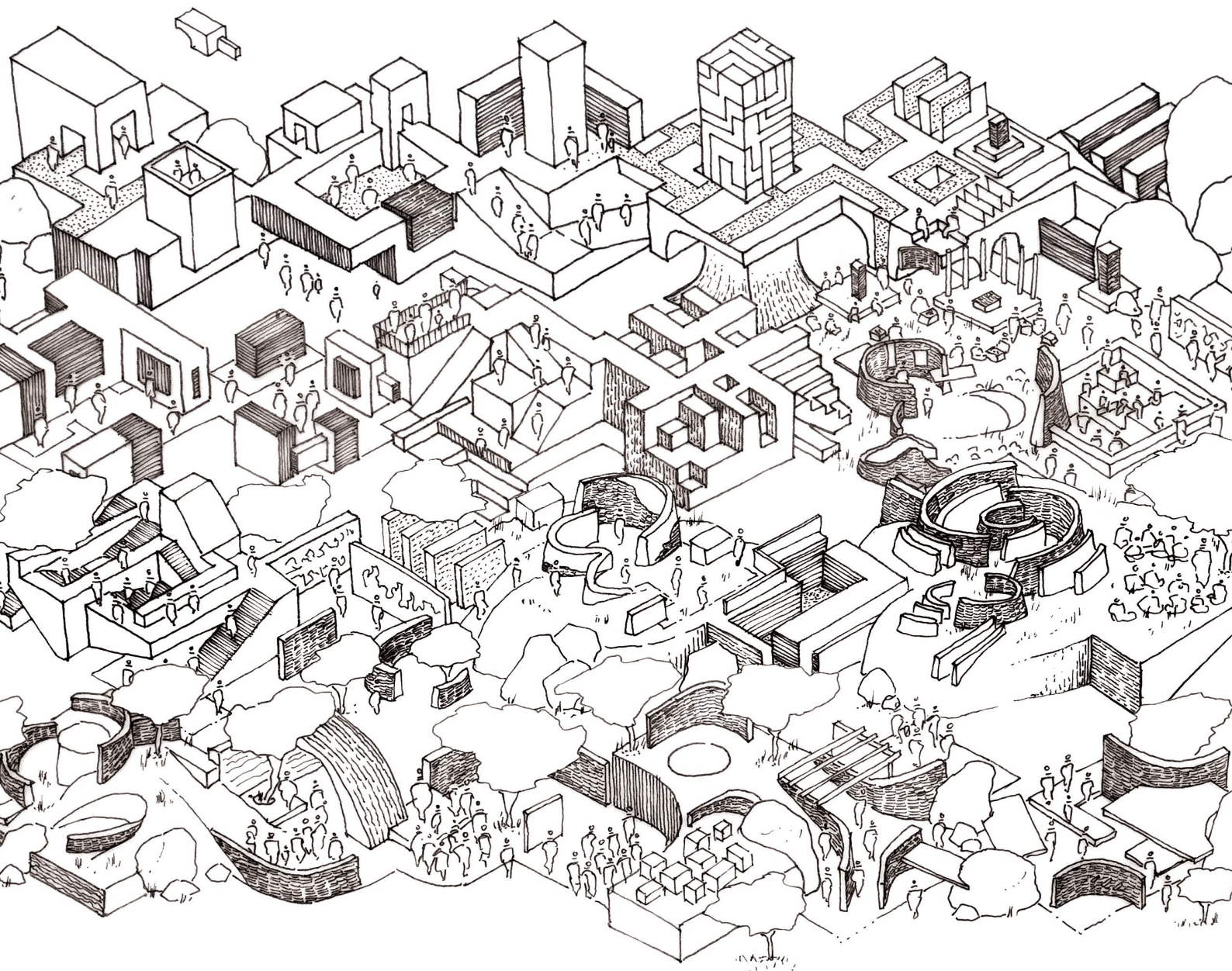# Chapter 2

Conceptualising a living heritage programme within the tangible and intangible context of iron age ruins in Bronkhorstspruit.

6. Introduction

This chapter builds on the position and situation discussed in the previous chapter by exploring further aspects of design research. A broad review of global heritage charters and paradigms informed a living heritage approach to iron age ruins in South Africa. The paradigm of living heritage as a response to ruins (usually abandoned) requires the conceptualisation of programme. The goal of this chapter is to generate programmes that facilitate a continuous production of heritage and then propose initial concepts for their architectural manifestation. Programmes will be generated, reviewed and iterated through the layering of diverse sets of informants.

Firstly, precedent studies are conducted and used in experiments to generate conceptual programmes. These are imagined within various scales of proximity to the ruins on site. Reflection upon these programmes occurs thereafter through the critique of contemporary architectural heritage typologies. The critiques will highlight important lessons and ensure the programmes build on the continuum of heritage practices. The role and involvement of various collaborators and participants is investigated under the categories of landowners, associated cultural groups, the public and relevant boards and councils. Viewed in conjunction with issues present on site, these groups shape the programmes according to particular needs and points of concern. The conceptual programmes are then offered specificity through the examination of readings regarding the culture currently understood to be associated with the history of the site. Various anthropological essays written by Chris van Vuuren (from 1993-2011) regarding the oral history of the Ndebele & Ndundza language groups form the subject of this study.

The physical context is discussed in terms of complexities in the mapping process, and the resultant plural lenses of observation that are required. Lessons gained from visiting the site are also taken note of as a means of extracting organisational tactics from the ruins to inform the production of architectural interfaces. Concepts that take the form of programmatic diagrams are presented as the culmination of the research. This product is extended by the use of the plan diagram as a conceptual mechanism to imagine the initial architectural manifestation of the programmes.

7. Conceptualising a living heritage programme

7.1. Precedent studies: Reviewing heritage responses

To gain perspectives on the built world of architectural heritage projects, and define a new programmatic response that aligns with a living heritage point of view, various local and international precedents will be discussed. Sketches that interpret each project are presented as visually accessible caricatures, which are later used in an experiment to generate a conceptual programme. The precedents are chosen for their response to heritage of a ruined and anthropological nature.

a) Maropeng centre

The Maropeng centre, design by MMA Design studio, in 2005, is an educational and research focused interpretation centre (MMA design studio, n.d.). It aims to disseminate information regarding paleontological history to the public and offer resources for scientists to conduct said anthropology. From an educational point of view the site functions fruitfully. Its relation to living heritage lies in the research it generates.
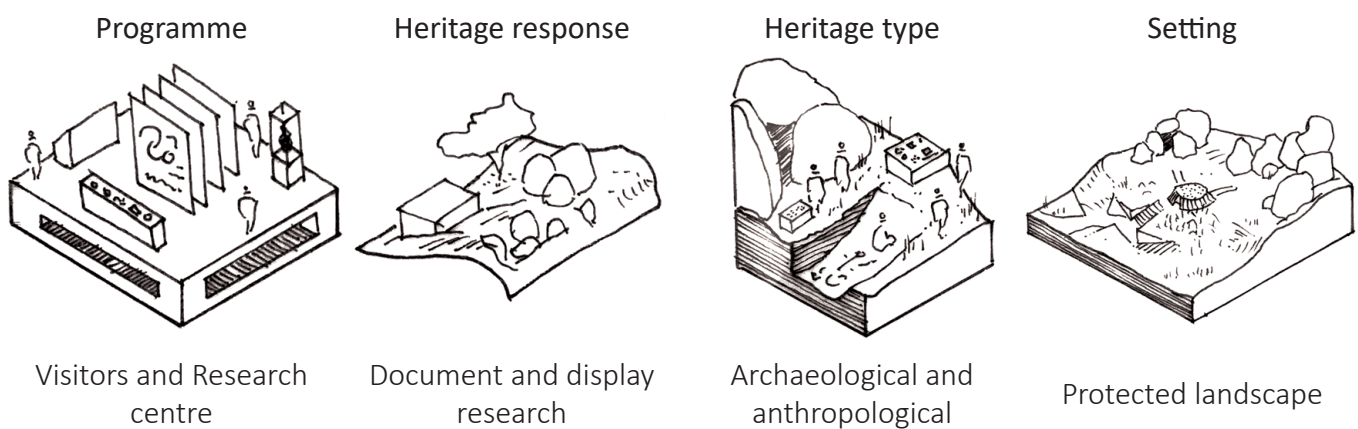
Programme	Heritage response	Heritage type	Setting
Visitors and Research centre	Document and display research	Archaeological and anthropological	Protected landscape

Figure 19: Diagrams showing the characteristics of the Maropeng centre (Author, 2021).

b) Mapungubwe interpretation centre

Peter Rich, architect of the Mapungubwe interpretation centre (completed in 2009) incorporated local craftsmanship into the production of the building (Fagan, 2010). Local woman, residing closely to the site, were employed in the manufacturing of sunbaked earthen bricks, used to construct the well-known vaults (Fagan, 2010). Designed with an African architectural identity in mind, this project succeeds in bringing relevance to both South African architecture and iron age culture. Peter Rich (2020) claims that skills taught during construction are still used by the craftspeople to build their settlements, and in that way the project continues to drive heritage production. However, the interpretation centre typology lacks a means of programmatic continuity beyond sparse tourist visits.
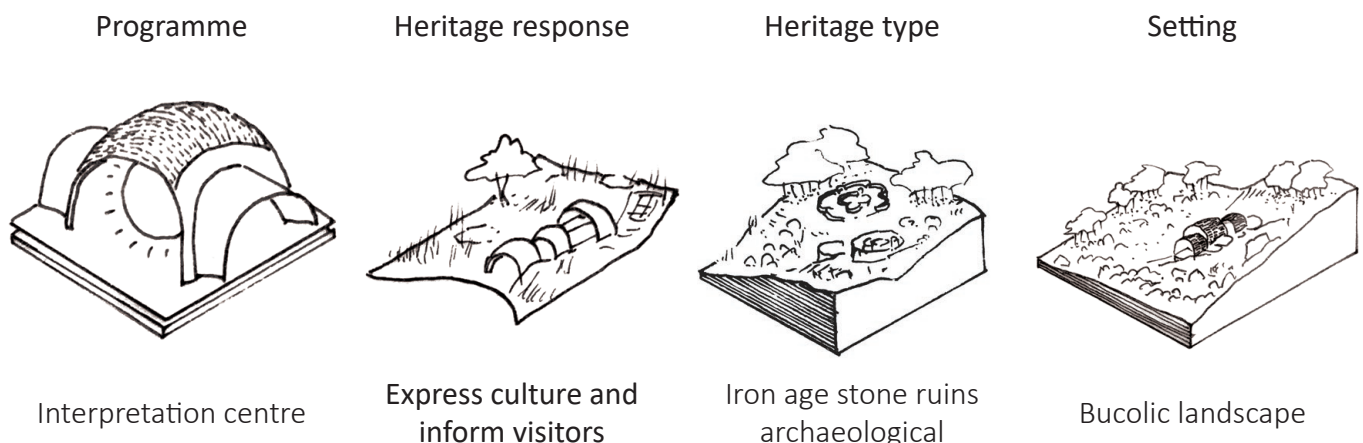
Programme	Heritage response	Heritage type	Setting
Interpretation centre	Express culture and inform visitors	Iron age stone ruins archaeological	Bucolic landscape

Figure 20: Diagrams showing the characteristics of the Mapungubwe interpretation centre (Author, 2021).

c) Stone circle museum

This programme is associated with the ruins around the Emgwenya region. The stone circle museum offers guided tours of the ruins, bringing them into public consciousness (Stone circle tours, 2021). The programme is living in the sense that the ruins inspire various tours, however, the museum presents truths based in pseudo-scientific practices. The ruins are mythologised and determined to be of Anunnaki origin (Stone circle tours, 2021), rather than African iron age origin. As a result, the ruins are experienced as apart from South African history and heritage, and do not contribute to the continuous production of South African heritage, contrary to the intention of a living heritage scheme (SADAC, 2009).

Programme	Heritage response	Heritage type	Setting
Meeting node	Guided tours and theory dissemination	Iron age stone ruins archaeological	Town surrounded by ruins
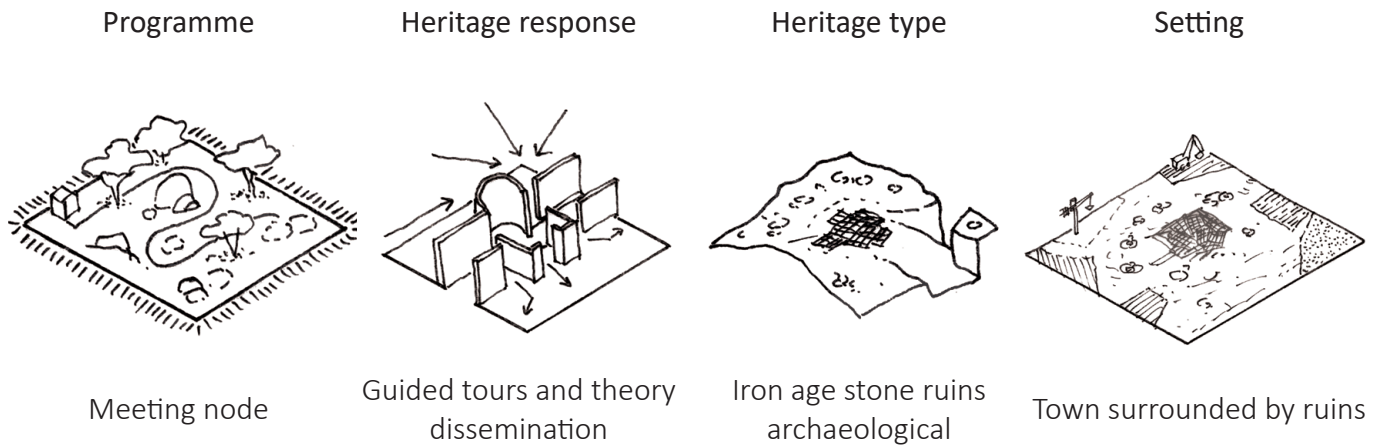
Figure 21: Diagrams showing the characteristics of Stone circle museum (Author, 2021).

