
THE INVISIBLE CAGE

TABLE OF CONTENTS

Fig 2. Rope concealing view of Gorilla's Head at London Zoo (Lehmann, 2022c)

“To tour the cages of the zoo
is to understand the society that erected them” (Baratay, 2002, p.13)

INTERIOR AND SPATIAL DESIGN
UNIT 9: ILLUSTRATED THESIS
WORD COUNT: 5485

Marie Lehmann
20019166

COVER IMAGE:
Fig 1.
London Zoo Penguin Beach
(Lehmann, 2022d)

What does the spatial evolution of animal enclosures at the London Zoo between the 19th and 21st centuries disclose about mankind's relationship to 'the other'?

INTRODUCTION: ORIGINS OF THE ZOO

Although man and other living beings have always cohabitated on Earth, the relationship between the two has undergone drastic shifts throughout time, in which architecture has played a crucial role. Traditionally 'the other' has been defined as a method of interpreting other human beings based on differences to the self, eliciting alienation, perceived inferior status and discrimination. However, throughout this dissertation the term's application will be extended to non-human forms of life, specifically non-human animals. Habitually, "we use the word "animal" as though it did not refer to human beings, as though we too are not animals." "We have structured our language to avoid acknowledging our biological similarity" (Adams, 2004, p.75). I want to acknowledge this common misconception and specify the use of animals as non-human. With this in mind, rather than 'otherness' being rooted in divergence from societal norms, it's characterized by different forms of communication and intelligence. My repudiation of this widespread indifference and assumed superiority to other living beings has prompted me to write this dissertation. Why does 'otherness' play such a large role within modern society? Why do we feel the need to capture and control the unknown? How has architecture been complicit in this manipulation? These questions will be explored by analyzing the London Zoo's giraffe house, penguin pool and lion enclosure. Thus illustrating how architects, artistic movements, and societal ideology have shaped zoo design and perception of animals over time.

While the zoo eventually embodied the shifts in the human-animal relationship, other confinement structures were utilized to restrict animal mobility before its invention. Since the stone age when man created tools, the human-animal dynamic primarily took the form of predator vs. prey. Humans relied upon animals as sources of food. Nevertheless, within ancient civilizations worldviews were drawn from nature. Values based on animism, shamanism or totemism in indigenous cultures resulted in animals holding spiritual significance. Power animals were used as spirit guides during shamanic healing rituals. In totemism, humans developed kindships with spiritual beings, and animism attributed sentience to non-human beings based on their possession of souls. Between 9,000 and 5,000BC, man began to domesticate animals as companions and livestock. Simultaneously a switch from nomadic hunter-gatherer practices to fixed settlements introduced the concept of agriculture as early as 6000 to 4500 BC. Both contributed to the invention of the farm. At this point, animals were still seen as a means of survival, as tools. In 300BC ancient Greece and Rome, rulers used displays of violence on wild animals to exhibit their power over all living beings. “These encounters satisfied the voyeuristic desires of what was still a warlike society” (Baratay, 2002, p.25). Contrastingly, animals were revered when amalgamated with humans to produce hybrid creatures in Greek mythology. At this time, animals were held in pits, cages and small pens; the fights commonly held in coliseums and arenas. Exotic animals, particularly predatory ones, were used as diplomatic gifts and avidly collected. Around the 16th century, these blood sports lost their appeal due to the rise of civic life. Soon exotic animals were kept alive in private collections known as menageries. Here they existed as living trophies and emblems of sovereign power. Spaces like the tower of London menagerie held animals in pits and vaulted rooms.

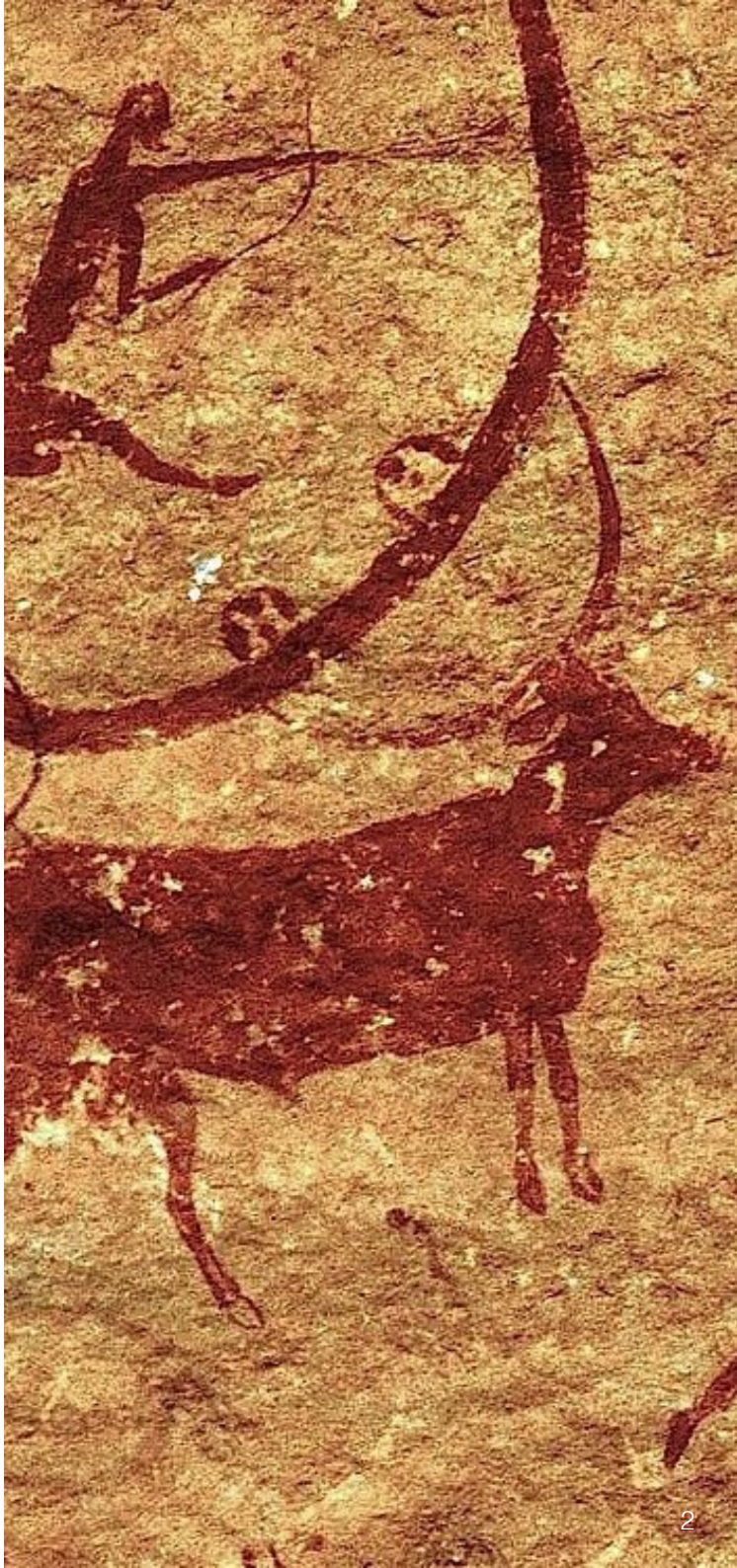


Fig 3.
Neolithic rock art
in Tassili n’Ajjer National Park, Algeria
(Gruban, 2006)

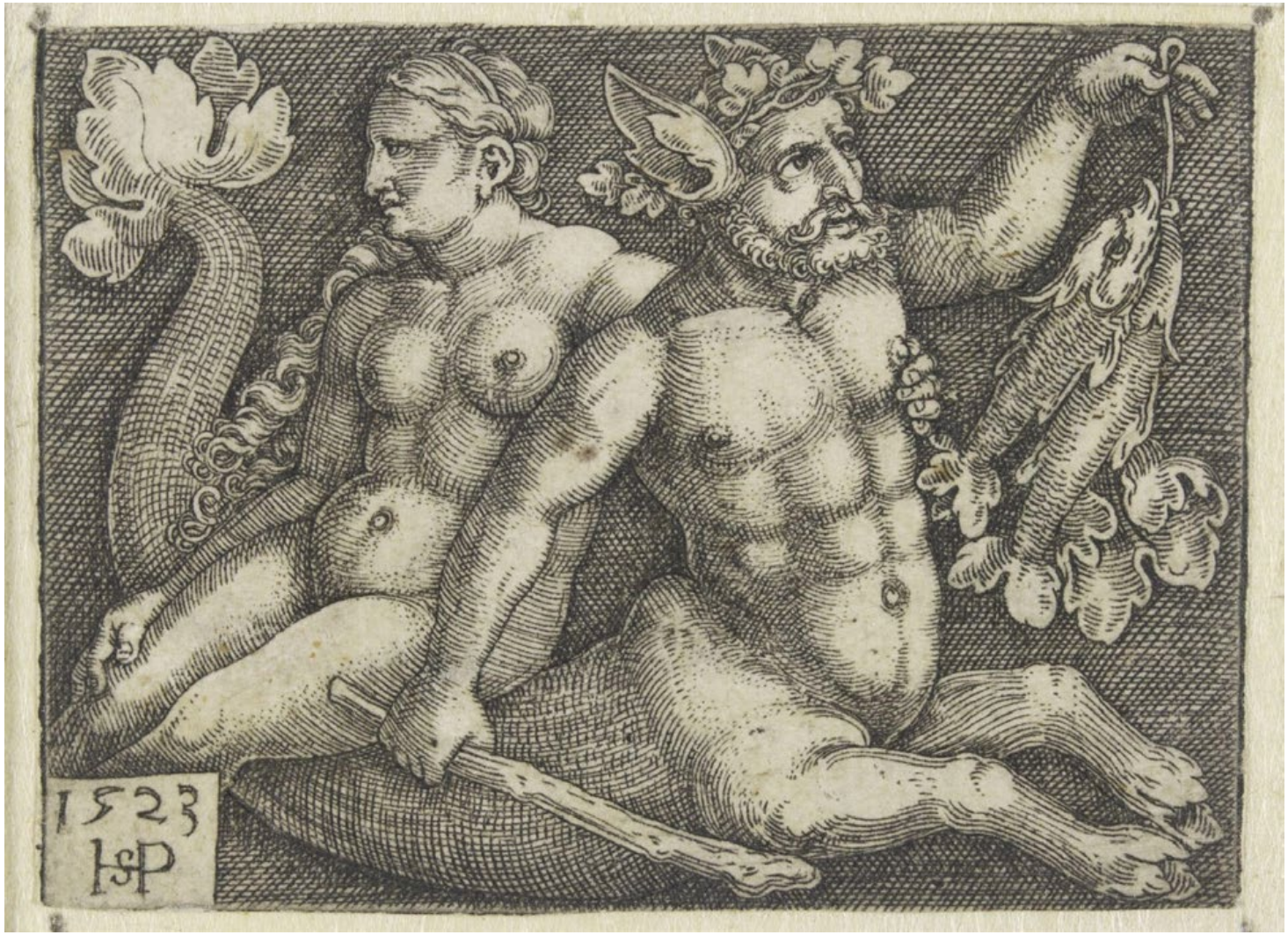


Fig 4.
Engraving of a nymph riding on the back of Triton (the greek god of the sea) by Hans Sebald Beham in 1523
(Beham, 1523)

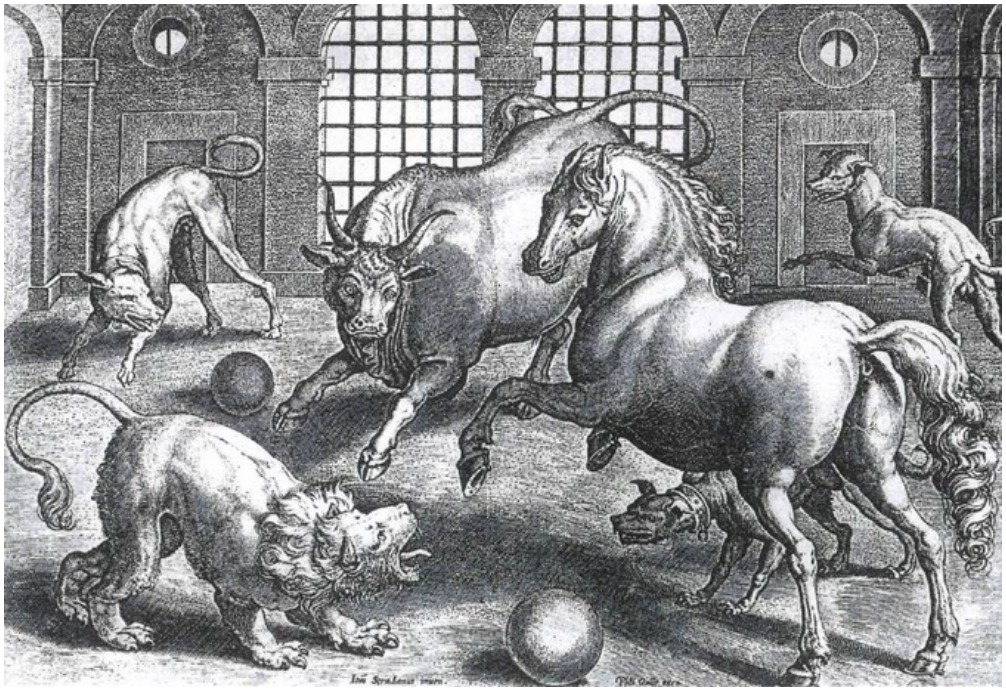


Fig 5. An animal fight in a private lion house, 16th century
(Baratay, 2002b, p.25)

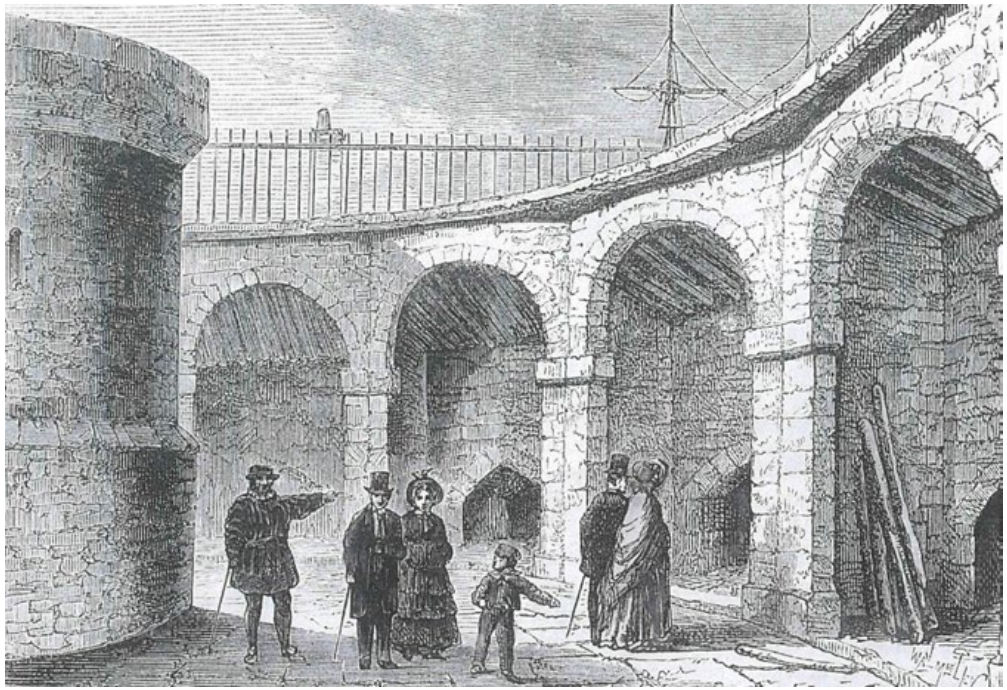


Fig 6. The Tower Menagerie in London, early 19th century
(Baratay, 2002f, p.40)

With the onset of the Renaissance, a growing curiosity about the natural world spread throughout the 15th century. Artistic and scientific advancements and the spread of classical philosophy such as humanism, marked this period of intellectual rebirth. Humanism emphasized the importance of human agency as opposed to religion and introduced new moral philosophy. Retaining attention on the human condition rather than 'the other.'

