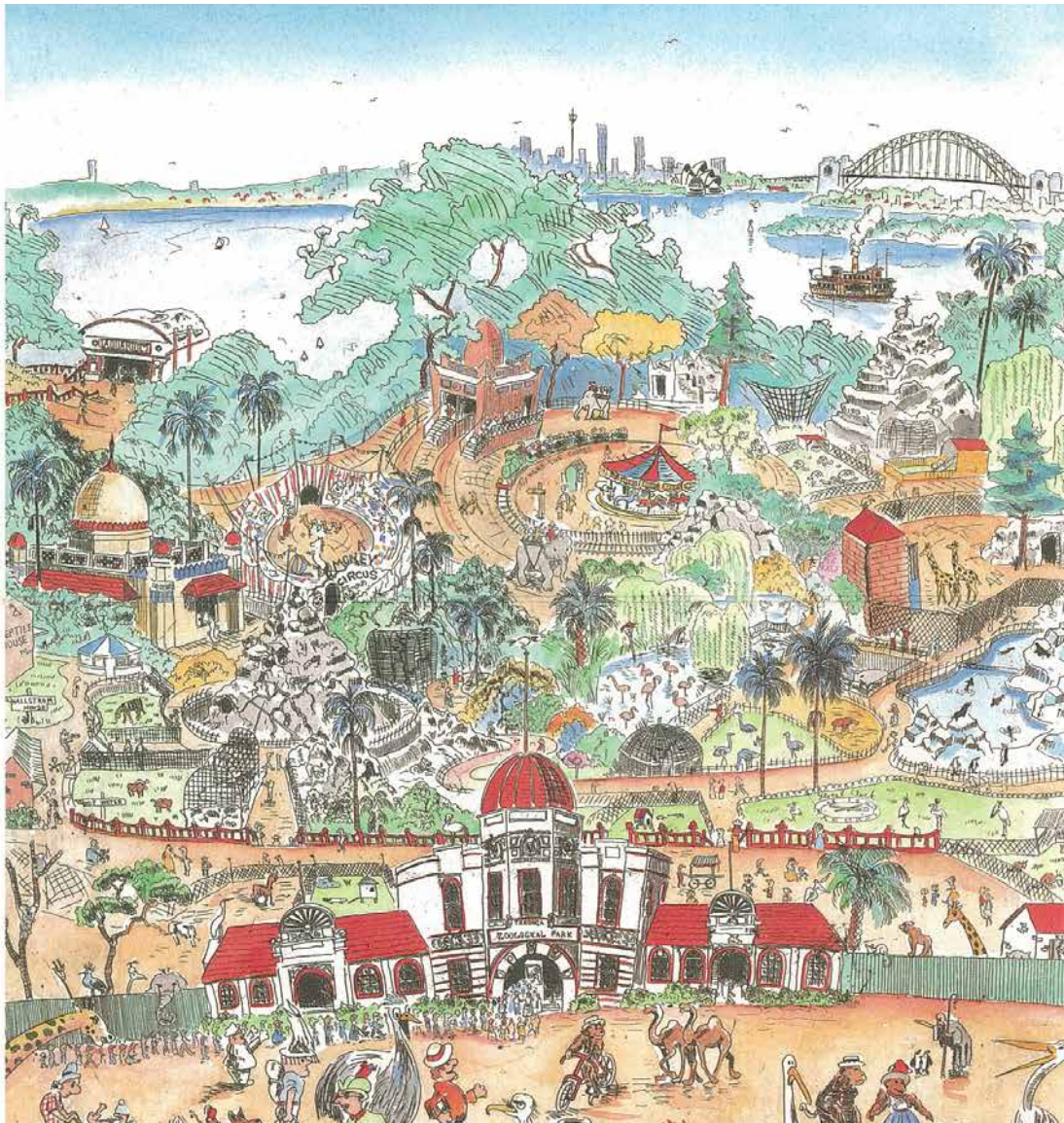


# Proposed African Savannah/Waterhole & Congo Precincts Heritage Impact Assessment

FINAL REPORT  
June 2017

for the Taronga Conservation Society Australia



ABOVE: A detail of 'Taronga Zoo – Sydney's Wonder Zoo' (1986) by celebrated Sydney artist Peter Kingston. Ostensibly a whimsical view of the zoo, the rendering captures various iconic aspects that contribute to the zoo's cultural significance. These include both the 1924 and 1940s giraffe shelters (middle right), the 1932 Tahr Mountain behind and, in the background, the internationally famous sweep of Sydney Harbour with its architectural and engineering icons as features.

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## I Introduction

### I.1 Preamble

This report was commissioned by the Taronga Conservation Society Australia (TCSA), to review the potential for heritage impact on those parts of Taronga Zoo, Mosman within and in the vicinity of proposed new African Waterhole and Congo-themed precincts. The review focuses mainly on European cultural heritage relevant to the precinct. Aboriginal cultural heritage has been the subject of a separate specialised study relating to an area at the western edge of the proposed new African Waterhole precinct.

The proposed African Waterhole and Congo precincts follow general recommendations espoused in an ongoing overall zoo master plan by specialist zoological planners Green & Dale Associates (GDA), Melbourne and USA, based on the endorsed master plan 'Zoo 2000'. The site planning and design of the proposed precincts that is the subject of this HIA report is described in 2017 documentation by GDA and Tonkin Zulaikha Greer Architects (TZG)(refer to **Section 6** of this HIA report).



**Figure 1** Aerial view of the Taronga Zoo site with the proposed combined African precinct (Savannah/ Waterhole and Congo) highlighted. (Courtesy TZG Architects)

## 1.2 Site Location

Taronga Zoo is located at the southern edge of Mosman overlooking Sydney Harbour and is accessed principally from Bradley's Head Road (as well as by ferry from the harbour). The proposed development precincts are located mainly across the central western part of the zoo spanning the principal ridge within the upper central section and over to the western gully that ultimately drains to Whiting Beach (**Figure 1**).

## 1.3 Background

A distinctive aspect of modern zoos around the world is that they are generally in a state of flux as various exhibits are progressively developed or upgraded to respond to evolving zoological and interpretive planning, practices and philosophies. Indeed Taronga Zoo demonstrated such an approach from its inception where its progressive site planning and design, for the time, contrasted markedly with that of the more traditional 19<sup>th</sup> century zoo at Moore Park that it superseded. Over one hundred years later, the zoo's exhibits continue to be reassessed and upgraded in line with international zoological conservation practice and interpretive innovations. Consistent with this approach, the present proposal for new African Waterhole and Congo-themed precincts affects those parts of the zoo site where the giraffes, zebras, Barbary sheep, bongo, meerkats, Himalayan Tahrs, Fennec Fox, various birds, Orang-utans and Gorillas are currently located. Of these exhibits, those for the giraffes, Barbary sheep, tahrs and various birds have remained in these locations since their original introductions to Taronga Zoo during the Interwar period.

The entire Taronga Zoo site (Lot 22, DP 843294) is listed as an item of local environmental heritage (Item 34) on Schedule 5 of the Mosman Local Environmental Plan 2012 (**Figure 2**) as Taronga Zoological Gardens, Bradleys Head Road. The LEP listing also specifically mentions the following components: Rainforest Aviary, Elephant House, bus shelter and office, floral clock and upper and lower entrance gates, Gardens.

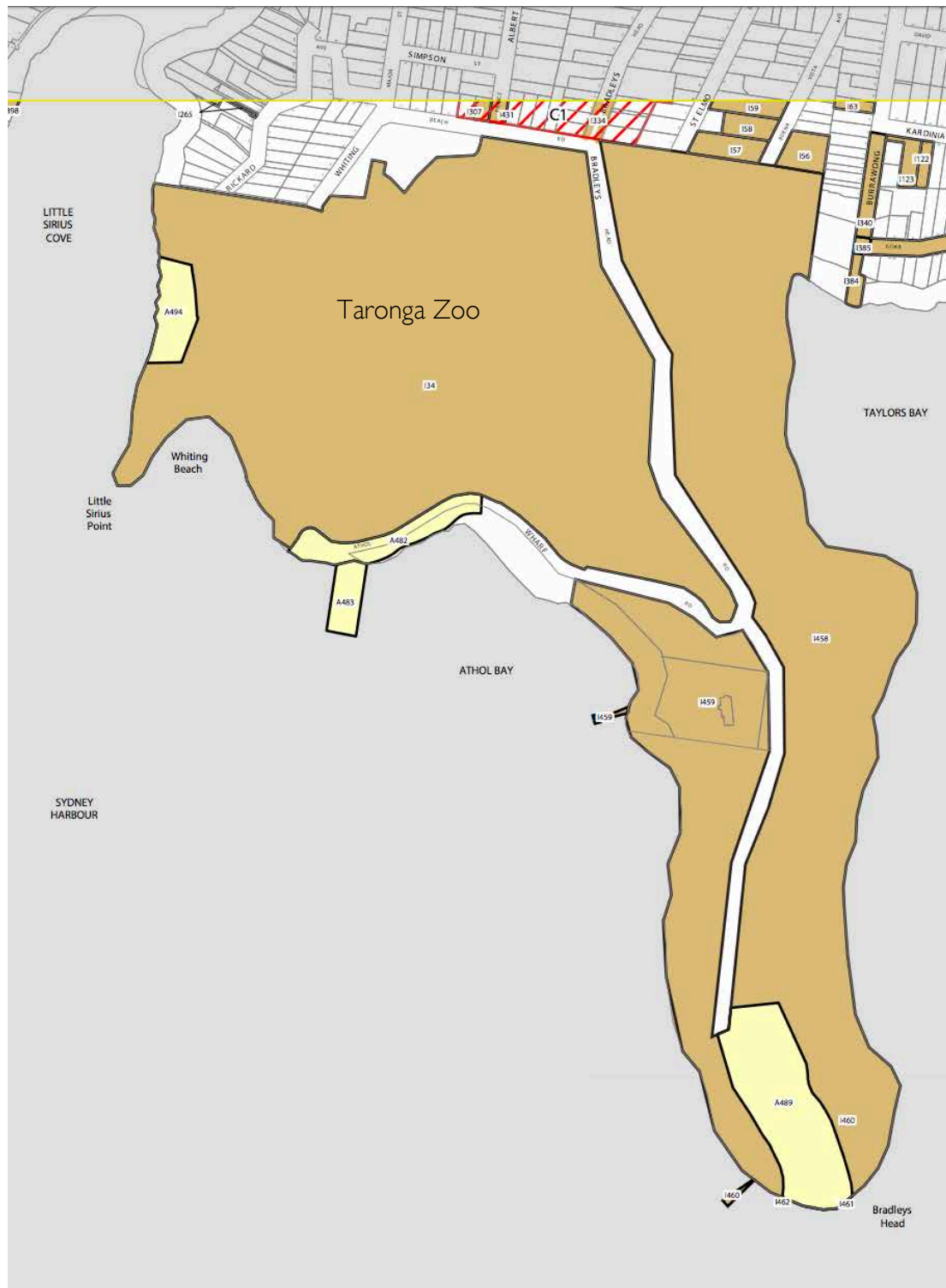
While not currently listed on the NSW State Heritage Register (SHR), various specialist heritage-related studies over the past two decades have consistently assessed Taronga Zoo, as well as some individual components, as being of State cultural significance. The Zoological Parks Board of NSW nominated Taronga Zoo for SHR listing in 2002 but the listing was not finalised as site specific exemptions were not developed. Studies that assessed the site as State significant include the:-

- \* Section 170 Heritage and Conservation Register, 1998 (DPWS and as subsequently amended to the present);
- \* Taronga Zoo Conservation Strategy, 2002 (GML), Endorsed July 2002;
- \* Taronga Zoo Archaeological Management Plan, 2004 (GML), Endorsed February 2004;
- \* Taronga Zoo Landscape Management Plan, 2006 (Design 5 Architects et al); and
- \* Taronga Zoo African Precinct, Strategic Heritage Advice, 2006 (GML).

Nevertheless, the Heritage Act, 1977 (NSW), at Section 170, requires all State government instrumentalities to establish and maintain a Heritage and Conservation Register as part of their responsible management of public assets (Clauses 3 and 4). The Act requires that the register is reviewed and, if necessary, amended at least annually (Clause 5) and ensure it is publicly (and freely) available for perusal (Clause 7). Consistent with Section 170A (Clause 3) of the Act, both NSW Treasury and the Heritage Council of NSW have issued guidelines to government instrumentalities to assist in the effective management of public heritage assets.<sup>1</sup> Also consistent with s170A (Clause 1) is the need for the Heritage Council of NSW to be notified in writing before any items on the register are removed from the register or demolished.

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<sup>1</sup> The guidelines are *Heritage Asset Management Guideline, 2004* (TAM04-9) from NSW Treasury and State Agency



**Figure 2** Extract from Heritage Map Sheet HER-003 from the Mosman LEP 2012 indicating the Taronga Zoo site as heritage Item 34 (I34). No Conservation Areas directly relate to the site with the closest - Bradley's Head Road Conservation Area (C1) - immediately to the north. The yellow areas identified on the LEP map relate to archaeological sites though none of these would be affected by the proposed development for the new African Waterhole and Congo precincts.

With respect to the NSW Heritage Act, 1977, the TCSA holds a s170 Heritage and Conservation Register for Taronga Zoo though this appears not to be publicly accessible at present (at least in relation to the TCSA website). This register lists a number of site components within the proposed African Waterhole and Congo precincts including various built structures, early zoo layout, important view lines, as well as planted and locally indigenous vegetation. Some of these components have been assessed (both in the past and as part of the present assessment) as having either exceptional or high cultural value. All of these site components are listed and considered in **Section 5** of this HIA report.

Additional studies of relevance to this heritage impact assessment include an earlier Heritage Impact Statement report for the Sumatran Tigers exhibit (currently in development) that adjoins the African Waterhole precinct to the south<sup>2</sup>; a Heritage Impact Statement report for the new Centenary Theatre that adjoins the Congo precinct to the west<sup>3</sup>; an Aboriginal Archaeological Assessment report for the western side of the Waterhole precinct<sup>4</sup>; and arboricultural reports for the group of old Hoop Pines (*Araucaria cunninghamii*) and old Bull Bays (*Magnolia grandiflora*) near Hallstrom Square. The Aboriginal Archaeological Assessment report ostensibly focuses mainly on Aboriginal archaeological issues, however, its findings also necessarily included resources relevant to historical archaeology (arising from a cache of artefacts from the early 20<sup>th</sup> century).

Another heritage study that overlaps somewhat with the present HIA report is the Heritage Impact Assessment for the Taronga Zoo Aviaries of March 2016.<sup>5</sup> While largely included within the area covered by this HIA report, the former Finch Aviaries were mostly demolished by early 2017 before being addressed in this report. The faux-rock component of the western end of the Finch Aviaries (formerly a python enclosure) has been retained.

## 1.4 Approach

The Mosman LEP, 2012 Dictionary describes a **heritage impact statement** as “a document consisting of:-

- (a) a statement demonstrating the heritage significance of a heritage item, archaeological site or place of Aboriginal heritage significance, and,
- (b) an assessment of the impact that proposed development will have on that significance, and
- (c) proposals for measures to minimise that impact”.