d) Neues museum Berlin

On an international scale, the Neues museum by David Chipperfield, completed in 1994, relies on the notion of patina to express and emphasise historic change (Balfour, 2009). The site was damaged by war and stood in ruins for a long period of time (Moore, 2009). In the design for the project's renovation, the effects of war are not reversed, but highlighted. The skin of the structure becomes a condensed representation of time and its consequences. When considering a living heritage paradigm, the project remains a static museum displaying history as a frozen object. The notion that changes over time can be documented and represented, as well as allowed to occur as the product of inhabitation, would align more with a response focused on living heritage (ICOMOS, 2003).
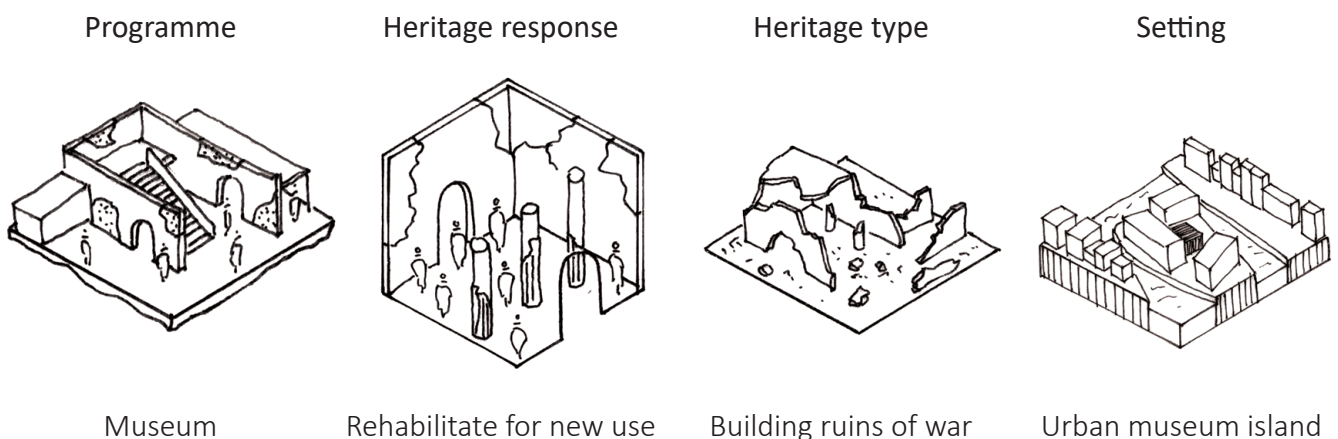
Programme	Heritage response	Heritage type	Setting
Museum	Rehabilitate for new use	Building ruins of war	Urban museum island

Figure 22: Diagrams showing the characteristics of the Neues museum in Berlin (Author, 2021).

e) Temple to Mithras museum

This site, located in a dense urban area, underneath a large skyscraper, was designed by Foster & partners, in 2017. The ruin, previously unearthed and relocated, was converted into an interface through which a sensory and experiential walk-through is generated (Melvin, 2018). The focus is on communicating a recreated sensational experience of the period in which the temple would have existed. While no actors are involved, and all the stimuli are artificially created, this project can still be classified as a cultural village response due to its sensationalised and anachronistic nature. Valuable in its own right, this project accommodates heritage within (albeit, underneath) an area alive with quotidian activity. It is protected and promoted, but possibly overlooked.

Programme	Heritage response	Heritage type	Setting
Experiential museum	Display archaeology and inform visitors	Relocated ruins	Underground high density commercial zoning
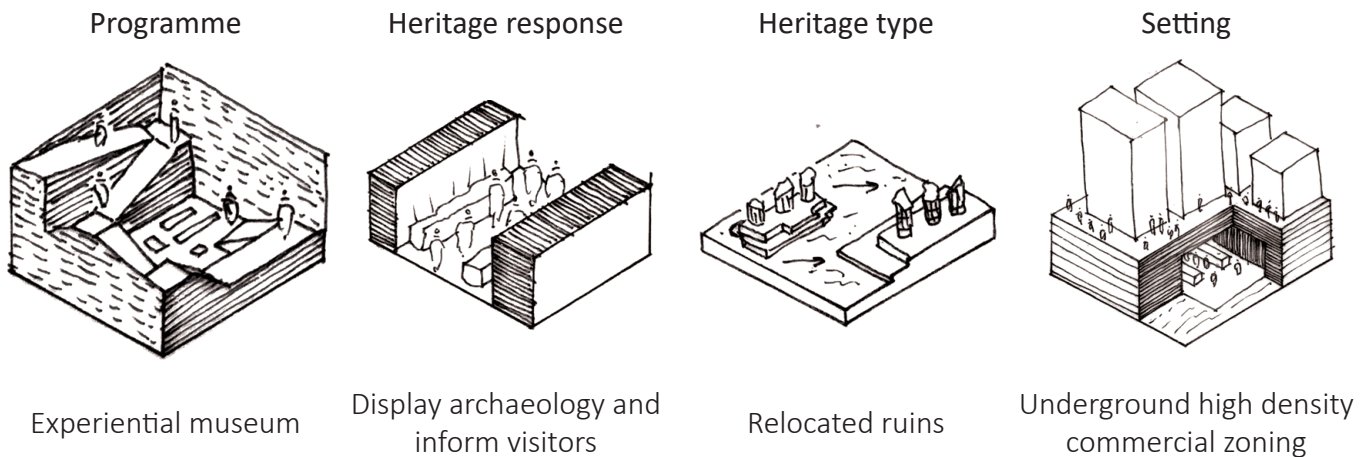
Figure 23: Diagrams showing the characteristics of the Temple to Mithras museum (Author, 2021).

The precedents above present a variety of heritage responses to historically distant ruined and anthropological heritage. To generate a new programme that could form the basis of the response to this project's site, an experiment will be conducted below, considering a living heritage approach.
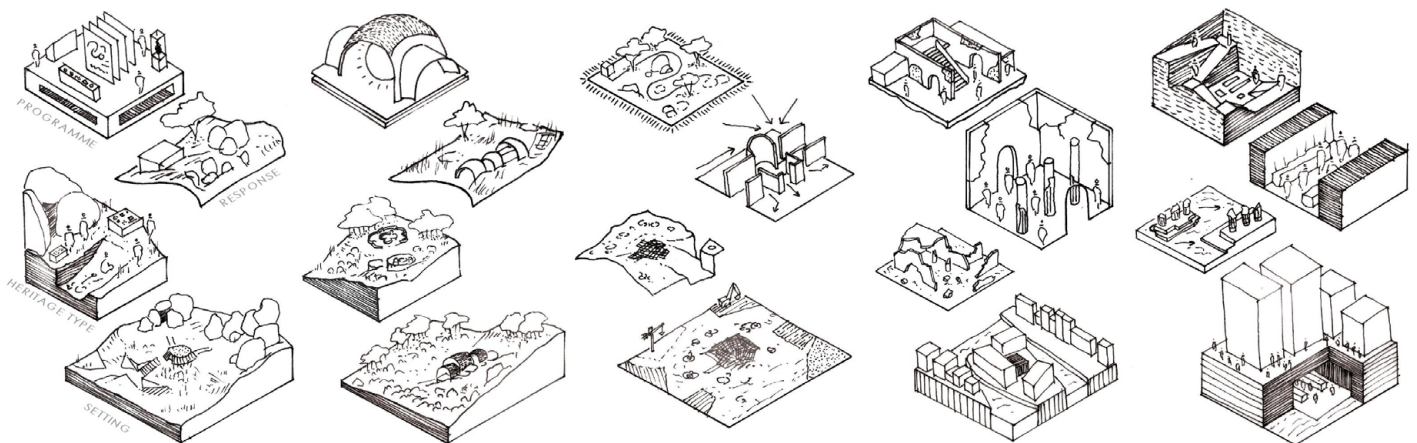
Figure 24: A table containing the summarised precedent studies (Author, 2021).

7.2. Generating conceptual programmes

Through a means of abstraction, each precedent above has been given specific characteristics according to architectural categories. These form the concept pieces that will be stitched together to form new programme concepts.

The table below describes each precedent according to notions of heritage response, user experience and the role of the practitioner. The concepts that drive the architectural language and the means by which the projects are created are also identified.

	Maropeng centre	Mapungubwe centre	Stone Circle museum	Neues museum	Temple to mithras museum
Architectural language	Maropeng centre	Extrapolated vernacular	Nodes / satelites	Infill / Juxtapose	Projected recreation
Medium 'built around the idea of'	Research data	Community engagement	Mystery	Patina	Sensation
Heritage response	Display / inform	House identity	Reveal single truth	Express change	Relocation / reveal
Role of practitioner	Research / articulate	Protect / evaluate identity	Tour guide	Restorationist	Narrator
Experience of users'	Education	Observe character	Voyeur	Temporal	Sensory experience

Figure 25: Characteristics of the precedent studies according to selected categories (Author, 2021).

The four constructed programmes are described hereafter and summarised into parti-diagrams.
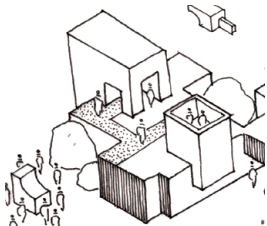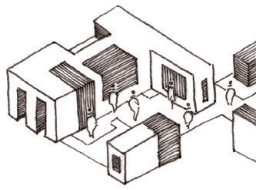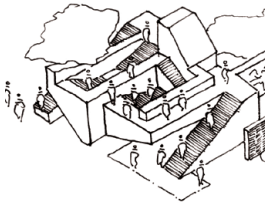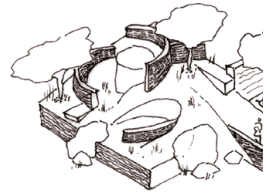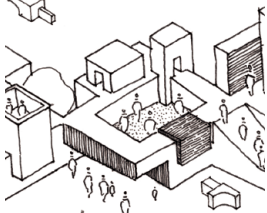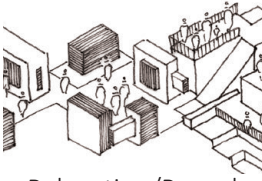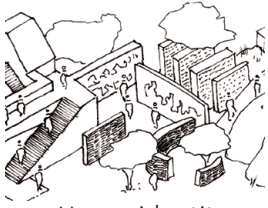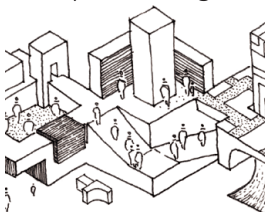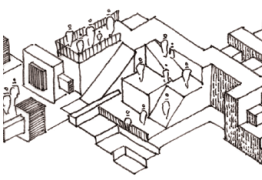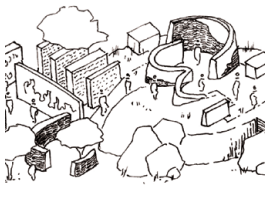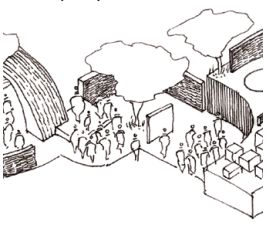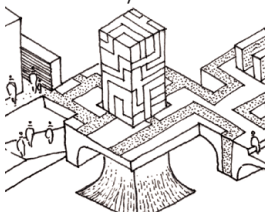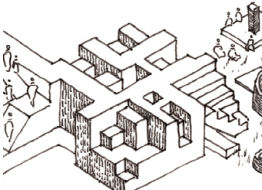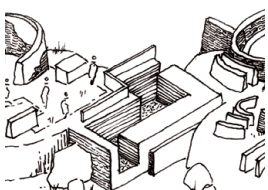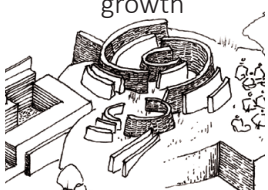
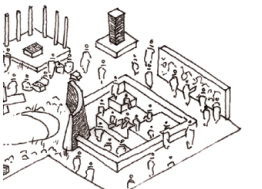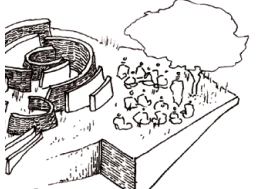|	A	B	C	D
Architectural language	Nodes / satelites	Infill/Juxtapose	Prescribed navigation	Extrapolated vernacular
Heritage response	Express change	Relocation/Reveal	House identity	Display and inform
Role of practitioner	Research / articulate	Narrator	Restorationist	Tour guide
Response to site issues	Information protection priority	Designing with change in mind	Resist change, facilitate growth	Extend influence beyond site
Medium 'built around idea of'	Research data	Community engagement	Patina	Sensation
Experience of users	Sensory experience	Voyeur	Education	Temporal experience
	Integration through resource expenditure and **research**	Integration through **distribution**	Integration through **ritual** and tradition	Integration through **experiential tourism**

Figure 26: A table showing overlapped characteristics resulting in the generation of new conceptual programmes (Author, 2021).

The sketches below show the overlap of selected characteristics in the process of constructing new conceptual programmes.

