THE ROLE OF HORTICULTURE IN THEME PARKS

By

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EPIGRAPH

We have always tried to be guided by the basic idea that, in the discovery of knowledge, there is great entertainment-- as, conversely, in all good entertainment there is always some grain of wisdom, humanity, or enlightenment to be gained.

Walter Elias Disney
ACKNOWLEDGMENTS

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ABSTRACT

Horticulture in theme parks has taken many roles since the earliest days of the amusement industry. These roles have included pleasure gardens in which other attractions were set, exhibits at world’s fairs and incidental attractions used to fill in spaces between attractions. In the modern-day theme park, horticulture has taken on new roles. The horticulture is designed to entertain through themeing and public horticulture programs are designed to entertain through education.

Theme park horticulturists are now beginning to understand the importance of the horticulture and the design of the gardens in creating moods complementary to the themed attraction it surrounds. Numerous theme parks have created gardens that have become attractions worthy of their own merit. Theme parks have also been exploring the opportunities available in educational programming in recent years; however, widespread program development to promote the horticulture as its own attraction has advanced very slowly.

This thesis addresses the evolution of horticulture in theme parks, identifies current horticultural practices of case study theme parks. The role of public horticulture in theme parks will be presented along with recommendations to demonstrate to theme parks how they may promote their own programs.
Chapter I

INTRODUCTION

Although often overlooked, or underestimated, landscaping in theme parks plays a critical role in the perception of the visitor. Numerous recent articles on theme park landscaping and many theme park horticulturists reinforce this sentiment. Historically, the landscape received minimal attention or support as a major drawing point. It was viewed as a way to fill spaces between exhibits, buildings and attractions (McCartney 1993). Consequently, it has been neglected in the written histories on the amusement industry. However, a well-planned landscape can heighten the visitor experience and can mean the difference between patrons visiting just once and guests coming back again and again (Roberts 1994). Landscaping, as part of the park appearance, have likely had this effect on patrons since the early days of the European pleasure gardens.

The amusement industry has evolved from its earliest medieval forms as religious fairs where folk would gather on holidays to a more commercial affair where vendors would display their wares and finally onto what is known as the modern-day theme park. Along with this evolution of the fair into the theme park, landscaping has evolved from an incidental attraction to a necessary element that visitors have come to expect and desire. Landscaping enhances the sensual experience of theme park activities by
subliminally relaxing visitors and creating a magical aura that characterizes a park as a truly wonderful place to be (Follin 1990). The landscaping in a theme park also plays important functional roles. A strategically placed landscape is an effective way to control crowds and can unify a park that has multiple themes by using sequences of color, texture, size and shape throughout the park.

The words 'public horticulture' are often associated with non-profit organizations which frequently have education as part of their mission. In the corporate environment, [theme parks] and their gardens can also be viewed as an important segment and contribute to public horticulture (Parker 1992). "Education is hailed by theme parks as a central mission" (King 1989). Here lies the perfect setting for the role of public horticulture. Theme parks offer an ideal setting for education by using the attractions to capture the attention of the guest. Many rides and attractions have themes based on things such as historic events or science fiction. The reactions or comments the visitors say about the attractions show that they have been effected by the experience and possibly have learned something along the way. Theme parks are able to make learning fun; as a type of tacit communication, rather than a classroom-style lesson. The Disney concept of themed entertainment, which set the terms for the prototype of the modern-day theme park, broke ground on this concept of educating as well as delighting and entertaining.

As theme park planners search for new ways to attract visitors, more and more are turning to ideas that will provide something substantial the guests can take away with them, not the typical theme park souvenir, but something more lasting. The goal is for
the guest to learn a little about American history or about space exploration or in this case, about horticulture and gardening techniques.

**Research Intent**

The purposes of this thesis are to document the past and present roles of horticulture in theme parks and to present a useable document for theme parks in their long-range planning. The information provided will help the managers of theme parks and other public horticulture institutions understand the importance of a beautifully landscaped park, as well as the educational opportunities the landscape presents to their visitors.

This thesis identifies the practice of horticulture in theme parks through a questionnaire and case study research. Because theme park horticulture has traditionally been considered a background attraction, criterion have not been established to compare one park's horticultural practices to another. The questionnaire, sent to thirty-four theme parks in the United States, establishes a basis for the case study research. The case studies are intended to demonstrate general horticultural practices and the ideas that management and the landscape departments have developed to promote public horticulture in theme parks.

Specific information on the evolution of theme parks and the role horticulture has played throughout this evolution can be found in Chapter II. Addressed in Chapter III are the individual case study histories, their mission statements, descriptions of their gardens and short term and long terms goals of the landscape departments. Chapter IV is devoted
to issues in theme park horticulture such as horticulture budgeting in capital projects, educational programming such as guided tours and interpretation, planning and development, beautification of the grounds in promotional materials, and visitor reaction to the garden spaces. Chapter V addresses the role of public horticulture in theme parks.

Research Methods

The information presented in this thesis is the result of the collection of data from many venues including literature research, which provided valuable background on the history of the amusement industry. The currently operating theme parks in the United States, and their horticulture staffs were also instrumental in providing information for this thesis. The Director of the National Amusement Park Historic Association provided the association's list of the thirty-four theme park members in the United States, which in turn became the recipients of the questionnaire. The majority of the specific information about the case study theme parks was obtained through personal interviews with directors of horticulture, theme park historians, public relations managers, and staff horticulturists. See the appendix for the text of the general survey questionnaire and the interview questions.

For the purposes of selecting the case study theme parks, criteria needed to be established. The first criterion included:

- The park must be a permanent installation, not a traveling or temporary fair.
- The park must consist of at least 100 acres.
- There must be a theme to the rides and other attractions, not focused on live animals such as zoos and nature centers.
The second criterion was established after analysis of the responses to the theme park questionnaire. Numerical values were assigned to the range of potential responses. The highest potential score was 26, which indicated the highest level of horticultural practices at theme parks, while a score of zero indicated horticulture practices at all. With nearly a 74% response rate to the questionnaire, scores ranged from a low of 12 to a high score of 24. The average scores were calculated, to be 18 out of 26 points. All the case study sites were selected because they had scores above the median, with the exception of one theme park which scored 18 (See Table 1.1 below). The pool of potential case study sites was further condensed based on the cost of travel for the author to visit the parks. For this reason, the park with a score of 18 was selected over other parks with higher scores.

**TABLE 1.1 Basis for Selection: Accumulated Numerical Score from Questionnaire Responses**

<table>
<thead>
<tr>
<th>Case Studies</th>
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Overall Theme Park Average Score: 18.36
High Score: 24    Low Score: 12
Chapter II

EVOLUTION OF THEME PARKS

Early European Fairs

Throughout recorded history, fairs have spread culture, stimulated progress, fostered trade and provided education and entertainment to all peoples (McCollough 1976). The roots of the theme park industry can be traced to Middle Ages in Europe, beginning as religious events or feast days. In twelfth century Europe, the fairs became decidedly commercial (Adams 1990). Traders gathered to display and sell their goods at town fairs. They would travel from all over Europe to attend the fairs which typically lasted for 10-21 days. For centuries, the fairs were maintained for the commercial purposes of the vendors, but people came to see strolling entertainers and sideshows, taste new foods, and to enjoy the free-spirited atmosphere. There is no evidence that horticulture played a role during these early fairs.

During the Elizabethan period (1600s), the fair began to evolve from a trade event to a center for amusement attended by pleasure seekers. By the reign of Charles II, the fair.....“had become a raucous carnival that survived for the next two centuries” (Adams 1990). In the eighteenth century, most of these amusement centers had booths which charged a penny for admission with the hope of discouraging troublemakers. Thus began
the era of commercial recreation. Midway through the nineteenth century, 700 years after
the beginnings of the amusement industry, the European fairs had become overrun by
unruly mobs. As an alternative to the raucous fairs, a different type of recreation and
amusement center appeared.

**Pleasure Gardens**

Pleasure gardens began to open on the outskirts of major European cities in the
late seventeenth and early eighteenth centuries. These gardens developed from the
original fairs, but their purposes were purely for pleasure and not for commercial
vending. They started as spas or additions to taverns and inns within the urban landscape.
The gardens were open year round to the public; thus for the first time providing
entertainment and recreation everyday of the year instead of the 10-21 day fairs.

The height of the pleasure gardens’ popularity coincided with the Industrial
Revolution in England. There was no doubt a desire to preserve idyllic, natural settings
amid the smoke, soot, and gray dinginess of the factory environment (Adams 1990).
Features often found at the site of the 65 known gardens were intricate landscaping,
elaborate and fanciful structures, concerts, dancing, games, theatrical performances,
balloon rides and extensive illumination.