The present report is largely structured accordingly. It also follows the standard procedure for reviewing the heritage context of places and potential for heritage impact based on recommendations by the Heritage Division of the NSW Office of Environment and Heritage. A review of the site – historically and physically - is undertaken in order to understand what it is that gives it its cultural value. After considering the nature of the site's cultural significance, the proposed works are then tested against various benchmark criteria such as how would the works affect the assessed cultural significance and would they comply with relevant expectations arising from the LEP heritage listing and those for the s170 register.

Finally, in those instances where impacts on the precincts' cultural value are unavoidable, mitigatory measures are proposed in an effort to reduce the nature and degree of potential impact.

The current proposals for Taronga Zoo are included under the NSW State Significant Development (SSD – Application No. 8008) process such that the Department of Planning and

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<sup>2</sup> Taronga Conservation Society Australia, *Taronga Zoo Sumatran Tigers*, Heritage Impact Statement, May 2015

<sup>3</sup> Taronga Conservation Society Australia, *Taronga Zoo Centenary Theatre*, Heritage Impact Statement, January 2015

<sup>4</sup> Dominic Steele Consulting Archaeology, *Aboriginal Archaeological Assessment, African Savannah & Congo Precincts*, Report to Taronga Conservation Society Australia, August 2016

<sup>5</sup> Taronga Conservation Society Australia, *Taronga Zoo Aviaries*, Heritage Impact Statement, March 2016

Environment (DP & E) will act as the approval authority. As part of this process, the DP & E is obliged to send the DA material to all relevant State agencies (which will include the Heritage Council of NSW) and Mosman Council. On account of this, the present HIA report addresses obligations for the development that arise from advice prepared by the Office of Environment and Heritage as well as those under the Mosman Local Environmental Plan, 2012.

The present development proposals that concern this HIA report involve two separate, though adjoining, precincts within the overall zoo site. At times the report structure deals with the two precincts combined but, where necessary, it is structured to consider each precinct separately. The western precinct focusses an African Savannah/Waterhole theme. In this report it is often referred to simply as 'African Waterhole' as a short form.

## 1.5 Authorship

Geoffrey Britton was the principal author of this report with Nicholas Jackson contributing the history components (**Sections 2 and 3**) and Geoff Ashley of Ashley Built Heritage providing input relating to specific structures (**Section 4**) as well as also contributing to the assessment of significance, heritage impact, conclusions and mitigatory measures (**Sections 5 to 8**).

Unless acknowledged otherwise, site photography was taken in 2016 and 2017 by Geoffrey Britton. Some of the images used for tables in Section 5 were from the 2006 Landscape Management Plan by Design 5 Architects *et al.*

## 1.6 Acknowledgements

Jean Rice, Consultant Heritage Architect, TCSA  
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Tim Burt, Landscape Architect, GDA  
Andrew Morton, Consultant Arborist  
Christopher Curtis, JBA Urban



## 2 Taronga Zoo Historical Overview

### 2.1 Nineteenth Century Origins

The origins of Taronga Zoo date back to the nineteenth century with the formation of the Society for Acclimatisation in 1879. The aim of this Society was the introduction and acclimatization of 'desirable' animals, birds and fish. In 1884 a small zoo was opened at Moore Park, Sydney, within a reserve granted by the City Council.

In 1909 the Society was granted a Royal Charter, and the name was changed to The Zoological Society of New South Wales. The Society wanted a new site and while the Government offered a number of sites such as those at Vaucluse House and Maroubra, the Society wanted Ashton Park at Bradleys Head on the northern shore of Sydney Harbour.

Legal difficulties were encountered in changing sites owing to the terms of the original charter of 1879, and in response a new Trust was formed in 1912 under the provisions of the Public Parks Act, 1902. The trustees of the new Taronga Zoological Park assumed responsibility for the planning and construction of the new zoo, which was to be named Taronga. The Trust comprised two government appointees and five members of the Society.<sup>6</sup>

### 2.2 Planning Taronga

The new site for the Zoo at Bradleys Head was part of the 142½ acres the Government had resumed in 1908 for a public park to be known as Ashton Park. The area had previously been colonial military reserve and the Stock Quarantine Station (both roles assumed by the new Commonwealth Government after 1901). The new park was administered by the Ashton Park Trust, which included representatives of Mosman Municipal Council.

In April 1912 an area of about 43¼ acres of the Ashton Park was rededicated as the site for the Zoological Gardens. In the following few years additional land from Ashton Park was transferred to the Zoo; 2 acres in 1915, and nine acres in 1916.

The first secretary (akin to director) of Taronga Zoo was Albert Sherbourne Le Souef (1877-1951), who had been secretary of the Zoological Society since 1903. He was born in Melbourne, and was a son of Albert Alexander Cochrane Le Souef (1828-1902), the director of the Zoological Gardens, Melbourne. While in Melbourne, Le Souef in 1897 became secretary of the Zoological and Acclimatisation Society, and in 1902 was appointed assistant director of the Melbourne Zoological Gardens. After his arrival in Sydney in 1903, Le Souef was unimpressed with the facilities at Moore Park and lobbied for a new site. One complaint was that the cages had been modelled on those at London Zoo and were ill suited to the Australian climate.<sup>7</sup>

In 1908 Le Souef, in the company of trustee Dr Robert Henry Todd (1859-1931), travelled to England and Europe to inspect modern zoo practice. There they visited Tierpark Hagenbeck at Stellingen, near Hamburg, Germany, then only just opened, and developed under Carl Hagenbeck (1844-1913). Hagenbeck's new zoo exhibited animals wherever possible without bars and within enclosures designed to be 'natural landscapes'.<sup>8</sup> Le Souef was impressed by Hagenbeck's modern approach to zoo keeping and was determined to build the new zoo for Sydney along similar lines.<sup>9</sup>

<sup>6</sup> Frederick Flowers, MLC, chairman; Alfred Spain, vice chairman; William J Green, treasurer; Charles Hedley; Henry Clement Hoyle HC Hoyle MLA; Albert Edward Nash; Dr Robert Henry Todd. Advisors to the Trust were TW Keele and JM Smail

<sup>7</sup> 'Stormy fight for Taronga Park', *Sydney Morning Herald*, 14/10/1939, p. 11

<sup>8</sup> Baratay, E, and E Hardoun-Fugier, *A History of Zoological Gardens in the West*, Reaktion Books, 2004 (Baratay & Hardoun-Fugier 2004)

<sup>9</sup> A. Dunbavin Butcher, 'Le Souef, Ernest Albert (1869-1937)', *Australian Dictionary of Biography*, Volume 10, Melbourne University Press, 1986

As first superintendent, Le Souef supervised the development of the grounds of Taronga, and he planned the layout; although the minutes of the trustees from 1912 suggest otherwise, it was stated categorically in 1935 that it was Le Souef's work<sup>10</sup> and that claim is supported by his reports of the period.<sup>11</sup> As at Tierpark Hagenbeck, a network of circular and interconnecting pathways was laid out. The implemented circulation network at Taronga was dictated by the sloping topography and exhibits a clear response to the dramatic harbour setting, and it also bears a striking similarity with Tierpark Hagenbeck. However, both layouts drew on the nineteenth century landscape design, and in particular Gardenesque.

Le Souef certainly had a vision for Sydney's new zoo for by the beginning of 1910, and years before the site was surveyed and handed over to the Society, he had formulated a scheme where visitors arrived by ferry, with the zoo entrance close by, and by:

*'following winding paths through the trees, the striking observation will be made that there is scarcely any sign of cages, for the enclosures are masked by thick bushes and the natural contour of the ground, which gives more the appearance of a park, and not by any means of a menagerie; and in this respect the grounds will be unique in Australia for the bold plan of keeping the carnivora in bounds without recourse to iron bars can be carried out perfectly. Sheep and goats will be seen rejoicing on their natural rocks, and monkeys in their spacious wire compartments enclosing large trees, everything living happily under natural conditions in our ideal climate'.<sup>12</sup>*

Both a detailed contour plan and rough sketch of the grounds of the future zoo from 1912 survives, and these depicted existing improvements and an initial concept design for future improvements. The existing improvements comprised the former stock quarantine station and its narrow gauge (3' 6") tramway leading to a wharf (not at the existing location), and a pathway sweeping from the northwest to the southeast corner. In the initial proposal, this existing pathway was retained, an additional one proposed for the centre, the so-called central avenue, and another to the east of it.<sup>13</sup>

The natural character of the site was described as being:<sup>14</sup>

*'a series of plateaus or grassy slopes, rising one above the other to a height of some 340 feet from water level, in a succession of terraces faced with precipitous rock or weather-worn masses of boulders, well wooded with angophora, eucalyptus, eugenia, banksia, grevillea, and other trees ..'*

Le Souef divided the site into zones exhibiting particular species as at Hagenbeck. The exhibits included birds (beside a natural watercourse and spring dammed to provide ponds), monkeys, fish (aquarium), etc., and there were refreshment rooms, staff quarters, sports ground, etc. depicted. In respect of the subject sites, this northwest sector was reserved for hoofed animals such as deer, sheep, and goats, cattle, antelopes, felines, and the clubhouse.

By 1913 the implementation of the 1912 sketch had progressed, and zones for animal exhibits and facilities for staff and visitors were delineated clearly. There were four zones: for animals (25 acres), for aquarium (3 acres), for sports ground (5 acres), and for amusement and picnic grounds (18 acres).<sup>15</sup> Le Souef pointed out the main features as being:<sup>16</sup>

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<sup>10</sup> 'Taronga Park', *Sydney Morning Herald*, 16/12/1935, p. 7

<sup>11</sup> Taronga Zoo Archives Holding SE41/1

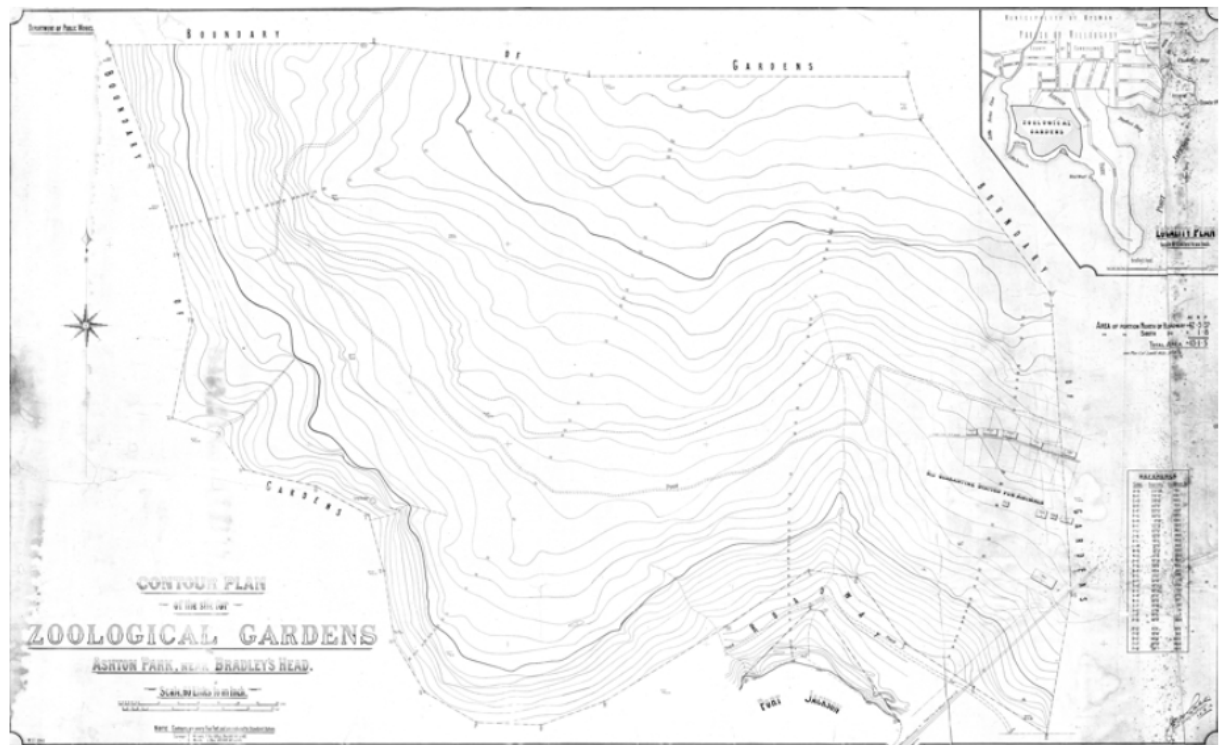
<sup>12</sup> 'New Zoo at Athol', *Sydney Morning Herald*, 11/2/1910, p. 7

<sup>13</sup> Taronga Zoological Park Trust, Report for 1916, p. 2

<sup>14</sup> Taronga Zoological Park, *Australian Zoologist*, Vol 1

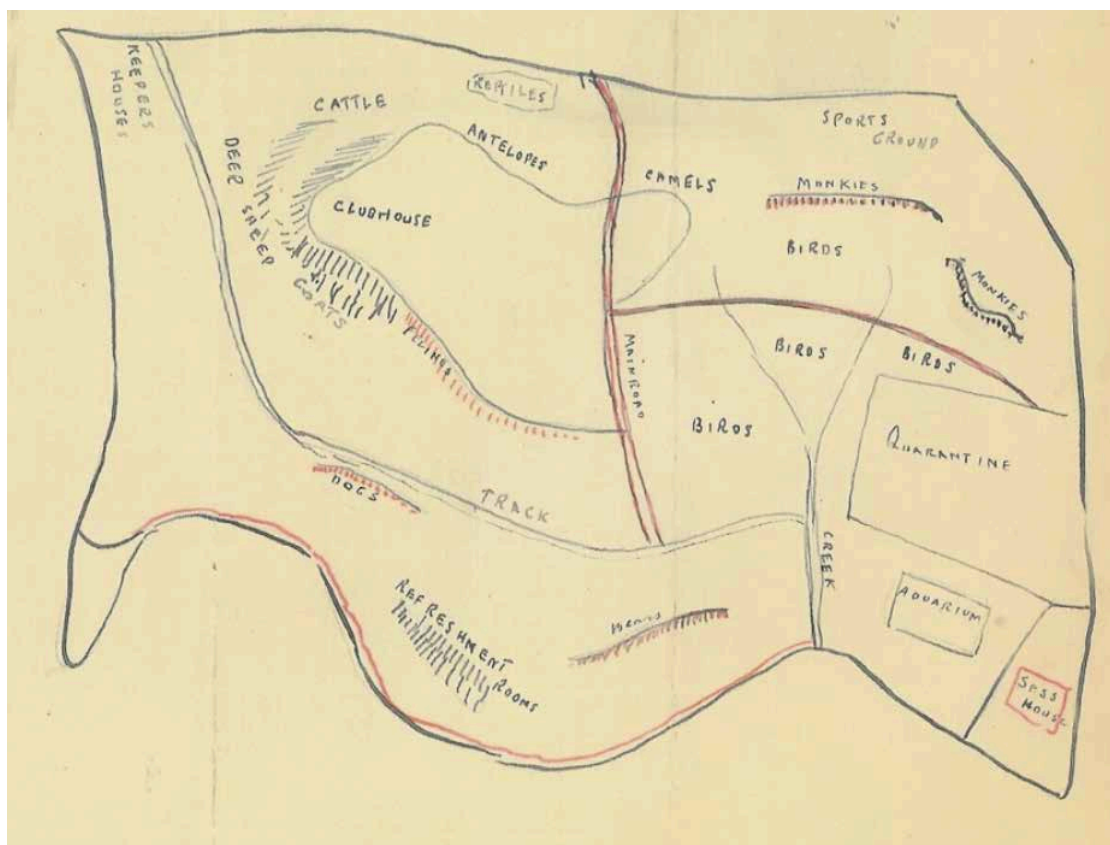
<sup>15</sup> 'The Old Zoo and the New', *Sydney Morning Herald*, 14/10/1916

