5-2016

Well Lit: Exploring Light's Transformative Potential Through a Study of the Exterior Illumination of Charleston, South Carolina Movie Theaters

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WELL LIT: EXPLORING LIGHT'S TRANSFORMATIVE POTENTIAL THROUGH A STUDY OF THE EXTERIOR ILLUMINATION OF CHARLESTON, SOUTH CAROLINA MOVIE THEATERS

A Thesis
Presented to
the Graduate Schools of
Clemson University and the College of Charleston

In Partial Fulfillment
of the Requirements for the Degree
Master of Science
Historic Preservation

by
Jean Michelle Stoll
May 2016

Accepted by:
Amalia Leifeste, Committee Chair
Frances Ford
Kristopher King
Richard Zender
ABSTRACT

Charleston is a city that values its historic past to an extent that heritage tourism supplies a large portion of the economy. Charleston’s enthusiasm for Revolutionary and mid-eighteenth century history overlooks many components of Charleston’s history, including the entertainment advances of the early twentieth century, namely the thirty-two movie theaters that sprouted along King Street. The lack of attention has resulted in a substantial loss of movie theater fabric, to the degree that only one former theater retains the ability to show movies. The purpose and programming of the movie theaters has changed, and lighting has evolved from a character-defining feature into a subdued characteristic in the interior of the buildings. This thesis explores the once-prevalent and current potential for advertising and dramatic experiential qualities that lighting provides for historic movie theaters in Charleston. This thesis is comprised of two significant and inter-related findings: that Charleston adopted electricity and movies late but contemporaneously, and that existing buildings served as the vast majority of the movie theaters.

The thesis asserts that exterior architectural lighting is a character-defining feature. Following the establishment of characteristic lighting, this thesis argues that there was a historic precedent for Charleston movie theaters using lighting to define their character. Conclusions drawn from the research identify Charleston as a late adopter of electric lighting. The popularity of moving pictures coincided with the rise of electricity unlike other cities, which implemented electricity earlier. In terms of trends in lighting character, 70% of the study theaters were located in existing structures and that had a decisive impact on the visual character of Charleston theaters. These theaters utilized lighting as advertising and as the primary method of eliciting emotional investment for otherwise average commercial structures. The spectrum of established theater typologies, such as what constitutes a movie palace, is not easily applicable to Charleston. Thesis findings also concluded that there is an unrealized opportunity to employ some of the lighting design concepts and specific fixtures from the movie-theater era history of specific buildings into the contemporary rehabilitations of the buildings to continue the centuries-long tradition of captivating customers along King Street.
DEDICATION

I dedicate this thesis to my family and friends, especially my grandparents, for their support throughout my educational career. In particular, I dedicate it to my partners in this educational and lengthy endeavor: Meredith Wilson, Rachel Walling, Haley Schriber, and Meghan White.
ACKNOWLEDGMENTS

I wish to acknowledge the help of my committee that was instrumental in the formation and direction of this thesis. Thank you Amalia, for asking discerning questions and for lending me some of your confidence and insight. Frances, thank you for your encouragement during our meetings and affirmation along the way. Thank you Kris for your willingness to help and discuss problems in person, despite your extremely busy schedule. Rick, thank you for sharing your passion for historic lighting with me, as well as your willingness to impart fascinating historic trivia, which helped refine my direction and scope.

Thank you to the Special Collections at the College of Charleston Addlestone Library, for providing immediate access to uncatalogued collections that were vital to my thesis.

Finally, thank you to my family and friends who supported me on this graduate adventure. Thank you for your understanding, patience, and encouragement.
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GLOSSARY

Architecture

Atmospheric Theater: These theaters feature ceilings with painted and specially lit elements, creating a sky for the auditorium. They were often less expensive than hard top theaters, as they did not require ornate lacunars, domes, chandeliers, and often needed less maintenance.\(^1\)

Hard Top Theater: Hard top, or standard theaters, feature a realistic auditorium ceiling with plaster, decorative niches and grilles, and usually a centralized lighting features.\(^2\)

Theater: Of German origins, theater refers to “the building in which the art form [of theatricals] takes place.”\(^3\)

Theatre: French origins, used today to refer “to the art form,” and is not common in modern times regarding moving pictures.\(^4\)

Inventory: “A list of historic properties determined to meet specified criteria of significance.”\(^5\)

Preservation: “Defined as the act or process of applying measures necessary to sustain the existing form, integrity, and materials of an historic property.”\(^6\)

Rehabilitation: “Defined as the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values.”\(^7\)

Restoration: “Defined as the act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period of time by

\(^1\) Charlotte Kopac Herzog, “The Motion Picture Theater and Film Exhibition--1896-1932” (Ph.D., Northwestern University, 1980), 114.
\(^2\) Ibid.
\(^4\) Ibid.
\(^6\) Ibid.
\(^7\) Ibid.
means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period. The limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a restoration project.\textsuperscript{8}

**Electricity**

*Bulb:* “A glass envelope enclosing the light source of an electric lamp.”\textsuperscript{9}

*Candlepower:* A measure of luminous intensity of a light source in a specific direction.\textsuperscript{10}

*Compact Fluorescent:* A small fluorescent lamp that is often used as an alternative to incandescent lighting. The lamp life is about ten times longer than incandescent lamps and is three to four times more efficacious. Also called PL, Twin-Tube, CFL, or BIAx lamps.\textsuperscript{11}

*Efficiency:* “A light bulb’s efficiency is a measure of the emitted light (lumens) divided by power it draws (watts)”\textsuperscript{12}

*Foot-Candle:* “Foot-candles are an American unit of measurement for something similar [to lumens], and they measure how bright the light source appears from a foot away, rather than the amount of light reaching the surface.”\textsuperscript{13} “One foot-candle is equal to one lumen per square foot.”\textsuperscript{14}

*Illuminance:* “A photometric term that quantifies light incident on a surface or plane. Illuminance is commonly called light level.”\textsuperscript{15}

*Lamp:* “A glass bulb or tube that emits light produced by electricity (as an incandescent lightbulb or fluorescent lamp)”\textsuperscript{16}

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\textsuperscript{8} Ibid.
\textsuperscript{11} Ibid.
LED: “Abbreviation for light emitting diode. An illumination technology used for exit signs. Consumes low wattage and has a rated life of greater than 80 years.”\textsuperscript{17}

Lumen: “A lumen is the amount of light given off through a unit solid angle (steradian) from a uniform point light source of one candle”\textsuperscript{18} It is also “equal to one foot-candle of light falling on a square foot surface or, simply put, lumens measure how much light reaches the surface you wish to illuminate.”\textsuperscript{19}

Luminaries: Luminaries are “historically appropriate light fixtures.”\textsuperscript{20}

Watt (W): A watt is “the unit for measuring electrical power. It defines the rate of energy consumption by an electrical device when it is in operation.”\textsuperscript{21}

\textsuperscript{17} U.S. EPA Office of Air and Radiation, “Lighting Fundamentals, Lighting Upgrade Manual.”
\textsuperscript{19} Bryant, “What Today’s Consumers Need to Know About Lumens.”
CHAPTER ONE

REINTRODUCING LIGHT TO DEFINE CHARACTER

Manipulation and use of light has power over people: preferences, consumer habits, and perceptions of safety. Entire industries incorporated light into their identities. Movie houses, government buildings, restaurants, and gas stations all used light in different ways to draw attention and highlight their architectural assets, or as promotion. Light schemes and fixtures are important character defining features and people rehabilitating historic buildings, especially theaters, should see these as opportunities. Theaters are a good example of a building type where light was employed as a character-defining feature because it advertised the theater and proved central to the theater experience.

Introduction

Theater possesses the ability to briefly transcend the viewer’s circumstances and convey a story. Movies surpassed conventional theatre in the sense that they are farther removed from the audience they so captivate; actors are not available to congratulate at the end of the performance, and the whole spectacle is delivered mechanically, using film and light. The ritual of attending movies became an event in its own right, almost separate from seeing the movie. The famous actor Gene Kelly recalled “a time when where we went to the movies was just as important as the movies we went to see…From the moment moviegoers arrived to buy their tickets, there was a sense of something special, a feeling
that to step inside was to enter another time and place.”

Despite declining theater attendance since the 1950s, the ethereal experience of movie going still “reflects, defines, and redefines society,” meaning that theaters and the theater experience offers a lens into dynamic social values and history.

Charleston movie houses were one of the few modern leisure outlets Charlestonians had in the early twentieth century. Some other options in Charleston included frequenting the parks, attending lectures and music performances. Due to the sparse innovative amusements and a depressed economy, movies captured the attention of all ages.

Early moving pictures in the south had to compete with environmental factors to hold the patron’s attention. Fans, ice and good ventilation compensated for the hot climate for much of the year, but most entertainment either closed or moved out-of-doors in the peak of the summer. Outdoor theater exhibitions were popular before the widespread use of electricity, and included everything from sailing to horse racing to experiencing nature in a park or from the piazza (Charleston single-house multi-story porches). In 1897 presentations of Edison’s Projectoscope were held in Chicora Park, a public outdoor venue located northeast of Charleston’s downtown that was later occupied by the Charleston Navy Base. The early Air Dome and Bon Air theaters located in Hampton Park, one of the first-tier suburbs of Charleston, and on the southeast corner of King and Calhoun

---

respectively. These two early theaters are examples of the tradition of outdoor entertainment venues and are outside the main scope of study in this thesis as they did not require the same type of lighting as enclosed buildings. Open-air theaters provided outdoor entertainment in Charleston, often in public parks, and therefore provided a very different entertainment environment and experience for patrons. This thesis focuses on buildings dedicated to the display of movies in downtown Charleston from 1907 to 1945.

There is a precedent in Charleston for employing lighting in reused structures to change perceptions of the building without altering the historic fabric. This thesis includes a movie theater survey, the calculation of historic lighting levels, and the measurement of modern lighting levels to make historic theater brightness relatable. The intention of this study is not to advocate a reconstruction of historic lighting levels or assemblies, but to inform the use of lighting when reprogramming structures.

Recognizing Light as Experience

Fascination with light stretches back to the beginning of the historical period, and is part of an intrinsic human desire to experience and manipulate light.25 Fabrics woven with gilt thread, clothing adorned with light-catching beads, the use of highly polished metal and then mirrors in interior spaces all speak to the desire of using light for human

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The trajectory of architectural use of light through window size and placement also illustrates the importance of illuminance to the human experience.

The invention of electricity greatly impacted the idea of leisure. As electric lights proceeded to illuminate businesses, public spaces, and ultimately the home, electric light remained a fantastic wonder and was applied in assemblies to produce stunning displays. The first amusement park on Coney Island paid particular attention to lighting in order to create an “electric Eden’ unlike anything that had ever been built before”. Electricity provided an outlet for showmanship flair unlike any other medium. Lighting effects were added to innovative amusements like theme parks and to traditional establishments alike. The cherished Academy of Music in Charleston, a stage theatre built in 1869, added colored electric lights for stage performances by late 1906. The Academy was a bulwark of Charleston nineteenth century refinement and gentility, so it is telling that even conservative establishments implemented electric lighting for effect and, presumably, for an increase in profits.

**History of Illumination**

The use of an open flame was the primary source of artificial illumination until the nineteenth century. Fires in urban areas remained a concern for urban residents while candles and burning gas were used as the primary sources of illumination through the

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nineteenth century. The advent of gas lighting did not completely eradicate the danger of fire and explosions. Various methods of using natural gas, and later coal, date back to the mid-seventeenth century in Europe and back as early as the 300s C.E. in China.\textsuperscript{29} Gas lighting in nineteenth century Europe and America consisted of piped gas from a central plant to individual fixtures in houses, businesses and street lamps.\textsuperscript{30} Gas produced a weak light, yellow in color, and polluted confined spaces due to the actual burning of the substance.\textsuperscript{31} Gas lamps actually “produce more heat than light—just two lumens per watt compared to fifty lumens per watt for [electric] LEDs.”\textsuperscript{32} In addition to illuminating less surface area than electric lighting, burning gas emits heat and reduces oxygen levels in a room. Other illumination sources included burning acetylene and calcium carbide gases, which produced a bright light but proved a very hot source.\textsuperscript{33} These sources were also known as calcium light, and were advertised in conjunction with gas tanks for the operation of early motion pictures.\textsuperscript{34}

Inventors discovered electricity by 1808, and channeled it to produce light using batteries.\textsuperscript{35} The battery power was insufficient for producing light at a useable quantity

\textsuperscript{29} Peter James and Nick Thorpe, \textit{Ancient Inventions}, Reprint edition (Ballantine Books, 1995).
\textsuperscript{30} George Basalla, \textit{The Evolution of Technology} (Cambridge University Press, 1988).
\textsuperscript{31} Ibid.
\textsuperscript{34} \textit{Entertainers Supplies}, vol. 100 (Chicago: Chicago Projecting Company, 1900), https://archive.org/stream/ChicagoProjectingCosEntertainersSupplies/ChicagoProjectingCo.0001#page/n51/mode/2up.
until generators were invented and provided enough power to produce extremely intense light. Electric arc lighting was produced by passing a current between a pair of carbon rods in close proximity.\textsuperscript{36} Such intense light was only used to light streets and large commercial areas due to the blinding glare.\textsuperscript{37} For example, carbon arc lighting produced over 10,000 lumens, which was 1000 times brighter than candle light.\textsuperscript{38} The lifespan of arc lights was about seventy-five hours in the 1890s. The life of an arc light in 1911 increased up to 175 hours.\textsuperscript{39} Arc lighting also used a series-connected system, so the whole system needed to be turned off and on together, which was ideal for street lamps but few other settings.\textsuperscript{40} Other attributes of arc lighting included a flickering light, and the emission of heat and pungent gases, caused by the heat destroying the carbon rods.\textsuperscript{41} Electric arcs are easily distinguishable based upon their size and shape (Figures 1.1 & 1.2). Even with the emission of heat and gases, arc lighting was classified as a much cleaner source than gas.

\textsuperscript{36} Moss, 123.  
\textsuperscript{37} Ibid.  
\textsuperscript{38} Jessica Banke, “The Evolution of Artificial Lighting, Pt. 2,” \url{http://blog.1000bulbs.com/}, April 24, 2015, \url{http://blog.1000bulbs.com/artificial-lighting-part-2/}.  
\textsuperscript{40} Basalla, \textit{The Evolution of Technology}.  
\textsuperscript{41} Ibid.
The late 1870s witnessed a breakthrough in electric lighting technology: the incandescent bulb. Invented by Thomas Edison, the bulbs contained a “hairpin-loop carbon filament enclosed in a free-blown, clear glass bulb” which had a tip from sealing the glass bulb.\textsuperscript{42} The bulb created a vacuum, which was necessary to prevent the energy from consuming the filament.\textsuperscript{43} Edison also invented switches, meters, underground cable systems, and wiring for the bulb.\textsuperscript{44} Electricity supplied by a centralized power plant ran through copper wires, ideally underground, to individual lighting outlets in his scheme, evident in the Edison wiring for New York City in the mid-1880s.\textsuperscript{45} The Edison Illuminating Company installed their electric wires in buried conduits called “subways” at the same time the New York City legislature passed a law requiring companies to bury

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{flaming_arc_lamp.jpg}
\caption{Advertisement for an Electric arc lamp. Image from Motion Picture News, October 1913-1914 page 44.}
\end{figure}

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{arc_lamp.jpg}
\caption{Electric arc lamp above King Street in 1900. Photo titled “King Street looking North to Wentworth” from the Library of Congress.}
\end{figure}

\textsuperscript{42} Moss, Lighting for Historic Buildings, A Guide to Selecting Reproductions.
\textsuperscript{43} Ibid.
\textsuperscript{44} Ibid, 124.
\textsuperscript{45} Basalla, The Evolution of Technology.
electrical wires. The law remained ineffective until a massive blizzard in 1888 made the advantages of buried wires a necessity for safety and convenience.

Until the invention of the incandescent bulb, electric lighting was too impractical and expensive for average households. After the late 1870s, incandescent lighting had the potential to be turned on and off, as easily as gas lighting, at individual fixtures rather than on entire circuits. The bulbs emitted less heat, less intense light, and no fumes. Lighting expenses decreased as the amount of energy consumed decreased with incandescents, along with manufacturing costs comparable to gas systems. There was also lower cost associated with Edison’s direct current, or DC, because of its low voltage. Nikola Tesla and George Westinghouse advocated the higher voltage alternating current, or AC, in the 1880s, which relied upon intermittent transformers to increase or reduce voltage levels based upon the intended use.

Variations in Early Twentieth-Century Lighting

A history of lighting is incomplete without introducing characteristic bulbs over time. Electric companies such as Westinghouse, Edison General Electric, and Sawyer-Man printed catalogues and manufacturing guides that included the latest types of bulbs in the first half of the twentieth century. Figure 1.3 shows one of their condensed charts, featuring

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47 Ibid.
48 Ibid, 48.
49 Ibid.
general lighting methods through time up to 1934. It is useful to understand that many of the bulbs were manufactured as standard 40-watt bulbs, such as the 1907 Tungsten filament vacuum lamp and the 1922 gas filled tip-less lamp. The electric companies also produced many lamps in 25, 60, 75, 100 and even 400, 500 and 700 watts. Lamps were vacuums until 1909, when Dr. Langmuir experimented with gas-filled lamps. It is important to understand that this breakthrough in electric lamp technology did not stem from a desire to increase the brightness of the lamps, but to increase their lifespan.51

The vacuum lamps had tips until about 1922, when the production of the glass bulbs changed to removing the blowing tube from the base rather than the top of the bulb.52 This provides a way to visually date lights, or specify their bulb. The filament pattern is another good way to date a bulb; if the metal is loosely looped or appears with sharp angles, the lamp dates before 1913.53 Various types of bulbs consumed different amounts of energy and emitted different levels of light. In Figure 1.3, the Tungsten filament vacuum lamp consumed 40 watts and produced 4.9 lumens per watt, in contrast with the later Tungsten gas-filled lamp of 1915.54 The 1915 lamp also used 40 watts but produced 14.44 lumens

Despite increasing lighting options, residential lighting for the average American remained reliant upon kerosene lamps until the 1920s.\textsuperscript{56}

A range of illuminating energy sources included gas, alternating current and direct current electricity by the late 1800s benefitted more than moving picture theaters. Benefitting from the electric sources available, vaudeville theaters took advantage of electricity the same way movie theaters would some years later: by illuminating the theater’s name, entryway, and main attraction announcements. Electricity was harnessed to spotlight all sizes of vaudeville theaters, to enliven the exterior of the building in order

\begin{figure}
\centering
\includegraphics[width=\textwidth]{Westinghouse_lamp_evolution.png}
\caption{Westinghouse lamp evolution. Notice the different filament patterns after 1893. Many of these patterns are replicated in Edison, or vintage, bulbs today. Image from Westinghouse Commercial and Industrial Lighting Handbook, 1934, page 6.}
\end{figure}

\textsuperscript{55} Ibid.

to bring more patrons in to see the stage acts. Electric lighting was used to brighten the entryway of vaudeville theaters and lend an atmosphere of excitement and commercial transparency; ‘come to my theater, we have nothing to hide here, as you can plainly see’ was an effect of the bright lighting on the street façade.

*Colored Lighting*

Each type of historic electrical lighting source was prone to manipulation to produce color. Neon lighting came onto the scene in 1912 Paris, in the form of signage. Invented in 1902 by Georges Claude, neon gas is excited by electrical charges within a glass tube. The resulting light emits different colors based on the encapsulated type of gas. Neon lighting became a popular exterior lighting method starting in 1923. Neon produces an orange color, red comes from hydrogen, helium produces yellow, carbon dioxide produces white, and mercury emits a blue. Historically, filling lamps with different types of gases, or coating the glass with paint, inside or out produced color. In modern renditions of the vacuum lamps, today known as Edison or vintage bulbs, the filament acts as the coloring agent to produce a warm yellow or gold color within a clear bulb. Fluorescent lighting uses the same concept as neon lighting, but it is filled with mercury.

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58 Ibid.
60 DeBack, “The Evolution of Neon.”
vapor, which emits UV light as well as visible spectrum light. The fluorescent tube, usually a long and straight cylinder, is coated to mitigate the UV ray emissions.

**Historic Street Illumination**

Accompanying the increasing electrification available in Charleston, street lighting evolved to better serve the evening-time commercial district. Moving away from gas street lamps, which are still valued in Charleston for their classic shape and romanticized character, electric streetlights went through many iterations especially along King Street. Electric lamps on King Street in 1910 featured enclosed carbon electric arcs, with clear glass outer globes and street reflectors, suspended high above street level on metal rods, often attached to building facades. Streetlamps became permanent fixtures in the late nineteen-teens, with the installation of cast iron poles supporting five spherical lamps. These poles were modified by 1918 on King Street to include decorative armature supporting four spherical lamps.

By the 1930s, the lamp posts had become much taller to support the street lamps as well as telephone and electrical wires on top. These lamps were suspended off the poles by short metal arms with decorative scrolling below. The lamps held either double or single bulbs, as a GE Novalux Duolux or a Post Top “Acorn” respectively. The acorn top lamps

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63 Ibid.
64 See Appendix C for historic Charleston streetlamp imagery.
66 Ibid.
were common in Charleston from the 1930s until the 1950s. Spherolite Refractor Globes were placed on King Street by 1952, and once again brought street illumination higher above the street, as electric arc lighting did fifty years before.

