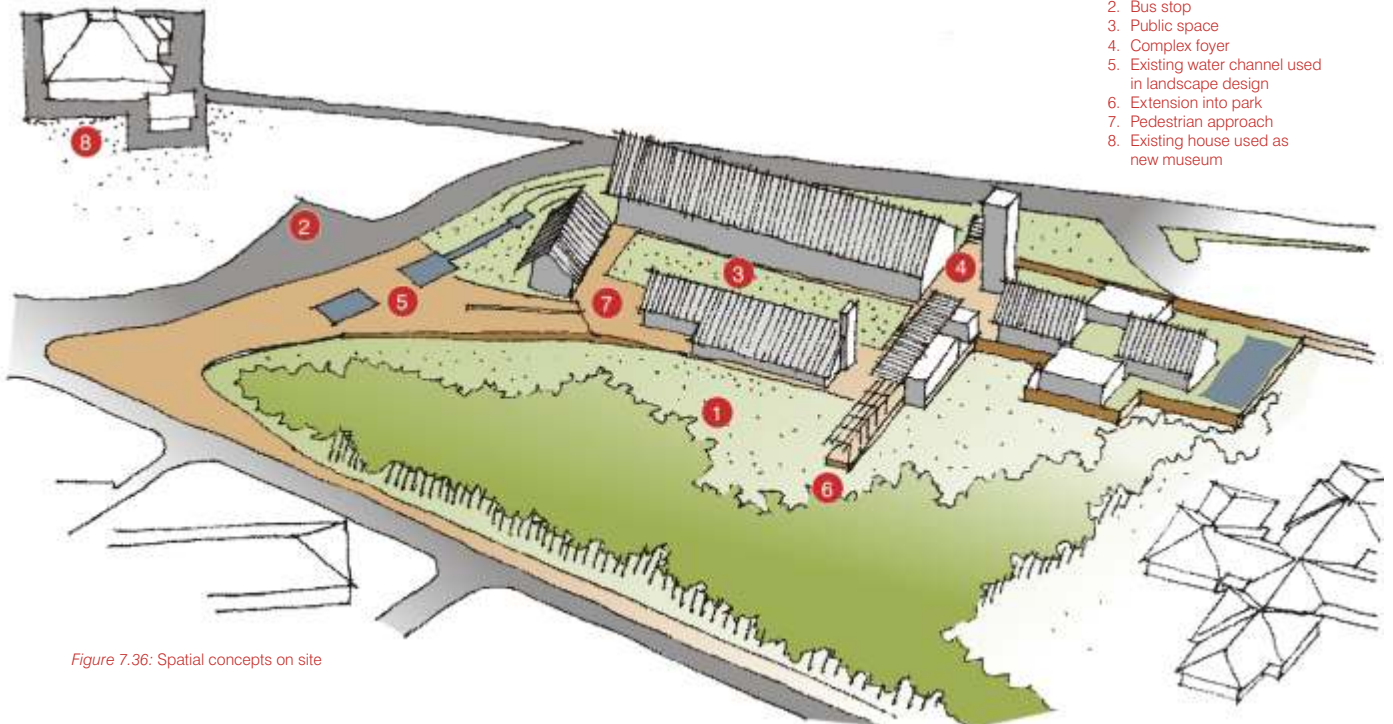
Figure 7.32: Smaller public spaces are created to allow users to choose levels of interaction and socialization



Figure 7.33: The center 'foyer' is an open space linking the entrances to different buildings with the information desk central to the space



Figure 7.35: The complex reaching into the park (integration of building and landscape)



1. Park
2. Bus stop
3. Public space
4. Complex foyer
5. Existing water channel used in landscape design
6. Extension into park
7. Pedestrian approach
8. Existing house used as new museum

Figure 7.36: Spatial concepts on site

6.7 Building Response

6.7.1 TRAINING AND THERAPY CENTER (5)

The training and therapy center will be located on street front. Service areas fronting the street ensure a strong edge to the street, while servant spaces connects to the inner courtyard.

6.7.2 WORKSHOP (4)

The workshop forms an edge of the secondary entrance. It is shifted on the grid to allow the entrance into the inner courtyard to be accentuated.

6.7.3 RESTAURANT AND LOUNGE (6)

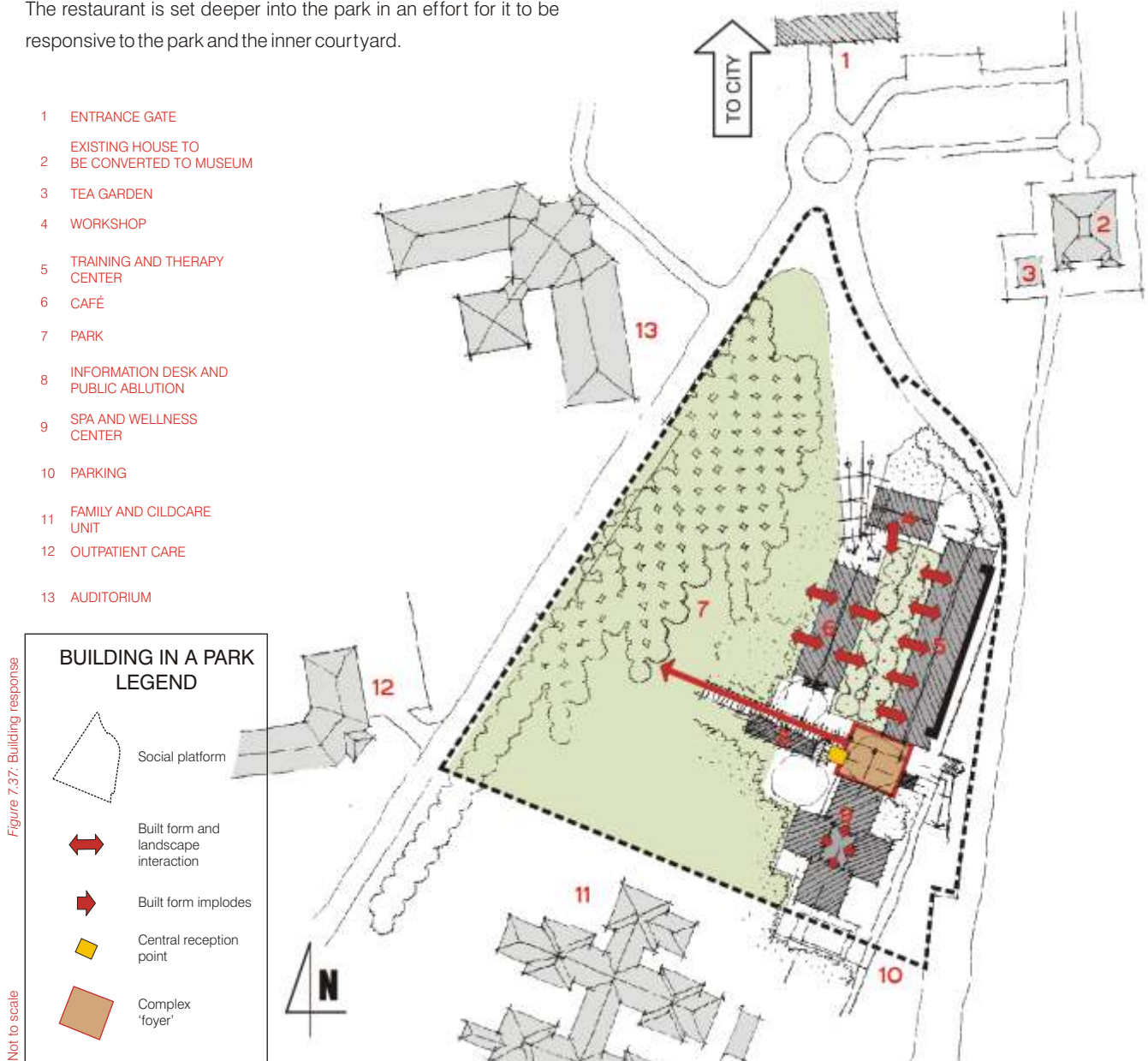
The restaurant is set deeper into the park in an effort for it to be responsive to the park and the inner courtyard.

6.7.4 INFORMATION DESK AND PUBLIC ABLUTION (8)

The information desk acts as a reception for the whole of the complex and is centrally located at the 'foyer'. The 'foyer' is a public space situated at the primary entrance from where people disperse to separate buildings.

6.7.5 HEALTH HYDRO (9)

The hydro is located at the back of the site where it is more private. The building spaces implode upon an inner courtyard to connect with landscaping, while maintaining it privacy.



“One does not physically experience space simply by gazing at buildings or looking at them from above. Space is experienced only through sequential movement. Space, like music, can be a source of elemental joy, something to which one can give up oneself entirely.” - Fumihiko Maki

6.7.2 MOVEMENT

The movement system becomes part of the buildings and is defined by spatial elements. These elements are dynamic and enhance the notion of movement through their rhythmic configuration.

Where there exist no movement the buildings become enclosed, indicating a grounded, static form.

