

**SITE SELECTION AND STUDY –
THE EXISTING PARROT ENCLOSURE**



4.1. INTRODUCTION

Many exhibits in the Zoo can be improved on, for example the baboon, leopard and chimpanzee enclosures. After careful study of each of these areas, it was decided that the Parrot Enclosure Area form the crux of this project, as a sample that could be used for future improvements on other enclosures. The existing enclosure study was conducted with the help of the enrichment co-ordinator (Robynn Ingle-Möller) and the parrot curator (Sara Shabangu).

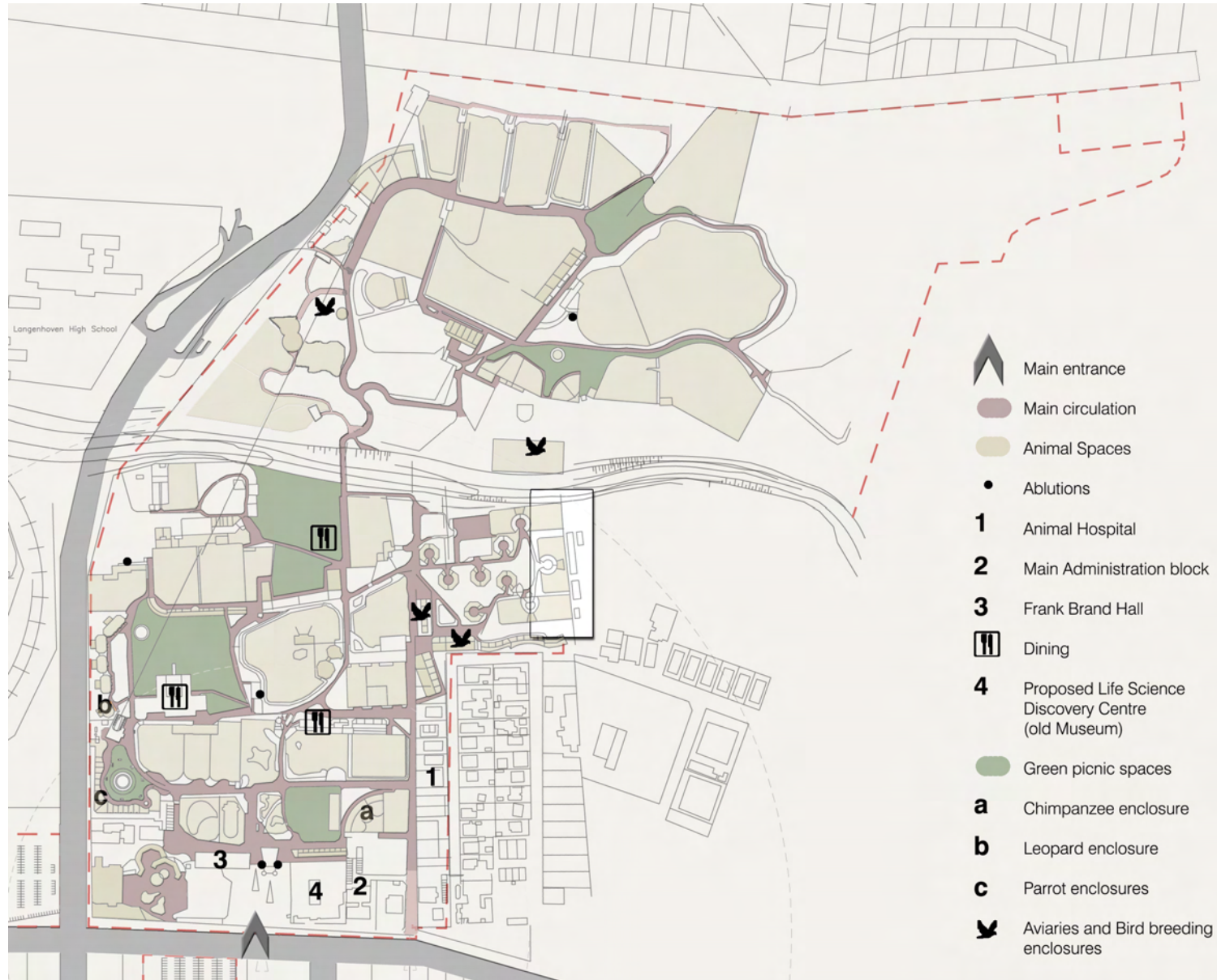
4.1.1 General

There is an existing Parrot Breeding Unit at the Animal Hospital at the SA Zoo where small chicks are artificially incubated and raised. The Parrot Enclosure Area initially used for displaying exotic and indigenous birds. Gradually the enclosure began to be used as extra breeding spaces for different birds including cranes and even owls in some occasions. Most of the breeding of parrots however is not visible to the public and takes place at the aforementioned Parrot Breeding Unit. The Zoo's main aviary does not house any parrots currently, but they are searching for exotic birds to include in the walk-in aviary. Available parrots could not be moved into the existing walk-in aviary due to their valuable nature, however many exotic parrots were also stolen at the more controlled parrot enclosure.

Any improvements to this enclosure would need to happen in a subtle fashion, sensitive to the animals. The parrots are noted by the parrot curator to share many human qualities, and would experience tremendous stress should they be suddenly moved to another location.

4.1.2. Bird enclosures

The parrot enclosures were built in 1970 and currently house different bird species. Some are larger in size than others, and one of the parrot enclosures house mixed species. It is noted by the above mentioned curator that many animal exhibit designers are surprised by the large sizes of the existing enclosures, since most breeding enclosures are almost half the size. The curator agrees however that no test exists to measure what size spaces these birds need to breed in. These enclosures are however not just for breeding, in fact, the birds are not moved elsewhere after breeding, and they remain in these enclosures that are their homes. It is however a great issue at the Zoo to save as much space as possible, and use spaces very wisely and efficiently due to the large number of animals living at the Zoo. Regardless, the curator does believe that providing larger spaces for these birds could give the animals freedom of greater movement and thus their behaviours could be carried out as if they were free to fly great lengths in the wild. The enrichment co-ordinator admits that some bird spaces at the Zoo are not big enough to encourage muscle development. The parrot curator states that there is no concrete floor below each enclosure. At the animal hospital the breeding enclosures' ground of river sand is replaced once a year. Some birds at the parrot enclosure need more cleaning of the soil than others. A thin layer of sand is used to top the soil with.



Map 4. Existing SA Zoo facilities and enclosures (a,b,c) needing improvement.

