

Chapter 6:

Theme, Amusement, and Zoological Parks

Often overlooked in the development of the parks movement are theme, amusement, and zoological parks. Initially, most people would believe that the experiences provided by these venues are considerably different from traditional parks described in the previous chapter. However, they have much in common with the traditional park movement and there is considerable overlap. As Lukas (2008) points out in the next section, they may even adhere to the principles of play in delivering their experience better than traditional parks. Perhaps the major difference with traditional parks is that theme, amusement, and zoological parks create an artificial world. But, then the same could be said of traditional parks also.

Theme and Amusement Parks

Often overlooked in the development of the parks movement are theme and amusement parks. In contrast to traditional parks that emphasize a theme of nature, theme and amusement parks emphasize the merging of the synthetic and the natural to create a total experience. Lukas (2008) suggests that a common theme of all theme and amusement parks is that they are a place to escape from the normal world. This dovetails with Huizinga's (1955) components of play. Actually, theme parks have a lot in common with traditional parks. Where traditional parks focus on the relationship between man and nature to create an experience, theme parks do the same except there is a merger between the artificial and synthetic world and nature.

Lukas (2008, p.8) provides a working definition of the theme park. “[A theme park is] *an enclosed space that contains thrill rides, shows, restaurants and food, and other attractions that are tied to thematic landscapes that reflect our most popular fantasies – becomes a fully-fledged social and architectural form that continues to impact more and more people throughout the world, even if they do not realize it.*” (Lukas, 2008, p.8).

Theme parks are the embodiment of Huizinga's principles of play and in accordance with his principles, theme parks provide a separate reality and a world within another world where people play (Huizinga, 1955). In terms of his principles of play it is a world of play within another world. Lukas (2008) integrates Huizinga's concepts of play into theme parks. Not only does it make sense, but his concepts of play are equally applicable to other parks also.

Lukas (2008) introduces six conceptual threads that comprise theme parks – theme parks as an *oasis*, *land*, *machine*, *show*, *brand*, and *text*. These strands are infused into the topical areas presented in this section. As “an enclosed space” theme parks are an oasis. They are more than a place, they are an experience. There is the concept of “land.” The park suggests somewhere else. It could be another country, culture, or time. Integral to the experience is the “machine” which usually consists of the thrill rides and the “show” or the interactive entertainment that involves both the audience and the players. The “thematic landscapes” combine the synthetic or artificial world with the natural world to create an experience or “brand.” It is more than receiving a simple experience, it is how the experience impacts the lives of individuals. In Huizinga's terms, the play experience provides a deep and lasting experience that transcends long after the actual onsite experience. Lukas calls this thread “text.”

This section infuses Lukas' threads with some of the significant parks or events that display the threads or signify important milestones in the evolution of theme parks. It starts with Vauxhall and the pleasure gardens of the 18th century that created a sense of place and fantasy from its surrounding environment. Next, it discusses the World's Columbia Exposition of 1893 that brought together many of the elements found in the modern theme park. Rides are an important component in the mix of experiences and two of them are the carousel and the roller coaster. Theme parks are not passive, they are interactive and they impact their visitors. For example, the incubator at Coney Island demonstrated this principle and is discussed later in this chapter. Last, Coney Island and Disney World are discussed. Historically, they are significant in their own right and also, they exemplify the modern theme park.

Vauxhall. Although theme parks can be traced back to the caveman etching drawings on the cave wall, Lukas (2008) suggests that the *pleasure garden* of Vauxhall displayed some of the first traits of the modern theme park (Figure 6.1). Opened in 1661 in England, Vauxhall was quite simple until after 1728 when significant improvements were made to the park. Vauxhall reached its height of prosperity in the latter half of the eighteenth century where the pleasure garden included the Naumachia which according to Chadwick (1966, p.40) was a "beautiful landscape in perspective" with a miller's house and water-mill. He notes that the Naumachia had sea-

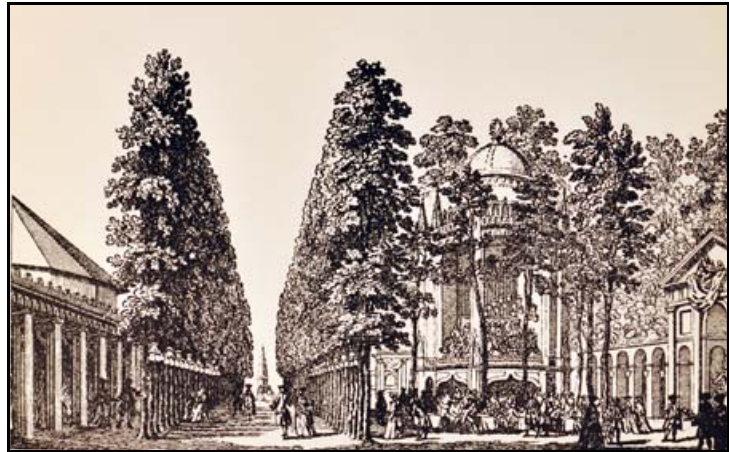


Figure 6.1 – Entrance to Vauxhall – Caption: The entrance to Vauxhall c. 1761 showing the orchestra and one of its major walks. London, England. – Source: Chadwick, (1966), p.45 [file:\fig0601-Vauxhill001.jpg]

engagements where warships maneuvered and cannons fired in a grand spectacle that included the Battle of Waterloo. Chadwick notes that another one of the big attractions of Vauxhall was the over 30,000 lamps in the gardens and more than 4,000 lamps in the orchestra alone. Vauxhall closed in 1859.