The fascination with 'the other' prompted leaders to send merchants and scientists on expeditions to foreign soils in the 16th century. The lack of modern technology resulted in individuals forcibly extracting parts of the external world to understand unfamiliar life forms. This acquisition was not exclusive to animals; it concerned all 'others,' including humans. Consequently, large fairs and human zoos were held in the colonial west, some of the largest hosted in London.

Fig 7. "Arranged scene of Zulu South Africans taken on a streamliner as PR material to advertise" Frank Fillis' colonial exhibiton "Savage South Africa in London, as an accompaniment to the "Greater Britain" Exhibition (Fillis, 1899)

DISCLAIMER: I include these images hesitantly and aware of their sensitivity, but with the aim of critically illustrating the racist and colonial origins of the zoo, while raising awareness of an overlooked historical phenomena; the human zoo.

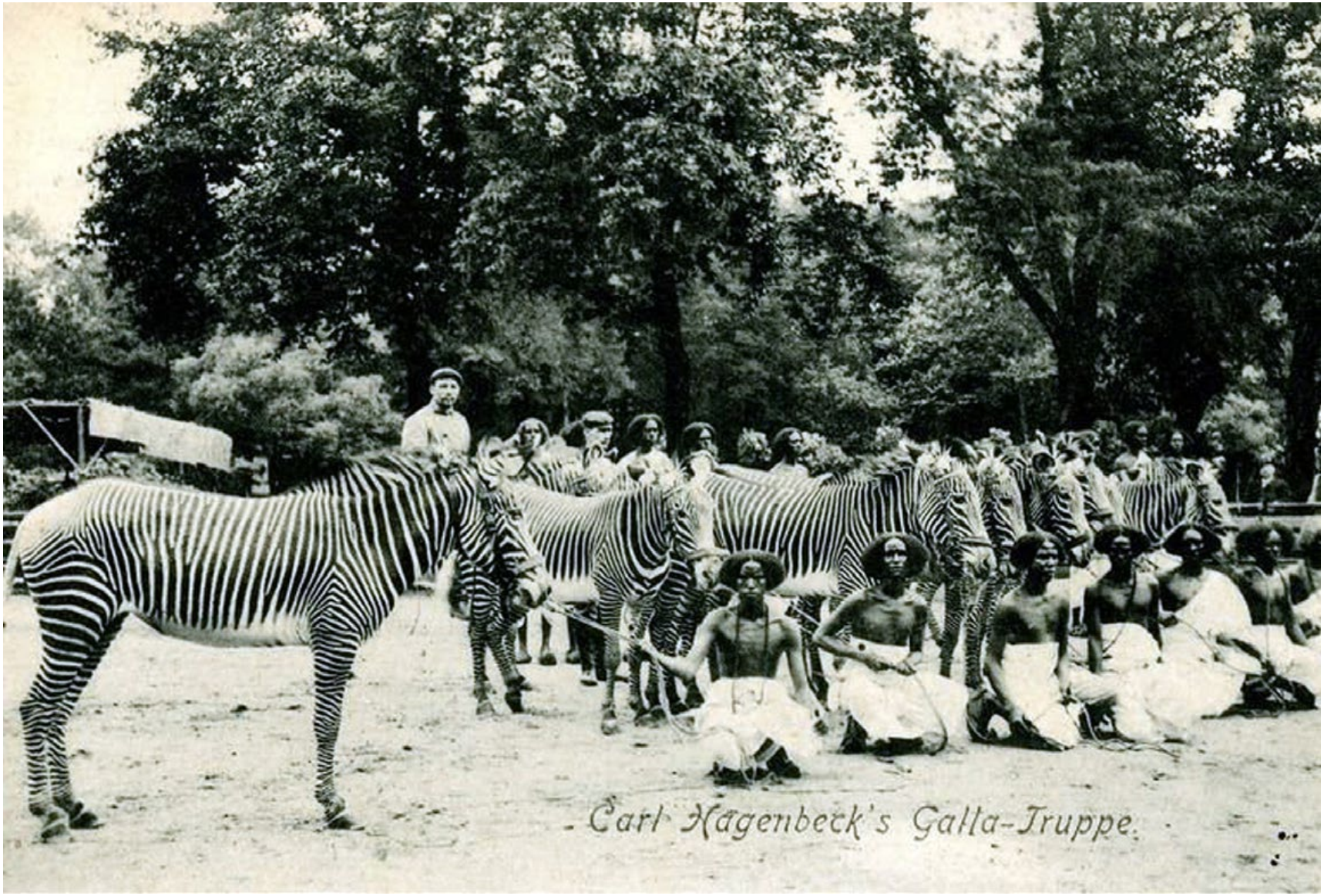


Fig 8: Carl Hagenbeck's 'Galla Troupe' in Paris (Hagenbeck, 1908)
A group of Oromo people who were kidnapped from Ethiopia, exhibited with zoo animals and forced to live in recreated villages

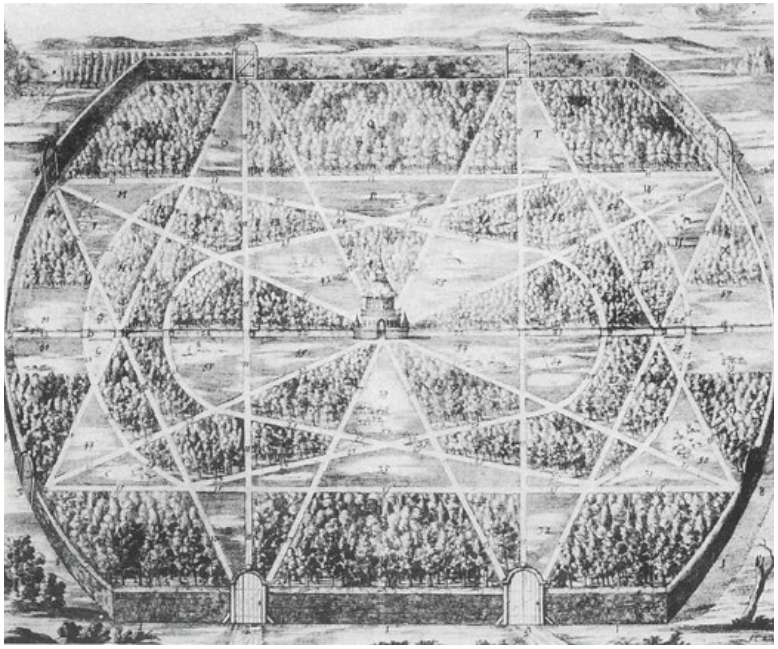


Fig 9. A hunting park late 17th century (Baratay, 2002a, p.20)

Fig 10. An Italian cabinet of curiosities circa. 1600 (Baratay, 2002c, p.31)

Throughout the 16th and 17th centuries, animals were commonly held in annexes, gardens, and courtyards. While man's practice of hunting persisted throughout this time, it spatially evolved to be contained within game reserves. In the 17th and 18th centuries, cabinets of curiosities hosted rare objects to visualize the current understanding of the natural world. Alike previous centuries, "collecting was an instrument of prestige and the loftier one's position, the more impressive the number and quality of the assembled elements" (Baratay, 2002, p.30). A newfound intrigue in transcending normality led to the invention of the modern circus in 1768 England. Here, peculiar animal and human abilities were exhibited in spaces like the Vauxhall Pleasure Gardens in London.

Although the enlightenment fostered a gradual decline of anthropocentric views in the 18th century, new philosophical thinking remained relatively unconcerned with animal welfare. This age of reason characterized by political and intellectual innovation subordinated animals based on their inability to reason. Immanuel Kant, the father of rationalism, arguing "animal suffering is morally irrelevant" due to their lack of rationality and moral agency (Birch, 2019).

Fig 11. "The Royal Vauxhall Gardens – one of several hundred so-called 'pleasure gardens' in London, designed to showcase the beauties of nature in otherwise built-up metropolitan areas" (British Library, 1841).

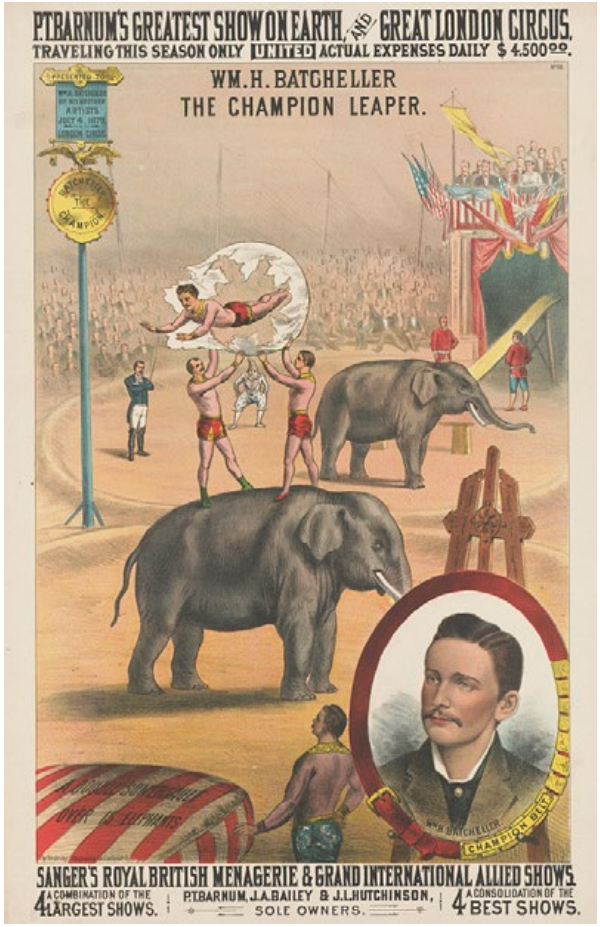


Fig 12. Circus poster promoting joint circus show in London. Poster depicts 'The champion leaper' jumping through a hoop over an elephant (Strobridge & Co. Lith, 1879)

The evolution of the Versaille menagerie pioneered advancements towards the architecture of the zoological garden. Previously access to this space remained restricted to the king's acquaintances. In favour of democratization and the decentralization of power, a new establishment was called for by the public. Scholars sought to re-engineer menageries for the sole devotion to scientific research. The animals were transferred to Paris and made accessible to the public, symbolic of their dissociation from the monarchy. Domesticated animals were introduced to the menagerie collection and merged with the existing Jardin des Plantes. Alterations made in 1801 rejected radial design and created irregular rural landscapes.

Simultaneously, nature gained significance independent from religion, as science and the church segregated. Urban life had lost its allure to nature, and the interest in symmetrical highly-controlled environments diminished. "A beautiful garden was therefore no longer one that kept nature in check, but one that restored its many facets" (Baratay, 2002, p.77). Man sought to reap the benefits of nature once again, reconnecting with 'the other.'

This architectural typology which merged botanical gardens with menageries, spread profoundly throughout Europe in the 18th century, ultimately paving the way for the creation of the first zoological garden in London.

Fig 13. Louis XIV's Versaille Menagerie circa. 1660 (Aveline, 1660)

Fig 14. Enclosure at Jardin des Plantes (Baratay, c.1821-3)

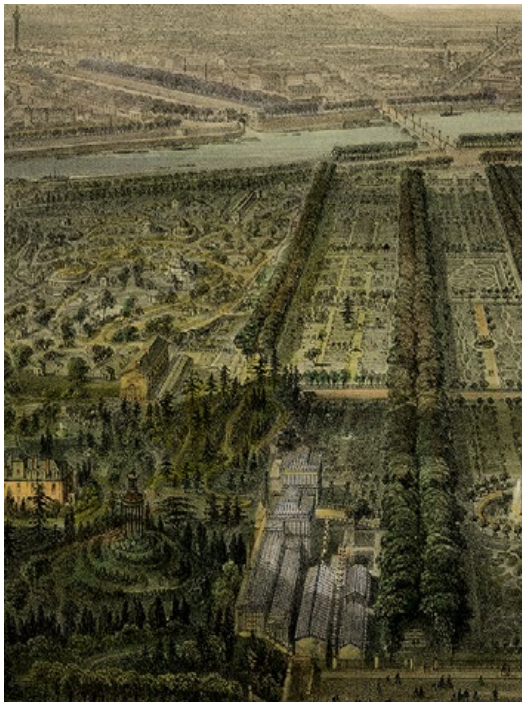


Fig 15. Jardin des Plantes in Paris (Benoist, 1861)

Fig 16. The Monkey House at the Zoological Gardens, Regent's Park, London (Scharf, 1835)

Fig17. London Zoo's Giraffe House in 2019 (Buildington, 2019)

19TH CENTURY: GIRAFFE HOUSE

In April 1828, Sir Thomas Stamford Raffles founded the Zoological Society of London (ZSL) in Regent's park to assist the "establishment and the general study of zoology by a museum of prepared specimens" (Blunt, 1976, p.25). Its initial purpose was to breed domestic animals but it soon expanded to house exotic animals. Initially, access remained restricted to members and acquaintances of subscribing society, mainly consisting of scientists and fashionable society. This aimed to distinguish the elite from the lower classes.

ZSL commissioned the French colonial trader Thibaut in 1834 to bring back giraffes from Sudan. Over two expeditions, eight giraffes were captured, with half of them perishing before leaving the country. The other 4, a female and three males, successfully arrived in London on May 25th, 1836. Other than a female giraffe at Windsor Castle, these were the first giraffes to set foot in England. The Sudanese attendants then escorted the giraffes to the zoo. Here they temporarily resided within the elephant house until the giraffe house's completion on June 16th, 1837. Decimus Burton, whom ZSL had contracted for the zoo's layout, was also tasked with designing the giraffe house. Although 17 fawns were born, only about half lived more than a year, and by 1881 Thiebult's stock had died out. The zoo was without giraffes until after WW2 but has not been without since. Misled by a series of directors and architects, the zoo was threatened by closure in 1846. Declining interest of the upper class, lack of scientific credibility and desensitization to the exotic led to record-low attendance. In response, the zoological gardens became redefined "as venues for the entertainment and moral improvement of the working classes" (Baratay, 2002, p.105). That year it became accessible to the general public throughout the weekdays and reserved for subscribing members on the weekends, eventually becoming open to the public consistently.