**Vauxhall Gardens - London**

Vauxhall Gardens was probably the most significant horticultural garden resort of
all the pleasure gardens in Europe. Located in the city of London, Vauxhall was
established in 1661, and covered 12 acres. At its inception, admission to the gardens was
In 1859, Hangchow, China, a festival of flowers was held on the second moon of the new year. It took place in the late 1800s, Vauxhall was in its heyday. The most popular attractions and activities were the theatrical and musical presentations lit by thousands of lamps. Admission to the gardens was now one shilling. Despite its popularity with the upper class and the beautifully tree-lined passageways and ornate garden structures, Vauxhall became plagued by drunks and hoodlums who began to terrorize the patrons. In 1859, after a long and steady decline, Vauxhall Gardens closed forever.

Asian Influences

Nowhere else in the world has there been such a passionate delight in festivals as in China (Gernet 1962). However, many of the Asian societies had been closed to the rest of the world for centuries. It was not until the twentieth century that many of the customs and traditions of Asian life have been studied. Any influences the Asian culture may have had on the amusement industry are only evident in the modern-day theme parks and other amusement and recreation centers.

The primary purpose for the festivals was not for entertainment. The festivals were held to rid the people of ‘breaths’ that had become vitiated, of pestilence’s and of demons, to re-create everything so that it would be new and pristine (Gernet 1962). Although the primary purpose of these festivals was of a more serious nature, time was allowed for play and merry-making. The most important of the festivals was the new year celebration, but events were held throughout the year. In Hangchow, China, a festival of flowers was held on the second moon of the new year. It took place in the

free. The garden walks and arbors, roses, cherries, and nightingales moved many contemporary observers to describe the gardens in Edenic terms (Adams 1990). By the late 1700s and early 1800s, Vauxhall was in its heyday. The most popular attractions and activities were the theatrical and musical presentations lit by thousands of lamps.
gardens, and townspeople would gather to admire the rare trees and flowers. Speeches were often made to help encourage agricultural work in the community.

In addition to the festivals, other amusements often took place in towns throughout China. In Hangchow, ‘pleasure grounds’ were the sites for a vast covered markets where lessons in drama, singing and music were available and where theatrical performances were held. There were also numerous places for social gatherings; and in the thirteenth century, there was a movement in China to encourage the formation of social clubs and associations. Outside the towns, there were gardens used by the clubs for pleasure outings, tea houses for musical instruction and boat rides on the lakes. The gardens were often designed to mimic existing landscapes where Taoist immortals were thought to dwell. This particular form of expression of the Chinese aesthetic sense comes from the ancient magical concept of the art of representation (Gernet 1962). In other words, their gardens were recreations of nature symbolic of their heritage, culture and religion. Modern-day theme parks have adopted this concept and use it to create the sense of imaginary places.

**World’s Fairs and Expositions**

In the mid-nineteenth century, a movement began to create places where many nations could gather to display their latest technologies, scientific theories, art work, discoveries and inventions. Beginning with the London Exposition in 1851, the role of horticulture was not just to landscape the grounds. Horticulture practices, techniques and discoveries were featured as an individual attraction.
One of the first world fairs occurred on European soil. Queen Victoria and Prince Albert of England announced the fair as an "Exposition of the Industry of All Nations" to be held in 1851. In this exposition, the most significant structure to be built was designed by a horticulturist, Joseph Paxton, who began his career as a gardener at the Horticultural Society's grounds at Chiswick. While at this trade he gained experience in building greenhouses and fountains, but he had no professional engineering training. With gardening as his background, he set out to design a grand conservatory, later to be known as the Crystal Palace. His design was based on his keen eye for beauty of form and line of proportion, as well as an instinct for knowing what was going to work (McCollough 1976). The conservatory was so vast in size that it required a third of England's entire glass production to glaze the structure that covered 900,000 square feet. The building was intended to stand for six months, when in fact it stood for 85 years!

America's first world's fair was in New York City in 1853. Riding on the coattails of the successful Crystal Palace in London, a large conservatory was constructed on the spot where the New York Public Library and Bryant Park are located today. The fair paled in comparison to the success of the original world's fair at the Crystal Palace (McCollough 1976). New York's grand conservatory burned to the ground in 1858.

Philadelphia held an Exposition in 1876 in honor of the United States Centennial of the signing of the Declaration of Independence. Design features of this event are still seen in theme parks today. The fair was held on 236 acres of Fairmount Park, and the landscape provided a beautiful view over the Schuylkill River and the other attractions at the fair. The grounds offered a pleasant atmosphere in which to move between exhibits.
The displays and other inventions were on exhibit inside 167 buildings, including a crystal palace for horticultural displays, designed in the Mauresque style of architecture of the twelfth century. The palace was the smallest of the principal buildings of the Exhibition and cost $300,000 to build. There were four forcing houses for the propagation of young plants, eight ornamental fountains, restaurants, offices and reception rooms as well as the exhibition rooms. The collection of exhibits included various ornamental plants, garden tools and accessories and garden designing, construction and management displays.

Outside the exposition area, a shantyville was erected which contained restaurants, saloons, amusement booths, beer gardens, and hotels, where visitors went for amusement and entertainment. A total of eight million people had the opportunity to observe the new American inventions including the telephone and the Singer sewing machine.

In 1893 Chicago hosted the Columbian Exposition to mark the 400 years since the discovery of the New World. Among the designers of the beautiful 686 acre fairground was Frederick Law Olmstead, famous for his design of Central Park in New York City. Included among the fair’s 400 buildings, often referred to as the White City, was one dedicated to horticulture. Once again displays of the latest horticultural techniques were on display. The atmosphere created by the hundreds of white buildings was serene and aristocratic. A music concession and interactive entertainment area, named a midway, was built in an outlying strip so as not to disturb the subdued atmosphere of the white
city. The midway was nearly a mile long and 600 feet wide and was connected to the fair grounds. The concept of the midway evolved into modern amusement parks.

The Columbian Exposition is recognized by historians as the primary influence on the emerging forms of amusement enterprises. Its achievements and its germinal influences made it the standard to which every subsequent world’s fair would be compared (Adams 1990). Memory of the exposition is that of a grandeur and beauty of general effect never seen before, and nobly symbolic of the power and greatness of America (Boyd 1900). Subsequent world’s fairs have featured horticulture as an exhibition and greater attention was placed on the landscape design and appearance of the grounds as the host nation tried to outdo the previous host nations. In addition, a new concept of merging entertainment, engineering and education became the essential elements of the fair, all designed to be contained within a clearly sectored landscape. The Columbian Exposition gave way to midways, mechanical rides, and themed entertainment.

**Early Twentieth Century Amusement Parks**

From the 1890s until the mid 1950s, amusement parks like Coney Island in New York City were the embodiment of American entertainment (Adams 1990). The mechanical rides such as the carousel, the Ferris wheel, and the roller coaster were synonymous with Coney Island. There was not much room for horticultural practices; landscaping was conspicuously absent (La Forum 1990). Early during this period, amusement parks experienced a dramatic rise in popularity, with horticulture taking on secondary roles as backdrop or as fillers for empty space. Later on, the amusement
industry suffered a steady decline in prosperity following the economic conditions of the era. It is possible that the landscaping budgets were hardest hit during these hard times. By 1940, 250 parks remained open, a decline from the peak number of 2,000 in 1920.

Coinciding with the opening of Disneyland in 1955 came the resurgence of the amusement industry, along with new economic and population growth.

Since 1955, Disneyland has served as a prototype amusement center focused around a theme. The park was created as a new concept in family entertainment based on the principle that the public should not see the real world from within the park, and that they should have a sensation of being in another world (Wilson 1994). The landscaping is vital to the illusion of being in another place, another time. Flowers and plants have become part of the theme and often take on character roles. Disneyland was the first theme park to incorporate successfully visions of history, the future, technology and horticulture all within one park.
Chapter III

HISTORIES, MISSION STATEMENTS, GARDENS AND GOALS

Busch Gardens, Williamsburg, Virginia

History

Busch Gardens, Williamsburg, is a fanciful recreation of seventeenth century Europe, complete with entertainment for the entire family. Busch Gardens, Williamsburg, a member of the Anheuser-Busch theme park family, is a seasonal park and opened on May 16, 1975. The park is located along the James River on a 3,600 acre tract of land owned by Anheuser-Busch, just three miles from historic Colonial Williamsburg. The original attractions included hamlets for the European countries: England, France and Germany.

Since the park has opened, many new attractions have been added including Oktoberfest in 1976, the Loch Ness Monster® roller coaster in 1978, the Roman Rapids® in 1988, Water Country, USA, a water-themed park. In 1995, Escape from PompeiiSM became the latest European-themed attraction.