Vauxhall was the forerunner of Coney Island and similar attractions in this country. Although Lukas (2008) doesn't consider it a true theme park, Vauxhall did contain several important elements that became important in theme park evolution. First, consistent with Huizinga's principles of play and embodied in the term pleasure garden, Vauxhall was an "oasis" within its surrounding environment. It was a pleasure garden where people played and experienced a fun experience. Second, it successfully merged the artificiality of the synthetic world with that of nature. This theme would become a mainstay of future parks. Lukas (2008, p. 23) suggests that "The theme park, rather than being an unnatural abomination on the landscape, is a fusion of the utilitarian and the symbolic, the natural and the unnatural."

World's Columbia Exposition of 1893. The World's Columbia Exposition of 1893 was the prototypical world's fair. Although Lukas (2008) doesn't consider it a theme park either, the exposition is important because it contained many of the significant elements that would eventually become foundational elements of most theme parks.

First, it was a total space within a closed space and it created distinctive entertainment zones with clear boundaries and coherent themes within that space. In its space, it provided rides, education, entertainment, food and an overall vision. It is a self-contained and total experience. Discussed later, Disney World incorporates this approach toward organizing space. In terms of Huizinga's principles of

play, it is a playground.

Typifying Lukas' concept of "land," the distinctive entertainment zones at the exposition were represented by the Horticulture, Liberal Arts, Machinery, Manufacturer's and other buildings. In terms of Huizinga's elements of play, there are separate playgrounds within the playground. In a modern theme park like Disney World, these different entertainment zones or lands (e.g. Adventureland, Fantasyland, etc) radiating off of the circle between Main Street and Cinderella's Castle. Thematically, these zones can be historical as in Disney's ill-fated and unsuccessful Freedomland, or the more successful Dollywood based on the archetypical themes of family, memory, God, the soul, the heart, and the rustic (Lukas, 2008, p.93).



Figure 6.2 – Electrification of the Exposition – Caption: In contrast to gaslights, the electric light bulb and the electrification of the 1893 World's Columbia Exposition presented the new technology of electricity to the public and it provided a vision for the future that today is now commonplace. Chicago, Illinois. – Source: William Henry Goodyear Collection, Brooklyn Museum [file:\fig0602-ColumbiaExposition1893-008.jpg]

Second, the World's Columbia Exposition of 1893 offered a "vision of something." Lukas (2008) notes that the exposition was the symbolism of fantasy winning over more utilitarian functions. The world of fantasy revealed a vision of the world of the future using an entertainment format. In terms of Huizinga's concepts of play, it created a world within a world and that world created a "new reality." The new reality is fantasy. In 1893, electricity was a new technology.

It was fantasy and part of the world of the future. Although today the brilliantly illuminated park landscape is commonplace, the electrified exposition displayed in Figure 6.2 was a brilliant vision of the future and symbolized a better future. Often, modern theme parks create a world of fun or like Epcot Center, life in other parts of the world that are located in one place.

In creating the world of fantasy, the exposition integrated the amusement park ride. Lukas (2008) calls this the "machine" which is addressed again in the next section on carrousel and coasters. George Ferris' famous Ferris wheel provided an iconic symbol to visitors of the World's Columbia Exposition (Lukas, 2008, p.38) (Figure 6.3). The Ferris wheel was a new technology. It was iconic because it stood high over the exposition. It provided visitors with a spectacular view of the exposition and the surrounding landscape that would become emblazoned in their memories. It was symbolic of a bright future for the country. In 1894, a one-half size Ferris wheel was



Figure 6.3 – Ferris wheel – Caption: George Ferris' famous Ferris wheel provided an iconic symbol to visitors of the World's Columbia Exposition in 1893. Conceptually, it symbolizes the integration and importance of the amusement ride into the eventual theme park. Chicago, Illinois. – Source: William Henry Goodyear Collection, Brooklyn Museum [file:\fig0603-ColumbiaExposition1893-006.jpg]

rebuilt at Coney Island by George Tilyou (Figure 6.3). Although not a machine in the technical sense, Cinderella’s Castle is often considered a similar iconic figure at Disney World today (see Figure 4.4).

Fourth, there were residuals from the exposition. The Ferris wheel was a residual of the 1893 exposition as were many of its exhibition halls. In the 1960 aerial view of the park reveals that the Fine Arts building has been adapted into a science and technology museum and several of the lakes remain (see Figure 5.9 and see Figure 5.11). The Space Needle was a permanent left over from the Century 21 Exposition in Seattle in 1962 and hemisphere park with its Tower of the Americas were permanent reminders of the 1968 world’s fair in San Antonio (Figure 6.4).

Carrousels and Roller Coasters. An integral component in creating the experience in the modern theme park is the amusement park ride or the machine. In the 1893 World’s Columbia Exposition, the Ferris wheel was this iconic feature (Figure 6.3). Two of the iconic machines that embody amusement park rides are the carrousel and the roller coaster. Lukas (2008, p.110) notes that the roller coaster was “*the perfect testing ground for analyzing the essentials of the human condition – fear, desire, safety, ecstasy, and so on.*” It does this in a controlled and safe place where the participants can experience the vicarious experiences of life without the risks associated with the actual activity.