More recent iterations of King Street lighting included the “cobrahead” high-intensity lighting of the 1970s and 1980s. These lamps were found across the country, in parking lots and on highways, and did not add any character value to the King Street corridor. In the late 1990s, the City of Charleston reevaluated the King Street streetlamps and began to consider the implementation of decorative fixtures. Today, Charleston street lamps take many different shapes. Gothic-styled lamps are set high above traffic signals. Frosted-glass lanterns are an attempt to recapture some historic character along the King Street corridor. The most successful character-defining features are installations at the southeast corner of King Street and George Street. Here there are two identical fixtures, both replicas of the early 1800s gas street lamp (Figures 1.4 & 1.5). One uses an open flame, and the other uses two LED fixtures, similar to the 2015 American Gas Lamp Works “GasGlow” LED, which provides a similar “look and feel of gas mantel lighting” with a lower annual cost. Most of the fixtures along King Street have the same goal: to create a

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historic atmosphere using moderate light at a pedestrian-level along the sidewalk, instead of stretching over the road and focusing on vehicular rather than pedestrian traffic.

Sidewalk lighting in Charleston still has room for improvement, but demonstrates the desire to enhance spatial character through programmatic lighting.

*Charleston Street Lighting Today*

A study of Charleston streetlamps was not central to the argument of this thesis, but revealed an interesting progression of styles and implementation of historic styles today. Appendix C features a visual study of the evolution of Charleston streetlamps along the
King Street corridor. Through simple visual inspection, it is significant to note that Charleston street lighting today evokes an 1880s style of street lamp.\textsuperscript{71} This cultivation of a specific nineteenth-century character along King Street, using “new ‘old style’ street lighting” starting in the late 1990s, exemplifies the intentional use of lighting to define character in Charleston.\textsuperscript{72} Certain lighting fixtures are associated with specific time-periods, and are employed to create a desired, if somewhat romanticized, environment.\textsuperscript{73} Various streetlamp shapes are designed to be historically evocative, and Charleston is no exception. These lamps illustrate the pervasive desire to supplement historic character using light and lighting fixtures.

Recently, many entrepreneurs chose to invest in lighting to create desired effects on their clients and patrons. Starting in the late 1990s, some businesses began to adopt the philosophy that a store acts like a stage for products, because consumers were increasingly responsive to shopping “experiences”.\textsuperscript{74} Shopping experiences in stores pertains to how the goods “affect the senses”, and may include adding textures, smells and manipulating the lighting type and design.\textsuperscript{75} The focus on the user, rather than the product’s performance, contributed to the increased attention to lighting detail. Today, restaurants and commercial spaces in retail areas place lighting as a priority to create a desired atmosphere. In

\begin{footnotesize}
\begin{enumerate}
\item[71] See Appendix C for the 1883 photograph of King Street, which shows a gas street lamp very similar to many street lamp reproductions along King Street today.
\item[73] See Appendix C for the King Street streetlamps
\item[75] Ibid: 18.
\end{enumerate}
\end{footnotesize}
Charleston, widespread use of ‘nostalgic bulbs’ indicates a desire to replicate old-world experiences and take comfort from warm lighting schemes. Nostalgic bulbs are modern lamps, which replicate the antique look of early 1900s lamps by using tungsten filaments looped into simple designs within clear glass.

‘Nostalgic bulbs’ can be found across Charleston today, including in some former theater buildings. Banana Republic and King Street Grille, both former movie theaters, prominently feature nostalgic Edison-style bulbs. Urban Outfitters, formerly the Garden Theater, also considered lighting in their design scheme with the use of cove lighting and chandeliers. The use of these antique lamp replicas serves to increase visual interest for enhanced visitor experience, as well as adding authenticity to the establishment. One of the largest retailers of these types of lamps, NostalgicBulbs.com, advertises the advantages of “enhancing authenticity” by using these types of lamps.\(^76\) Authenticity in preservation terms, and in a strict interpretation of authenticity, dictates that only buildings with previous incarnations of emotive lighting design, especially theaters, can really capitalize on this nostalgia and maintain authenticity. However, light provides a way to make dramatic changes without harming the original fabric, so may be worth considering for all reused buildings.

**Light as a Character-Defining Feature**

Light has recently seen a resurgence of importance in the commercial sector for its ability to produce a desired atmosphere. Based on observations, Charleston is not alone in

the increasing use of nostalgic-themed lighting designs, and restaurants are foremost among the businesses capitalizing on historic and ‘old-timey’ atmospheres. It is currently fashionable to create these interior atmospheres, primarily through the use of Edison bulbs, but the fad could positively influence the consideration of lighting schemes for historic buildings with a history of displaying character through lighting.

As outlined in the National Park Service’s Preservation Brief #17, character “refers to all those visual aspects and physical features that comprise the appearance of every historic building”. 77 Historic character is also often defined as the “appearance and feeling of the landscape presented at the end of the period of significance”. 78 Furthermore, if something dominates the character of the space, usually within a building, it embodies ‘interior visual character’. 79

Electricity is a character defining feature of movie theaters because it embodied the “innovation and progress in the popular imagination” in the greater part of the twentieth century. 80 Lighting transitioned from functioning as a simple curiosity into a vital requirement for evening pursuits, but it continually inspired excitement and progress. Entire city areas became known for their distinctive electric glow. The theater district in

79 Nelson, “Preservation Brief 17.”
80 Ibid, 14.
1890 Manhattan earned the name “The Great White Way” because of the glowing character from the astounding number of lights (Figure 1.6).\textsuperscript{81}

Controlling the commercial atmosphere using lit effects is an increasingly popular method of improving the customer base, judging from the number of businesses along King Street that use vintage or Edison bulbs. There is an increasing demand for a shopping experience; something more than the cold calculation of sales in a bleak fluorescent cavern.\textsuperscript{82} Experiences “affecting the senses,” such as lighting, allow the customer to interact with the products and acknowledges the consumer as a conscientious patron.\textsuperscript{83} Additionally, it is currently in vogue for restaurants, bars, and stores to select Edison bulbs to accentuate a particular area of the space. For example, Normandy Farms on Society Street uses a modernist fixture with Edison bulbs near the cash register (Figure 1.7). A focus on the customer’s sensory experience with the commercial goods has been a sales tactic since the late 1990s. This technique shifts the focus to the user and not the

\textsuperscript{81} Ibid.
\textsuperscript{82} Pine and Gilmore, \textit{The Experience Economy: Work Is Theatre and Every Business a Stage}.
\textsuperscript{83} Pine and Gilmore, \textit{The Experience Economy: Work Is Theatre and Every Business a Stage}: 18.
This relates to the adaptive reuse of theaters in that the buildings lighting, inside and out, can still capture the consumer in ways that are historically preceded. Lighting remains good advertising when thoughtfully designed and can be effective in capturing patron’s attention with lighting character defining features. Vintage bulb displays in shop windows, or other lamps which give off warm-colored light, are more likely to attract people than shops emanating harsh fluorescent lighting. This is one explanation for the surge in Edison bulb popularity, which is very evident in Charleston. Businesses using these types of vintage bulbs range from trendy bars to the Cigar Factory (Figures 1.8 &

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84 Ibid: 16.
It is important to understand that the popularity of vintage lighting stems from the capitalistic drive to please the customer. In the last decade, the sharp rise in the use of exposed, vintage bulbs has caused the rediscovery of the advantages of a “warm atmosphere.”

Author Diane Cardwell’s take on the subject is that, despite the escalating push to go green and switch to compact fluorescents—or perhaps because of it—their antique glow has spread like a power surge. Whether in hip hangouts tapping into the popular Victorian industrial look or elegant rooms seeking to warm up their atmosphere, the bulb has become a staple for restaurant designers, in part because it emulates candlelight and flatters both dinner and diner. The filament light is now so ubiquitous that it has prompted a backlash among those who deem it overexposed—a badge of retro cool.

Despite the trend of “going green” in consuming and discarding goods, business owners are willing to use bulbs, which produce less light than a compact incandescent, but require about three times the amount of energy. One of the earliest producers of Edison bulbs, Bob Rosenzweig has manufactured and exported carbon-filament bulbs since 1975,

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86 Ibid.
87 Ibid.
and moved his company to Summerville, South Carolina in 2001. The proximity of Charleston to one of the largest producers of Edison bulbs has clearly impacted the lighting choices of downtown businesses.

**Defining Architectural Character through Light, Outside of Charleston**

This study focuses on Charleston movie theaters and scrutinizes one character defining feature that is often overlooked: exterior lighting. There are excellent examples across the world of former and current theaters that retain or employ lighting as a core feature. Examples from the Netherlands, the United States, and South Korea were chosen as representative examples capitalizing on character through light. Each building requires and showcases light to entrance, to excite, and to advertise.

Bioscoop Vreeburg is a former movie theater located in the Netherlands, in the city of Utrecht. Built in 1908 as a movie theater within a city block, Gerrit Rietveld renovated the building in the 1930s to include a specially lit façade (Figures 1.10 & 1.11). In the 1970s the theater closed and the building is a commercial structure today. Rietveld designed the façade to feature “light boxes covered in milk glass” which spelled out the theaters name. Today, ESPRIT maintains and uses the light boxes for colorful and changeful displays. The retention of the façade lighting feature creates continuity between the present and the former function, as well as adding unique and eye-catching qualities to the international brand of ESPRIT. Much like the movie theaters in Charleston, without

88 Ibid.
the exterior lighting, ESPRIT would risk fading into the grey sameness of its surroundings, because it fails to differentiate, though here the differentiation has direct historic precedent.

Figure 1.10: The Vreeburg movie theater in use in this undated photograph shows the interesting lines produced by the blocks of light. Photo permission granted by Het Utrechts Archief.

Figure 1.11: ESPRIT today retains the same interesting pattern of lit blocks, to create a multi-color advertisement. Notice how the store’s name is in a different color, therefore bringing attention to the name. Photo courtesy of Alison Netsel.
Pittsfield Massachusetts’ Beacon Cinema is a great example of intentionally lighting the façade of a building to draw attention to an active movie theater (Figure 1.12). Built in 1918 as the Kinnell-Kresge Building, the commercial space was adaptively reused as a movie theater in 2009. The Beacon is a prime example of adaptive reuse design intentionally using light on the exterior to draw attention to the function and add character to a former commercial building. The lights are mostly concealed in the lower cornices and create bright highlights on the terra cotta façade, while throwing other areas, like above the windows, into deep shadow. Lighting inside the building also takes

Figure 1.12: Beacon Cinema in Pittsfield, MA. The exterior lighting illuminates the theater on the right, as well as the adjoining business to the left. The lighting gives the white façade color and shadows, adding dimension and clearly differentiating the building from the neighboring structures. Photo courtesy of Clark + Green, Inc, Architecture Design.

advantage of characteristic lighting to add a movie theater flair to the commercial space. Art Deco stepped chandeliers provide direct light to the lobby area. Small downward facing lights placed against the concessions roof create a ripple of light to mimic stage spotlights (Figure 1.13). The result of carefully planning the light scheme is a visually interesting and historically sensitive building. Colorful exterior light draws the eye, but attention to lighting detail in the Beacon Cinema evokes an attractive air of nostalgia for patrons.
Busan, South Korea boasts a large metal structure, which is an easily-identifiable landmark because of the lit architectural features. Designed by Coop Himmelb(l)au as the permanent venue for the Busan International Film Festival, the large concrete, glass, and metal complex opened in 2012.\footnote{“Busan Cinema Center,” Coop Himmelb(l)au, accessed January 24, 2016, http://www.coop-himmelblau.at/architecture/projects/busan-cinema-center.} Intended as an urban center, the complex boasts a multipurpose theater, three small movie theater venues, and one large outdoor movie theater. The designers intended the roof to serve as the focal architectural element, and even though it creates its own “landscape through its sculptural articulation,” the built-in lighting on the underside of the roof sets the building apart more than any other aspect (Figures 1.14 & 1.15).\footnote{Ibid.} Reportedly the largest roof in the world, 42,600 LED lights create a unique setting for the complex.\footnote{“Busan Cinema Center (영화의전당),” Korean Tourism Organization, Imagine Your Korea, (n.d.), http://english.visitkorea.or.kr/enu/ATR/SI_EN_3_1_1_1.jsp?cid=1549716.} The various lighting programs turn an attractive but unengaging roof into a captivating feature, for not only the complex, but the lights reflect off the nearby river and the metal and glass surfaces of the structure.
Figure 1.14: Busan International Film Festival complex, 2012. Photo courtesy of Duccio Malagamba, Architectural photography, Barcelona, Spain.
Figure 1.15: The lighting display can be programmed to implement various designs and colors, which transforms entire facades of the complex. Photo courtesy of Duccio Malagamba, Architectural photography, Barcelona, Spain.
Each of the example theaters use light on the exterior to advertise their presence and to stand out as a unique structure. The theater in Vreedenburg uses light as a tether to identify with the previous incarnation of the building. Using light to tap into the legacy of movie theaters favoring lit displays to increase their visibility creates a connection to the historic character. Both the Beacon Cinema and the Busan International Film Festival complex utilize façade lighting to stand out from their unlit evening surroundings. This emphasis on evening distinction rests with the historic reliance on nocturnal lighting for the Beacon Cinema, and the popularity of evening entertainment in Busan.

The use of external lighting in the case studies also serves as a changeable service aspect of the building system; lighting dramatically changes a façade through color and adds dimension by creating shadows. Lighting can be of a certain time-period, as in the case of the Vreeburg Bioscoop, because lighting is one of the most changeable building systems. Innovations in bulb technology, as well as the use of different gas elements and fixture fashions, spurred consumers to update lighting design and fixtures more often than many other building systems. For this reason, even with the complete loss of historic lighting systems and fixtures, former Charleston theater buildings may reclaim an authentic atmosphere by employing exterior façade lighting strategies.
CHAPTER TWO

LIT REVIEW

Exterior movie theater lighting, and serious consideration of lighting in adaptive reuse, are largely unexplored topics. Scholarly sources on movie theaters, their popularity and social ramifications, abound in the second half of the twentieth century. Few sources focus on the lights that brought those theaters to life. Similarly, very little scholarly work exists on the adaptive reuse of movie theaters, and for those that do focus on theaters, “lighting is often treated as an afterthought” and is not a priority for the architects or the community. In addition to presenting literature that exists on adaptively reused commercial structures and character-defining lighting, it is useful to point out the gaping holes in academia regarding the general awareness of exterior lighting.

Illuminating Character

The fashion of color was widespread and is widely agreed upon, as is the concept that business owners utilized electricity as an atmospheric tool for profitability. Matthew Luckiesh detailed various methods of achieving colored lighting in 1924. Handbooks and manufacturing guides also touted the wonders of colored light in the early twentieth century. Colored light was invented and became fashionable in entertainment shortly

after 1910. While the colors varied and included red, green, blue, yellow, orange and violet, there were setbacks to the color of fashion. Some colors outlasted others, with violet and blue having the longest life. Others were more vibrant such as red, violet and blue. The use of light, in color or white, as a marketing tool is also an accepted concept. Joseph Pine and James Gilmore reintroduced the idea that all businesses are stages, and benefit from focusing on the in-store experience created for the customer.\(^96\) Pine and Gilmore discussed the idea that lighting can create a specific atmosphere, presumably for increased profits. Other authors who focused on this topic included Regina Raiford, Roger Moss, Lyle Taylor, Eugene Socov and Janet Turner. There is also scholarly consensus between David Ward and Maggie Valentine that movie theaters used electricity to create a unique, otherworldly atmosphere.\(^97\) This intentional use of lighting evolved from makeshift string lights to integrated design elements in the exterior and interior architecture of movie houses. Once businesses established integrated exterior lighting schemes, it was widely acknowledged that light created a whole other aura for buildings or shops.\(^98\) The “psychological effects” of exterior architectural lighting was commented on in America and Europe by the 1930s.\(^99\) President Hoover stated that architectural illumination allowed

\(^{96}\) Pine and Gilmore, *The Experience Economy: Work Is Theatre and Every Business a Stage*.


\(^{99}\) Ibid.
“cities and towns to clothe themselves in gaiety at night, no matter how sad their appearance by day.” ¹⁰⁰ Despite the awareness of the importance of exterior illuminance to determine character, scholarly consideration has not often progressed past the disjointed analysis of movie theater architecture and the history of electricity.

Few sources exist that explore lighting as a character-defining feature. There is consensus that lighting can “distinguish” a building, either on the exterior or on the interior. The National Institute of Building Sciences considers lighting fixtures and schemes as contributing factors in the character of a structure. ¹⁰¹ Lighting is considered to “contribute significantly to the character and authenticity of historic buildings” by the U.S. General Services Administration’s Center for Historic Buildings. ¹⁰² Derek Phillips’ book Lighting Historic Buildings targets the importance of historic lighting. Buildings are considered beautiful, he argues, when their lighting is appropriate to the function and setting: “lighting is an art form” that deserves careful consideration. ¹⁰³ However, while Phillips’ outlook on lighting is one of the few voices heard on the subject, his book focuses on a variety of building types in Great Britain, with only one being the rehabilitation of a theater space. Beyond Phillip’s work however, no sources explore attention to the conscientious lighting

¹⁰⁰ Ibid.
of spaces with sensitivity to their historic pasts. Could this be reflective of a modern lack in examining the effects of lighting on people, since lighting is now a standard component of life?

**Lighting Specifications**

The terminology and understanding of electrical systems developed over the last two centuries, and was most accessible through manufacturer catalogues. Companies such as Westinghouse, Sawyer-Man, Edison, and Thomas-Houston all published consumer pamphlets and books to showcase their products. Westinghouse, Edison Electric (after they merged with Thomas-Houston in 1892), Edison General Electric (after a merger of several Edison companies in 1896), and Sawyer-Man were the most useful in terms of relevant dates. These catalogues depicted endless numbers of bulbs, technically called lamps. Other terminology, such as candle-power and lumen, was introduced through these sources and are defined in the Glossary.

Within these sources, there was little information on the amount of light emitted by the lamps. Wattage and voltage were often available, but other sources were required to deduce lumen output for analysis later in this thesis. Details about various electrical lamps was derived from the Rensselaer Polytechnic Institute and the Illuminating Engineering Society as well as from historians like Scott Roscoe, G.E. Inman, Drew Hendricks and George Basalla.

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There is no disagreement that larger cities utilized electric lights, on the streets and in shop windows, earlier and more extensively than smaller and southern cities. A variety of literature mentions the extraordinary consequences of electricity and comes to the same conclusion: it was revolutionary and changed the concept of the night. Scholars who mention the evolution of light consist of Michael Forsyth, (GE scientist) Matthew Luckiesh, Scott Roscoe and Kevin Corbett, and include a variety of disciplines such as urban planning, engineering and history. These sources identified that electric lighting not only turned night into day, but businesses utilized it as a competitive strategy. There is consensus that electric light was a marketable gold mine; advertisers began highlighting bulbs that had longer lifespans, reduced tendencies to ‘run away’, or burn out, and those that were brighter. After 1895, the expense of manufacturing incandescent bulbs dropped, and they became affordable to small private business owners and some homeowners. Scholars agree that within the next two decades, bulb technology was refined exponentially with the invention of coiled tungsten wire, which was produced in different wattages. The “electron emissive material” coated the wire and was placed in bulbs with a drop of mercury and some argon gas, which allowed different colors to be produced.105

Endless variations of lamps were introduced between the 1890s and the 1940s, leading to an overwhelming number of lamps and catalogues. This variety made identifying individual lamps in historic photographs for the historic lighting study impossible. Sources

like Arthur Bright Jr.’s book, *The Electric-Lamp Industry: Technological Change and Economic Development from 1800 to 1947*, helped identify significant lamp types and specifications. Other sources, such as the Smithsonian’s “Electric Lighting History” exhibition report, and reports and specifications from electric companies like General Electric Lighting, supplied useful data to inform calculations on and history of certain types of lamps.

While the general history of electricity and depictions of various lamps were easily accessible, the implementation of specific lamps and lighting schemes for movie theater exteriors were not. Only Dietrich Neumann and Regina Raiford explored the concept of manipulating exterior thematic lighting to produce specific building programming. Neumann’s book, *Architecture of the Night, the Illuminated Building*, revealed the extent that movie theater exterior lighting is considered in illuminated lighting studies: only three theaters merited special mention in the entire book.

**Economics: Lighting in Capitalism**

Only in the last fifteen years has the commercial psyche of capitalism turned back toward the customer, rather than focusing on the product and its performance. According to Pine and Gilmore, some business owners have begun to treat their retail areas like stages, using “lighting and color [to] create a theatrical shopping environment”. The effect elevates the merchandise to an experiential level. This experience does not focus on the consumer’s shopping activity per se or on how the merchandise performs, but rather on the customer’s interaction with the product. These practices might be easily transferred to the adaptive
reuse of a movie theater space if the space is intended to serve a commercial function, in order to enhance the customer’s experience with a product.\textsuperscript{106} However, there is not enough literature on this subject to effectively corroborate or refute Pine and Gilmore’s ideas. Attention to lighting, especially in keeping with the character of the theater, requires close attention from architects and designers and the reuse methods are a moderately discussed subject.