Figure 27: The new conceptual programmes imagined as parti diagrams (Author, 2021).
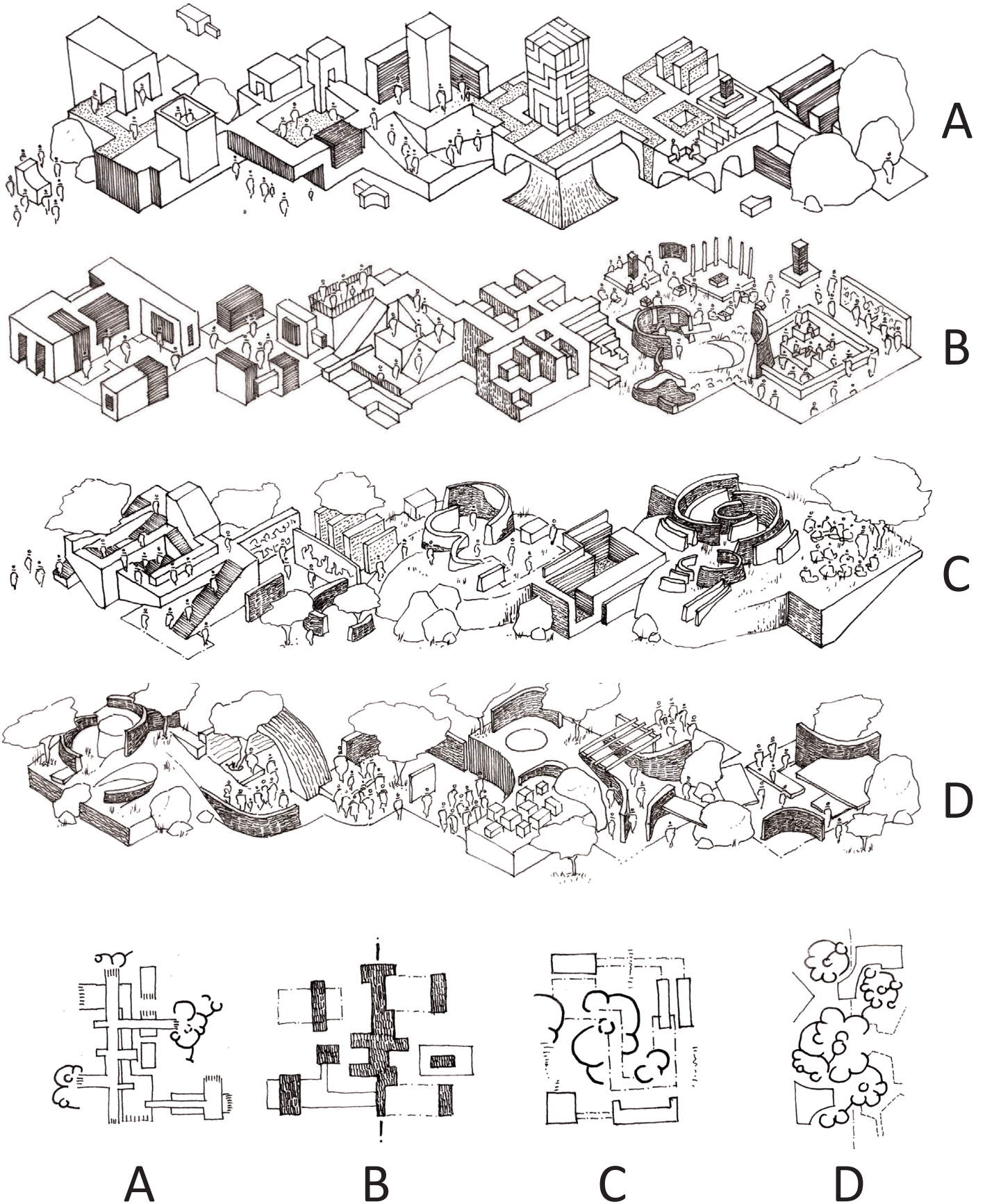
Reflecting upon these conceptual programmes, a further level of abstraction can be extracted. Each concept can be interpreted according to the proximity within which it suggests activity in relation to the ruins of the site. Namely;

-      Research that occurs adjacent to the ruins
-      Traditions that take place periodically within the ruins
-      Experiences facilitated around the ruins
-      Rituals enacted regularly between the ruins
-      Attachment nodes fulfill threshold requirements and become anchoring points in a removed proximity to the ruins.
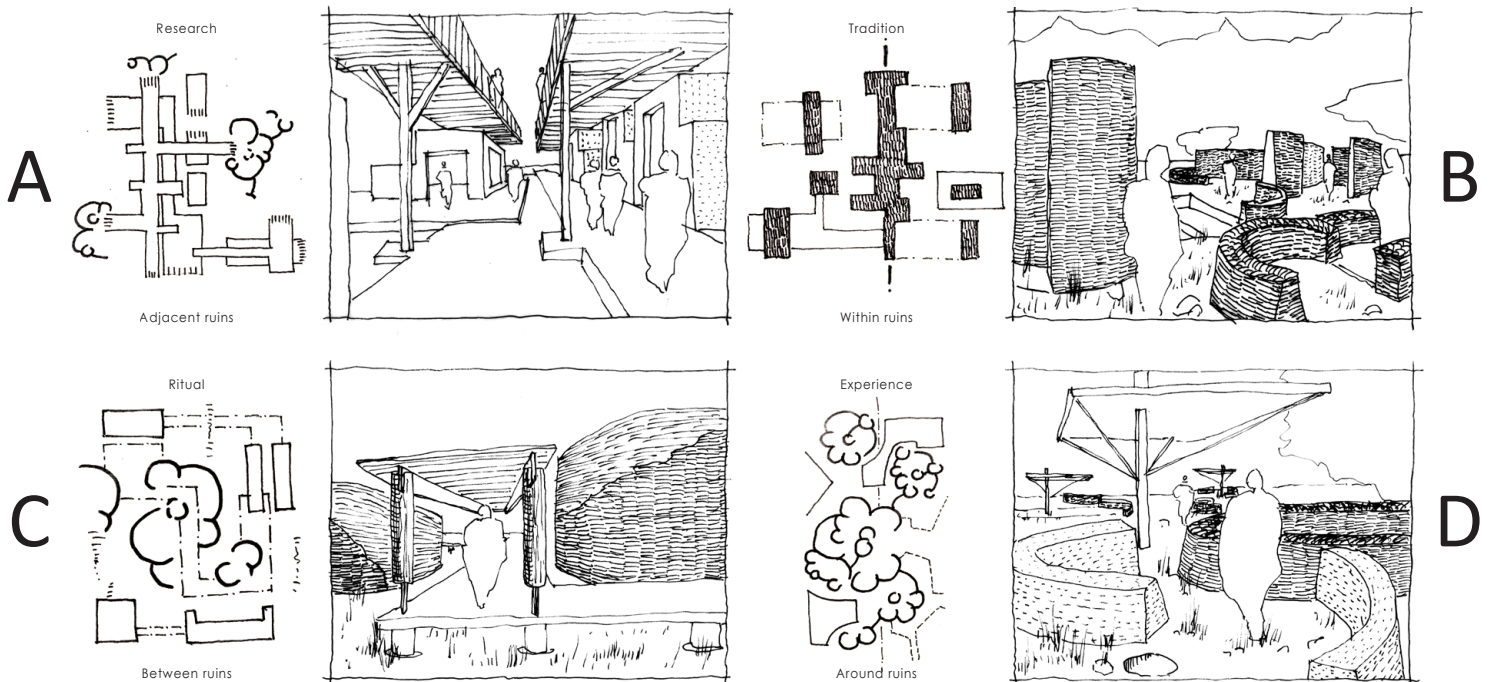
Figure 28: Parti-diagrams extracted from the conceptual programme experiment, imagined in vignettes as spatial elements in the landscape (Author, 2021).

This experiment, based on intuition, attempts to create new living heritage concepts out of built heritage precedents. In reflection categories of proximal association are generated. Hereafter, specificity from cultural idiosyncrasies and site particularities will shape the programme into a more contextual response. A critique of existing heritage response typologies will provide restriction and inform the programme from a critical lens as well.

7.3. Reviewing heritage architecture typologies

The precedents above can be described under various heritage responses. These responses, in the South African context and considering a living heritage approach, have certain critiques. A frame of reference based on the failure of existing heritage programmes could help to critically guide the development of programme going forward.

a) Museum

The legacy of the museum typology can be related to the Venic charter (ICOMOS, 1964). This charter and its paradigm enforce a strict preservation mindset. Under this premise, heritage artefacts have universal value and require the necessary protection for the education of future generations (ICOMOS, 1964). However, Baillie (2020) argues that this results in the removal of tangible heritage from intangible cultural narratives. This is contrary to the living heritage mindset and enforces a Eurocentric approach to African heritage projects. Latour (2014) further sees the legacy of museums tied to the exoticised ontology employed by external practitioners upon a culture, resulting in construed interpretations. The national policy on living heritage (SADAC, 2009) critiques this exoticised ontology in a South African context when discussing missionaries of the early colonial period. When interpreting African cultures, African ways of life, knowledge systems and rituals, were seen as different to the western Christian ideology of the missionaries and settlers (SADAC, 2009). During the apartheid period, African art, culture and practices were intentionally shunned in favour of promoting Eurocentric counterparts (SADAC, 2009). The museum typology can be challenged for these notions, the dichotomisation of tangible and intangible heritage components and the condescending interpretation of cultures by external practitioners. Both constitute a contrary approach to living heritage projects and can be addressed through consideration of agency, ownership and ontology.
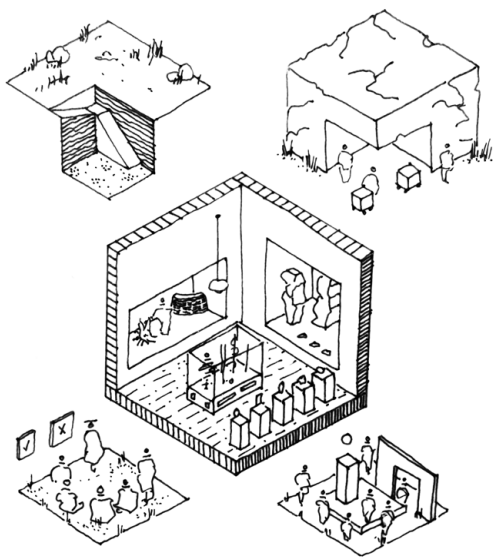
Figure 29: The museum depicted as an ideogram. Removed and frozen artefacts put on display as separate tangible heritage, rather than items interlinked with cultural practices (Author, 2021).
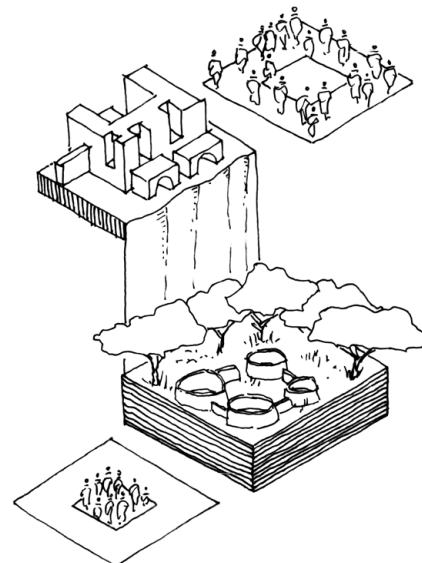
Figure 30: The cultural village depicted as an ideogram. Contemporary recreations of isolated historical programmes presented to voyeuristic tourists.

b) Cultural village

The cultural village, as seen in the Shona village at Great Zimbabwe, attempts to create a living heritage project (Baillie & Sørensen, 2021). However, there is a large critique offered to the power inequality it creates between the actors and the viewers. The educational facet is relevant, but the question of exposure at the cost of dignity arises (Baillie & Sørensen, 2021). Apart from the critique on dignity, this typology does not connect to other living facets of the culture portrayed. It still exists as an isolated display, frozen in time- only repeated every day. No production of heritage or continuation of narrative is facilitated (Baillie & Sørensen, 2021).

c) Interpretation centre

The interpretation centre (prominent in the Mapungubwe interpretation precedent described above) achieves a lot in terms of contributing to the creation of an African architectural identity. Rich exploration into materiality and adapted architectural principles make these pavilions valuable in continuing the production of heritage. However, there is doubt cast onto the longevity and exclusivity of interpretation centres. In some cases (such as Freedom Park) interpretation centres can still be isolated islands that lack interaction with their immediate and intangible contexts. The programme of such sites also needs to be reconsidered for its usefulness over time. Rather than just the display of information and narratives as a means to educate, there could be a consideration for the production of new heritage at such sites.
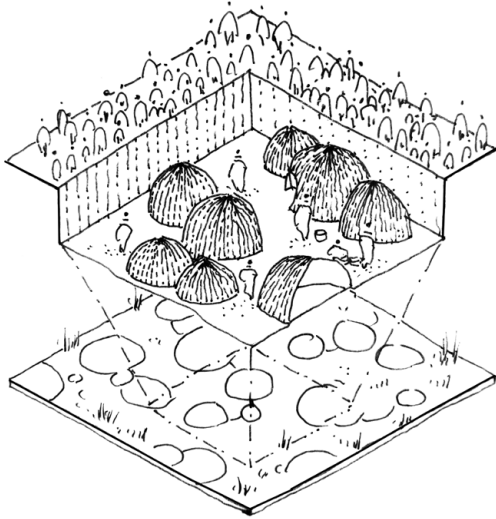

Figure 31: The interpretation centre depicted as an ideogram. The promotion of heritage through architecture, successfully drawing attention, but failing to ensure community engagement over time and programmatic longevity (Author, 2021).

By measuring the new programme according to a critical review of heritage response typologies insists that the new programme learns from past practices. The parties involved in the project will also play a significant role in understanding programme implementation and longevity.

7.4. Understanding party involvement

Before cultural nuances are explored and contextual issues are identified, an understanding of party involvement is required. Four tiers of stakeholders can be identified- landowners, language group members, boards and councils, and the public.

a) Landowners

Initiating a project such as this will require mediation with the landowner (SADAC, 2009), upon whose land the ruins are situated. For the case of this project, a mediatory centre will be established where a compromise can be determined between heritage boards, the city and the landowner. The public and cultural use of the region surrounding the ruins will be the goal of the mediation. The mediation centre at this site will serve as a precedent for the process of determining shared usage rights, one that can be emulated at other sites across South Africa (with other landowners).
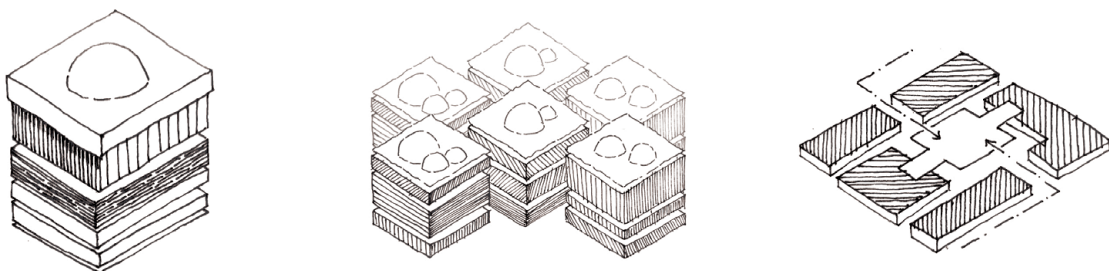

Figure 32: Diagrams depicting the contemporary land ownership of the current landowner, landowners at other sites and neighbours as a layer upon a continuum of culture-land association (Author, 2021).

b) Ndebele language group members

Members of the site's associated language group will play a vital role in the generation and longevity of the scheme. The processes of building creation, reuse/destruction and documentation of change over time will be managed by appointed custodians. Places of artefact creation, oral history documentation, skill development and performance will be considered as heritage production spaces. The handover of knowledge, both historical and newly generated, to future generations will be accommodated through on-site engagement. The role of tour-leading will be shaped through walk abouts and told through indigenous knowledge system understandings of the landscape.