Today, the 360 acre theme park's hamlets or themed areas include:

- **Banbury Cross**: A quaint English hamlet with unique shops
- **Heatherdowns**: Contains the Loch Ness Monster® roller coaster and the famous Anheuser-Busch Clydesdales horses
- **Hastings**: A medieval English hamlet where motion picture and television entertainment are celebrated
• **Aquitaine**: A French village complete with an ice cream parlor and the royal palace theater
• **New France**: Features numerous gift shops and hand-made crafts
• **Rhinelfeld**: A German village with an antique carrousel made in 1819 and a children’s adventure land
• **Oktoberfest**: Home of the Big Bad Wolf® and Drachen Fire®, two of the fiercest roller coasters
• **San Marco**: An Italian village with native foods, wines, musical extravaganzas and the new ride Escape from Pompeii®
• **Festa Italia**: Features the Roman Rapids® and other thrill rides

**Mission Statement**

The mission statement for all departments at Busch Gardens, Williamsburg is to provide top quality family entertainment in a beautiful and clean environment.

The mission statement of the landscape department is to enhance guest experience through high-quality landscaping and to hopefully educate the guests as to the benefits and values of landscaping.

**The Gardens**

In 1995 Busch Gardens, Williamsburg was named the "Most Beautiful Theme Park" in the membership survey of the National Amusement Park Historical Association (NAPHA) for the third year in a row. This is an honor that Busch Gardens is proud to boast, and the management prides itself on the artfully designed, but naturalistic landscape. The landscape was designed to complement the natural terrain and environment of the Virginia countryside. Management of the park are so proud of the appearance of the park, it has become part of the mission to provide a beautiful and clean atmosphere.
interpretation signs throughout the park and increase the use of more authentic plant
material to enhance themed areas.

**Cypress Gardens, Winter Haven, Florida**

**History**

Cypress Gardens was founded in 1932 by Richard Downing Pope, Sr. and his
wife Julie Downing Pope, who purchased 16 acres of central Florida swampland near the
rolling highlands of Winter Haven. These swamps on the bank of Lake Eloise were filled
with century-old Cypress trees (*Taxodium distichum*) and other tropical plant life. By
1936, the Popes had converted this once-thought-useless swampland into beautiful
botanical gardens open to the public. Today, those original 16 acres have become 175
acres, spreading from Lake Eloise to Lake Summit and are filled with 8,000 sub-tropical
and tropical plant species from more than 90 countries. This theme park, open year-
round, is a photographer's dream outdoor studio of seemingly unlimited variety of
tropical flowers, scenic vistas, tranquil waters and rustic bridges. Cypress Gardens boasts
being Florida's first and longest continuously operating theme park. Guests, over forty
million to date, have enjoyed the gardens, world-famous water ski performances,
hospitality of costumed Southern belles throughout the park, the Wings of Wonder
butterfly garden and conservatory, views from the island in the sky ride, live
entertainment, and children's rides and games. In addition to its beautiful gardens,
Cypress Gardens displays a collection of antique and classic radios as well as the most
elaborate model railroad in the nation.
Short Term and Long Terms Goals

The short term goals are to operate as efficiently as possible and use as much of the operating budget as possible to make long term improvements.

The long term goals are to be the best tropical botanical theme park in the country; to expand programming for horticultural conferences and to change the target audience from professional gardeners to keen gardeners, and to build contacts to help expand their tropical plant collections.

Hersheypark, Hershey, Pennsylvania

History

Hersheypark was created by Milton S. Hershey, founder of the Hershey Chocolate Company. The park opened on April 24, 1907 as a picnic and pleasure grounds. The original purpose for this park was to create a more pleasant environment for the employees of the chocolate factories than was typically found in industrial towns. The park provided places for picnicking, boating and canoeing. It was also landscaped with wooded groves which shaded the visitors.

As the years passed, new attractions began appearing in the park. A merry-go-round, the park’s first ride, appeared in 1908. The park was so successful that at the end of the 1909 season, over 100,000 guests had visited the park.

In February of 1910, the Hershey Conservatory and Greenhouses opened featuring a variety of trees and other plants including exotic palms and rubber plants, azaleas and other spring plants. Another feature added to the park was the 6,000 seat Hershey Convention Center, which was built in 1915. Today, the Convention Center is used as
the Hershey Museum. The Hershey Zoo, completed in 1916, boasted many exotic animals. Today the zoo, 11 acres in all, features a wide variety of mammals, reptiles, fowl, and fish native to North America.

Later additions included the park's first roller coaster, the Wild Cat, in 1923, and a sunken garden, which had flowering plants all around a fountain with a 65 foot jet. In 1939, a 16,000 seat Sports Arena was built.

Hersheypark has undergone many changes in its long history expanding from a recreational picnic spot to one of America's most popular theme parks. Located in the park today are seven themed areas Tudor Square, Rhineland, Carrousel Circle, Comet Hollow, Music Box Way, Minetown, and Pioneer Frontier.

A feature not that well known is the Hershey Gardens located just outside the theme park. This 23 acre garden was established by Milton Hershey in 1937 as a rose garden. Over the years, this garden has evolved to include features such as ornamental grasses, shrubs for summer interest, a Japanese garden and a collection of hollies (Ilex spp.) and dwarf conifers.

Mission Statement

The mission statement for Hersheypark and the Hershey Nursery are the same as the mission statement of the company that owns Hersheypark, the Hershey Entertainment and Resort Company (HERCO). The mission is:

To be a profitable, quality amusement/entertainment, hotel and related-service company that will enhance the Hershey name and make Hershey a premier destination of the leisure/travel industry by concentrating on Hershey-based facilities that focus on amusement/entertainment and hotel activities; by continuing to operate and maintain Hershey-based commercial divisions to the extent they provide substantive support for the
company's amusement/entertainment and hotel operations; and by responding to the general public's desire for wholesome, family-oriented activities delivered in an efficient, courteous and friendly manner at a fair price.

The Gardens

The landscaping at Hersheypark has always been important to the management of the park, since it was the desire of Milton S. Hershey that the park always look beautiful. His love of horticulture is still evident today at all his former properties which are still maintained by the nursery he started.

As this theme park had its beginnings as a picnicking and recreational site, this type of atmosphere was essential to the existence of the park. The many changes during the evolution of the park since 1907 have not affected the park-like atmosphere. There are still groves of trees providing shade from the summer sun, including a beautiful row of weeping willows (Salix alba) along the creek running through the park.

There are flower beds planted throughout the park, including some 21,000 annuals, 375 round, 12 inch hanging baskets and 70 half-round hanging baskets. The use of color helps to draw visitors down pathways and themed gardens help to create moods. The careful use of different paving materials, such as brick and stone, help enhance the landscape and soften the rough edges. Creative use of container plantings are often used in areas where paving would impede the use of plants. As already mentioned, the Hershey Gardens located just outside the park, are a must see for horticulture enthusiasts.
Short Term and Long Term Goals

The short term goals are to maintain a commitment to upgrading and improving the appearance of the landscape, and to make it aesthetically pleasing to the visitors. The long term goal of the Hershey nursery is to develop a guided tour program and to establish other educational programs.

Paramount's Kings Dominion, Doswell, Virginia

History

Paramount's Kings Dominion is a 400 acre seasonal theme park catering to youth. Located in Doswell, Virginia, the park is approximately twenty miles outside the city of Richmond. The park is complete with eight themed areas called: International Street, Old Virginia, Congo, Candy Apple Grove, Nickelodeon® Splat City™, Wayne's World and the Land of Hannah-Barbera. The park annually hosts more than two million guests.

The park was opened in 1975 by a company called Family Leisure Centers. It later became a wholly-owned subsidiary of the Taft Broadcast Company, a television and communications conglomerate, interested in promoting the cartoon shows they owned (e.g. Hannah-Barbera). In 1983, Taft sold all its American theme parks to a newly formed company called Kings Entertainment Company for $167.5 million. The sale took place despite the profits the parks generated. The 1982 income sheets showed the theme parks contributed 36% of Taft's total revenues (Adams 1991). Kings Entertainment retained sole ownership until 1992, when it was purchased by Paramount Communications and was added to the Paramount Parks division. Today, Paramount
Parks, which is a unit of the Blockbuster Entertainment Group (BEG), maintain and operate the theme park. The BEG, a division of Viacom, Inc., is currently the fourth largest theme park company in the world.

Mission Statement

The mission statement takes the form of a general purpose and values.

Purpose: “To enrich life, make people happy and to inspire everyone to dream.”

Values:

- **Caring:** We care about all people in everything we do.
- **Courage:** We are committed to courageous leadership.
- **Human Spirit:** We provide an environment where the human spirit can soar and we encourage every person to be the best that he or she can be.
- **Making A Difference:** We make a difference through our passionate commitment to positively affect everyone.
- **Innovation:** Our challenge is to dream.....with the courage to innovate.
- **Integrity:** We trust the individual to always do the right thing with respect, fairness and sincerity.

Within the landscape department, efforts to work within their mission statement began in 1994. They are working on implementing new ideas and techniques as well as nurturing new employees into defined roles.

The Gardens

The gardens at Paramount's Kings Dominion can be described as providing places to rest, as creating views and vistas along with barriers, such as landscaped berms between themed areas. In some areas, the trees help to shade the guests and the annuals provide color to add interest and enhance the themes.
along with its sister Sea World theme parks, are distinguished from other theme parks in their main theme of marine life.