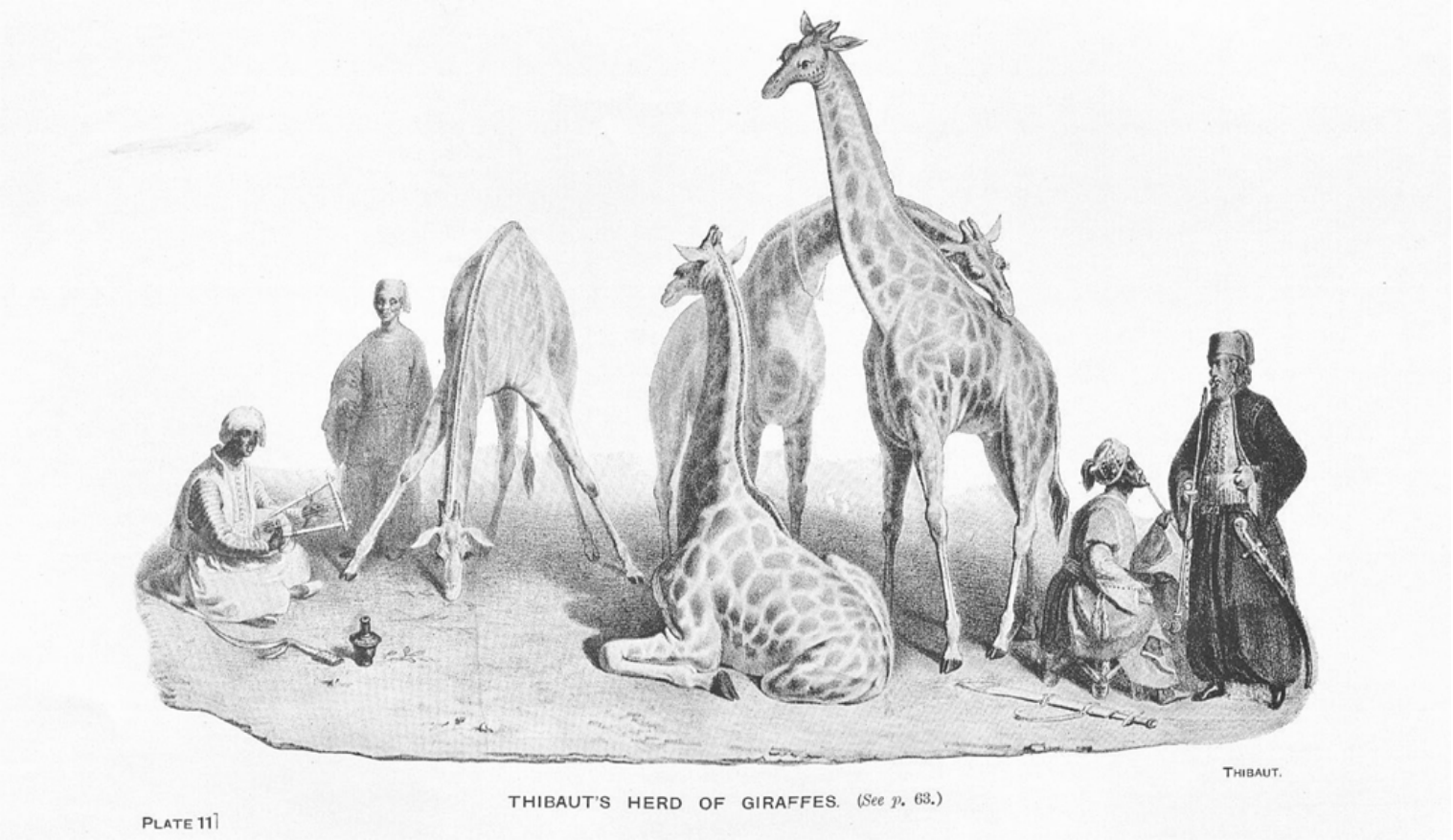


Fig 18. This lithograph depicting Thibaut's giraffes and their Sudanese attendants reflects the common western application of orientalism. It pictures non-western cultures as exotic, basing representations of cultures and people on stereotypes that permeate colonialism. The attendants were even asked to extend their stay to be pictured in various images. (Scharf, 1836)

DECIMUS BURTON

The English architect Decimus Burton designed many large high-end public structures including the London parks; Hyde, Green, Regents & St.James. Stemming from an affluent family, the Victorian architect was well acquainted with the aristocracy and friends with Princess Victoria. In 1817 he began his studies under Sir John Soane at the Royal Academy, becoming skilled in neoclassical and Greek revival architecture. Influences that are evident within his work by their grandeur, symmetry and use of columns. ZSL commissioned Burton in 1830 for the layout of the London Zoo. His arrangement featured irregular landscapes around the enclosures with many intersecting winding paths that warranted non-prescriptive circulation. The park was revolutionized by his central promenade which responded to the diminishing appeal of urban life as cities became polluted, noisy, overpopulated and filled with disease. The zoological gardens offered individuals an escape and opportunity to engage with higher society to elevate their social status. Promenading quickly became a recreation and wholesome outdoor entertainment.

Fig 19.
Plan of the Zoological Garden in1829
(Scherren, 1905a)

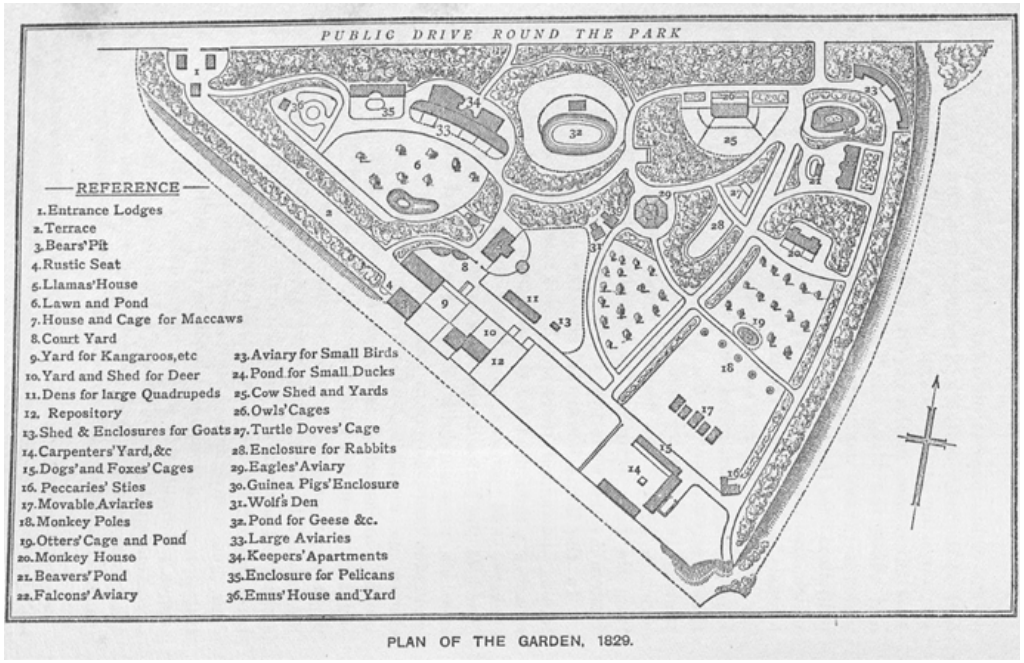
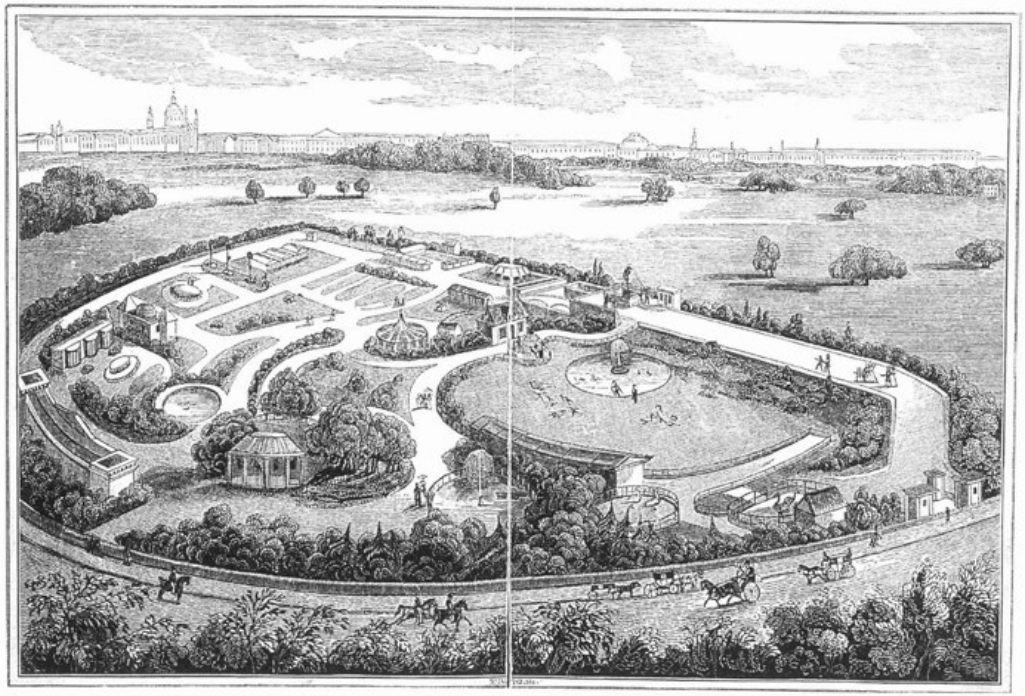


Fig 20.
Gardens of the Zoological Society, Regent's Park 1829
(Baratay, 2002e, p.285)



Sitting on the south bank of the Regents Canal, the giraffe house consists of a central block flanked by two lower side wings and an outdoor paddock. The 6.5m tall main brick shed features mosaic tiled walls, a central heating system, a low-lit indoor viewing platform with benches and 5-meter-high rounded doors. It remains one of the world's oldest zoo buildings, still functioning for its original inhabitants.

In 1850 the east wing was constructed to accommodate hippos, while the west wing became home to zebras, antelope and okapi. Following damage to the west wing during WW2, the giraffe house was refurbished between 1960-1963 alongside the development of the cotton terraces which introduced other hooved mammals. This marked the application of Linnaean classification in enclosure arrangement, whereby animals were grouped based on physical traits (taxonomy). Enabling visitors to comprehend the natural world through direct visual comparison. During the renovations, moats replaced fencing and visibility improved via new viewing platforms. Likely following suit to Hagenbeck's pioneering Tierpark, these changes foreshadowed his lasting influence on architecture at ZSL and zoos worldwide.

Although the structure was more concerned with functionality than most Victorian architecture, it remained ornamental. The Tuscan barn design embraced the cottage orné style of a rustic thatched roof cottage. This reflected architects' affinity for romanticism post-enlightenment, where rationality was rejected. Lacking information about the animals' native habitats, designers often sought inspiration from animal legends or the animals' country of origin. This ultimately culminated in exotic, flamboyant and contextually-detached structures. Architects replicated human architecture customary to foreign geographies such as pavilions, castles and temples, completely forgoing attempts to recreate animals' native habitats.

Fig 21. Illustration depicting visitors, Thibaut and the Nubian attendants "Giraffes – Granny-Dears & other Novelties" (Cruikshank, 1836)

COLLECTING ‘THE OTHER’

The giraffe was as mythical as the unicorn until the late eighteenth century. At this point, no national institution for zoology existed and the stature of zoology as a science remained uncertain. Therefore, ZSL’s successful acquisition of giraffes became “a symbol of the promised advance of natural history” while establishing ZSL’s credibility (Ito, 2020, p.60).

One could think, “Decimus Burton’s giraffe house was no more than a garden shed, albeit taller,” or that it’s somewhat successful (Hancocks, 2002, p.50). Unlike many other enclosures later found unsuitable for their inhabitants, it has remained functional. Perhaps it was just a stroke of luck. Or maybe the zoo has chosen to ignore the needs of ‘the other.’ Despite our knowledge of giraffes and their needs immensely evolving, the space in which we contain them has not. Many animals were transferred to Whipsnade Zoo from London Zoo based on Carl Hagenbeck’s discovery of the benefits of open-air, spacious and naturalistic enclosures. However, somehow these humongous beings have remained put, even with more space available elsewhere.

An unmistakable clue about mankind’s relationship to ‘the other’ lies in the simplest element of the enclosure, its name. House, a structure for human habitation. Never would a giraffe be naturally found within such a structure. Yet we place ‘the other’ in the same environments humans inhabit. Instead of analyzing the needs of ‘the other,’ we relied upon taxonomic similarity to other hooved animals historically housed in barns. Making design and welfare decisions based on these unsubstantiated assumptions.

Fig 22. Giraffe at London Zoo (naturalist notebook, 2011)

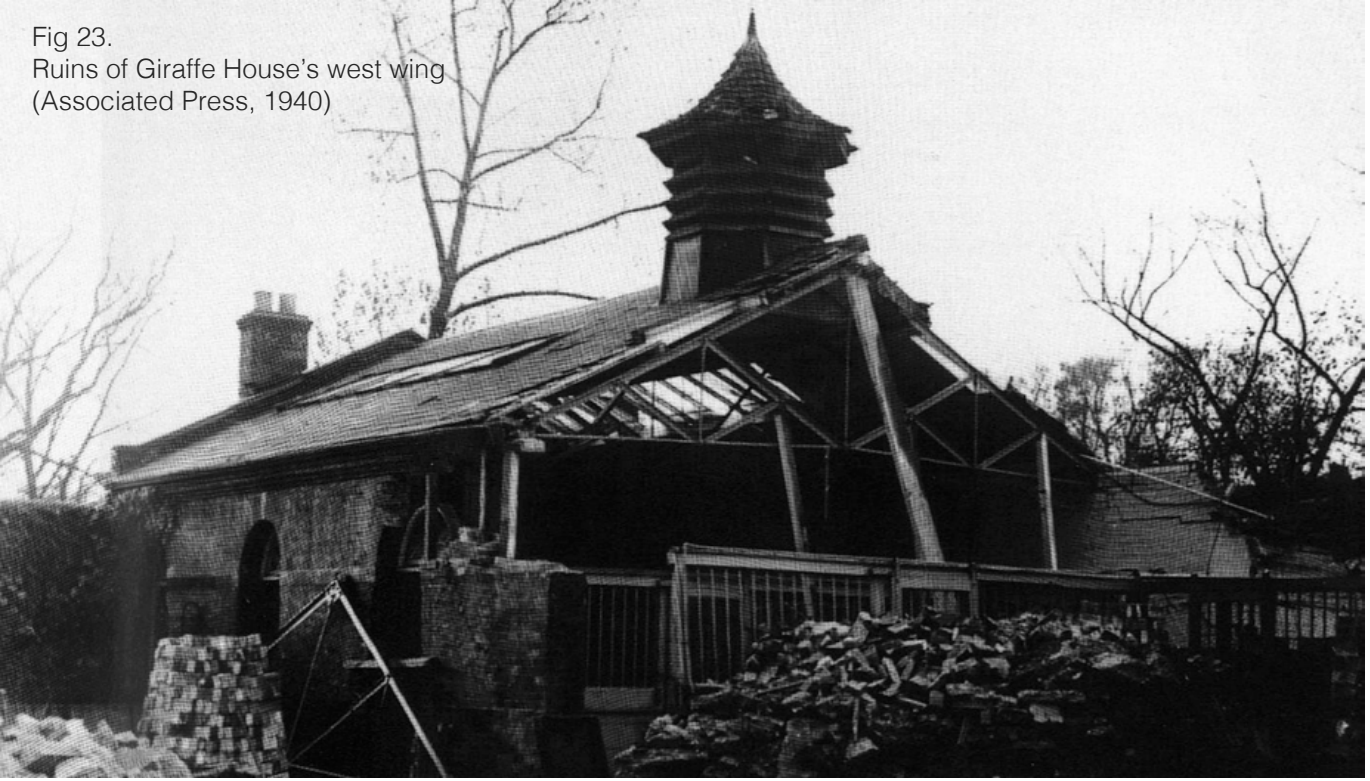


Fig 23.
Ruins of Giraffe House's west wing
(Associated Press, 1940)

Fig 24. Giraffe House Interior
(Newery, 1950)