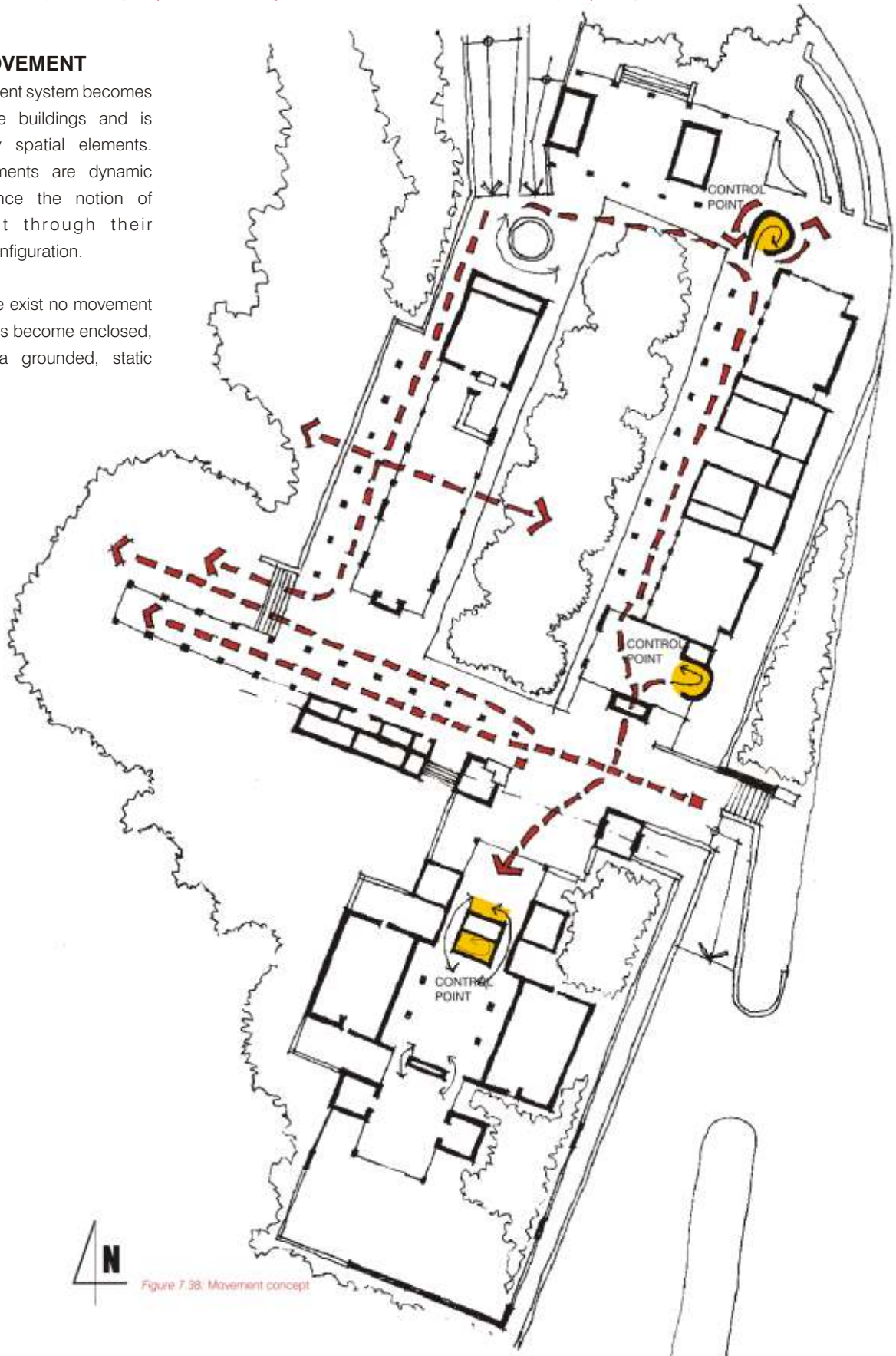


Figure 7.38: Movement concept

6.8 Connections and Contact

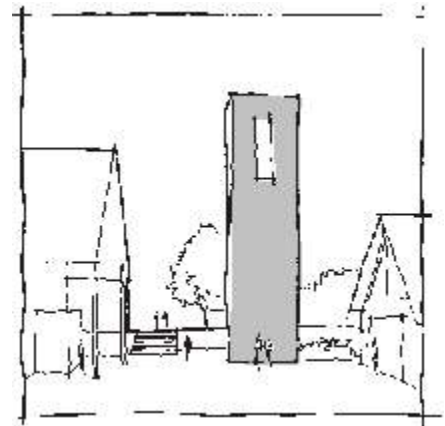
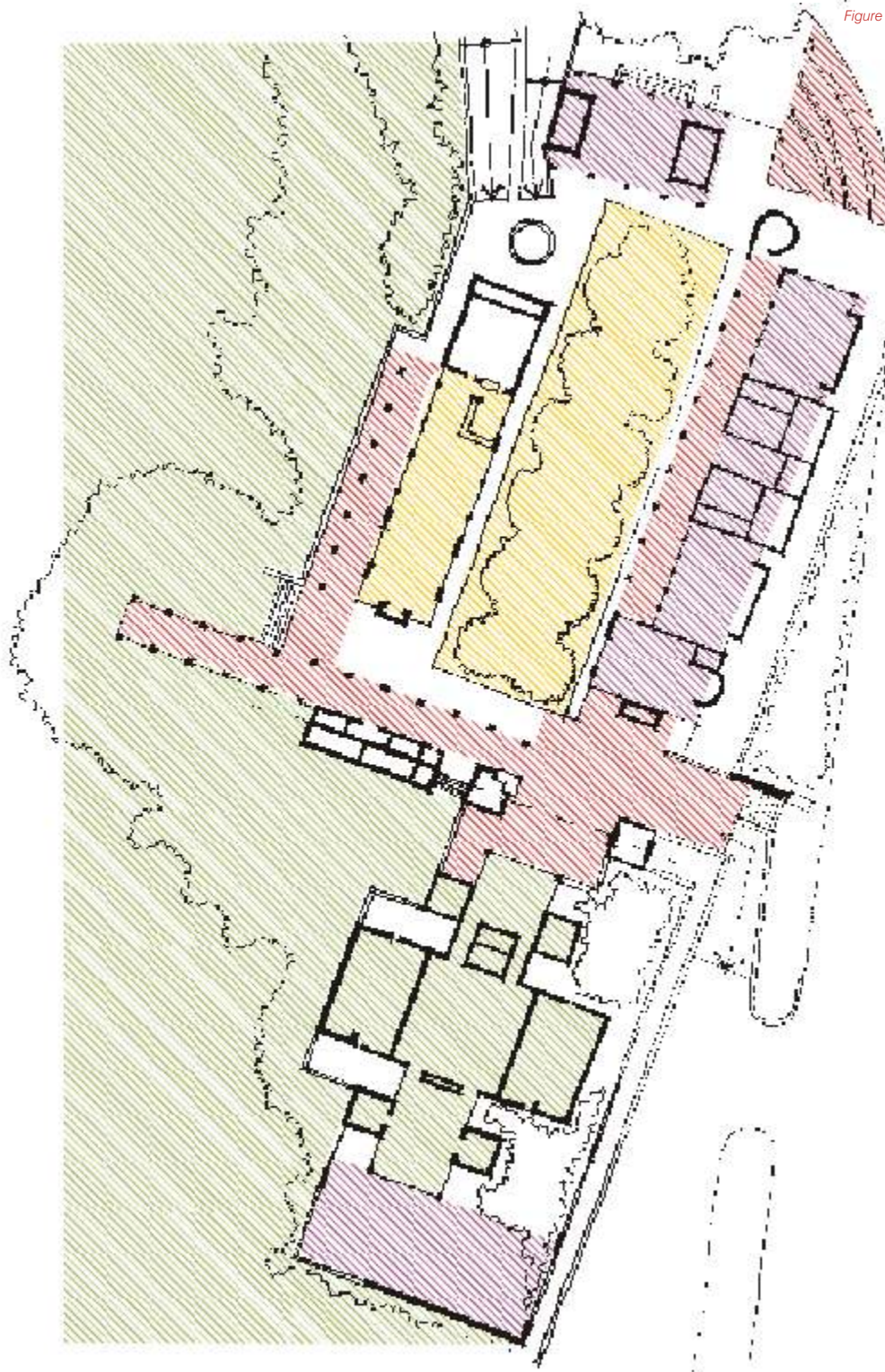


Figure 7.40: Landmark structure at primary entrance



PUBLIC

6.8.1 PHYSICAL CONTACT

Interaction occurs on mainly three levels:

- individuals that want to isolate themselves to conserve energy
- individuals on their way to recovery that want to move out of isolation
- individuals in stages of recovery that want to experiment with socializing

All of these levels of socializing must be accommodated to provide the user with choices and create a healing environment.

6.8.2 VISUAL CONTACT

Visual connectivity allows a transparent process to be maintained. This facilitates awareness, stimulation and wayfinding within the complex.

CONNECTIONS AND CONTACT LEGEND

-  Spontaneous
-  Social
-  Active
-  Therapeutic

Not to scale Figure 7.39: Connections and contact

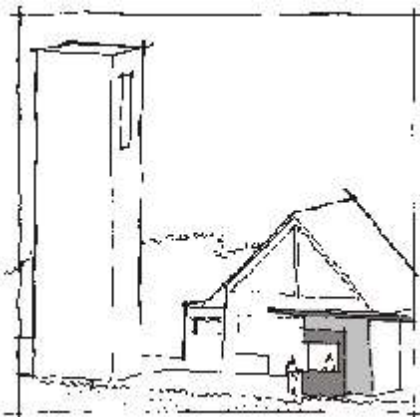


Figure 7.41: The information desk located at the complex foyer

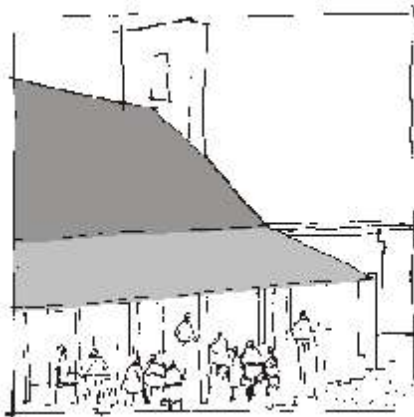


Figure 7.42: The restaurant's steep

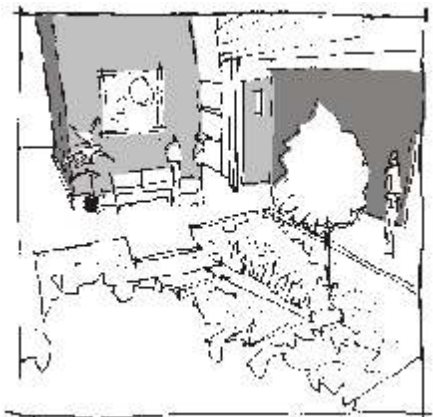


Figure 7.43: The inner courtyard of the health hydro

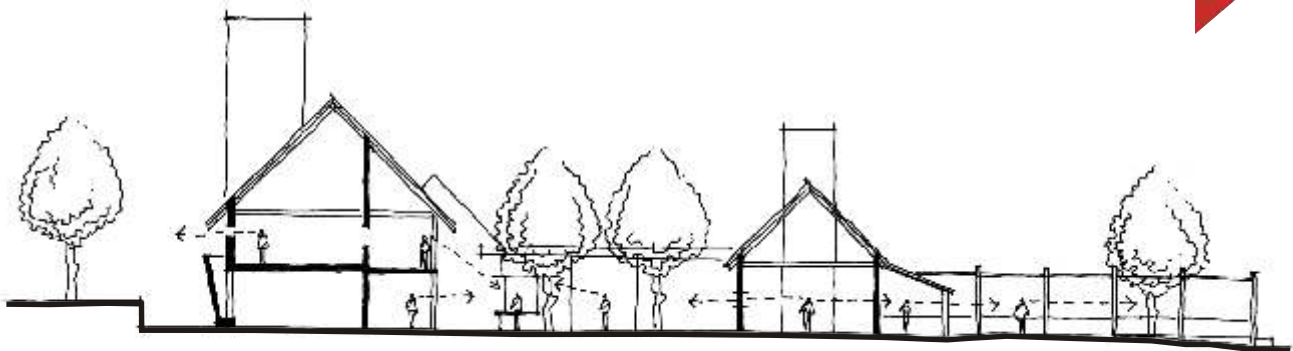


Figure 7.44: Visual connectivity indicated on section.