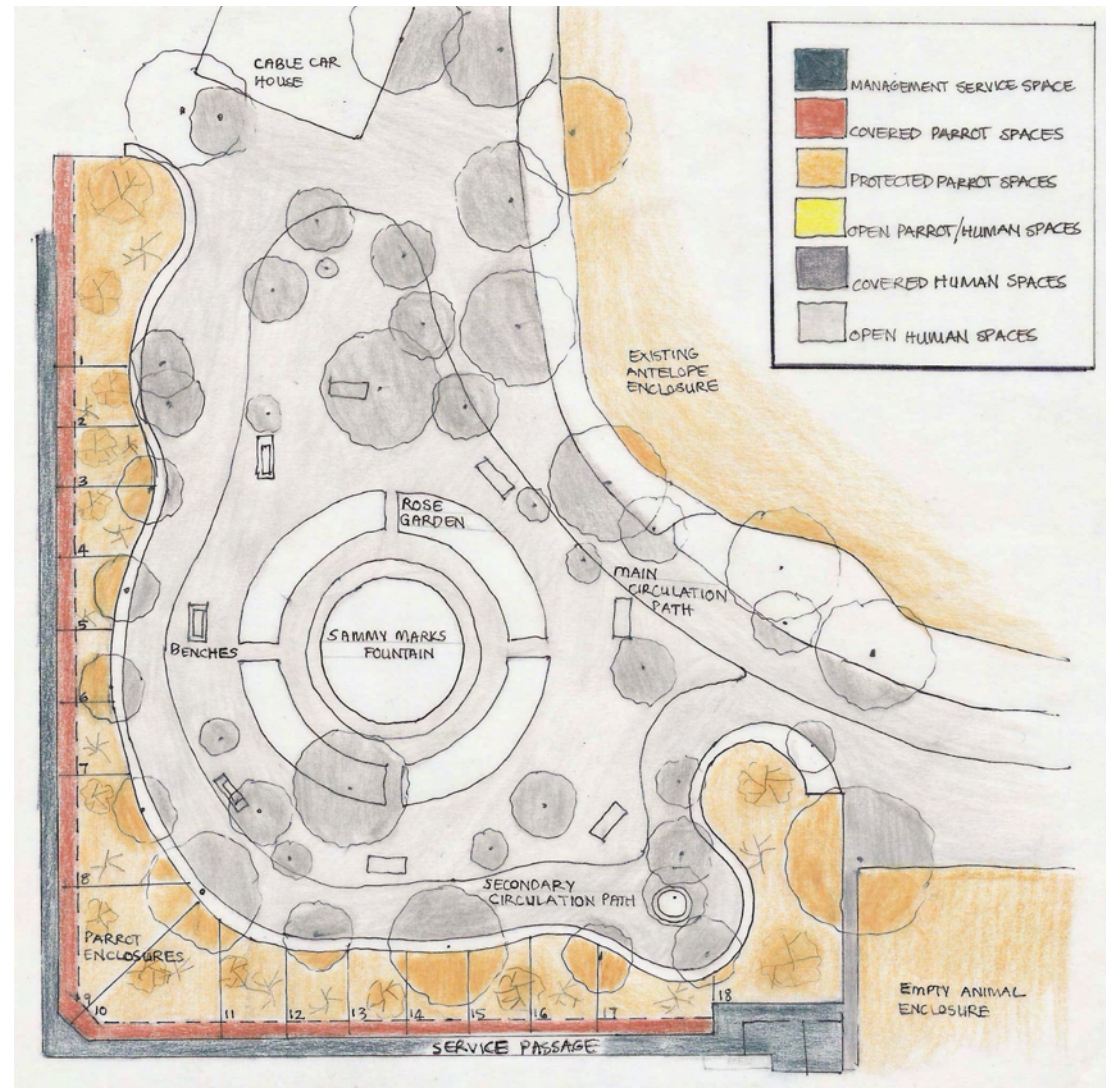


Figure 121. Plan of an existing Parrot Enclosure area.

The exhibit should have sufficient space, ventilation, lighting, privacy, shelter, and effective drainage to allow the animals' behaviors to be carried out.

4.2.2.1. How different animals and their behaviours are catered for in the existing parrot enclosures.

(a) *Flying.* Animals need sufficient space to move and carry out the natural behaviours.

(b) *Feeding.* Metal bowls are provided daily above metal perch tables, covered above with a concrete overhang.

(c) *Nesting or Breeding.* Bird breeding boxes vary in sizes and are accessible from the service passage (figure 123)