The 90 acre park opened in 1969 as a marine life park featuring performers such as killer whales and bottle-nose dolphins. The park was the second of four Sea World parks to be established, second behind Sea World of San Diego. In 1977, Harcourt Brace Jovanovich (HBJ) purchased the three Sea World theme parks. HBJ opened a fourth Sea World during its ownership becoming the second largest theme park company behind Disney during this time. On September 28, 1989, HBJ sold the Sea World parks, and two other theme parks to Anheuser-Busch for a price of $1.1 billion. Sea World of Ohio is now part of the Busch Entertainment Company, a subsidiary of Anheuser-Busch.

Sea World of Ohio and Anheuser-Busch are committed to research and conservation. These commitments are made evident throughout the theme park and are incorporated into all their attractions. Some of the features at Sea World of Ohio include: The Shark Encounter®, the Penguin Encounter, The Hotel Clyde and Seamore sea lion show, the Access for All Garden and the new attraction in 1995, the Dolphin Cove.

Mission Statement

The overall mission statement for Sea World of Ohio reads:

“To perceive a unique marine life experience through quality entertainment, education, research and superior guest service. We enhance the Anheuser-Busch image by using sound business practices, preserving the environment and demonstrating an overall commitment to excellence.”

Sea World of Ohio also has a vision statement it always strives to meet:

Sea World of Ohio will be the premier marine life experience. Throughout the Park’s multi-seasonal operation, our guests will be thrilled
and fascinated by the most imaginative, innovative and interactive environment in the world. Through “Total Quality Commitment,” we will present our guests with unequaled service and hospitality. Our unparalleled dedication to marine life research and education of our customers about the preservation of the environment will ensure future generations the ability to experience and appreciate our Sea World.

The horticulture department does not have a formal mission statement, but it has a working definition of purpose:

To provide a horticultural presentation through proper horticultural practices that will entertain and educate our guests. We will achieve our mission through a team-oriented staff that is productive, disciplined and well-trained in horticultural and guest services.

The Gardens

The gardens at Sea World of Ohio are an intricate part of the attractions. In fact, the lush landscape and beautiful flowers are promoted in advertisements as Sea World of Ohio’s “eighth show”.

The park, located on a natural glacial lake, is a perfect setting for a marine animal theme park. The landscape captures the essence of the maritime theme. Cool colors, blues, lavenders and grays in the garden visually communicates to the visitors the idea of water. The Cape Cod landscape around the new Dolphin Cove transforms northeast Ohio into the sandy shores of Massachusetts. The sharp edges of the yucca (*Yucca spp.*) and agave (*Agave spp.*) prepare visitors for the shark encounter. Shamu Stadium is enhanced with a Pacific northeast style landscape to evoke the region where killer whales are found. These are just a few examples of the themed gardens at Sea World of Ohio.

Sea World’s commitment to guest services has led to a garden designed to provide access to all guests by creatively responding to the needs of people with disabilities. The
garden is called the Access for All Garden, and it features a sensory walk which includes annuals and perennials with contrasting textures and scents, raised planters and a waterwall within the reach of those in wheelchairs.

Other features of the gardens include tall shade trees, views, vistas and places for visitors to rest and enjoy the various gardens themes. Included in most gardens are plant identification labels which support Sea World’s commitment to education. Every plant used in the gardens at Sea World has a specific purpose in meeting the designated themes. The guests seem to appreciate the themed and interactive gardens because they have elected landscaping as the highest rated feature, outside of the shows, for the past two years.

Short and Long Term Goals

The short term goals of the horticulture department at Sea World of Ohio are to complement and display all features of the theme park from the shows to the restaurants. The long term goals of the department are to develop more as an independent attraction and to be recognized as the highest rated landscaped theme park in the Busch Entertainment Company family of theme parks.

Six Flags Great Adventure, Jackson, New Jersey

History

Six Flags Great Adventure is a seasonal theme park consisting of a 150-acre theme park and an adjacent 300-acre drive-through safari park located in Jackson, New Jersey. The park opened its gates in 1974 as the independent Six Flags, Inc. theme park
Total land holdings surrounding this park make it the largest non-Disney theme park (Adams 1990). In 1982, the four independent Six Flags parks, including Great Adventure, were purchased by the Bally Manufacturing Company for $146.8 million. In 1987, Bally sold all its subsidiary Six Flags, Inc., to Wesray Corporation for $600 million. Six Flags, Inc. is now a subsidiary of Time-Warner.

**Mission Statement**

Six Flags Great Adventure was unable to provide a mission statement for the purposes of this thesis.

**The Gardens**

The gardens at Six Flags Great Adventure can be described as providing visitors with places to rest, views and vistas, color, barriers between themed areas, and shade. The landscape department, under the environmental division of the park, is responsible for maintaining formal designs and themed gardens within the theme park as well as the informal naturalistic designs in the drive-through safari.

The twenty-seven employees in the department are working toward improving the vistas through the park and the use of plants to better screen the behind-the-scenes operations. Themed landscapes are on the rise as they remove and improve older landscapes, and add plants appropriate to meet the various themes. An example of this effort is evident at a southwestern themed area, where a desert-like ghost town atmosphere is accomplished with the use of various succulent plants. The Batman ride landscaping is also themed with city gardens, hedges and iron grille work.
The lack of shade trees and the abundance of blacktop in certain areas of the park result in complete exposure to the summer sun. In addition, some theme choices do not provide ample room for horticultural interpretation. Six Flags Great Adventure is a thrill ride park, and often these types of attractions are difficult to landscape thematically. In these areas, the visitor loses the effect of being transformed into another world.

A display garden, complete with interpretative labels was added a few years ago but has since been displaced by new attractions. There are tentative plans to relocate this garden elsewhere in the future if the management sees a demand for it. The labels will likely not be included because of the difficulty in protecting them from vandalism.

Short and Long Term Goals

Six Flags Great Adventure believes in a “guest first” policy, so their short term goal is to make the theme park as nice as possible. The long term goal is to maintain their status of excellent ratings by visitors responding to surveys.

Universal Studios Florida, Orlando, Florida

History

Universal Studios Florida, a joint venture of MCA, Inc. and London-based Rank Organization PLC, is the sister theme park to Universal Studios Hollywood. This Florida theme park is also a working motion picture and television production studio built in the late 1980s. The park officially opened for business in 1990, and is currently ranked the number one movie studio in the world.
The park consists of approximately 444 acres of land, half of which consist of service areas. The themed areas include: Production Central, Hollywood, New York, Expo Center and San Francisco/Amity.

Universal Studios Florida is still a relatively young theme park and has only been in operation for five seasons. Because of its youth, a discussion of the immediate future plans for expansion are more appropriate than its history. Announced in 1995, Universal is planning a multi-billion dollar expansion. Plans are already underway as an additional 500 acres have already been purchased in preparation for construction. The expansion will be known as Universal City Florida. Construction will occur in phases over the next decade.

Within the Universal City will be the original movie studio theme park, a new theme park called Universal's Island of Adventure, an entertainment complex, five themed resort hotels, expanded film and television production facilities, professional golf and tennis venues and over 300,000 square feet of convention and meeting space.

**Mission Statement**

The mission statement of the park is “to become the number one entertainment destination in the world.”

**The Gardens**

Universal Studios promotes itself as a movie and television studio and the themed entertainment at this theme park revolve around this concept. The entire park is an urban setting, depicting urban settings such as New York City, Hollywood and San Francisco.
Because of these urban sets, landscaping possibilities are limited to palm tree allees on city streets or a variety of container plantings. In the areas where there is room to plant, the landscape is designed to imitate what would be found in those cities. Amidst the New York City Skyline is a miniature version of Central Park. This garden, more than any other place in the theme park, provides a borrowed landscape of views or vistas, important for the movie sets.

A new project slated to be completed in July 1995 was the Barney Garden. This new attraction for children includes a Barney theater. The entrance to the theater is a purple-themed, whimsical, interactive garden for children to play in before entering the theater. The garden is the result of management realizing the need for more green space and the importance landscaping plays in the visitor’s perception of the park.

As for the plans for expansion, landscaping in the Island's of Adventure theme areas offers tremendous opportunities. A unique philosophy is being followed in the layout of this new park. The park is being designed to fit into the landscape rather than the landscaping being fit into the attractions. This is unusual because most often, the landscape is the last thing planned in major capital theme park projects.

Short and Long Term Goals

Universal's short term goals are conceived in terms of six month periods. In June 1995, the goals were to complete the two new venues currently under construction. These venues were the Barney Garden and a catering facility. The other short term goal was to reposition the department in preparation for the expansion project.
The long term goals are to maintain a centralized but still integrated department of professionals that provides landscape design administration, construction administration and landscape maintenance management for the park as well as to prepare for the evolving product that is to be Universal City Florida. In addition, they hope to develop human resources, to divide into balanced but diversified fields of landscape development for the expansion, and then prepare to reconvene to work as a team.