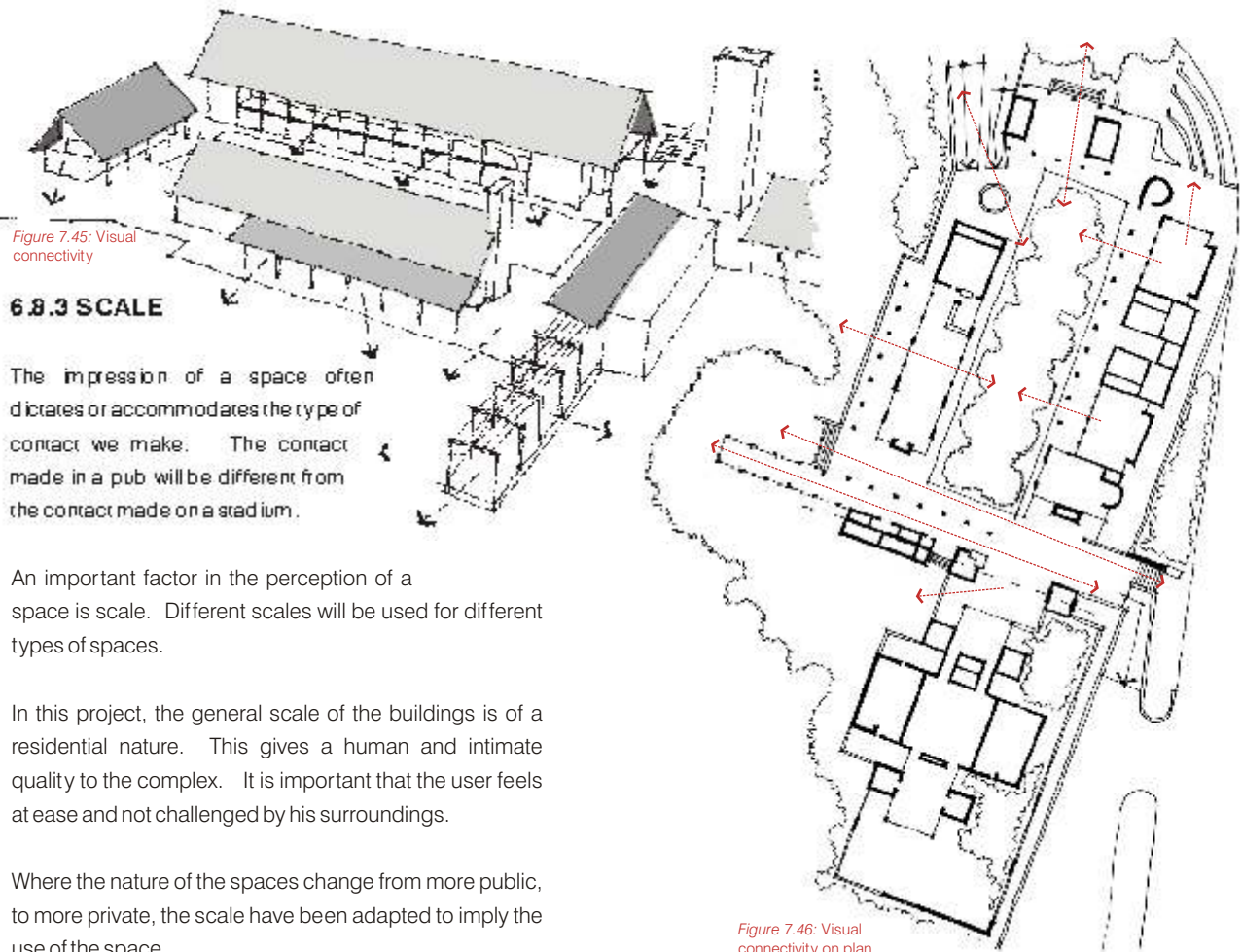


Figure 7.45: Visual connectivity

6.8.3 SCALE

The impression of a space often dictates or accommodates the type of contact we make. The contact made in a pub will be different from the contact made on a stadium.

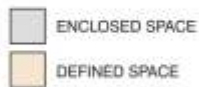
An important factor in the perception of a space is scale. Different scales will be used for different types of spaces.

In this project, the general scale of the buildings is of a residential nature. This gives a human and intimate quality to the complex. It is important that the user feels at ease and not challenged by his surroundings.

Where the nature of the spaces change from more public, to more private, the scale have been adapted to imply the use of the space.

Figure 7.46: Visual connectivity on plan

6.9 Space Definition



6.9.2 ENCLOSED SPACE

Enclosed spaces mainly consist of the **service** and the **private** spaces where access is controlled and users feel secure.

The plan form of enclosed spaces indicates 'here' and 'there' as two distinct realms.

6.9.3 DEFINED SPACE

Defined spaces are the **served** and the **public** spaces that are permeable and where occupants and activities are visible.

On plan, defined spaces have a loose spatial quality, its dominant feature is to connect' and maintain spatial continuity between building and landscape spaces.

6.9.1 DESIGN PHILOSOPHY:

Two systems are used in the space forming of the project, space defining and space enclosing systems. This is due to the nature of the accommodation. The amount of privacy is controlled through the amount of enclosure. The amount of accessibility and permeability is allowed through the space definition.

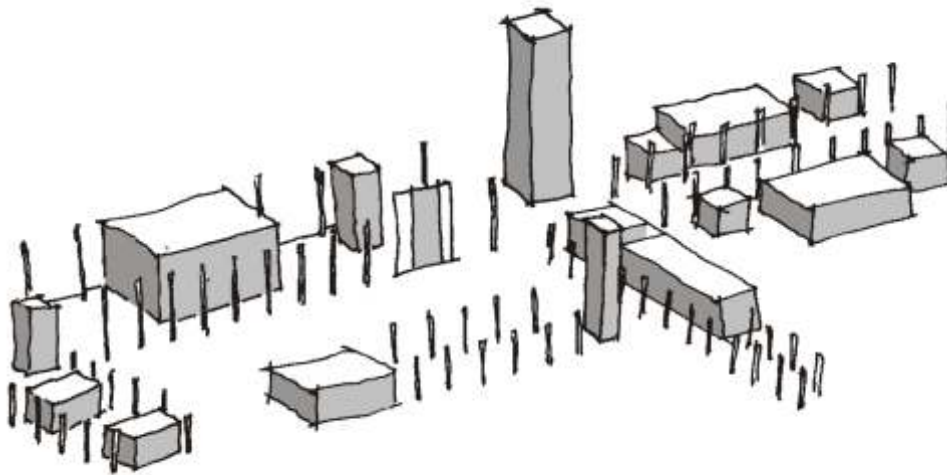
The two systems are expressed architecturally through the structure, form, openings and detailing of the buildings.

It is essential that the buildings communicate private and public functions in this manner as these systems replace the traditional institutional systems of high walls and bars in front of windows. The inclusive quality of the buildings is not influenced by the permeability of the structures, but the human friendly buildings that allow for informed choices to be executed by the user.

For the space defining system a steel structure and roof is used that integrates with a space enclosing system that is expressed mainly through brick and concrete walls.



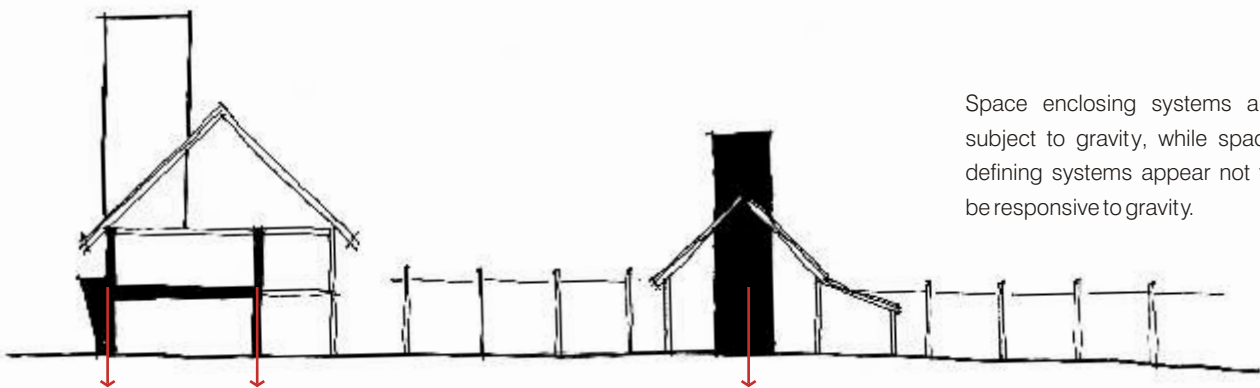
Figure 7.47: Space definition



Space enclosing systems separate inside from outside and establish differences between different space types.

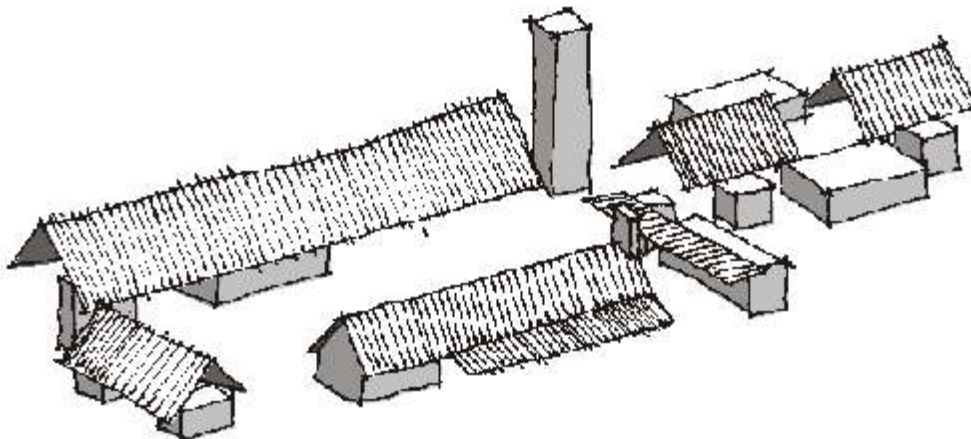
Space defining systems merge inside and outside and try to maintain connections and the idea of spatial continuity.

Figure 7.48: Enclosing and defining systems



Space enclosing systems are subject to gravity, while space defining systems appear not to be responsive to gravity.

Figure 7.49: The perception of gravity



Space enclosing systems contain volume and have spatial limits. This type of space is also representational and has a back, front, top and bottom.

Space defining systems define space and are part of a limitless spatial system. The systems tend to be abstract and can be viewed from all sides.

Figure 7.50: Space enclosing system

Space enclosing systems are hierarchically ordered, while

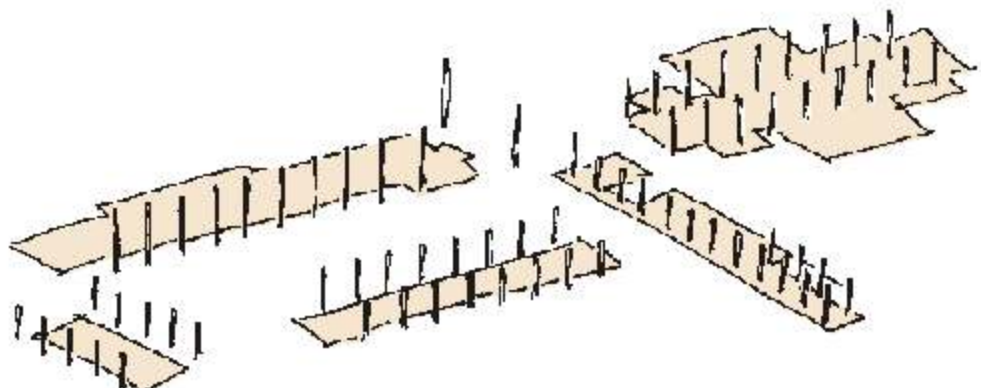


Figure 7.51: Space defining system



Figure 7.52: Main administration building on site built in 1892



Figure 7.53: Typical sandstone and brick (english bond) construction



Figure 7.54: Contemporary fascia detail for steel roofs

6.10 Design Themes

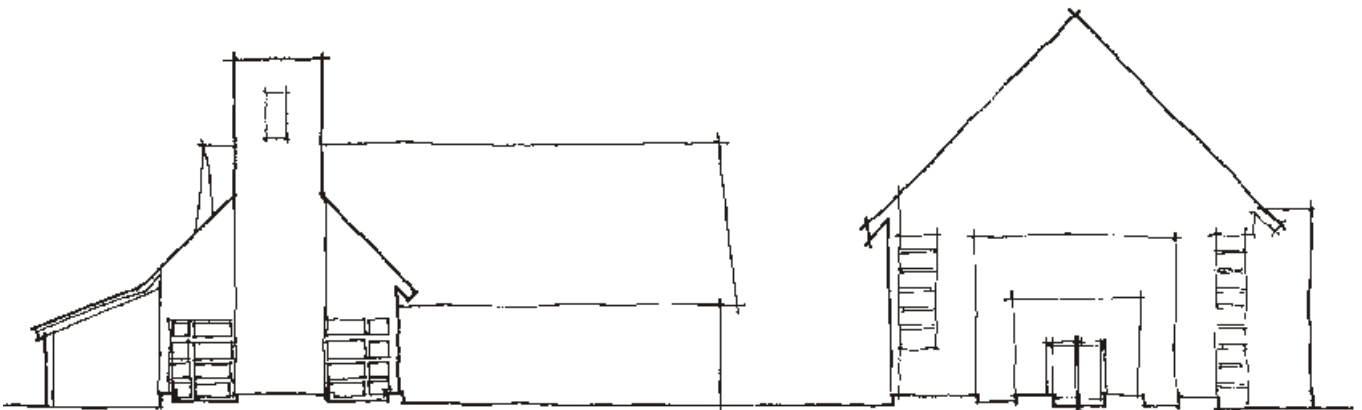


Figure 7.55: Elevational impact

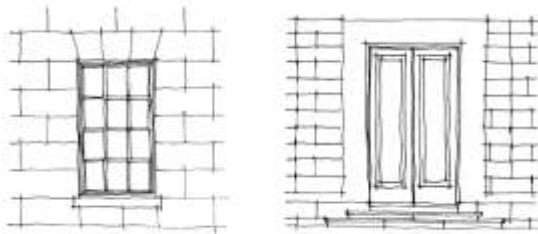


Figure 7.56: Treatment of doors and window as of historic buildings on site



Figure 7.57: Form and massing reminiscent of heritage context

6.10.1 HERITAGE CONTEXT

The heritage context is echoed in the design through form, use of materials and treatment of openings.