Rituals enacted with specific cultural intent (indigenous knowledge systems) will be facilitated. Reintroducing the site as a place of importance in the culture will depend on the relevance it holds in the perspective of the language group members. However, the occurrence of such rituals will be facilitated and not shunned. The question of sacredness and secrecy (van Vuuren, 2001) and its interaction of the public will require careful attention. Resultant heritage will need to be dignified through choices of ownership and agency. The heritage produced should be protected, and the choice of sacredness should be respected.
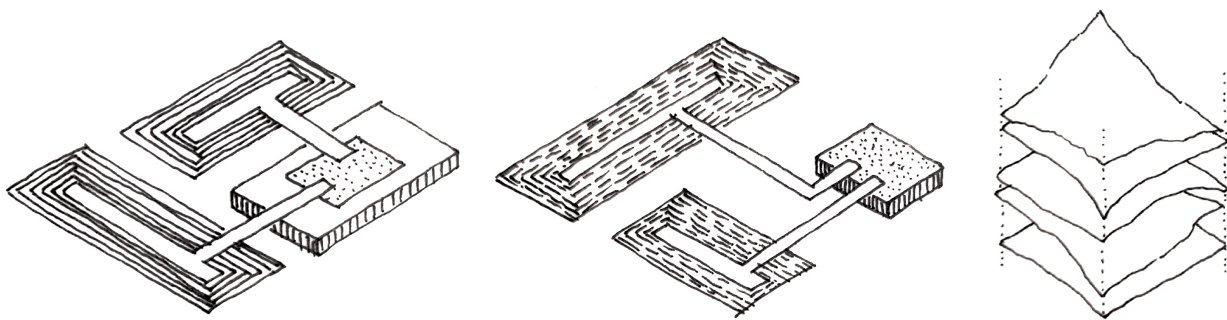

Figure 33: Diagrams depicting daily practitioners in close proximity to the site, event/ritual practitioners travelling larger distances to reach the site and descents of the language group as a category of practitioners (Author, 2021).

c) Councils and boards

The Tshwane municipality will be consulted with to determine changes in urban planning that can accommodate a new zoning allowance for such sites. The heritage board will be involved in protecting and hosting the public communication facet of the project. Consultation with community leaders will allow representatives of the heritage boards to communicate about what can be shared and what needs to be protected.
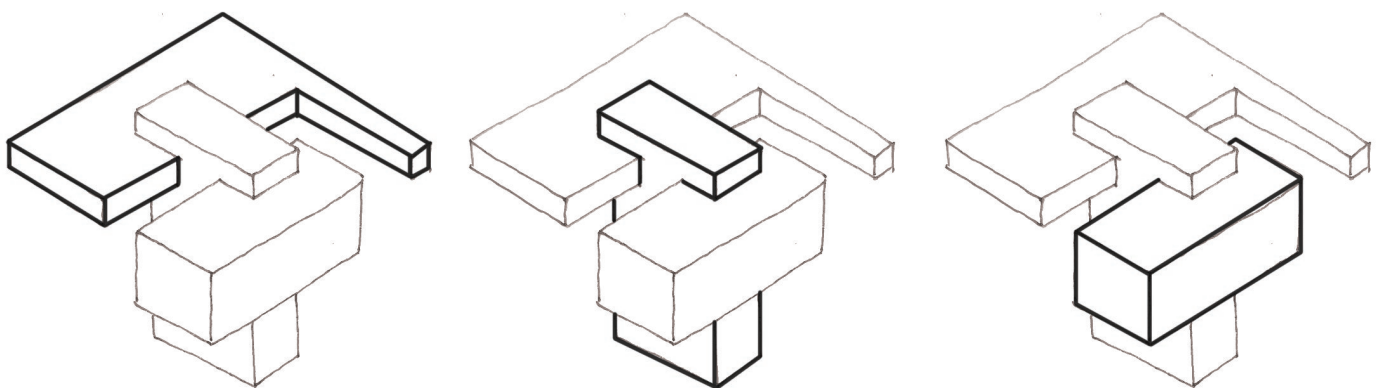

Figure 34: Diagrams depicting SAN parks, Tshwane metropolitan and PHRAG as boards and councils shaping the organisational framework behind a heritage project (Author, 2021).

d) The public

Public engagement will take the form of educational experiences. This project holds intentions of allowing the production of dignified heritage that can be protected and allowed to change over time. The experience of the user is placed in a secondary priority to the production of heritage on the landscape, and will be shaped by architectural interfaces that mediate privacy and exposure.

Throughout the consideration of party involvement, various needs and roles from each tier are highlighted. These will be consolidated later into programme sets after the information regarding cultural and site specificity are analysed.
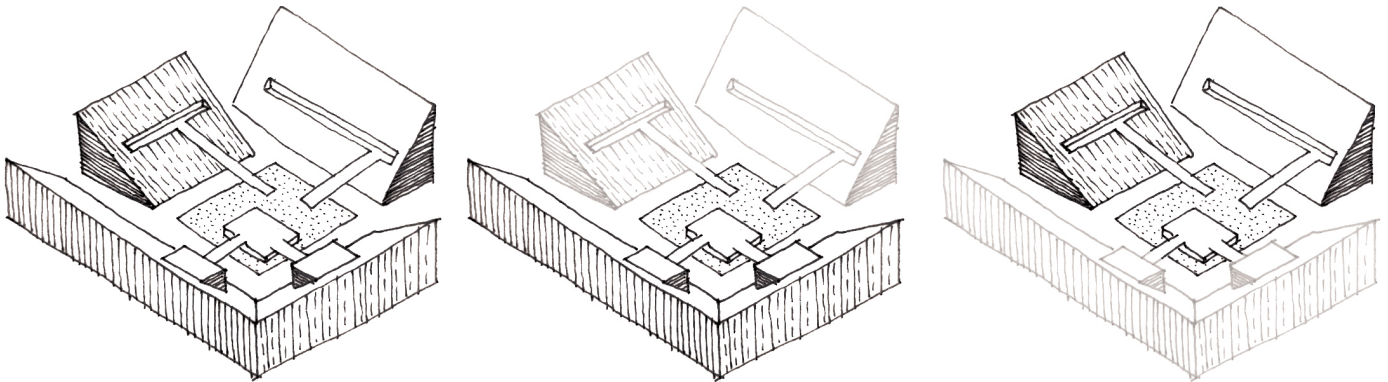

Figure 35: Diagrams depicting external parties interacting with the site. The general public as a larger category containing scholars and visitors (Author, 2021).

8. Informing a living heritage programme

8.1. Textural study: Oral history of the Ndebele & Ndundza

It is believed that the iron age ruins along the Bronkhorstspruit ridge were constructed by members of the Ndebele language group (communication from Antonites, 2021). The discussion about understanding the relevance of oral history as a valid source of anthropological data that van Vuuren (1993) explores over many years offers a rich insight into the Ndebele culture. van Vuuren (2011) has a keen interest in multi-disciplinary research practices as well and often draws focus to the architectural and spatial implications of culture, as enacted upon the landscape.

a) 1993: oral tradition and settlement reconstruction

In this essay, van Vuuren (1993) advocates for the value of oral traditions as a viable source of data and history keeping. The role of internal practitioners in understanding history and driving authenticity is crucial. A consideration of who the enactors of documentation are is relevant to this project.
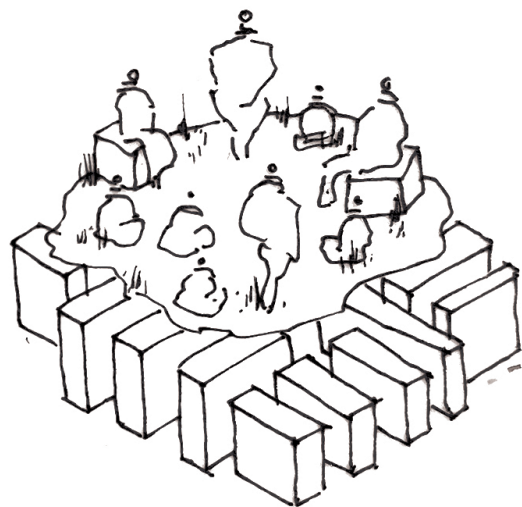

Figure 36: The concept of oral tradition constructing history as a layer part of the physical landscape (Author, 2021).

b) 2001: Exhibiting the Ndebele 50

This text discusses the role that a European gaze has in the commodification of Ndebele culture (van Vuuren, 2001). Sacredness and secrecy are important cultural facets that need to be respected in terms of protecting iconography and cultural identity from the process of commercial beneficence. The advertisement of cultural artefacts as products available for purchase, decontextualises them. In the context of an integrated tangible and intangible heritage, this decontextualisation objectifies the identities of the craftspeople that made them. Considering this critique, unobtainable objects with oral history attachments that resemble biographies, enforce a two-sided understanding of both the meaning of the object and the culture from which it comes.
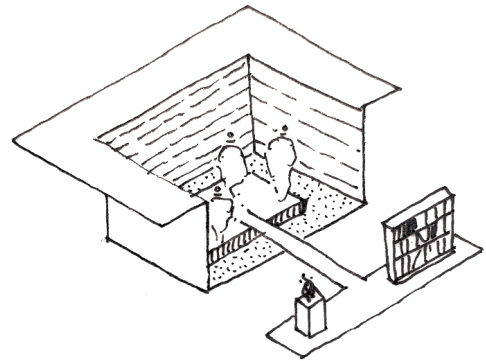

Figure 37: The effect of cultural commodification depicted as the decontextualisation of symbols and meanings (Author, 2021).

c) 2008: Intricacy of intangible cultural heritage

As seen in the Quebec declaration on spirit of place (ICOMOS, 2008), and reinforced by van Vuuren herein (van Vuuren, 2008) intangible and tangible heritage are inseparable when understanding a culture. Culture is said to arise out of a slow process, through ongoing cultural practices. Translated into architectural principles, place is a permanent facet, whereas space and built form are temporal (van Vuuren 2008). The human body, and its relation to the landscape, serve as the orientation point and scale bar for the implementation of built form. Culture, as rituals and traditions enacted by people over time, results in the simultaneous production and change of space on the landscape.
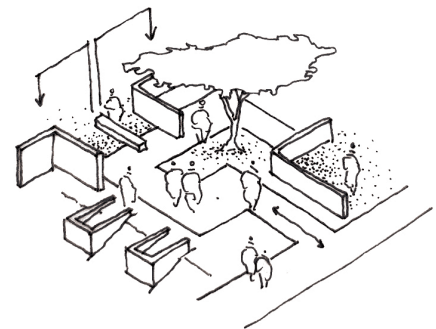

Figure 38: The integration of activity and place as two parts of one whole culture (Author, 2021).

d) 2010: Memory, landscape and event

This analysis of the historical condition of Ndebele settlements considers the role of the landscape as a memory refresher (van Vuuren, 2010). Oral history is tied to memory and its interaction with the landscape, resonating with Aalto's description of the tectonic landscape (Hartoonian, 2012). The concept of the past as a heterotropic layer can be interacted with through architecture. Architecture can rely on its relation to ruin landscapes to reclaim the past and facilitate the continuous production of heritage.
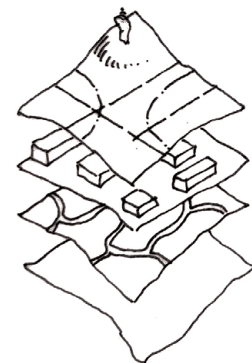

Figure 39: The landscape understood as a palimpsest of events tied to history (Author, 2021).

e) 2011: Lifetime in ruins

van Vuuren (2011) discusses the mnemotechnic nature of the landscape as a sensory experience extending from the body. This haptic understanding of space reveals a greater understanding of the layers of physical qualities associated with memory. Juhani Pallasmaa (2009) describes this hapticity as a crucial function in creating meaning within architecture. The landscape is both a repository of memories, as well as an area for cultivation and change (van Vuuren, 2011). Standing in direct opposition to the culture-nature binary which insists on the strict preservation of natural sublimity over the protection of inhabiting peoples.
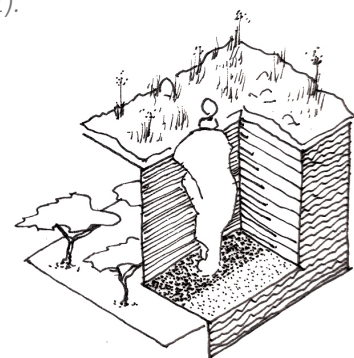

Figure 40: Prioritised sensory experience of the landscape in which haptic sensations fuel memory and inspiration (Author, 2021).

To give specificity to both the nature of this project's programme, but also the character of the architecture itself, the readings above are understood both for the content, but also for their possible translations into form.