<sup>16</sup> Le Souef, 'Statement re plan of grounds submitted to Trust' 28/3/1913 held Taronga Zoo Archives



Source: NSW Public Works - Plan Room

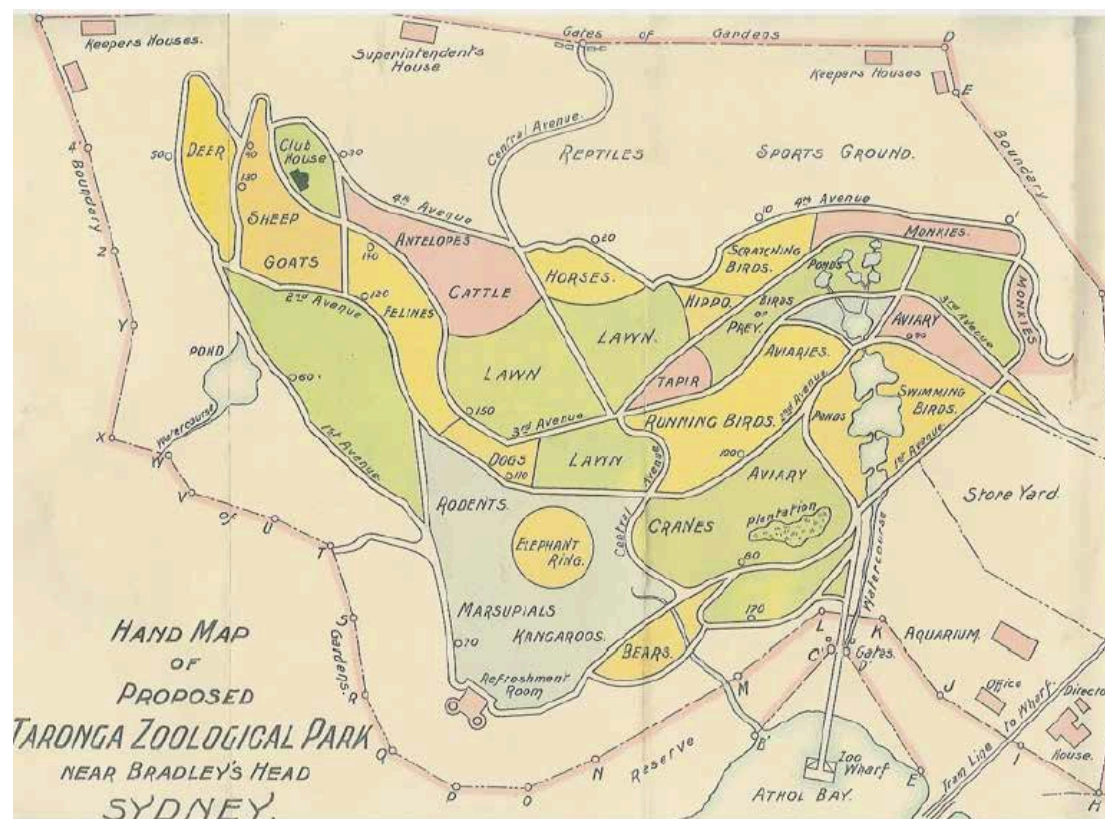
**Figure 3** The detailed contour plan of the new zoo site was prepared in September 1912 by the Public Works Department. The majority of the site was bush, with the exception of the stock quarantine compound at the southeast corner.



Source: Taronga Zoo Archives (with Holding SE/81 newspaper clippings)

**Figure 4** A hand drawn sketch dated December 1912 showing the intended compartmentalization of the site.

- A) about two thirds of land is actually used for animal enclosures, large reserves are left picnic and sports purposes,  
B) every exhibit can be viewed from two or more sides which prevents undue massing of the public before enclosures,  
C) there are very few roads or paths, this prevents confusion and the public can easily find their way about the grounds, there will be one very heavy cart road right round the grounds, but apart from this only footpaths will be needed, no road will be straight and there will be no heavy grades.



Source: Taronga Zoo Archives (with Holding SE/81 newspaper clippings)

**Figure 5** The 'hand map' of the proposed layout of Taronga Zoo dated 1913. The planning had now evolved and the areas set aside for specific classes of animals and birds. The sweeping paths following the natural contours had been determined, while the idea of the north/south 'central avenue' remained in mind.

Le Souef had approached the planning with some scientific rigor for in 1939 he recalled:

'The actual planning of the grounds took six months. Several thermometers were hung about the park, temperatures noted and wind velocities recorded. Every section was worked out in detail, and when the general scheme was in mind, numerous different coloured pegs were prepared, and each separate enclosure, lawn, pond, and path, were lined out its respective colour. The trustees carefully checked this over, taking into consideration all available data that could be obtained at that time'.<sup>17</sup>

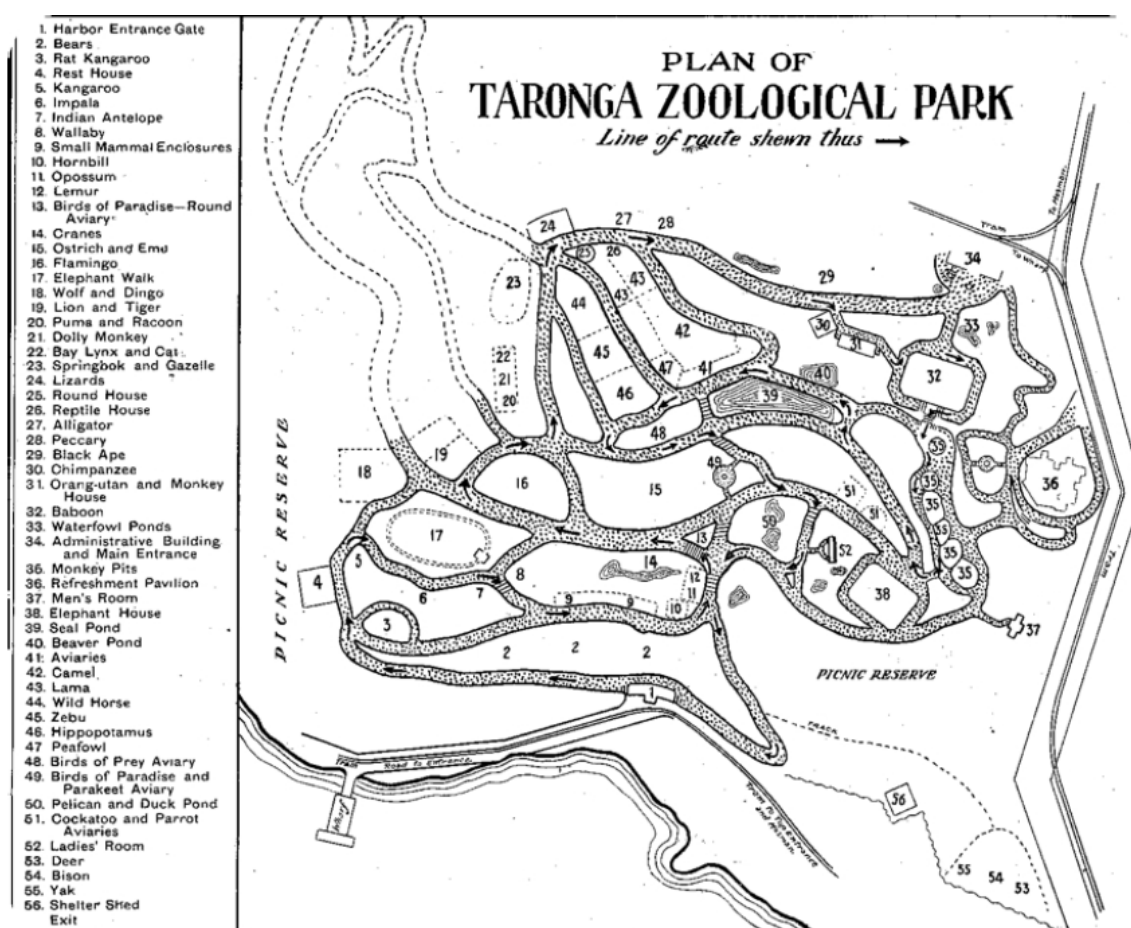
One result of this undertaking was the spatial dispersal of the animal exhibits across the site. Le Souef noted that this division 'allows for the keeping of each order of animals more or less separate

<sup>17</sup> 'Stormy fight for Taronga Park', *Sydney Morning Herald*, 14/10/1939, p. 11

in the class of ground most suited to their requirements, provide ample room for the collection and allows for expansion as required'.<sup>18</sup>

In respect of the northwest area, with its prolonged exposure to the western sun, by 1913 it had been selected to house animals such as antelopes and zebras used to a hot and dry climate of the open African plain.<sup>19</sup> The eastern boundary of this zone was defined by the proposed 'central avenue' connecting the lower wharf entry with the upper level gates, and this section of the path alignment remains today. Curiously, this central avenue proposal was revisited in the late 1960s under the first director, Ronald Strahan. Strahan saw no logic in the existing circulation network with its too many stairs and too narrow roads, and proposed to replace it with a functional central north/south road, and relocation of the northern entrance.<sup>20</sup> The zoo trustees in 1913 had specifically directed the central avenue should avoid any straight lengths as 'that would be against the general design of the grounds'.<sup>21</sup>

By the time the Zoo was opened officially in 1916, the southern and eastern areas had been completed, but much of the western and northwestern areas (and inclusive of the subject sites) were under construction. By this date the government tramway and wharf had been completed (in 1916)<sup>22</sup>, and the entrances.



Source: Taronga Zoological Park Official Guide, 1920 edition

**Figure 6** This official plan of the Zoo was published in 1920. By this plan, the northeast sector was not completed until the 1920s.

<sup>18</sup> Le Souef, 'Re work on Taronga Zoological Park for 1913', 15/11/1912 held Taronga Zoo Archives

<sup>19</sup> Taronga Zoological Park Trust, Report for the Year ended June 1924, p. 2

<sup>20</sup> Taronga Zoological Park Trust, Annual Report for 1967/68, p. 10

<sup>21</sup> Minutes of the Trustees, Taronga Zoological Park, 25/6/1913

<sup>22</sup> Buildings and Works, Sydney Morning Herald, 1/2/1916, p. 5



### 2.3 Building the Zoo (1912-1915)

The survey of the grounds was commissioned in June 1912, and clearing the site and making paths commenced in August 1912. At the inauguration ceremony held in October 1912, the name Taronga was released to the public. By November an architectural model of the proposed zoo had been made, and a construction program determined for 1913 comprising building of the enclosures for monkeys and carnivora, roads, and the Le Souef's house.<sup>23</sup> The question of who would design and oversee construction of these works was resolved by trustee and architect Alfred Spain (see below) who nominated his business partner Thomas Frame Cosh and another, a Captain TS Phillips, as clerk of works (1912-4/1915).<sup>24</sup> Cosh was engaged in an honorary capacity, as was WF Ward who worked up the models of the enclosures.<sup>25</sup>

By mid 1913 considerable work had been made in the construction of the network of roads and pathways.<sup>26</sup>

Site works included blasting and levelling the bedrock,<sup>27</sup> and selective culling of native flora. The native eucalyptus trees were removed for they did not provide sufficient shade, while the angophoras were retained.<sup>28</sup> Technical assistance in regard to the planting was provided by JH Maiden, director of the Botanic Gardens,<sup>29</sup> and indeed Maiden arranged for the supply of all the plants needed.<sup>30</sup> Also involved was James Dawes, superintendent of Centennial Park, in providing advise on horticultural matters.<sup>31</sup>

The efforts taken to conserve the native vegetation were observed in 1916 as:

*'the park is well covered with native trees, principally angophoras, eucalyptus, eugenias, banksias, etc. Many of these have had to be thinned out to make room for rods and enclosures, but hundreds more had been planted. Apart from herbaceous plants, which are necessary to give colour effect, only Australian material has been use, this will give a special interest to the gardens'.<sup>32</sup>*

The planting out of native flora continued over the following decades, and in 1938 it was reported 'great quantities' had been and inclusive of a section dedicated to native flora.<sup>33</sup>

By the beginning of 1914 the eastern section had been completed as far as roads, ponds and planting were concerned.<sup>34</sup>

The iconic look of the Zoo with its faux rock faced cement work originated in this period, as did the nature of the enclosures, which Le Souef recommended:<sup>35</sup>

*'... for all animals be made in the most open system possible without roof or artificial floor, and surrounded by a reinforced concrete wall with a ditch on the inside where required, and that each enclosure be based on a natural ridge of rock, the character of the grounds will allow for this system throughout. This is calculated to alter as little as possible the natural beauties of the park and the absence of artificial surroundings will be best for the animals...'*

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<sup>23</sup> Minutes of the Trustees, Taronga Zoological Park, 22/11/1912

<sup>24</sup> Minutes of the Trustees, Taronga Zoological Park, 12/12/1912 and 10/1/1913

<sup>25</sup> Minutes of the Trustees, Taronga Zoological Park, 22/9/1913

<sup>26</sup> 'Taronga Zoo', *Sydney Morning Herald*, 1/6/1913, p. 7

<sup>27</sup> 'Making Sydney's New Zoo', *Sun*, 11/2/1914, p. 42

<sup>28</sup> Undated typewritten report included Taronga Zoo Archives Record Holding SE81

<sup>29</sup> Taronga Zoological Park Trust, Report for 1916, p. 2

<sup>30</sup> Min, 16/8/1912

<sup>31</sup> M 21/2/13

<sup>32</sup> 'The Old and Zoo and the New', *Sydney Morning Herald*, 14/9/1916

<sup>33</sup> 'Zoo Attendance', *Sydney Morning Herald*, 29/12/1938, p. 7

<sup>34</sup> 'The New Zoo', *Sydney Morning Herald*, 7/1/1914

<sup>35</sup> Le Souef, 'Re work on Taronga Zoological Park for 1913', 15/11/1913 held Taronga Zoo Archives

From at least early 1914<sup>36</sup> a civil engineer named Charles Rosegger was employed.<sup>37</sup> Rosegger (1877-1919 and born Karl Rosegger Agster) was a Hungarian born noble, who had studied engineering in America, and worked intermittently in both New Zealand (in bridge construction) and Australia prior to permanent settlement in 1909.<sup>38</sup> Rosegger was associated with the Ferro-Concrete Company of Australasia prior to 1909, which utilised the patented Monier system of reinforcing concrete with steel. This construction system was used sporadically in Sydney from the mid 1890s. The system was in widespread use in government harbour works in the 1910s, and it is interesting that Thomas Keele (1850-1927) the principal engineer at the Harbour and Rivers Branch of the PWD for 1901-04, was an honorary technical advisor to the Zoological Park Trust from 1912.<sup>39</sup> The role of Keele was evident especially in the building of the wharf and the tramway.<sup>40</sup>



Source: Taronga Zoological Park Trust, Report for 1916, p. 9

**Figure 7** A photograph taken to record the natural state of the Zoo site prior to implementation of the works program.