Scholars have accepted that the lighting of movie theaters began as an intentional marketing tactic to increase visibility and marketability of the business. David Nasaw, Patricia McDonnell, and Charlotte Herzog are among the primary scholars who explore the confluence of flashy electric displays on early movie theaters and the increasing patronage of those movie theaters. The electric lights are discussed in primarily two respects. First, as a method to entice lower classes through glitzy and novel displays. Secondly, as a method to interest the middle class by brightening early theaters, formerly judged as houses of ill repute or squalor. Among the scholars who regarded the early exterior lights as a flashy advertisement for lower class people are Charlotte Herzog and Kevin Corbett. Herzog stated that electric displays were effective in capturing “plebian” masses who eventually gave way to a trickle and then a steady flow of middle and upper classes. In the same vein, Kevin Corbett highlighted that many Victorians were concerned that movie theaters were houses of immorality and that the movie houses focused on working class

Corbett also emphasized that electricity allowed the concept of nightlife, which generally evolved from shady to respectable and a central focus of American leisure. Scholars who emphasize the economic tactic of making the early theater entrances brighter and more inviting included Samantha Barbas and Maggie Valentine. Barbas did mention that while earlier movies were most certainly “lowbrow affair[s]”, the addition of electric lights to theaters was an effort to spiff up the appearance of the establishment, as well as to pass moving pictures off as a “respectable and intelligent art” to the middle and upper classes. Valentine noted that lighting did serve to elevate movie houses, and that the increased attraction of programmatic lighting yielded a broad-based consumer appeal, spanning low to upper-middle classes.

Adaptive Reuse Considerations

Scholarly consideration of adaptive reuse is primarily theses, journal articles and other published documents. Other sources included online newspaper, and website and blog posts which covered single and localized rehabilitation efforts. The literature does not extensively cover movie theater reuse, but the sources that do focus on the architecture of the building. This leaves a gap in the research for this thesis to consider of the lighting

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108 Ibid., 22.
schemes in the new building exterior programming. These sources focus on one of two objectives: why is adaptive reuse a good idea, and what constitutes a good adaptive reuse.

Law student Matthew Young studied motivation and methods of urban adaptive reuse. He emphasized that adaptive reuse is so popular today because the cost of land is so high. His perspective aligns with most other scholars in the belief that adaptive reuse stemmed from urban centers efforts to revitalize their cores. This motivation for urban revitalization is not the primary reason for early Charleston adaptive reuse in the early 1900s. The economic cost of reusing existing buildings rather than financing demolition and new construction was most likely the motivation in Charleston. Julia Rocchi, a writer for the National Trust for Historic Preservation, confirmed that “historic theaters are proven community revitalizers and economic drivers” in all sizes of cities, but did not address light as a character-defining feature. Other government-sponsored sources, including other Historic Preservation Nation blogs and state preservation websites promote ‘how to’ points
of restoring historic theaters. Other sources which maintained why reuse is good for the community included scholars Daniel Friedman and Joseph Valerio.

In focusing on the components of a good adaptive reuse, Jessica Kersting’s Master’s thesis considered the manifestations of modifications to historic structures and structural results. She focused on the Brooklyn Academy of Music, once used for movies. In that case study, she reached the conclusion that the conservation of the space, with a contrast between old and new materials, was the ideal solution. High contrast between historic and modern fabric is a favored approach to adaptive reuse, but Kersting did not mention the approach to enhancing or redefining the character of reused buildings. There is a void in the literature in regards to this consideration of light employment. Plenty of newspaper and blog articles also discuss ideal preservation or restoration projects for theater marquees, the best-known programmatic theater lighting. Web-based sources, like Urban Ghosts, Curbed, and city papers like The New York Times often cover theater restorations, or interesting rehabilitations, like the conversion of a theater into a basketball court.
They are less likely to be thought provoking regarding the reimplementation of exterior lighting to highlight the building’s architectural features or new programmatic scheme.

Detailed above is the sparse literature available for historic theater lighting considerations and the adaptive reuse of movie theaters. A few potential resources remain inaccessible up to this point. Some of these resources include archives at Boston’s Athenaeum, and some Library of Congress materials that are in-person access only. There are more gaps in the literature than expected, however that leaves promising room for this detailed study. The direction of this thesis incorporates an in-depth study of movie theater lighting strategies and fixtures will serve to inform the role of exterior lighting in adaptively reused movie theaters.

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CHAPTER THREE

METHODOLOGY

An interest in movie theaters originally prompted the early research for this thesis. It became apparent that scant information was available in concentrated and easily accessible outlets on Charleston’s movie theaters. Thus informed that there was a significant gap in the research, data collection on Charleston movie theaters revealed the overwhelming number of theaters using existing buildings as exhibition space. Therefore, a study of the exterior lighting of the theaters was undertaken to prove that Charleston movie theaters relied upon lighting to a greater degree than other commercial buildings, and than theaters in other cities, because of the wide-spread policy of adaptive reuse.

The thesis statement included the assumption that lighting is a character-defining feature, and required research on several fronts. To prove the central statement of this thesis, the socio-economic reasons for reuse are proven first. Results indicated that Charleston’s economy of the late nineteenth and early twentieth centuries was deficient. The city did not attract new business investment, nor large groups of immigrants to invigorate and infuse the economic workforce. Secondly, electricity was not widely adopted in Charleston as early as other American cities, creating a technology schism separating Charleston from other thriving urban centers. This furthered the economic slump. Thirdly, the retrenched and privileged social establishment in Charleston did not contribute to the development of the movie theater industry, and therefore set the city back in that innovation as well. This thesis proves that socio-cultural-economic factors
combined to result in the late adoption of electricity and movies. That late, but contemporaneous, adoption resulted in the redefinition of Charleston social norms, and unique Charleston movie theater architecture.

**Parameters**

Following the study of factors contributing to Charleston’s interesting theater typology, this thesis took stock of Charleston movie theaters. The establishment of a period of study focused the thesis on entertainment venues dedicated to regularly playing movie theaters as their primary form of business. The beginning date of 1907 denotes the first establishment in Charleston dedicated to showing motion pictures for profit. The end date of 1943 marks the year after the American was built. The American Theater was the last single-screen movie theater built on the peninsula within the boundaries of study. The boundaries of study were set as the Charleston peninsula below Line Street. That street marked the northern-most boundary of the Old Historic District.114

**Distilling the Inventory**

Theaters were included in the Inventory if their address and approximate dates of operation were known. In cases where only a name was available after research, it was impossible to describe the theater, let alone assess the lighting scheme.115 In addition, six theater buildings changed the name of their theaters in the study period, causing the total

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115 See Appendix A for all known theater names and known operation dates.
number of named theaters to be higher than the number of theater buildings. The Inventory revealed a predominant pattern of adaptive reuse. The conclusion for this pattern was derived from the statistic that 70% of theaters in Charleston were housed in repurposed structures. This statistic was based upon the finding that there were seven purpose-built theaters, of twenty-three theater buildings with known addresses. Therefore, the Inventory assessed fifteen theaters after researching into the building’s lot history, newspaper announcements for new theater construction, and imagery of the building façade.

Sanborn maps provided evidence for theater lot location, size, shape and evolution over time. Maps from 1888, 1902 and 1944 detailed changes on King Street. Changes illustrated individual building evolution in the changes of height, width, depth, and window configuration. The book Movie Theaters of Charleston by Coles and Tiejde supplied vital imagery and short descriptions of various theaters. It also served as a comparison for the total number of theaters, ensuring the inclusion of already-known theaters. City Directory information, housed in the Charleston County Public Library, also included addresses, names and sometimes owners of historic Charleston movie theaters. Historic photographs from the Coles and Tiejde book, accompanied by collections in the Addlestone Library, the Charleston Museum, the Avery Center, and the Lowcountry Digital Library also contributed to the identification and classification of theaters, often by visually confirming adaptive reuse.

Programmatic lighting was determined to be of great importance due to the novelty of electric lighting in the early twentieth century, and the established pattern of adaptive
reuse in Charleston. Researching how lighting was used required foundational research on electric history and trends in American movie theater thematic lighting. An understanding of Charleston’s adoption of electricity also informed findings and conclusions for movie theater exterior lighting significance.

Historic photographs, from the sources listed above, and newspaper descriptions helped form conclusions about the lighting schemes of the movie theaters. Photographs were invaluable, as they depicted not only the theater’s shape and relationship to the street, but showed specific lighting schemes and their location on the façade. Dated photographs also detailed the lighting development over-time on theater facades and the Charleston streetscape. This helped contribute to the argument that Charleston adopted electricity late. Newspaper information, supplied by The News and Courier and The Charleston Evening Post, supplemented photographs with written descriptions of some theaters. News articles were sometimes written for the opening of a new movie theater in town, and those provided the best information about the architectural, design elements, and lighting schemes.

**Calculation of Brightness**

Assessment of modern lighting schemes along King Street was intended to provide contemporary examples of historic lighting levels. In order to best understand the luminosity of historic movie theaters, calculations of historic and modern lighting levels accompanied the modern photographic study. Of important note, there was no publically-available methodology to assess the brightness of historic lighting levels. It was up to the researcher to investigate historic bulb types, wattage consumption, and estimate the
produced lumens of such bulbs. The possibility of historic lighting expertise exists, but that information was not accessible for this thesis.

Calculations were very difficult for several reasons. First, much of the data seemed ambiguous, even for modern lamps. For example, the lumen output of a 60-watt incandescent lamp in the twenty-first century varied more than 190 lumens between sources.\footnote{General Electric Lighting, “Incandescent,” 2009, http://www.gelighting.com/LightingWeb/emea/images/Incandescent_Lamps_Spectrum_Catalogue_EN_temp181-25050.pdf; Rensselaer Polytechnic Institute, “Incandescent,” \textit{Lighting Research Center}, n.d., 114, http://www.lrc.rpi.edu/resources/publications/lphb/061Incandescent.pdf.} This is one example of widespread discrepancy in the available data on lumen levels of various lamps. Lumens were chosen as the best and simplest unit of measuring historic light output, to quantify general brightness. In order to calculate the total lumens produced by a historic lighting programing, total wattage was calculated and the type of bulbs (incandescent, neon, etc.) were considered. Wattage was important to the calculation, because there are numerous resources with the ability to automatically calculate total wattage to lumens. Foot-candles served as the unit of measurement for comparison of historic and modern lighting levels. This was due to the easy availability of light measurement tools in foot-candles to measure modern light output, and historic lumen calculations were also simple to calculate into foot-candles. One foot-candle equals 10.76 lumens.\footnote{“How to Convert Foot-Candle Measurement - Steve’s Digicams,” accessed March 19, 2016, http://www.steves-digicams.com/knowledge-center/how-tos/film-and-video-production/how-to-convert-foot-candle-measurement.html#b.}
Neon Calculations

To estimate the total feet of neon, an object in a historic photo of the theater was scaled first. Often the scale was approximated, such as the width of a door or a sidewalk. That measurement was replicated on the photograph in Microsoft PowerPoint, and used the scaled width like a tape measure. This method produced the total feet of neon lighting on historic marquees. Brightness depended on the total feet, and then added to any bulbs in the scheme.

Quantifying Historic Bulb Output

To begin each historic light study, bulbs were counted on historic photographs. Speculation was rarely required, and only when the angle of the photograph obscured a clear bulb pattern (such as regularly-spaced fixtures under a marquee). Then the bulb lumen output was estimated using research on incandescent innovations. Innovations included filament composition or shape, and filling the lamp with gas. Therefore, in an effort to measure historic light output against a standard, Arthur Aaron Bright Jr.’s book, The Electric-Lamp Industry: Technological Change and Economic Development from 1800 to 1947, served as the preverbal yard stick. Located in Appendix D, Bright’s chart listed common 40, 60 and 100 watt lamps and resulting lumens, organized by year. Small marquee bulbs were calculated at 3.8 watts, based on a Philips Standard miniature bulb. The 3.8 wattage size was used for multiple years, and served as a control for the measurements.
Use of Bright’s information and a Philips Standard lamp was necessary on two counts. The amount of research required to match a bulb in a grainy photograph to a specific bulb of that year in a manufacturer’s catalogue proved too time consuming. Secondly, a lamp in a photograph was possibly years older than the photograph date, and therefore it follows that very specific research on the date of those lamps would be futile. Subsequently, visual assessment of the number of lamps from historic photographs was matched with the year of the photograph, and lumens were calculated from Bright’s chart or the Philips Standard, depending on the location of the lamps. If the lamps studded a marquee and were small, they were determined to be a Philips Standard lamp. If the lamp was in a fixture, the wattage was determined using Bright’s chart. Appendix D features Bright Jr.’s Lamp Efficiencies chart allowed easy computation of and comparison between building lighting levels.

Modern Light Study

The total lumens calculated from the neon and bulb assemblies was then compared with a modern study of King Street lighting, conducted by the author in 2016. This study was intended to help readers visualize quantified lighting levels, and to make connections with historic theater lighting levels. A small team first recorded emitted foot-candles from former-theater buildings, and buildings using exterior lighting along the King Street theater corridor. The measurements were taken using an Android phone application called

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118 While lamp efficiency might influence the results of this study, it was not an included variable in the calculations.
“Lux Meter.” The device measured the amount of light hitting the screen-side surface of the phone. The sidewalk in front of buildings of interest served as a control point for taking data. Measurements were taken with the phone held horizontally, screen-side up, to capture the amount of light from overhead fixtures, and to avoid calculating exterior brightness solely on interior lighting schemes.

The next step in the modern light study process was to approach business employees and owners to ascertain the type of bulb, wattage and lumens. The goal of these surveys was to calculate the total lumens produced on the façade of the buildings, or the lumens from inside fixtures reaching the street. If lumen output was unavailable, it was calculated based on data from General Electric’s modern incandescent lamp spectrum pamphlet. The lumen totals were converted to foot-candle output, and then compared to historic theaters. Comparisons assessed if historic lighting schemes were relatively brighter or dimmer than modern street-front programmatic lighting. Secondly, it assessed whether modern businesses rely on exterior lighting or the transmission of interior lighting to advertise during their evening business hours.

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119 It is vital to note that the level of detail for this instrument was enough to show general lighting levels, and therefore sufficed for the purposes of this study. Professional instruments would provide more precise measurements.

120 Findings of this study are limited by several factors. The number of buildings used in the study is not a comprehensive average of King Street illumination. Also, the luminosity of street lighting was not taken into account, and may alter the initial data slightly. Third, this study did not investigate the evolution and lumen-output of streetlamps.

121 General Electric Lighting, “Incandescent.”
CHAPTER FOUR

SOCIO-ECONOMIC-CULTURAL PATTERNS RESULTING IN A UNIQUE CHARLESTON MOVIE THEATER TYPE

For the purposes of fully understanding the types of theaters in Charleston, the social, economic and cultural context is vital. The understanding of Charleston theater architecture required the investigation of the Charleston economy and social atmosphere at the turn of the twentieth century. Socio-economic depression caused by inadequate infrastructure and a “very slow and old” stigma hindered the progress of electric implementation and moving picture acceptance.¹²²

Why Charleston Lagged Behind

Charleston was slower than many other urban areas in adopting electricity and moving pictures. Additionally, when the city adopted these technologies, they embraced both at the same time, creating a unique union. The question does arise, why was Charleston lagging behind other cities at the dawn of the twentieth-century? The answer is not simple, but a few conditions are positively identified in contributing to the lack of investment in Charleston in the first half of the twentieth-century. All of the factors add up to the deceptively basic truth that Charleston in the early 1900s was not a financially viable area for leisure activities, as the next section describes.

Charleston stepped into the glow of electric lighting slightly later than other American urban areas. In fact, Charleston also lagged behind European cities, who were outpaced by large American cities like New York and Chicago. By 1903 Berlin and Munich, Germany had about 2,000 electric streetlights combined. Compare that with the staggering numbers in New York City and Philadelphia: 17,000 and 10,000 respectively.123 A photograph of King Street looking north from Hasell Street in 1901 shows a complete lack of street lighting (Figure 4.1). Wires are visible, along with one telephone pole, but all wires are likely telephone wires. A photograph from 1910 shows lamp installations fixed on metal arches over King Street near the bend, south of Hasell Street, but this urban lighting was temporary (Figure 4.2). Phillip H. Gadsden sponsored

arches strung with electric lights in support of the locally-owned Charleston theaters in 1909 from the German Artillery Hall (then-used as a large Pastime Amusement Company vaudeville theater) on Wentworth to King Street and south towards Hasell Street.\textsuperscript{124} Albert Sottile, president of the Pastime Amusement Company, contributed out-of-town theater ownership failure, due to the “well appointed” local theaters, meaning that the lit streets played a significant role in the success of the Pastime Amusement Company theaters.\textsuperscript{125} Even with the temporary electrification, compared with Savannah, which had electrified nearly one third of their city by the late 1880s, Charleston was indeed behind the times.\textsuperscript{126}

\textit{Figure 4.2}: Widely-spaced permeant arc light is visible upper right in the photo, high above the street and away from the building because the light was so harsh. King looking north to Wentworth, 1910, Library of Congress.

\textsuperscript{124} Albert Sottile, “Deriving Pleasure out of Business” (Memo from the office of Albert Sottile, 1958).
\textsuperscript{125} Ibid.
The International Brotherhood of Electrical Workers also confirms Charleston as a latecomer to the electrical field, as small and distantly located towns joined the Brotherhood before #179 Charleston.127

Charleston’s reputation was for being “stinking, rotting, unhealthy” and impoverished at the turn of the twentieth century, caused a social isolationist mentality in the already economically retrenched upper class.128 Mayor Grace attributed the slow growth of the city on a privileged self-understanding held over from plantation society and a determined “spirit of isolation.”129 Mayor Grace drew upon the late date of road paving as evidence for the astounding lag in progress in Charleston: in 1911, only the roads directly along the Battery had smooth paving.130 Charleston boasted in the early years of the twentieth century that the city’s good qualities included “scores of interesting historic sites, miles of beautiful scenery, famous routes for motor boats, the best fishing in the South, and there is rapidly being constructed a splendid system of good roads.”131

Clearly, it took a decade for a single good road to be constructed in Charleston. This is in contrast to other states around the nation, such as Virginia, which not only had hard and smooth paved roads in entire counties, but had boards devoted to the maintenance

129 City of Charleston 1923 Yearbook (Charleston: J.J. Furlong & Sons, Charleston Printing House, 1924), xxv.
130 Ibid., xxii.
and regulation of the roads. An 1885 photo of King Street from Hasell shows deep awnings and dirt or cobbled paving (Figure 4.3). Mayor Grace stated that there were few ways to enter or leave the city; one chose between an “impassable road” to the northwest, or a bridge which required a toll even to walk across. Electric trolley rails were laid in 1897 in Charleston, nearly a decade after Savannah’s electric trolley service began in 1890, and fifteen years after New Orleans. Therefore, in regards to implementing electricity for transportation in Charleston, the city was clearly outpaced by contemporaries in the South.

Withdrawal from a Slave-Based Economy

Beginning with the founding of the colony of Carolina in the seventeenth-century, slavery was the driver of its agricultural economy. From 1820 until after the Civil War, the majority of the South Carolina population consisted of

Figure 4.3: 1885 King Street looking north from Hasell. Photo by M.B. Alexander, courtesy of the Charleston Museum.

133 City of Charleston 1923 Yearbook, xxiii.
slaves (the population of white residents did not exceed black residents until 1920).\textsuperscript{135} Furthermore, the economy of South Carolina relied upon rice cultivation, a labor-intensive agricultural endeavor. Predictably, the Civil War decimated the economy of South Carolina, and the lack of free and forced labor caused a stagnation of the economy. Charleston could not fall back upon any industrial infrastructure, nor any centralized state government, as the capital had moved to Columbia in 1786. As a consequence of the complete reliance on a slave-based economy, South Carolina recovered more slowly than other southern states from the tolls of war and partook of the ruinous consequences of a paralyzed economy. Other cities in the U.S. coped better with the changes, with industrialized cities welcoming thousands of eager and hard-working immigrants each year.\textsuperscript{136} Charleston, without a thriving industrial foundation, failed to impress immigrants and investors alike in the late 1800s.

\textit{Lack of Commercial Vitality}

At the dawn of the twentieth-century, rail and sea transportation were the main arteries of commerce. Charleston, while it did have a terminal connecting it to the Charleston and Southern Railway, relied mainly on sea shipping.\textsuperscript{137} The dramatic decrease in overseas demand for cotton in 1920 combined with outdated shipping infrastructure

\textsuperscript{135} George C. Rogers Jr. and James Taylor, \textit{A South Carolina Chronology, 1497-1992} (Columbia: University of South Carolina Press, 1994).
created an undesirable east coast port. The available export crops, primarily cotton, also decreased in the early 1920s with the migration of boll weevils from Mexico. With decreased land values in the Carolinas and lack of unionization in the area, textile manufacturing moved from New England into the area after 1880. However, because of the disrepair of the Charleston harbors, much of the shipping was directed through Savannah and other cities via railroads and shipping. Of vital importance is the understanding that lack of unionization coincided with more work or longer days, and that impacted the level of demand for night time leisure, such as movies. Charleston did have the first movie theater in South Carolina, so in relation to other parts of the United States, it was behind, but compared to the rest of the state, Charleston was a leader.

