Placing the Origins of the Zoo
An Architectural Analysis of the Metamorphosis of the Menagerie into the Zoological Garden

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The zoological garden functions as a cultural showcase of animals and nature. The design is a consequence of human interpretations of the way in which the natural world should be perceived and presented. Zoological architecture is therefore the physical embodiment of cultural understandings of scientific knowledge, both shaping and confirming social constructions of knowledge of the natural world.

Scientific interpretation exists within a cultural context of place and place in time, contradicting notions of science as objective and detached from social practice. The scientific profession, early in its commencement, established a complex, ongoing relationship with architecture by gaining credibility through built form and place. They used architecture to legitimize their profession and the knowledge they were producing. Thus, the early stages of the zoological garden as a scientific endeavour also had a similarly interwoven relationship with architecture and place.

This paper examines the evolution of the menagerie into the first zoological garden by mapping the history of animal collections in the Royal Menagerie of Versailles, the Jardin des Plantes, and the London Zoological Society at Regent’s Park against prevailing attitudes to the natural world embodied by each.

By examining the emergence of the zoological garden both in place and time, it is possible to identify the origins of architectural features that have resonated throughout the history of the zoological garden, reinforcing social interpretations of knowledge of the natural world.
The zoological garden has been the subject of many investigations into issues such as the ethics of animal captivity, animal care and welfare, and the relationships between people and animals. Very little analytical research, however, has focused specifically on zoological architecture. As part of a broader body of work mapping the historical architectural transformations of the zoological garden against social constructions of knowledge of the natural world, this paper specifically examines the role of place in the metamorphosis of the menagerie into the zoological garden.

By analysing the architectural parameters established during the evolution of the zoological garden, a greater understanding can be gained regarding the manner in which they still influence our understanding of zoological gardens today. This, in turn, will contribute to studies of modern zoological architecture and to current discussions regarding the relationship between architecture and the social construction of knowledge.

In existence since antiquity, menageries are considered to be a collection of animals amassed solely for purposes of entertainment and admiration. Zoological gardens, by contrast, are recognized as scientific institutions, focused on public education and conservation. It is generally acknowledged that the origins of the zoological garden lie in the upheaval of the late eighteenth century when the Royal Menagerie of Versailles was requisitioned during the French Revolution and relocated to the Jardin des Plantes. The subsequent establishment of the London Zoological Society at Regent’s Park is recognized as the birth of the first zoological garden.

The framework of the paper traces the origins of the zoo via an analysis of the Royal Menagerie of Versailles, the Jardin des Plantes, and the London Zoological Society at Regent’s Park, positioning the architectural mechanisms of each against prevailing attitudes of the natural world. These mechanisms include context, site, landscaping, views, circulation, scale and built form.

**Context and Theoretical Overview**

The zoological garden emerged during the later stages of the Scientific Revolution and the Age of Enlightenment. Heralding a period of radical transformation, there was significant confusion as to what the definitions of nature and science were exactly, especially in relation to concepts of religion and evolution. “Placing” science within the context of the built environment gave it legitimacy and credibility. This, however, contradicts notions of science as placeless and detached from cultural forces. Scientific interpretation exists within a cultural context of place and place in time. The architecture of the zoological garden as a scientific institution therefore functions to show the public how to interpret knowledge of the natural world.
During the metamorphosis of the menagerie into the zoological garden, the status of science transformed from the worthy pursuit of wealthy gentlemen undertaken in their own homes, to a paid profession of significant repute. The sciences of taxonomy, chemistry, astronomy, geology, botany and zoology all emerged as fields of study in their own right and many scientific societies felt the need to legitimize their newly established fields by constructing specific sites in which to conduct them. As historian Sophie Forgan explains, these sites represented “claims to a territory, both physically and metaphorically, and in a concrete sense embodied that claim and clothed it with institutional respectability. Public recognition followed hard upon the demarcation of institutional territory.” Scientific societies gained authority by manifesting their endeavours as a physical presence, situated within the broader context of the cultural institution.

Carla Yanni, author of *Nature’s Museums: Victorian Science and the Architecture of Display*, highlights the importance of considering a broader historical context when analysing the architecture of science, explaining “natural history was part of a complex, social practice; it was not a single set of ideas.” The public played a crucial role in the social practice of forming natural knowledge, bringing expectations and assumptions defined by the dominant cultural practices of the time. This serves both to shape and confirm interpretations of scientific knowledge in a reciprocal exchange, locating science as interwoven within a bigger cultural context, challenging notions of it as an independent, universal, unbiased entity.