**Walt Disney World Resort, Lake Buena Vista, Florida**

**History**

The Walt Disney World Resort is the product of one man's dream, a place with enough land to fulfill anyone's wildest expectations. It is a world all its own and one that is purely magical. The resort, open year-round, was born from the ideas incorporated in the original Disneyland theme park built in 1955 in Anaheim, CA. The park was built during the late 1960's on a tract of land totaling 27,443 acres, nearly 43 square miles of Florida swampland and orange groves. The land was purchased by Disney associates, and cost just over five million dollars.

Modeled after Disneyland, the Walt Disney World Resort opened its gates for the first time on October 23, 1971. It consisted of a much larger scaled Magic Kingdom with five themed areas: Adventureland, Frontierland, Fantasyland, Tomorrowland, and Main Street USA. Attendance its first year was nearly eleven million. By 1990, 300 million had passed through the gates, a number greater than the total United States population at that time (Adams 1990). Also by this time, the total acreage had increased to 29,900
acres, of which 3,500 are maintained landscapes and gardens. These gardens, an intricate part of the symbolism and theme, transform visitors to imaginary places.

On October 1, 1982, the Experimental Prototype Community of Tomorrow, otherwise known as EPCOT Center, opened its gates as the second major theme park in the Walt Disney Resort. Epcot Center, which incorporates 600 acres, is larger than the Magic Kingdom and consists of two major themed areas: Futureworld and the World Showcase. The World Showcase features pavilions for 11 nations: Canada, the United Kingdom, France, Morocco, Japan, the United States, Italy, Germany, China, Norway, and Mexico.

In 1989, the Walt Disney World Resort opened its newest theme park called Disney/MGM Studios. This theme park is a tribute to the early days of Hollywood and movie making. The park is itself a movie set and working studio, along with the usual entertainment features of a Disney theme park.

In the spring of 1995, Walt Disney World announced plans for a fourth theme park, Animal Kingdom, slated to open in 1998.

Mission Statement

The Walt Disney World Resort mission statement takes the form of a common vision shared by all the departments at the resort:

We will deliver magical and memorable entertainment experiences which create a sense of joy and wonderment for our Guests and consistently exceed their expectations. We will continue to be recognized globally as the premier entertainment and hospitality organization by mobilizing our team spirit to perfect our talents and abilities, and to perpetuate our rich Disney Legacy. This will be evident to our Guests, fellow Cast Members, shareholders, and community and business partners through our words and deeds.
Parks Horticulture has its own set of maintenance philosophies and commitments

- A "Good show" 365 days per year
- Maintaining standards of quality in the landscape
- Understanding, preserving and enhancing design intent
- "Themed" landscapes which tell a story
- Encouraging professionalism
- Staff training and education
- Hiring professionally trained horticulturists
- Demonstrating responsibility to the business plan of the company
- Using sound horticultural practices
- Carrying on the traditions
- Incorporating color into the landscape
- Using plants to announce the seasons
- Practicing creative horticulture and trying new ideas
- Experimenting and introducing new plants
- Being good stewards of our environment
- Sharing the excitement of horticulture through public seminars
- Adding fun to the landscapes and gardens

The Gardens

"The gardens of the Walt Disney World resort are giant outdoor stages where plants are featured performers. The gardens are designed to immerse the guests in a fantasy world of another time, another culture, another place"...(Handsford 1992)

The gardens can be seen throughout the three parks and within each of the resorts surrounding the parks. There are rolling lawns, broad sweeps of color and meandering waterways shaded by majestic trees. The garden designs are formal, whimsical, traditional, tropical, desert-like, and temperate. Intricate tapestries of bedding plants and topiaries of Disney characters can be found throughout the resort. In 1980, an All-American Rose Selection garden was added at the Magic Kingdom displaying award-winning varieties of hybrid tea, floribunda and grandiflora roses. In the fall, a
chrysanthemum festival is held annually. Soon afterward the colors turn to reds, pinks and whites to bring in the holiday season.

The gardens at EPCOT center reflect the various nations being represented in the World Showcase. In each nation, the horticulturists have designed the gardens to be representative of plants and designs that would traditionally be seen in that nation. There are bonsai in Japan, window boxes draped with hanging ivy geraniums (Pelargonium hortorum) in Germany, and evergreens and red maples (Acer rubrum) in Canada. Many of the plants normally found in the climates of the represented nations are not suitable for growth in central Florida. The staff horticulturists at the 80 acre tree farm and 15 acre nursery test regional plants that resemble plants from other hardiness zones or actually bring in plants to determine if they will survive the hot summers. Another technique often used by Disney is the use of plants or trees to create the illusion of height or distance. In Italy, an illusion of an Italian countryside, and in Canada the illusion of a majestic mountain are created using progressively shorter trees and shrubs moving from the front of the garden to the back of the garden for forced perspective.

The gardens provide a psychological escape from the searing Florida sun as well as a place to rest and enjoy views. Landscaping is also used successfully as a screen between themes as well as to provide seamless transitions between themed areas as seen through the use of Camphor trees (Cinnamomum camphora) along the entire length of the world Show Case at Epcot. While guests are waiting in lines, the gardens provide interest and are usually designed around the theme of the awaiting attraction.
The Horticulture department keeps detailed plant records. Each garden is identified by a code, and records of what plants were used in previous annual displays, and all permanent plantings are recorded on a computer database. These records are helpful in determining purchase orders. The department also keeps a slide library of each garden which serves as a compendium of past shows and events to be used as reference material or for press releases.

Short and Long Term Goals

The short term goals of the parks horticulture department are to use the most cost effective measures to accomplish the mission, maintenance philosophies and make horticulture part of the show in addition to helping produce revenue for the resort.

The long term goals are to continue developing gardens that tell stories, to use plants in functional roles and to give continuity to the different themed areas. In the horticulture department, there is also a synergy group which works to pull together ideas for in-house staff training programs or for visitor services and develop them. This group is looking toward finishing a new gardening book and a gardening video.
Chapter IV

ISSUES IN THEME PARK HORTICULTURE

This chapter addresses issues identified as the most important factors affecting the roles of horticulture in theme parks. The issues are financing, educational programming, planning and public relations. The information presented was collected through a general survey of 34 theme parks in the United States, which include the eight theme parks selected for the case study phase of the research. For simplicity, in all tables presented in this chapter, figures and percentages have been rounded to the nearest whole number and dollar amounts have been rounded to the nearest cent.

Theme parks are commercial industries that compete for business and like to keep trade secrets from becoming public. Therefore, as a condition of this study, individual theme parks have not been identified by name in order to maintain their anonymity. Each theme park will be identified only by a letter from “A-H”, selected in random order.

Finances

By far, the most limiting factor preventing theme parks from promoting horticulture and educational programs is the budget. In almost all the case studies, the issue of financing was cited as one of the main reasons for not taking a larger role in the field of public horticulture. The other major factor for not participating in the
opportunities that public horticulture provides is the apparent lack of interest or awareness on the part of upper management of the impact of horticulture as a major attraction. Evidence of this will be presented throughout the next two chapters. It was the general opinion of members of the horticulture departments that the annual budget was only adequate to accomplish their goals, and insufficient to allow room for increases in horticulture programming. An increase in the annual budget would allow room for new or additional programming and may help management in hiring more qualified staff, which in turn would lead to an increase in the quality of product the staff would provide.

At theme park “F”, the head of horticulture went as far as to say that sometimes having the support of the management can backfire. The visitors to this park have consistently rated the landscaping as the best feature of the park, and now the management feels the landscape department does not need any more support to make improvements. Management has turned its attention toward increasing the budgets of other departments in order to increase those ratings to match the landscape ratings in the visitor survey.

The case study theme parks were asked to provide an estimate of their annual landscape budget. The size of the budgets depends on the acreage of the park, the degree of landscaping at the park and the level of support the landscape department receives from upper management to make improvements. Annual budgets range from $470,000 to $1.25 million, with an average annual budget of $821,000.

A formula, developed by the author, was used to determine the amount each case study theme park annually spent on horticulture per guest. This formula is.

\[
\text{Cost of Horticulture Labor + Non-Labor Costs} \\
\text{Total Annual Attendance}
\]
The calculations resulted in a range from $0.18 to $2.00 per guest, with the average expenditure per guest of $0.64. This average may be misleading because six of the eight, or 75% of the case studies spent less than $0.50 annually (See Table 4.1 below).