*Lower Population & Growth Rates*

A leader within the state, Charleston was still outpaced when compared with cities in other states. According to the 1910 US Bureau of the Census, New York City, Chicago and Philadelphia were the largest metropolis areas in the country, the only cities with over a million residents. In the 1910 list of the 100 most populated centers of the country, Charleston ranked 90th with 58,833 people. Nearby centers that outranked Charleston

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139 Ibid.
140 Ibid.
included 86th Savannah, Georgia with 65,064, 36th Birmingham, Alabama with 132,685, and 39th Richmond, Virginia with 127,628. The most populated cities in the south included 4th St. Louis, Missouri, 15th New Orleans, Louisiana, and 31st Atlanta, Georgia. By 1920, Charleston did not make the list, with the 100th city having 70,983 people. Other southern cities which did make the list included 85th Savannah, Georgia 79th Jacksonville, Florida, 38th Richmond, Virginia and 36th Birmingham, Alabama, 33rd Atlanta, Georgia, 17th New Orleans, Louisiana and 6th St. Louis, Missouri.\(^{143}\)

With a smaller population compounded by a slow growth rate, Charleston sunk into a sleepy depression relative to contemporary southern cities. Comparing Charleston to Atlanta, Savannah, Richmond, and Columbia between 1890 and 1920 Charleston grew at the slowest rate. Charleston grew at 1.24% between those years, compared with the 2.44% growth of Columbia or the 1.93% growth of Savannah.\(^{144}\) The slower rate of growth stemmed from the economic factors of a lack of updated railroad, paved road, and dock infrastructure. Fewer updated export and import services created a sluggish economy with few investors. A poor economy kept the population levels low and slow to grow, and a slow growing economy created a lack of disposable income within Charleston. The resulting microcosm not only contributed to the rate of newly built theaters, but also to the quality of existing theaters.


\(^{144}\) Ibid.
Reluctance to Embrace Innovation

Due to the stagnant population, which was capped by the “old money” tier in Charleston, Charlestonians were less willing to invest in new age ventures such as leisure infrastructure. The social environment encouraged an unfortunate economy for purpose-built theaters and less investment from investors outside the region. Big film studios that built huge and ornate theaters in other cities, such as the Fox Theater in St. Louis, were deterred from investing in an area, which was economically and socially failing (Figure 4.4). The upper echelons of Charleston society, those who might have been the biggest investors and political-economic drivers, mainly operated in a nostalgic and conservative stance. That is to say, the city took a decisive position of clinging to their golden years of the previous century and failed to embrace new mechanisms of growth.

One example is their lack of investment in the local movie theaters; the owners of most of the earliest movie theaters in Charleston were non-Charlestonians. Chief among these was Albert Sottile, whose brother was also involved early on in the moving picture industry in Charleston. As established, immigration and population levels were lower in Charleston than other cities, but
the fact that immigrants were investors in the Charleston movie industry reveals the extent of upper class detachment. Immigrant investment likely correlated to less total capital for the business venture, contributing to the high number of repurposed buildings as theaters. If the established, and wealthier, Charlestonians had seized the opportunity of investing in moving pictures, the Charleston theaters would have looked very different.

Another instance of a missed opportunity to encourage progress in the city occurred in 1923 with a new popular dance. Introduced by James P. Johnson’s Broadway musical “Runnin’ Wild”, enthusiasts dubbed the dance the “Charleston,” and attributed its style to the Gullah people of the Lowcountry island cultures. If the city had embraced the new culture wave and owned the dance, the economy and leisure outlets would likely have benefitted. Charleston would have captured an entire young generation of forward-looking Americans with culture, rather than mildly pandering to older Americans with interest in the distant past. Whether the earlier acceptance of new fashions and technologies would have changed Charleston’s commercial trajectory or not, very little would have changed in the evening hours without the adoption of electricity. The gradual installation of electric streetlights in Charleston fostered increased evening business and challenged the closely guarded tradition that the evening hours were only for the wealthy to enjoy.

**Challenging the Established Etiquette**

The biological tendency to draw near to the light, rather than the dark, is illustrated across cultures diachronically. Skylights in Roman villas, Mesoamerican polished metal surfaces to reflect light, and the equation of light and ventilation with health in high-
occupancy buildings all evidence light as an ingrained human preference. The move toward electric arc and incandescent lighting changed what hours of the day were available for leisure, who they were available to, and the established acceptable amount of light.

Lit streets converted the previously dark hours into productive and useable time for social and commercial pursuits. Businesses stayed open later with electric lights, and people began to make use of the night hours for recreation and leisure. In a context of low light levels in the streetscape across the country “lights served as ornament, advertising, and [a] beacon” for movie houses.\textsuperscript{145} Lighting increased the chances of drawing the eye, and as the viewer beheld the well-lit and glowing theater, their appreciation for the business increased. The lighting correlated to a sense of interest or attachment to the welcoming building, along an otherwise calculating and average commercial corridor. Adding electric

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{image.png}
\caption{The perceived beauty and safety by adding lights. Image courtesy of the Marman Collection, Minneapolis.}
\end{figure}

\textsuperscript{145} Nasaw, “It Begins With the Lights: Electrification and the Rise of Public Entertainment,” 54.
lights to any structure increased that structure’s visibility, beauty, and perceived safety, all of which drew people toward the lit structure (Figure 4.5).

Altered Perceptions of Time and Safety

Electricity was a major component in the movie business, not only to power the projectors but also to allow an increase in the perceived safety. Bright lighting increased the respectability of utilizing the dark hours in public spaces. Before electricity lit streets and businesses there was an unspoken rule that respectable people were not out around town at night.\(^{146}\) Society considered a person less-than respectable if they were out at night without the shelter of a carriage.\(^{147}\) So not only were evening pastimes previously within the private sphere, but they were also reserved for the wealthy. Carriage ownership was an upper class status symbol, and even hiring a coach for an evening was an extravagance for many outside the privileged upper tier. The act of spending an evening out was not often afforded to middle and lower class women, who stayed home and finished the household work in the evening. Men from the lower classes typically worked long hours and were expected to come home and sleep, so the men who roamed the streets were assumed to be vagrants or in search of pursuits contrary to quiet home life. Therefore, only people with enough disposable income to have use of a carriage and were not expected to work in the evenings or, in turn, be completely exhausted from their daily work, were out in the evening hours.

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Brightly illuminated streets made evening outings to public establishments more acceptable and accessible. The gradual illumination of city streets went from dark to low-light to near blinding with the implementation of gas street lamps and then electric arc lamps over five to twenty years, depending on the city. In addition to light intensity, the evolving technology of lighting enabled additional times for illumination. Bright electric street lamps could also be left on all night, in contrast to the dim and flammable gas lamps, which were only illuminated when supervision was available, and were extinguished around the midnight hour.

Well-lit businesses and theaters used arc lighting outside, which supplied an atmosphere of innovation and transparency that the business had nothing to hide. If a business has less dark corners and brighter entryways, the mood is typically welcoming. The same is true for businesses with street fronting windows: if the interior is bright, people outside the establishment can clearly see what is occurring inside and determine whether it is a safe and pleasant environment. Staff and merchandise are both observable from the street if the interior well lit.

With the idea of electric lighting used for advertising clean and welcoming businesses came the growing notion of connecting lighted areas to safety. In essence, the brighter the street or the more houses and stores with lights on in the evening hours, the higher the assumption of safety. The perceived “safety in numbers” instinct came to incorporate a theory about the level of illumination: the more lights are visible, the more

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148 Ibid., 48.
149 Ibid., 53.
people were awake and the more these observers can witness. This trend of elevated evening illumination resulted in a shift in the “baseline syndrome” of generational perceptions of night and darkness in the twentieth century. Baseline syndrome is the technical term to describe the current condition of being increasingly “accustomed to constantly illuminated and light-polluted night environments.”

The new lighting levels changed interior architecture features as well as highlighted exterior facades. The switch from gas to electricity provided dramatically better light and less noxious rooms, as electricity did not give off fumes like gas. New lighting quality changed the fashionable paint colors, with yellow becoming desirable after the implementation of electric lighting because its hue was previously unseen in the warm glow of candlelight and gas light. Electric light impacted and inspired artists, who depicted scenes and spaces differently with an electric light source. Charles Demuth is just one example of an artist who painted his subjects “in the glow of electrical lighting.” When Charleston stepped into that electrical glow, the attention to for-profit building exteriors was clearly a priority.

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Acceptance and Implementation of Electricity in Charleston

Charleston business owners did try and make the most of new technology when it was available, but that they did so later than other cities. For instance, New York and Chicago benefitted from their international expositions in the late 1880s, where successfully harnessed electricity soon after was trusted enough to become very popular. Charleston’s population did not benefit from the Charleston exposition held in 1901 and 1902 to the same extent, but it certainly contributed to the excitement surrounding electricity (Figure 4.6). Opening in 1901 and running into the following year, Charleston hosted an exposition called the Pan-American Exposition, intended to showcase Charleston agricultural exports to and trade with Central and South America. Charleston clearly did not quickly seize the opportunity to leap forward into the technological age after the Pan-American Exposition, as electricians were laid off in great numbers and the demand for their profession was so low in Charleston that many had to pay their next employers for the security of full-time employment. It is revealing of the Charleston economy that after

![Image](https://example.com/image.png)

Figure 4.6: Night view of Charleston’s South Carolina Inter-State and West Indian Exposition in 1902. The number of lights and the intentional outlining of the buildings and the bright lamps along the pathways must have struck viewers as incredibly modern and wonderfully bright. Image courtesy of the Library of Congress.

154 “Charleston and the South Carolina Inter-State and West Indian Exposition. An Illustrated Souvenir of the Beautiful Exposition and of Historic Places and Prominent Features of the City.”
155 “The Electrical Worker.”
such an extensive and extravagant display of electricity, the supply of electricians exceeded the demand after the Exposition.

According to the Sanborn map of Charleston, an insurance map denoting types of structures and their power sources, there were two businesses in Charleston in 1888 that used electric lighting: the Enterprise Railroad near the old Citadel campus and the Charleston Bagging Manufacturing Company on John Street. These two businesses show innovation being taken up by very large commercial operations. All other businesses in 1888 were lit with gas lighting. By that time, Chicago had offices lit in the entire financial district. The “early” adoption of electricity by the Enterprise Railroad in Charleston and the Charleston Bagging Manufacturing Company was probably due to their higher revenue, compared to other businesses in the city. Other non-theater business owners who latched onto innovation to increase their profits included shop owners incorporating moving pictures into their promotional offers to entice shoppers. For example, Hahns Ice Cream parlor offered free moving pictures to all patrons in early 1908, a clear sales agenda.

_Late Supply Complemented Little Demand_

At the dawn of the twentieth century, there were two electric power plants and three suppliers operating in Charleston. Production and manufacture of electricity was treated separately than the distribution and supply. This was possibly due to the geographic

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separation from the power plant and the storefront supply office. The suppliers included the Charleston-Edison Light and Power Company, the Charleston Electric Construction Company, and Richardson and Company as indicated in the 1899 City Directory (Figures 4.7 & 4.8). The first power lines appeared in downtown Charleston at Meeting and Broad streets in 1901, but electricity was not widely used during the next few years, evidenced by the fact that the first electrician finally appeared in the 1903 City Directory. Downtown power plants, located at 14 Marsh Street and at the eastern end of Charlotte Street, supplied electric power to Charleston in the early twentieth-century (Figure 4.9).

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159 The Lucas & Richardson Company’s Directory of the City of Charleston, South Carolina, 1899 (Charleston: Lucas & Richardson Company, 1899).
160 Charleston, South Carolina City Directory for 1901 (Charleston: The W.H. Walsh Directory Company, 1901); Walsh’s Charleston South Carolina City Directory for 1903 (Charleston: W.H. Walsh Directory Company, 1903).
161 The Lucas & Richardson Company’s Directory of the City of Charleston, South Carolina, 1899, 331–2.
The ability to produce electricity locally, rather than funneling electricity in from outside of town, indicates Charleston’s realization that electricity was the new lighting standard. Permanence did not equate to dominance though, and the electric plants were situated near the marsh on the upper edge of Charleston, rather than in a central location. A centralized location would have provided easier peninsular access to electricity, and possibly for a lower average cost to cover less distance, but Charleston remained attached to a romantic city plan, rather than a practical plan. The local supply of electricity, despite the bad location near chemical companies and other industrial sites producing waste.

Figure 4.9: 1888 Sanborn map, key page, electric plant locations in 1899 denoted with stars. Image edited by author.
products, allowed businesses the opportunity to use electricity for more than just the projector. The power plants supplied enough electricity for business owners to operate their moving pictures while illuminating their front entrance.

With two downtown power plants producing electricity, there were very few businesses or individuals offered electrical services in Charleston. In 1899, eleven years after the first electrified buildings in Charleston the Charleston-Edison Light & Power Company established a commercial office on the Charleston peninsula.162 Located at 227 King Street, the store occupied a prominent location near the Academy of Music.163 That same year there were three electric light suppliers in Charleston: Charleston Edison, Charleston Electric Construction Company, and Richardson & Son.164 By 1903 there were still only three electric suppliers, as well as a small number of “platers”, “typers” and electricians, a new category for Charleston.165 As mentioned earlier, Broad and King streets were the first arteries to install electric lighting. The pattern of electrifying main arteries first is consistent with other cities like Savannah, which electrified Broughton Street first, due to the popularity as a shopping corridor.166 Significantly, in both Savannah and Charleston, the main shopping corridor became the earliest electrified streets, which then became the theater avenues.167 Charleston was late to implement electricity, so the

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162 These early systems ran on localized electrical current sources.
163 The Lucas & Richardson Company’s Directory of the City of Charleston, South Carolina, 1899.
164 Ibid.
165 Walsh’s Charleston South Carolina City Directory for 1903.
167 Ibid.
innovative lighting source was immediately paired with the new entertainment medium of moving picture houses.

Manufacturing Standards

In an attempt to both standardize and promote their products, many electric manufacturers published trade journals and product review pamphlets for electric professionals and general public consumers. General Electric and Westinghouse were arguably the most prolific of these publishers. In the Westinghouse “Commercial and Industrial Lighting Handbook,” they suggested lighting levels for moving picture theaters, including interior and exterior lighting. Illumination is measured in foot-candles, an American unit for measuring the light intensity transmitted in twelve-inch intervals. If a lamp has a twenty foot-candle measurement, you are receiving direct light from the source at an intensity like you are one foot away from twenty candles. In the auditorium, five foot-candles was suggested for the time during intermission, with 0.1-0.2 during the show. Other places with a suggested five foot-candle illumination level included hotel corridors, hospital wards, and train platforms. It is significant to note that Westinghouse suggests a level as low as 0.2 foot-candles for no other spaces. Lobby spaces in theaters

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169 Ibid.
171 Ibid.
were suggested to be lit at between ten and twenty foot-candles.\textsuperscript{172} Exterior illumination of buildings was suggested to be “floodlighted” at between ten to twenty foot-candles for bright surroundings, or between five and ten foot-candles for dark surroundings.\textsuperscript{173}

These suggested levels are important to mention because they identify movie theaters as establishments with specific and unique lighting needs, on the exterior and the interior. Significantly, as of 2008, there are no lighting regulations for Charleston.\textsuperscript{174} As a portion of this study, a search for lighting ordinances or suggested luminaries revealed a near-total lack of attention to light in downtown Charleston. The established historic precedent for attending to lighting levels and fixtures leaves a legacy for Charleston businesses to reinstitute today. A gap in preserving and recreating the historic character of Charleston exists in character-defining light. One step in recreating the character of King Street commercial buildings would include focusing on former movie theaters and attention to light on and in those structures.

**General Theater Types**

To understand Charleston movie theaters, a broader understanding of movie theater architecture is necessary. Theaters are categorized several different ways, including the type of interior features, and building size and exterior ornamentation. Interior features

\textsuperscript{172} Ibid.

\textsuperscript{173} Ibid.

separate theaters into hard top and atmospheric theaters.¹⁷⁵ Distinguishing Charleston theater architecture from other American movie theater styles is vital to the study of why Charleston theaters were unique. The traditional and accepted historical types of theaters includes Nickelodeons, movie palaces and multiplexes. Nickelodeons ranged from small temporary storefront businesses to flashy and ornate establishments. The first movie theater is a contentious topic, but the first known movie theater was located in Buffalo, NY in 1896.¹⁷⁶ A Pittsburgh theater also laid claim to the title of the first intentional moving picture theater nearly a decade later in 1905.¹⁷⁷ Nickel theaters, or Nickelodeons, peaked between 1908 and 1914, just prior to the building boom of movie houses. A shift in movie theater style occurred in 1914 when The Strand Theater opened on Broadway and featured more opulence and glitter than anything seen before (Figure 4.10).¹⁷⁸

¹⁷⁵ See the Glossary for the definitions of atmospheric and hard top theaters.
After 1914, movie palaces largely replaced smaller Nickelodeons due to the uneconomic limitations on seating and a premium on unique decoration. Palaces relied on the decoration of the exterior “to attract the attention of the public and to act as an advertisement” for their movies.179 Multiplexes, or multi-screen theaters, emerged in the 1940s as suburban sprawl intensified and the number of pictures produced per year increased.180 There were movie theaters which consisted of multiple buildings connecting through a single entrance as early as 1915, but the same movie was shown on the multiple

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179 Charlotte Kopac Herzog, “The Motion Picture Theater and Film Exhibition--1896-1932” (Ph.D., Northwestern University, 1980): 104.
180 “Aiken to Be 17th City to Show Film; Little Patricia to Open Same Day,” Aiken Standard, February 14, 1940.
The 1940s ushered in multi-movie multiplexes. These theater classes hold true for many larger cities across the country, but Charleston requires a different classification system.

**Charleston Typology**

As mentioned previously, Charleston derivatives of movie theaters differed from national categories. A Charleston movie palace did not share the exact characteristics as a movie palace elsewhere, in size or decoration. For example, Charleston only had one atmospheric theater, while they were very popular elsewhere. Therefore, a hierarchy for Charleston theaters would include Nickelodeons, Commercial Theaters, Show Theaters, and Multiplexes. For the purposes of this examination, multiplexes fall outside the scope of the thesis due to size and dates of implementation in the area. Additionally, research has concluded that no Multiplex has ever existed within the geographical boundary set within this thesis as ‘downtown’.

Though Charleston has its own types of theaters, Charleston Nickelodeons fit the national model but as simplified and less gaudy entertainment buildings. Nickelodeons were the first entertainment venues to show moving pictures to crowds, as opposed to showing moving pictures to individuals through machines like Edison’s Kinetoscope (Figure 4.11). In early Nickelodeons, projectionists set up their projector, a white sheet and

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182 Herzog, “The Motion Picture Theater and Film Exhibition--1896-1932,” 123.
chairs in the ground floor of existing buildings and enticed customers in with flashy lights, signs and the promise of novelty shows or items. The typical layout for these theaters included two doors on each side of the front façade, with the middle bay darkened facing the street to block light. Large light blocks, or partitions, reduced the outside light permitted inside the building from the two sets of doors. Smaller buildings consisted of a single, off-center doorway, but used the same methods to block light at the front of the establishment. The exterior decoration of these theaters varied but principally included individual light bulbs, signs, and sometimes novelty acts, such as singers. Nickelodeons in more accessible and larger cities tended toward audacious advertising and extremely fanciful architectural elements. One example is the Leader Theatre in Washington, D.C. (Figure 4.12). The amount of ornamentation on the Washington, D.C. theater, from the numerous statues to the painted backdrop above the ticket booth, clearly outmatched Charleston theaters. This scale of decoration and lighting was not present in Charleston at any point in time (Figure 4.13). Significantly, the demand and support for moving pictures in other cities resulted in the

Figure 4.11: Edison’s Kinetoscope, a machine which ran film through the box and produced a moving picture for the viewer. Image courtesy of the Evanston History Center, Illinois.
marked construction of Nickelodeons outside of Charleston, while Charleston Nickelodeons and later types of theaters continued to modify existing structures to accommodate theaters.

Charleston Commercial Theaters included intentional use of existing commercial buildings as a theater space. This is slightly different from Charleston Nickelodeons because Nickelodeons in Charleston appeared as impromptu business decisions to alter a commercial space into a functional, but not decorative, purpose. The theaters could not capitalize on architectural cues to communicate their function as a theater to potential clients because they were not purpose-built. Even at the time of conversion and peak use,
these theaters required specialty lighting and signage to distinguish themselves from other commercial buildings. The Gloria Theater was built into an existing commercial building and retained an undistinguished character (Figures 4.14 & 4.15). In Charleston, buildings converted into theaters often underwent very few changes, such as the Maceo Theater at 422 King Street. Window openings and entryways remained unchanged, but awnings often of metal and lit lettering of the theater’s name were marked changes.