The roofs will be sheet metal with a 45° pitch, as the traditional roofs are.

Enclosed spaces will either be plastered or red face brick, english bond, as with the existing buildings. A simplified sandstone plinth will be used.

Timber frames will be used for the windows and doors. This will not only refer to the historic context, but bring warmth to the buildings.

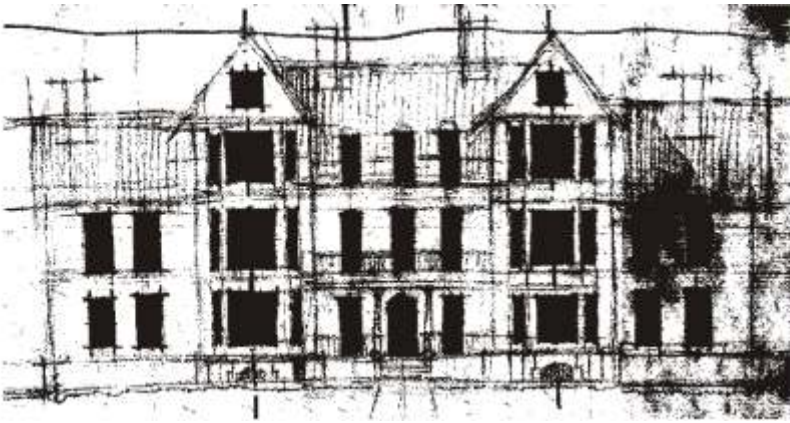


Figure 7.58: Window study of historic main administration building



Figure 7.59: Rustic country design

6.10.2 VERNACULAR ARCHITECTURE

“In vernacular architecture the process of evolution using a model continues with adjustments and variations. The dwelling is now built by tradesmen. Vernacular architecture does not have theoretical or aesthetic pretensions and models develop in accordance with regional, climatic and economic factors.” (Geoffrey H. Baker 1989:15)

The design of the center is a simple response to climatic conditions and incorporates local construction methods and materials.

This produces an architectural language that the community can relate to and of which the meaning is inherently understood. It is imperative that the particular consumer, the mentally ill, relate to and be able to interpret his surroundings.

The vernacular model is one that has stood the test of time and that is effective in both practical and symbolic sense.

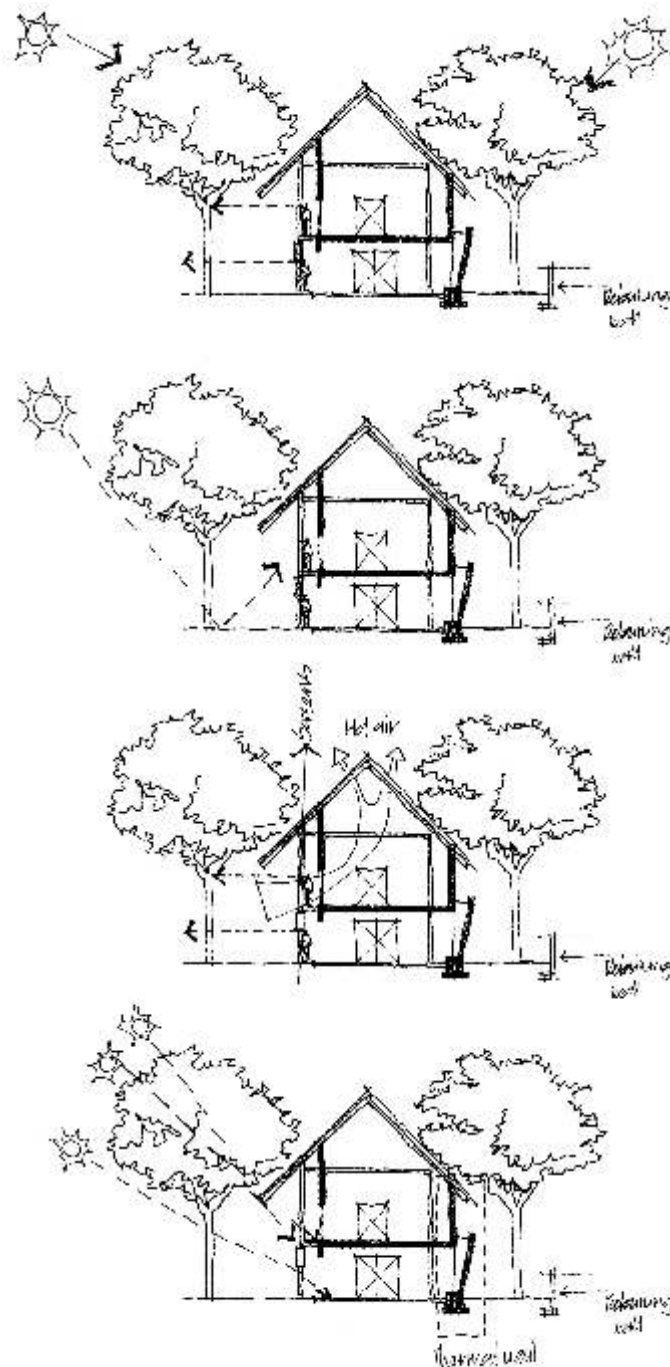


Figure 7.60: Climatic response

6.11 Design Principles

6.11.1 HARMONY

The theme of harmony is depicted through the use of centroidal configurations, the square and the rectangle.

The plan sets the whole structure of the development. A grid ties the plan together and forms the basis of mass, coherence, rhythm and expression.

6.11.2 AXIS

The axis was used as a regulating device, creating balance within the composition.

6.11.3 SYMMETRY

Symmetry within the composition and buildings strengthens the harmony of the design.

6.11.4 HIERARCHY

Hierarchy is created through the exceptional size of the landmark figure to reflect importance. The composition is also strengthened by the landmark and gives the eye a place to rest.

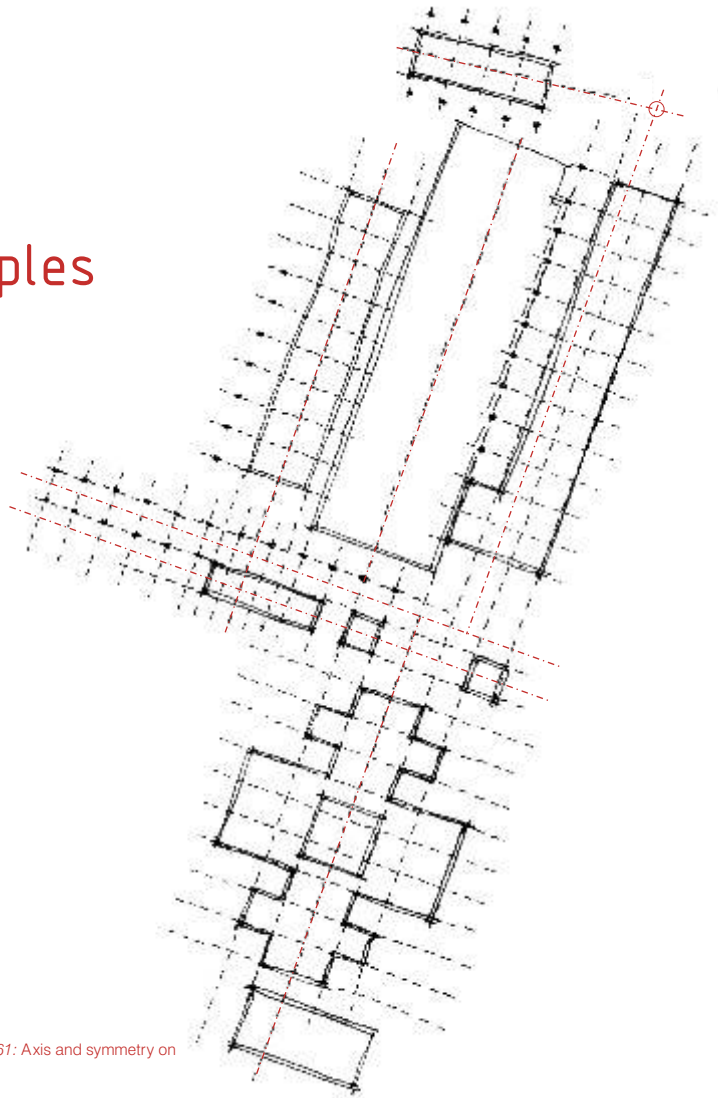


Figure 7.61: Axis and symmetry on plan

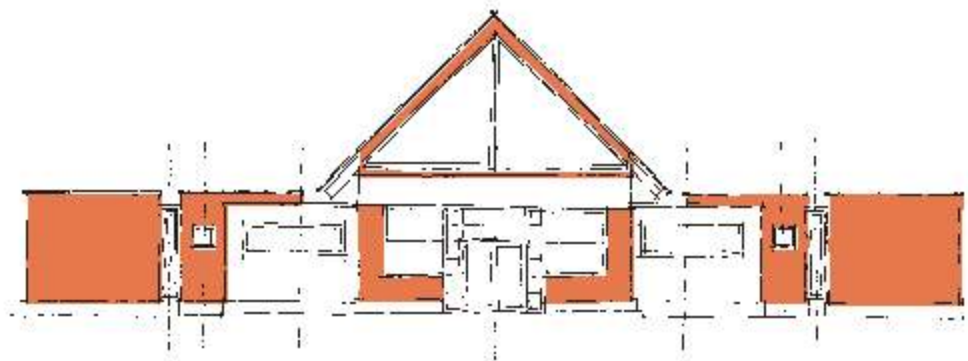


Figure 7.62: Symmetry expressed on the health hydro's elevation

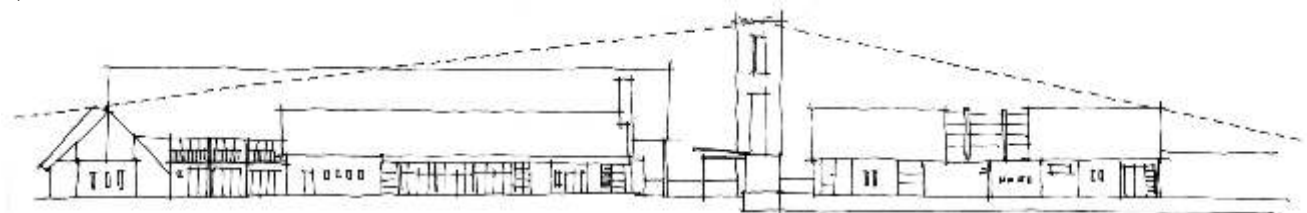


Figure 7.63: Hierarchy in the composition

6.11.5 DATUM

Datum refers to an element to which other element in a composition can relate.

The main circulation path acts as a datum element on plan, forming a common edge within the organization.

On elevation the datum is created by the vertical planes of the walls.

6.11.6 RHYTHM

Rhythm organizes lines, shapes, forms or colours harmoniously. The repetition of the space defining columns form repetitive structural bays and modules of space within the composition.