Lukas (2008, pp. 99-100) indicates that the carrousel gave the theme park its first machine. He suggests that it is an iconic symbol of the amusement park. It is an aesthetic device that creates a “sensory swirl” with its up and down and circular motion for its riders. Historically, he notes that the carrousel is derived from the 12th century game played by Arab horsemen where they tried to spear a clay ball filled with scented water. The game was called “carrosello” or literally “little war” in Italy and France. It is not hard to see how the game evolved into the modern carrousel with its horses and “catching the brass ring” where the brass ring became a metaphor for lancing the clay ball.

The roller coaster evolved from humble beginnings into becoming one of the mainstays in amusement and theme parks. So significant is the roller coaster is that it has become a metaphor for life itself. Lukas (2008, pp.107-

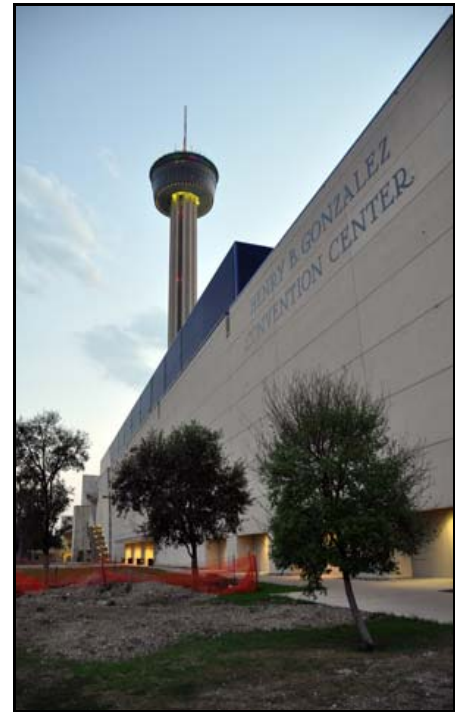


Figure 6.4 – Tower of the Americas – Caption: Like the Space Needle at the Seattle Worlds Fair in 1962, the Tower of the America completed in 1968 stands 750 feet over San Antonio, Texas and was one of the iconic features of the 1968 Worlds Fair. The conference center was built after the fair. – Source: author [file:\fig0637-SA283.JPG]



Figure 6.5 – Cyclone Roller Coaster – Caption: – The Cyclone at Coney Island became the iconic roller coaster. It represents the maturity in the evolution of wooden coaster and likewise, it is the starting point for the modern coasters, both wood and metal. Coney Island, New York. – Source: Wikimedia Commons [file:\fig0605-Cyclone001.jpg]

108) notes that the roller coaster has its origins as early as the 1600s with the “ice slides” in Russia. In 1804, he notes that the first coaster with wheeled carriages on tracks was constructed in Paris, France. The roller coaster came to this country in 1843 where the Mauch Chunk Railway near Jim Thorpe, Pennsylvania converted a rail car into a ride on an incline plane used to transport coal down the hill. In terms of the evolution of roller coasters, the Cyclone at Coney Island became the iconic roller coaster (Figure 6.5). It is as if all roller coasters, both wood and metal, after the Cyclone trace their origins to the Cyclone.



Figure 6.6 – Coney Island Incubator – Caption: – Dr. Martin Couney was the proprietor of "Incubator Baby Exhibits" at many of the large expositions and world's fairs during the early 1900's, culminating in a large pavilion at the New York World's Fair in 1939-1940. He is best known for his permanent sideshow at Luna Park in Coney Island, which operated from approximately 1903 to 1943. The Luna Park exhibit is pictured on the far right. The sign on the side of the building reads "Infant Incubators with Live Infants" The picture above was taken in 1906. Coney Island, New York. – Source: Neonatology on the Web [file:\fig0606-ConeyIslandIncubator001.jpg]

The carrousel and roller coaster serve different niches within the amusement park. With its music, bright lights, and circular motion, the carrousel provides an aesthetic experience of nostalgic proportions that are far removed from its origins of sparring the clay ball on horseback. In contrast, the roller coaster produces an adrenalin rush in a death defying experience.

The Incubator and the Show (Figure 6.6 and Figure 6.7). People have a desire to fully participate in their amusements. Lukas (2008) refers this to “show” which is an interactive entertainment that involves both the audience and the players. There is a difference between the passiveness of a movie and a show where the activity and participants are on the same stage together. It is a total experience in which the audience participates. It is an experience of immersion. In discussing the Disney experience, it is equivalent to having the actors and participants on the same stage together.

Dr. Martin Couney invented the incubator to save premature infants. At the time of his invention, his incubator was rejected by the medical community. In 1903 he took his invention to Luna Park in Coney Island where his sideshow became one of the most popular attractions at the park until 1943 (Figure 6.6 and Figure 6.7). By 1939, he treated more than 8,000 babies and saved more than 6,500 lives. Eventually, his invention was adopted by the mainstream medical community. It was an experience that immersed the audience with the exhibit and made a long term impact on the visitor’s lives. It was an experience that transcended the experience of the actual park and impacted their lives.