<table>
<thead>
<tr>
<th>Theme Park</th>
<th>Dollar Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>$0.31</td>
</tr>
<tr>
<td>B</td>
<td>$0.34</td>
</tr>
<tr>
<td>C</td>
<td>$1.25</td>
</tr>
<tr>
<td>D</td>
<td>$0.18</td>
</tr>
<tr>
<td>E</td>
<td>$2.00</td>
</tr>
<tr>
<td>F</td>
<td>$0.31</td>
</tr>
<tr>
<td>G</td>
<td>$0.47</td>
</tr>
<tr>
<td>H</td>
<td>$0.30</td>
</tr>
</tbody>
</table>

Average Amount Spent: $0.64

All the theme parks participating in the general survey were asked how the annual budget was divided between new landscapes and maintenance. In the general survey of theme parks, 84% indicated they dedicate 0-24% of their annual budget toward new landscapes. This trend is consistent with the eight case studies in which 88% devote 0-24% toward new landscapes. The exception is theme park “G”, which dedicates 25-49% of the annual budget (See Table 4.2).
The share of the annual budget dedicated to landscape maintenance is more variable. In general, 48% of theme parks dedicate 0-24% to landscape maintenance, while 32% dedicate 50-74%. Five of the eight (63%) case study theme parks spend 50-74% of the annual budget toward general landscape maintenance. Two parks (25%) devote 0-24% and one (13%) dedicates 75-100% of the annual budget to landscape maintenance. All of this information can be found in Table 4.3 below.

Table 4.3 Percent of the Annual Budget Dedicated to Landscape Maintenance

<table>
<thead>
<tr>
<th>% of Annual Budget Dedicated to Landscape Maintenance</th>
<th>General Survey</th>
<th>Case Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-24%</td>
<td>48%</td>
<td>25%</td>
</tr>
<tr>
<td>25-49%</td>
<td>4%</td>
<td>0%</td>
</tr>
<tr>
<td>50-74%</td>
<td>32%</td>
<td>63%</td>
</tr>
<tr>
<td>75-100%</td>
<td>12%</td>
<td>13%</td>
</tr>
<tr>
<td>N/A</td>
<td>4%</td>
<td>0%</td>
</tr>
</tbody>
</table>

The general survey results also shows financing for capital improvement or expansion projects is split between the theme parks that include provisions in the capital budgets for landscaping and those parks that do not. In the case study sample, 50% also said they set
aside some portion of the capital budget for landscaping (See Table 4.4 below). The case study parks that answered this question indicated that they set aside amounts ranging from 1% to 10%.

<table>
<thead>
<tr>
<th>Provisions for Landscaping in the Capital Budget</th>
<th>General Survey</th>
<th>Case Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES</td>
<td>48%</td>
<td>50%</td>
</tr>
<tr>
<td>NO</td>
<td>52%</td>
<td>50%</td>
</tr>
</tbody>
</table>

**Educational Programming**

Educational programming is the most significant role of public horticulture at theme parks. The types of programs available consist of guided tours, interpretation, plant research, horticultural conferences, horticultural internships and educational classes and seminars. These programs represent various levels of educational opportunities from basic information sharing to more traditional classroom style learning. Each type of program also varies with the amount of preparation time, costs to implement, and time to operate. In the general survey, theme parks were asked to indicate the types of programs they offered. Table 4.5 shows that guided tours are the most popular program offered, with interpretation and plant research coming in second and third respectively.
TABLE 4.5 Types of Educational Programs Most Often Offered at Theme Parks

<table>
<thead>
<tr>
<th>Programs</th>
<th>General Survey</th>
<th>Case Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guided Tours</td>
<td>76%</td>
<td>88%</td>
</tr>
<tr>
<td>Interpretation</td>
<td>66%</td>
<td>63%</td>
</tr>
<tr>
<td>Plant Research</td>
<td>36%</td>
<td>50%</td>
</tr>
<tr>
<td>Horticultural Conferences</td>
<td>28%</td>
<td>50%</td>
</tr>
<tr>
<td>Internships</td>
<td>28%</td>
<td>38%</td>
</tr>
<tr>
<td>Educational Classes</td>
<td>20%</td>
<td>38%</td>
</tr>
</tbody>
</table>

Tours, interpretation and informal plant research are likely the most popular programs because, as theme park horticulturists have indicated, they are relatively inexpensive and do not take a large investment of staff time to implement. The other three programs involve more planning and staff dedication in order to make them successful. Also, many theme parks do not have the facilities to hold conferences or classes, even if these programs were desired.

Research in this area has shown that many of the programs are developed internally by staff within the horticulture department. This occurs often without the support or direction of upper management. Therefore, funding to support these efforts is lacking.

The mission statements of the case study theme parks show that two parks support education both as part of the central goal as well as part of the horticulture departments goals. Strictly within the horticulture departments, there are, including the two referred to above, a total of four that include education as part of their mission. This number indicates that upper management has either not recognized the potential of educational programming in horticulture or is not supportive of the idea to implement more programs;
or perhaps both are true. Some theme parks are strictly in business to provide thrilling entertainment, therefore education is not recognized as an avenue to attract visitors. Combine the lack of funding and support from upper management, and the result is a shortage of educational programming.

The audience that theme park programs are attracting includes horticultural professionals, garden clubs, school groups, master gardeners, plant society groups and garden hobbyists. Guided tours are for the most part given as pre-arranged group tours. Often guided tours are offered in conjunction with other park promotions such as flower festivals or horticulture conferences. The tours can include ‘backstage’ areas as well as the park itself and are guided by horticulture staff members.

Even without formal guided tours, interpretative signs in the gardens allow for self-guided tours. The signs, which include the plants’ common and scientific names and occasionally the country of origin, are the most popular types of signs in the parks. Occasionally story labels are seen as well, which pass along some folklore about certain garden favorites. Other types of interpretative materials seen at theme parks may include garden brochures or books, plant lists, coloring books for children, self-guided tour maps and garden handouts.

Interpretation in the gardens helps promote interest in gardening, gardening techniques, folklore, environmental ecology and preservation. These are often the themes in gardening interpretation developed by theme park horticulturists and education specialists who can use this medium to promote a healthier environment. However, the theme park staff does not know how the visitors react to the interpretative materials. The
visitor surveys do not ask the guests to react to the interpretation. The only time the horticulture department hears from the visitors is when they receive calls telling them that there are not enough plant labels in the gardens. Theft is often a problem in theme parks and plant labels can disappear, compromising visitor surveys on this type of interpretation and the continuation of the program very costly.

There are also programs that benefit the public indirectly. The plant research programs conducted in theme parks are most often informal. The results are used to benefit the parks appearance as well as a guide in future purchasing because the records of which plants performed the best can be referenced for future garden planning. Only theme park “B” conducts plant trials with the intention of publishing the results. This park’s horticulture team feels that not only does it benefit the park by having the best performing plants, but it also benefits the growers, as they can adjust their crops according to the results of the trials. As a result of the growers adjusting their crops, the public indirectly benefits because these plants will eventually appear on retail supplier shelves. Horticulturists at theme park “D” feel that even though they do not publish the results of their plant trials, the results still have an impact on growers and indirectly on the public. They feel that because they are such large buyers of particular annual crops, growers will recognize those plants as the best and in turn increase the supply of those plants to the public. In this way, theme parks are important as market leaders.

Beyond plant trials conducted at theme parks, a variety of experiments are being conducted. For example, theme park “G” is conducting trials for composting, mycorrhizae inoculation, equipment and cytokinin and kelp as fertilizers. Theme park
“F” has been using natural insect predators in the gardens as an alternative to spraying and other using toxins. Since beginning this experiment, the park has seen a dramatic reduction in pests.

Conferences at theme parks are either sponsored by the theme parks themselves, or they provide the facilities to other organizations to hold conferences. As stated earlier, theme parks often do not have the facilities to hold conferences, so the meetings might have to be held somewhere other than the park itself. Theme park “B” began a conference on landscaping in theme parks in 1989 and that event ran for three years. This conference featured aspects of designing, installation, maintenance and management of theme park gardens. The audiences for theme park conferences are made up mostly of horticulture professionals, varying by the topic of the conference.

The final two types of programming are horticulture internships and educational classes or seminars. Although three of the case study theme parks (“B”, “D” and “G”) and only 28% of theme parks overall have an horticulture internships, the general opinion is that they would be a mutually beneficial. A number of theme parks have explored the possibility of having such programs. Some have even tried to establish a them, but have failed to maintain it. The lack of success has been caused by a number of reasons. For instance, a shortage of funding or low hourly wages attract few students to the program. The high cost of housing causes the internship to be too costly for students. Horticulture departments often do not have recruiting budgets and therefore cannot advertise the availability of the program, and the departments often do not have the staff or the time to develop projects and to monitor the interns progress. One theme park that emphasizes
horticulture feels that it cannot support interns because it does not offer enough horticultural science to attract academic students. They are failing to recognize that there are horticulture students who do not necessarily want to focus on horticultural science, but rather on the applications in design, planning and management.

For the parks that have successful intern programs, they have all learned that the interns bring three important aspects to the staff and the park. They are:

- Up-to-date academic knowledge and unique skills that can help to educate the staff.
- Youth, energy and interest in horticulture which motivates the regular staff.
- Workers to fill in during the busy summer months.