8.2. Textual studies imagined as space

By exploring the spatial possibilities of the intangible characteristics and debates described in the texts above, architectural form can be sculpted out of the theory. While reading and note-taking, various intuitive sketches are made. These are translated to parti-concepts and those turned into maquettes which start to conceptualise an architectural approach.
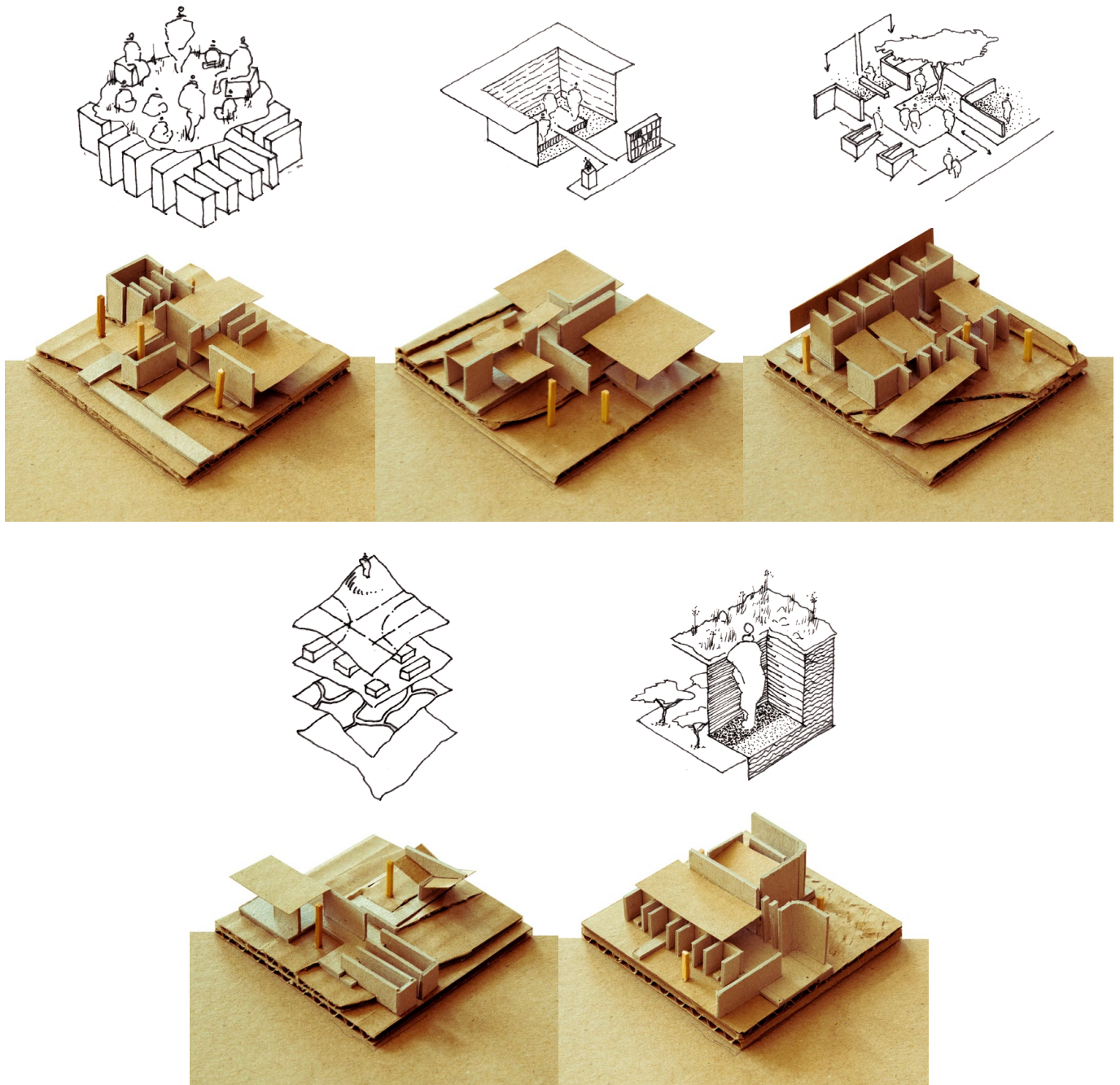

Figure 41: The photos above are of models generated based on each textual study that was analysed (Author, 2021).

8.3. Understanding programmes as relationships

Based on the perceived means by which someone would experience the site, the following five sets of programmes are established. These relationships attempt to incorporate the overlapped conceptual programmes as proximity determiners, the influences that stakeholders would play and the notions extracted from the textual study.

The arrival as a relationship between the suburbs and the ruins, at a removed proximity from the ruins. An initial attachment point for the programme to the surrounding context.
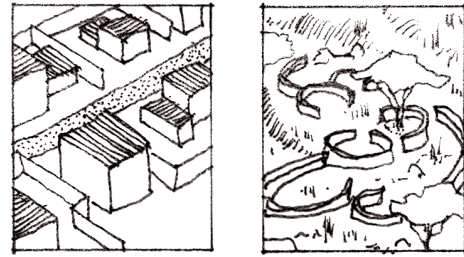
A mediation node facilitating the relationship between the landowner and members of the associated language group (Ndebele), adjacent to the ruins and focused on research and conversation.
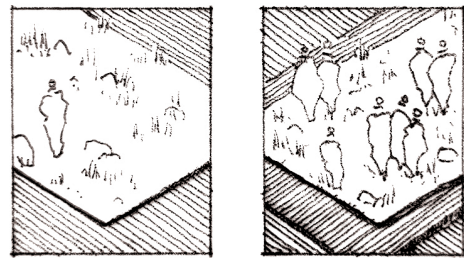
The production core which facilitates the continuous production of heritage in a tangible (artefacts, artwork, ritual devices and built spaces) and intangible sense (traditions, temporal considerations, documentation, dissemination). The relationship between the secrecy/privacy of this tradition within the ruins, and the public as viewers is considered here.
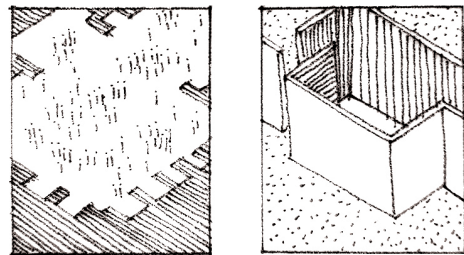
Spaces of transition mark thresholds between built form and historical and physical landscape. The experience around the ruins can also highlight the relationship between old and new structures and spaces.
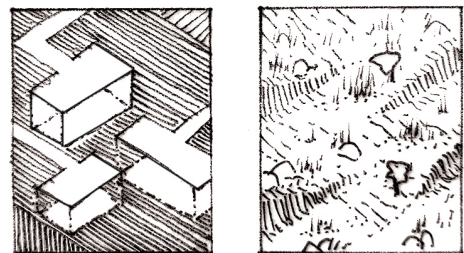
A database between the ruins will serve as a collection hub for the information regarding the ruins of this site, as well as a repository for information generated at other ruin sites. A relationship between the in-situ ruins and ruins around the country will facilitate the promotion of this era of heritage and allow conversation about the protection of ruins through their integration with surrounding contexts. This function will serve to protect the tradition of documenting change over time, that occurs as the result of inhabitation.
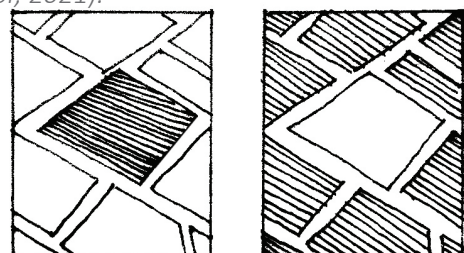

Figure 42: A diagram showing the aspects of surrounding suburbs and surrounding ruins (Author, 2021).

Figure 43: A diagram showing the aspects of landowner and members of the associated language group (Author, 2021).

Figure 44: A diagram showing the aspects of public access and secrecy/privacy (Author, 2021).

Figure 45: A diagram showing the aspects of built form and landscape, possibly, the new and the old as well. (Author, 2021).

Figure 46: A diagram showing the aspects of the Bronkhorstspruit ruins suburbs and other ruins across the country (Author, 2021).

9. A visit to the Bronkhorstspruit iron age ruins

9.1. Contextualising the site issues

a) Sand mining

The site visit was guided by Xander Antonites, an anthropologist at the University of Pretoria. Upon our arrival at the site the first prominent issues became visible. Many of the land owners around the ruins conduct sand mining excavations. This threatens the anthropological material in the surrounding region of the ruins, and if continued threatens the ruins themselves. A mechanism of protecting the ruins is required.

Figure 47: Photographs of removed earth matter (left) and the scars of large machinery (right), the damage caused by careless sand mining (Author, 2021).

b) Suburban expansion

Abutting the southern edge of the ridge is a suburban development that faces the Bronkhorstspruit dam. There are plans to construct new suburban districts to the east of the ruins. Expansion of the suburban fabric is a threat to the ruins, but also holds potential for integration. The means by which residential development can interact with a living heritage site is presents an opportunity to set a precedent for future such scenarios.

Figure 48: A photograph showing the juxtaposition of suburban development and the ruin landscape (Author, 2021).

9.2. Lessons from mapping through aerial photos

An aerial view of the site depicts the intricate plans of the ruins clearly. Various ruin complexes present the imprint of walls that have been demolished or 'robbed', a characteristic that is difficult to discern in person. Differences between entrances and collapsed segments of walls are indistinguishable in aerial photographs. A duality is then created, a legible morphological understanding is gained from this method, however an alternative is required to understand the grain of the ruins. Methods such as sketches made on site, photographs taken of particular moments and information conveyed orally through the guide, present intangible layers that enrich an understanding of the character of the site. Other than concerns of practical representation, viewing the ruins from above, yields a risky romanticisation of the plan that could inspire a formalistic response based in mimicry. This approach can be challenged as it prioritises visual and symbolic representation, over spatial interpretation[8].
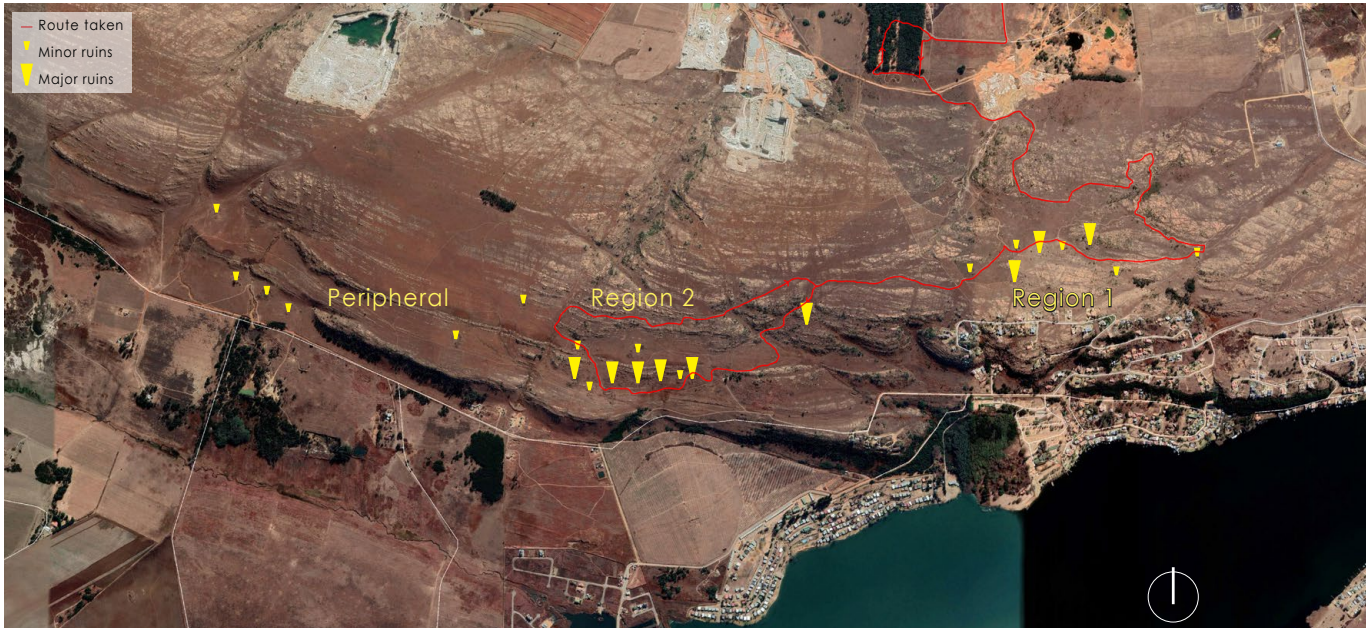
Figure 49: (Top) An aerial photograph depicting the extent of the ruin landscape with major and minor ruin indicators. (Bottom) Detailed mapping of Region one from a first person experiential perspective. This serves as the setting for this project (Author, 2021).

_____

[8]A group task title Architectural representation vs. Activity driven architecture completed for the masters mini conference challenges this idea of symbolic representation in architecture (refer to appendix C).

4.3. Analysis through photos and sketches (59)

The tour of the site produced information that filled in blanks and corrected misinterpretations that were previously present. From a first-person perspective, a sensory understanding is gained, which relates to van Vuuren's (2011) description of the importance of sensory understandings of the landscape in Ndebele culture. Supplementary information regarding the ruins was provided by Xander Anotnites on the walkabout.

a) Permanence scale

The ruins represent only a portion of the original structure. Based on archeological and anthropological investigations it is believed that upon the stone walls that still exists, a temporal skin of woven reeds was placed. Furthermore, clay foundations upon which huts would have been built are also no longer present. The reeds, floors and dwelling walls deteriorate naturally over time leaving the stone walls bare. Another observation is the presence of larger trees and bushes growing from within the walls and not in the surrounding veld. Protection provided by the walls shields saplings from veld fires and ensure their successful growth. This dynamism in temporality sparks interest in the possibility for implementing temporary features in conjunction with permanent structures. As mentioned before, there is also evidence of stone walls that have been demolished or robbed throughout history. The notion that even permanent features can change due to cultural influences over time informs the use of materials of permanence and impermanence later on.

b) Privacy hierarchy

The complexes arise organically as the product of social hierarchy (On site communication with Antonites). Those who are able to rally members to their cause can afford to spend labour on higher and wider stone footings. Therefore, there tends to be a steady decline of stone wall prominence the further from the origin point walls are added. As more families join a leader, the wider the complexes stretch. Boundaries are also believed to have been created for physical separation more than visual. Inner dwellings would have been the most private, and their construction would not allow visual or physical interaction by the general public. But the outer stone walls were shaped to guide the flow of movement around and towards activity, with little fear of visual seclusion.
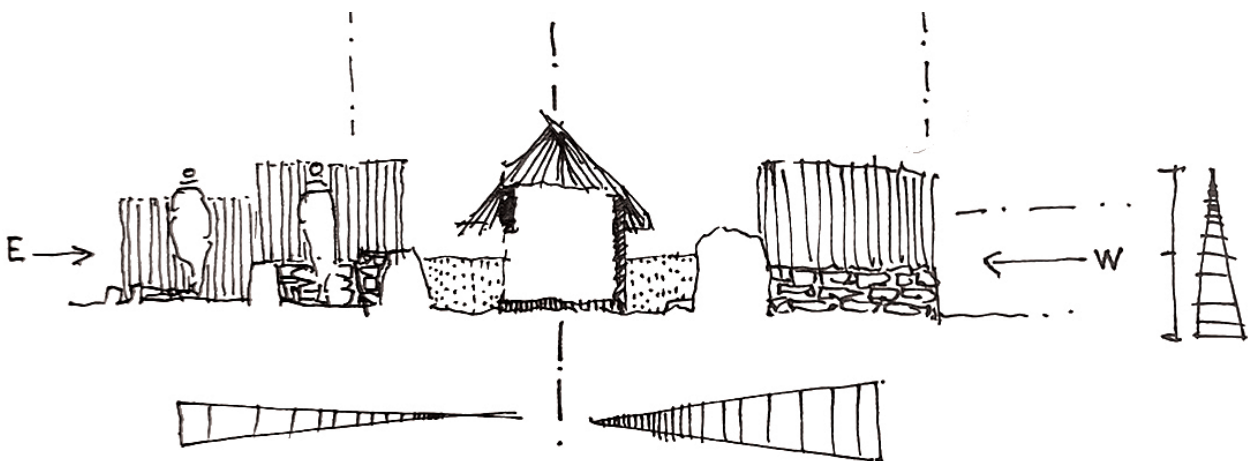