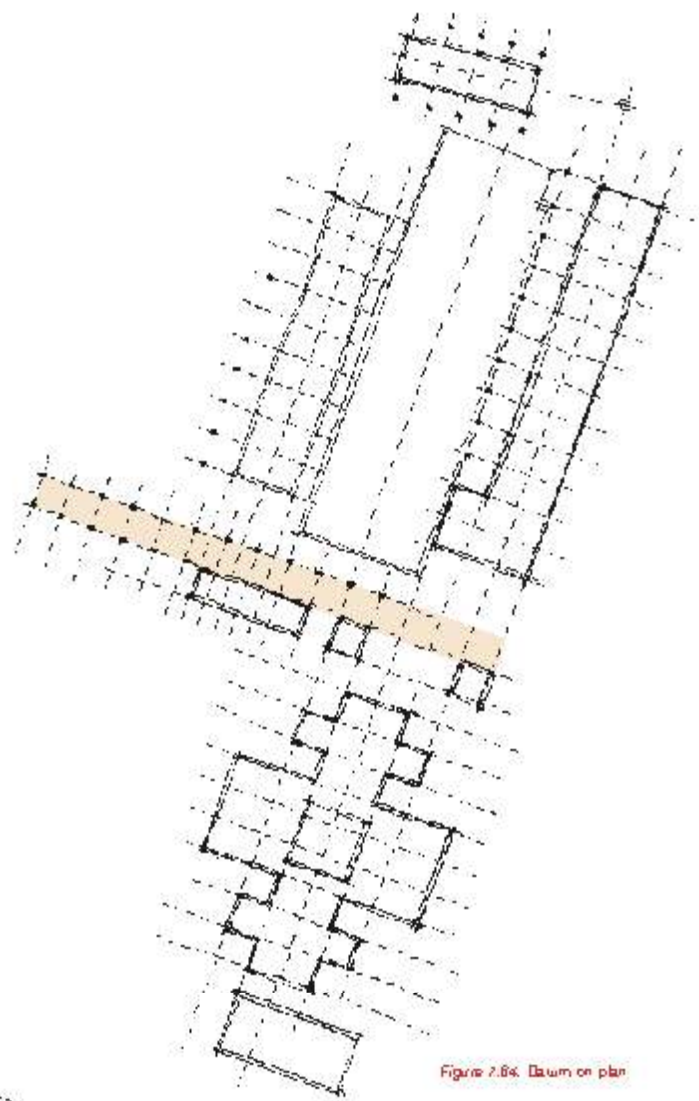


Figure 7.64: Datum on plan

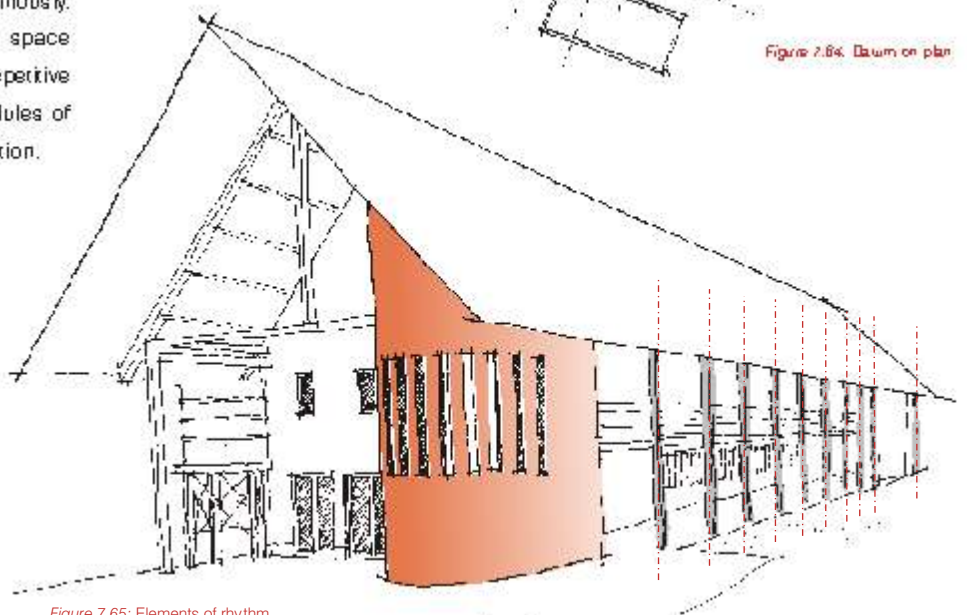


Figure 7.65: Elements of rhythm

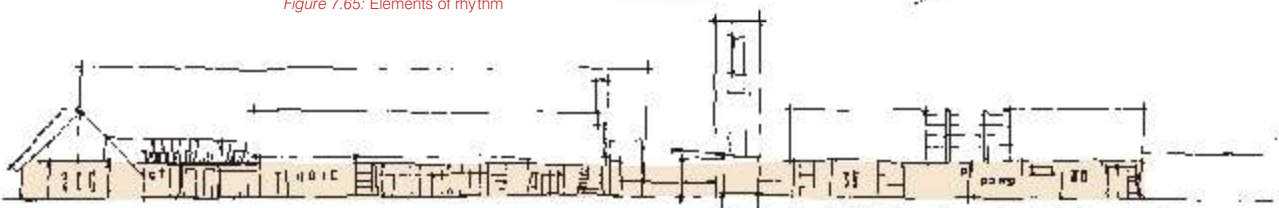
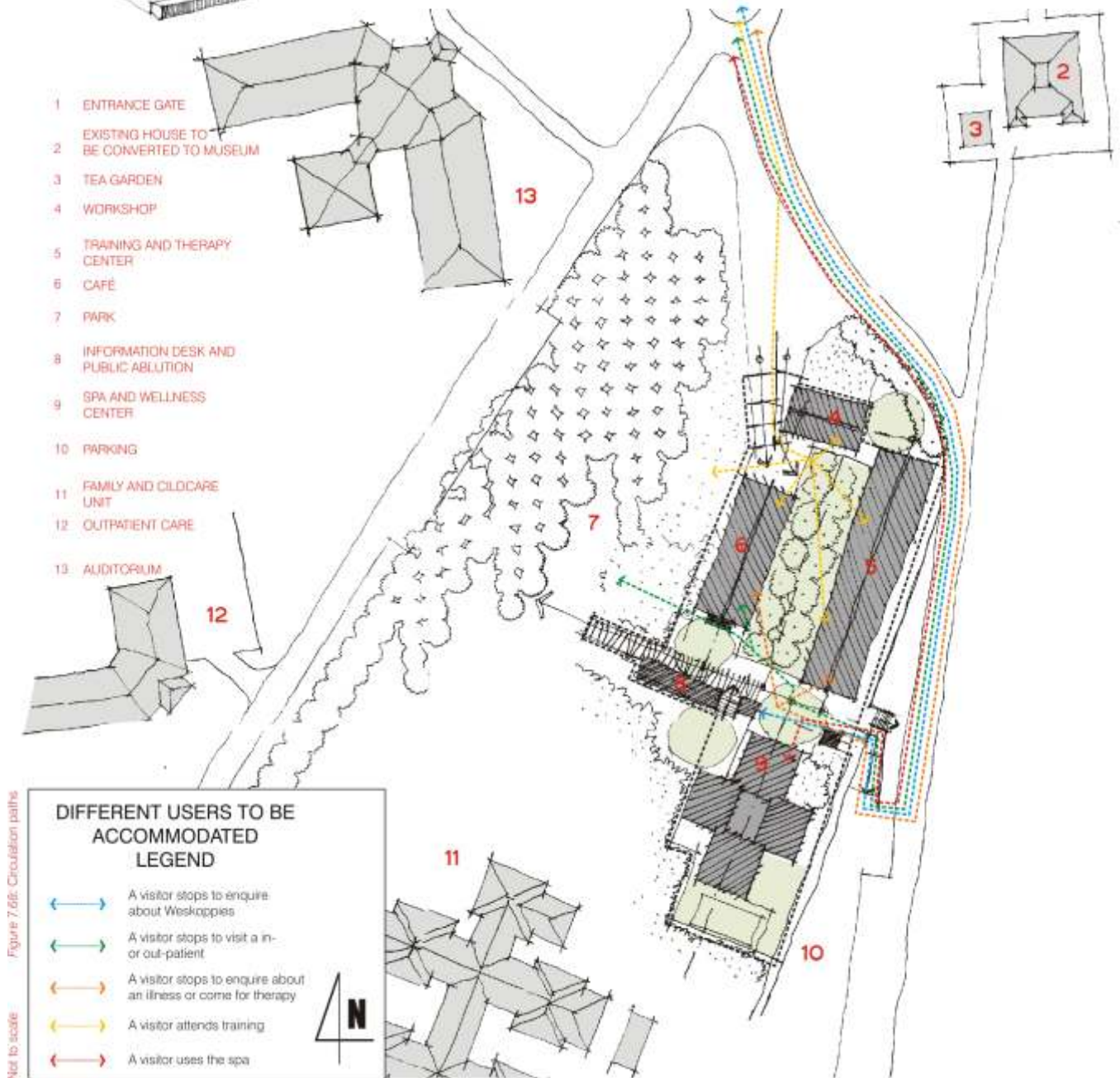


Figure 7.66: Datum on elevation



Figure 7.67. Perspective of main entrance

6.12 Five Buildings



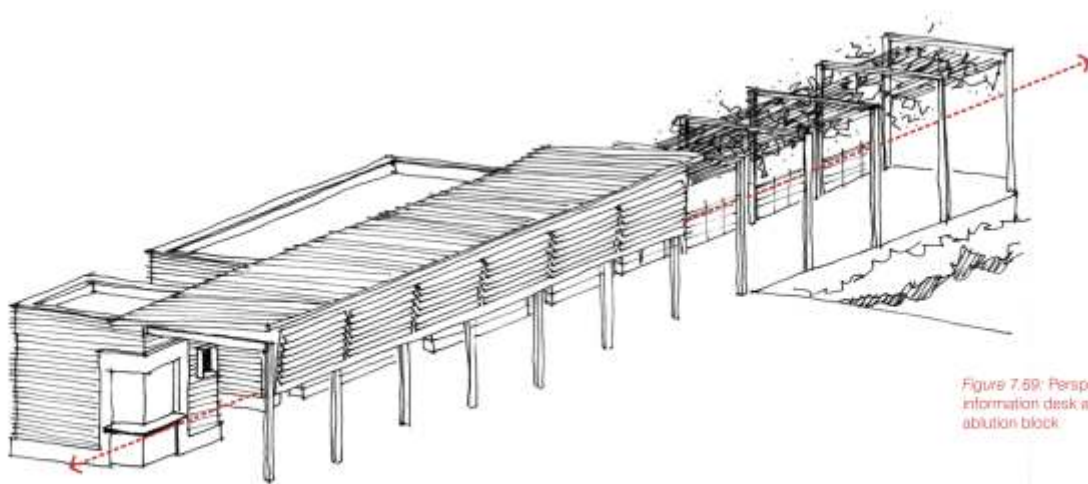


Figure 7.69: Perspective of information desk and public ablution block.



Figure 7.71-72: Installation in park

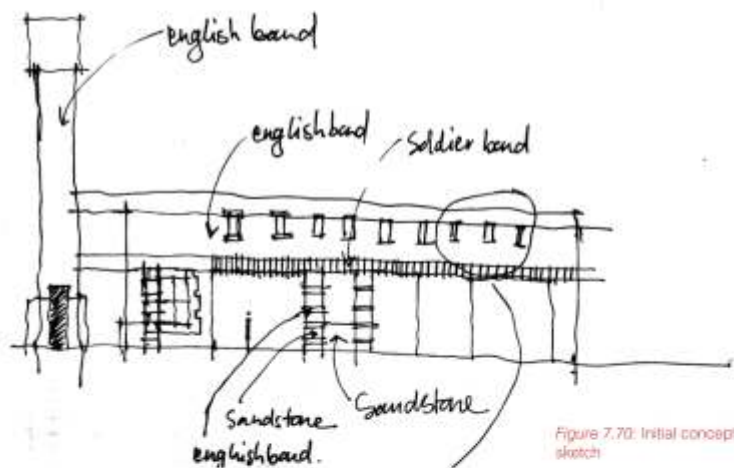


Figure 7.70: Initial concept sketch

6.12.1 THE INFORMATION DESK AND PUBLIC ABLUTION BLOCK

The information desk and ablution block are service spaces and therefore enclosed. Their location along the main movement path is suggested through the roof structure and steel columns.