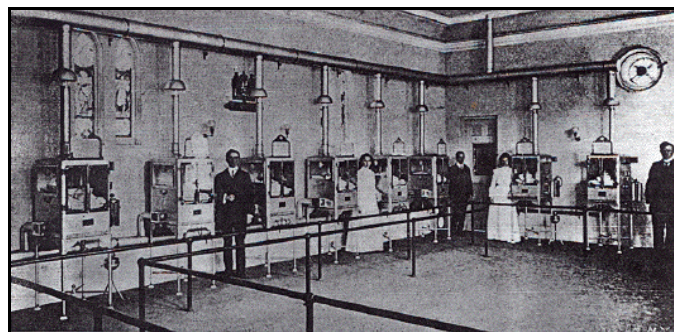


Figure 6.7 – Coney Island Incubator – Caption: – The interior of Dr. Martin Couney’s "Incubator Baby Exhibits" at Coney Island. Note the railing that allows people to get quite close to the real life working exhibit. This basic format of a live working exhibit became the standard working structure for exhibits including Epcot Center and Universal Studios, Orlando. Coney Island, New York. – Source: Silverman [file:\fig0607-couney_buffalo_silverman.gif]

Coney Island. Coney Island embodied many of the principles discussed in what constituted a theme park. It quickly adapted other technologies like the Ferris wheel or developed new innovations like the Incubator exhibit. The Cyclone, and Nathan’s hot dogs are still staples of amusement parks today. It was a world of play within another world. It had an identity and a brand, and it had an impact on people with exhibits like the incubator that had long term impact on the lives of its visitors.

Historically, Coney Island was a resort community on the southern portion of Long Island. Its close proximity to New York City and the five boroughs made it an ideal destination resort in the 1800s when transportation networks were less developed than in the latter half of the 20th century. The original Coney Island Hotel was built in 1829 with several additional hotels being built shortly thereafter. The park really consisted of several parks including the Steeplechase Park created by George Tilyou from 1897 to 1964, Luna Park from 1903 to 1944, and Dreamland from 1904 to 1911.

The success of Coney Island as a destination resort in the late 1800s and early 1900s lead to its eventual demise. Coney Island lost its appeal to a more mobile and affluent society with the development of the interstate highway system, increased disposable family income and other destination attractions coming on line in the 1950s and 1960s.

Disney World. In 1955, Disneyland was opened in 1955 in Anaheim, California. Disney and his imagineers created a world, the Magic Kingdom, within the outside world. In this respect, they learned several lessons from Disneyland when they built Disney World in 1966. In terms of Lukas’ (2008) principles, they created a world where they had total control or as much control over the experience as possible. They brought together designing the facilities, resources and activities that occurred within the park to create a brand and experience that had a lasting impact on its visitors. In creating the Magic Kingdom, the Disney people indicated that they subdivided the park into five subsystems to create their brand of fantasy: design and facilities, the experience, support services, programs and actors (Disney, 1986). The Magic Kingdom was discussed in Chapter 1 from a barrier breaking perspective. The five themes or subsystems are developed further from the perspective of creating the experience.

The first element in creating their new world of the Magic Kingdom was *design and facilities* (see Figure 1.15). It included facilities, environment, visual zones, and grounds and plants. They purchased 43 square miles of land or twice the size of Manhattan to insure that they had sufficient land. They controlled the visual zones so that visitors couldn’t see anything in the outside world. The airspace was the exception (see Figure 1.16). Second, they sought to reduce environmental impacts. They built 47 miles of canals, 22 miles of levees, and 24 water-control structures at \$100,000 apiece (Figure 6.8). They created Reedy Creek Utilities and their own building codes to cover new building materials and processes. In an effort to maintain their grounds and plantings, they created their own nursery where they grow their own plants and topiaries.



Figure 6.8 – Canals and Dams – Caption: Flood control is an important consideration. It is also an environmental concern. The objective is to drain flood waters, but maintain a high water table during normal periods. The water-control structures helps to accomplish this objective. Magic Kingdom, Disney World, Orlando, Florida. – Source: Author [file:\fig0608-DSC_0057.JPG]

Second, they sought to manage the *experience* including pre-, actual, and post experience. They located the park close to the Interstate (I-4) and other major road systems (Rt 192) to help provide a pleasant pre-experience for people driving to the park. Also, they even attempted to leave little in the post-experience to chance. They identified strategic locations for photo stops to facilitate good pictures and good memories for visitors (Figure 6.9).

Third they focused on *support services* including sanitation, food service, and lodging. The Disney people indicated that they make their own salad dressing as a quality control measure (Disney personnel, 1986). Regardless, they have their own food distribution system to support the food needs of all the visitors and personnel at Disney World (Figure 6.10). Since the park handles up to 65 tons of trash a day, they utilized a central vacuum system and trash compactor to help handle their trash. Maintenance and spare parts are one of those support services. This includes spare rides, boats, etc (Figure 6.11).

Fourth, in creating the Magic Kingdom, they focused on the *programs* in the park including rides, exhibits, and casual activities. The exhibits utilized state of the art audio-animatronics and holographic projection. Typical of most theme parks, the rides correspond with the theme of the “land” in which it is located. A theme of Disney World is where the actors and participants participate with each other on the same stage (Magic Kingdom) (Figure 6.12).