(d) *Resting.* There are only a few perch surfaces, and these include sun exposed dead trees; partially shaded live trees; and rain and sunlight protected metal perch tables.

(e) *Cleansing.* Periodic water from irrigation and water bowls allow birds to clean and groom themselves.

(f) *Protection.* Birds are protected from three sides at the back of the enclosure. The overhang protects them from the weather (figure 125). There is little vegetation behind which larger birds can hide (from visitors, keepers, and from other birds within the enclosure).

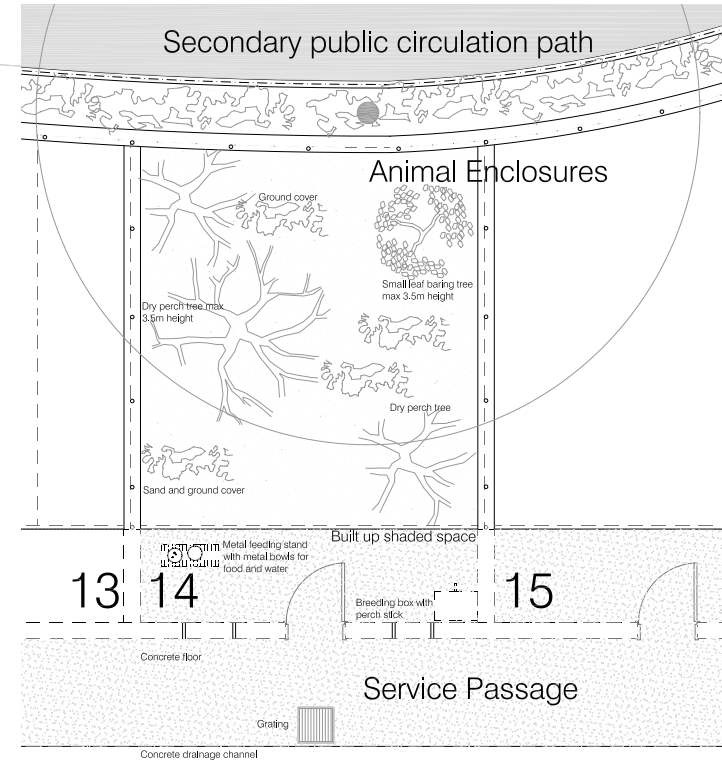


Figure 122. Plan of an existing protected parrot enclosure.