## 2.4 Building the Zoo (1915-1917)

In February 1915 the Government Architect's Branch (GAB) within the NSW Public Works Department (PWD) was engaged officially to design the first buildings and exhibits.<sup>41</sup> The Government Architect at that time was George McRae. The resolution of the trustees being:

<sup>36</sup> Report of the Secretary, 20/2/1914

<sup>37</sup> Something Worth Seeing, *Sun*, 13/6/1915, p. 13

<sup>38</sup> Entry on Rosegger at [www.kroad.com](http://www.kroad.com); 'The Progress of Ferro Reinforcement', *Mount Barker Courier*, 30/8/1907

<sup>39</sup> Minutes of the Zoological Park Trust, 27/6/1912

<sup>40</sup> Minutes of the Zoological Park Trust, 25/7/1913

<sup>41</sup> Taronga Zoological Park Trust, Report for 1916, pp. 8-9

*'That the Trust would be responsible for the maintenance of the grounds and animals, and that new works be carried out by the Public Works Department', and that 'sketches (by PWD) would be prepared and submitted to the Trust, and if approved handed to the Works Department for completion'. The cost of construction was borne by the PWD.*<sup>42</sup>

What the Trustees had actually accomplished prior to 1915 seems to have been clearing, general planning and planting, fencing, making the ponds and some paths (including the 'central avenue'),<sup>43</sup> most of the monkey enclosure (1914), filling and leveling the south-eastern picnic area and coordinating the ferry and tram connections (which was ongoing). Some of the smaller aviaries for parrots, cockatoos, etc. were possibly designed by Cosh in 1913,<sup>44</sup> and the concrete bases and superstructures of four were completed in 1914.<sup>45</sup>

While the GAB seems to have been working on the zoo project since at least March 1914 when the design drawings for some aviaries were completed,<sup>46</sup> their post 1915 works of this period were the upper or main entrance block, refreshment rooms (1917), lions and tigers' enclosures, birds of prey aviary (1917), seal pond, elephant house, bear enclosures, python house (later finch aviaries) and hippopotamus enclosure.<sup>47</sup> The refreshment pavilion was under construction in early 1917.<sup>48</sup>

The GAB's involvement with the Zoo ended in mid 1917 owing to cost overruns,<sup>49</sup> but government support was continued through the Voluntary Workers Scheme.<sup>50</sup> Also the government permitted the trustees to continue with the work, employing its own staff, utilising materials already procured and construction plant, and the plans and specifications already supplied by the GAB.<sup>51</sup>

As the enclosures were completed in stages, the animals were brought from the Moore Park facility. While the Moore Park zoo was closed to the public in September 1916, some animals were kept there until such time as the accommodation at Taronga was completed.<sup>52</sup> The Zoo was officially opened by Premier Holman on 7th October 1916.

Over the following years Le Souef made periodic visits to zoos overseas to arrange for exchange of exhibits. It is recorded that in 1922 he visited South Africa, Europe and America, and in 1926/27 he visited zoos in England and continental Europe.<sup>53</sup> Consequently, the Zoo developed a 'business' in the exchange and sale of animals and birds by the early 1920s.<sup>54</sup> The timing of these visits usually resulted in the building of enclosures for animals he had sourced from participating overseas zoos; the Giraffe House in 1924 being one example.

## 2.5 Building the Zoo (1920s)

The building work during the 1920s seems to have been intended to consolidate the exhibits and facilities at the eastern end of the Zoo. In late 1922 the open-air music house or bandstand was completed.<sup>55</sup> The slope below the aviary (ie for monkeys) in 1924 was transformed into a beauty spot, terraced and planted out, and two sets of concrete steps built.<sup>56</sup> The major project of this era was the aquarium that had designed by commencement of 1926,<sup>57</sup> and was

<sup>42</sup> Minutes of the Trustees, Taronga Zoological Park, 26/2/1915

<sup>43</sup> Report of the Secretary, 10/10/1913

<sup>44</sup> Report of the Secretary, 18/7/1913

<sup>45</sup> Report of the Secretary, 22/5/1914; Report of the Secretary 9/10/1914

<sup>46</sup> NSW Public Works - Plan Room - Drawing MISC198-A2265

<sup>47</sup> Taronga Zoological Park Trust, Report for 1916, pp. 8-9

<sup>48</sup> Buildings and Works, *Sydney Morning Herald*, 16/1/1917, p. 4

<sup>49</sup> 'Cost of the Zoo', *Sun*, 20/7/1917, p.5

<sup>50</sup> MIn 14/9/17

<sup>51</sup> Letter PWD to Chairman of Trustees, 9/6/1917

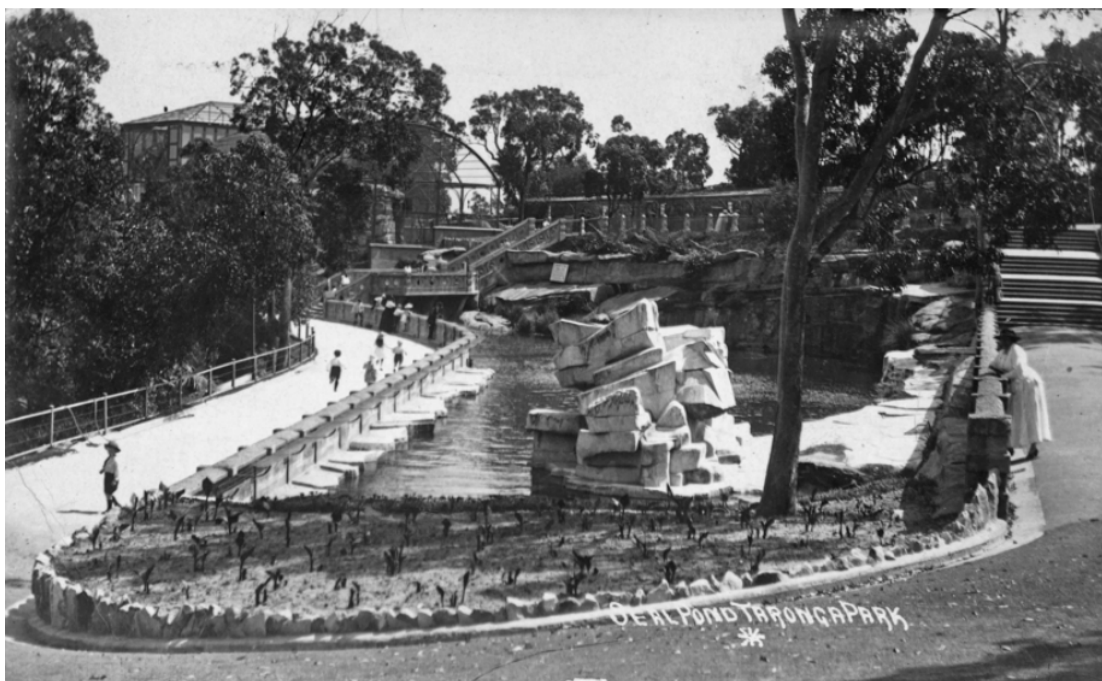
<sup>52</sup> 'Shifting the Zoo', *Sydney Morning Herald*, 2/9/1916

<sup>53</sup> 'Mr AS Le Souef', *Sydney Morning Herald*, 8/3/1927

<sup>54</sup> Taronga Zoological Park Trust, Report for the Year ended June 1924, p. 2

<sup>55</sup> 'Australia's first zoo music house', *Sun*, 19/10/1922

<sup>56</sup> 'Making it better', *Evening News*, 20/6/1924, p. 6



Source: Mosman Local Studies Collection (TarongaZoo.55)

**Figure 8** Undated, ca. 1920, photograph of the Seal Pond with the Birds of Prey Aviary behind.

completed in 1928. The floral clock was completed also in 1928.<sup>58</sup> Landscaping works continued through with planting of trees, widening of paths, building additional steps, and turfing out the picnic ground, making of dwarf walls and other 'rockery work'.<sup>59</sup> Much of the new pathway system was laid in concrete and that caused unacceptable degree of glare, which necessitated building of arches for shade.<sup>60</sup> At the western end, the enclosures for giraffes and Barbary sheep were built in or about 1924.

Only some of this development, the bandstand and baboon enclosure in 1922, giraffe house in 1924,<sup>61</sup> the aquarium in 1928, the reptile house in 1929, are known to have involved the Government Architect's Branch.<sup>62</sup> While the GAB had been withdrawn from direct involvement in building works in 1917, it seem their plans were implemented under the direction of Spain and using private contractors. This was the instance of the baboon enclosure that was under discussion in 1918<sup>63</sup>, with construction commencing in late 1922.<sup>64</sup>

## 2.6 Building the Zoo (1930s)

By 1930 the number of visitors to the Zoo using private motor cars had increased to where the upper car park was required.

The early 1930s was a period of severe contraction in the world economy, and in response governments introduced welfare schemes to put unemployed men to work. At Taronga

<sup>57</sup> 'Aquarium', *Sydney Morning Herald*, 9/1/1926, p. 16

<sup>58</sup> 'Taronga Park', *Sydney Morning Herald*, 3/1/1929, p. 13

<sup>59</sup> 'Taronga Park' *Sydney Morning Herald*, 18/7/1929, p. 12; Minutes of the Trustees, Taronga Zoological Park, 27/6/1924

<sup>60</sup> Minutes of the Trustees, Taronga Zoological Park, 10/1/1929

<sup>61</sup> NSW Public Works - Plan Room - Drawing MISC198- A2458

<sup>62</sup> *Public Works Department Annual Report for 1921/22* p.48 & for 1927/28, p. 54

<sup>63</sup> Mon 12/4/18

<sup>64</sup> 'Baboon House', *Sun*, 17/11/1922, p. 9





Source: Mosman Local Studies Collection (*TarongaZoo.19*)

**Figure 9** Postcard view of the Giraffe Enclosure of the 1920s.



Source: State Library of NSW (PXD 568 (v.4))

**Figure 10** Oblique aerial photograph of Taronga about 1930. A photograph by Hall & Co.



unemployed men were engaged from 1930 under Schedule 3 of the Prevention and Relief of Unemployment Act, which specified:

*'formation of roads and paths, levelling, turfing, concreting, culverting, construction of aviaries and animal houses, rest houses, and such other works as may be required'.<sup>65</sup>*

What eventuated was the merry go round (now demolished), the historic cannons sourced from Dawes Point<sup>66</sup>, lookouts, and building exhibits such as Goat Mountain completed in 1932. The miniature railway was a little earlier in being introduced in 1929.

In the second half of 1932 some 45 men were employed on this work.<sup>67</sup> By the second half of 1933 there were 70 men receiving assistance at Taronga.<sup>68</sup> Additional funding was provided in September 1934 for:

*'construction of new and additional bird aviaries, construction of new carnivora dens and demolition of old carnivora houses; construction of new yard for horses, and new hospital quarters for sick animals, formation of path from compressor house and pump house on Harbour front; construction of Lyre Bird enclosure and formation of necessary paths thereto; and works required in connection therewith'.<sup>69</sup>*

The supervision of these men was left to Alfred Spain (see below),<sup>70</sup> and he worked up the designs for these improvements from 1930.<sup>71</sup>

Much of this work of the 1930s was in the western part of the Zoo, probably in response to the completion of Sydney Harbour Bridge in 1932 and the advantageous views of it provided at Taronga. Work in this part of the Zoo continued into the mid 1930s for it was announced in 1935 that developmental work on the western area overlooking Sirius Cove then was in progress,<sup>72</sup> and that in 1938 it was hoped to complete the western section.<sup>73</sup> Outcomes included the lion enclosure built in 1935,<sup>74</sup> Steven's Lookout (1932-35), and an improved Kindergarten Zoo (within subject site) in 1937, and a new tiger enclosure in 1939.

In 1936 Dr Robert Anthony Patten was appointed superintendent.<sup>75</sup> Le Souef had been forced to retire owing to new government employment regulations and cut backs in funding, however Le Souef's services continued for a while after and he finally left in November 1939. Patten (1889-1958) had studied veterinary science at the University of Sydney (one of the first graduates), served in the AIF in the First World War, and was employed by Commonwealth Government as a veterinary officer prior to appointment to Taronga. While Le Souef had practical experience in zoos, Patten's veterinary background was wanted by the trustees.<sup>76</sup>

## 2.7 Alfred Spain

The chairman of the Zoological Park Trust in the 1930s (and since 1928) was Alfred Spain. Spain (1868-1954) was a professional architect. He was born at Neutral Bay in 1868, and resided at Waione, Kurraba Road, Neutral Bay. His professional training as an architect was

<sup>65</sup> New South Wales Government Gazette Supplement, 18/8/1930

<sup>66</sup> 'Taronga Park', Sydney Morning Herald, 2/9/1931, p. 5; Min 27/4/1931

<sup>67</sup> Notes and News, Sydney Morning Herald, 9/8/1932, p. 6

<sup>68</sup> 'Several Big Contracts', Sydney Morning Herald, 25/7/1933, p. 6

<sup>69</sup> New South Wales Government Gazette, 2/9/1934

<sup>70</sup> 'Several Big Contracts', Sydney Morning Herald, 25/7/1933, p. 6

<sup>71</sup> Minutes of the Trustees, Taronga Zoological Park 28/4/1930 and 28/7/1930

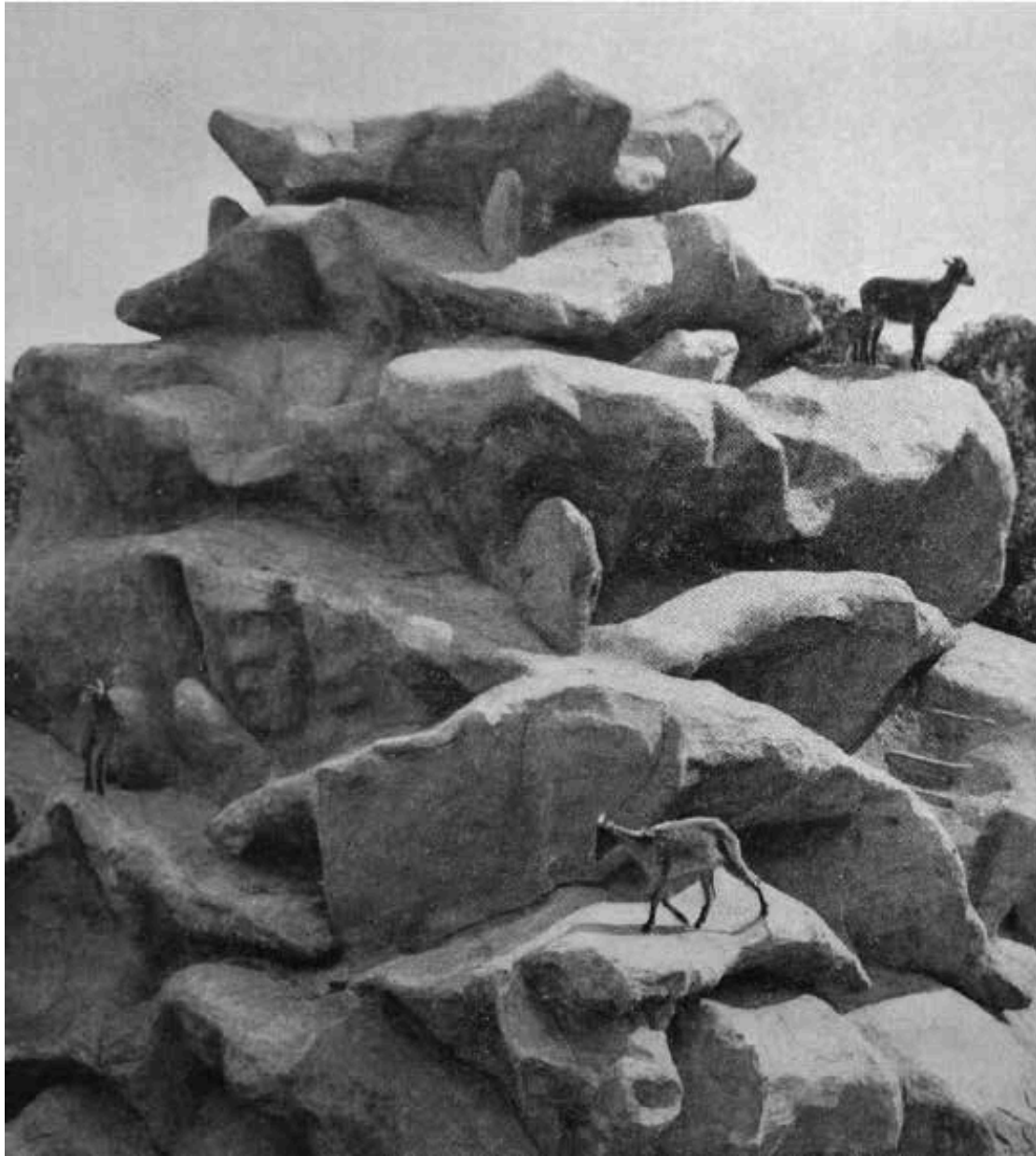
<sup>72</sup> 'Improvements at Zoo', Sydney Morning Herald, 8/8/1935, p. 10