According to Disney personnel, the last factor in facilitating the Magic Kingdom experience was the *actors* including cartoons, support people, tour guides, sanitation people and vendors. The actors like Mickey Mouse are never seen out of costume. Even tour guides, sanitation people and vendors are considered actors in costume and part of the experience (see Figure 1.17). The rides can be great. The experience memorable. The facilities clean and well designed. If a visitor asks a disgruntled employee a question, all else can go for naught. The visitor has a bad experience. The Center focuses on training personnel how to work with people including how not to let a bad day affect the visitor’s experience (see Figure 1.23).

Embedded in its design, Disney focused on all of the elements discussed by Lukas to create a brand or experience of fantasy that would maximize its impact on visitors not only during their visit, but after they leave the Magic Kingdom. Disney brought together the lessons learned from Vauxhall, the World’s Columbia Exposition of 1893, Coney Island and Disneyland to create the Magic Kingdom. Variations of this formula are used in other theme parks both large and small.



Figure 6.9 – Photo Stop – Caption: The sign post in the foreground is a photo stop that is strategically placed to help provide visitors with excellent photos that will enhance their post-experience upon returning home. Magic Kingdom, Disney World, Orlando, Florida. – Source: Author [file:\fig0610-F711-Steamship.JPG]



Figure 6.10 – Food Distribution Center – Caption: A support service of Disney World, the park has its own food distribution service. Magic Kingdom, Disney World, Orlando, Florida. – Source: Author [file:\fig0610-DSC_0071.JPG]



Figure 6.11 – Backup boats – Caption: Lying outside of the Magic Kingdom are parking lots full supplies and equipment. Pictured in this photo are a spare submarine for 20 Thousand Leagues Under the Sea (discontinued ride), a paddlewheel boat to transport people to the Magic Kingdom and a paddlewheel for the ride within the park. Disney World, Orlando, Florida. – Source: Author [file:\fig0611-DSC_0074.JPG]



Figure 6.12 – Casual Activities – Caption: The actors are in costume and interact with visitors during this parade down Main Street. Magic Kingdom, Disney World, Orlando, Florida. – Source: Author [file:\fig0612-DSC_0089.JPG]

Zoological Parks and Aquariums

On August 14, 1965, the National Recreation and Parks Association (NRPA) was formed from the merging of five different organizations. It was an outgrowth of the Outdoor Recreation Resource Review Commission Report (ORRRC) published in 1964. The merger was in part funded from a grant from the Rockefeller Foundation. An affiliate of AIPE, the American Association of Zoological Parks and Aquariums (AAZPA) was one of the five merging organizations. For the AAZPA, the merger was short lived. In 1971, the organization voted to once again become an independent organization.

Historically, the merger suggests a commonality in mission and purpose between the associations. Even a cursory examination of zoos and aquariums reveals that they have a lot in common with the parks and recreation movement. Conceptually, zoos and aquariums are discussed in this section because of this commonality. The typical zoo is structured like a typical park. It has promenades lined with trees, cotton candy, and controlled vistas. Even playground elements have been added as part of the park setting (Figure 6.13). Zoo and aquariums create a designed park experience for its visitors. Their only difference with traditional parks is that their experience is animal focused.



Figure 6.13: Play Elements at the Zoo – Play and playground elements have been included like this play area for children. The water area is in the background where most of the people are. Denver Zoo, Denver, Colorado. Source: Author – [file:\DZOO-246.JPG]

Background.

Man has always had a fascination with nature and the animal world. Zoos and later aquariums reflect this fascination. Until recently zoos were places of spectacle and entertainment. Initially, zoos were the private collection of kings and rulers. Later zoos became the private collection of the wealthy. With the “democratization of leisure” and the rise of the middle class, zoos have more recently become the purview of the general population. For a long time, it has been the zoo’s clientele that has changed rather than the design of the facility (Hoage and Deiss, 1996).

The conceptual approach of zoos has changed somewhat since their inception. They have always been a menagerie of sorts. The term “menagerie” has generally been associated with the old French term meaning “farmyard.” Actually, Hoage and Deiss (1966, p.19) note that the term menagerie is derived from the root word *me`nage*, which means to manage or have management. In French, the addition of the suffix of “*rie*” indicates the place. Hence, menagerie means the place where the animals are managed. In tracing its definition back to its root meaning, they suggest that the concept of control and dominance over the animals as well as their containment is an implicit concept in their operation. Also, they suggest that novelty is associated with the concept of zoos. Often novelty is obtained simply by displaying exotic animals from distant lands. Or novelty is obtained because of how the animals are displayed.

The Illusion of Freedom.

A second theme in designing zoos and aquariums has been the illusion of liberty or freedom of the animals. Baratay et al (2004, p.237) suggests that the concept of having cages without bars has existed for over a hundred and fifty years. However, more recently the cage without bars has become more refined. In the late 1800s designers used pits and moats to separate the animals from the spectators (Figure 6.14 and Figure 6.15). Today they use some of the same techniques along with the addition of glass walls (Figure 6.16). In addition, there is an effort toward smoother transitions that diffuse the partition between the inside and outside of the cage. Even with the more recent approach of naturalizing the cages and introducing multiple species in close proximity to each other, the cage is still a cage. The animals are still contained and they are not roaming free.