Figure 50: Socially emergent form depicted in a projective sketch. Stone walls surround interior enclosures and timber screens enclose exterior enclosures. A scale of physical privacy is understood (Author, 2021).

c) Terrain levels

On site, various complexes appeared to have terraced lobes. Two explanations are currently postulated for this occurrence. The first is evident of cattle paddocks. In these areas where cattle were stored, dung would be removed and reused as a fuel source and a building material. This resulted in a slow carving out of these sections that appear to be sunken below the other areas. Secondly, terraces can be seen in areas higher in elevation on the sloping ground. Fluvial runoff accumulates against the stone walls during heavy rains and causes the separate lobes to have stepped levels. This is not thought to be an initial design consideration.
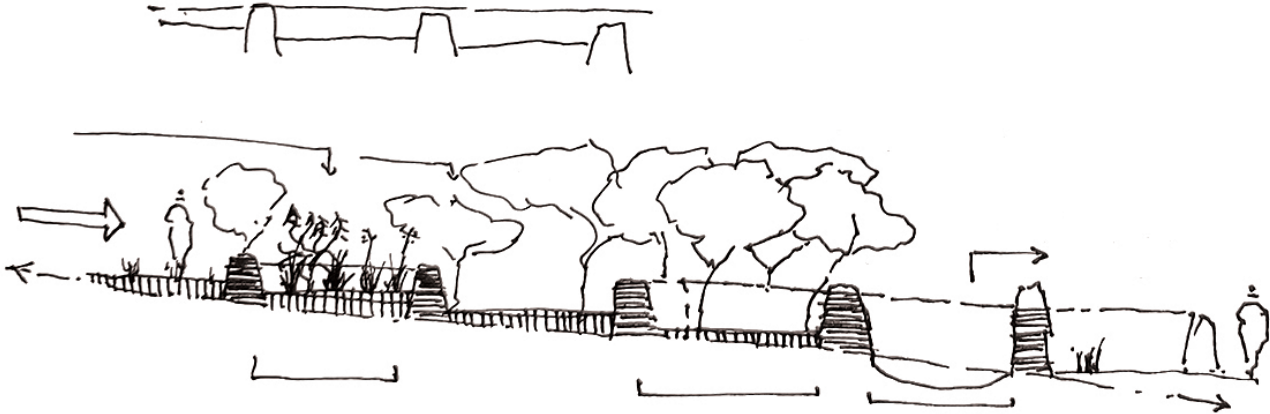
Figure 51: Temporally emergent form shaped as terraces. Cattle kraals are sunken from years of dung removal, and adjacent lobes are raised from years of fluvial runoff (Author, 2021).

d) Spatial anchoring points

The complexes seem to be placed without specific relationships to other ruins. However, there appears to be consistency in the orientation of public entrances and the more private entrances. Approaching from the west, the public entrances are wider and usually located in close proximity to larger kraals. The eastern rims of the ruins appear to have small guided entrances that lead into private courtyard spaces. Other than that, the complexes are anchored more so by their relation to available building materials (Rocky outcroppings) and open areas of land, possibly for grazing. The idea of landscape features that serve as anchoring concepts and attachment points for activity is a useful principle to further employ when organising a new architectural project.

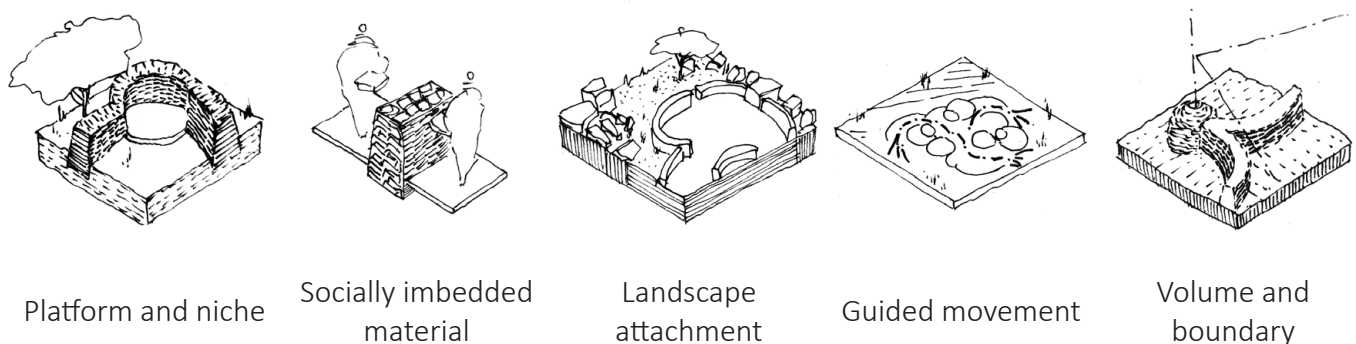| Platform and niche | Socially imbedded material | Landscape attachment | Guided movement | Volume and boundary |

Figure 52: (Left to right) Organisational principles extracted from on-site mapping. Programmed niches built into walls, fabricated materials are imbedded with social meaing, landscape elements offering attachment points for spaces, guided movement through sequentially attached spaces and structural mounds serving as markers between which walls are built (Author, 2021).

10. Programmes as initial design concepts

As the product of this design research chapter, the informantion taken from the above explorations and studies are used to synthesize conceptual plans that act as conceptual designs. These are generated to accommodate the conceptual programmes above and begin to concretise the theoretical exploration. The author's normative position of hybridised designer autonomy and post-critical projectivity is visible here. Autonomous design concepts based on critical contextual informants are generated. To follow, these concepts are projected on site and corporealised in the next chapter. Brief descriptions of each building are given below.

10.1. Arrival pavilion
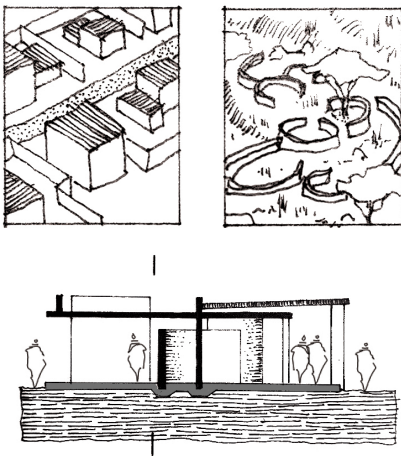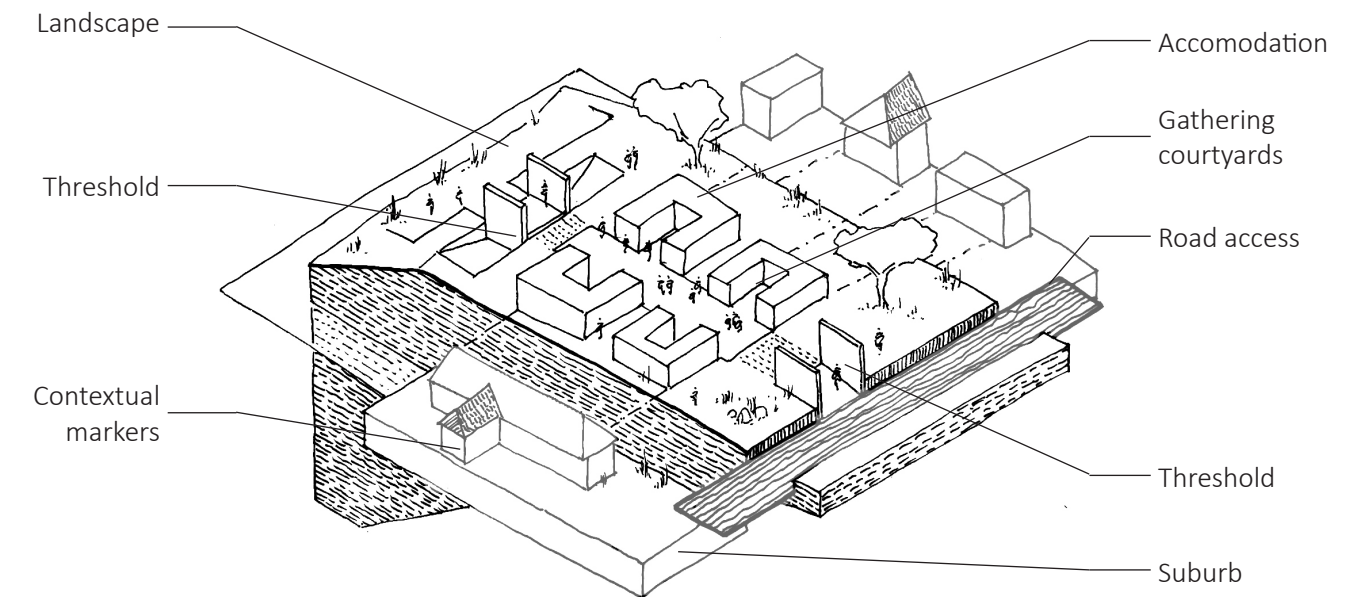
Figure 53: (top) Diagram of indicating the components of the arrival pavilion programme (Author, 2021).

Figure 54: (above & right) Plan and section as concept diagrams showing an initial organisation of the programme components for the arrival pavilion programme threshold (Author, 2021).

10.2. Mediation node

Perforated boundary

Discussion hall

Landscape vista

Landscape vista

Supplementary offices

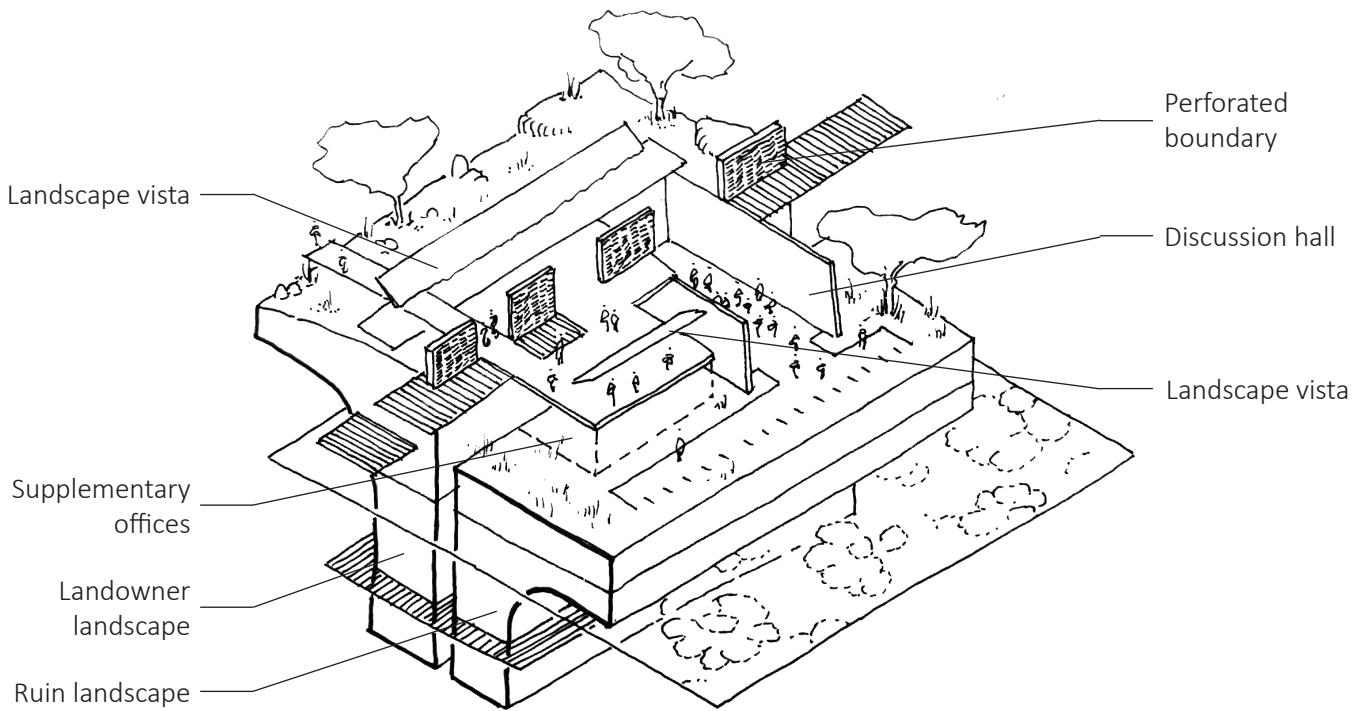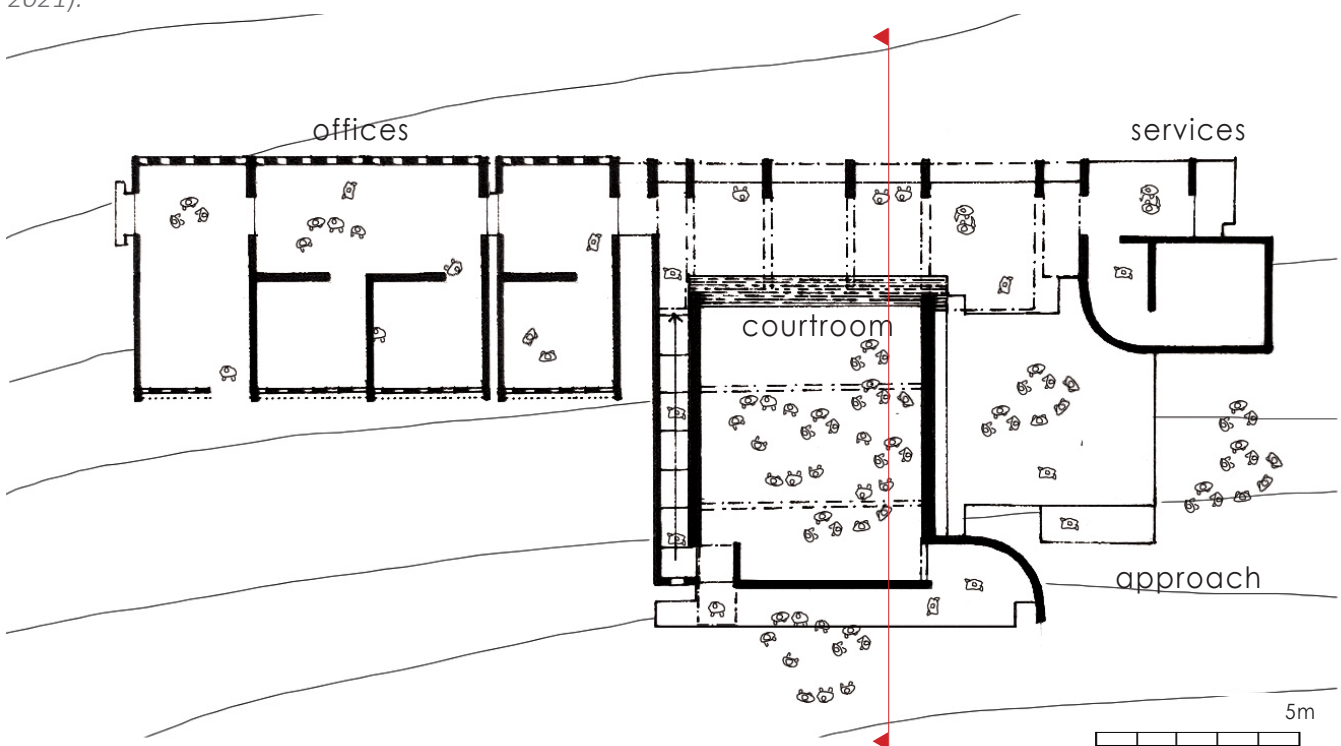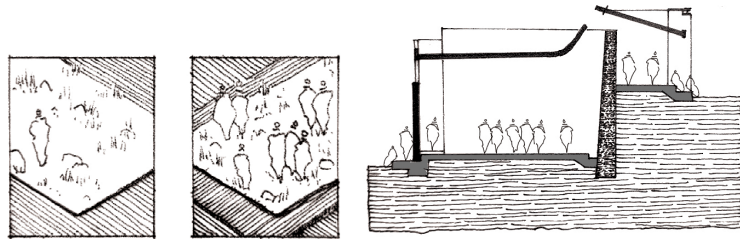Landowner landscape
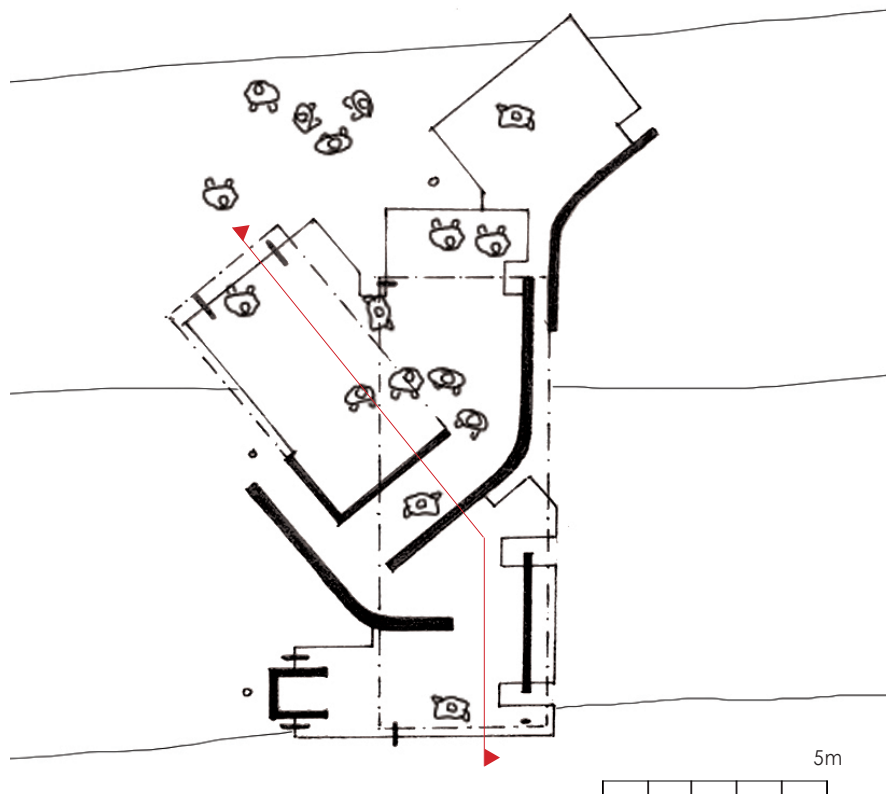
Ruin landscape