<sup>73</sup> 'Taronga Park', Sydney Morning Herald, 6/1/1938, p. 4

<sup>74</sup> 'Taronga Park', Sydney Morning Herald, 5/7/1935, p. 10

<sup>75</sup> 'Taronga Park Appointment', Newcastle Morning, 20/3/1936, p.13; 'Former Zoo Curator Dies, Sydney Morning Herald, 20/10/1958

<sup>76</sup> Min 26/8/35



Source: *Taronga Zoological Park Official Guide*, 1939 edition

**Figure 11** Goat Mountain completed in 1932 was one outcome of Government unemployment relief works at the Zoo.

received in Sydney by being articulated to Thomas Rowe (1829-1899) in 1885, and attending Sydney Technical College. Spain qualified in 1890 and went into partnership with Rowe in 1893. In partnership with Thomas Frame Cosh (1868-1947) from 1904 the pair designed many of the fire stations seen around Sydney for the Board of Fire Commissioners. Spain was elected a fellow of the Royal Institute of British Architects in 1917 and was a foundation member (1913) of the Town Planning Association of New South Wales.

Spain also enjoyed a long association with the military, in being commissioned in 1890 in the 1st Field Company, Engineers, in the New South Wales Military Forces. This continued in the Commonwealth Military Forces, and he attained eventually the rank of colonel in 1910. After the Zoo was opened by Premier Holman on 7th October 1916, Spain enlisted in the Australian Imperial Force on the 27th of that month. Then aged 48, he was attached to the Transport

Service (troop transport ships) and was away from Australia between November 1916 and April 1917.<sup>77</sup>

Spain had an acknowledged love of animals and birds. His involvement with Taronga Zoo dates from its inception when Spain held the position of president of the Royal Zoological Society. When the Zoo opened in 1916 and that role of the Society ceased, Spain was appointed one of the trustees of the new zoo trust and was its vice chairman until 1928; between 1928 and 1941 he was chairman of trustees. In 1941 he was appointed honorary consultant to the trustees.

Spain visited Vienna in 1905 to attend the International Fishery Congress, and it seems at that time (or perhaps later, but prior to 1913) he visited zoos in England, Europe and America. A particular interest was aquariums.<sup>78</sup> Spain undertook another world tour of zoos in 1924.<sup>79</sup>

## 2.8 Hallstrom Years (1940s-mid 1960s)

Patten retired in 1954, and in 1959 Sir Edward John Lees Hallstrom was appointed honorary director of Taronga. Hallstrom (1886-1970), a manufacturer with no formal training in the sciences, had been appointed a trustee of the Zoo in 1941, was vice-chairman (1945-51), and then president from 1951 until 1959. Hallstrom took an active interest in the Zoo and gave liberally both in monetary and material terms.<sup>80</sup> The new administrative block completed in 1945 was paid for by Hallstrom, being one example. The former African elephant enclosure (now near the Gorilla Exhibit) of 1940 was another.

## 2.9 A New Era (1967-present)

In 1966 Dr Heini Hediger, director of the Zurich Zoological Gardens with a particular interest in human-animal relationships and author of *Wild Animals in Captivity*,<sup>81</sup> submitted a report on the management and conditions of Taronga. Hediger was concerned specifically with the lack of academically qualified staff, antiquated animal enclosures with the concrete floors, and other technical aspects.

Subsequently, in 1967 Dr Ronald Strahan was appointed director of Taronga Zoo. Strahan (1922–2010) had graduated in zoology at the University of Western Australia in 1947 and then studied at Oxford University, followed by the universities of Hong Kong and New South Wales. He was the first full-time director appointed to Taronga Zoo and was there until 1974. Strahan is remembered as a pioneer in advocating zoos as cultural scientific institutions.<sup>82</sup>

On taking office Strahan sought to appoint scientifically qualified curators for the mammal, bird, reptile and fish sections.<sup>83</sup> In 1973 the charter of the Zoo was changed with the passing of the Zoological Parks Board Act, and following this Strahan established the Western Plains Zoo at Dubbo in western New South Wales (opened in 1977.) The new Board comprised ten members appointed by the Governor upon the nomination of the Government.

In March 1967 a Planning Committee was established to oversee preparation of a master plan of redevelopment of the Zoo. The Committee included two representatives from the Government Architect's Branch of NSW Public Works Department, Geoffrey Phillip Webber (Assistant Government Architect) and Donald Murray Coleman (project architect).<sup>84</sup> Another member of

<sup>77</sup> National Archives of Australia, Series B2455 - Spain Alfred

<sup>78</sup> 'Taronga Park', *Sun*, 1 /6/1913, p. 7

<sup>79</sup> 'Colonel Spain gave account of Australia', *Quebec Chronicle*, 7/5/1924

<sup>80</sup> Audrey Tate, 'Hallstrom, Sir Edward John Lees (1886–1970)', *Australian Dictionary of Biography*, Melbourne University Press, 1996

<sup>81</sup> Baratay & Hardoun-Fugier 2004, p. 262

<sup>82</sup> [australianmuseum.net.au/tribute-to-ron-strahan-am](http://australianmuseum.net.au/tribute-to-ron-strahan-am)

<sup>83</sup> Taronga Zoological Park Trust, *Annual Report for 1967/68*, p. 2

<sup>84</sup> Taronga Zoological Park Trust, *Annual Report for 1967/68* p. 2

the committee was trustee Donald CB Maclurcan, a senior partner in the well-known Sydney architectural firm Fowell, Mansfield, Maclurcan and Jarvis.<sup>85</sup>

The Master Plan was completed in March 1970<sup>86</sup>, and it set out the basic principles guiding redevelopment policy. A careful site analysis was undertaken that mapped the natural topography, and remnant flora. It set out precincts, with the areas under review being designated for continuation of zones for carnivora and birds separated by a proposed central circulation corridor.<sup>87</sup>



Source: *Architecture in Australia*, December, 1970

**Figure 12** Circulation network proposed in the Master Plan published in 1970.

By 1970 much work had been completed already or was in the process of completion. This included developments from 1967<sup>88</sup> intended to exhibit Australian fauna. The north-east corner was developed for display of native Australian fauna, and here were a new platypus house (completed by mid 1968), a walk through aviary for rainforest birds (opened 2/1972), a new koala enclosure (opened 10/1971), a nocturnal house, and a quarantine and veterinary complex (completed by 1978). These developments were designed by the Government Architect's Office, and its work was recognised in the awarding of the RAIA Merit Award for Civic Design for 1973.<sup>89</sup>

Most<sup>90</sup> of these exhibits were funded by the NSW Government under an arrangement implemented in 1967 where the Zoo could accumulate capital funds, and therefore plan for five-year programs.<sup>91</sup> A special grant of \$200,000 was provided in 1973.<sup>92</sup>

<sup>85</sup> Taronga Zoo, *Architecture in Australia*, December 1970

<sup>86</sup> Taronga Zoological Park Trust, *Annual Report for 1969/70*, p. 12

<sup>87</sup> Taronga Zoo, *Architecture in Australia*, December 1970, pp. 850-851

<sup>88</sup> Taronga Zoological Park Trust, *Annual Report for 1967/68*, pp. 8-11

<sup>89</sup> Public Works Department, *Annual Report for 1973/74*, p. 17

<sup>90</sup> The Koala House was financed by a private business (Taronga Zoological Park Trust, *Annual Report for 1969/70*, p. 13)

<sup>91</sup> Taronga Zoological Park Trust, *Annual Report for 1967/68*, p. 6

<sup>92</sup> Taronga Zoological Park Trust, *Annual Report for 1973/74*

In tandem with this shift toward scientific conservation, education, preservation and investment in state of the art enclosures, was the withdrawal of attractions introduced in the inter-war era such as the elephant ride, miniature train, monkey circus and merry-go-round.

Following the resignation of Strahan in 1974 there were two directors (one acting), prior to the appointment of Jack L Thorp in 1979.

In 1980, about the time of the completion of the Chimpanzee Enclosure (April 1980), the policy of the Zoo was to landscape all exhibits and surrounding areas in a manner that represented as close as possible the animal's native habitat.<sup>93</sup> Subsequently in the early 1980s the bear pits were completely reconstructed to provide a natural setting complete with a water fall.<sup>94</sup> By 1984 the staged development of the Waterhole Exhibit was completed<sup>95</sup> (with further development in the early 1990s). In tandem with this project, a new eatery, the Safari Lodge Kiosk, was completed in 1987 (see history for the Water Hole Exhibit). The aerial cableway was completed by 1987 at no capital cost to the Zoo under a build and operate arrangement with a commercial business.<sup>96</sup>

In 1987 Dr John Kelly was appointed Director. In June 1989 the Government Architect's Office produced its second Master Plan for the Zoo. By that time over 40% of the exhibits were more than 60 years old (the aquarium opened 1928 had to close in 1992 owing to structural deterioration).<sup>97</sup>

The Master Plan proposed the rebuilding of the Zoo in phases over a 4-5 year period, within delineated exhibit zones.<sup>98</sup> The Master Plan included a section that specifically addressed the built heritage values of the Zoo, and within the study areas these comprised:

- 14 Remains of Birds of Prey Aviary (since re-developed)
- 15 Tahr Mountain
- 16 Giraffe Houses
- 21 Australia Birds Aviaries
- 28 Finch Aviaries
- 24 African Elephant House (since demolished)
- 25 Cottage (since demolished)
- 26 Shelter
- 29 Parrot Aviary

The State Government provided an injection of \$2.6 million in 1992 as part of a three-year capital expenditure grant of \$7.8 million.<sup>99</sup> Outcomes relevant to the study areas were further development of the Waterhole exhibit to provide a mixed display of giraffe, zebra, ostrich and pygmy hippopotamus (completed in January 1994).<sup>100</sup> Work on the \$3.5 million Gorilla Exhibit commenced in late 1995 and was completed in 1997.<sup>101</sup> Nearby, the old lion and tiger pits were redeveloped into the Cats of Asia exhibit opened in September 1993.<sup>102</sup>

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<sup>93</sup> Taronga Zoological Park Trust, *Annual Report for 1979/80*

<sup>94</sup> Taronga Zoological Park Trust, *Annual Report for 1981/82*, p. 22

<sup>95</sup> Taronga Zoological Park Trust, *Annual Report for 1983/84*, p. 27

<sup>96</sup> Taronga Zoological Park Trust, *Annual Report for 1986/87*, p. 5

<sup>97</sup> Taronga Zoological Park Trust, *Annual Report for 1990/91*

<sup>98</sup> Taronga Zoological Park Trust, *Annual Report for 1989/90*

<sup>99</sup> Taronga Zoological Park Trust, *Annual Report for 1992/93*, p. 7

<sup>100</sup> Taronga Zoological Park Trust, *Annual Report for 1992/93*, p. 7

<sup>101</sup> Public Works Department, *Annual Report for 1994/95*, p. 69

<sup>102</sup> Taronga Zoological Park Trust, *Annual Report for 1993/94*





Source: Public Works Department, Development Master Plan, Taronga Zoo, June, 1989 (Figure 9)

**Figure 13** Detail from the Master Plan of 1989 showing the exhibits and built features assessed as being of heritage value.

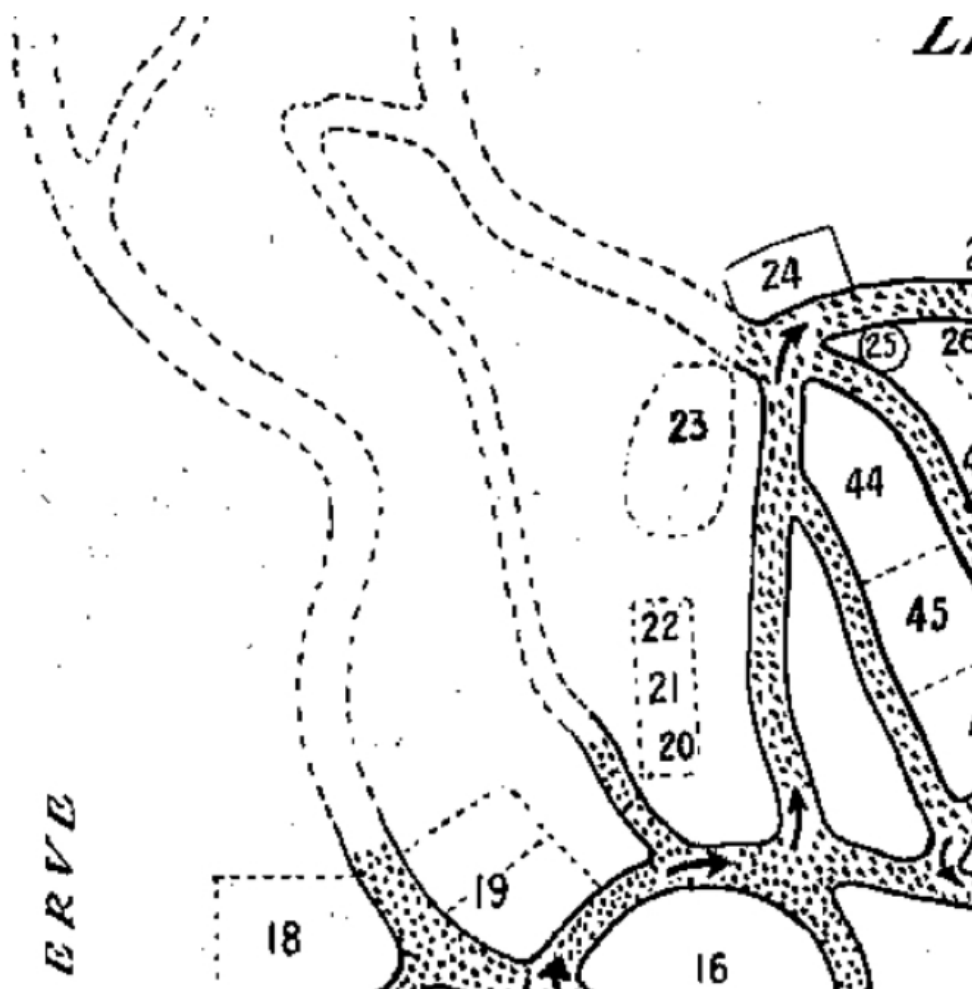
### 3 Historical Background to the Proposed Precincts

#### 3.1 African Waterhole Precinct

##### 3.1.1 Planning

The northwestern sector of the Zone was planned in 1912 to house hoofed animals. It is clear by the guide plan of 1920 that this part of the Zoo was the last to be developed as the network of pathways had not been completed. It seems the few exhibits then there, such as springbok, were held in fenced pens. Others, such as lynx, monkeys, and puma, would find new homes elsewhere in the Zoo as the decade progressed.