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183 See Appendix A for additional images.
Figure 4.14: 1922 photo of 327-9 King Street. The Gloria Theater was inserted into the G.W. Kessler building a few years later. Photo courtesy of the Pastime Amusement Collection, College of Charleston Special Collections.
Figure 4.15: Undated photo of 327-9 King Street. The Gloria Theater. Photo courtesy of the Lowcountry Digital Library at the College of Charleston.
Show Theaters would qualify as movie palaces elsewhere, in that they provided the best experience around, in both scale and comfort. Charleston differs in the Show theater category in that they are the only theaters to consist of a pre-conceived plan to build and decorate a movie theater. These establishments were built as showpieces for owners to display the excitement and drama of the movie business. In Charleston, these types of theaters include buildings which were heavily altered to stand out as a theater as no purpose-built theaters existed in the study area during the early nineteen-teens. Examples of buildings with large rehabilitation campaigns to alter the fabric of the building that they moved into included the Garden Theater and the Riviera Theater. The Gloria Theater is included in the category of Show theaters based upon interior character, as the exterior of the theater remained generically main-street commercial in appearance.

Segregation

Discrimination was rampant in all the types of Charleston movie theaters discussed above. Segregation differed in regions across America in the era of investigation, but many theaters placed white patronage, regardless of nationality, at a higher premium than black patrons. According to many contemporaries, segregation grew dramatically at the turn of the twentieth-century.\(^{184}\) In Charleston, the result included many theaters with separate entrances, often on different facades, and separate ticket booths for ‘white’ and ‘black’ movie goers. Black patrons were not only relegated to the worst seats, but they were

\(^{184}\) Nasaw, *Going Out, The Rise and Fall of Public Amusements*, 49.
excluded from participating in the social ritual of attending the theater through the magnificently lit front entrance.

Theaters in Charleston fell into two categories: completely segregated, or internally segregated. Completely segregated meant the theater was devoted to black patrons only, while internally segregated theaters’ configuration admitted whites on the main level and blacks only to the balcony. The completely segregated theaters known in Charleston are 28% of the total movie theaters during the study period. All but two of those theaters were located north of Calhoun, which served as the division between the more aggressive discriminatory businesses and those that were more welcoming.185 The black community felt the prejudice during the twentieth-century, and the Gloria and Riviera theaters were on the 1963 Charleston Movement’s Black List to boycott because of their segregated practices.186 It is important to note that fewer images or records of the lighting schemes of completely segregated theaters are extant, likely due to the lack of records kept on the theaters and the value placed on the significance of those structures. The social implications of segregation in Charleston also affected Upper King Street in the devaluation of historic properties in favor of traffic solutions, such as parking lots.187 In short, a lasting effect of

187 Baco, “One-Way to Two-Way Street Conversions as a Preservation and Downtown Revitalization Tool: The Case Study of Upper King Street, Charleston, South Carolina.”
commercial segregation in Charleston has included the loss of black-only theaters along Upper King.
CHAPTER FIVE
INVENTORY OF CHARLESTON MOVIE THEATERS

To entertain the city, moving picture exhibitors gathered along King Street, at the confluence of business and leisure. There were thirty-two theaters in the years between 1907 and 1945 along the King Street corridor. These theaters occupied twenty-five buildings, in the same span of time.\(^{188}\) Theaters were located on King between the cross streets of Princess and Columbus, and only one was not directly on King: the Victoria.\(^{189}\)

The movie theaters were especially concentrated in the 200 and 300 blocks on King, between Market and Wentworth and between George and Calhoun (Figure 5.1). The third cluster appeared between

\(^{188}\) Seven theaters changed their name during their years of business, but retained the same building. 225 King Street is not included in this count, as the Academy of Music was not a moving-picture venue.

\(^{189}\) City of Charleston Directories 1899-1909.
Columbus and Spring streets. The fourth cluster also had a high concentration of theaters, with only one extant today. At present, not a single establishment along this corridor plays movies, despite the physical existence of most of the buildings today. The American is the only building that retains the capability to play a movie. This capacity for showing movies is only exercised for special events. The lack of downtown movie theaters in Charleston is not a concern for many people today, just as the promotional lighting design and lighting effects are not often a main consideration in the reuse of such theaters. This overlooked option to use historical techniques of lighting schemes and specific light fixtures in Charleston movie theaters is crucial to this thesis.

**Individual Study**

Between 1907 and 1943, thirty-two theaters operated in downtown Charleston. Downtown is classified as south of Line Street, as established by the Old City District in Charleston as of 1997. Some theaters operated in the same building as earlier establishments. Establishments that were not dedicated to the exhibition of films but operated as a novelty, like Macbeth’s “Palace of Moving Art”, have not been mapped and their distribution cannot be known at this time.

Three important trends emerge in the following individual theater study: the prevalence of commercial typology, naturally formed clusters, and implementation of

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specialty lighting. It is also important to emphasize that many of the earliest permanent movie theaters in Charleston popped up in previously vacant buildings. For example, the buildings which would house the Theatorium, the New Theatorium, and the Fairyland were listed as vacant the year before they opened.\textsuperscript{192} It would seem that the languishing economy and conservative mentality in Charleston did not encourage successful merchants to crowd their enterprises with opening nickelodeons in their shops. Rather, enterprising non-Charlestonians opened the very first theaters as trial-run theaters.\textsuperscript{193} Of these immigrants, the Sottile family diversified their wine business and owned several theaters downtown

\begin{flushright}
Figure 5.2: Sottile brothers, George (far left) and Albert (far right) in front of their office as dispensary agents. Five brothers, first generation immigrants, rose to local prominence. Albert especially became very involved in Charleston business and society. Undated photograph courtesy of the Sottile family of Charleston Reunion.
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\textsuperscript{193} These individuals included George Brantley and James Sottile, who opened the Theatorium, New Theatorium and the Majestic. See Figure 5.3 for a more complete list of theater ownership in Charleston.
Albert Sottile, a first-generation immigrant, later served as the president of the Pastime Amusement Company, which owned over 36% of the theaters downtown (Figure 5.3). The Sottile family joined the businesses devoted to entertaining the public with moving pictures, a vocation not solidified in Charleston before 1908. That year, four movie houses were listed in the City Directory under the category “Moving Pictures.”

Figure 5.3: Albert Sottile was president of the Pastime Amusement Company. His theaters are shown in red. Image by author.

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194 *Walsh’s Charleston, South Carolina 1908 City Directory.*
The Edisonia Theater started out in late 1901 as a “storefront amusement parlor” with Kinetoscopes for movies and smaller novelty machinery. Named for Edison in its use of electricity, the theater opened and closed multiple times. Located at 263 King Street, in the southern-most cluster of theaters, the building is classified as a Nickelodeon. The narrow building is three stories tall with twelve-inch thick walls, and today houses Michael Kors (Figure 5.5). In 1902, the building had an awning on the front façade, and a small skylight in the rear portion of the building. The lack of windows on the ground floor would have provided an ideal atmosphere for the display of early motion pictures.

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196 Charleston Evening Post, January 3, 1908, 3.
198 Ibid.
James Sottile, brother of Albert Sottile, a Charleston business mogul, bought the theater in 1908, and closed it shortly thereafter.\textsuperscript{199} No images survive of the theater, and its lighting scheme is unknown. The theater reopened in 1908 as the Idle Hour and closed the following year.\textsuperscript{200} The name Idle Hour is an important identifier of how Charleston moving picture exhibitors viewed their operations. They were open to entertain people during idle time. The “hour” portion of the name suggested quality in the length of films, as full-length features did not exist yet.

\textit{The Theatorium}

George Brantley, an enterprising businessman from Georgia, established the “first” permanent and devoted moving picture theater in Charleston in 1907, although the Edisonia and doubtless other operations were already showing short motion pictures.\textsuperscript{201} Called the Theatorium, the theater occupied 321 King Street, supposedly inside the American Hotel.\textsuperscript{202} It is unclear if the connection to the hotel is incorrect, as the 1902 Sanborn map clearly shows 313 King Street as a hotel called the “National House,” while 319 to 325 King Street

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\caption{The Theatorium was located near the corner of George and King Streets. Image by author.}
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\textsuperscript{199} Beiter, “A Reel Pastime: The Sottile Family and Charleston Motion Picture Exhibition,” 28.
\textsuperscript{201} Beiter, “A Reel Pastime: The Sottile Family and Charleston Motion Picture Exhibition,” 24.
\textsuperscript{202} Beiter, “A Reel Pastime: The Sottile Family and Charleston Motion Picture Exhibition.”
look cohesively-built: each store was thirty-five feet tall, two stories, and each had a skylight near the rear of the building. 203 The theater was completely segregated and for white patrons only. 204 Pottery Barn occupies the site of those grouped stores today. By the time the Theatorium opened, 71% of states in America already had movie theaters of the same sort. 205 The theater operated as a Nickelodeon, but due to the short duration of operation and a lack of enduring imagery, the lighting scheme is unknown.

The Wonderland

Located at what historically was called the “Bend” in Charleston, the Wonderland Theater opened at 253 King Street on May 18, 1907. 206 Owned by Eddie Riddock and William J. Byrnes, the front of the building housed an arcade and the rear held a small

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204 “Amusements,” The News and Courier, June 18, 1907.
Theater. The building was built in 1875 by architect John Henry Devereux, and the façade was remodeled around 1900. At the turn of the century the three story building had a central elevator and a rear one story portion with two skylights. The owners called it the Wonderland because it was “filled with the wonders of electricity”. ‘Wonderland’ was a typical name for early theaters in the US, but the identification of the Charleston Wonderland’s association with electricity as the inspiration for its name is significant. In advertisements, the theater embraced its motto, “The Bright Spot” (Figure 5.9). The theater had a blade sign, painted white and gold, with bulbs inset on raised metal lettering spelling out the name on both sides (Figure 5.10). The theater had “an abundance of comfortable opera chairs and is cooled by huge electric fans,” which were necessary for operation during the summer months. For the opening in 1907, the building was:

Handsomely painted, papered and decorated. Skylights and ventilators add to the comfort and more than a hundred electric lights will make it bright at night. The floors are covered with handsome linoleum and the aisle in the theatre with Brussels carpet. Velvet curtains, hung in an artistic arch, divide the two departments and the patrons will spend as much time as they please in one without necessarily stopping in the other.

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209 “Insurance Maps of Charleston South Carolina.”
211 *Charleston Evening Post*, March 24, 1908.
212 “Wonders at ‘Wonderland.’ New Amusement Enterprise Opened on King Street.”
214 “Wonders at ‘Wonderland.’ New Amusement Enterprise Opened on King Street.”
Figure 5.9: Wonderland Advertisement. Notice the repeated advertisement calling the theater the “bright spot,” and associating the theater with the “very latest success.” Image from The Charleston Evening Post, March 24, 1908.

Figure 5.10: Blade sign for the Wonderland Theater, from a 1910 photograph. Photograph courtesy of John Coles.
Today, the building houses Banana Republic and no traces of the theater are visible. According to general manager Sandi Zirneklis, much of the original decorated ceiling still exists, but remains hidden under gypsum board after the owner desired to fireproof the building for residential purposes above the first floor. Any interior finishes which survive are likely from the main store building, which housed J.R. Read & Company in the early 1900s, as the rear part of the building was completely opened up by 1944 to connect 249 King with 247 and 249 as one large store.215

The Dreamland

The Dreamland Theater opened in 1907, and is notable for two reasons. First, it was the furthest south theater known, occupying 220 King at the corner of Market and King, across the street from the Academy of Music.216 It is unknown whether the southern

216 “Amusements.”
location helped or hindered the initial profits of the theater, but ultimately it may have played a factor in the closing. Secondly, the Dreamland is the only known movie theater that Albert Sottile exhibited at decades later. Albert’s brother James owned the theater, and Albert would sing to entertain the audience between movie reels, as he was part of the Excelsior Glee Club around 1908. Built as a three-story dwelling, the lot consisted of four enclosed areas, any of which may have provided the setting for showing pictures. Based on the information that the Wonderland Theater was likely located in the rear of the building, was one story and had a skylight, the rear portion of 220 King Street that had two skylights and was one story is likely the location of the theater. No images survive of the theater while it was in operation, but the location across the street from the well-established Academy of Music may have required the implementation of extra ornament and lighting on the exterior of the building to attract attention. The building reverted to commercial purposes after the theater closed, sometime after 1916 (Figure 5.12). Today, Christian Michi occupies the building.

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218 “Insurance Maps of Charleston South Carolina,” Revised 1944 1902.
The Majestic Theater opened at 343 King Street by late 1908.\footnote{“Fine Bill at the Majestic,” \textit{The News and Courier}, September 2, 1908.} Significantly, this was the first purpose-built movie theater in Charleston. In studying historic maps, 343 King Street consisted of a one-story vacant structure, a tiny one-story store, an outbuilding, and a small two-story dwelling to the rear (see Appendix B).\footnote{“Insurance Maps of Charleston South Carolina,” Revised 1944 1902.} By 1944, the lot was fully occupied by one structure: the “Majestic Theatre” for moving pictures.\footnote{“Insurance Maps of Charleston South Carolina,” 1944.} The one-story building featured a rounded entryway alluding to a proscenium, the opening between the stage and the auditorium, and the word “Majestic” inlaid in the tile floor in front.\footnote{According to the Merriam-Webster Dictionary, a proscenium is the wall that separates the stage from the auditorium and provides the arch that frames it.} The newspaper announcement of the opening praised the theater for its pretty decorations and “effective lighting”.\footnote{Charleston Evening Post, August 6, 1908, 3.} The Majestic enjoyed considerable longevity, remaining in business until 1949. A combination of movies and vaudeville acts entertained patrons, until the
Pastime Amusement Company converted the second story of the German Artillery Hall into a vaudeville theater. After that only moving pictures played at the Majestic. In 1950, the name was changed to the Cameo Theater, but the theater closed the following year.

**Olympic Theater**

![Figure 5.15: The Olympic Theater was located between Burns Lane and Calhoun Street. Image by author.](image)

![Figure 5.16: Former Olympic Theater marked by the “Club 49” sign, in 1953. Photo by Louis Schwartz and courtesy of the Charleston Museum.](image)

After moving into 368 King Street, the Olympic Theater opened in early 1909. Located between Burns Alley and Calhoun Street on the site of a “shanty to be removed” in 1902, the site possibly hosted the Bon Air outdoor theater until a structure was built. However, it is interesting that the “shanty” was one story, and the building pictured in a 1944 map had very similar dimensions in height, width and depth. A 1953 photograph shows the small commercial structure (Figure 5.16). The theater likely did not use any electric arc lighting on the exterior, as those fixtures were very large and bright for

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226 Additional photos of the theater are in Appendix A.

227 *Charleston Evening Post*, February 8, 1909, 10.

228 “Insurance Maps of Charleston South Carolina,” Revised 1944 1902.
a one-story building. Two years after the opening, the owner was reportedly given six months to demolish the building.\textsuperscript{229} Around 1911 the name was changed to the Uno Theater, and operated by the Meyers Brothers until at least 1917. A small parking lot occupies the former Olympic/Uno Theater today.

\textit{Maceo Theater}

Very little information survived regarding the Maceo Theater. Located at 422 King Street, exact opening and closing dates are unknown. By late 1910, the theater was in operation until temporary closures sometime before early 1913.\textsuperscript{230} The completely segregated theater catered to black patrons and was likely housed in the one-story rear portion of the three-story brick building.\textsuperscript{231} The building exhibited vaudeville and moving pictures. The theater name changed to the Leader Theater sometime between 1913 and 1915.\textsuperscript{232} It is unknown when the Leader Theater closed.

\textsuperscript{229} \textit{Charleston Evening Post}, May 10, 1911.
\textsuperscript{232} “In the Police Court,” \textit{The Charleston Evening Post}, September 4, 1915; Coles and Tiedje, \textit{Movie Theaters of Charleston}. 
The Victoria Theater opened March 27, 1911 and was the second purpose-built movie theater in Charleston.\textsuperscript{233} Built by the Pastime Amusement Company, C. Kanapaux & Company were the contractors. Located at 86 Society Street, the theater utilized the entire lot, previously an L-shaped dwelling with a large kitchen.\textsuperscript{234} Built as a combination theater, vaudeville was the intended main attraction at the Victoria, with films taking second priority.\textsuperscript{235} In 1918, the name was changed to the Victory Theater in honor of the United States victory in World War I.\textsuperscript{236} A photograph of the Victory shows a dramatically wide entryway and a larger metal awning (Figure 5.19). The Victory operated until 1945, and was demolished soon after. Despite the success and long duration of business, very

\textsuperscript{233} “Best Vaudeville for the Victoria,” *Charleston Evening Post*, December 21, 1910, 3.
\textsuperscript{234} “Insurance Maps of Charleston South Carolina,” Revised 1944 1902.
\textsuperscript{235} “To Open Theater March 27,” *Charleston Evening Post*, March 13, 1911, 10.
few images surfaced for this building. A group of shops in a mid-century building occupies the front portion of the site today, and a theater is part of those shops; Threshold Repertory Theatre is dedicated to live theatre.

**Princess Theatre**

Located at 304 King Street, the Princess Theater operated within a heavily modified structure, and qualifies as Charleston’s third purpose-built theater. Extensive modifications included the main façade and the interior programming, and therefore merits classification as a purpose-built theater. A three-story dwelling and several attached outbuildings occupied the front portion of the incredibly deep lot in 1902. By 1911, a new structure occupied three quarters of the lot, and operated as Riddock’s Arcade. The Arcade was a high class restaurant and soda shop, which specialized in catering to “after-theatre parties,” as the rear of the establishment opened onto the rear of the Victoria Theatre.

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239 Ibid.
Riddock’s family name “achieved national prominence in the restaurant field at the time of the Exposition,” but despite offering the best quality food with a respectable name, the store closed by 1913.\textsuperscript{240} That same year the building was reopened as a movie theater (Figure 5.22).\textsuperscript{241} D.C. Barbot was the architect of the Princess, and the Charleston Engineering and Contracting Company oversaw the building conversion.\textsuperscript{242} Notice that the ticket booth was nearly identical to the Majestic Theater’s ticket booth. Such similarity indicates that theater architects were following successful patterns within the form of movie theater architecture, and were not creating unique buildings. The Pastime Amusement Company built the Princess, which competed with theaters held by other owners. Competition in 1913 included the Crescent, Uno, Elco, and the Colonia or Colonial.\textsuperscript{243}

\begin{figure}[h]
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\includegraphics[width=\textwidth]{figure5.22.png}
\caption{Princess Theatre}
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\textsuperscript{240} Ibid.
\textsuperscript{242} “Princess Theatre to Open: Splendid Motion Picture House to Begin Business To-Day,” \textit{News & Courier}, November 17, 1913.
\textsuperscript{243} Beiter, “A Reel Pastime: The Sottile Family and Charleston Motion Picture Exhibition,” 39.
Figure 5.22: Princess before 1936. Notice the blade sign near the cornice, with neon design and the individual bulbs along the perimeter of the bottom of the awning. Photo courtesy of John Coles.
Constructed in 1918, the Garden Theater was intended to be Pastime Amusement Company’s premier movie theater. It was the fourth of Charleston’s purpose-built movie theaters and is especially significant as an example of a Charleston ‘show theater’. Located at 371 King Street on a lot formerly occupied by a dwelling over two separate commercial spaces, the new theater exceeded the 1902 property boundary and enveloped three small dwellings on McBride’s Lane. The front façade had an entrance for black patrons on the far right side, where they immediately ascended stairs to the balcony, and the white entrance was in the center under the conspicuous arched entryway. Designed by C.K. Howell and D.B. Hyer in the Beaux Arts style, the Garden featured a prominent awning and cornice (Figure 5.23). The building ceased theater operations in 1969, but remained a landmark on King Street. Urban Outfitters occupies the space now, but seriously deteriorating metal clips has compromised the terracotta façade and most of the building is obscured by scaffolding today.

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245 Leonard Greene, Interview with Leonard Greene, interview by Jean Stoll, October 6, 2015.
Figure 5.24: 1918 photograph of the Garden Theatre. Later renditions of the marquee included neon, and the lights suspended over the cornice were removed by the 1930s. Photo courtesy of the Pastime Amusement Collection, College of Charleston Special Collections.
Lincoln Theater

Operated by Damon Ireland Thomas, the Lincoln opened in 1920 at 601 King Street. Located in the northern-most cluster of theaters, the theater was owned by the Bijou Amusement Company.\textsuperscript{246} A two story dwelling occupied the lot in 1902, which was demolished to accommodate the new brick building which took up over half the lot.\textsuperscript{247} Therefore, the Lincoln was likely purpose-built as a theater, especially given the specialized concessions booth in Figure 5.26, which would be hard to add to an existing structure (which likely had very little setback). The Lincoln Theater is one of the very few theaters for black patrons with surviving images. The trapezoidal marquee featured neon lettering of “Lincoln” at angles to the street, and geometric shapes on the front. Straight neon lights radiated out from the concessions stand along the underside of the marquee and illuminated the tiled floor of the main entrance (Figure 5.26).