David Livingstone explores these notions in his recent publication, *Putting Science in Its Place*, suggesting that scientific practice has achieved a sense of objectivity by cultivating a “placelessness” which disregards the fact that science was always part of the larger culture of its context. Livingstone incorporates gardens in his analysis of the role place has played in the social construction of scientific knowledge. He details early debates that occurred within the scientific community over the appropriateness of the botanic garden as a potential site for zoological collections. Opinion was divided as to whether it was proper that the botanic garden remain animal free or that is was appropriate that animals be included as a re-creation of the idyllic Garden of Eden. Both arguments stemmed from differing scientific understandings of what the place of the botanic gardens embodied.

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Place and scientific knowledge were intrinsically linked. In this way, Livingstone is suggesting that both botanical and zoological gardens are sites capable of embodying historical spatial formations of scientific knowledge.4

Discussing the social construction of scientific knowledge is a complex undertaking. It requires a distinction between irrefutable scientific facts and their subsequent interpretation. Yanni summarises it succinctly, stating: “The sun really does rise in the east. Nonetheless, a scientific truth also has a social context—the meanings attached to the sun rising in the east are different in different cultures.”5 In many ways, this view is a specific form of constructivism, as explored by Jan Golinski in Making Natural Knowledge: Constructivism and the History of Science. It expands his suggestion that “scientific knowledge is a human creation, made with available material and cultural resources, rather than simply the revelation of a natural order that is pre-given and independent of human nature.”6 By referring specifically to scientific knowledge Golinski is distinguishing scientific truths from the manner in which they are interpreted. Zoological architecture functions as one of the resources Golinski refers to as being a mechanism in the formulation of knowledge.

The zoological garden emerged as scientific communities employed architecture to legitimate knowledge, seeking credibility through association with place. Architecture is a construction of place, effecting both the formation and interpretation of knowledge. As Livingstone tells us, “place is essential to the generation of knowledge. It is no less significant in its consumption.”7 In light of this, it is important not just to consider place, but to consider place in time in a historical analysis of the architecture of science. Context is relevant both in terms of the dominant cultural expectations of the era and in the spatial formations it produced.

**Versailles Menagerie**

The Royal Menagerie of Versailles established by Louis XIV was an opulent symbol of wealth and power. Exhibited within the vast spectacle of the Gardens of Versailles, the menagerie functioned as an embodiment of a wild, inexhaustible natural world that had been conquered by the King. The menagerie utilized architectural mechanisms of context, scale, controlled views, approach and landscaping to establish the animal collection as a site embodying the King’s supremacy over man, beast and nature.


7. Livingstone, Putting Science in Its Place, 11.
The menagerie was designed by architect Louis Le Vau as part of a larger project to reinvigorate the precinct around the existing hunting lodge in 1660. Situated in the southwest area of the Versailles grounds, the project was principally concerned with enlivening the gardens, which were not only regarded as essential for healthy recreation, but in many ways became a symbolic incarnation of the authority of the King. Le Vau installed staggered terraces, axial perspectives, grottoes, rockeries, statues and water features to animate the area. The menagerie was arranged in the Baroque fashion of a radial park around a central, octagonal pleasure house. This constituted a significant development in the exhibition of animal collections because it displayed all the animals in the one place, rather than distributing them around various royal estates, as had been the custom.8

The circular layout of the menagerie allowed each of the seven animal enclosures to have solid walls on three sides and ornately designed bars in the direction of the pleasure house. This allowed spectators to observe the entire menagerie from the upper level of the salon, as if each enclosure were a theatrical stage. The sense of opulence was highlighted by the fact that the menagerie collection consisted of a great array of rare and exotic animals and the salon was decorated with elaborate paintings detailing their capture. The architectural design primarily focused on glorifying the King’s power over exotic domains, not on addressing specific needs or habitats of the animals.

It was compulsory for guests visiting the menagerie to approach the site following a course set by the King himself, with specific pauses dictated to ensure the visitors admire particular views he deemed important. Each moment was designed to convey a potent message of regal might and authority, maximizing the sightlines of the symmetrical baroque design and the overwhelming scale of the gardens to full advantage.

Each architectural element of the menagerie was designed to exalt the glory of the King. The success of the layout influenced menagerie architecture across Europe because it powerfully embodied the King’s strength by presenting the natural world as a spectacle which had been conquered. Placing the collection within the context of the gardens where it could be surveyed within a single glance enhanced the sense that the King “so dominated all he surveyed that all of creation paid him homage, offering itself to him.”9


In light of this, it is not surprising the academic authors of the *Encyclopédie* declared “the menageries must be destroyed for it is shameful to feed beasts at great expense when men die of hunger all around” and the Versailles collection became a focal point of venomous public rage during the French Revolution. It mattered little that, by this stage, the descendants of Louis XIV had lost interest in the menagerie and it was now under the direction of the Académie des Sciences, who, poorly funded, could do little more than watch it fall into disrepair. As the siege of the palace reached its peak, many of the menagerie buildings were destroyed and a vast number of animals massacred, the mob attacking them as vivid symbols of grotesque royal excess.  