As further exhibits were sourced from overseas during the 1920s, by the early 1930s this northwestern sector of the Zoo had been completed. By the year the Sydney Harbour Bridge opened in 1932, the area of the proposed African Waterhole Exhibit comprised the Giraffe House and Goat Mountain, new lookouts/shelters, as well as pens exhibiting hoofed animals such as barbary sheep, gazelle, kudu, oryx, buffalo, antelope (nilgai), springbok, and tapir. The enclosures for the gazelle, kudu, and oryx were built in 1931 in readiness for the arrival of the animals from Cairo Zoo, as was the antelope enclosure. As part of this improvement rockery gardens were built at the rear of the new enclosures.<sup>103</sup>



Source: *Taronga Zoological Park Official Guide, 1920 edition*

**Figure 14** Detail from the plan of the Zoo published in 1920. This northwest corner then required more work before visitors could be admitted.

<sup>103</sup> Minutes of the Trustees, Taronga Zoological Park, 20/11/1931

### 3.1.2 Giraffe House (1924)

During Le Souef's overseas tour in 1922 he secured a number of new exhibits for the Zoo in exchange for Australian species. From zoos in South Africa he arranged for delivery of African birds, and an additional zebra. He also discussed the possibility of an exhibit of giraffes, but this was dependent on the necessary accommodation being built.<sup>104</sup>

By early 1923 two giraffes had been captured in Zimbabwe, but unfortunately were eaten by lions whilst in captivity in Africa awaiting shipment to Sydney.<sup>105</sup> Another pair from Zimbabwe were captured later in 1923, but it was not until January 1926 that one, named Rudolf, arrived at Taronga; the other, the female, unfortunately died while being shipped to Australia.<sup>106</sup> Another pair was sourced from Zimbabwe and had arrived by late 1927.<sup>107</sup>

The plans of the western giraffe shelter were being prepared by the GAB by mid 1923.<sup>108</sup> In August 1923 the trustees inspected and approved the selected site. It also approved the expenditure of 500 pounds and that Alfred Spain would make the decisions regarding construction.<sup>109</sup> It was completed by mid 1924 in anticipation of the arrival of the giraffes.<sup>110</sup> This western shelter was photographed in 1926 with Rudolf at home.<sup>111</sup>

The one surviving GAB drawing of the giraffe enclosure was dated September 1923.<sup>112</sup> The drawing indicates the shelter is constructed with a reinforced concrete post and beam structure. The faux rock exterior was built up in ½in diameter wrought iron rods, covered with mesh wire netting, and finished with cement 'rendered and coloured to imitate rock'.<sup>113</sup> The drawing depicted a clay floor over a compacted sub-surface,<sup>114</sup> but in 1943 it was observed as being 'very old cement or asphalt substance or both' and 'damp and dangerous to animals condition'.<sup>115</sup> That was remedied by regrading the floor and paving with wood blocks.<sup>116</sup> The giraffe enclosure was fenced with pipe railing in 8 ft panels with wire mesh; the public fencing was 3ft 6in high, and 7ft 6in high elsewhere.<sup>117</sup>



Source: Taronga Zoological Park Trust, Report for 1924, p. 30  
**Figure 15** The western giraffe shelter as completed in 1924.

<sup>104</sup> 'Mr Le Souef's Tour', *Sydney Morning Herald*, 8/3/1922, p. 13

<sup>105</sup> 'Taronga Giraffes', *Evening News*, 27/2/1923, p. 10

<sup>106</sup> 'Giraffe's Woes', *Sun*, 19/1/1925, p. 12

<sup>107</sup> 'Giraffes at their New Home', *Sydney Morning Herald*, 3/11/1927, p. 14

<sup>108</sup> Minutes of the Trustees, Taronga Zoological Park, 27/7/1923

<sup>109</sup> Minutes of the Trustees, Taronga Zoological Park, 24/8/1923

<sup>110</sup> Taronga Zoological Park Trust, Report for the Year ended June 1924, p. 2

<sup>111</sup> Depicted in 'Our Giraffe is a widower', *Guardian*, 19/1/1926

<sup>112</sup> NSW Public Works - Plan Room - Drawing MISC198-A2458

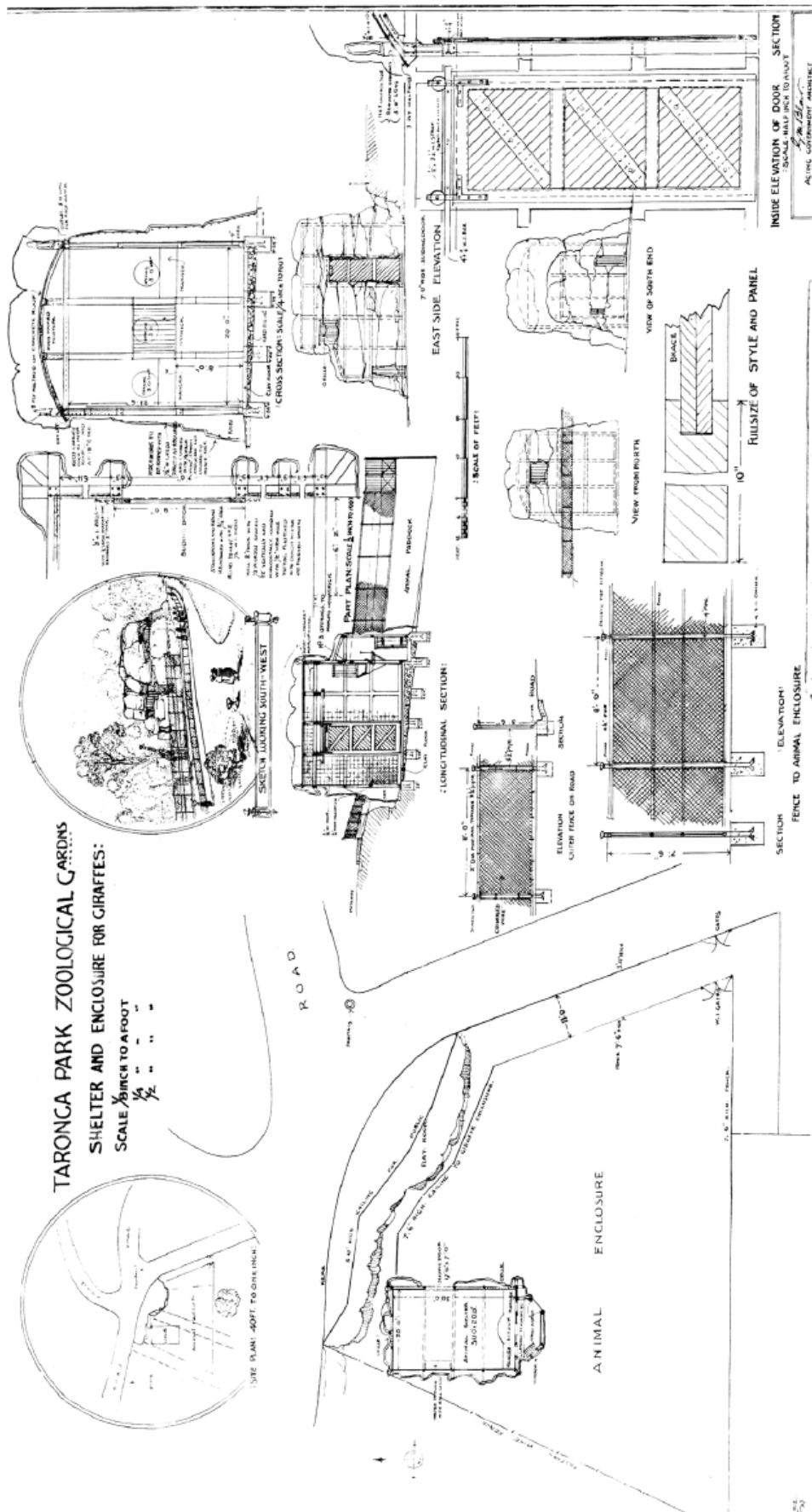
<sup>113</sup> NSW Public Works - Plan Room - Drawing MISC198- A2458

<sup>114</sup> NSW Public Works - Plan Room - Drawing MISC198- A2458

<sup>115</sup> Taronga Zoological Park Trust, Report for the Year ended June 1943, p. 2

<sup>116</sup> Min 27/9/43

<sup>117</sup> NSW Public Works - Plan Room - Drawing MISC198- A2458



Source: NSW Public Works - Plan Room -MISC 198/A2458  
Figure 16 The design drawing dated 1923 produced by the Government Architect.



Source: National Archives of Australia (Series A1200 - Image L36178)

**Figure 17** The interior of the western giraffe shelter in 1960.

The giraffe exhibit was developed further in the 1940s and 1960s. In 1942 the southwestern shelter and intermediary block were built, and the high screen walls at the southeast corner and along the southern boundary.<sup>118</sup> Also the yard was regraded and fill (coke breeze and clay) deposited and low retaining walls. This work was completed near the end of 1943.<sup>119</sup> The large semi-open eastern shelter was built sometime in the 1950s as it had been completed by aerial photography of about 1962. A number of new giraffe arrivals were reported in the 1950s. These improvements were initiatives of the Hallstrom era.

The elevation of the Giraffe House set against the backdrop of Sydney Harbour combined with the intrinsically interesting exhibits have resulted in this being one of the most photographed spots within the Zoo. In most public collections of historical photographs will be found at least one image of the Giraffe House dating back to the days of commercial photography for postcards.

<sup>118</sup> Extension of giraffe enclosure approved in Minutes of the Trustees, Taronga Zoological Park, 27/7/1942

<sup>119</sup> Minutes of the Trustees, Taronga Zoological Park, 27/9/1943





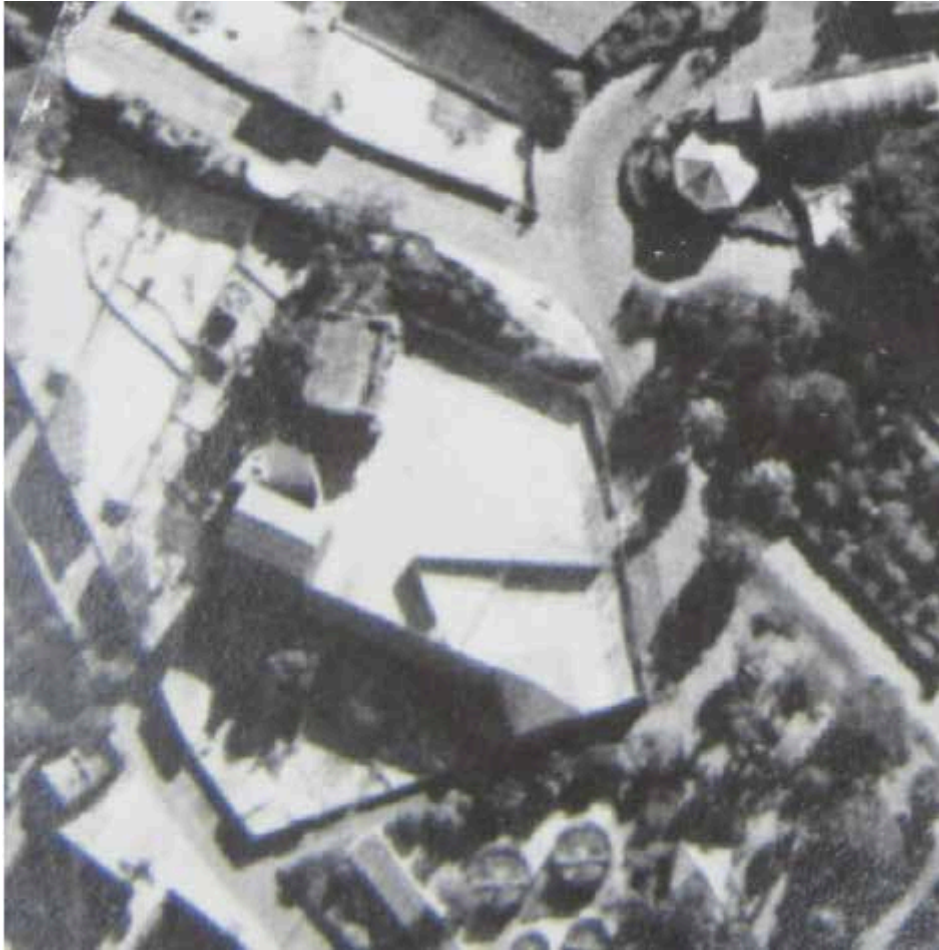
Source: State Library of NSW (GPO Collection I-07335)