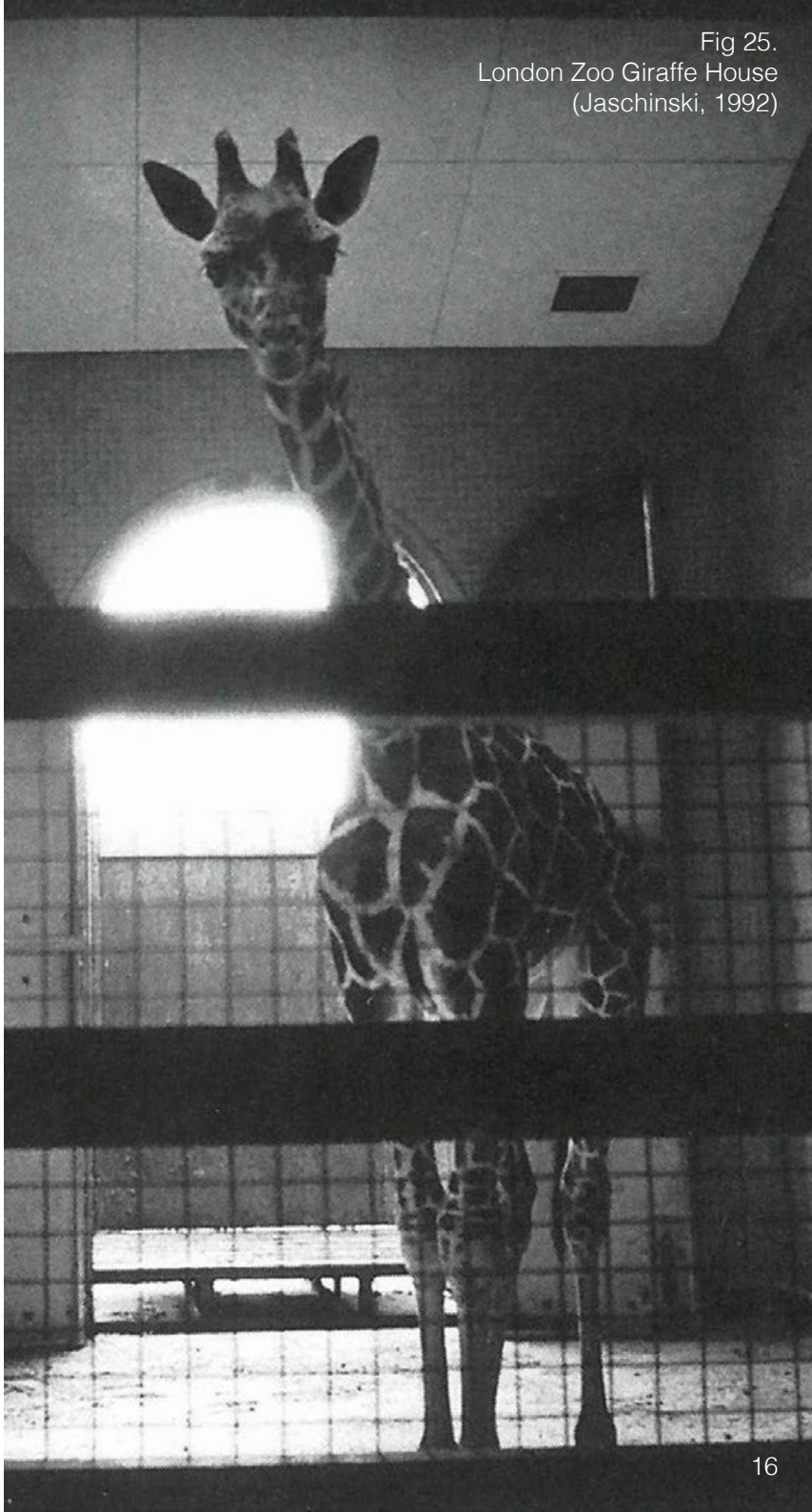


Fig 25.
London Zoo Giraffe House
(Jaschinski, 1992)

Overall, in the 19th century, zoos were sites of social exchange and status, more concerned with the display of humans than 'the other.' They provided entertainment and a space for moral reform. ZSL's principal objective was to ensure the survival of its prized possessions. Nature and 'the other' were idolized but not understood. At this time, zoos "competed in two principal ways: to have the largest collections of different species and to have the most majestic architecture"(Hancocks, 2002, p.62). These illustrate the main imperatives at that time; collection and maintenance of the unknown. Thereby, 'the other' was seen as a trophy, something aesthetic to be admired, much like the architecture in which they were housed.

Fig 26. The crowded gardens of the Zoological Society, London on Whit Monday in 1865 (Baratay, 2002d,p.148)

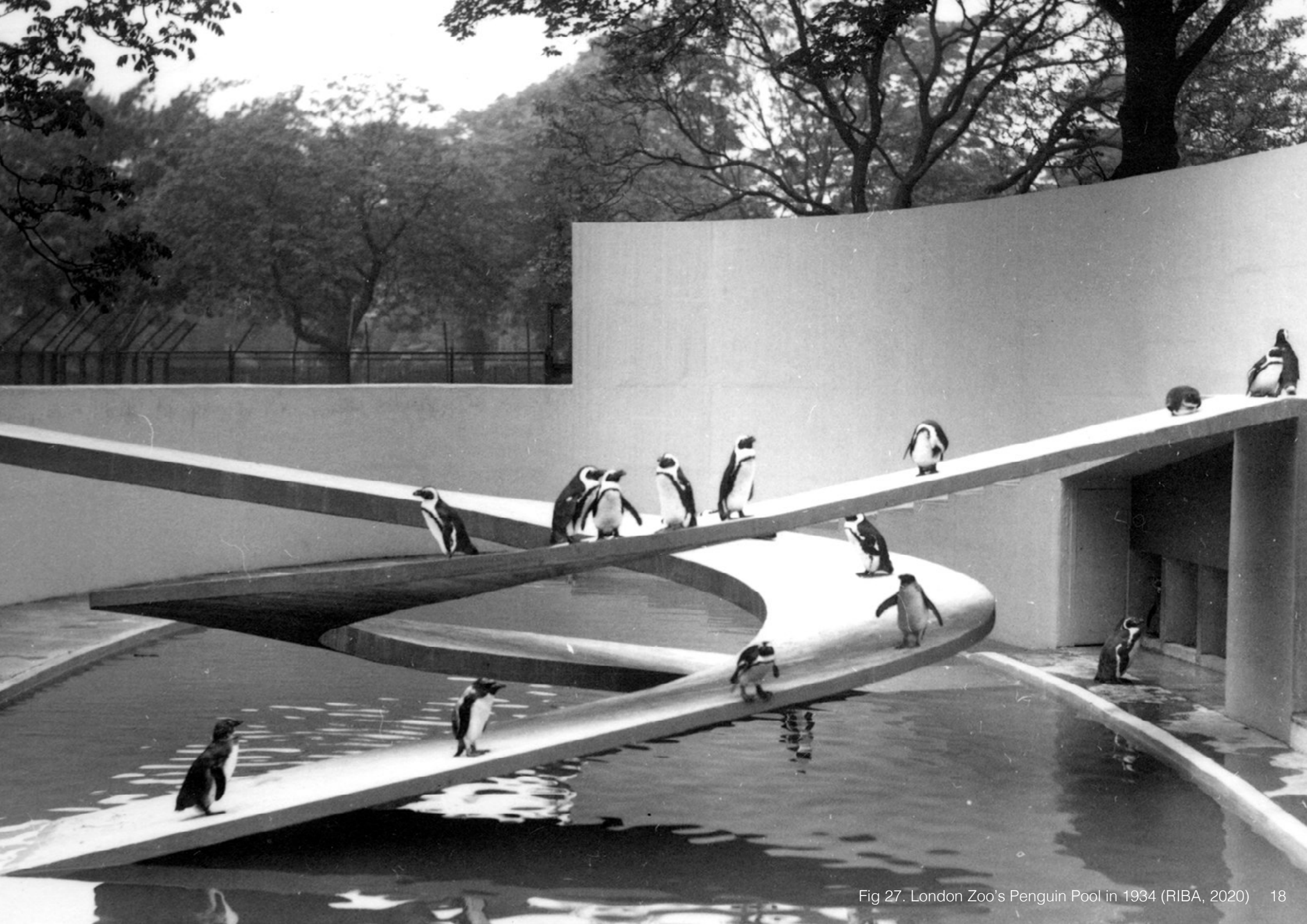


Fig 27. London Zoo's Penguin Pool in 1934 (RIBA, 2020)

20TH CENTURY: PENGUIN POOL

Lubetkin's penguin pool at the London Zoo was opened in 1934. The 30-meter-long elliptical pool features a central double-helix ramping system and revolving fountain. It accommodates a glass-fronted diving tank and peripherally situated nesting boxes, while emulating an egg shape in the hopes of penguin calls reverberating off the curved walls. Flooring consists of "exposed concrete, grey slate steps, and red plastic rubber made of cork chippings, rubber and cement" (V&A, n.d.). Cantilevering of the 14-meter-long ramps enables them to appear effortlessly suspended mid-air, while the abutments counterbalancing their considerable mass remain stealthily hidden. The interlocking ramps equipped penguins with a stage to exhibit "behaviours that spectators might imagine them performing in the wild" (Moran, 2014). Collaboration with the structural engineer Ove Arup resulted in this unprecedented use of reinforced concrete to create narrow sloping structures. While remaining theatrical, Lubetkin rejected the prevalent philosophy of naturalism in favour of functionality and sanitation.

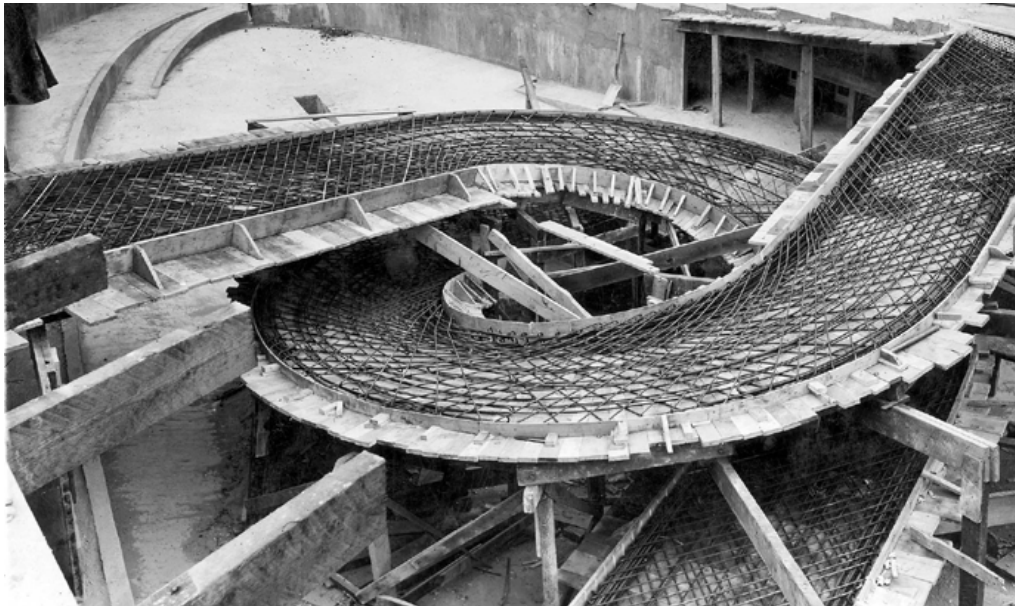


Fig 28. Ramps under construction (Havinden, 1933)

Fig 29.
Visitors in the 1970s peering into Penguin Pool
(GillFoto, 1970)

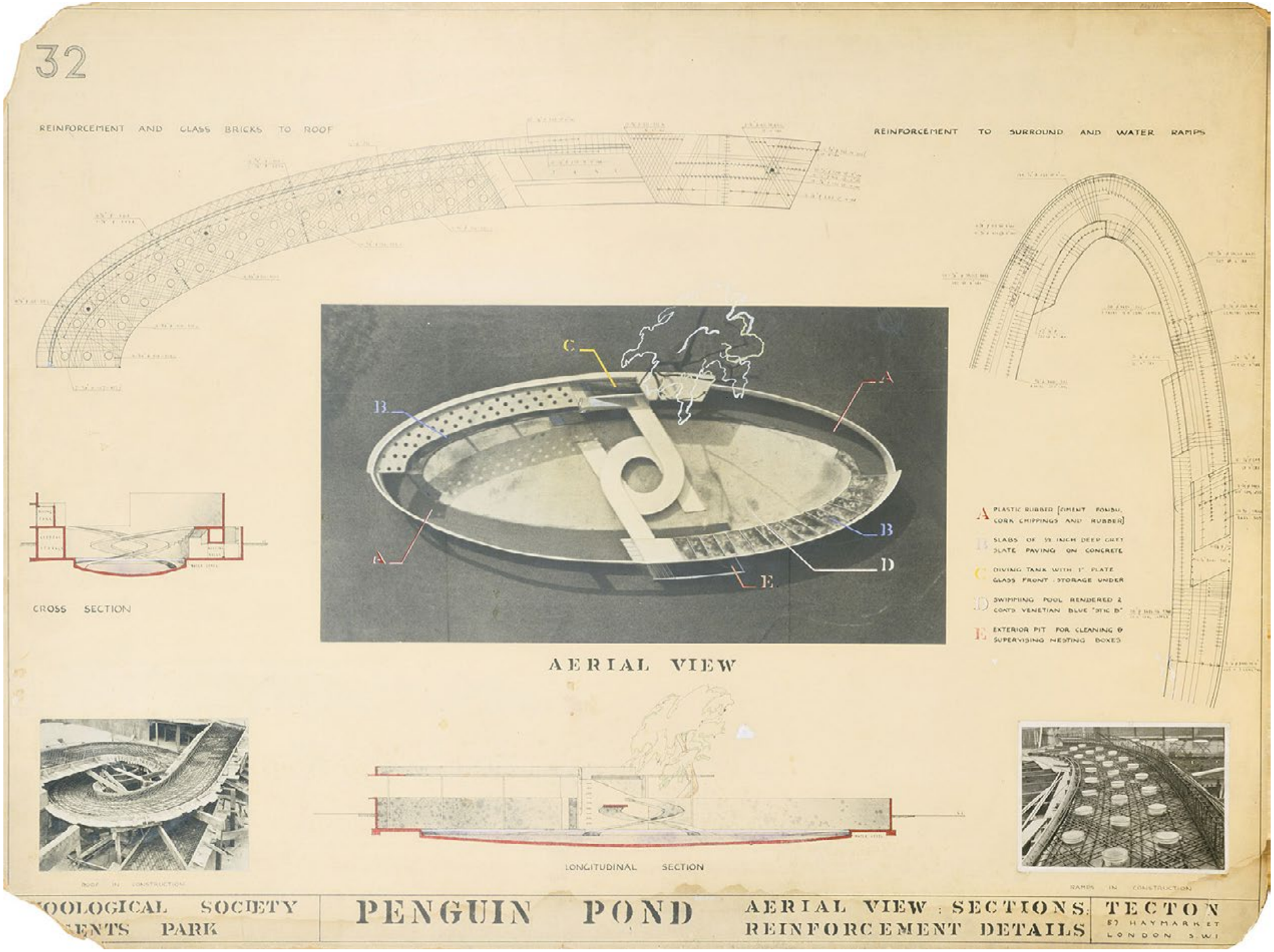


Fig 30. Aerial view, sections and reinforcement details of Penguin Pool by Tecton (RIBA, 1934)

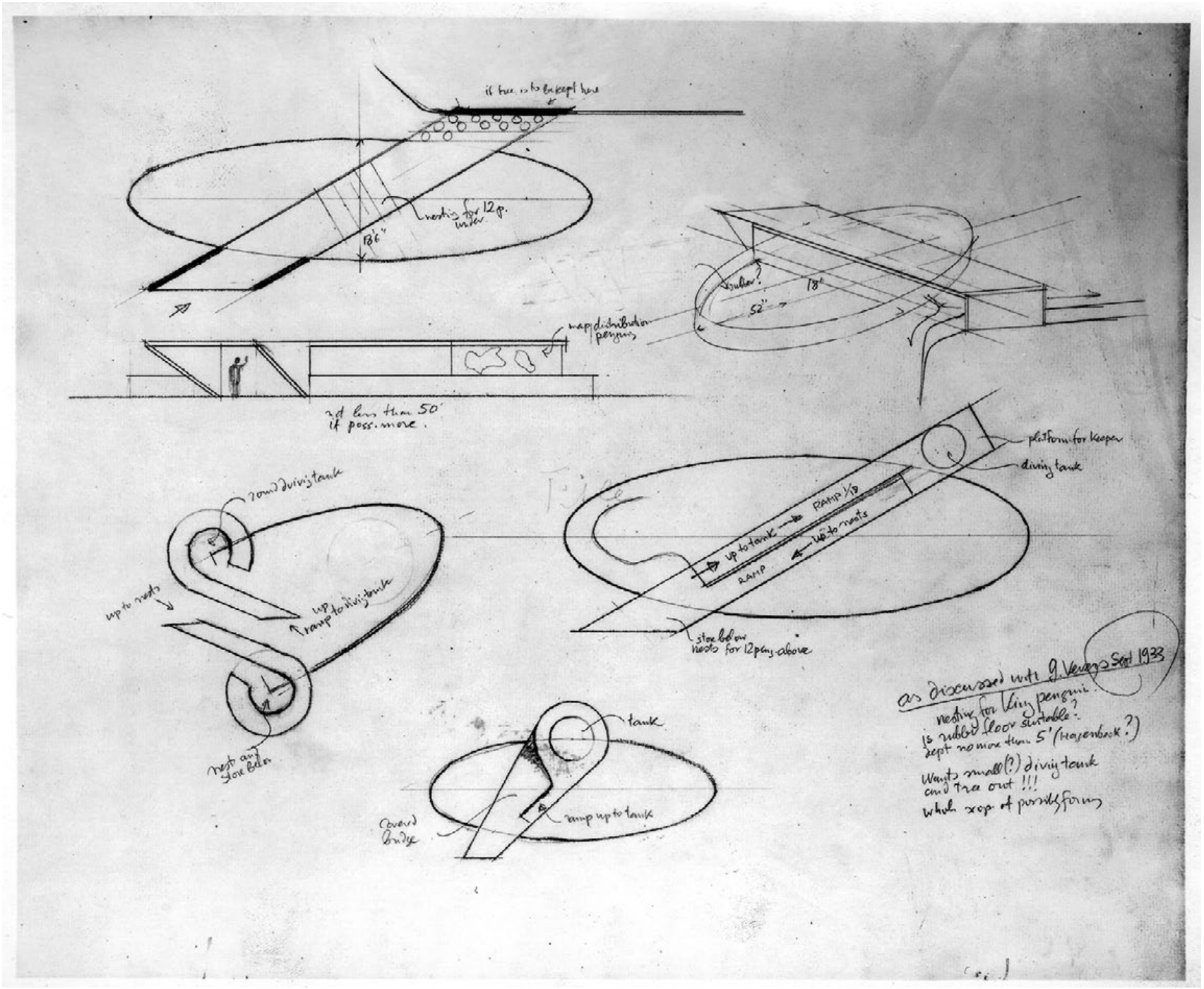


Fig 31. Early Sketches by Berthold Lubetkin (Lubetkin, 1929)

BERTHOLD LUBETKIN
& MODERNISM

The destitution following the first world war instigated a craving for social and architectural rebirth, drawing architects toward radicality. This period was marked by technological advancements that would enable shifts in social values. Emerging from the fallout of this era, it was Lubetkin's conviction that it "was the artist's duty to replace the real world" (Baratay, 2002, p.254). The Georgian émigré fled the Russian revolution in 1917 after studying at the Vkhutemas in Moscow. At this art institution, he became familiarized with the avant-garde movement, constructivism. His 1920s were spent in Berlin and Paris alongside prominent figures such as Le Corbusier. Then upon relocating to England in 1931, he founded the modernist architectural group Tecton. That following year Tecton received its first commission from the London Zoo, seduced by their bold design methodology. Thereafter turning to other zoos and large-scale residential projects.