Figure 5.26: Lincoln concessions stand. Notice the neon lights on the ceiling and the polished surfaces, which were highly reflective, especially at night. Photo courtesy of John Coles.
The Gloria

Existing within a commercial structure, the Gloria had little exterior adornment to identify itself as a movie theater. A squared marquee illuminated the sidewalk and street and advertised the program to the city. Illuminated windows on the King Street façade also welcomed the passer-by. Located at 331 King Street, the theater commanded attention on a busy corner. The auditorium was the only true atmospheric theater in Charleston (Figure 5.29). The theater was intended to envelop patrons in comfort, to include rocking seats.²⁴⁸

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Intentionally Left Blank
Figure 5.29: Atmospheric ceiling in the Gloria, now Sottile, Theater. Notice how the ceiling uses cove lighting to accompany the individual bulbs acting as stars. Photo courtesy of Stevens, 2012, College of Charleston.
Palace Theater

The Palace Theater, located at 568 King Street, is an example of a crowded street front obscuring the true size of the buildings. The theater operated between 1931 and 1957, and was possibly a holistically segregated theater. A three-story dwelling occupied the lot in 1902, and by 1944 the lot was completely occupied by a series of buildings. A 1944 insurance map shows a narrow entrance on King Street leading back to a large two-story balcony, and one story auditorium and stage. It is possible to discern that the earlier dwelling and adjacent outbuildings were incorporated into the renovated structure by comparing the two insurance maps. The theater in 1944 clearly had the same window openings and interior walls as the earlier dwelling, and therefore this theater is not clearly a purpose-built movie house. Depicted in Figure 5.31, numbers 568 and 566 King appear connected with the same massive cornice: these two storefronts mask the earlier three-story dwelling.

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251 Ibid.
252 Advertising for “Shane” on the marquee dates the photos to April 1953 or later.
Despite the clear construction of the rear portion of the building as a theater space intended to show vaudeville and movies, the incorporation of the theater façade and lobby space into an existing building constrained the design options. The Palace Theater offers proof of the limited financial viability of constructing a completely new building on King Street to serve as a movie theater.

*Riviera Theater*

![Figure 5.32: The Riviera Theater occupies a prominent corner at Market and King Streets. Image by author.](image)

Built on the site of the Academy of Music, the Riviera dominated a well-known and beloved corner in Charleston. Number 225 King Street was the site of theatrical productions and excitement for sixty-eight years before the Riviera opened. Purpose-built by the Pastime Amusement Company in 1939, the Riviera was one of the seven theaters downtown built expressly for entertainment, and was intended for moving pictures. When the theater opened, it was the furthest south movie theater in Charleston.
The Riviera is Charleston’s premier example of a Show Theater. Additionally, this theater is the only purpose-built theater in Charleston that required considerable attention to more than a single, front façade. Architect Charles Benton designed a Charleston-appropriate movie palace in the Riviera. The Art Deco style is clear but not overwhelming on the exterior. The building also was built in keeping with the surrounding scale of architecture on Lower King Street, and upper stories were added with a large setback to

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253 The Gloria Theater’s rear addition also required extensive consideration, but the primary entrance and façade of the theater classified the theater as a Commercial Theater.
the street. Adaptively reused as an event venue today, the theater retains lighting as an important atmospheric component.

**American Theater**

One of the seven movie theaters purpose-built for entertainment intentions in Charleston, the American Theater was constructed at 446 King Street. The American was the last theater built by the Pastime Amusement Company, and was also the last single-screen theater built downtown. When the theater opened in 1942, nationalist sentiment was high and the name reflected that patriotism. Augustus Edison Constantine designed an updated façade in 1946, which removed dark paneling along the first story and lightened the upper façade color scheme (Figure 5.35).254 The resulting minimalist Art Deco façade

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clearly read as a theater, but lighting brought interest to the entrance. The building served Charleston as a theater until 1977. The building is an event venue today and the only former theater that is still able to exhibit movies.255

Other Theaters

Lesser known theaters have been linked with their historic addresses, but lack most of the information gathered for the previously described Pastime Amusement Company theaters. Theaters that are not mentioned in this chapter are included in the master list in Appendix A. Some theaters were only matched with a street address, or with an opening or closing date. These theaters include the New Theatrorium, the Crescent (later called the Picto), the Pastime, the Charleston, the Milo and the Carolina.256 More information was available for the Dixieland, the Elco, the Fairyland, and the Colonia(l).

In Cluster 4, the Dixieland Theater was Charleston’s first completely segregated theater devoted to entertaining black patrons.257 The theater, open by mid-1913, was located half a block north of the busy transportation terminus of King and Columbus streets, which bustled with trolley and train traffic.258 No images survive of the theater, and nothing is known about the exterior ornamentation. The building was destroyed by fire in the mid-1920s.259

255 Showings are for private events only, and via a digital projector.
256 “Service Station to Replace Cafe. Olympia Restaurant, on Site 37 Years, to Change Its Place of Business,” The News and Courier, September 10, 1939.
257 Ibid.
259 “Service Station to Replace Cafe. Olympia Restaurant, on Site 37 Years, to Change Its Place of Business.”
The Elco Theater was located at 549 King and operated by A.W. Petit. Opening its doors in late 1914 with five cent admission, the nickelodeon showed the first color movie in Charleston: “The Lion’s Den.” Movies were likely shown in a rear, one story section of the building with a skylight, separated from the commercial front-of-house by wooden partition walls. Housed in a Colonial Revival style commercial building, the theater had a shallow stage decorated with nothing but a string of lights. The Elco closed just before the Great Depression.

The Fairyland Theater opened in 1908 as a holistically segregated theater at 348 King Street. “Fairyland” was a popular name for early theaters, especially those that used electric lighting. This theater was devoted to black patrons, and run by Edward J. Aylward. Located in a three-story commercial building, the theater likely only took up the first story, while the rest remained private businesses or a residence.

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262 Petit, “Letters to the Editor.”
264 Coles and Tiedje, “Various Theatres.”
theater was renamed the Lyric in 1909, and then the New Lyric sometime in 1927.²⁶⁶ No historic images survive of the theater, and the lighting scheme is unknown (Figure 5.36). American Apparel occupies the building today.

Up King Street one block from the Fairyland Theater, located two doors up from the Olympic/Uno Theater was the Colonia or Colonial Theater. The only surviving image of the building is dated 1952 (Figure 5.37) and only the porch of the three story building. Built as a three story single house, the building functioned as part of the commercial operations of Marks & Son, at the corner of Calhoun and King Streets, at the turn of the twentieth century.²⁶⁷ The theater operated between 1913 and 1914, and likely faced strong competition from the Olympic/Uno. 372 King Street was demolished to make way for a parking lot.

Figure 5.37: The Colonia or Colonial Theater was located in the building on the far left, with the porch. Photo courtesy of the Charleston Museum, 1952.

²⁶⁶ Coles and Tiedje, *Movie Theaters of Charleston*.
There was a shift in theater viability downtown in the mid-1940s. Augustus Edison Constantine created designs for the Elite Theatre, the Cynthia Theatre, and the Corona Theatre between 1946 and 1954, but none were ever built.\textsuperscript{268} The Cynthia and Corona were to be built on Society Street, likely between King and Meeting, and one may have been intended to upgrade the Victory Theater.

*Forgotten Entertainment Corridor*

These theaters along the King Street corridor entertained Charlestonians for over half a century, but have since faded from memory and rejoined the commercial streetscape. This survey is intended to call attention to the vibrant entertainment history in Charleston, to identify theater clusters and ownership conglomerates. With the survey of the architecture and the history of Charleston’s movie theaters, consideration of lighting schemes also helps illuminate this forgotten entertainment corridor. The following sections describe the lighting schemes of Charleston’s King Street commercial corridor, both historic and modern.

CHAPTER SIX
STUDY OF CHARLESTON LIGHTING

Central to proving that there is a historic precedent for employing lighting to change a building’s character, this thesis examined movie theater lighting schemes in historic photographs. Using the methods laid out in the Methodology, this chapter calculates how much light theater façade assemblies produced, and the configuration of those assemblies for each theater. The major patterns of note include the historically higher levels of illumination, the concentration of lighting at the pedestrian level, and the favoring of reflective architectural materials and design.

**Historic Lighting Schemes**

Lighting effects on the exterior of Charleston theaters ranged from decorative to pragmatic. Early theaters utilized assemblies of individual bulbs. Such groupings often spelled out the name of the theater on a blade sign or sign across the façade (Figure 6.1). Other methods included lining up individual bulbs under marquees to create designs above the entrance. Larger lamps provided more illumination, and were often placed near the main entrance, and higher above eye-level due to their brightness and the glare. The ticket booth involved specialty light designs, which often occupied front-center of a theater’s

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269 Examination of lighting schemes was only possible when historic photographs and descriptions were available.
Exterior lighting using floodlights was also a popular method to make buildings stand out. Starting in the 1920s, electric lighting “was considered a potential new ‘building material,’” which could change architectural appearance and character. Floodlights and special effects using changing colors lit many buildings in the 1920s and 1930s. However, much of this exterior illumination experimentation took place in Europe and very large cities in America. “Luminous urbanism” describes the movement to create and emphasize architectural forms using light, and was explored by various architects, notably those in Germany. Such idealism of an architecture of light ended with WWII blackouts in Europe, but experienced a resurgence after 1950. In Charleston, no photographs or descriptions survive that testify to the use of floodlights on Charleston movie theaters. The high

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270 See “Princess Theatre” in Appendix A.
273 Ibid.
percentage of adaptive reuse necessitated eye-catching lighting schemes, though floodlighting was not the favorite method of choice.

Choice methods of historic theater lighting in Charleston included bulb assemblies, neon, and large fixtures. Assessing the historic lighting schemes of the theaters, when pictures and descriptions were available, provided insight into the importance of light to set the building apart as a theater. The following section describes the known programmatic lighting of theaters, including the seven purpose-built theaters and three Commercial Theaters. By better understanding the historic lighting of the buildings, methods of capitalizing on historic assets becomes clearer. Refer to Table 1 for a breakdown of lighting assessment data for historic theaters.
### Historic Lighting Scheme Calculations

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<tr>
<th></th>
<th>Total feet of Neon</th>
<th>Watts Per Foot</th>
<th>Total Watts</th>
<th>Resulting Lumens</th>
<th>Total Lumens</th>
<th>Total Foot-Candles</th>
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<td>Above Cornice</td>
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<td>Lamps in Archway</td>
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<td></td>
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<tr>
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<td>7,600*</td>
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<td>410</td>
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<tr>
<td>Number of Torches</td>
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<td>86</td>
<td>860*</td>
<td>1,973*</td>
<td>183</td>
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*Table 1: Historic Lighting Scheme Calculations.*
<table>
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<tr>
<th></th>
<th>Number of Lamps</th>
<th>Watts Per Lamp</th>
<th>Total Watts</th>
<th>Resulting Lumens</th>
<th>Total Lumens</th>
<th>Total Foot-Candles</th>
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<td></td>
</tr>
<tr>
<td>Total Watts</td>
<td>632</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Resulting Lumens</td>
<td>6,315</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Victoria (pre-1918)</strong></td>
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<td></td>
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<tr>
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<td></td>
<td></td>
<td></td>
<td>7,648*</td>
<td>712</td>
</tr>
<tr>
<td><strong>Victoria (post-1918)</strong></td>
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<td></td>
</tr>
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<td></td>
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<tr>
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<td>1,413</td>
<td>131</td>
</tr>
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<td></td>
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</tr>
<tr>
<td>Total Watts</td>
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<td></td>
<td></td>
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<tr>
<td>Resulting Lumens</td>
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<td></td>
<td></td>
<td>1,413</td>
<td>131</td>
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<td><strong>Wonderland</strong></td>
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<td>Watts Per Lamp</td>
<td>Total Watts</td>
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<td>Total Lumens</td>
<td>Total Foot-Candles</td>
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<td>380</td>
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<tr>
<td>Watts Per Lamp</td>
<td>3.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Watts</td>
<td>380</td>
<td></td>
<td></td>
<td></td>
<td>1,444*</td>
<td>134</td>
</tr>
<tr>
<td>Resulting Lumens</td>
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<td></td>
<td></td>
<td></td>
<td>1,444*</td>
<td>134</td>
</tr>
</tbody>
</table>

* indicates inclusion of lighting levels high above the pedestrian level, which would have been much diminished at the street level.

Table 1 continued.
Purpose-Built Theater Lighting

A discussion of the Charleston theaters illustrates some of the specific, unique period-lighting schemes and fixtures. Patterns in the exterior lighting programs of purpose-built theaters included illumination of the main entrance at the pedestrian level, often using torch fixtures. Another pattern among purpose-built theater lighting that emerged was the implementation of simpler but brighter assemblies, often in the form of marquees.

Majestic

Completed by late 1908, the Majestic Theater had a prominent arched entrance: a common feature among early Nickelodeons.\(^{274}\) Under the arch were two rows of spaced lamps, with twenty lamps per row, according to a circa 1916 photo.\(^{275}\) These lamps appear larger than miniature Philips Standard lamps, that were often used as marquee lighting, and were probably of a higher wattage. That determination leads the calculation of façade brightness to be on the higher end of the known Charleston theater lighting schemes (Table 1). Additionally, the lower portion of the ticket booth featured a highly polished surface (Figure 6.2). Even with multiple pictures, the lack of newspaper information covering the opening or success of the theater limit the lighting assessment to visual inspection.

\(^{275}\) See Appendix A.
Figure 6.2: Photo c. 1916 of the Majestic Theater. Note the dark spots along the underside of the arch. When examined closely, individual bulbs are discernable. Photo courtesy of the Pastime Amusement Collection, College of Charleston Special Collections.
Princess Theatre

The Princess Theater’s lighting was modified between 1913 and the late 1920s. The 1913 photograph clearly shows globe torches flanking the entrance. The image is not clear enough to discern any other lighting schemes but the building’s decorative façade, with marble panels and relief carvings above the arch, would have clearly identified this building as a theater. An opening announcement in the Charleston News & Courier described the ornamentation and lighting schemes of the new movie theater.

The decoration on the front of the [projection] book represents a bathing scene and that on the rear the Villa di Medici. Beneath there is a sky effect, showing wreaths of flowers and Cupids. The ceiling is of old ivory. It is divided by iron beams picked out in gold. Three coronas with brass baskets for indirect lighting are set set [sic] at equal distances. The system is carried out by lights set in behind the cornices. The side walls are divided by pilasters of Ionic design. The panels have a green background with soffits and gold ornaments…The ceiling is handsomely decorated. The ticket booth is of beveled plate glass. The massive dome is of art glass and will be lighted by powerful lamps. Vari-colored [sic] torches are on each side of the entrance, the color combinations flashing at regular intervals.

The 1913 description mentioned many lighting designs intended to draw attention to the theater. Multi-color “torches” flanking the entrance were likely the most noticeable feature, as they changed colors regularly. It is uncertain exactly what the “massive dome of art glass” referred to, whether it was the ticket booth roof or the arched entryway, but both options were visible as the patron passed the theater, and therefore were significant enough to be lit by “powerful lamps” (likely electric arc lamps). In the opening announcement, interior fixtures included indirect lighting from brass baskets, which were

\(^{276}\) Refer back to Figure 55.

\(^{277}\) “Princess Theatre to Open: Splendid Motion Picture House to Begin Business To-Day.”
likely reflective themselves, and cove lighting behind the cornices. Notice that in the description, equal attention is paid to the interior decorative finishes, like the “old ivory” ceiling, and the programmatic lighting. This indicates an important emphasis on lighting in the early nineteen-teens, to decorate with colors and finishes best suited to reflect light.

By 1921, much of the marble paneling and both of the torches were removed or obscured by new advertising boards, lit by wide, hooded fixtures containing four lamps. In the last photo of the theater, the addition of a marquee added a number of bulbs. The number and bulb size cannot be determined from the grainy photograph, but the bulbs appear below the rim of the marquee, providing direct light to the sidewalk in front of the theater.

The current occupant of the building, King Street Grill, maintains lighting design from various historical periods. Cove lighting remains around the upper walls in the building, and rows of individual bulbs, with decorative plaster flowers, remain on the arched ceiling above the balcony area (Figure 6.3). However, the interior finishes are darker and different colors than the original scheme, creating less-luminous surfaces for reflection of light, and therefore a darker interior atmosphere. Eclectic types of lighting illuminate the interior, with a large Tiffany-style fixture in the center of the ceiling and the can lighting (Figure 6.4) from the late-twentieth century. The present light scheme incorporates evidence of earlier systems and design overlaid by less character enhancing schemes of the recent past. While not all fixtures are original, the retention of historic lighting adds authenticity and a unique layer to the otherwise modern sports bar. The
lighting and interior plasterwork were restored in 1997 for a previous building occupant, the Sonoma Café and Wine Bar. It is unclear if the restoration done at this time targeted a certain period of significance or if specific existing architectural features were emphasized.

278 Coles and Tiedje, “Princess Theatre.”
279 In the ongoing debate in the preservation field between “scrape” and “anti-scrape,” it seems that this theater has opted for a variation of anti-scrape. This philosophy advocates the retention, rather than the removal and replacement, of historic fabric.
Victoria Theatre

Lighting was a designed asset for the theater, with the opening announcement touting that “lighting will play an important part in the finished beauty of the theater” and boasting on the use of hundreds of lights around the exterior of the theater.\textsuperscript{280} The arcade and blade sign on the front façade were touted for their many bulbs that they were likely easily read from King Street.\textsuperscript{281} The exits and two alleyways leading away from the theater were also “brilliantly lighted.”\textsuperscript{282} According to the 1944 insurance map, the theater alternated between two and three stories. The theater featured automatic sprinklers, an asbestos curtain and steel doors. With such attention to detail for fire prevention, the electric lighting standards were high. A pre-1918 photograph of the Victoria shows a glass and metal awning over the main entrance, with small projecting knobs along the bottom perimeter. These knobs are likely miniature bulbs such as T3, three to four watt, lights. Additionally, the large blade sign appears to have small bulbs studded along the perimeter. It is unclear if lamps outlined the lettering.

Post-1918 imagery shows a widened entryway and a flat awning. Below the awning are six clusters of three spherical lamps. The image is not clear enough to confirm other lighting schemes. It is likely that the blade sign used some type of illumination, and within the main entrance portal and flanking niches there was likely programmatic lighting. The

\textsuperscript{280}“Best Vaudeville for the Victoria,” 3.
\textsuperscript{282}“Best Vaudeville for the Victoria,” 3.
updated theater emitted over five hundred times more lumens than the first lighting scheme.\textsuperscript{283}

\textit{Garden Theatre}

In keeping with many other theaters in Charleston, the lighting schemes of the Garden Theater changed over time. Fortunately, this purpose-built theater was photographed several times, and therefore multiple lighting schemes are known. At the opening in 1918, a photograph shows multiple lighting components.\textsuperscript{284} Two glass ball torches flank the entrance.\textsuperscript{285} A large globe fixture was suspended from the center of the entry arch. Approximately 294 small bulbs illuminated the underside of the marquee, and were very important as the lights closest to the pedestrian level. Five globe lamps illuminated the top portion of the theater. The globes were suspended on metal rods above the cornice and hung in front of the façade. Finally, the name “Garden” was visible on illuminated panels capping the notice boards flanking the entryway. Additionally, a decorative streetlamp with four spherical lamps was located out front. The terra cotta cladding was light colored and had a polished surface, and while it fit with the architectural style, the cladding was likely the most reflective building surface on the block. The cornice was crucial in providing an upper terminus for the building, and reflecting light back down toward people at street-level. Luminous surface cladding on the Garden also created shadow lines along the building façade (Figure 6.5). There is Charleston precedent for

\textsuperscript{283} See Table 1 for lighting calculations.
\textsuperscript{284} Refer to Figure 50 in Chapter 5.
conscientious private business owners favoring decorative street lighting outside of their establishments. In 1912, James Sottile advocated the Charleston street committee “to erect decorative street lights in front of the new Charleston and Argyle hotels.”

Two decades later, the marquee of the purpose-built Garden Theatre had been significantly altered, and the lamps above the cornice were removed. Neon additions to the top, sides, and underside of the marquee increased the lighting stimulation at the pedestrian level, as these colored lamps replaced the former globe lights above the cornice (Figure 6.5). The lighting focus changed from the entire façade to the pedestrian-only level. This exemplifies a broader trend in Charleston movie theater lighting, in the transition of

![Figure 6.5: 1938 Garden Theatre. Notice the string of small bulbs above the brightly lit awning, and the brightly lit pilasters under the awning, likely reflecting light from the underside of the awning. Photo courtesy of the Charleston Museum.](image)

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Nickelodeons to Show Theaters, where lights along the pedestrian level outshined lighting programs at the top of the structures.

Today, the Garden Theater would benefit greatly from recapturing character through exterior lights. Set along a prominent block of King Street, which is slowly losing character as buildings are renovated on the exterior, special attention to exterior lighting would allow the structure to stand out. The marquee is gone, and the original torch lights on the entry pillars are concealed amidst scaffolding. Additionally the central drop lighting fixture above the main entryway no longer exists. Cove lighting along the sides of the entry arch are used but are obscured by the current scaffolding of the front façade. The interior of the theater retains cove lighting in the preserved ceiling under the balcony. Due to the removal of so much of the theater fabric, lighting techniques are doubly important to showcase the remaining architecture and detailing on the building. The challenge to interior lighting comes from the three large windows along the front façade, as the balcony was removed along with any previous light blocks. That causes any interior lights to be brighter, but their placement and effect still deserves attention.