**Figure 18** Detail from an oblique aerial photograph of about 1930. Looking northeast over the Giraffe House.



Source: Land and Property Information

**Figure 19** Detail from a vertical aerial photograph dated 1943. By this date the southern high wall had been built.



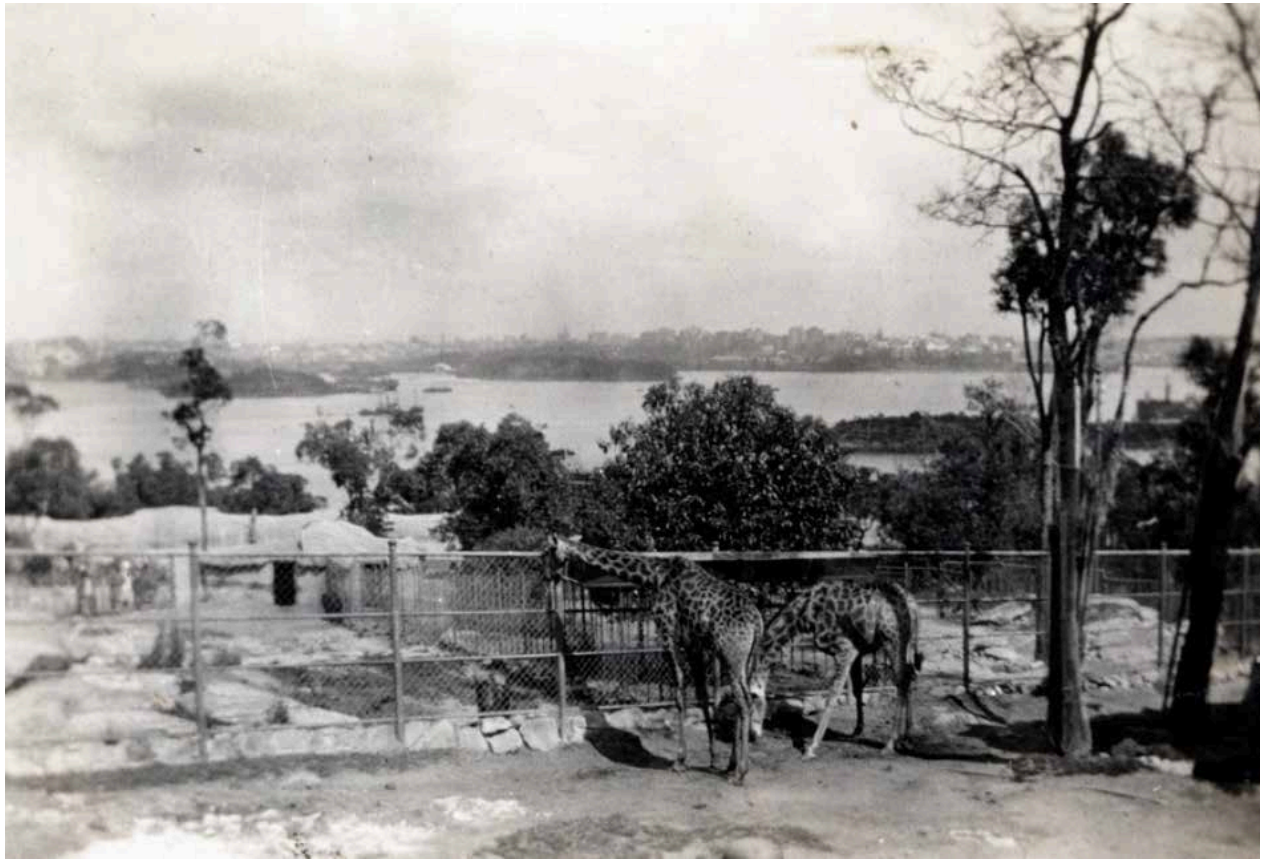
Source: Taronga Zoo

**Figure 20** Detail from a vertical aerial photography dated 1950. By this date another shelter at the southwest corner had been built and an additional screen wall erected within the compound.



Source: Taronga Zoo

**Figure 21** Detail from an oblique aerial photograph dated 1962. By this date the roof of the 1924 shelter had been softened by plant cover.



Source: *Mosman Local Studies Collection (ScansAUG.324)*

**Figure 22** Undated, 1930s, postcard photograph of the Giraffe Enclosure with the harbour backdrop.



Source: *National Archives of Australia (Series A1200 - Image L56714)*

**Figure 23** Photograph of the Giraffe Enclosure with the harbour backdrop dated 1966.





Source: State Records NSW (12932-a0120020)

**Figure 24** Undated, late 1930s, view of the giraffe enclosure with the Harbour Bridge in the background.

### 3.1.3 Goat Mountain (1932)

The artificial mountain for the Himalayan Tahrs was officially opened in May 1932, and fully completed in August 1932 at a cost of 1,800 pounds.<sup>120</sup> Work commenced in July 1931. The three tahrs had arrived in Australia from London Zoo in April 1932. The new enclosure was intended to provide an 'artificial natural environment' in the 50ft high artificial mountain.<sup>121</sup> This type of dramatic exhibit was common in European zoos from the early twentieth century,<sup>122</sup> but unusual, perhaps unique in Australia.

Given the natural propensity for the tahr to leap a great distance and to prevent them from escaping, a 13ft high perimeter fence was built.<sup>123</sup> The building of the exhibit was financed by unemployment relief funds made available by government to put men to work in the Great Depression.<sup>124</sup>

The structure incorporated steel purchased from London Zoo in January 1932.<sup>125</sup> As there was no shortage of steel in Australia in this period, the structure was possibly from an exhibit formerly at London Zoo. The exhibit was designed probably by Alfred Spain. He proudly described the new exhibit 'with crags, precipices, all complete ... to be the biggest zoo mountain in the world.'<sup>126</sup> No design drawing is known to have survived.

<sup>120</sup> Minutes of the Trustees, Taronga Zoological Park, 1/10/1936

<sup>121</sup> 'Misuse of relief funds at Taronga Park', *Sun*, 5 /6/1932, p. 7

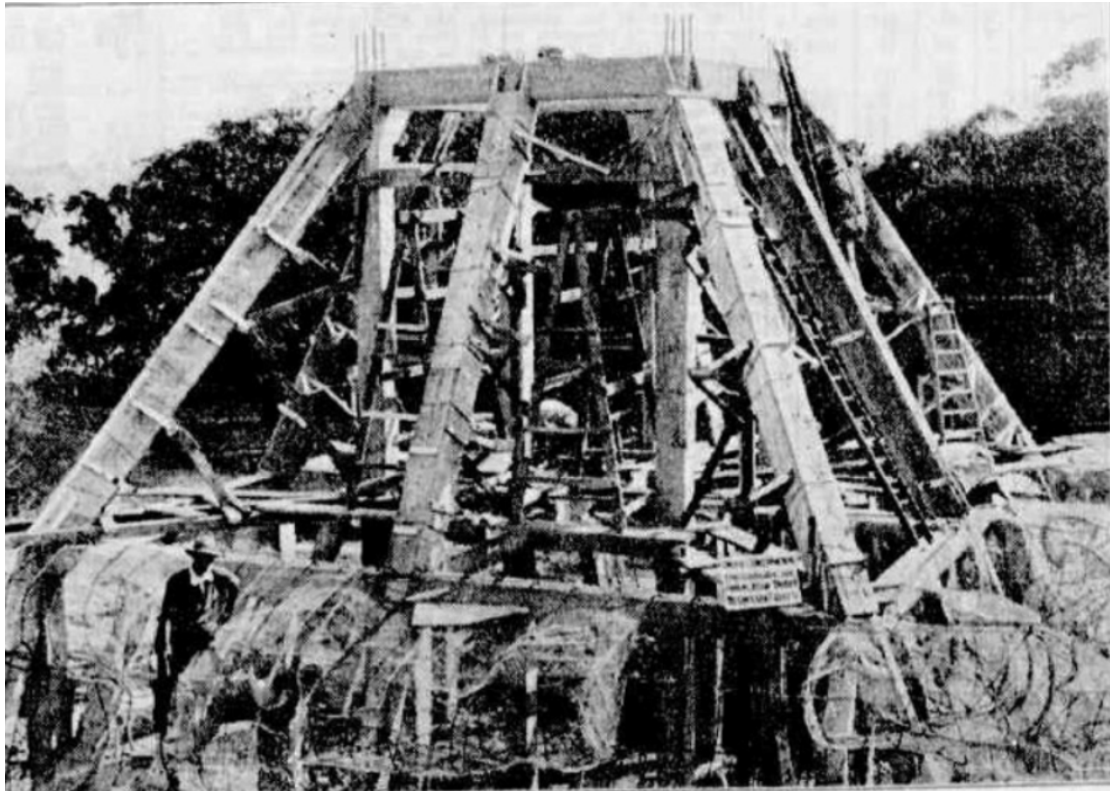
<sup>122</sup> Baratay & Hardoun-Fugier 2004

<sup>123</sup> 'Spring-healed goats .', *Sun*, 16/4/1932, p7; 'On the jump', *Sun*, 12/5/1932, p.19; Minutes of the Trustees, Taronga Zoological Park, 1/10/1936

<sup>124</sup> 'Misuse of relief funds at Taronga Park', *Sun*, 5 /6/1932, p. 7

<sup>125</sup> Minutes of the Trustees, Taronga Zoological Park, 29/1/1932

<sup>126</sup> 'Mountain at Taronga', *Sydney Morning Herald*, 13/5/1932, p. 14



Source: *Sydney Morning Herald*, 19/2/1932, p. 12

**Figure 25** The exhibit under construction in February 1932. The structural steel work was sourced from London Zoo.



Source: *Land and Property Information*

**Figure 26** Detail from vertical aerial photography dated 1943.





Source: Taronga Zoo

**Figure 27** Detail from an oblique aerial photograph dated 1962.

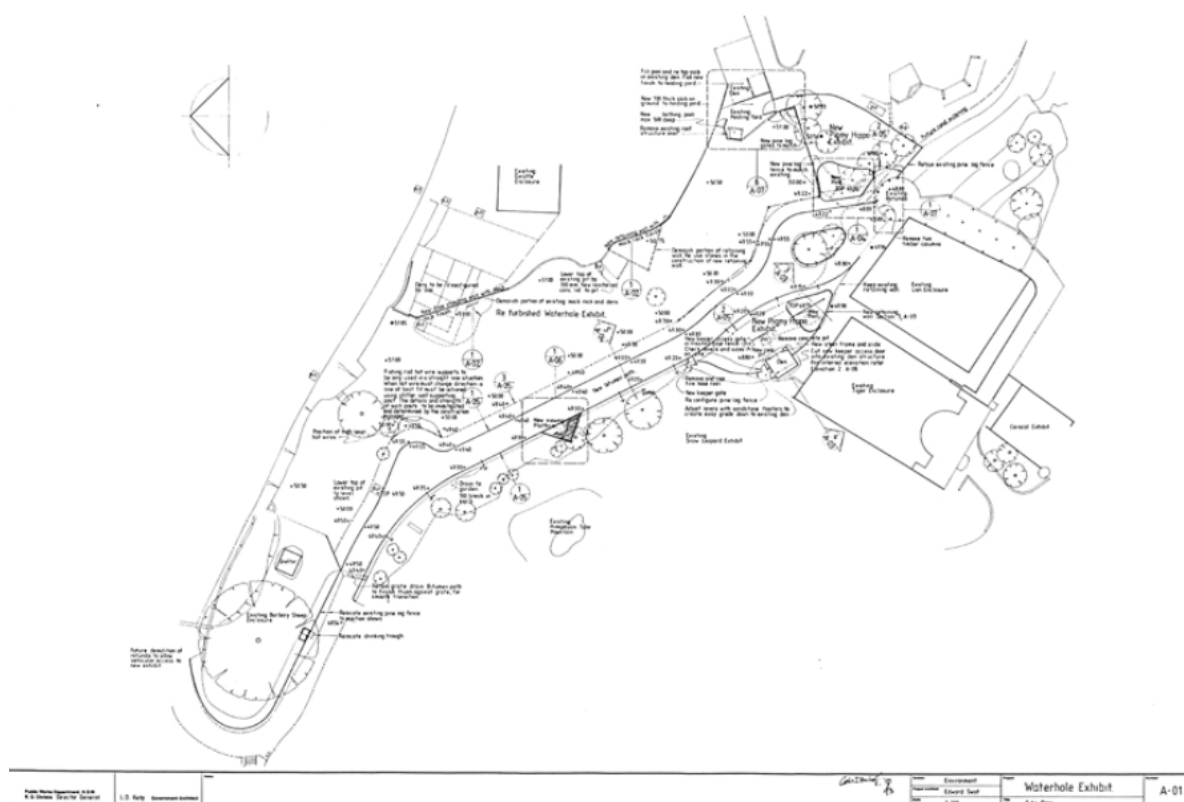


Source: Source: National Archives of Australia (Series A1200 - Image L56717)

**Figure 28** The mountain and high perimeter fencing in 1966, but probably the same as built in 1932.

In the augmented development of the Waterhole Hole exhibit, completed in January 1994, there was a mixed display of giraffe, zebra, ostrich and pygmy hippopotamus.<sup>129</sup> The large hoofed animals were exhibited on a grassed and landscaped site with a screened walkway, The Kimbu Bush Walk, for strolling visitors.

The 1990s scheme was developed and documented by the Government Architect's Office (with Lindsay Kelly as Government Architect), with Zoo staff undertaking the planting. The GAO were cognizant of the historic look of the Zoo with some new fencing of a meshed pipe rail design, and new retaining walls with a rock faced cement finish.



Source: NSW Public Works - Plan Room - MISC 98/2493  
**Figure 29** Site plan for the final (1993) phase of the development of the Waterhole Exhibit.

The historical development of this precinct had commenced in the mid 1920s. Accompanying the giraffe shipped from South Africa in 1925 were other animals including antelope, kudu, elands, warthog, Barbary sheep, springbok.<sup>130</sup> In 1928 another shipment from Africa arrived with pairs of rhino, zebra, Barbary sheep, and springbok.<sup>131</sup> Additional zebras and springboks arrived in 1935.<sup>132</sup>

<sup>127</sup> Taronga Zoological Park Trust, *Annual Report for 1983/84*, p. 27

<sup>128</sup> Taronga Zoological Park Trust, *Annual Report for 1969/70*, p. 13

<sup>129</sup> Zoological Parks Board of NSW, *Annual Report for 1992/93*, p. 7

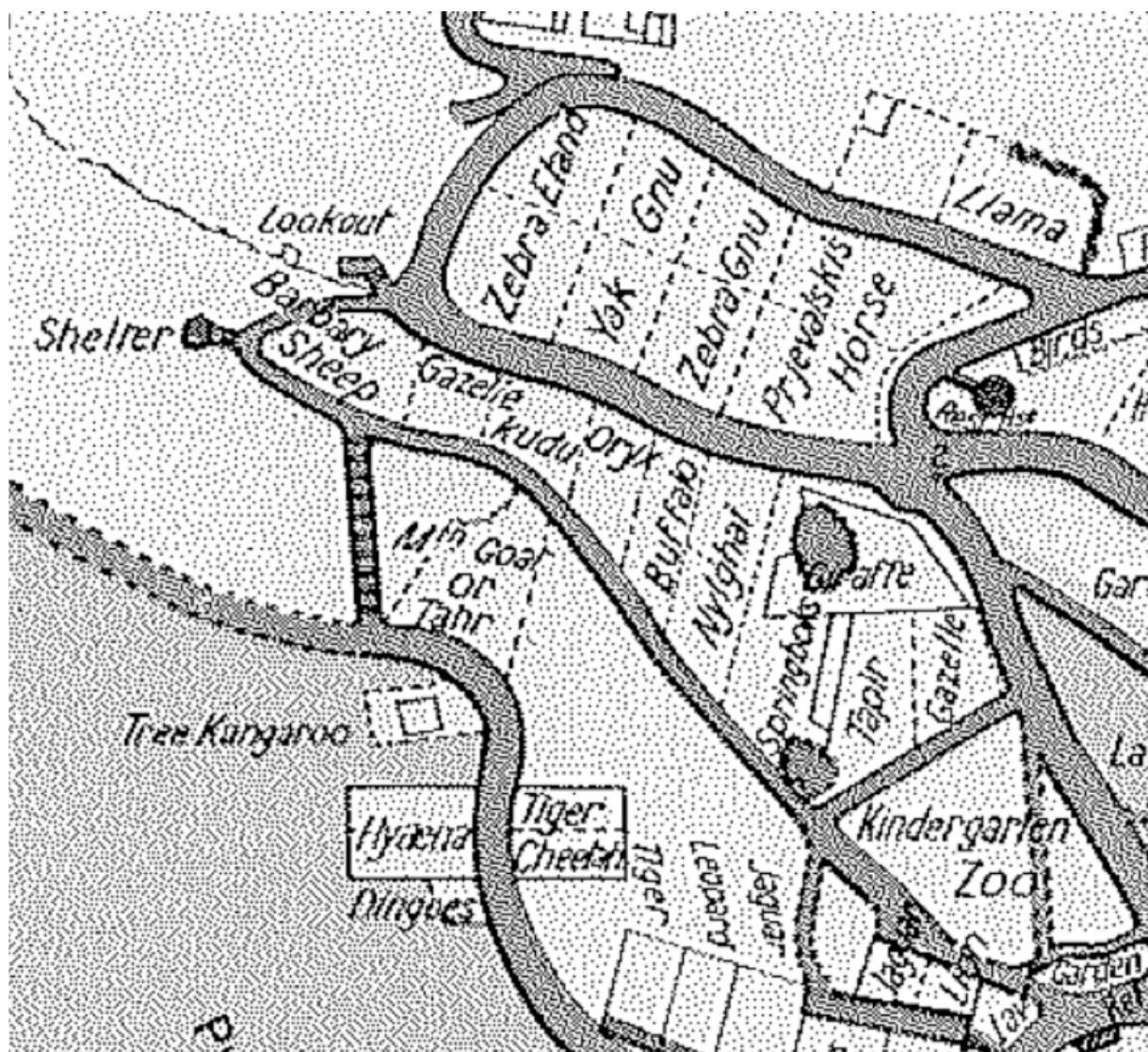
<sup>130</sup> 'Giraffe's Woes', *Sun*, 19/1/1925, p. 12.