Fig 32. Appartment Block 'Highpoint I' by Tecton in London, England (Dell & Wainwright, 1935)

Fig 33. Villa Savoye by Le Corbusier in Poissy, France (Khoogj, n.d.)

While aesthetically captivating, the enclosure caused an array of health problems for the penguins. The concrete’s hardness gave rise to arthritis, and the microabrasions from moving across the concrete after a foiled refurbishment in the 1980s caused them to contract the bacterial infection, bumblefoot. Additionally, the pool provided insufficient depth for penguins to dive and forced competition for food with gulls and herons. The close proximity of the nesting boxes presented problems for successful breeding, as it conflicted with their territorial nature. Resulting in the need for hand-rearing of chicks. Their need to burrow was also unfulfilled, all these shortcomings ultimately prompting the removal of the penguins and transfer to the present-day “Penguin Beach” in 2004.

The enclosure briefly housed alligators but since has been devoid of function. Its status as an icon of English modernism has earned it a grade 1 heritage listing, making alterations unlikely. The space now remains caught between the past and present. Daughter Sasha Lubetkin criticizes the pool saying, “It was designed as a showcase and playground of captive penguins. Perhaps it’s time to blow it to smithereens” (Block, 2019). John Allan, the architect involved in the 1980s renovations, deflects liability at the design’s fault, arguing they “are the result of decisions made by London Zoo, rather than the designers” (Block, 2019). This poses the question: where did the negligence of ‘the other’ reside?

The design’s dereliction could partly be attributed to behaviourism, a psychological theory that lacked a theoretical basis at the time. It hypothesized that animal behaviour emerged mainly from interaction with their external environment. In this way, the artificial environment may be justified, relying on the adaptive abilities of ‘the other.’ However, ZSL’s statement “it’s unfortunate that it no longer suits the requirements for keeping penguins,” fails to acknowledge that perhaps the enclosure never suited the penguins in the first place (Wilson, n.d.).

Fig 34.
Walt Disney films the penguins at London Zoo being fed by the keeper (Daily Herald Archive, 1935)

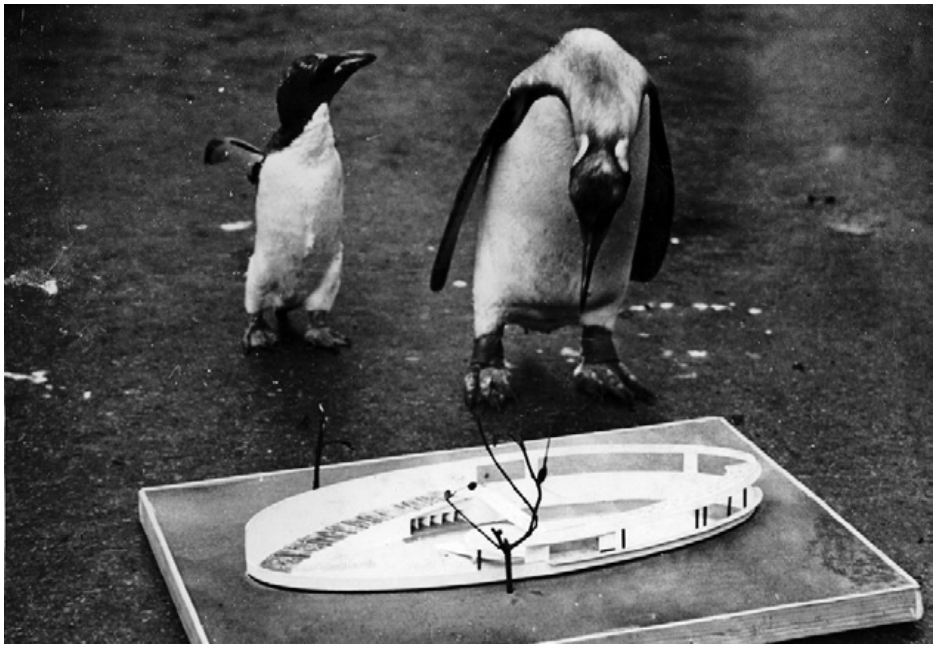
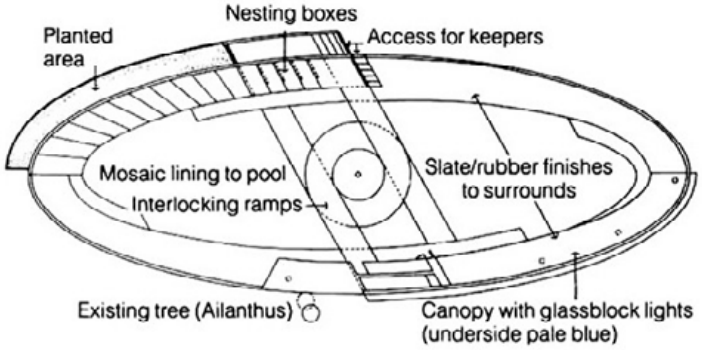
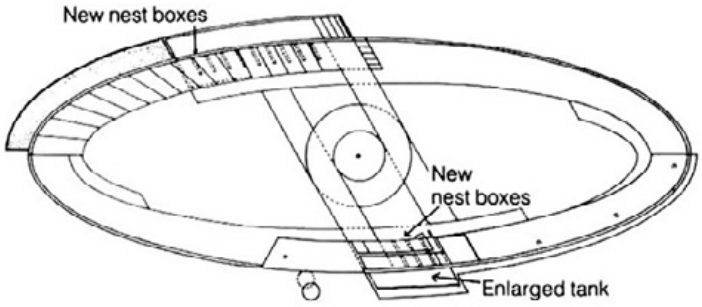


Fig 35. Model of Lubetkin’s pool with penguins (Havinden, 1934)

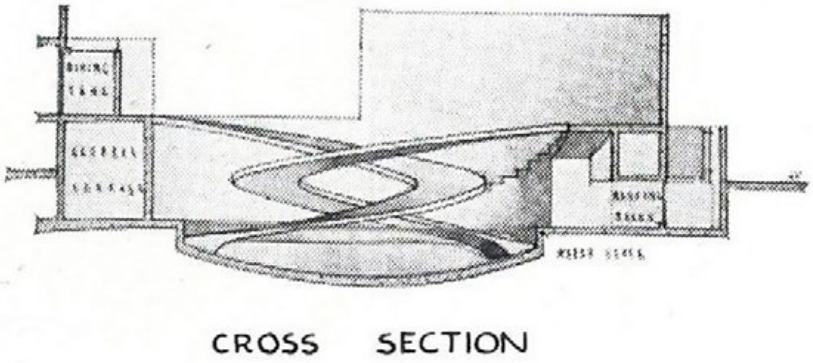
Fig 36. Penguin Pool before and after 1986-88 renovation (Allan, n.d.)



Plan of the Penguin Pool as it originally existed.



Plan of the Penguin Pool as restored and adapted.



CROSS SECTION

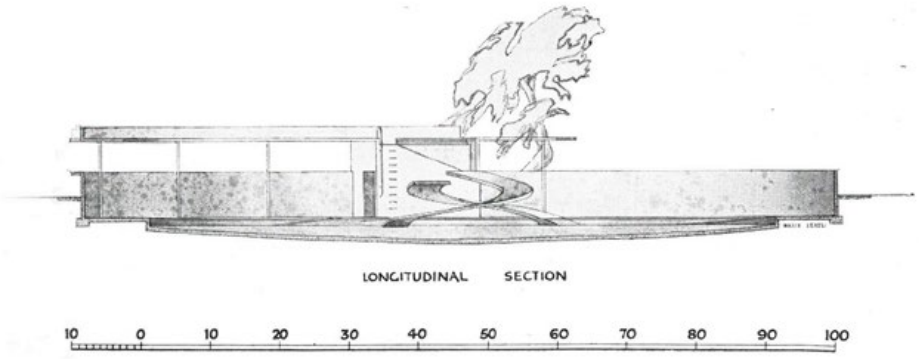


Fig 37. Penguin Pool cross and longitudinal sections (Havinden, n.d.)

Although the biologist Julian Huxley was consulted to guarantee the enclosure's suitability for the penguins. Clear prioritization of human comfort was chosen over the animals'. It was a conscious decision to replace "the original rubber poolside paving with concrete and a non-slip surface on the ramp for the keepers' convenience" (Gould, 2022). It was also revealed that the incompatibility of the nesting boxes stemmed from the zoo's choice to switch from an Antarctic penguin species to South American Humbolts that favoured burrowing. Divulging an unwillingness to compromise at the cost of architecture.

Lubetkin's enclosure ultimately discloses that mankind's relationship with 'the other' remained stagnant between the 19th and 20th centuries. Although cages lost their bars, creating illusive enclosures of freedom. A stage replaced the cage, catering to the public's shift of interest from exoticism to entertainment. The analysis of Lubetkin's penguin pool reveals that penguins were merely means of populating his sculptural landscape. Although animal-sympathetic thinking was gaining traction, mankind seemed more concerned with flaunting new technological advancements. The role of WWI cannot be overlooked and could be partially held accountable for the negligence of animal well-being. Perhaps the extent of human suffering overshadowed that of 'the other.'

Whilst possibly well-intended, Lubetkin's aspirations for western civilization were blindly pushed onto the spatial environments inhabited by animals without consideration of its repercussions. His anticipation of a socialist utopia where "architecture can be a potent weapon, a committed driving force on the side of enlightenment," ignored architecture's ability to impair the quality of life of 'the other' (ArchEyes, 2020). The large disparity between dreams and reality were not recognized. As Douglas Murphy reflects, "modernism, like socialism, is all very good in theory, but people, or penguins, have to live with the results" (Murphy, 2019).

Fig 38.
Visitors feed the penguins at London Zoo (Fox Photos, 1936)

Fig 39.
London Zoo
Penguin Beach
(ZSL, n.d.)

Fig 40: Bhanu & Arya in London Zoo's Land of Lions (ZSL, 2022)

21ST CENTURY: LAND OF LIONS

On March 17th 2016, Queen Elizabeth II officially opened ZSL's land of lions. The 2,500sqm enclosure recreates Sasan Gir, a village in Gujarat, India which resides within the Gir national park. Visitors enter through a stone archway and can navigate three main walkways through the exhibit. It features a recreated "Sasan Gir train station, crumbling temple clearing, an Indian high street and a guard hut" (DCS, 2015). The imagined narrative is that kids could help "forest rangers deal with a 'lion-emergency' in the Gir Forest and lend a hand to the veterinary team" (ZSL, n.d.).

The multidisciplinary architecture firm Ray Hole Architects was contracted for this £5.2m development, ZSL's biggest yet. Additionally, it was sponsored by Liontrust, which deceptively are not a charitable or environmental trust but a specialist fund management company. Currently, the enclosure holds two Asiatic lions, lioness Arya and lion Bhanu. Previously three females resided there with Bhanu before being transferred to Germany in 2021. As part of an ineffective breeding program to preserve genetic diversity, which in 2017 was found to have "50% of cubs dying within 30 days" due to decades of inbreeding (O'Donoghue, 2017).

The Asiatic lion is an endangered species with an estimated population of approximately 700. This species used to populate the Middle East to India and can now only be found within Gujarat. Previously the royal hunting ground, the Gir National Park is now the primary residence of Asiatic lions in which the population is slowly increasing.

Fig 41. (Maharajah of Jamnagar after Hunting a Lion in Gujarat, n.d.)

Fig 42. Sasan Gir Train Station Recreation in Land of Lions (Moreland, 2020)


Fig 43. View over lion enclosure towards temple clearing (P, 2018)

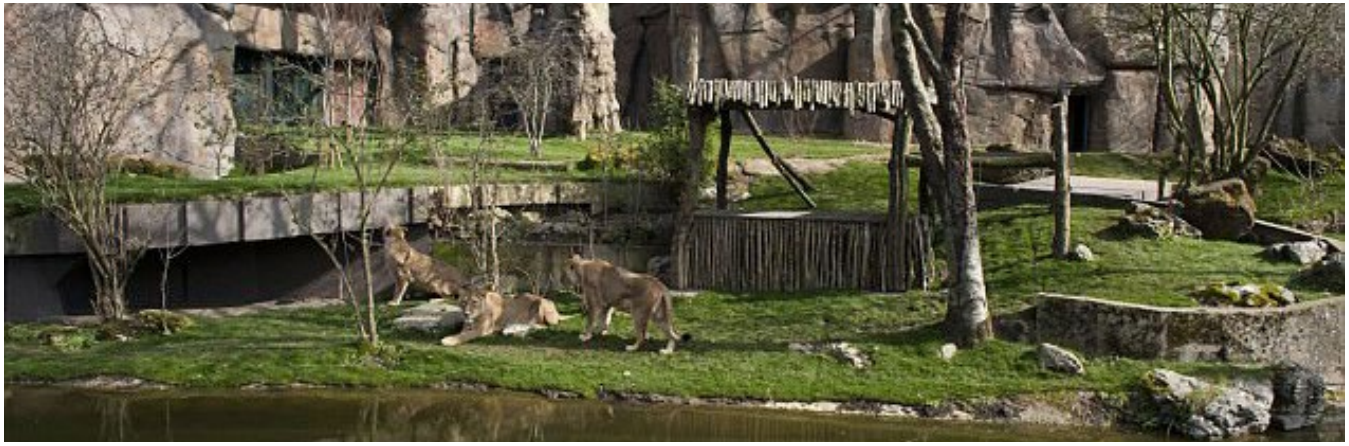


Fig 44. Rockscape and pond enclosure (Asian Voice, 2016)

RAY HOLE ARCHITECTS

Although ZSL was unwilling to provide architectural plans of this enclosure, a lot about its construction can be deduced based on the information available on the construction companies' websites and my in-person site visit.