Students with intern experience are also more likely to be hired by the theme park on a permanent basis in the future or by organizations looking for horticulturists with experience.

Educational classes/seminars are conducted by 20% of all theme parks surveyed. The cost of conducting the classes and the time needed to organize them are the main reasons for the shortage of these programs. Often classes are taught by staff members on site, or sometimes staff members will speak at other conferences or conduct seminars for other organizations. Horticulture departments often take advantage of other events occurring in the park, and will promote the seminars in conjunction with them.

Professionals, garden hobbyists and the casual interest people are most frequently in attendance for the seminars.

**Planning**

This section addresses some of the long and short range planning processes of the case study theme parks for various projects and the role the horticulture departments play
in this process. Finding consistencies or trends in this particular area has proved to be difficult. Each theme park was developed independently of one another and are run by different management teams, despite common corporate owners in some cases. An example of this can be seen when comparing the large corporate parks to the smaller theme park corporations. For example, when theme parks “B”, “F” and “G” are developing capital expansion projects, the planning is done by engineers and architects retained by the corporate offices. The smaller theme parks do not have these options and need to bid out the projects or do the designs in-house.

There are also varying degrees to which the horticulture or landscape departments participate in planning for these expansion projects. In four case study sites (theme parks “E”, “F”, “G” and “H”), horticulture departments have no say in the planning. The department heads are given blueprints of what will be constructed, and told to design a landscape to complement the theme of the new attraction. This design might be undertaken either by themselves or by a hired landscape designer/architect. These four theme parks are the same four that do not include provisions for landscaping in capital budgets. The other four theme park landscape departments participate in the process at varying stages of development. For example, theme parks “C” and “D” work with a team development system, and bring members of the landscape department into the team throughout the planning stages. The planning stages may consist of: developing a concept, creating schematic models, the design and further development of the models and finally, the construction of the project. These parks have realized the importance of including an expert with landscape design background on the planning team. The skills
of a well-trained landscape designer could contribute to the feasibility and success of the plans.

As far as long and short term planning is concerned, it is fairly consistent across all the case studies that master planning projects are developed anywhere from 2-5 years, to as long as 5-10 years in advance. The horticulture departments cannot plan as far ahead as the upper management because they are at the mercy of upper management decisions. The horticulture departments therefore are generally set up for 0-2 years advanced planning. For small projects, planning schedules can be as narrow as a week.

**Public Relations**

In the survey, theme parks were asked how much emphasis was placed on horticulture. In general, 60% responded that a “great deal” of emphasis is placed on horticulture. Among the case studies, 88% gave the same response. It is the opinion of the author, that emphasis should be apparent in many aspects of day-to-day operations, such as the share of press materials available on horticulture and gardening. A second question asked how frequently horticultural features are promoted in press materials. The responses shown in Table 4.6 indicate 24% of “never”, and 48% “sometimes” promote horticulture. Case studies indicated 50% “sometimes” and 38% “always” use horticulture in marketing.

<table>
<thead>
<tr>
<th></th>
<th>General Survey</th>
<th>Case Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>24%</td>
<td>13%</td>
</tr>
<tr>
<td>Sometimes</td>
<td>48%</td>
<td>50%</td>
</tr>
<tr>
<td>Always</td>
<td>24%</td>
<td>38%</td>
</tr>
</tbody>
</table>

**TABLE 4.6 Frequency of Promoting Horticulture in Marketing**
Theme parks “C” and “F” both have indicated that they “always” use horticulture in their marketing campaigns and these efforts are supported by the theme park mission statements. The mission statement of another theme park also indicates support of the environmental factors but they do not always promote horticulture in their marketing campaigns. For the other theme parks that do not specifically promote horticulture, they usually include landscaping in the background of photographs or maps.

Theme parks use a variety of avenues to promote their horticulture and their programs. The types of media range from the most common forms such as press releases, magazine articles, brochures and commercial advertising on television or radio. Some theme parks have taken their marketing one step further using such media as billboards, garden brochures, handouts, books, flower festivals, discovery centers, and video tapes of the gardens and gardening techniques. For children, theme park “C” has plant coloring books in addition to hunt and find games.

Theme parks use all their marketing techniques as a way of attracting visitors to the park. To gauge the visitors reactions to the attractions at the theme parks, all the case studies conduct visitors surveys. However, not all the case studies have questions related to horticulture or the appearance of the park. In some cases, there is only one question in the entire survey regarding the horticulture. For those parks that do survey reactions to the horticulture, it consistently ranks very high and sometimes rates as the top attraction. These results may be misleading however, as in most cases, the horticulture is not rated in the same category as the rides and shows. In fact, questions related to the appearance of the park are often included in the same category of questions as the cleanliness of the
restrooms. This indicates that the horticulture is the top rated attraction outside of the major attractions at the park. Despite its importance, management may not recognize horticulture as a significant enough attraction to be grouped in the same category as the rides and shows.
Chapter V

THE ROLE OF PUBLIC HORTICULTURE IN THEME PARKS

Educational programming is the avenue theme parks should use to promote public horticulture because educational opportunities can be readily incorporated into the garden attractions. Programs of this kind can also be justified by the theme park mission statements and goals because they support visitor services.

A public horticulture institution can be described as a park, botanical garden or arboretum that is open for public enjoyment. Often the written mission of these institutions includes promoting education, plant research and plant collections. As part of the case study research, theme park horticulturists were asked if their theme park could be described using the definition above. The horticulturist at theme park “H” said he could not use the definition to describe any part of the park, but the horticulturist at theme park “B” uses the entire definition to describe the park. The remaining six theme park horticulturists said their theme parks matched the definition, but not in its entirety. They generally described themselves as a park open to the public for their enjoyment, with the park sometimes being complemented by educational programming. The horticulturists added that any kind of formal plant research and/or displaying or housing plant collections is beyond the purpose of theme park horticulture. Theme parks leave the
formal research and plant collecting to the botanical gardens, and are focusing more on being themed and interactive display gardens. However, all the case study theme park horticulturists admitted that providing horticulture educational programs are definitely part of the purpose of theme park horticulture. They also said that their parks are interested in improving or expanding the types of programs they offer. Therefore, the role of public horticulture in theme parks is to entertain through education, while the role of horticulture in theme parks is to entertain by, “offering an experience that stimulates each of the five senses” (Follin 1991).

From the information presented in Chapter IV, it is clear that despite the recognition of education as an essential part of theme park horticulture, many theme parks have not taken advantage of all the educational opportunities available. Table 5.1 below shows the number of programs offered by each of the case study theme parks. With the exception of parks “B”, “C”, and “G”, the parks have relatively few programs available to visitors.

<table>
<thead>
<tr>
<th>Theme Park</th>
<th>Number of Programs Offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>3</td>
</tr>
<tr>
<td>B</td>
<td>6</td>
</tr>
<tr>
<td>C</td>
<td>5</td>
</tr>
<tr>
<td>D</td>
<td>3</td>
</tr>
<tr>
<td>E</td>
<td>1</td>
</tr>
<tr>
<td>F</td>
<td>2</td>
</tr>
<tr>
<td>G</td>
<td>6</td>
</tr>
<tr>
<td>H</td>
<td>1</td>
</tr>
</tbody>
</table>
The reasons for the low number of programs include failing to recognize education in the mission, the short and long term goals and visions of the theme park. There is a lack of available funding in the annual budget, a lack of planning in capital projects and master planning for any new programs. There is limited support from upper management for such programming projects, a lack of proper facilities in which to hold the programs and a shortage of staff members to manage the programs. However, it appears that the most important reason for low numbers of programs is because theme parks do not know what the visitors want to see in theme park horticulture. Many of the current park surveys do not rate horticulture as an attraction, but as an incidental element in the same category as restroom cleanliness. A more serious effort is needed to determine whether the public desires more from garden attractions, and therefore horticulture needs to be recognized as an attraction before management can acknowledge the other limitations to programming mentioned above. Theme park “G” is one example from the case studies that has acknowledged horticulture as an attraction and has conducted independent surveys to prove that the public desires more in this area.

The budgets, planning and marketing campaigns are also essential to the success of the programs. Until the upper management and the horticulture departments come together and recognize the profit potential, public appeal of the programs and recognize education as part of their mission, sophisticated educational programming in theme parks will continue to be an unattainable goal.
Chapter VI

RECOMMENDATIONS

This section provides recommendations for theme parks presidents, vice presidents of operations, general managers and directors of horticulture to consider in their master planning process. The recommendations come indirectly from this research and from personal observations of theme park horticulture. However, before any theme park considers implementing the recommendations provided here, more research needs to be conducted. It is evident that each theme park needs to conduct a thorough survey of its particular visitor needs and determine if there is truly a market for educational programming in theme parks.

The following are not ordered in terms of priority, but are organized by related topics.