The architectural design of the Royal Menagerie employed mechanisms of context and scale via the placement of the menagerie within the vast expanse of the Gardens of Versailles. The decorative adornment of the architecture, coupled with exotic nature of the collection gave the semblance of the menagerie as one of the jewels in the King’s crown. However the placement of the site, far from the palace, suggested that it was also just one of many ornaments the King could afford to scatter across his realm. In summary, by controlling placement, approach, views and landscaping, the Versailles menagerie embodied royal supremacy and exhibited the natural world as belonging to the King. 

**Jardin des Plantes**

The Jardin des Plantes emerged from the restructuring and expansion of the Jardin du Roi in the aftermath of the French Revolution. The historical events surrounding the placement of the last animals of the Versailles menagerie into the care of the Jardin shaped the fundamental understanding that live animal collections belong in the territory of the scientific realm. The architectural mechanisms employed in the expansion of the Jardin des Plantes include circulation, landscaping, siting and built form. 

Accounts of the subsequent transfer of the remaining Versailles menagerie animals to the Jardin des Plantes widely differ. Legend has it that “the people” requisitioned them as their own but several zoo historians such as Eric Baratay and Elisabeth Hardouin-Fugier in their publication *Zoo: A History of Zoological Gardens in the West*, suggest that while a Jacobin mob did indeed converge on the menagerie late in the Revolution in 1792, their

purpose was to slaughter the remaining animals for food and replace them with more agriculturally useful beasts. The exchange between the group and menagerie steward, Laimant, has become folklore. When the intruders demanded he release the animals in order for them to be eaten, Laimant calmly stated he would rather hand over the keys and let them release the animals themselves because the first thing the liberated beasts would likely do is eat them instead. Seeing sense, the mob reassessed their plans and took only the less ferocious animals to the slaughterhouse and left the others to the steward.11

While they weren’t quite the saviours of the animal collection that the popular version suggests, the Jacobin mob converging on the last of the menagerie did provide the impetus for Laimant to write to Bernadin de Saint-Pierre, the Director of the Jardin du Roi (later renamed the Jardin des Plantes) to offer him the animals, suggesting they be stuffed and added to the existing natural history exhibitions for the good of public education.12

Established in 1635 by Louis XIII as a medicinal resource, the Jardin had originally been the Royal Medicinal Plant Garden. When the young Louis XV removed the medicinal function in 1718 it freed the establishment to expand as the Jardin du Roi, allowing it to focus on broader aspects of natural history, such as taxonomy and botany. The esteemed naturalist Georges Louis Leclerc (better known as Comte de Buffon) was the director from 1739 to 1788, and he oversaw the growth of the establishment into one of significant prestige and international renown. Open to the public, it was considered by the people to be something of a national treasure, which no doubt played a role in saving it from destruction during the revolution.

Saint-Pierre tweaked Laimant’s proposal when he presented it to the Convention Nationale, suggesting instead that the animals could serve as valuable live specimens to accompany the natural history research. This prompted much debate, with one side advocating the opportunity for the Jardin to become closer to Eden by including animals and the other insisting animals did not belong in the garden, declaring that they would bring dirt and disease and, more importantly, they would trample the garden beds.13 After several months of negotiations, the fate of the Versailles menagerie was sealed in June 1793, when the Jardin du Roi was renamed the Jardin des Plantes by the Decree of the Convention Nationale and endorsement was finally given for the incorporation of a menagerie. Both were to become subsidiary

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11. Historians disagree on the year this exchange occurred, with several citing the year as 1789. However, the most detailed account of the period, from French historians Baratay and Hardouin-Fugier, states it happened in 1792, thus providing impetus for the menagerie to be relocated to the Jardin des Plantes. See Baratay and Hardouin-Fugier, Zoo, 74.


parts of a larger institution, the French National Museum of Natural History. It was a defining moment in the history of the zoological garden. A collection of live animals was to add legitimacy to scientific research by being placed in the care of the natural history museum, housed within the botanic gardens of the Jardin des Plantes. In an exchange shaping and confirming understandings of the natural world, they were recognizing the collection as belonging to science, via its placement.