The enclosure consists of 3 main areas, a flat plain that recreates Sasan Gir train station, a sloped dry savanna shrub forest with hillside steps by the temple clearing, and a rocky deciduous landscape towards the entrance with artificial rockwork and a pond. The train station habitat features decorative elements including stacked crates, a bench, signage, railway tracks and a deserted wagon. Most barriers within the exhibit consist of wire mesh or the low-iron float glass 'AirGlaz.' It allows "light transmission of up to 97% and reflects less than 1%," maximizing visibility while retaining its strength (Dellner Romag, n.d.). By minimizing the visibility of barriers, the designers aim to obscure the separation between viewer and subject. Creating an immersive environment that idealizes human-animal coexistence.

The enclosure doesn't only consider the animals; it also highly values visitor education and entertainment. An abundance of interactive design elements occupy the terrain, including a bike where you can see whether you could out-cycle a lion, interactive screens and a lion mane barber shop. Clearly, these playful features are meant to appeal to a younger audience.

For inspiration, the design team was able to visit Gujarat and Sasan Gir Village from which they sourced "rickshaws, bicycles, sacks of spices, rangers' huts, and even a life-size truck" (ZSL, 2016). This site-visit alone exemplifies a profound shift from the homocentric to biocentric. Previously the designers did not "go to wildlife habitats and analyze these places' changing moods, distilling the details that create a sense of wonder, spirit and mystery." Even "if they [did], they seem[ed] to focus on the animal species and return[ed] to their zoo with no full understanding of the sense of the place" (Hancocks, 2002, p.122). As opposed to the previous enclosures where decorative elements were minimal, in this enclosure even the ground is a "mixture of themed concrete, resins, aggregates and natural materials to create a permanent representation of the environment" (DCS, 2015). Additionally, this enclosure has educational signs and components of set design, transforming the enclosure into an experience rather than just a sight. All these immersive and landscaping elements play into the key principles of the design, naturalism and landscape immersion.

Fig 45. Barber Shop Sign at Land of Lions (Sears, 2016a)

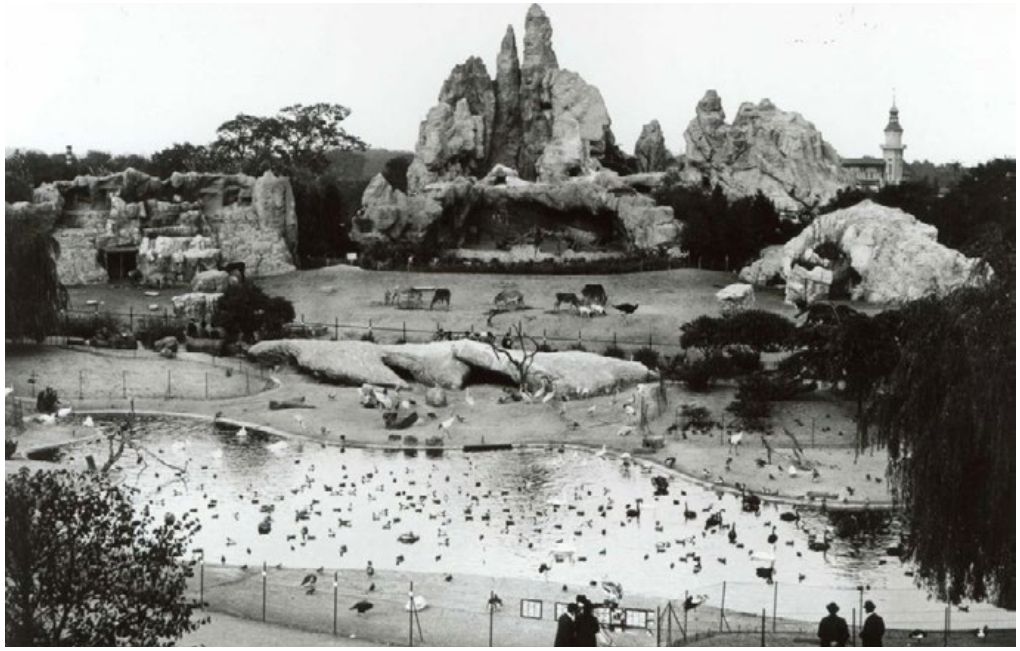
Fig 46. Land of Lions Entrance (Hughes, 2019)

Fig 47. Land of Lions High Street (Sears, 2016b)

Fig 48. Truck at Land of Lions (Sears, 2016c)

Zoos worldwide were forever changed by Carl Hagenbeck's groundbreaking zoological park. The German merchant inherited his father's menagerie in 1866, after which he purchased land in Stelligen, Hamburg and opened his zoological park in 1907. Hagenbeck was determined to evidence the benefits of larger enclosures and open-air environments that emulated their natural habitats, for animals and visitor experience. Opposing the zoo design norms of the time, he desired to demonstrate "that many tropical animals could acclimate to live outdoors in temperate climates" (Hancocks, 2002, p.64).

His pioneering use of moats to create pits and barrier heights based on the jumping abilities of each species, dismissed the need for bars. Hagenbeck's Antarctic and African panoramas were the first zoo exhibits to group animals based on regional origin rather than taxonomy. He patented these panorama zoo enclosures, merging several staggered enclosures via hidden barriers to create singular theatrical stages. The first exhibit following this naturalist approach at the London Zoo became the Mappin Terrace. Hagenbeck's discoveries revolutionized zoo design and set the stage for the inception of landscape immersion by Grant Jones and Jon Coe.



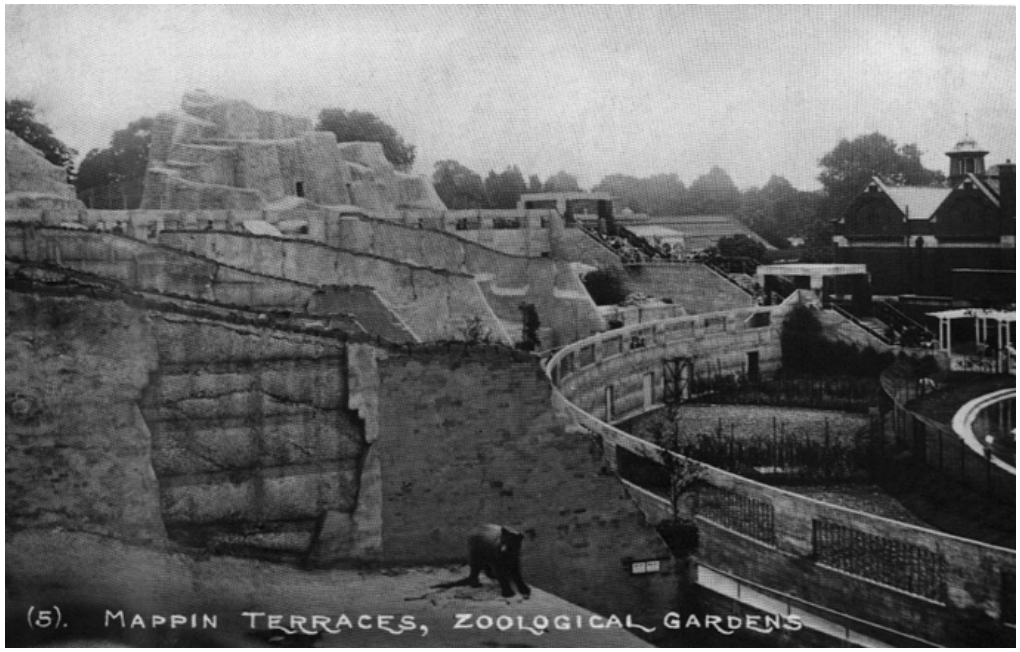


Fig 49.
Africa Panorama at Hagenbeck's Tierpark in Hamburg, Germany (Spiegel, 1920)

Fig 50.
Mappin Terraces at London Zoo (Guillery, 1914)

In the 21st century, the contracting of landscape designers for zoo enclosures brought about immense change. While “architects are trained to think in terms of structures and the assembling of materials.” “Landscape architects work with landforms, natural systems, climate, micro-habitats, and vegetation.” (Hancocks, 2002, p.137-138). Consequently, man-made environments more attuned to the needs of ‘the other’ emerged.

Landscape immersion sought to blur the separation between people and animals by populating the enclosure and public space with the same plantings and landscapes. This mode of design strove for behavioural enrichment by giving “animals choices in their environments, striking a balance between stimulation and refuge” (Harden, 2004). A rare reversal of the human-animal hierarchy was enacted by extracting people from their urban environment and transporting them into the animal’s domain. Enhanced respect and admiration for the natural world being the desired outcome.

The landscape architecture company Jones & Jones revolutionized the industry by appointing nature as its priority, and first implemented this approach at the 1976 Woodland Park Zoo in Seattle. Here whole bioclimatic zones were recreated via thorough research of the site’s microhabitats and equal concern for its vegetation and animals. “For the first time a zoo was stating the presence of animals was not necessarily the primary object of the exhibit” (Hancocks, 2002, p.115). The key lay in dedication to realism and retaining authenticity in the transition between the various zones.

Fig 51. The Gorilla enclosure at Woodland Park Zoo was the first to use live plantings across the whole enclosure (Coe, 2018)

Fig 52. Visitors passing through the Asian Elephant Forest (Woodland Park Zoo, 1989)

PROTECTING ‘THE OTHER’

Initially ‘land of lions’ may seem like a prime example of landscape immersion. However, analysis of its principles reveals its diluted interpretation of the original ideology. Once again, the contracted architect is not specialized in a biological science or landscape design, knowledge indispensable when designing for ‘the other.’ The enclosure also breaks several of John Coe’s key guidelines of landscape immersion. Including, displaying animals with human artifacts such as toys or playground equipment, which he suggests “implies the animals are deviant or incomplete humans and perpetuates anthropomorphic attitudes” (Coe, 1982). Also having people look down on animals, “puts the animal in potentially stressful subordinate positions and only emphasizes human dominance” (Coe, 1982). In this way, the enclosure evidences a lack of true understanding of the philosophy. Rather than investigating the needs of ‘the other,’ designers revert to visual mimicking. Apathetic attempts at landscape immersion thereby risk visual authenticity taking precedence over the welfare of the animals.

As opposed to the giraffe house and penguin pool, the name “land of lions’’ acknowledges animal authority over the natural world. This less anthropocentric title doesn’t evoke images of human structures and decentralizes human presence. Reinstating ‘the other’ with respect. Also, rather than the enclosure layout being taxonomic, this immersive enclosure is dedicated to a single species, avoiding comparison altogether. As a result, a more intentional learning experience is created where viewers are attentive to a single being. Lastly, rulers used to rely on animals as symbols of power but “nowadays the power of our leaders is amply demonstrated by their command of nuclear weapons” (Jamieson, 2002). So why is the royal family still investing in such pursuits?

Fig 54. Lionesses gifted giant soccer balls by liontrust (ZSL, 2022b)

Fig 53. Queen Elizabeth II opening Land of Lions (Wenn, 2016)

While this enclosure successfully demonstrates how humans and animals can harmoniously coexist. I wonder why the exhibit should prioritize this over their natural environment. In this way, animals become embedded in urban environments which might not reflect their ideal habitats. Perhaps the healthiest future for this species involves minimal human presence. Good intentions aside, the enclosure takes an anthropocentric approach. We claim to be acting in the interest of 'the other' while failing to recognize the irony of our actions. Centuries of human intervention triggered mass extinctions and now are the only salvation. But our methods remain self-serving and fixated on human control. Zoo exhibits are arranged based on animals' perceived aesthetic value rather than their ecological one. Rather than implementing measures that protect animals in their native habitats, we bring 'the other' to us, bartering their protection for our entertainment.

Land of Lions is just one of many exhibitions erected in the name of conservation. In 1991 London Zoo was once again set for closure, managing to make a miraculous recovery through its reformation as a conservation site for endangered species. With the growing momentum of the animal rights movement in the 21st century, zoos recognized that their existence was not justified as entertainment facilities. Consequently, many aligned themselves with conservation programs. However, now zoos are making captive breeding programs out to be Noah's Ark. Perpetuating the idea that endangered species can be saved purely through zoos, which generates a frightening sense of public complacency. Overall, this enclosure denotes a desire to protect 'the other' and a much-improved sensitivity to their needs, with much room for improvement.

Fig 55.
Bhanu opening Christmas present of edible treats (Gavriella, 2021)

CONCLUSION

Throughout the 19th and 21st centuries, the zoo's architectural typology has undergone minor transformations. Yet we claim its institutional function has changed. While the zoo may now intend to be a space of education and conservation, the fact remains that most individuals attend the zoo for recreation. "Sure we 'do education,' but the hook is recreation" (Armstrong and Botzler, 2016, p.483). Visitors spend between 8 seconds to a minute viewing an animal, skimming over educational writing, then returning home with meagre new animal facts. So if the audience isn't taking away what's intended, can we genuinely declare it an environmental institution?

London Zoo's enclosures visibly disclose this divorce of intent and effect. Burton's giraffe house demonstrated mankind's attempt to understand nature by forcible collection. Lubetkin's penguin pool revealed mankind's disregard for the needs of 'the other' in favour of technological advancements and aesthetics. While Ray Hole architects' land of lions exhibit fronts as a conservation haven but values visitor experience more than that of its inhabitants. Each of these enclosures presents anthropocentric methods of addressing 'the other.' Here human needs are prioritized, or their needs are interpreted in a manner that suits mankind and keeps them dependent on us. These design approaches to zoo enclosures directly reflect the prevalent outlook on animals at these times. Before the 19th century 'the other' was a tool or an object of status. With the onset of the 19th century and romanticism, they became a collectible commodity. Then in the 20th century, modernism helped present 'the other' as an escapist form of entertainment. Now in the 21st century, mankind recognizes 'the others' fragility and imperative for human survival. In response, we aspire to protect them.

Nevertheless, the need to control the unknown out of fear has remained fixed across these centuries. We're fascinated by their wildness and that very fascination compels us to restrict it. In its abundant forms, the cage remains the site of this restriction. However, growing empathy and appreciation for 'the other' made these sites uncomfortable. Prompting us to soften the cage, obscuring it with architecture. Although the cage is now much softer, it still exists, simply out of sight.

Fig 56 & 57. The endangered Bald Ibis at the London Zoo (Lehmann, 2022b&a)

It doesn't surprise me that some consider architects "the most dangerous animal in the zoo" (Roberts, 2021). Architects hold positions of power where they construct zoo animals' whole quality of life. We must honour this precarious position and design dignified spaces for 'the other.' Naming enclosures after natural habitats instead of human structures signal a gentle progression toward biocentrism. Occasionally landscape designers and zoological professionals are commissioned rather than commercial architecture firms. Also, zoos now attempt to reproduce whole microbiomes rather than clumsily piecing together the habitats of individual species. But do these improvements justify the zoo's existence?

Although wildlife reserves better suit conservation, the zoo's firm establishment makes its abolition highly unlikely. So if it won't be discontinued, we must use its potential to serve the greater good. In addition to zoo architecture changing to provide dignified spaces for animals, its purpose and use must change. Ideally this would involve a comprehensive remodelling where zoos educate the public about the complex dynamics of ecological systems and importance of biodiversity, to paint a holistic view of our interdependence on all living beings. They should instill in the public a willingness to compromise their lifestyles and make sacrifices for the planet's health. Zoos would also need to divert their efforts from species preservation to habitat conservation. It does no good to save animal species from extinction if we decimate their habitats in the meantime. This must be a global effort with collaborations between all natural and cultural institutions that fuel a universal love of nature.

Fig 58.
Orangutan in cleared forest (GBM, n.d.)

In conclusion, the spatial evolution of animal enclosures at the London Zoo reveals a vast disconnection between mankind and 'the other.' A disconnection that is destroying the planet emotionally, socially and environmentally. The implications of our societal practice of 'othering' have drastic consequences for mankind and all living beings. Speciesism "legitimizes the ill-treatment of those humans who [are] in a supposedly animal condition" (Adams, 2004, p.55). Thereby it condones the oppression of individuals based on race, class, disability and gender. Recognition and love for 'the other' could thus remedy worldwide social injustices and the climate crisis, objectives which architecture must pursue and back actively.

Fig 59. A visitor with a polar bear at Hanover Zoo's Yukon Bay (alamy, 2012)

BIBLIOGRAPHY

20th Century Architecture. (n.d.). Constructivism. [online] Available at: http://architecture-history.org/schools/CONSTRUCTIVISM.html [Accessed 13 Nov. 2022].