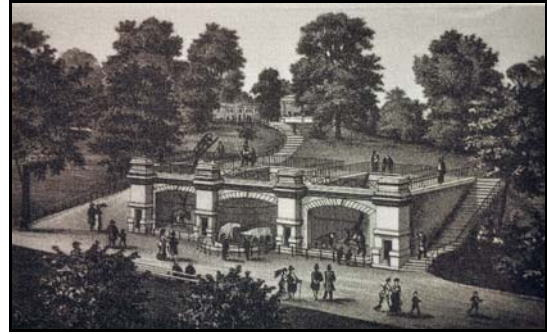


Figure 6.14: Bear Pits – Modeled after European exhibits, the bear pit at the Cincinnati Zoological Gardens (circa 1871). Note that visitors can view the animals from overhead protected by a railing, Cincinnati Zoo, Cincinnati, Ohio. Cincinnati Zoo archives – [Hoaga and Deiss (1996), p.118... original is from Cincinnati Zoo] – [file:DSC_0929.jpg]



Figure 6.15: Sumatran Orangutan – The cage for the Sumatran Orangutan is a typical pit where the high wall serves as the barrier to escape. However, note the more natural looking vegetation outside of the wall which helps to diffuse the transition from the inside to the outside of the cage. Philadelphia Zoo, Philadelphia, Pennsylvania. author – [file:PHZ0873[gd].JPG]



Figure 6.16: Glass Viewing Cages – A large glass viewing cage to view the lions. As they usually do during the day, the lions are sleeping within twenty to thirty feet from the viewing cage. Philadelphia Zoo, Philadelphia, Pennsylvania. author – [file:PHZ0878_2.JPG]

Naturalistic Setting.

Next, there has been a movement in zoos toward introducing more naturalistic settings. In part, this has resulted from the interest in ecology as well as the environmental movement. The menagerie is designed in the image of the cultural thought of the time. Today, it is a reflection of a culture which is more naturalistic oriented. Also, this characteristic complements the next section which focuses on preserving endangered species.

<c>**Displaying Multiple Species Together.**

Creating a naturalistic setting is accomplished in several ways. One technique is to display multiple species in the same space. The species need to be non-competing species in the food chain or separated by real or natural barriers. The monkey exhibit at the National Zoological Park is an early example of a multi-species exhibit. It includes Barbary macaque monkeys, Oriental short-clawed otters and several types of fish. The Smithsonian caption for the photo provided in Figure 6.17 reinforces this principle. “Multi-species enclosures give the animals a more natural setting and allow the zoo visitor to see how different animals co-exist in the same habitat” (Smithsonian Institution, 2013).

<c>**Transitioning from Interior to Exterior.**

A second approach is to naturalize both the interior and exterior of the cage. The naturalization of the exterior of the pit cage in the Sumatran Orangutan exhibit at the Philadelphia Zoo is an example of diffusing the transition between the interior and exterior of the cage (see Figure 6.15). Also, the view from the bridge outside of the lion’s cage illustrates the importance of creating a smooth transition from the inside of the cage to the exterior as part of the naturalization process (Figure 6.18). Helping to facilitate this seamless transition is the use of a black wire fence. The fence is hardly noticeable. Being black helps make it less visible. Conceptually, the focus on transitioning from the interior to the exterior is similar to Frank L. Wright’s glazing the windows directly into the rock



Figure 6.17 – Monkey Exhibit– “This 1986 photograph of Monkey Island illustrates the current trend of zoo animal exhibitry. Monkey Island is home to several species of animals including Barbary macaque monkeys, Oriental short-clawed otters and several types of fish. Multi-species enclosures give the animals a more natural setting and allow the zoo visitor to see how different animals co-exist in the same habitat” Quote is from Smithsonian Institution (2013). National Zoological Park, Washington, DC. – Source: Smithsonian Institution (2013). Historical Pictures of the Smithsonian: National Zoological Park. – <http://siarchives.si.edu/history/exhibits/pictures/national-zoological-park> [file:fig0618-NationalZoologicalPark04.jpg]

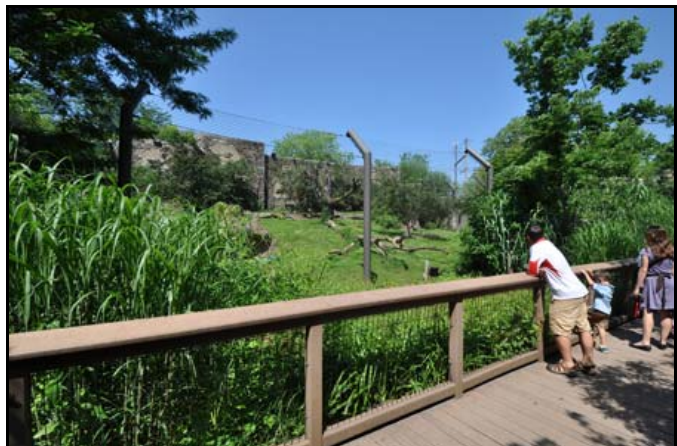


Figure 6.18 – Lion’s cage – Transitioning the vegetation from the inside to the outside of this cage helps to naturalize the cage. In addition, the black mesh fence is almost invisible and along with the vegetation, creates a seamless transition between the inside and outside of the cage. Philadelphia Zoo, Philadelphia, Pennsylvania. – author [file:fig0619-PHZ0891[gd].JPG]

wall rather than the normal sill (see Figure 16.35 in Chapter 16).