*Riviera Theater*

The Art Deco theater has been the subject of various academic studies, such as a 2000 study by Lissa D’Aquisto Felzer, yet its lighting scheme is relatively unconsidered. On the exterior of the theater, lighting fixtures and the marquee remain intact, while any additional schemes to illuminate building face are unknown. The main component which drew people to the theater was the marquee, lit with hundreds of clear and yellow-painted
bulbs, along with brilliant red, blue and green neon lights. Bulbs and neon arranged in a sunburst illuminated the underside of the marquee and reflected off the polished travertine floor. Attention to light is also evident in the mirrored panels above the doors and the tri-banded glass flanking the main entrance, and the stenciled glass panels on the second story. The effect of such luminous surfaces must have glittered in 1939.

A massive lamp still presides over the former auditorium (Figure 6.6). Covered in marbled glass panels to diffuse the light, the Art Deco fixture ran the length of the floor seating to the screen, and provided a soft glow in the room. Hidden lights underneath theater chair arms illuminated the aisle. The north hallway in the reuse programing paid
special attention to natural and artificial light. Lighting bands on the pillars provide enough light to reflect off the lustrous walls. Natural light from the rounded ceiling, which is made up of translucent panels, creates a semi-outdoor environment.

Today, the building retains the original marquee and exterior character on the King Street façade. The historic lighting scheme relied primarily on the marquee for street visibility, as the building was clearly not a commercial King Street building. Since the marquee has changed little over the last century, the total amount of neon was estimated using a modern photograph. The color of the neon impacted the number of lumens produced per watt. Green produces twelve lm/W, red is eight lm/W, blue is two lm/W, and white is ten lm/W. Due to the retention of the original marquee, original colors exist and enable accurate lumen calculations.

Floodlights above the Riviera marquee still cover upper portions of the façade in soft light today. The auditorium Art Deco fixture remains in the center of the former auditorium (Figure 6.7), and much of the original seating (with aisle lighting) is intact. These characteristics combine to give the Riviera a more authentic feel than the American theater, which predominately uses modern Deco-
inspired fixtures designed to support the space as a conference and event venue, rather than a Show Theater. Historical lighting elements of the Riviera serve the building well today in maintaining a bold presence on the corner of King and Market streets using the neon and incandescent bulbs on the marquee. Interior fixtures and the importance of lighting in the original building likely inspired the deep consideration of lighting design for the adaptive reuse which is evidenced by the retention of historic lighting fabric and the incorporation of modern decorative and natural light features. The upstairs hallway to the main event space is one example, where lighting was clearly a priority in the design of the space, through natural and artificial sources (Figure 6.8). Natural light and artificial light combine to create a historically-sensitive space through the implementation of reflective wall materials and vertical lighting fixtures that are Art Deco-inspired.

*American Theater*

The American Theater’s permanent outdoor lighting mainly consisted of the neon on the marquee. Lighting on the exterior of the theater included red and white neon on all facets of the marquee. Under the marquee, neon lights create linear and curvilinear points of interest for the passerby. The ticket booth glows due to its narrow, translucent vertical panels on each corner which contain lights. The architect used internal illumination and consideration of finish materials to punctuate this first step in the movie theater experience. Significantly, this theater did not employ other methods of exterior lighting beyond a marquee and programmatic and dramatic lighting of the ticket booth. This furthers the assertion that purpose-built theaters in Charleston did not rely on exterior lighting to
advertise their purpose to the same extent as adaptively-reused buildings. Lighting proves to be a way to differentiate without invasive and expensive alterations to the existing building. Figure 6.9 depicts an example of using light to create an evocative experience without altering any of the historic fabric.

Figure 6.9: American Theater patriotically lit, sometime after 1997. The seemingly blank canvas of the upper building is completely transformed using light. Photo courtesy of Patrick Properties Hospitality Group, nd.
Interior elements of the theater consist of completely new fixtures, modeled after historic examples. Cove lighting accents the lobby and part of the grand ballroom area. Art Deco-inspired semi-indirect wall fixtures throw light out and upward in the grand ballroom, creating shadow lines along the walls and giving the flat surfaces depth (Figures 6.10 & 6.11). Modern lighting in the lobby area reflects off the light-colored ceiling to diffuse the light. The small theater fashioned from part of the old auditorium floor and balcony features the least significant lighting scheme, with few wall sconces and results in a completely modern-cinema setting.

Figure 6.10: Wall sconce in the American Theater. Photo by author.

Figure 6.11: Wall sconces along a hallway in the American Theater, throwing distinctive angled light and enhancing the Art Deco style of the theater. Photo by author.
Lincoln Theater

Lighting on the Lincoln Theater was focused on and under the marquee. As a purpose-built theater, the Lincoln likely relied on strategically placed lit elements, such as the marquee and the concessions booth. Figure 6.12 shows the theater marquee in 1986, shortly before the demolition of the building. Notice the geometric shapes and the name of the theater, all outlined in neon lights. Neon lighting also brightened the underside of the marquee, as seen in Figure 5.26. Tiles on the floor and lower walls of the building served as reflectors for the neon lighting above.

Figure 6.12: This photograph of the Lincoln Theater in 1986 shows a recessed entrance and a large marquee. Note the tile on the lower walls, which was likely highly polished and reflective when the theater was in operation. Photo courtesy of John Coles.
Purpose-Built Theater Patterns

Considering the lighting schemes of the purpose-built movie theaters, patterns emerge concerning material choice and reliance on lighting. All the purpose-built theaters, used lustrous surfaces on the floors and walls of the main façade. The use of glass on awning and ticket booth roofs also reflected light at the main entrance. Most of the purpose-built theaters featured some type of marquee as well, with the exception of the Majestic; however, some of the earliest theaters sustained periods without a marquee. In the years without a marquee, the Majestic and Princess used several strategies to announce the purpose of the building. These included mounted lighting fixtures on either side of the entrance, lamp assemblies, and standard movie theater forms. The designed convergence of lighting schemes and building materials resulted in a highly visible and advantageous façade.

Commercial Theater Lighting

Of the eighteen adaptively-reused buildings in Charleston that served as movie theaters, historic resources form a good picture of only three. Each theater was in a different cluster, and very few photographs survive of their lighting schemes. The following analysis does uncover patterns of a reliance on bulb assemblies for each theater, as well as the presence of marquees.

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287 Standardized movie theater forms included the typical ticket booth shape, the recessed entrance, the arched entryway, and the plaster-decorated façade.
288 Revisit Chapter Five and see Appendix A for additional images of the theaters.
The Wonderland

As the opening newspaper announcement described in 1907, “more than a hundred electric lights will make it bright at night.” 289 This “arch of lights” likely set the example for later Charleston theaters which used similar bulb assemblies, such as the Majestic Theater. Though no photographs survive of the entire front of the theater, the announcement also detailed the electric decor. Patrons in 1907 were treated to novelty in the form of an entryway “through an arch of lights and through a prettily tiled vestibule. Overhead a huge electric sign gives the name at night and a white and gold sign serves in the day…the name “Wonderland” is given because the place is filled with the wonders of electricity, and here the visitor can hear fine music, and see strange and beautiful things, all impossible except with a great outlay a few years ago.” 290 The resulting 100 lamps produced about 1,444 lumens, or 134 foot candles, concentrated just above the pedestrian level at the marquee. The calculation of the other lighting schemes from the existing information on the theater is not possible, but other lighting in the recessed entryway is observable in Figure 6.13.

290 Ibid.
The Wonderland Theater’s historic interior is concealed behind gypsum board fireproofing today, but small lighting decisions by Banana Republic management have brought supplemental character and interest to the building. Vintage bulbs of various sizes and filament styles adorn the front window displays, creating a warm yellow light (Figure 6.14). These bulbs create visual interest not only in the differing filament styles, but also from the varying heights of the lamps in each window. Without a marquee or sign, the exterior of the building probably never looked like anything other than a commercial building, so any additional attention to lighting would serve the building well.
The Gloria Theater’s illumination transformed through at least three iterations in the twentieth century, but only one falls within the period of study. See Appendix A for images of later lighting schemes. Primary light, producing 9,170 lumens, on the main façade emanated from the neon lights on the marquee, which evolved over time.\textsuperscript{291} The current marquee is modeled the 1940 iteration, visible in a picture of the opening of “Gone with the Wind.”\textsuperscript{292} The neon decoration around the three sides of the current marquee is identical except for the underside, which was lit differently in 1940; the bright glow in the

\textsuperscript{291} 9,170 lumens equals about 852 foot candles. See Table 1 for more detailed calculations.

\textsuperscript{292} Refer to Figure 5.\textendash\textdagger.
Figure 6.15: The Gloria Theater main entrance in 1952. Notice the primary lighting strategy of neon signage. Photo courtesy of the Pastime Amusement Collection, College of Charleston Special Collections.
1940 photograph might be multiple neon lights (Figure 5.28). The primary façade lighting changed around 1952, with the name of the theater spelled out above the second story windows in glass face letters topped with exposed neon (Figure 6.15). The glass face letters would have reflected a uniform glow above many of the other street-level lights, which would have drawn extra attention to the theater. Reflective surfaces along the recessed entrance, including the doors and ticket booth, also helped brighten the area. The interior of the Gloria Theater featured a Grecian theme with an atmospheric ceiling. A raised dome in the auditorium was ringed in low-light cove lighting and included tiny bulbs studding the painted night scene to create a starry-night effect. It is important to note that the side entrance for black patrons was not specially-lit. In addition to catering to white patrons, the theater gave no consideration to the illumination of the segregated entrance. All attention was focused on the main entrance, marquee, and the sidewalk experience of potential customers.

(*Palace Lighting*)

Based on the two undated photographs from the mid-1900s, the lighting scheme is visible (Figure 6.16). A string of small bulbs runs across the theater and the adjoining buildings, likely intentional to enliven the block, with the theater at the center. Also the string light was probably an intentional advertising method of the Palace because by 1953, grounded electric street lights were common in Charleston. This means that the string

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294 The photograph can be dated to 1953 or shortly thereafter based on the movie’s release date, advertised on the marquee.
lights were not placed for safety, as the only means of illuminating the streetscape, but to punctuate. The two-part marquee consisted of a horizontal awning and a vertical blade sign with diagonal components. Under the awning, visible lengths of light were probably neon. Two irregularly shaped features under each of the front corners might also indicate direct lighting features. The blade edge featured three columns of individual bulbs that stretched to the top of the sign. The word “Palace” dominated the top of the blade sign, and neon lighting traced the letters. The diagonal components functioned as the billboard for the current movie listing, and was likely lit from behind. Total illumination of the lighting program equaled 10,518 lumens, or 978 foot candles: sixteen times brighter than the brightest storefront included in the modern King Street study.²⁹⁵

Figure 6.16: The Palace Theater, looking northeast on King Street. Photo by Francis B. Kerr Jr., courtesy of John Coles.

²⁹⁵ See Figure 6.19.
**Adaptively-Reused Theater Lighting Strategies**

Due to the smaller sample size of theaters available for analysis, comparison between the adaptively-reused theaters is difficult. It is clear that all three relied on marquees to advertise the name of the theater. Whether through lamp assemblies, as with the Wonderland Theater, or in neon lettering, the marquees all occupied significant space over the sidewalk and made the theater visible from a distance. Individual lighting strategies, including string lights, also helped call attention to the structures. It is significant that the Gloria Theater used reflective surfaces to help brighten the entrance area, just as purpose-built theaters did. This design element was possible due to the heavy modification of the front entrance from a commercial to a theater space. It identifies with the larger trend of Charleston movie theaters using lustrous surfaces at the main entrance.

**Historic Programmatic Lighting Interpretation**

Interpreting the total lumens of historic lighting schemes requires comparative strategies, rather than purely quantitative analysis. Lighting calculations did not account for the decrease in lumens farther from the light source, but instead calculated the entire façade brightness. The calculations are therefore useful to compare to each other, but not as useful for comparing to lumen levels in the modern King Street light study. This is because the King Street light study computed foot-candle levels at the pedestrian level, and was unable to quantify the entire façade brightness. In an effort to mitigate the calculation disparities, foot-candle measurements of the King Street Lighting Study were multiplied
by the number of fixtures supplying that measurement, to approximate the total fixture lumens.

Through comparative analysis, several elements are crucial to highlight. Theater lighting schemes were more documented south of Calhoun Street, where two thirds of theaters were adaptively reused. Of the ten theaters studied for their lighting schemes, 80% were located south of Calhoun Street. Therefore, there is a clear pattern of higher documentation and a higher survival rate of architectural fabric south of Calhoun. The documentation of theaters, through newspaper articles announcing opening dates and photographs, was also concentrated on purpose-built theaters. Purpose-built theaters were so well documented that an assessment of all seven was possible, while only three Commercial Theaters had enough information to warrant a lighting study.296

The Garden Theatre and the Palace were the brightest theaters, each emitting over 10,000 lumens. The Palace was technically a Commercial Theater with a heavily modified façade at the northern end of the King Street theater corridor. Therefore, high levels of lighting were required to draw attention to the theater. The Garden was a purpose-built theater, and was less in-need of character-defining light, but its location impacted the exterior lighting levels. Located in the heart of the King Street theater corridor, most businesses were also using exterior lit advertising. The Garden’s lighting needed to stand out among a block of well-lit businesses, and so the resulting overall brightness was very high.

296 See Table 1 for all the theaters that provided enough information to study the lighting.
Another pair with lighting levels similar to each other included the low-lit Wonderland and Victoria (before 1918). Both schemes resulted in around 1,400 lumens. These are both theaters in which complete programmatic lighting is unknown, and therefore the actual total lumens were likely higher. Higher lumen levels are assumed because total lumen calculations were based on clear identification of lamps, whereas many photographs show bright areas on theaters but with no discernable fixtures.

The Majestic and the Riviera also had nearly identical lumen levels: around 7,600 lumens. The similarity between these two theaters is likely a coincidence. Both theaters were purpose-built and along King Street, but the dates used to calculate lighting were nearly thirty years apart. Therefore it is possible that the Majestic was very bright for its time, and the Riviera relied more on architecture than lighting levels to stand out in the streetscape. It is also possible that theaters in the early twentieth-century, such as the Majestic, used very bright lighting schemes to stand out from other businesses and to keep pace with demand for the novelty of electric lighting. If that was the case, the Riviera lighting levels in the late 1930s might reflect the equilibrium point of Charleston theater exterior illumination. The average illumination of a theater was 6,460 lumens, or 600 foot candles.\footnote{Refer to Table 1 for individual theater totals, which were added and divided by thirteen, the total number of lighting schemes calculated.} Four theaters featured lighting programs producing an average amount of lumens: the Lincoln, Majestic, Riviera and the post-1918 Victoria. Three of those were dated after 1918, leaving the Majestic as an early example of brilliance.
Modern King Street Light Study

To better understand the extent of light utilization along King Street, and to equate historic and modern lighting levels of historic theater buildings, a comparative study was developed. As described in the methodology, it was important to understand what historic lighting levels equate to today. Results from this brief study included quantitative data, photographic comparisons, and the conclusions that interior illumination is favored over exterior illumination. Finally, results concluded that very few buildings use exterior lighting to signify effect, a shift from historic lighting patterns, particularly of theaters. The conclusions about lighting levels today were compared to historic lighting level calculations to understand how bright movie theaters were, in today’s context.

The preliminary night study of Charleston discovered that exterior illumination currently relies heavily on the reflection of interior lighting design (Figure 6.17). The reflection serves to brighten the area around their display windows, but never reaches above the first story, resulting in moderately-lit areas at a pedestrian-level and completely dark voids above the first story. In Charleston, it is acceptable for the middle portion of buildings to be dark, as many upper stories function as residences. However, the lighting of pilasters or cornices of a building would greatly increase the street presence of a restaurant or shop if it is open for the evening hours. At the pedestrian level, attention to lighting and reflective surfaces would serve to catch people’s eyes and advertise the business was open. Reflective surfaces still exist in the historic fabric of Charleston movie
theaters, to include tiled floors at structure entrances, and current building tenants should capitalize on those assets.

In calculating the wattage from the type and number of bulbs or the feet of neon on Charleston theaters from historic photos, it was possible to compare the total wattage of theaters with the modern wattage used by the businesses in those reused theaters. From historic photos, it was possible to determine the approximate wattage and luminance of eight theaters, which are briefly discussed below in descending order based on street address. Figures 6.18 through 6.21 depict businesses on King Street between George Street and Market Street. These businesses were selected because of their perceived brightness compared to their surroundings, or their intentional use of exterior lighting.

![Figure 6.17: 303 King Street, the Apple Store. The interior lighting of the store serves to brighten the sidewalk area around the store’s entrance. The reflected light from this store is the only exterior illuminance for 304 King Street, the former Princess Theatre, across the street. Photo by author.](image)
Figure 6.18: 280 King Street, Half-Moon Outfitters. 282 King (to the left) was the Pastime Theater. Numbers along the street level indicate the foot-candles and resulting lumens of each lighting scheme. Photo by author.

Figure 6.19: 273 King Street, Lucky Brand Jeans. Notice that Gap (to the left) is nearly three times as bright as Lucky Brand, to the point of glare, and is largely due to the lower lighting fixtures. Photo by author.
Figure 6.20: 249 King Street, Banana Republic (formerly 253, the Wonderland). The current lighting scheme is about a third of the historic precedent at the Wonderland. Photo by author.

Figure 6.21: 225 King Street, the Riviera Theater. While the theater marquee is brighter in this photograph, that brightness is the result of horizontally-transmitted light. The measurements at the bottom of the photo account for the levels of light from the façade that reaches the pedestrian in front of the building (as opposed to across the street). Photo by author.
Analysis of Present-Day King Street Lighting Schemes

The most significant finding of the comparative study between historic and modern lighting schemes was that historic lighting levels were fifteen times brighter than modern levels. Not only was more light produced, but the effects were different. Charleston movie theaters historically utilized light assemblies to draw attention to the building and advertise their assets. Modern lighting effects serve function rather than decoration, illuminating the store name, or the area immediately around the doorway. There is an opportunity to embellish upon modern lighting schemes, not to reconstruct historic lighting levels, but to capitalize on the historic fabric of the building. For example, luminous materials are under-lit today, and could once again be assets to the building.

Another main finding of the study was that businesses using exterior lighting today have fixtures high above the pedestrian level, and therefore fewer lumens reach the street-level. Often this type of lighting is illuminating the business name, such as in Figures 6.18, 6.19 and 6.21. Lighting levels today, between zero and six hundred lumens, are well below the historic precedent levels, which averaged 6,000 lumens. Businesses that do not have exterior lighting schemes are under-represented in this brief study. This study does not include many blocks along King Street, as it was more important to gauge the lighting levels of businesses that do take advantage of exterior lighting. The study area is weighted toward businesses with exterior lighting. As evidenced by the brief study, current lighting levels average around 23 foot-candles per building. That is 245 lumens, and effectively

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298 Each former theater building was not included in this study due to the intention of conducting a brief study.
one-fifth of the least-bright movie theater. This study’s purpose was not to encourage all businesses to adopt lighting levels comparable to a movie theater, but to identify whether exterior lighting is used today to distinguish businesses, especially on former theater buildings. The result concludes that there is a large opportunity in Charleston to increase exterior lighting levels on former theater buildings to distinguish architectural and commercial character as theaters did a hundred years ago. Even material choice in some of these buildings, such as the former Garden Theater, calls for an increase in exterior lighting in order to see the building as it was intended: well lit.

**Cluster Illumination Along King Street**

The economy was a factor in causing theaters to cluster along King Street, and resulted in the highest concentration between Calhoun Street and Society Street.\(^{299}\) The peak eras of theater operation also varied based on the clusters. Movie theaters peaked south of Calhoun prior to 1916 and the number of theaters declined after 1916, while north of Calhoun peaked after 1916 (Table 2). Especially notable was the very early peak of Cluster 1 theaters. Clusters 2 and 4 immediately replaced Cluster 1 in theater concentration after 1916. Cluster 1 never recovered a high density of theaters, even with the strategic placement of the Riviera far south on Calhoun Street. Regardless of the date, Cluster 2 maintained the highest number of movie theaters along King Street.

\(^{299}\) Refer to Figure 5.1 for theater clusters.
Table 2: Eras of theater operation within the clusters. Date ranges loosely based on typical eras of Nickelodeons, early movie palaces and established movie palaces. Cluster boundaries are depicted in the graphic below the chart. Image by author.

Table 3: Lumen levels of all theaters included in the light study. Image by author.
With the highest number of theaters, Cluster 2 also had a high average lumen level (Table 3). Interestingly, the Cluster 4 average was the highest, with an average of 8,374 lumens per theater. This is likely a reflection of the high percent of adaptively reused theaters in the fourth cluster: 83%. Unfortunately, despite the survival of 52% of total theater fabric in Charleston, 85% of that is south of Calhoun Street. Therefore Cluster 4, with the highest percentage of theaters in repurposed buildings and brightest average lighting schemes, has lost 80% of its movie theater buildings.