Figure 123. A breeding box at an existing parrot breeding enclosure.



Figure 124. The enclosures' irrigation system. Water supply pipes run above to the middle of each enclosure.



Figure 125. An existing parrot enclosure.

4.2.2.2. Services

The parrot curator and other zoo keepers can see when a bird is getting hot. The parrot curator states that these birds also have personalities like humans. Irrigation in the enclosures is controlled manually, therefore their conditions can be altered if the curator feels it to be necessary. The controls of the irrigation points are easy to reach because during summer months, the enclosures can be irrigated three times a week, and if the curator feels necessary, this could also happen hourly. Water (new clean municipal water) is used for irrigating the enclosures, and reused water from the borehole is used for irrigating the surrounding grass area.

4.2.2.3. Bird Enrichment Programmes

Behavioural enrichment co-ordinators provide enrichment techniques to these exotic birds to ensure their well being. The visitors should be made aware of these enrichment techniques in order to understand the nature of the Zoo and its caring principles. An example of an enrichment technique is when curators manipulate the animals' food in different ways to encourage them to search and seek for their food as they would in the wild. No climbing opportunities have been used in the parrot enclosures for enrichment as these gadgets and swings are scarce and need to be custom made. The parrot curator agrees that enriched environments could be practical and be helpful in working the birds' muscles, beak and feet.

4.2.3. Human Spaces

4.2.3.1. Service areas for management.

- (a) *Circulation.* The parrot curator uses visitor circulation paths to monitor the birds. Circulation in an existing Service Passage is dark, and narrow. (figure 126).
- (b) *Eating.* No designated lunch area is currently provided.
- (c) *Resting.* Zoo keepers use one of the two rooms (undefined use) to rest in during shifts. The existing Service Passage is well drained, but not well ventilated. It has limited access to the outdoors.
- (d) *Ablution.* Zoo keepers make use of the visitor ablution services.
- (e) *Protection.* During rainy or windy conditions, zoo keepers reside in the passage. The curator has an office at the Main Administration Block of the Zoo.
- (f) *Learning.* Temporary workers train in animal keeping, however there is no nearby space to accommodate this, and they use other spaces at the Zoo's Main Administration Block.



Figure 126. The existing Service Passage.



Figure 127. Access to breeding boxes from the existing Service Passage.



Figure 128. Drainage gratings in the Service Passage.

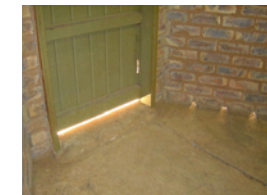


Figure 129. Wheep-holes in the walls of the existing Service Passage.



(g) Viewing. Zoo keepers and the parrot curator require spaces from where they can monitor and record data regarding animals' behaviours and well-being. The service passage offers no view spaces, unless the keeper enters the enclosures and disturbs the birds.

(h) Work - recording or monitoring. As mentioned above, satisfactory recording space is non-existent. The curator and zoo keepers find it difficult to monitor the birds from the openings in the wall in the service passage. These openings are the access to the breeding boxes (see figure 123) and the curator notes that they are at an unpractical height.

(i) Work - cleaning or preparation. Animal food is prepared at the Zoo's Main Animal Food Preparation Zone, and dropped off on small ledges in the service passage. The drainage system in the service passage allows it to be easily cleaned while water quickly moves away through grating (figure 128) to a concrete channel behind this passage. The passage is cleaned three times a week, and the concrete floor sections in each enclosure is washed as well. This water drains through the dividing wall between the enclosures and the Service Passage via weepholes through the masonry wall (see figure 129).

(j) Work - storage. Existing rooms have no specific functions and are used as storage. Cleaning equipment and data information is disorganized in these two rooms in the Service Passage, and at the Curator office at the Zoo's Main Administration Block. An office at the Precinct could be practical.