One additional footnote on the lion's cage in Figure 6.18. In the rear of the cage is a large stone wall. Most likely, this wall is part of the original cage. In addition, it is part of an exhibit building for this exhibit. The naturalization process helps to hide the starkness of the rock wall. Compare the rock wall with those in some of the historical pens. Also, the rock wall barrier and building create both a visual and sound barrier to an active mainline railroad located outside the park directly behind the building. The sound of the railroad is barely audible for visitors in the exhibit.

<c>**The Journey Is Important.** The visitor's journey is important also. Although it may be a Shinto principle, the journey provided by the trail or pathway is important in creating the experience. It stimulates curiosity and creates anticipation (see also mystery in Chapter 7 and sequencing in Chapter 8). A good show or exhibit doesn't reveal everything immediately. To do so and the visitor will tend to become bored quickly and move on. In the big cat exhibit at the Philadelphia Zoo, the trail twists and turns. There is the extensive use of visual barriers (see also Chapter 11). Figure 6.19 illustrates this principle in the Big Cat Exhibit at the Philadelphia Zoo. The water from the waterfall flows into the leopard's cage. Rather than simply feeding the recirculating pipe into the cage, the designers created a waterfall. The waterfall is a form of novelty that creates a point of interest. Attracted by the waterfall, people stop here and enjoy the moment. They take pictures of each other by the waterfall and then move on. Also, note the glass wall into the leopard's cage on the left in the photo in Figure 6.19. It creates a seamless transition from the trail into the cage.

<c>**Naturally Behaving Animals.** An important consideration is to view animals behaving naturally. Sometimes simple modifications to an exhibit can facilitate naturalization as well as creating interest and novelty for the visitors. In a discussion with Jack Gray, the former manager of the Syracuse Zoo, he noted how he fed the otters (Gray, 2013). Traditionally, otters are fed dead fish. It is an easy and practical approach toward feeding. Although the otters may not become fat, they become lazy. Jack would catch minnows and release them in the large pool in the otter's cage. The otters would swim, search out, and find every last minnow to the delight of the visitors. The visitors were able to watch the otters swim through the underwater window as they located and devoured every last minnow. In addition, it was therapeutic for the otters living in an unnatural environment.



Figure 6.19 – Leopard's habitat – Caption: The serendipitous and winding trail creates novelty, interest and curiosity with what is around the corner. The waterfall creates novelty and interest also. People will stand by the waterfall and take each other's picture before moving on. Philadelphia Zoo, Philadelphia, Pennsylvania. – author [file:\fig0620-PHZ0887[gd].JPG]

Species Preservation. Another focus of zoos which has gained additional impetus with the ecology and environmental movements is wildlife conservation and the preservation of disappearing wild species. Baratay, and Hardouin-Fugier, (2004, p.272) suggest that a major driving force behind turning American zoo leaders into "ardent conservationists" was the end of colonialism in Africa in the early 1960s. This led to a reduction in the importation of animals from Africa. Regardless, the thread of species preservation has been present in the zoo movement long before the 1960s.

In this country, the creation of the National Zoological Park in Washington, DC resulted from the potential extinction of the American bison. Ewing, (1996) notes that William Temple Hornaday upon return from an expedition to the West argued for “a suitable place in which to preserve representatives of [the] great game animals” before all the American bison were exterminated. After several published articles on the issue, a campaign to create a zoological park, and a heated debate in Congress, Congress passed legislation creating a national zoological park in Rock Creek valley in 1889. Today, it is known as the National Zoo (Figure 6.20).

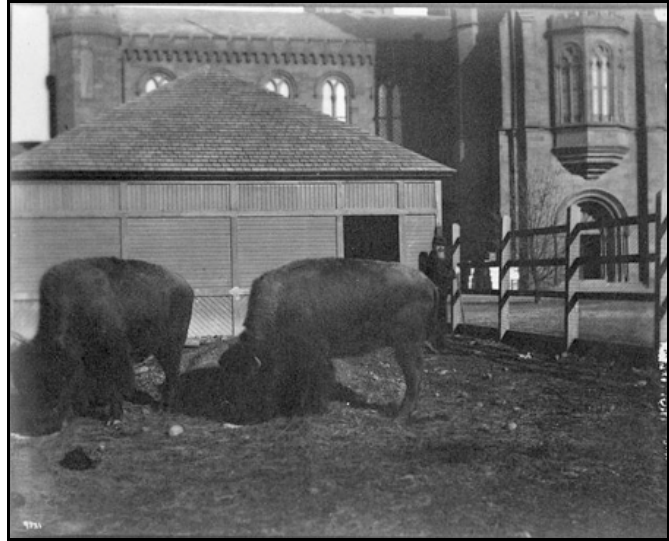


Figure 6.20 – American Bison at National Zoo – Caption: “Two buffalo near a shed in the South Yard behind the Smithsonian Institution Building. They were acquired in 1886 by the Department of Living Animals, which eventually became the National Zoological Park.” – Smithsonian Institution (2013). Historical Pictures of the Smithsonian: National Zoological Park. [file:file0621-NationalZoologicalPark05.jpg]