20th Century Architecture. (n.d.). LUBETKIN AND TECTON. [online] Available at: http://architecture-history.org/architects/architects/LUBETKIN/biography.html [Accessed 14 Nov. 2022].

99% Invisible. (n.d.). Circling the Drain: What to Do With London Zoo's Deserted Penguin Pool. [online] Available at: https://99percentinvisible.org/article/circling-the-drain-what-to-do-with-london-zoos-deserted-penguin-pool/ [Accessed 9 Nov. 2022].

Adams, C.J. (2004). The Sexual Politics of Meat: A Feminist-Vegetarian Critical Theory. New York: Continuum Publishing Company.

Allan, J. (2011). Bridge of Dreams: The Penguin Pool, London Zoo. Bridges and Infrastructures, [online] (45), pp.80–85. doi:https://doi.org/10.52200/45.a.d3ojl9zd.

Arab American National Museum (2013). What is Orientalism? [online] Reclaiming Our Identity: Dismantling Arab Stereotypes. Available at: http://arabstereotypes.org/why-stereotypes/what-orientalism [Accessed 8 Jan. 2023].

ArchEyes. (2020). Penguin Pool in the London Zoo / Berthold Lubetkin. [online] Available at: https://archeyes.com/penguin-pool-london-berthold-lubetkin/ [Accessed Nov. 9AD].

Armstrong, S. and Botzler, R. (2016). The Animal Ethics Reader. 3rd ed. New York: Routledge.

Associated Press (1940). Ruins of the new zebra house. [Book] London Zoo from Old Photographs, 1852-1914.

Baratay, E. (2002). Zoo : a history of zoological gardens in the West. London: Reaktion Books Ltd.

Beston, H. (1928). The Outermost House. New York: Ballantine.

Birch, J. (2019). The place of animals in Kantian ethics. Biology & Philosophy, [online] 35(1). doi:https://doi.org/10.1007/s10539-019-9712-0.

Block, I. (2019). Berthold Lubetkin's empty Penguin Pool should be blown 'to smithereens' says daughter. [online] Dezeen. Available at: https://www.dezeen.com/2019/01/08/penguin-pool-london-zoo-berthold-lubetkin-debate-uk-architecture-news/ [Accessed 16 Oct. 2022].

Blunt, W. (1976). The Ark in the Park : The Zoo in the Nineteenth Century. London: Hamish Hamilton Ltd.

Brenchat-Aguilar, A. (2022). A Burst of Architectural Plots: The Diverging Lives of Whipsnade Zoo Estate Bungalows (1933–2020). Architecture and Culture, [online] 10(2), pp.338–368. doi:https://doi.org/10.1080/20507828.2021.1925845.

Bristow, W. (2010). Enlightenment. [online] Stanford Encyclopedia of Philosophy. Available at: https://plato.stanford.edu/entries/enlightenment/ [Accessed 14 Nov. 2022].

British Film Institute (2010). Landing of Savage South Africa at Southampton. [online] Colonial Film. Available at: http://www.colonialfilm.org.uk/node/1186 [Accessed 7 Feb. 2023].

Brown, T. (2016). Special glass makes London Zoo Land of the Lions a roaring success. [online] The Manufacturer. Available at: https://www.themanufacturer.com/articles/roaring-success-for-new-romag-glass-viewing-screen-at-london-zoo/ [Accessed 2 Jan. 2023].

Cartwright, M. (2020). Renaissance Humanism. [online] World History Encyclopedia. Available at: https://www.worldhistory.org/Renaissance_Humanism/ [Accessed 17 Nov. 2022].

Coe, J. (1982). The Coe – Jones Rules for Landscape Immersion Zoo Exhibit Design. [online] joncoe.net. Available at: https://joncoe.net/wp-content/uploads/2021/12/TheCoe-JonesRules-1984.pdf [Accessed 18 Dec. 2022].

DBpedia. (n.d.). Other (philosophy). [online] Available at: https://dbpedia.org/page/Other_(philosophy) [Accessed 12 Nov. 2022].

Decorative Concrete Specialists (2015). Case Study: Land Of The Lions, London Zoo. [online] DCS. Available at: https://dcsconcrete.co.uk/commercial/theme-parks-zoos/land-of-the-lions-london-zoo/ [Accessed 18 Nov. 2022].

Dellner Romag (n.d.). AIRGLAZ. [online] Dellner Glass. Available at: https://www.dellnerglass.co.uk/files/pdf/DELLNER-ROMAG_airglaz(1).pdf [Accessed 9 Dec. 2022].

Edwards, J. (2012). London Zoo from Old Photographs, 1852-1914. 2nd ed. London.

Eliade, M. (2017). Shamanism. In: Encyclopædia Britannica. [online] Available at: https://www.britannica.com/topic/shamanism [Accessed 6 Feb. 2023].

Encyclopedia.com. (2013). The History of Human-Animal Interaction. [online] Available at: https://www.encyclopedia.com/politics/encyclopedias-almanacs-transcripts-and-maps/history-human-animal-interaction [Accessed 12 Nov. 2022].

English Heritage. (2019). Victorian Architecture. [online] Available at: https://www.english-heritage.org.uk/learn/story-of-england/victorian/architecture/ [Accessed 8 Jan. 2023].

External Works (n.d.). Secure fencing for new lion enclosure at ZSL London Zoo. [online] External Works Index. Available at: https://www.externalworksindex.co.uk/entry/132080/CLD-Physical-Security-Systems/Secure-fencing-for-new-lion-enclosure-at-ZSL-London-Zoo/ [Accessed 26 Dec. 2022].

Felis Consulting. (2008). The Next Zoo Design Revolution? [online] Available at: https://www.felisconsulting.com/designing-zoos/2008/07/15/the-next-zoo-design-revolution [Accessed 8 Jan. 2023].

Giraud, R. (1985). Rousseau and Voltaire: The Enlightenment and Animal Rights. Between the Species: An Online Journal for the Study of Philosophy and Animals, [online] 1(1). doi:https://doi.org/10.15368/bts.1985v1n1.1.

Gleeson, G. (1933). London Zoo. New York: National Travel Club.

Gould, P. (2022). Revisit: Penguin Pool in London, UK by Tecton. [online] Architectural Review. Available at: https://www.architectural-review.com/essays/revisit/revisit-penguin-pool-in-london-uk-by-tecton?tkn=1 [Accessed 20 Oct. 2022].

Guillery, P. (1993). The Buildings of London Zoo. London: The Royal Commission on the Historical Monuments of England.

Hackney Mosaic (n.d.). London Zoo - Land of the Lions. [online] Hackney Mosaic Project. Available at: https://www.hackney-mosaic.co.uk/LondonZooLandoftheLions [Accessed 19 Nov. 2022].

Haekel, J. (2019). Totemism. In: Encyclopædia Britannica. [online] Available at: https://www.britannica.com/topic/totemism-religion [Accessed 6 Feb. 2023].

Hall & Hall Design (2016). London Zoo - Land of the Lions. [online] Hall & Hall Design. Available at: https://www.hallandhalldesign.com/zsl-land-of-the-lions [Accessed 20 Dec. 2022].

Hancocks, D. (2002). Different nature - the paradoxical world of zoos and their uncertain future. University of California Press.

Harden, T. (2004). At the Zoo: Improving the Environment for Creatures of Two and Four Legs. The New York Times. [online] 31 Mar. Available at: https://www.nytimes.com/2004/03/31/arts/at-the-zoo-improving-the-environment-for-creatures-of-two-and-four-legs.html [Accessed 9 Jan. 2023].

Harrison, P. (1992). Descartes on Animals. The Philosophical Quarterly, [online] 42(167), p.219. doi:https://doi.org/10.2307/2220217.

Heritage Gateway. (n.d.). Heritage Gateway Research Records. [online] Available at: https://www.heritagegateway.org.uk/Gateway/Results_Single.aspx?uid=619093&resourceID=19191 [Accessed 11 Nov. 2022].

Historic England (n.d.). PENGUIN POOL. [online] Historic England. Available at: https://historicengland.org.uk/listing/the-list/list-entry/1225665?section=official-list-entry [Accessed 16 Nov. 2022].

History.com Editors (2018). Renaissance. [online] History. Available at: https://www.history.com/topics/renaissance/renaissance [Accessed 14 Nov. 2022].

Ingraham, C. (2006). Architecture, Animal, Human. Routledge.

Ito, T. (2020). London Zoo And The Victorians: 1828-1859. S.L.: Royal Historical Society.

Jama, A. (2019). Black People On Display: The Forgotten History of Human Zoos. [online] Rife Magazine. Available at: https://www.rifemagazine.co.uk/2019/04/black-people-on-display-the-forgotten-history-of-human-zoos/ [Accessed 14 Nov. 2022].

Jamieson, D. (2002). Morality's Progress: Essays on Humans, Other Animals, and the Rest of Nature. [online] New York: Oxford University Press, pp.166–175. Available at: https://as.nyu.edu/content/dam/nyu-as/faculty/documents/Against_Zoos.pdf [Accessed 8 Oct. 2022].

Jones, T. (2016). Map for the new 'Land of the Lions' exhibit- ZSL London Zoo. [online] Tonwen Jones. Available at: https://www.tonwenjones.co.uk/Map-for-the-new-Land-of-the-Lions-exhibit-ZSL-London-Zoo [Accessed 24 Nov. 2022].

Lear, J. (2012). Our Furry Friends: the History of Animal Domestication. [online] Journal of Young Investigators. Available at: https://www.jyi.org/2012-february/2017/9/17/our-furry-friends-the-history-of-animal-domestication [Accessed 15 Nov. 2022].

Matthews, H. (n.d.). London Zoo. London: Spring Books.

Monoskop. (2022). VKhUTEMAS - Monoskop. [online] Available at: https://monoskop.org/VKhUTEMAS [Accessed 11 Nov. 2022].

Moore, J. (2018). A shameful history of Human Zoos-European secret against humanity. [online] Black History. Available at: https://blackhistory.neocities.org/Human_Zoos [Accessed 6 Feb. 2023].

Moran, D. (2014). 'Zoopticon' and 'Panopticon' – linking the prison and the zoo through animal and carceral geographies. [online] University of Birmingham. Available at: https://www.birmingham.ac.uk/Documents/college-les/gees/postgraduate-opportunities-2015/Moran%20ad.pdf [Accessed 12 Nov. 2022].

Murphy, D. (2019). Blow it to Smithereens? The Fate of Berthold Lubetkin's Modernist Penguin Pool at London Zoo. [online] Frieze. Available at: https://www.frieze.com/article/blow-it-smithereens-fate-berthold-lubetkins-modernist-penguin-pool-london-zoo [Accessed 7 Nov. 2022].

Murray, C. ed., (n.d.). architecture. the World of London Zoo.

National Geographic (2011). Asiatic Lion. [online] National Geographic. Available at: https://www.nationalgeographic.com/animals/mammals/facts/asiatic-lion [Accessed 23 Sep. 2022].

National Geographic Society (2022). The Development of Agriculture | National Geographic Society. [online] National Geographic. Available at: https://education.nationalgeographic.org/resource/development-agriculture [Accessed 13 Sep. 2022].

O'Donoghue, P. (2017). An assessment of the genetic diversity of the founders of the European captive population of Asian lion (Panthera leo leo), using microsatellite markers and studbook analysis. Mammalian Biology, [online] 88, pp.138–143. doi:https://doi.org/10.1016/j.mambio.2017.10.001.
Park, G. (2007). Animism. In: Encyclopædia Britannica. [online] Available at: https://www.britannica.com/topic/animism [Accessed 6 Feb. 2023].

Rabbitts, P. (2014). Regent's Park : From Tudor Hunting Ground to the Present. Stroud: Amberley.

Rayhole Architects (n.d.). ZSL London Zoo Land of Lions. [online] Rayhole Architects. Available at: https://www.rayhole-architects.com/node/253 [Accessed 15 Oct. 2022].

Roberts, S. (2021). William Conway, Who Reimagined America's Zoos, Is Dead at 91. The New York Times. [online] 5 Nov. Available at: https://www.nytimes.com/2021/11/05/nyregion/william-conway-dead.html [Accessed 13 Dec. 2022].

Scherren, H. (1905b). The Zoological Society of London. Cassell and Company Limited.
Science Direct. (n.d.). Age of Enlightenment. [online] Available at: https://www.sciencedirect.com/topics/social-sciences/age-of-enlightenment [Accessed 14 Nov. 2022].

Slatch, A. (2015). Landscape Immersion - Understanding Zoo Designs. [online] ResearchGate. Available at: https://www.researchgate.net/publication/325022095_Landscape_Immersion_-_UNDERSTANDING_ZOO_DESIGNS [Accessed 8 Jan. 2023].

Street, P. (n.d.). The London Zoo. London: Odhams Press Limited.

Swancutt, K. (2019). Animism. [online] Cambridge Encyclopedia of Anthropology. Available at: https://www.anthroencyclopedia.com/entry/animism [Accessed 6 Feb. 2023].

The Zoological Society of London (1976). The Zoological Society of London 1826-1976 and Beyond. Bristol: J.W. ARROWSMITH LTD.

Verghese, N. (2021). What Is Orientalism? A Stereotyped, Colonialist Vision of Asian Cultures. [online] Teen Vogue. Available at: https://www.teenvogue.com/story/what-is-orientalism [Accessed 8 Jan. 2023].

Vevers, G. (1976). Like the Camel House, the Giraffe House was designed by Decimus Burton bit it is of later date, having been built in 1836. Because of their historic interest both these houses will be retained when the new Zoo has been built. [Book] London's Zoo: An anthology to celebrate 150 years of the Zoological Society of London.

Vevers, G. (n.d.). London's Zoo: An anthology to celebrate 150 years of the Zoological Society of London. London: The Bodley Head Ltd.

Victoria and Albert Museum. (n.d.). V&A · Engineering the Penguin Pool at London Zoo. [online] Available at: https://www.vam.ac.uk/articles/engineering-the-penguin-pool-at-london-zoo [Accessed Nov. 9AD].

White, M. (2018). The Enlightenment. The British Library. [online] Available at: https://www.bl.uk/restoration-18th-century-literature/articles/the-enlightenment [Accessed 14 Nov. 2022].
Wikipedia. (2020). Decimus Burton. [online] Available at: https://en.wikipedia.org/wiki/Decimus_Burton [Accessed 8 Oct. 2022].

Wilson, P. (n.d.). Architecture at ZSL London Zoo, Regent's Park. [online] Zoological Society of London (ZSL). Available at: https://www.zsl.org/about-us/architecture-at-zsl-london-zoo-regents-park [Accessed 16 Nov. 2022].

ZooLex (2003). Exhibit Design and the Aesthetic of Nature. [online] ZooLex. Available at: https://zoolex.org/page/publications/bierlein/design_wpz [Accessed 12 Dec. 2022].

Zoological Society of London (2017a). Protecting Asiatic lions in the Gir Forest. [online] YouTube. Available at: https://www.youtube.com/watch?v=fmHUKB_PNF4 [Accessed 22 Nov. 2022].

Zoological Society of London (2017b). What inspired Land of the Lions? [online] YouTube. Available at: https://www.youtube.com/watch?v=Frsbnk4udn8 [Accessed 7 Oct. 2022].

Zoological Society of London (2021). A warm welcome to London Zoo's new lioness, Arya! [online] YouTube. Available at: https://www.youtube.com/watch?v=2dvnYBcReD0&t=194s [Accessed 16 Dec. 2022].

Zoological Society of London (ZSL). (n.d.). Giraffe house history. [online] Available at: https://www.zsl.org/History/giraffe-house-history [Accessed 11 Nov. 2022].

Zoological Society of London (ZSL). (n.d.). Lubetkin Penguin Pool. [online] Available at: https://www.zsl.org/History/lubetkin-penguin-pool [Accessed 12 Oct. 2022].

ZSL (2016). HM The Queen and HRH The Duke of Edinburgh unveil Land of the Lions. [online] Zoological Society of London (ZSL). Available at: https://www.zsl.org/zsl-london-zoo/news/hm-the-queen-and-hrh-the-duke-of-edinburgh-unveil-land-of-the-lions [Accessed 8 Oct. 2022].