After a brief period in which the scientists found their offices overcrowded by cages of exotic beasts, the grounds of the Jardin were expanded to accommodate the menagerie in a distinct architectural departure from the symmetrical, baroque order of the King’s original gardens. The rococo design of the extension embraced fluid lines in a labyrinth of curved pathways and uneven terrain. In a break from the Versailles tradition, the more docile animals of the menagerie were distributed throughout the garden, in an eclectic collection of buildings including imperial cages, rustic cottages or ornate rotundas. The new territory presented the natural world as a diverse, abundant haven, a refuge from the industrialized city.

The public became enamoured with the motley collection of animals and prided themselves on the version of events in which ‘the people’ are credited as requisitioning the menagerie for their own. By presenting the natural world as a trophy collection the King had been declaring he had conquered it; perhaps by taking ownership of the menagerie the people of Paris were declaring they had conquered the King. The menagerie, along with the museum and garden became a symbol of the new free nation and the notion had been born that the zoological garden was a civic right, established for the good of the people.14

In summary, the relocation of the Versailles menagerie to the Jardin des Plantes was a significant catalyst in the creation of the zoological garden. The animal collection was recognized as belonging to science, via its placement which, in turn, gave credibility to the scientific pursuit of zoology. The establishment of the menagerie in the Jardin planted the idea that access to a collection of exotic animals was a civic right and a source of cultural pride. By dispersing the enclosures throughout an elaborate network of winding paths the menagerie was no longer a detached element surrounded by a landscaped garden but an entity integrated with the site.15


15. Baratay and Hardouin-Fugier, Zoo, 77.
London Zoological Gardens

The creation of the London Zoo in Regent’s Park helped establish the Zoological Society as a legitimate, scientific authority. By exhibiting the zoological collection as an embodiment of the Linnaean Classification system, they were able to produce a vision of order out of the perceived chaos of nature. The natural world became the realm of science and architectural devices employed in Regent’s Park accentuated the Zoological Society’s jurisdiction.

“The Gardens of the Zoological Society of London in Regent’s Park,” as they were originally known, were born out of a dissatisfaction that the British Empire was lacking a scientific institution that rivalled the Jardin des Plantes. Sir Stamford Raffles in particular felt the absence of a scientific establishment that matched his perception of Britain’s international prestige. Having just returned from the East, where he had been a colonial administrator and an avid devotee of natural history, Raffles wanted to exhibit the natural world in a manner that reinforced the superiority of the colonial empire, stating in the prospectus “It has long been a matter of deep regret to the cultivators of Natural History that we possess no great scientific establishments either for teaching or elucidating zoology; and no public menageries or collections of living animals where their nature, properties and habits may be studied.”

Raffles and other members of the educated nobility such as Sir Joseph Banks and Sir Humphrey Davy formed The Zoological Society of London in 1826 and quickly set about establishing a zoological premises.

Keen to distance themselves from their original status as the “Zoological Club of the Linnaean Society,” they gained significant credibility when they established the “Gardens of the Zoological Society of London in Regent’s Park.” Originally open to members only, and the first zoological garden of its kind, the scale of their “premises” established the Zoological Society as a commanding scientific authority.

The extent of the collection also reflected the sentiment of the prospectus which outlined that animals would “be brought from every part of the globe to be applied either to some useful purpose, or as objects of scientific research, not of vulgar admiration.”

Harriet Ritvo, in *The Animal Estate: The English and Other Creatures in the Victorian Age*, suggests that the Zoological Society believed they were fulfilling a patriotic obligation, exalting the glory of the empire by showcasing to the public (who were

eventually allowed access in 1846) the ability to source exotic animals from distant colonies. Ritvo believes the zoological collection functioned as a simultaneous emblem of human mastery over the natural world and of English dominion over remote territories and “offered an especially rhetorical means of re-enacting and extending the work of the empire.”

In a reciprocal exchange of shaping natural knowledge, the public recognized and confirmed the status of the London Zoological Society as an international authority.

The original architect, Decimus Burton, organized the layout of the site in a series of small buildings, cages and follies distributed along winding pathways in order to situate each grouping of animals within a particular classification system. Within each enclosure, the animals were exhibited in a series of cages reflecting their place in the Linnaean taxonomic order. According to Ritvo, this emphasised the fact that “the animals at the London Zoo were conceived as part of an interrelated, graduated zoological series.” By embracing the Linnaean Classification System the zoological society were placing themselves at the vanguard of scientific thought. At the time, Carl von Linne’s publication of Systema Naturae had polarized opinion by cataloguing all living creatures into a classification by order, genus and species based on their anatomy rather than their external appearance. As Thomas Veltre states in New Worlds New Animals, “embedded in the concept of the Linnaean system of classification is an important redefinition of the process of acquiring knowledge.” Von Linne had based his system on empirical knowledge, gained through research, analysis and study, which led him to the realization that outward appearance doesn’t always represent the entire picture, contrary to customary thinking. Thus, by exhibiting their collections in the order of the Linnaean system, the London Zoological Society confirmed their scientific superiority over other less salubrious, disorderly menageries.