Light: Information desk - 500lux, ablution - 200lux

Ventilation: Natural ventilation

Materials: The floor finishes must be even and wheelchair friendly.

Electricity: 15a plugs supplied at information desk.

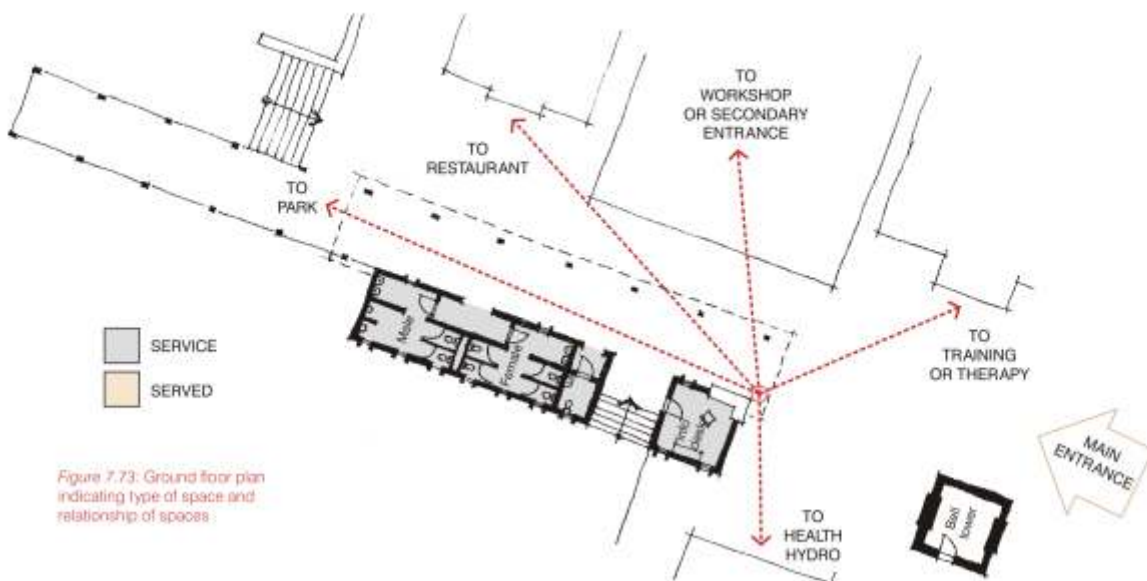


Figure 7.73: Ground floor plan indicating type of space and relationship of spaces

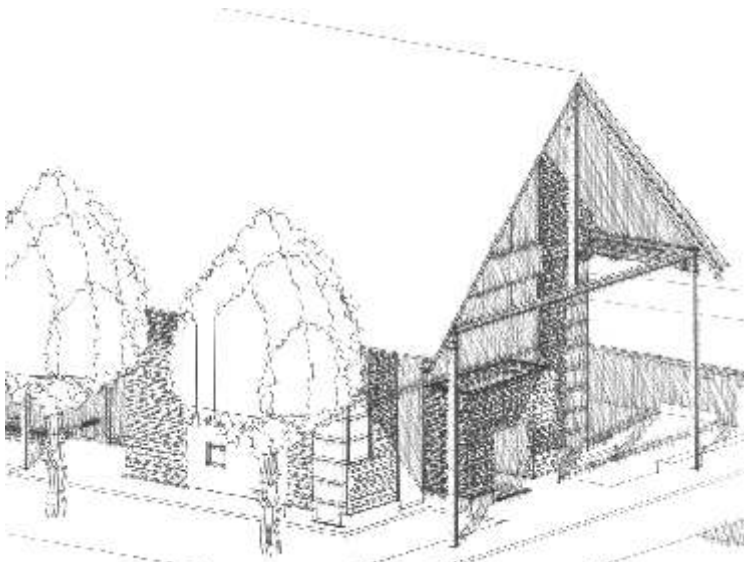


Figure 7.74: South-west perspective of treatment and therapy center's entrance

6.12.2 TRAINING AND THERAPY CENTER

The two main components of the center are able to function separately. The therapy center is located on the first floor, affording it privacy and controlled access.

The training facilities are located on ground floor. This allows for spatial continuity between the workshops and the inner courtyard.

Spatial continuity between the floors is created through the lobbies. The stair and lift shaft physically links the floors in the lobby space.



Figure 7.75: Ground floor plan of therapy and treatment center

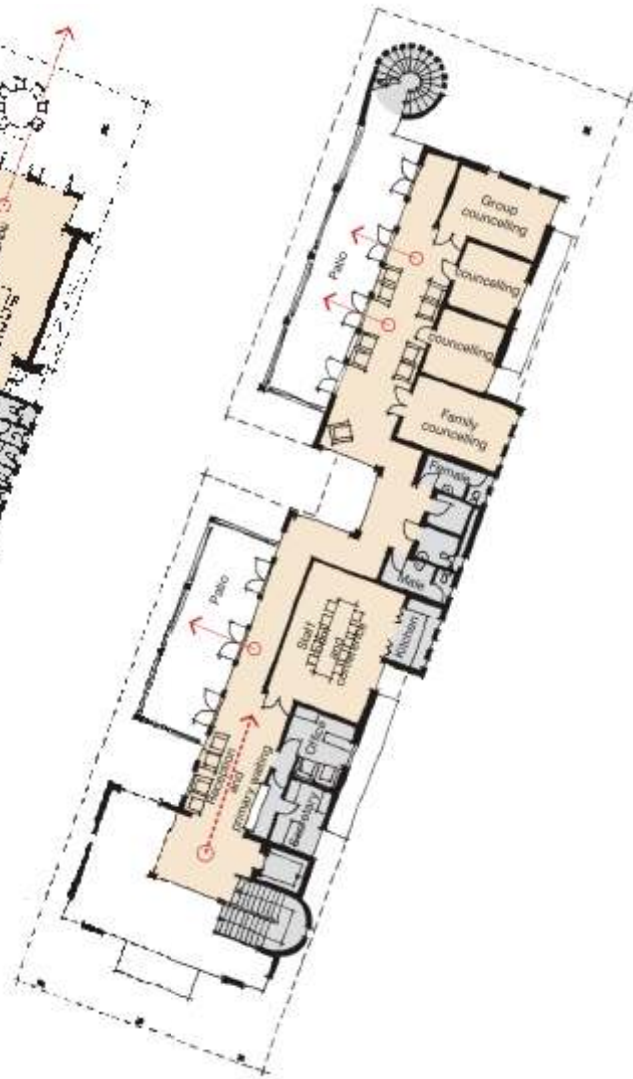


Figure 7.76: First floor plan of therapy and treatment center

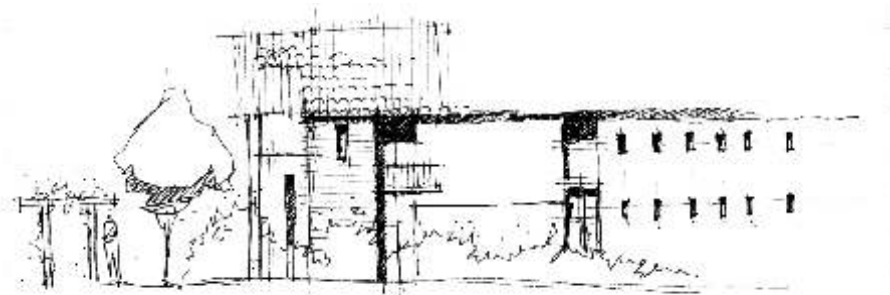


Figure 7.77: Elevational development of training and therapy center

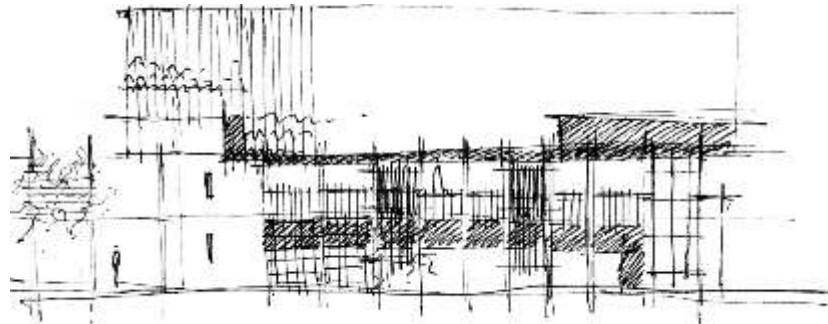


Figure 7.78: Elevational development of training and therapy center

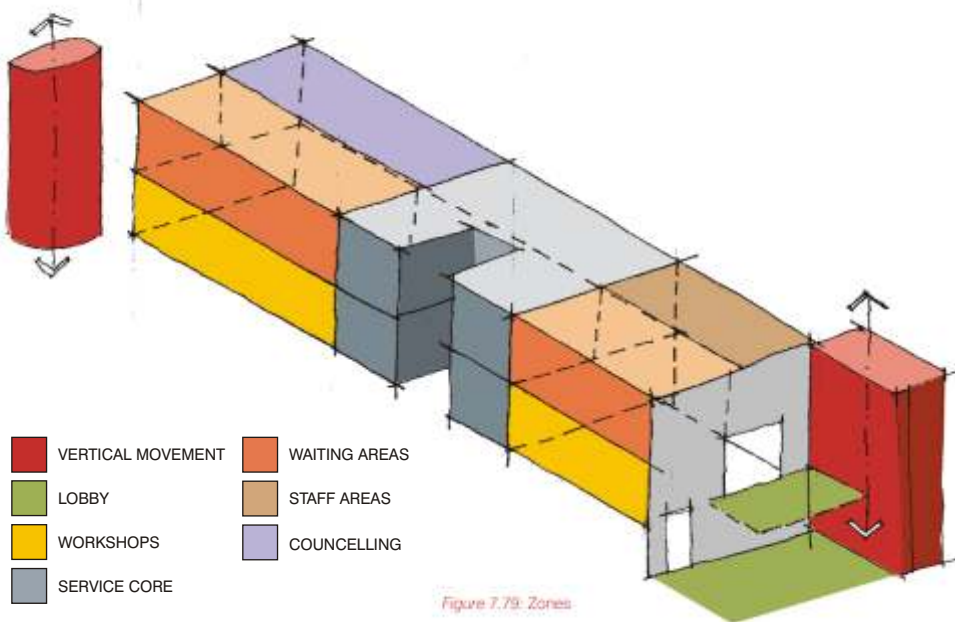


Figure 7.79: Zones

Lobby:

The lobby is the introduction to the center. The design of this space sets expectations for quality of care.

Guidelines:

- Seating grouped to provide privacy
- Elevators easy to locate
- Reception clearly defined
- Interesting works of art
- Seating options
- Variety of light sources

Light: 150lux

Ventilation: Natural ventilation at 0,5 w/m² °C

Reception:

Books, magazines and Tv's can be used to occupy time while waiting.