The existing Service Passage acts as a second threshold for escaped birds (the first being the door to the enclosures), and the two doors at the entrance to the passages are another barrier that prevent birds from escaping, should they have escaped into the passage from their enclosures. As previously mentioned, the Service Passage is very dark and not well ventilated, therefore there is a fluorescent lighting system in place. This enclosed passage stops birds from escaping.



4.2.3.2. Visitor areas.

The circulation path and other open spaces that humans can use around the Parrot Enclosure Area are unaccommodating. It is necessary to design new parrot habitats to allow animals privacy for breeding, but still provide accommodating facilities for humans to view, learn about, walk by and play near the birds. The curator believes that it could be a good idea to change the existing Parrot Enclosure Area to a display orientated precinct for visitors, as breeding does happen elsewhere at the zoo. Facilities can not include night tours as the parrots get frightened and could fly into the enclosures' boundary wire mesh.

(a) Circulation. The main circulation route branches off to a secondary route which passes the enclosures and branches back to the main circulation. The circulation path does not offer seating for reclining while watching the animals. The main and secondary pathways are unexperiential and unaccommodating (figure 130). They are not shaded and offer no rain protection to visitors, in fact, there is no overhead protection within 90m from the Parrot Enclosure Area. Pathways and signage are also unaccommodating to people with temporary or permanent, full or partial disabilities.

(b) Eating. Food can be bought approximately 93m away. Water points are not accessible to the public and are only used for irrigating the vegetation at the Parrot Enclosure Area and for the individual parrot enclosures.

(c) Resting. Visitors can recline on old benches placed on paved sections on the grass (figure 131).

(d) Ablution. Ablution facilities are available (also accessible for the disabled) 173.5m away.

(e) Protection. Protection from animals exists. Protection for visitors from rainy and windy conditions is however non-existent.

(f) Education. Information regarding the existing Parrot Enclosures is absent. Information regarding each enclosed species is printed, placed on metal sheets and bolted to bold wooden posts. Signage is interactive yet a blind person can not learn anything at the zoo unless there is a special function being held for the blind. The signage blocks views (figure 132), and the information is uninviting. Some enclosures have no signage. Approximately 90m before and after the enclosure, there are 'information sheds' with information regarding different animals. Parrot information is not included.

(g) Viewing. Visitors can view animals from uninteresting positions while on the circulation path that passes alongside the enclosures.



Figure 130. A secondary circulation pathway

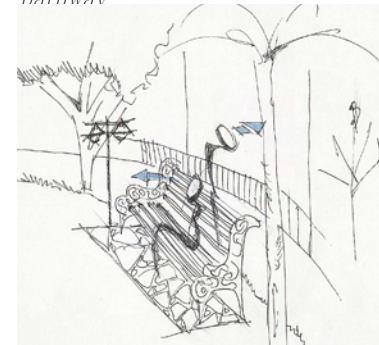


Figure 131. Benches adjacent to the visi-

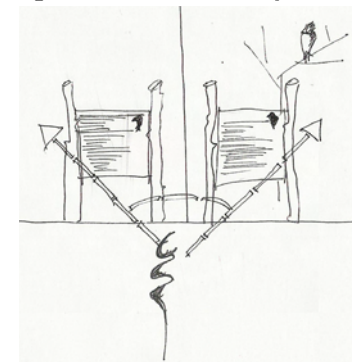


Figure 132. Existing signage blocks views.

(h) Playing. There are no designated play areas, and the open green lawn is the only areas where children can run and play.

Other services. Lamp posts automatically light up when cloudy weather prevails, however should the cloudy weather bring rain visitors are not protected and can not stay to watch the birds.

4.2.4. The Landscape

Different tree species are placed throughout the existing Parrot Enclosure Area. Palm trees are strategically placed on the edges of the lawn. A rose garden is assumed to have no heritage significance and makes the greens unaccommodating for picnics. They also block views from passers-by.

4.2.5. The Sammy Marks Fountain

The Fountain was presented to the National Zoological Gardens of South Africa by Sammy

4.2.6. Summary of visitors and management accommodation and facilities.



Figure 133. *Sammy Marks Fountain.*

Table 2. *Summary of visitors and management accommodation and facilities.*

	Circulate	Eat	Rest	Ablution (less than 50m)	Circulat- ion	Learn	View	Play	Work – record or monitor	Work – cleaning or preparation	Stora- ge
Managem- ant	√	x	x	√		x	x	–	x	x	Poor
Visitors	√	x	Poor	x	√	Poor	√	x	–	–	–