The architectural design and decoration of the enclosures spoke of Victorian elegance and refined superiority and the well-defined pathways were framed by the exotic plantings reminiscent of botanic gardens. There was as much emphasis on promenading through the artificially landscaped vistas between each of the exhibition houses, as there was on the animal collection. Promenading was a particularly important Victorian pastime and walking through the picturesque landscape of the zoo was considered a healthy recreation. It was believed that the lower


classes visiting the zoo would aspire to imitate their social superiors in both manners and dress, and, thus, create a more healthy and respectable society.\textsuperscript{21} Not only would a visit to the zoo instruct them on the wonders of nature but it would offer moral guidance as well.

Somewhat paradoxically, the overall design of the garden reflected the ideals of the Romantic Movement, which had emerged in part as a reaction to the scientific rationalization of nature that occurred during the Enlightenment. Romanticism had also transpired from the desire to escape the noise and grime of the increasingly industrialised city. The architectural layout of the London Zoo highlights a particularly zoological contradiction; it exploits Romantic notions of “getting back to nature” at the same time as objectively exhibiting nature as a rational, systematic order that is able to be controlled by humans.

Established from the outset as an educational, scientific endeavour, the London Zoological Society at Regent’s Park promoted an understanding of the natural world as a research specimen whilst simultaneously romanticising the idea of man’s affinity with an untamed wild. Despite these idyllic overtones, the overwhelming message was that the natural world belonged to the realm of science and the civilized, educated imperial elite. Placing the animals in an exhibition of scientific order, as if a whole set could be collected, confirmed the zoological societies place as a scientific authority. The London Zoological Society at Regent’s Park was also a source a great civic pride and it established the expectation that all progressive, international cities have a state of the art zoo.

\textbf{Conclusion}

The scientific profession, early in its commencement, established a complex, ongoing relationship with architecture by attempting to gain credibility through built form and place. They used architecture and place to legitimate their profession and the knowledge they were producing.

The zoological garden, also early in its commencement, had a similarly interwoven relationship with place, in particular scientific place. Prior to the 1800s menageries functioned as a form of trophy hunting for the powerful and wealthy. The natural

\textsuperscript{21} David Hancocks, \textit{A Different Nature: The Paradoxical World of Zoos and Their Uncertain Future} (Berkeley: University of California Press, 2001), 47.
world was seen as limitless, wild, something to be resisted. During the French Revolution the Royal Menagerie was requisitioned and relocated to the Jardin des Plantes “for the good of the people” and the concept of the zoo as a civic right was born. During the 1800s the Linnaean Classification system came into effect and the Zoological Society of London established a premises in Regent’s Park in which the natural world belonged to the realm of science.

This particular succession of events established fundamental aspects of our current expectations of the modern zoological garden. Each instalment brought with it particular architectural features that resonated throughout the evolution of the zoo.

From Versailles came the basic assumption that all of the animals should be exhibited in the one place. It is inconceivable that a zoo would disperse its inhabitants across different parts of the city with no identifiable home base. Our understanding of the zoo dictates that it has a specific territory in which a core group of exotic animals are housed. Thus, the origins of the zoo shaped our understanding that the “zoo” is as much about its architectural context as it is about the animals. After the relocation of the Versailles menagerie to the garden labyrinth of the Jardin des Plantes, as well as the development of the picturesque scenery of the London Zoo, the expectation was set that the constructed territory of the zoo should differ significantly from that of its built surroundings.

In this way, the origins of the zoo also set the precedent for expansive, elaborate landscaping. The ideal result is a simulation of utopia, a pleasure garden where architectural forms sit in seamless harmony with abundant, exotic planting. The subconscious link to the botanic garden endures and in a healthy day out for the family, the public still promenade along serpentine paths, viewing a progression of exotic animals and receiving refined scientific ‘truths’ as they pass, just as they did in London. The linear direction of the pathways reference the scripted journeys of Versailles and the viewing platforms of current zoological gardens are reminiscent of the dictated views chosen by the King. Elaborate habitat enclosures are still designed with specific views and perspectives in mind and the underlying effect remains of the natural world being exhibited on a theatrical stage.

The origins of the zoological garden formed the framework in which the public were shown how to interpret the natural world as a potent symbol of power which can be mastered, whether by royalty, the people, the colonial empire, or indeed by scientific endeavour.