Light: 500lux

Ventilation: Natural ventilation at 0,33 w/m² °C

Electricity: 15a plugs supplied

Conference room:

Light: 750lux

Ventilation: Natural ventilation at 0,67 w/m² °C

Electricity: 15a plugs supplied

Class rooms

Light: 500lux

Ventilation: Natural ventilation at 0,67 w/m² °C

Electricity: 15a plugs supplied

Workshops:

Light: 300lux

Ventilation: Natural ventilation at 0,33 w/m² °C

Electricity: 15a plugs supplied

Staff rooms:

Light: 200lux

Ventilation: Natural ventilation at 0,33 w/m² °C

Electricity: 15a plugs supplied

Counseling rooms:

Light: 500lux

Ventilation: Natural ventilation at 0,67 w/m² °C

Electricity: 15a plugs supplied



Figure 7.80: Concept for lobby

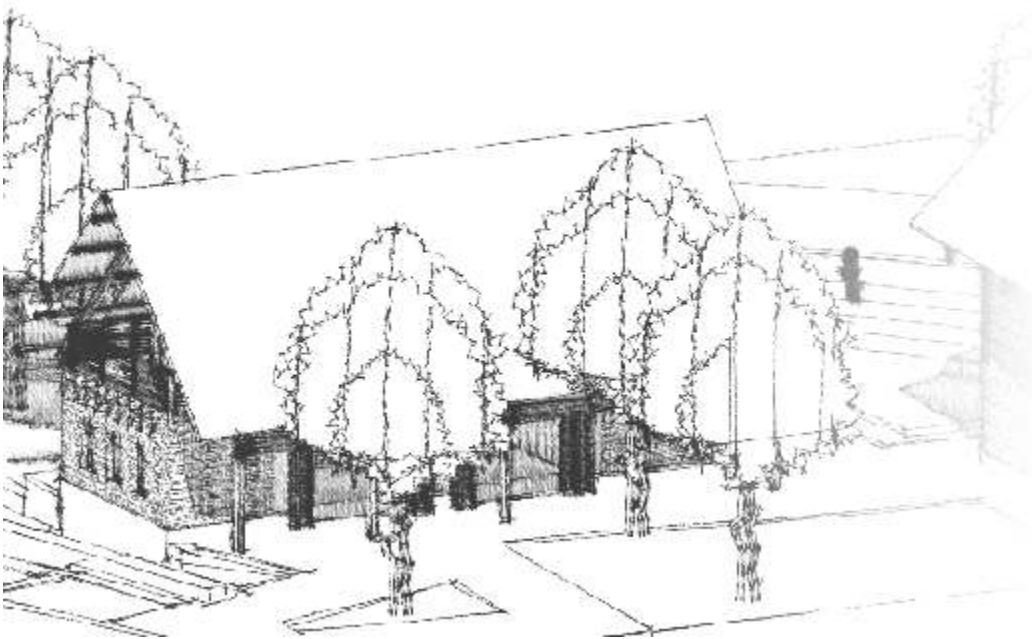


Figure 7.81: Perspective view of workshop from inner courtyard

6.12.3 WORKSHOP

The workshop is part of the training facilities. It is set as a separate building, housing all heavy machinery. Ample storage is supplied for materials and tools.

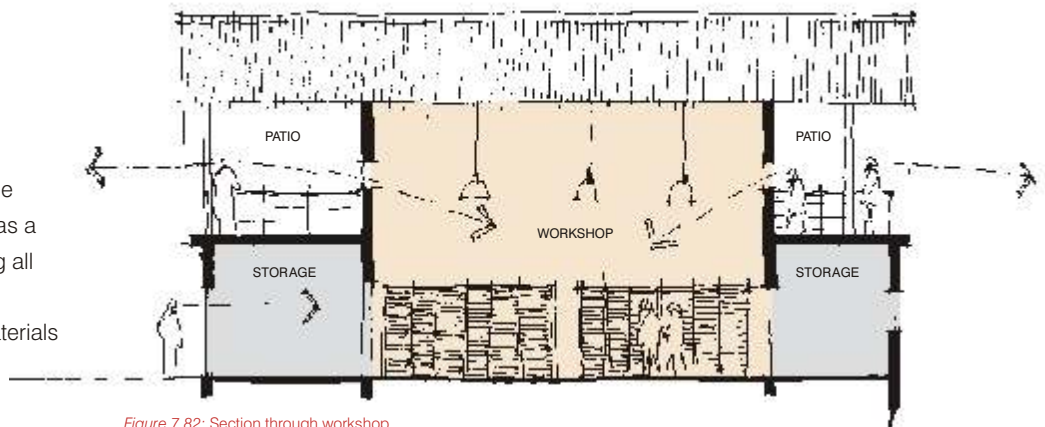


Figure 7.82: Section through workshop

Decks on the first floor create additional exterior spaces affording view over the amphitheater, park, workshop and inner courtyard.

Workshop:

Light: 300lux

Ventilation: Natural ventilation at $0,33 \text{ w/m}^2 \text{ } ^\circ\text{C}$

Electricity: 15a plugs supplied

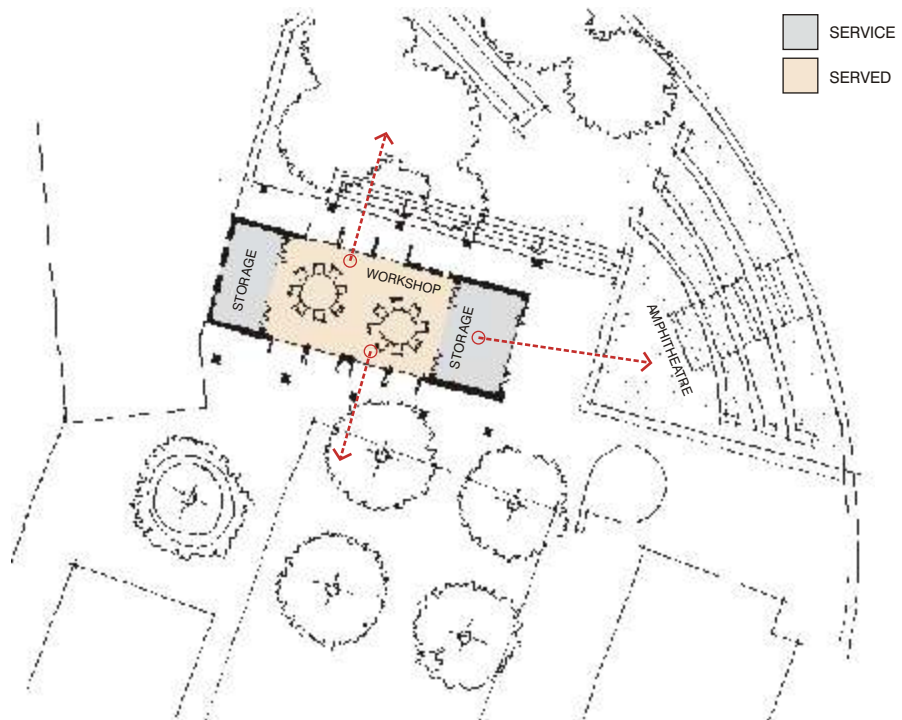


Figure 7.83: Ground floor plan of workshop

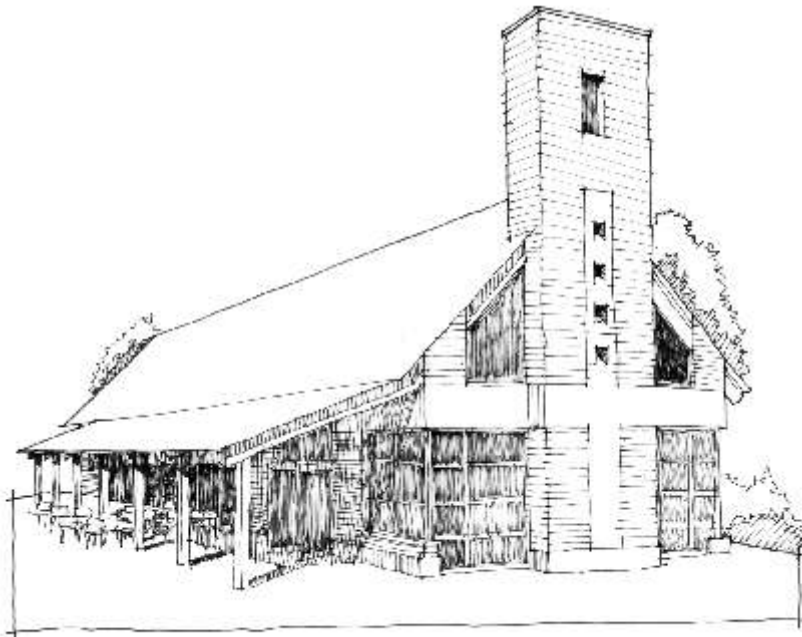


Figure 7.84: South-west perspective of restaurant

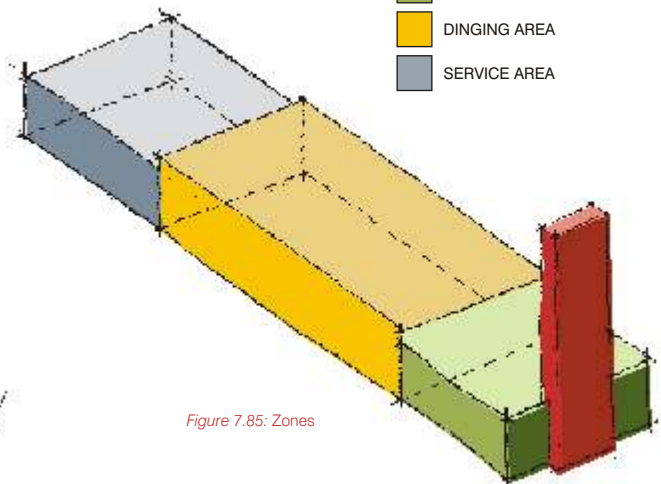
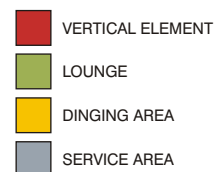


Figure 7.85: Zones

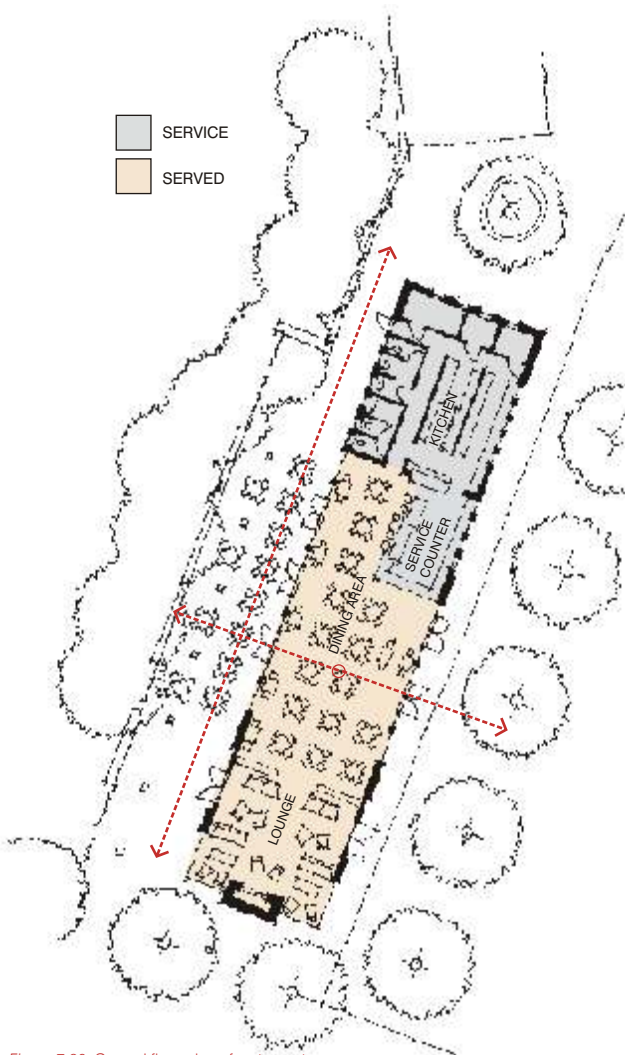


Figure 7.86: Ground floor plan of restaurant indicating space types and relationships

6.12.4 RESTAURANT

The restaurant is set most central to the park. It responds to the park and the inner courtyard. The dining area is most permeable, with the lounge being more enclosed to afford privacy and control. The service area is most enclosed.