<sup>131</sup> 'Taronga Park', *Sydney Morning Herald*, 18/7/1929, p. 12.

<sup>132</sup> 'Improving Taronga', *Daily Mirror*, 12/1/1935, p. 4.

By the late 1920s the Barbary sheep, springboks, deer, and an interloping ostrich were being exhibited in the area around the Giraffe House. By the early 1930s this precinct had been fully developed and it was the place to see exhibits of Barbary sheep, gazelle, kudu, Oryx, buffalo, Indian deer, springboks, and tapir. Most of these exhibits had arrived at the Zoo during 1931; a pair of Indian deer,<sup>133</sup> a pair of white Oryx,<sup>134</sup> and four Dorcas gazelles.<sup>135</sup> Some rationalization of the number of exhibits was undertaken in the late 1940s or early 1950s, and by 1956 the hoofed animals comprised the Barbary sheep, Indian deer, antelopes, and small buffalo.

The earliest and most substantial of these enclosures was that of the Barbary sheep. Located at the western most hairpin bend, it comprised terraces of rock faced cement rising from south to north. This building of this enclosure probably was contemporary with the Giraffe House, about 1924-1925, and in anticipation of the arrival of the Barbary sheep,<sup>136</sup> for it was depicted in aerial photography of about 1930.



Source: Taronga Zoological Park Official Guide, 1934 edition

**Figure 30** Detail from the official guide plan of the Zoo for 1934. Side by side pens of animal exhibits characterised this part of the Zoo prior to the 1980s.

<sup>133</sup> 'Indian Deer', *Sun*, 16/11/1931

<sup>134</sup> *Telegraph Pictorial*, 24/12/1931

<sup>135</sup> 'New arrival at the Zoo', *Sydney Morning Herald*, 24/12/1931

<sup>136</sup> 'Giraffe's Woes', *Sun*, 19/1/1925, p. 12



Source: Land and Property Information

**Figure 31** Detail from vertical aerial photography dated 1943 showing the animal pens.



Source: Mosman Local Studies Collection

**Figure 32** The Barbary Sheep enclosure in the 1960s

[illegible]

<sup>137</sup> Zoological Parks Board of NSW, *Annual Report for 1986/87*, p. 5



This part of the Zoo had been set aside in the 1910s as recreational space for visitors. In this role it was part of a group of three lawns located immediately above the former flamingo exhibit, and no doubt this was a popular place for picnicking.

By 1986 the area of Safari Lodge Kiosk continued in its historical role as a precinct for visitors. The key historical use of this precinct was the Kindergarten Zoo established in 1932 by the then overseer, Charles William Camp (1879-1968). The inspiration (but not implementation) for this development was Berlin Zoo where the concept had been introduced as recently as 1931. On display in this compound were animals such as wombats, and wallabies, and also piglets, rabbits, lambs and the like that posed no threat to the children.<sup>138</sup> The initial concept proved unsatisfactory, and it was closed down quickly, and was replaced by May 1933 by a more considered scheme. Further work was undertaken in 1937.<sup>139</sup>

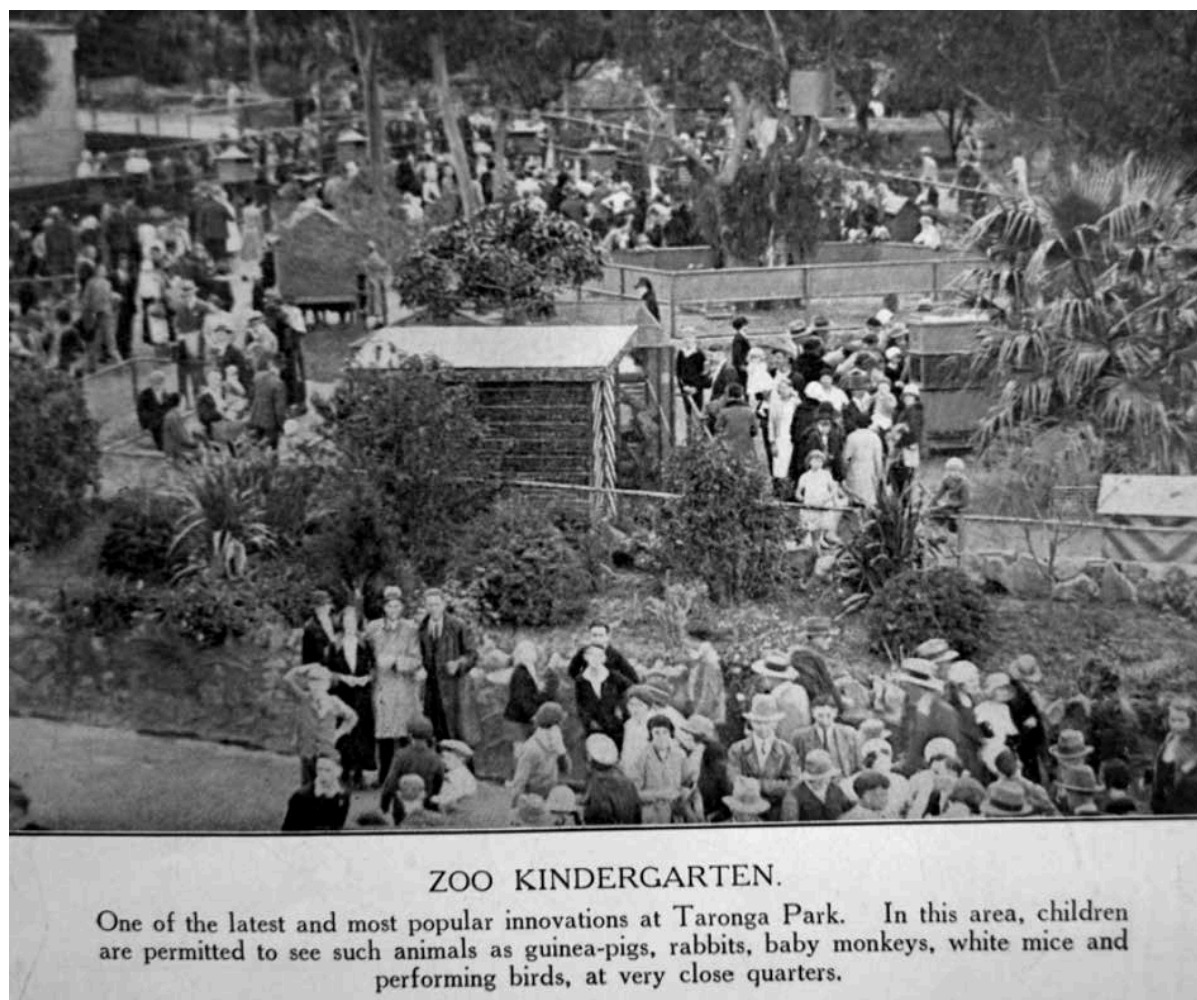


Source: *Land and Property Information*

**Figure 35** Detail from vertical aerial photography dated 1943 showing the layout of the Kindergarten Zoo.

<sup>138</sup> 'Zoo Kindergarten', *Sun*, 30/8/1932, p. 7

<sup>139</sup> 'Taronga Park', *Sydney Morning Herald*, 6/1/1938, p. 4



Source: *Taronga Zoological Park Official Guide*, 1933 edition

**Figure 36** The Kindergarten Zoo in 1933 and as explained to visitors.

### 3.1.6 Lookouts and Shelters (1932)

The western lookout and shelter were constructed about 1932 and presumably were outcomes of the unemployed relief scheme under the supervision of Alfred Spain. Neither was depicted in the 1929 edition of the zoo guide, but had been completed by the 1932 edition. The timing of these visitor facilities coincided with the completion of the Harbour Bridge.

While completed about 1932, further work on the lookout seems to have been undertaken for it was officially opened in October 1935. It was named after Premier Bertram Sydney Stevens, who was in attendance at the opening. The Premier remarked:

*'my presence here today indicates the Government's approval of what the trustees are doing. The Government has contributed funds to assist in building up this magnificent asset. It is work that is highly reproductive in an important sense for it has added to the amenities of a great city. We shall be glad to continue to co-operate'.<sup>140</sup>*

<sup>140</sup> 'Taronga Park', *Sydney Morning Herald*, 26/10/1935, p. 18



Source: Mosman Local Studies Collection (Taronga Zoo.22)

**Figure 37** Undated, late 1930s, photograph of the shelter and the expanse of colourful flowering shrubs that once characterised the grounds of Taronga Zoo and Park.

## 3.2 Congo Precinct

### 3.2.1 Planning

This central part of the Zoo has been long associated with exhibits of birds. However, when the Zoo opened in 1916 most of this precinct housed cattle (zebu) and also the hippopotamus, with some aviaries for the birds of prey, and birds of paradise.

From the late 1920s and into the 1950s there were clusters of aviaries in an area to the north of the birds of prey aviary and the neighbouring seal pond, and beside the northernmost pathway (opposite the present day nocturnal house). The balance of this zone housed exhibits of zebras, tapir, lamas (including guanaco), and peccary, in addition to the hippopotamus. The area to the south of the former birds of prey aviary on opening in 1916 housed exhibits of running birds (emu, ostrich, rhea, cassowary), and cockatoos/parrots. This area changed little over the following decades except for the introduction of the African elephant enclosure built about 1940.



Source: State Library of NSW (GPO Collection 1-07335)

**Figure 38** Detail from an oblique aerial photograph of about 1930. Looking northeast over the bird enclosures.

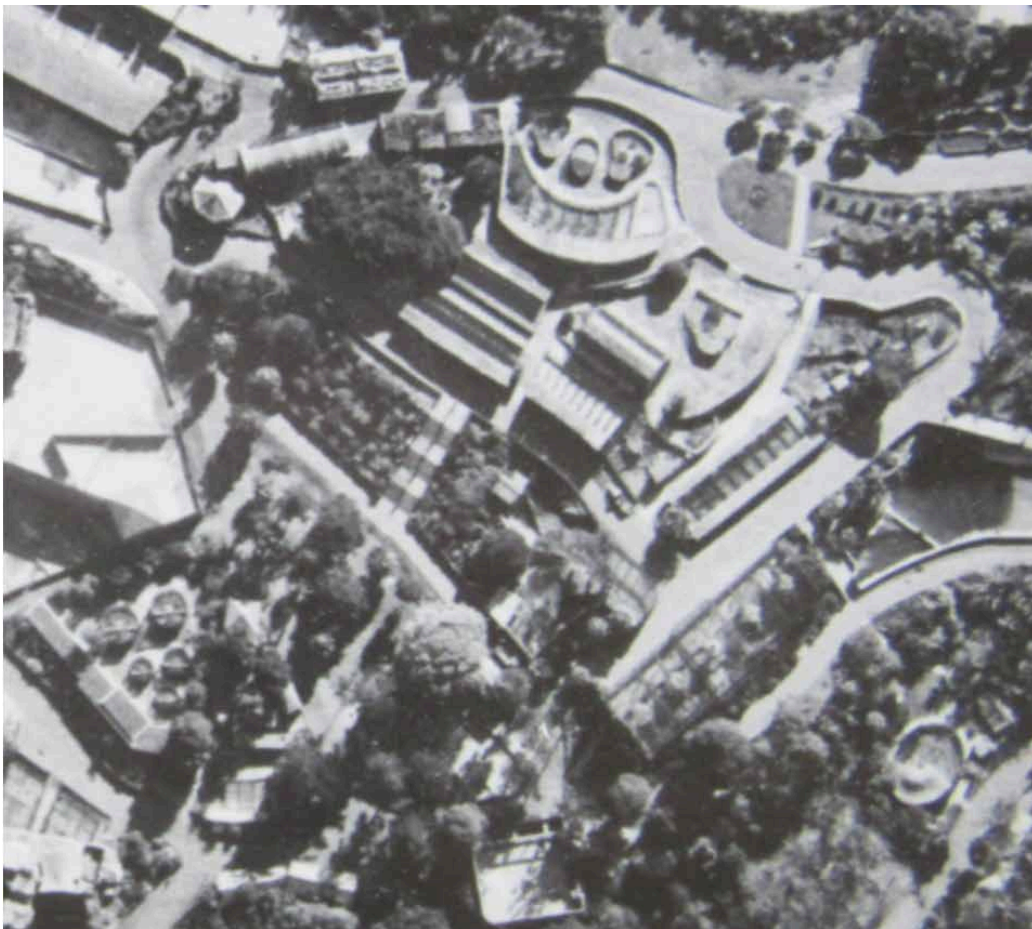






Source: Land and Property Information

**Figure 41** Details from vertical aerial photography dated 1943.



Source: Taronga Zoo

**Figure 42** Detail from a vertical aerial photography dated 1950. By this date the African elephant enclosure (demolished) had been built, but Turner House is difficult to identify.





Source: Taronga Zoological Park Official Guide, 1956 edition  
**Figure 43** The layout of exhibits and gardens by the mid 1950s.

### 3.2.2 Aviaries (from 1916)

On opening of the Zoo a number the birds from Moore Park were housed in new aviaries designed in the main by the Government Architect's Branch to present the birds in spacious cages. This represented a marked difference to the birds exhibited at the Moore Park zoo.<sup>141</sup> In 1916 it was observed:

*'the aviaries are large, and the shelter in them so placed that the birds are always in view. They have been designed to give the maximum of freedom and open air to allow the birds to be seen when sheltering'.<sup>142</sup>*

These early aviaries designed by the GAB typically comprised spacious enclosures with pipe rail framed meshing and masonry (probably concrete) lower dwarf walling. The footprints of the larger aviaries were circular, semi-circular (or D shape), or elliptical.<sup>143</sup> Some aviaries were fitted with outcrops of rock-faced cement.

<sup>141</sup> Sun, 1/6/1913, p. 7

<sup>142</sup> The Old Zoo and the New, Sydney Morning Herald, 14/10/1916