Figure 55 (top): Diagram of indicating the components of the mediation node programme (Author, 2021).

Figure 56 (right & bottom): Plan and section as concept diagrams showing an initial organisation of the programme components for the mediation node programme (Author, 2021).
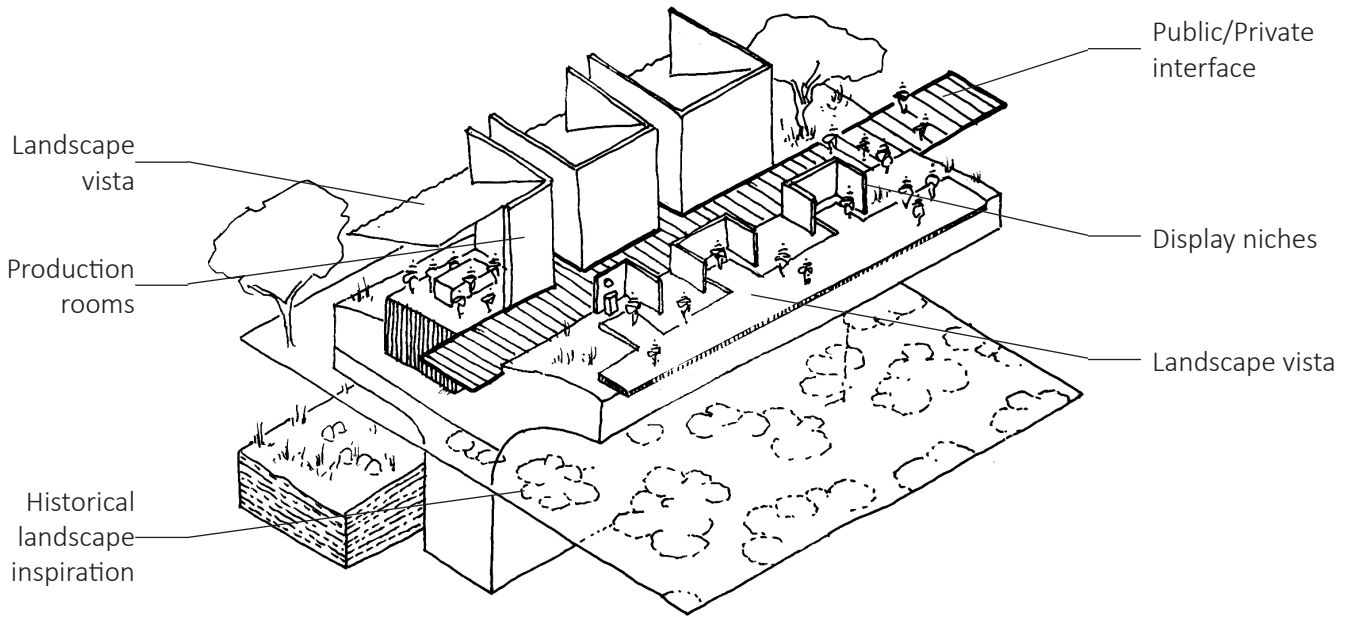
offices

services

courtroom

approach

5m

10.3. Heritage gallery

Landscape vista

Production rooms

Historical landscape inspiration

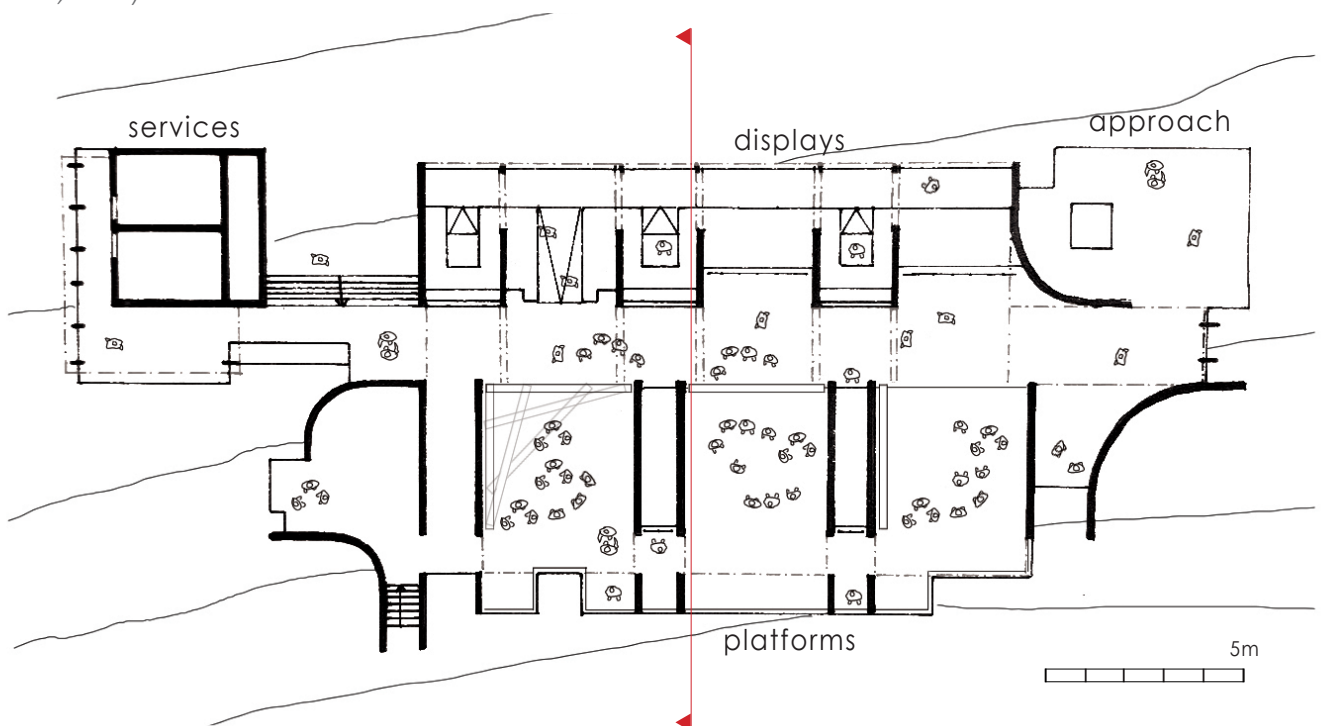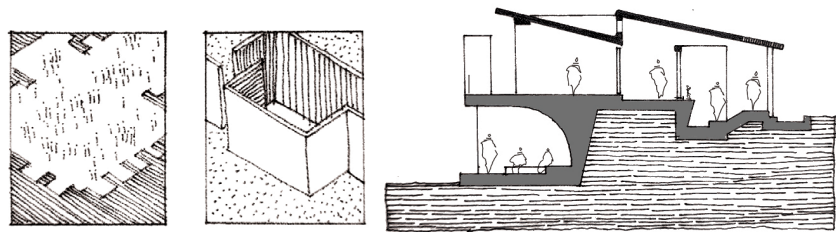Public/Private interface

Display niches

Landscape vista

Figure 57 (top): Diagram of indicating the components of the heritage gallery programme (Author, 2021).

Figure 58 (right & bottom): Plan and section as concept diagrams showing an initial organisation of the programme components for the heritage gallery programme (Author, 2021).