Recommendations for Upper Management:

- Document the history of the theme park. These amusement centers are an important part of American culture. Recording the evolution of each institution is valuable for the institution as well as for historians. The documentation should include changes in all aspects of the park, the attractions, the demographics of the visitors and the philosophies of management in meeting the needs of its visitors.

- Create a mission statement that clearly explains the purpose of the theme park and what it offers to the public. Goals, visions and expectations should be kept separate from the mission statement. Evaluate the current goals and visions to see how they compare to the mission; adjustment may be necessary in order to complement the new mission. Each department should also have its own mission and set of goals, and these should mirror the mission and goals of the entire park.
• Evaluate the demographics of the current visiting public, and the statistics for future demographic distribution. Determine how to meet the needs of the current visitors. In long range planning, decide if the audience desired is more family oriented and/or more youthful. Develop a master plan with attractions and programs that will satisfy the needs of the projected demographic audience.

• Develop the master plan for the theme park that considers all aspects of the park and not just capital expansion projects. The master plan should include goals for the betterment or expansion of every department.

• In capital projects, bring a member of the horticulture department into the planning discussions from the beginning. He or she may be able to help determine the feasibility and success of the project, and by being included early in the planning, the horticulture department staff would have more time to design the landscape and develop a maintenance schedule.

• Also in capital projects, the budget should include provisions for new landscape. Most capital projects require some form of landscaping, and the annual budgets for new landscape are traditionally insufficient to properly design a themed landscape.

• Consider a visitor survey question that compares the horticulture as a major attraction at the theme park.

Horticulture Departments:

• Establish the importance of horticulture to the mission of the park. A good place to begin is to re-title the “landscape or grounds department” to “horticulture department” on the corporate chart. This will help establish recognition of horticulture as an asset to the park beyond what a functional landscape provides.

• Explore new cost effective educational programming ideas from other institutions, or bring in consultants who may help identify areas where programming would be the most effective. Work with education specialists to assist in the development of the programs.

• For theme parks currently with horticultural programs, increase the publicity on their availability. The increase in publicity may increase their popularity, which may in turn cause management to recognize the importance of the programs. For those still in the development stages of programming, wait on the publicity until the programs are up and running.

• Evaluate existing programs on a regular basis to determine their effectiveness and popularity with the public. Make adjustments as necessary.
• Consider keeping plant records for each themed garden. These records will be helpful in identifying the plants being used in the park, developing interpretation signs, incorporating into press materials and will be helpful in future purchasing of new plants. In addition, sometimes visitors inquire about the types of plants in the gardens. A plant record could be a reference to answer these questions.

• Develop a department survey asking the public their reactions to landscaping. Ask their opinions on any programs that may be available and if they would like to see more programs. Give examples of the types of programs that could be implemented to help determine what the public is looking for.

If the surveys provide enough evidence that patrons desire horticultural programming, these recommendations will be important. Visitor surveys are the only way that theme park horticulturists will be able to prove that educational programming is desired by the public. The horticulturists should take department survey results and a list of potential programs to upper management and present the evidence that these programs will be an asset to the theme park. If the bottom line is visitor satisfaction and potential profits, then there must be proof that the programs will be successful.
BIBLIOGRAPHY


Frances, David R. *The Universal Exposition of 1904*. St. Louis, MO: Louisiana Purchase Exposition Co. 1913.


Hettman, Bill, Landscape Manager. Interviewed by author 20 July 1995, Jackson. Tape recording. Six Flags Great Adventure, Jackson, NJ.


_____. “‘Neverland’ or ‘Tomorrowland’.” Museum, 1 November 1990, 6-8.


_____. “Instruction and Delight: Theme Parks and Education.” Morris Library; University of Delaware, November 1989, Microfiche.


Sinard, Bill, Head of Landscape. Interviewed by author, 8 June 1995, Doswell. Tape recording. Paramount’s Kings Dominion, Doswell, VA.


APPENDIX

GENERAL SURVEY/QUESTIONNAIRE

1. What emphasis, if any, is placed on horticulture at your theme park?
   None  Very Little  Some  A Lot  A Great Deal

1A. Do you use landscaping as part of your park marketing campaign?
   Never  Sometimes  Always

2. What is the mission statement of the theme park? Of the horticulture Department?

3. What percentage of your annual operating budget is devoted to:
   1) New Landscape:
      0-24%  25-49%  50-74%  75-100%
   2) Landscape Maintenance:
      0-24%  25-49%  50-74%  75-100%

3A. Is your landscape maintenance part of a capital budget? YES NO

4. Are you planning on expanding the landscape at the park in the future? In what areas are the planned expansion?

5. How many employees are assigned to landscape maintenance?
   Full-time/Year Round _____________  Full-Time/Seasonal _____________
   Part-Time/Year Round _____________  Part-Time/Seasonal _____________
5A. Do you have horticulture interns? How many? ____________________

6. What steps are you taking to improve the horticulture and landscaping?

7. What educational programming do you offer involving horticulture or landscape design and development? When did you begin your horticulture programming?

Do you: 

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>YEAR STARTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hold Horticulture Conferences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Give Guided Tours of the Grounds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use Interpretation in the Landscape (i.e. labeling or signage)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conduct Education Classes in Horticulture or Landscape Design</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have Horticulture Internship Programs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conduct Plant Research</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7A. If you have horticulture programming, who or what did you use as a model to develop your programs after?

8. If you do not offer any of the horticulture programming mentioned in question 7, are you considering doing so in the future? YES NO Explain:

9. How many days is the theme park open to the public? How does seasonality of your theme park effect the horticulture programming?

10. Have you conducted a visitor survey in the past 5 years of the biggest attractions at your theme park? YES NO If yes, would it be possible to send a copy of the survey?
CASE STUDY QUESTIONNAIRE

INSTITUTION:

History
1. Do you have any written materials on the history of the park and its horticulture from its inception to current day?

2. How many acres does the park encompass?

Landscape Department
1. What is proper name of the landscape department? Where does it fall on the organization chart?

2. What are the short term goals of the landscaping department? The long term goals?

3. What is the mission of the park and of the landscape department? How do they relate to each other? Do the landscape staff feel that they are meeting the mission of both statements? What kind of influence does the corporate office have on the park landscape?

4. Do you have your own nursery? Y / N
   If yes, how much stock is raised here? What percentage is purchased?

5. When designing new area for the park, how are designs developed? Do you bring in consultants? Landscape Architects? Designers who have done other theme park projects?

6. Public Horticulture can be defined as: a park, garden arboretum or green space that is open to the public for their enjoyment. It can also serve as an educational center, a laboratory for plant research, and a place to house and display collections of plants. Do you feel that your theme park fits into this definition? How and why?

7. What philosophy was used in the design of the current landscape? How were plants and designs chosen?
Support
1. According to the questionnaire, a ______ emphasis is placed on horticulture in the park. How is horticulture emphasized through the:

*Budget
*Plant Materials
*Size of Staff
*Personnel
*Designs

2. What are your annual operating expenses for landscaping and horticulture? Would it be possible to have a copy of your annual operating expenses?

3. Do all major projects include provisions for landscaping?

4. How does your landscaping figure into long range plans? For instance: Expansion. Are members from the landscaping department included in the planning or design process? When do they join the planning team?

5. How does landscaping figure into short term plans?

Public Relations
1. What do the gardens provide the people who visit the park? Is the administration or staff aware of the possibilities of making the landscape a drawing attraction?

2. According to the questionnaire, horticulture is ______ used as part of the marketing of the park. How is (or Why is) horticulture used (not used) in the marketing?

3. Is landscaping included as an attraction in your visitor survey? How does it rate among the visitors? What are the biggest attractions at the park?
Programs
1. Have you held horticultural conferences before or plan to in the future? Y / N Since:
   - What have some of the topics been?
   - Who has been or will be the target audience of these conferences? How successful have they been?

2. Do you offer tours of the grounds? Y / N Since:
   - How frequent are guided tours of the grounds offered?
   - Does one need to request a tour in advance? Y / N
   - Who requests the tours?
   - To whom are the tours most frequently given: visitors, professionals, garden clubs, other_____ What does the tour include?

3. Do you use interpretation in the landscape? Y / N Since:
   - What kind of interpretation has been used for the plants and in the gardens?
   - Who has developed the interpretation: an education specialist or horticulture staff, other_____
   - What has been the public's reaction to the interpretation?

4. Do you conduct education classes in Horticulture? Y / N Since:
   - What kinds of educational horticulture classes are offered by the park?
   - How many are offered a year? 1-5 6-10 11-20 more than 20
   - Who participates? Who teaches the classes? What fees are charged?

5. Do you have horticulture internships? Y / N
   - If yes, how many interns do you have annually?
   - What are their duties and responsibilities?
   - How have you benefited from having interns?
   - If you do not have internships, have you considered starting an intern program?

6. Does the park conduct any plant research? Y / N
   - If yes, what kind of plant research does the park conduct? How has the park benefited from the research? How does the trade benefit?