ZSL (n.d.). Land of the Lions. [online] Zoological Society of London. Available at: https://www.zsl.org/zsl-london-zoo/exhibits/land-of-the-lions [Accessed 14 Nov. 2022].

IMAGE REFERENCES

Figure 1. Lehmann, M. (2022d). London Zoo Penguin Beach. [Digital Image].

Figure 2. Lehmann, M. (2022c). Gorilla at London Zoo. [Digital Image].

Figure 3. Gruban, P. (2006). Algerian Desert. [Digital Image] medium. Available at: https://swallowtailblog.medium.com/pre-historic-medieval-hunting-3c886e221403 [Accessed 24 Oct. 2022].

Figure 4. Beham, H. (1523). Nymph riding on the back of a triton carrying two fish in his left hand. [Digital Image] V&A. Available at: https://collections.vam.ac.uk/item/O779211/engraving-sebald-beham/ [Accessed 6 Feb. 2023].

Figure 5. Baratay, E. (2002b). An animal fight in a private lion house, 16th century. [Book] Zoo.

Figure 6. Baratay, E. (2002f). The Tower Menagerie, London, early 19th century. [Book] Zoo.

Figure 7. Fillis, F. (1899). Arranged scene taken on the streamliner The Goth as PR material to advertise the the spectacle at Earl's Court in 1899. [Digital Image] Nadia Kaabi-Linke. Available at: https://nadiakaabilinke.myportfolio.com/faces [Accessed 1 Feb. 2023].

Figure 8. Hagenbeck, C. (1908). Carl Hagenbeck's 'Galla Truppe'. [Digital Image] Spiegel. Available at: https://www.spiegel.de/fotostrecke/photo-gallery-europe-s-human-zoos-fotostrecke-50706.html [Accessed 8 Feb. 2023].

Figure 9. Baratay, E. (2002a). A hunting park late 17th century. [Book] Zoo.

Figure 10. Baratay, E. (2002c). An Italian cabinet of curiosities c. 1600. [Book] Zoo.

Figure 11. British Library (1841). Royal Vauxhall Gardens. For a few nights only. Admission one shilling! The greatest attraction ever offered to the public. [Digital Image] British Library. Available at: https://www.bl.uk/collection-items/poster-advertising-entertainment-at-the-royal-vauxhall-gardens-london [Accessed 1 Feb. 2023].

Figure 12. Strobridge & Co. Lith (1879). P.T. Barnum's greatest show on earth, and great London circus, Sanger's Royal British menagerie & grand international allied shows. [Digital Image] Library of Congress. Available at: https://www.loc.gov/item/99471610/ [Accessed 2 Feb. 2023].

Figure 13. Aveline, P. (1660). Palace of Versailles: The Menagerie. [Digital Image] Ribapix. Available at: https://www.ribapix.com/palace-of-versailles-the-menagerie_riba19556 [Accessed 2 Dec. 2022].

Figure 14. Pen, Jardin des Plantes. (1821). [Book] Zoo by Eric Baratay.

Figure 15. Benoist, J. (1861). Jardin des Plantes. [Handcoloured crayon style lithograph on wove paper] Pictura Prints. Available at: https://pictura-prints.com/product/antique-print-jardin-plantes-botanical-garden-paris-jacottet-aubrun-benoist-1861/ [Accessed 5 Nov. 2022].

Figure 16. Scharf, G. (1835). The Monkey House at the Zoological Gardens, Regent's Park, London. [Image] alamy. Available at: https://www.alamy.com/stock-photo-the-monkey-house-at-the-zoological-gardens-regents-park-london-1835-28179537.html [Accessed 6 Oct. 2022].

Figure 17. Buildington (2019). Giraffe Building at London Zoo. [Digital Image] Buildington. Available at: https://www.buildington.co.uk/buildings/10324/london-nw1/outer-circle/london-zoo [Accessed 1 Feb. 2023].

Figure 18. Scharf, G. (1836). The Giraffes with the Arabs who brought them over to this Country. [Digital Image] The British Museum. Available at: https://www.britishmuseum.org/collection/object/P_1862-1108-580 [Accessed 1 Feb. 2023].

Figure 19. Scherren, H. (1905a). Plan of the Garden 1829. [Book] The Zoological Society of London.

Figure 20. Baratay, E. (2002e). The Garden of the Zoological Society 1830. [Book] Zoo.

Figure 21. Cruikshank, G. (1836). Giraffes – Granny-Dears & other Novelties. [Digital Image] The British Library. Available at: https://www.bl.uk/collection-items/giraffes-granny-dears-and-other-novelties [Accessed 1 Feb. 2023].

Figure 22. naturalist notebook (2011). Giraffe House. [Digital Image] The Naturalist Notebook. Available at: https://www.thenaturalistsnotebook.com/our-blog/day-at-the-zoo [Accessed 1 Feb. 2023].

Figure 23. Associated Press (1940). Ruins of the new zebra house. [Book] London Zoo from Old Photographs, 1852-1914.

Figure 24. Newbery, S.W. (1950). Interior of the Giraffe House. [Book] London Zoo from Old Photographs, 1852-1914.

Figure 25. Jaschinski, B. (1992). Giraffe House, London Zoo. [Book] Zoo by Eric Baratay.

Figure 26. Baratay, E. (2002d). The crowded gardens of the Zoological Society, London on Whit Monday 1865. [Digital Image] Book.

Figure 27. RIBA (2020). Penguin Pool. [Digital Image] ArchEyes. Available at: https://archeyes.com/penguin-pool-london-berthold-lubetkin/ [Accessed 1 Feb. 2023].

Figure 28. Havinden, J. (1933). Penguin Pool, London Zoo, Regent's Park, London: ramps under construction. [Digital Image] RIBApix. Available at: https://www.ribapix.com/Penguin-Pool-London-Zoo-Regents-Park-London-ramps-under-construction_RIBA2845-23?ribasearch=aHR0cHM6Ly93d3cucmliYXBpeC5jb20vc2VhcmNoP2Fkdj1mYWxzZSZjaWQ9MCZtaWQ9MCZ2aWQ9MCZxPWx1YmV0a2luJTIwcGVuZ3VpbiUyMHBvb2wmc2lkPWZhbHNlJmlzYz10cnVlJm9yZGVyQnk9MA== [Accessed 1 Feb. 2023].

Figure 29. GillFoto (1970). Visitors in the 1970s could peer over the chest-high wall to see the penguins. [Digital Image] Architectural Review. Available at: https://www.architectural-review.com/essays/revisit/revisit-penguin-pool-in-london-uk-by-tecton [Accessed 1 Feb. 2023].

Figure 30. RIBA (1934). Felix Samuely brought Berthold Lubetkin's visions to life in reinforced concrete. [Digital Image] Architectural Review. Available at: https://www.architectural-review.com/essays/revisit/revisit-penguin-pool-in-london-uk-by-tecton [Accessed 1 Feb. 2023].

Figure 31. Lubetkin, B. (1929). Penguin Pool, London Zoo, Regent's Park, London: early sketches. [Digital Image] RIBApix. Available at: https://www.ribapix.com/Penguin-Pool-London-Zoo-Regents-Park-London-early-sketches_RIBA3358-53?ribasearch=aHR0cHM6Ly93d3cucmliYXBpeC5jb20vc2VhcmNoP2Fkdj1mYWxzZSZjaWQ9MCZtaWQ9MCZ2aWQ9MCZxPWx1YmV0a2luJTIwcGVuZ3VpbiUyMHBvb2wmc2lkPWZhbHNlJmlzYz10cnVlJm9yZGVyQnk9MA== [Accessed 1 Feb. 2023].

Figure 32. Dell & Wainwright (1935). Highpoint One, North Hill, Highgate, London: the garden front. [Digital Image] RIBApix. Available at: https://www.ribapix.com/Highpoint-One-North-Hill-Highgate-London-the-garden-front_RIBA8736 [Accessed 3 Oct. 2022].

Figure 33. Khoogj (n.d.). Villa Savoye. [Digital Image] Available at: https://www.khoogj.com/villa-savoye [Accessed 1 Feb. 2023].

Figure 34. Daily Herald Archive (1935). American animation pioneer Walt Disney films the penguins at London Zoo being fed by the keeper. [Digital Image] Getty Images. Available at: https://www.gettyimages.co.uk/search/2/image?family=editorial&phrase=lubetkin%20penguin%20pool [Accessed 1 Feb. 2023].

Figure 35. Havinden, J. (1934). Penguin Pool, London Zoo, Regent's Park, London: model of the pool with penguins. [Digital Image] RIBApix. Available at: https://www.ribapix.com/Penguin-Pool-London-Zoo-Regents-Park-London-model-of-the-pool-with-penguins_RIBA2844-23?ribasearch=aHR0cHM6Ly93d3cucmliYXBpeC5jb20vc2VhcmNoP2Fkdj1mYWxzZSZjaWQ9MCZtaWQ9MCZ2aWQ9MCZxPWx1YmV0a2luJTIwcGVuZ3VpbiUyMHBvb2wmc2lkPWZhbHNlJmlzYz10cnVlJm9yZGVyQnk9MA== [Accessed 1 Feb. 2023].

Figure 36. Allan, J. (n.d.). The geometrical proposition. [Digital Image] Bridge of Dreams: The Penguin Pool, London Zoo. Available at: https://www.docomomo.pt/wp-content/uploads/2019/04/DocomomoJournal45_2011_JAllan.pdf [Accessed 1 Feb. 2023].

Figure 37. Havinden, J. (n.d.). Longitudinal & Cross Section. [Digital Image] Architectural Review. Available at: https://www.architectural-review.com/archive/penguin-pool-in-london-uk-by-tecton [Accessed 1 Feb. 2023].

Figure 38. Fox Photos (1936). Visitors feed the penguins at London Zoo. The Penguin Pool was designed by Berthold Lubetkin in 1933. [Digital Image] Getty Images. Available at: https://www.gettyimages.co.uk/detail/news-photo/visitors-feed-the-penguins-at-london-zoo-the-penguin-pool-news-photo/3163770 [Accessed 1 Feb. 2023].

Figure 39. ZSL (n.d.). London Zoo Penguin Beach. [Digital Image] ZSL. Available at: https://www.zsl.org/zsl-london-zoo/group-visits-to-zsl-london-zoo [Accessed 19 Oct. 2022].

Figure 40. ZSL (2022a). Banu & Arya at ZSL. [Digital Image] TimeOut. Available at: https://www.timeout.com/london/news/london-zoo-is-counting-all-of-its-furry-and-feathery-and-scaly-friends-010422 [Accessed 1 Feb. 2023].

Figure 41. Maharajah of Jamnagar after Hunting a Lion. (n.d.). [Digital Image] Old Indian Photos. Available at: https://www.oldindianphotos.in/2015/08/maharaja-of-jamnagar-after-hunting-lion.html [Accessed 1 Feb. 2023].

Figure 42. Moreland, J. (2020). Coronavirus: London Zoo reopens after lockdown. [Digital Image] BBC. Available at: https://www.bbc.co.uk/news/av/uk-england-london-53052951 [Accessed 2 Feb. 2023].

Figure 43. P., S. (2018). Land of Lions Enclosure viewed from above. [Digital Image] Wave to Mummy. Available at: https://www.wavetomummy.com/2018/02/london-zoo-land-of-the-lions-review.html [Accessed 2 Feb. 2023].

Figure 44. Asian Voice (2016). Land of Lions London Zoo. [Digital Image] Asian Voice. Available at: https://www.asian-voice.com/News/UK/London/London-Zoo-to-give-visitors-a-Maharaja-tour-in-the-Land-of-the-Lions [Accessed 1 Feb. 2023].

Figure 45. Sears, T. (2016a). Barber Shop Sign at Land of Lions ZSL. [Digital Image] Tom Sears. Available at: https://www.tom-sears.com/landofthelions [Accessed 2 Feb. 2023].

Figure 46. Hughes, K. (2019). Entering the Land of the Lions was like being back in India for me! [Digital Image] whats-katiedoing. Available at: https://whatskatiedoing.com/london/zsl-zoo-nights-are-back/ [Accessed 1 Feb. 2023].

Figure 47. Sears, T. (2016b). Land of Lions High Street. [Digital Image] Tom Sears. Available at: https://www.tom-sears.com/landofthelions [Accessed 6 Nov. 2022].

Figure 48. Sears, T. (2016c). Truck in Land of Lions. [Digital Image] Tom Sears. Available at: https://www.tom-sears.com/landofthelions [Accessed 6 Dec. 2022].

Figure 49. Spiegel (1920). Africa Panorama. [Digital Image] Spiegel. Available at: https://www.spiegel.de/fotostrecke/tierpark-begruender-carl-hagenbeck-fotostrecke-110303.html [Accessed 1 Feb. 2023].

Figure 50. Guillery, P. (1914). Mappin Terraces looking east towards the Ape House circa 1914 from a postcard. [Book] Buildings of the London Zoo.

Figure 51. Coe, J. (2018). Pete relaxes in the sun. [Digital Image] Kiki at Large. Available at: https://kikiatlarge.wordpress.com/2020/05/28/changing-the-nature-of-zoos/ [Accessed 1 Feb. 2023].

Figure 52. Woodland Park Zoo (1989). A jungle path for children is intended to heighten the scene of adventure and personal discovery. Plants that resemble those found in Northern Thailand were combined with deadfall to create a complex immersion landscape. [Digital Image] ZooLex. Available at: https://zoolex.org/gallery/image/614/13 [Accessed 1 Feb. 2023].

Figure 53. Wenn (2016). Her Majesty Queen Elizabeth II and Prince Philip, the Duke of Edinburgh on their visit to ZSL London Zoo's 'Land of the Lions' exhibit. [Digital Image] alamy. Available at: https://www.alamy.com/stock-photo-her-majesty-queen-elizabeth-ii-and-prince-philip-the-duke-of-edinburgh-102510732.html [Accessed 1 Feb. 2023].

Figure 54. ZSL (2022b). London Zoo's lioness gets behind the Lionesses. [Digital Image] ZSL London Zoo. Available at: https://www.zsl.org/zsl-london-zoo/news/london-zoos-lioness-gets-behind-the-lionesses [Accessed 1 Feb. 2023].

Figure 55. Gavriella (2021). Lions and gorillas got to open festive gifts early at ZSL London Zoo. [Digital Image] In Cyprus. Available at: https://in-cyprus.philenews.com/news/international/lions-and-gorillas-open-early-festive-gifts-at-zsl-london-zoo/ [Accessed 2 Feb. 2023].

Figure 56. Lehmann, M. (2022b). Bald Ibis at the London Zoo (Focused). [Digital Image].

Figure 57. Lehmann, M. (2022a). Bald Ibis at the London Zoo (Blurred). [Digital Image].

Figure 58. GBM (n.d.). Orangutan & Deforestation. [Digital Image] GBM News. Available at: https://gbm.news/en/how-does-deforestation-affect-animals/ [Accessed 1 Feb. 2023].

Figure 59. alamy (2012). Paws for thought … a visitor with a polar bear at Hanover zoo's Yukon Bay. [Digital Image] The Guardian. Available at: https://www.theguardian.com/artanddesign/2019/sep/27/have-zoos-had-their-day-architecture-barbaric-sci-fi [Accessed 1 Feb. 2023].


VISUAL ESSAY
CLICK HERE TO PLAY

VISUAL ESSAY RATIONALE

My visual essay investigates our site, Peckham Levels and its surrounding area from the perspective of ‘the other.’ More specifically pigeons; a strain of the area’s prominent wildlife. Placing the viewer face to face and at the same eye level as these animals aims to get us to reconsider our interactions with and perceptions of them. Documenting pigeons via film enabled me to visually document the daily lives of these fleeting and fast-paced beings, and compare their existence with and without human presence. After spending weeks observing how humans and animals interact at the Holly Grove Shrubbery (a local pigeon hotspot), I became aware of these interactions’ passive and hostile nature. I’d hereby like to evoke a newfound appreciation and respect for pigeons and other urban wildlife.

WORD COUNT: 127

Pigeon at Holly Grove Shrubbery, Peckham on 12.10.22 by Marie Lehmann