services

displays

approach

platforms

5m

10.4. Navigation platforms

Visible navigation markers

Directional indicators

Future foot path network

Contemporary routes

Iron age ruins

Landscape

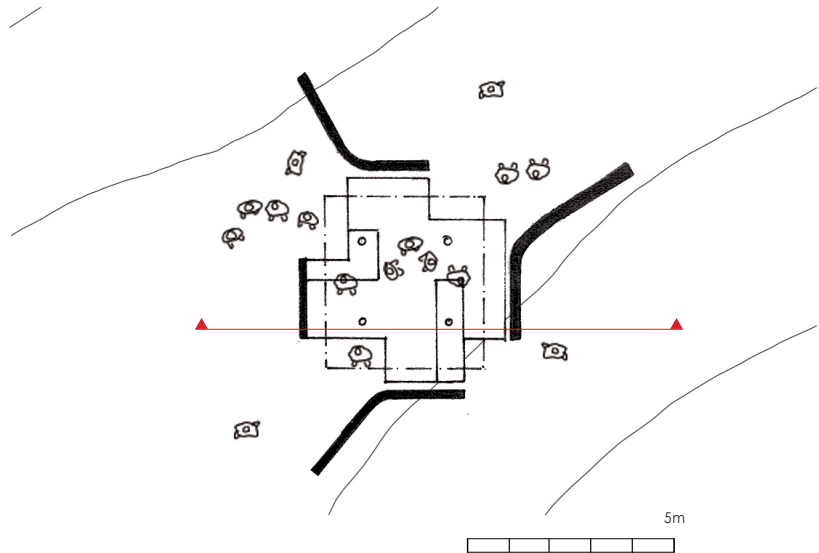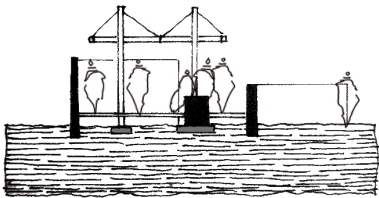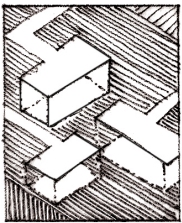Tectonic landscape
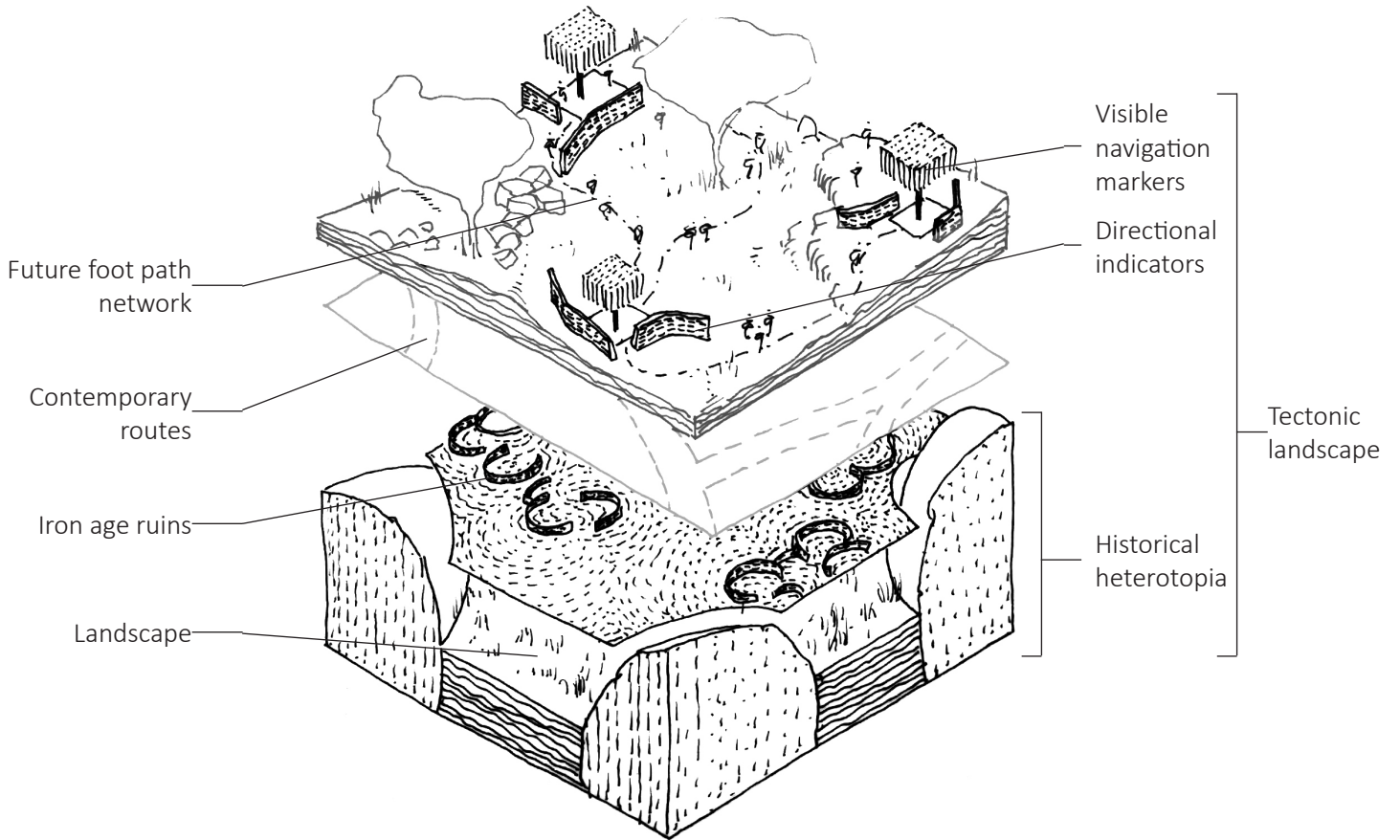
Historical heterotopia

Figure 59 (top): Diagram of indicating the components of the navigation platform programme (Author, 2021).

Figure 60 (bottom): Plan and section as concept diagrams showing an initial organisation of the programme components for the navigation platform programme (Author, 2021).

10.5. Research repository

Road access

Archive

Drop off/
collection
threshold

Research
facilities

Discussion/
dissemination
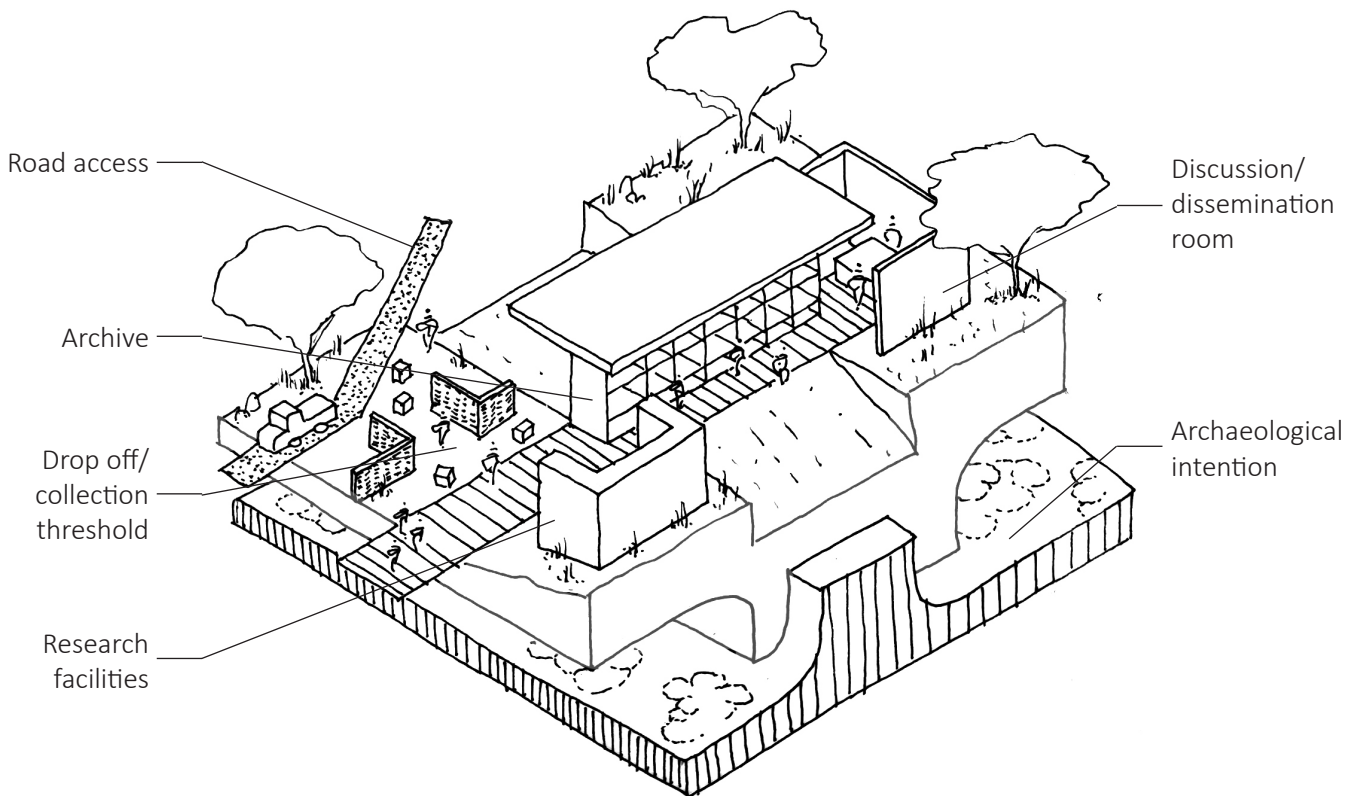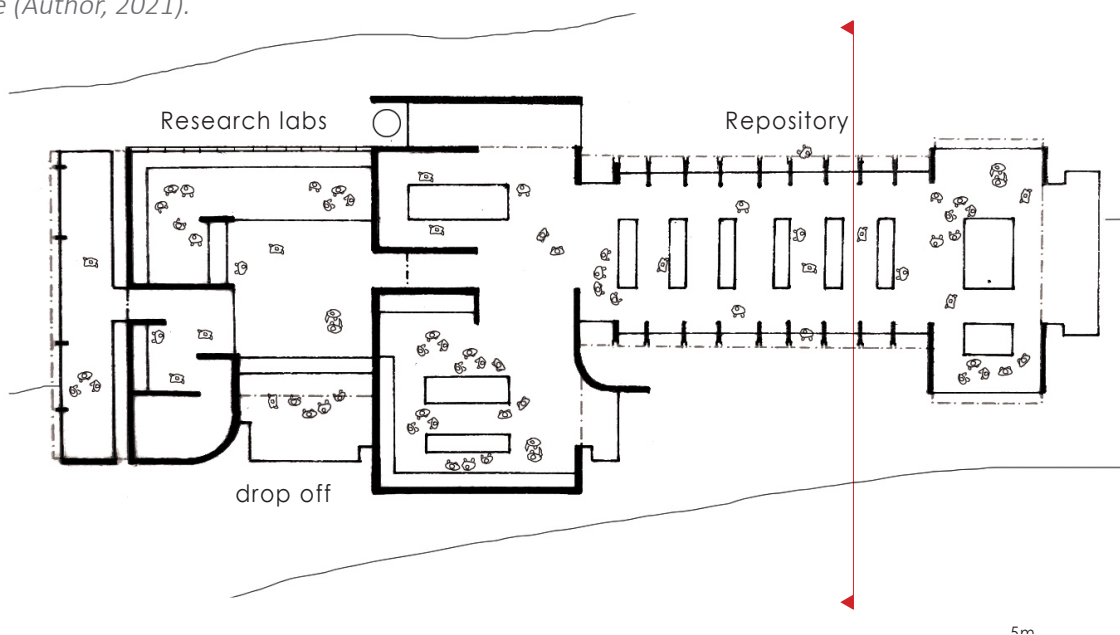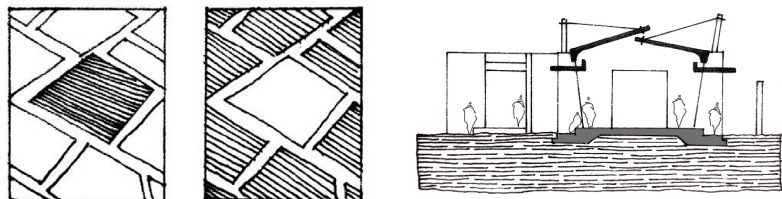room

Archaeological
intention

Figure 61 (top): Diagram of indicating the components of the research repository programme (Author, 2021).

Figure 62 (right & bottom): Plan and section as concept diagrams showing an initial organisation of the programme components for the research repository programme (Author, 2021).

Research labs

Repository

drop off

5m

11. Conclusion

This chapter shows the design research that sits behind the consequent design concepts. An experimental exercise in which intuitive programmes were generated from precedent studies offered a starting point for conceptual ideation. Paired with a critical review of existing heritage programme typologies and a role analysis of the parties involved, more detailed programmes were generated. Thereafter, the cultural and physical contexts were examined through textual studies and experiential mapping respectively. The first chapter described a review of a broader heritage context and serves as the background for the context of this site. Together, the conceptual programme generation process and the contextual analysis created a framework within which initial design concepts could be generated. Going forth, these design concepts need to be further contextualised through their placement on site. This will add a layer of specificity regarding orientation, topographical relationship and climate adaptation.
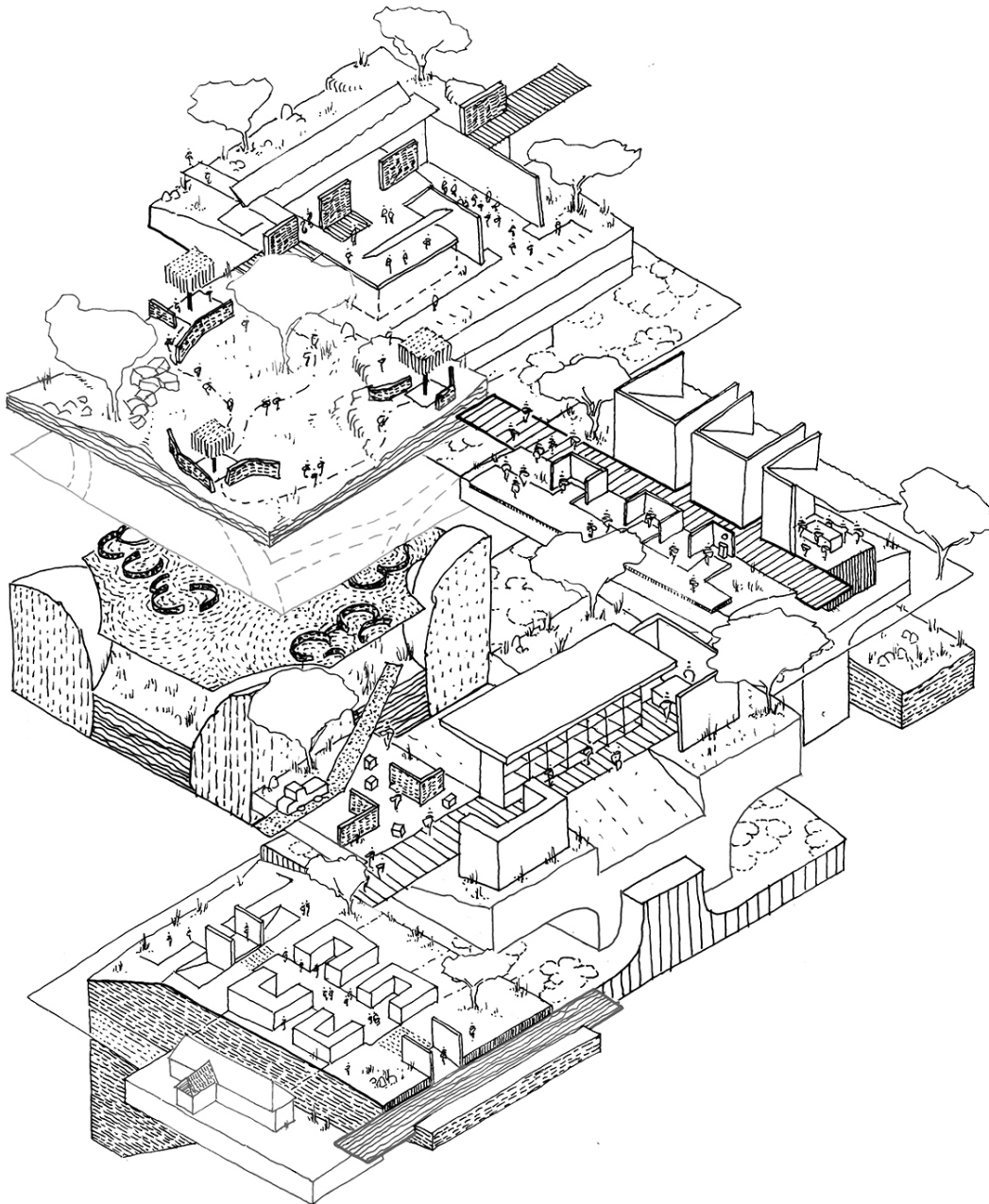

Figure 63: An amalgamation of the programme diagrams into one diagram that shows a conceptual understanding of the programme framework to be employed at the site (Author, 2021). Refer to Appendix K for a reflective collage of the programme framework concept.