The lounge acts as a day room. A mini library will make reading material available. A variety of seating arrangements provide choice to the users.

Dining area and lounge:

Light: 200lux

Ventilation: Natural ventilation at 0,33 w/m² °C

Electricity: 15a plugs supplied

Kitchen:

Light: 500lux

Ventilation: Natural ventilation at 0,5 w/m² °C and extractor fans above cooking area

Electricity: 15a plugs supplied

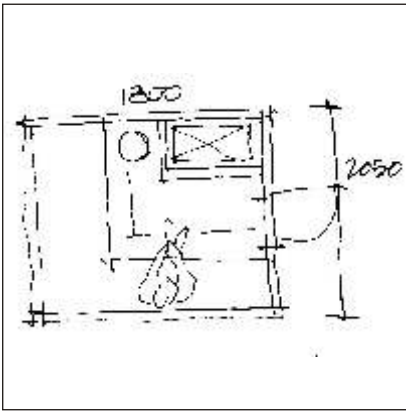


Figure 7.87: Sauna plan

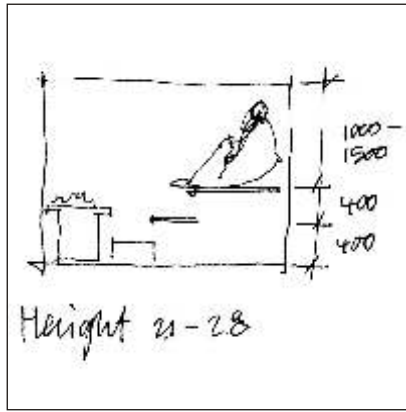


Figure 7.88: Sauna section

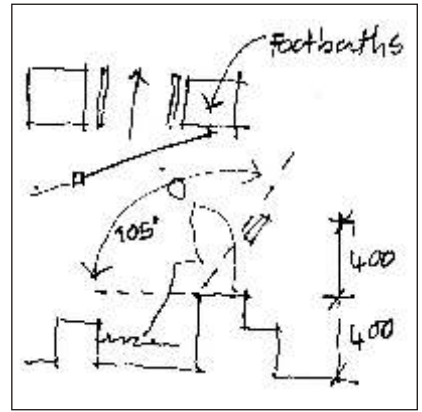


Figure 7.89: Footbath

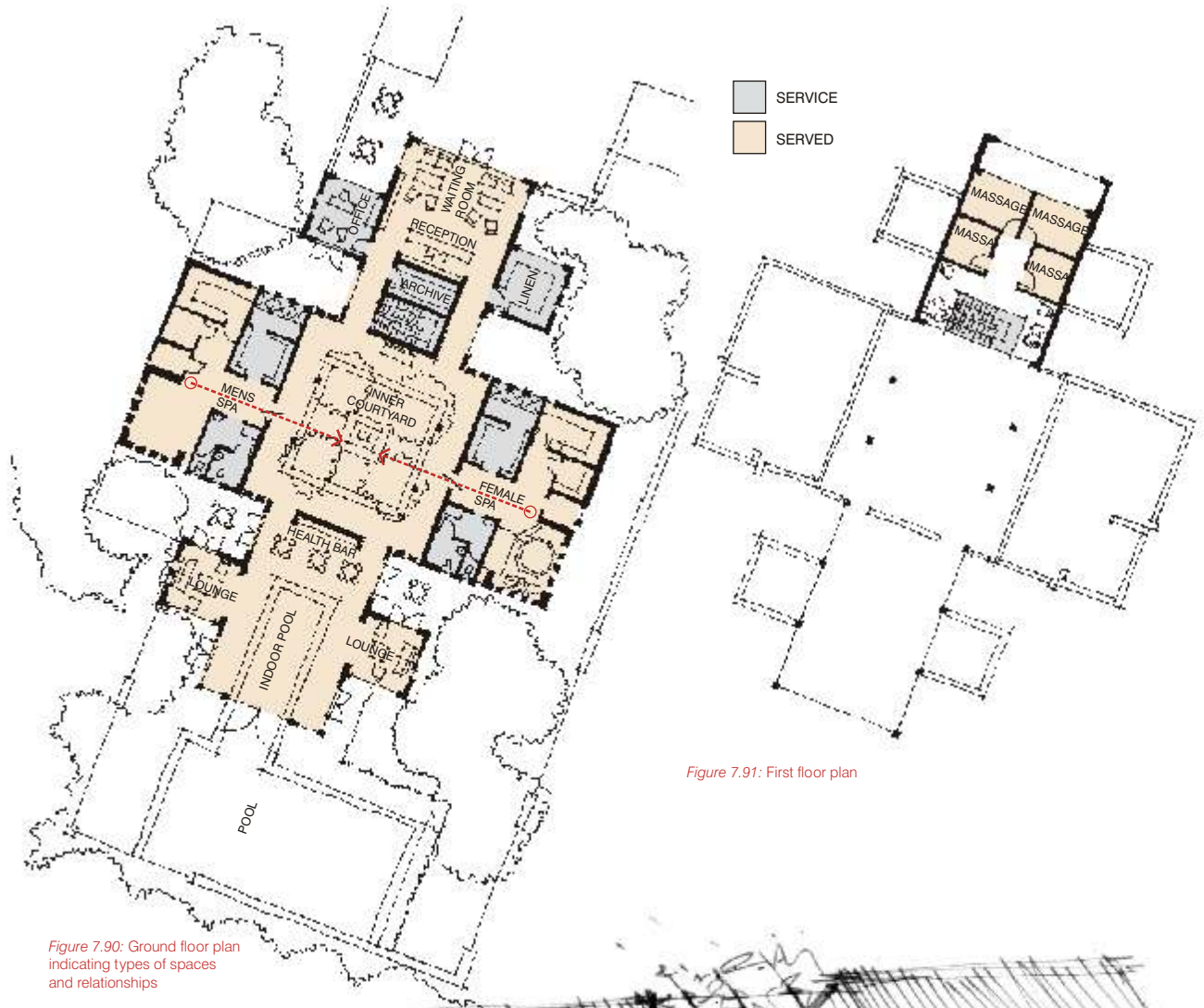


Figure 7.90: Ground floor plan indicating types of spaces and relationships

Figure 7.91: First floor plan

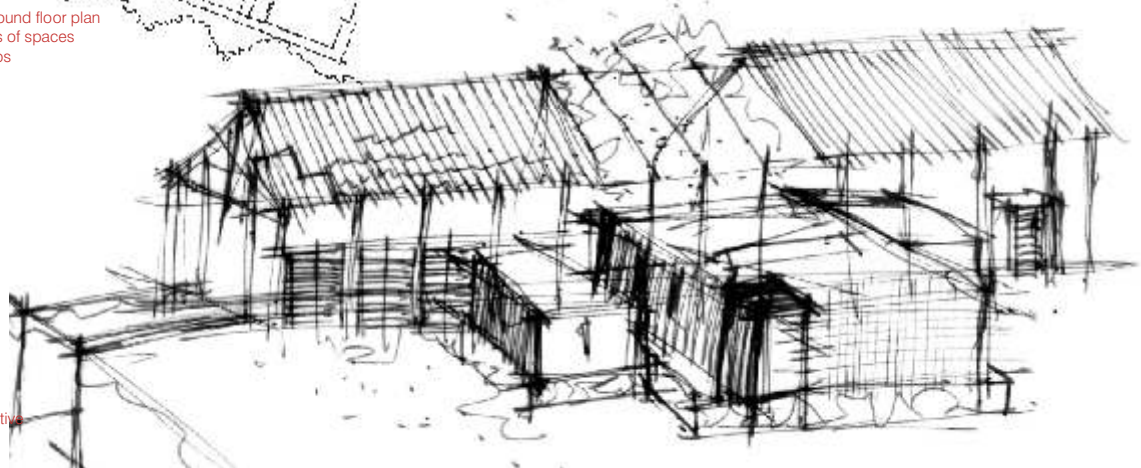


Figure 7.92: Perspective of health hydro

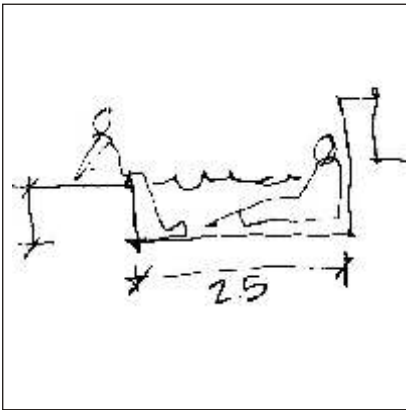


Figure 7.93: Section of plunge pool

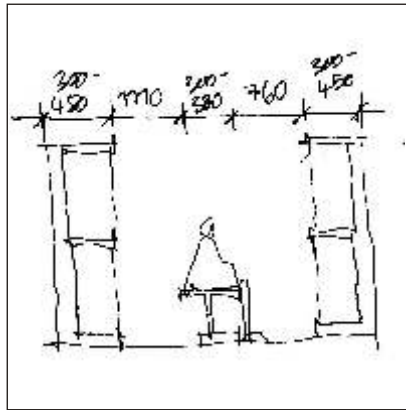


Figure 7.94: Locker room

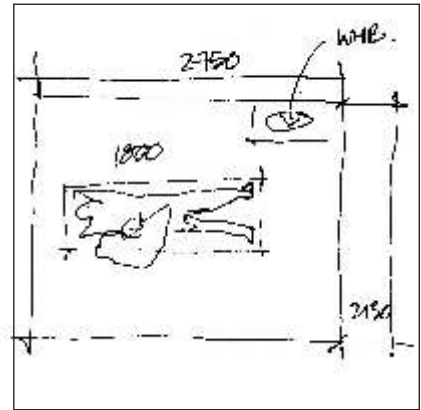


Figure 7.95: Massage room plan



Figure 7.96: Jardin d' Asie health hydro in France

6.12.6 HEALTH HYDRO

The main design consideration of the hydro was privacy and a tranquil, peaceful setting in a natural environment.

This is achieved by imploding the hydro. The spaces are set around an internal courtyard with open roof and dense landscaping.

Reception:

Books, magazines and Tv's can be used to occupy time while waiting.

Light: 500lux

Ventilation: Natural ventilation
0,33 w/m² °C

Room temperature: 21°C

Electricity: 15a plugs supplied

Pool area and spa:

Light: 500lux

Ventilation: Natural ventilation
at 0,17 w/m² °C

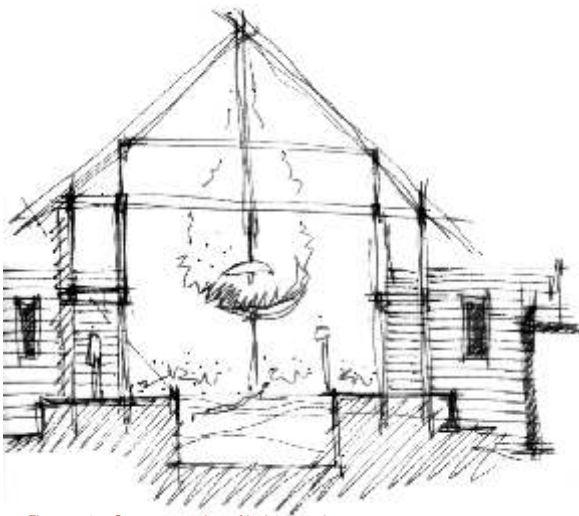


Figure 7.97: Concept section of indoor pool area



Figure 7.98: Concept section through hydro