Baratay and Hardouin-Fugier (2004, p.274) note that species preservation in zoos can be problematic. Although species preservation is emotionally appealing to the public, there are many problems associated with species held in captivity. They note that the mortality rate is lower in zoos. For example dolphins live on average 14 years in captivity versus 30 years in the wild. There is an emphasis on domestication of species since those species which are less aggressive tend to be favored and survive better in captivity. However, they note that domestication is not a good trait for survival in the wilds. Consider the otter in the previous section that had to swim for its food versus similar otters that grow fat from being hand fed by trainers. Feeding can result in both physiological and psychological changes. Changes in birds unable to fly in captivity become an issue over successive generations. Also, migratory birds that don’t migrate are subject to behavior changes that disrupt future migrations when these birds are released into the wild. Also, studies have documented that animals held in captivity tend to have mental pathologies from their confinement. Regardless of these issues, species preservation is an appealing benefit of zoos among the public.

Aquariums

. The modern aquarium didn’t really come into existence until the 1880 with the manufacturing of glass suitable to make the modern aquarium. Before that time, viewing fish was aerial and the emphasis was on breeding colorful fish such as koi, goldfish, and other colorful fish. Once aquariums were located close to the ocean. Today they have moved inland. Also, the demarcation between zoos and aquariums has become less clear. The National Aquarium in Baltimore illustrates this overlap. The


Figure 6.21 – Upland Tropic Rain Forest – Most viewing areas for aviaries are at ground level. For this upland tropic rain forest, the viewing area is in the trees where there is a commanding view of the birds. National Aquarium, Baltimore, Maryland. – Source: author [file:file0622-Aquarium052[gd].jpg]

aquarium includes the staples of the amphitheater, the Atlantic coral reef and the open ocean viewing areas. Suggesting overlap with zoos, the aquarium has major attractions focusing on the water, plants and animals in Australia and the upland tropical rain forest (Figure 6.21). Similarly, other aquariums such as the Loveland Living Planet Aquarium in Salt Lake City, Utah includes many of the similar features. Also, being located inland does not inhibit the species included in its exhibits.

Essentially, there are two approaches to viewing the water exhibits. These are the overhead or aerial view and the side view. Usually, the side view includes an underwater window which provides a view typical of most home aquariums but on a larger scale (see Figure 6.22). The underwater tunnel is a significant variation of the side view in that it provides a 270 degree view (see Figure 6.23).

From a design perspective, the Atlantic coral reef at the National Aquarium in Baltimore attempts to give the illusion of being immersed in the ocean. The fish tanks are oval and give the impression of encircling visitors. In addition, the fish tanks are stacked giving the impression that the water is over one hundred feet deep. Actually, close inspection reveals that each of the stacked circular tanks is only ten to fifteen feet deep at most (i.e. side view tanks). The effect created by the stacked tanks works. In addition, there are a series of spiral walkways in the tradition of the planetarium proposed for Sugarloaf Mountain (see Figure 13.4) and later used in the Guggenheim Museum. As visitors slowly descend their way down the spiraling walkway, they seemingly descend deeper into the ocean (Figure 6.22).



Figure 6.22 – Atlantic Coral Reef – The Atlantic Coral Reef gives the illusion of being immersed in an Atlantic coral reef. National Aquarium, Baltimore, Maryland. – author [file:file0623-Aquarium028.jpg]

In contrast, the Loveland Living Planet Aquarium in Salt Lake City, Utah provides the illusion of being on the ocean floor with a 40 foot underwater tunnel. For visitors it provides a true immersion experience without getting wet. In contrast to the traditional viewing tanks which provide underwater viewing from the hallway or viewing area, the tunnel is a 270 degree visual experience high on novelty as visitors pass through it. Definitely, it has the “wow” factor. Some visitors sat on the sides and others passed directly through the tunnel with most visitors spending less than five minutes in the tunnel area. In addition, around the corner from the exit of tunnel is a traditional underwater viewing area. It is a small gallery area where the side view provides people the ability to watch the underwater antics of the sharks and other fish.



Figure 6.23 – Underwater Tunnel – The 40 foot long underwater tunnel provides a true immersion experience in the ocean without getting wet. It has the “wow” factor. Loveland Living Planet Aquarium, Salt Lake City, Utah. author – [file:\LLPA009_Tunnel[gd].jpg]

From a visitor flow perspective, the Baltimore Aquarium arrangement is fairly efficient. People tend to move continuously through the experience and the approach can handle very large number of visitors. The traditional underwater viewing areas and tunnel at Loveland tends to be a little more static where visitors are encouraged to stop and view a specific scene. This can disrupt the traffic flow, particular with large crowds. Although both work, the spiraling downward approach tends to move people more efficiently through the experience. The tunnel definitely has the “wow” factor.

Summary

Often theme, amusement, and zoological parks have been excluded from the traditional mainstream of the recreation and parks movement. However, closer inspection indicates that they have a lot in connection with traditional park design concepts discussed in the previous chapter. Conceptually, the similarities in providing the experience are more similar than their dissimilarities. As Lukas (2008) demonstrated, theme and amusement parks incorporate Huizinga’s (1955) principles of play in the delivery of their experience. Perhaps the major difference with traditional parks is that theme, amusement, and zoological parks create an artificial world. But, then the same could be said of traditional parks also.

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