300 The number of historic lighting schemes available for calculation limit these calculations and conclusions.
CHAPTER SEVEN

CONCLUSIONS

Light can be and is a character-defining feature. There is widespread precedence for identifying lighting as a character-defining feature in the restoration, rehabilitation or reuse of historic buildings. Both the National Institute of Building Sciences and the General Services Administration suggest using lighting to “highlight architectural features.”301 The study of Charleston movie theaters proved that Charleston business owners also distinguished their structures by using exterior lighting.

Buildings which clearly relied on lighting to advertise their character and purpose were Charleston movie theaters. The thirty-two theaters, in twenty-five buildings, used the easily-adaptable building system of lighting to advertise innovation when changes to architectural features and façade ornament might have proven too costly. Bulb assemblies, neon signage, reflective surface materials, and large single fixtures worked together to distinguish the buildings as a welcoming place of entertainment. Examples of known lighting design consisted of all seven purpose-built theaters, but only three commercial theaters.

In looking at these Charleston precedents, movie theaters used light to change the exterior identity of the commercial structure. Lighting effects altered the façade without changing the historic fabric. The intentional and thoughtful implementation of exterior

lighting called attention to not only the building location and purpose, but to architectural elements and designated the primary entryways. Many historic buildings were designed to work in tandem with lighting schemes, and it is appropriate to consider lighting schemes as an important component of adaptive reuse. Lighting should also be retained when adaptively reusing a building, as a key component of the overall character of a building.

Following in the same vein, modern buildings continuing to use exterior lighting to foster individuality at night, though to far lesser degrees than in previous decades. Patterns varied regarding the focus of illumination: the pedestrian level, ambient lighting, and lit signage for wider advertising. Cities like Dallas, Las Vegas and Chongqing, China have good examples of specially-lit buildings contributing to the character of the city skyline. Though in different and unique ways, Charleston should look to historic patterns to recreate street character. These historic patterns included creating outdoor ceilings using string lights, down-lighting the pedestrian walkway, and illuminating the building façade to give architectural elements depth and luminosity.

The singular most important aspect about Charleston proven here is that lighting was one chosen method to aid in the transformative adaptive repurposing of buildings along the King Street corridor. Exterior lighting is able to affect fabric-protecting change. There is historic precedent for programmatic change through the use of lighting, and proof that lighting was part of the intended character for many of the building finishes. Preservation

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302 Segregated entrances and alternate building facades did not receive the same degree of attention to lighting.
of building materials is important not only because of their age, but because of their emblematic character-enhancing quality in conjunction with the lit building.

The stagnant economy of Charleston in the late nineteenth and early twentieth centuries forced entrepreneurs to reuse, rather than build, structures downtown. Modified commercial structures served as theaters, altering the trajectory of the movie theater architecture standards. While lighting can serve to capture a specific time period through evoking stylistic characteristics, it is currently an underutilized advertising strategy along the downtown King Street corridor. There are examples across the United States where a single building adaptive reuse project utilizes lighting in a rehabilitation project, such as the Beacon Cinema. However, more often these examples focus on interior character lighting and are single examples in a neighborhood: not two dozen along the same street.

For a city that capitalizes on the tourist industry and its romanticized history, Charleston lacks architectural distinction once the sun sets and the architecture is no longer visible.

Charleston remains a city that largely prefers to retain historic fabric on the King Street corridor rather than demolish old structures and build new and thus demonstrates a preservation ethic. As an early adopter of many preservation initiatives Charleston should remain alert for historically sensitive opportunities. This preference highlights an opportunity for lighting. Lighting is a flexible tool, easily manipulated, and is a historic method of advertisement. Charleston has the option to build upon historic precedent and enhance the character of commercial structures by encouraging the thoughtful reimplementation of lighting design on exterior facades. Lighting was historically and
important component of the leisure experience on King Street: it is up to business owners and the city to capitalize on that asset once again.

**Recommendations**

The most specific application of this thesis is to inform the owners and tenants of historic Charleston theaters of the opportunity to re-incorporate character-defining lighting schemes into their architectural programming. This thesis provides information not only on the location and histories of the movie theaters, but on specific lighting elements that were historically utilized to communicate with patrons. Lighting strategies told customers that a business was exciting, offered the latest fashion, or was safe. Many Charleston theater buildings featured architectural materials, such as polished terra cotta cladding, that magnified their lighting schemes. The value placed on historic buildings in Charleston should also be extended to those lighting systems which aided in the visibility and propagation of the structure’s character.

Another result of this thesis includes the recommendation is that lighting changes be considered as an alternative to changing the building fabric in all adaptive reuse projects. While the lighting of Charleston movie theaters was the focus of this study, the importance of lighting complementing architecture is a lesson applicable to all reused buildings. Employing changes to lighting schemes is a cost effective and preservation-minded alternative to destructive architectural alterations. With few invasive changes, lighting schemes are relatively easy to change and are reversible, therefore a valuable preservation technique for adaptively reused buildings.
Finally, it is concluded that all owners of historic buildings consider the design intent for the lighting of their structure. Interaction of the lighting and other architectural features, on both the interior and exterior, is important to emphasize to show the building in its appropriate context. Materials, colors, and the placement of architectural features all interacted with lighting differently and produced intentional effects. Historic building owners should be aware of these effects as custodians of architectural authenticity.

Further Research

For the purposes of this thesis, little under a year was the time constraint for researching and writing. Many avenues merit further investigation, and new information would supplement the findings of this thesis. First of all, an intensive King Street Lighting Study would provide more extensive information to gauge the extent of using exterior lighting on adaptively-reused commercial structures. Such a study would better inform Charleston recommendations.

Second, the inclusion of slightly earlier theaters along the King Street corridor would impact the breadth of Charleston moving picture history. Theaters such as the Alahambra located at 635 King Street in 1902, possibly played moving pictures as a small Nickelodeon or was perhaps devoted to vaudeville and merits investigation. In the same area, a “temporary” vaudeville theater occupied 628 King Street. The comparative study of northern King Street entertainment with southern King Street entertainment would draw interesting conclusions about Charleston’s social and leisure spheres in the twentieth century. Alternatively, research on the use of electricity in stage theater in Charleston might
be an interesting extension of this thesis. For instance, the Star Theatre, located at 604 King Street in 1902, used electric lights for their scenery.

Further research on the Victoria Theater to find any additional image of the theater would be useful in understanding the only movie theater off King Street before 1945. The lack of research on the topic of Charleston movie theaters left the question: why are there almost no images of the theater, which was presumably well known and owned by the largest movie industry mogul in Charleston, the Pastime Amusement Company. A better understanding of the Victoria would improve the comparative study of Charleston movie theaters because it was one of the seven purpose-built theaters, and therefore likely had a high attention to the lighting.

In line with specific theater studies, an investigation on the segregated movie-going experience would enhance this study by examining the reality of attending movies through a darkened entrance. The diminished attention to lighting around segregated entrances, not to mention the interior lighting schemes for balconies and partitioned areas for black patrons, revealed a power dichotomy that is currently understudied. Comparisons between overall exterior brightness of segregated and holistically segregated theaters might also provide an interesting study.

Expanding upon the intentional use of reflective building materials would also provide an interesting avenue of investment. A study directly correlating a demand for highly polished and reflective materials, especially for outdoor use, would prove informative for the degree of selectivity in the design of Charleston movie theaters. This
topic could be expanded to study the demand for reflective surfaces in all types of movie theaters. Such a study would better inform the current scholarship on the reliance of certain theater types, such as Movie Palaces, on exterior lighting and luminous finishes.

**Closing the Study**

In closing, this thesis is the first step towards a larger discussion of the importance of exterior lighting and its applicability for historic architecture. The study of Charleston movie theater exterior lighting answered many questions regarding the architecture and socio-economic patterns of movie theaters in Charleston. Examining the patterns of exterior illumination confirmed light as a character-defining feature, especially for adaptively-reused buildings. The primary purpose of this thesis revealed that there is a precedent for employing lighting in adaptive reuse, and the findings confirm that attention to lighting is preservation-minded. Therefore, consideration of historic lighting designs are a crucial method to understanding historic architecture today, and for the knowledge that when they were designed, historic buildings were well lit.
APPENDICES
Appendix A
Additional Theater Data

This Appendix includes a chart with Charleston theater information, as well as photographs of theaters. Many of the images in this Appendix served to inform the findings of this thesis, but there was no place for them within the body of the text. Appendix A serves as a quick reference with supplemental photographs for most theaters. The theaters are listed in the order they opened. The table below lists the theaters in this Appendix, according to page number.

<table>
<thead>
<tr>
<th>Theater</th>
<th>Pages</th>
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<tbody>
<tr>
<td>Majestic</td>
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<tr>
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<td>163</td>
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<td>164-5</td>
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<td>Dixieland</td>
<td>166</td>
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<td>Elco</td>
<td>166-8</td>
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<td>Garden</td>
<td>169-70</td>
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<td>Gloria</td>
<td>171-2</td>
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<tr>
<td>Riviera</td>
<td>173</td>
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<tr>
<td>American</td>
<td>174-5</td>
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### Charleston Theater Chart

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<tr>
<th>Name</th>
<th>Segregated</th>
<th>Opened</th>
<th>Closed</th>
<th>King St</th>
<th>Liberty</th>
<th>Society</th>
<th>Owner (O)/ Architect (A)</th>
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<tr>
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<td>1942</td>
<td>now</td>
<td></td>
<td>446</td>
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<tr>
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<td>1932</td>
<td>1935</td>
<td>399</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Charleston</td>
<td>~1923</td>
<td>1925</td>
<td>?</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Colonia(l)</td>
<td>1913</td>
<td>1914</td>
<td>372</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Crescent/Picto</td>
<td>X</td>
<td>1913/?</td>
<td>1919/?</td>
<td>617</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Dixieland</td>
<td>X</td>
<td>~1921</td>
<td>mid-1920s (fire)</td>
<td>568</td>
<td></td>
<td></td>
<td>(O) John Miller</td>
</tr>
<tr>
<td>Dreamland</td>
<td>1907</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(O) James Sottile</td>
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<tr>
<td>Edisonia/Idle Hour</td>
<td>1907/1908</td>
<td>1908/1909</td>
<td>263</td>
<td></td>
<td></td>
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<tr>
<td>Elco</td>
<td>1914</td>
<td>c.1929</td>
<td>549</td>
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<td></td>
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<tr>
<td>Fairyland/ Lyric/ New Lyric</td>
<td>X</td>
<td>1908/1909/1927</td>
<td>1909/1926/?</td>
<td>348</td>
<td></td>
<td></td>
<td>(A) C.K. Howell &amp; D.B. Hyer</td>
</tr>
<tr>
<td>Garden</td>
<td>1918</td>
<td>1969</td>
<td>371</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gloria</td>
<td>1927</td>
<td>1975</td>
<td>331</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lincoln</td>
<td>X</td>
<td>1920</td>
<td>1989</td>
<td>601</td>
<td></td>
<td></td>
<td>(O) Bijou Amusement Co. Nashville</td>
</tr>
<tr>
<td>Majestic/ Cameo</td>
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<td>1949/1951</td>
<td>343</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Maceo/ Leader</td>
<td>X</td>
<td>1910/?</td>
<td>1914/?</td>
<td>422</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Milo</td>
<td>X</td>
<td>?</td>
<td>?</td>
<td>566</td>
<td></td>
<td></td>
<td>(O) John Miller</td>
</tr>
<tr>
<td>New Theatorium</td>
<td>1908</td>
<td>1909</td>
<td>opposite 321</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Olympic/Uno</td>
<td>X</td>
<td>pre-1909/pre-1914</td>
<td>1911/post-1917</td>
<td>368</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pastime</td>
<td>?</td>
<td>?</td>
<td>282</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Palace</td>
<td>1931</td>
<td>1957</td>
<td>568</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Princess</td>
<td>1913</td>
<td>~1927</td>
<td>304</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Riviera</td>
<td>1939</td>
<td>1977</td>
<td>225</td>
<td></td>
<td></td>
<td></td>
<td>(A) Charles Benton</td>
</tr>
<tr>
<td>Theatorium</td>
<td>1907</td>
<td>~1908</td>
<td>321</td>
<td></td>
<td></td>
<td></td>
<td>(O) G. Brantley</td>
</tr>
<tr>
<td>Victoria/ Victory</td>
<td>1911/1918</td>
<td>1918/1945</td>
<td></td>
<td></td>
<td></td>
<td>86</td>
<td></td>
</tr>
<tr>
<td>Wonderland</td>
<td>1907</td>
<td>~1910</td>
<td>253</td>
<td></td>
<td></td>
<td></td>
<td>(O) Eddie Riddock &amp; William Byrnes</td>
</tr>
</tbody>
</table>

*Figure A-1: Chart including all the known Charleston movie theaters. Image by author.*
Majestic Theatre

Figure A-2: Charleston Evening Post, February 8, 1909, page 3.

Figure A-3: This undated photo shows an early view of the theater. Notice the enlarged and attached box office and the dark spots punctuating the underside of the arch and along the back wall. These are presumed to be lamp assemblies. Photo courtesy of John Coles.

Figure A-4: Early interior photograph of the theater. Photo courtesy of John Coles.
Majestic Theatre

Figure A-5: Photo depicting 341 King Street, next door to the Majestic Theatre. This photograph gives an idea of scale for the small but decorative theater. Photo courtesy of the Pastime Amusement Collection, College of Charleston Special Collections.
Figure A-6: Willy Jay’s occupies the former Majestic Theatre lot today. The three-story building to the left is painted a lighter color than it’s historic paint scheme, but comparing the window levels in the previous historic photograph, the Willy Jay’s building is taller than the Majestic.
Figure A-7: Pre-1918 photo of the main entrance. Notice the glass awning, and small knobs below. These knobs are likely small bulbs. Photo courtesy of John Coles.

Figure A-8: Newspaper advertisement for the Victoria Theatre. Image from The Sunday News, December 8, 1912, page 19.
Princess Theatre

Figure A-10: Photo of the front entrance in 1921. No lighting schemes are visible in this photograph except the light-bars above each poster box. Photo courtesy of the Pastime Amusement Collection, College of Charleston Special Collections.

Figure A-9: Newspaper announcement for the opening of the theater in November of 1913. Image from the Charleston Evening Post, November 15, 1913, page 8.
Princess Theatre

Figure A-11: Undated photo of the ticket booth. Notice the reflective glass surfaces of the booth roof and along the rear wall. Photo courtesy of the Pastime Amusement Collection, College of Charleston Special Collections.

Figure A-12: Photo of the former theater in 1953, over twenty years after the theater closed. Photo courtesy of the Pastime Amusement Collection, College of Charleston Special Collections.
Dixieland Theatre

Figure A-13: Advertisement for vaudeville at the Dixieland, located on “King Street, Near Line.” Image from the Charleston Evening Post, May 19, 1913, page 7.

Elco Theatre

Figure A-14: Ticket stub for admittance to the Elco Theatre, undated. Images courtesy of Safran’s, Ebay.com.
Figure A-15: Laminated print of the building, showing A.W. Petit advertising on the first story. Petit operated the Elco Theatre starting in 1914, so it is likely that the building looked very much like this print during its theater career. Photo courtesy of The King Street Public House.
Elco Theatre

Figure A-16: The former Elco Theatre today, operated as The King Street Public House. Photo by author.
Garden Theatre

Figure A-17: Front of the theater in 1936. Within two years of this photograph, the marquee would look radically different with the addition of neon lighting. Photo courtesy of the Pastime Amusement Collection, College of Charleston Special Collections.
Garden Theatre

Figure A-18: Photo of the auditorium from the stage. Photo courtesy of the Pastime Amusement Collection, College of Charleston Special Collections.
Figure A-19: The Gloria main entrance in 1936. Photo courtesy of the Pastime Amusement Collection, College of Charleston Special Collections.
Gloria Theatre

Figure A-20: The former Gloria Theatre, today the Sottile. Photo by author.
Figure A-21: Detail of the small LED bulbs and neon on the marquee. Photo by author.
Figure A-22: Besides a different color scheme above the marquee and the removal of the first story dark wall panels, the American Theater exterior has remained largely the same. Photo by author.
American Theatre

Figure A-23: Detail of the light panels on the edge of the ticket booth. Photo by author.

Figure A-24: Modern Deco-inspired lighting in the main event space, formerly the auditorium, clearly shows attention to the character of the building. Photo by author.
Appendix B
Sanborn Maps

Appendix B includes the Sanborn Insurance Maps for each theater for the years of 1902 and 1944. This information was synthesized in the body of the thesis, and are included in this Appendix for easy reference. Theaters are listed in alphabetical order. The table below provides a quick reference to each theater, by page number.

<table>
<thead>
<tr>
<th>Theater</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>American</td>
<td>177</td>
</tr>
<tr>
<td>Colonial</td>
<td>178</td>
</tr>
<tr>
<td>Crescent</td>
<td>179</td>
</tr>
<tr>
<td>Dreamland</td>
<td>180</td>
</tr>
<tr>
<td>Edisonia</td>
<td>181</td>
</tr>
<tr>
<td>Elco</td>
<td>182</td>
</tr>
<tr>
<td>Fairyland</td>
<td>183</td>
</tr>
<tr>
<td>Garden</td>
<td>184</td>
</tr>
<tr>
<td>Gloria</td>
<td>185</td>
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<tr>
<td>Lincoln</td>
<td>186</td>
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<table>
<thead>
<tr>
<th>Theater</th>
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<tr>
<td>Maceo</td>
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</tr>
<tr>
<td>Majestic</td>
<td>188</td>
</tr>
<tr>
<td>Olympic</td>
<td>189</td>
</tr>
<tr>
<td>Palace</td>
<td>190</td>
</tr>
<tr>
<td>Princess</td>
<td>191</td>
</tr>
<tr>
<td>Riviera</td>
<td>192</td>
</tr>
<tr>
<td>Theatorium</td>
<td>193</td>
</tr>
<tr>
<td>Victoria</td>
<td>194</td>
</tr>
<tr>
<td>Wonderland</td>
<td>195</td>
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</table>
American, 446 King Street

1902

1944
Colonial, 372 King Street

1902

1944
Crescent, 617 King Street

1902

1944
Dreamland, 220 King Street

1902

1944
Edisonia, 263 King Street

1902

1944
Elco, 549 King Street

1902

1944
Garden, 371 King Street

1902

1944
Gloria, 331 King Street

1902

1944
Lincoln, 601 King Street

1902

1944
Majestic, 343 King Street

1902

1944
Olympic, 368 King Street

1902

1944
Palace, 568 King Street

1902

1944
Princess, 301 King Street

1902

1944
Riviera, 225 King Street

1902

1944
Theatorium, 321 King Street

1902

1944
Victoria, 86 Society Street

1902

1944
Wonderland, 253 King Street

1902

1944
Appendix C

Charleston Streetlamps

Appendix C features images of King Street electric streetlamps, organized by date, and an 1883 photograph of King Street showing a lantern-style gas lamp. Charleston street lighting was a tangential study, and not essential to the focus of this thesis. A study of the history of Charleston streetlamps does not exist, and is therefore useful to mention as supplemental information in this thesis. For example, it is valuable when studying overall exterior theater brightness to understand that streetlamps consisted of four and five lamps before 1920. The number of lamps likely increased the brightness of the fixture, which then increased the street illumination levels with which the theaters needed to compete.
Figure C-1: Photograph of King Street in 1883 from Arthur Mazyck and Gene Waddell’s “Charleston in 1883.” Notice the lantern-style gas lamp on the left street corner. Photo courtesy of the Waring Historical Library, MUSC, Charleston, SC.
Appendix D

Lighting Efficiencies

This Appendix includes a table from Arthur Bright, Jr.’s book, The Electric-Lamp Industry: Technological Change and Economic Development from 1800 to 1947. This table was instrumental in the historic lighting level calculations in the thesis. The table provided a reliable and consistent source for calculating historic lamp lumens.
<table>
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<th>YEAR</th>
<th>TYPE OF LAMP (Tungsten Filament)</th>
<th>RATED WATTS</th>
<th>INITIAL LUMENS PER WATT</th>
<th>100-WATT TUNGSTEN FILAMENT</th>
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<tr>
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<td>40</td>
<td>7.8</td>
<td>1907 Vacuum (pressed fil.)</td>
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<td>Vacuum (drawn wire)</td>
<td>40</td>
<td>8.3</td>
<td>1910 Same</td>
</tr>
<tr>
<td>1914</td>
<td>Same</td>
<td>40</td>
<td>8.9</td>
<td>1911 Vacuum (drawn wire)</td>
</tr>
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<td>1915</td>
<td>Same</td>
<td>40</td>
<td>9.5</td>
<td>1912 Same</td>
</tr>
<tr>
<td>1918</td>
<td>Same</td>
<td>40</td>
<td>9.2</td>
<td>1913 Same</td>
</tr>
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<td>1920</td>
<td>Same</td>
<td>40</td>
<td>9.3</td>
<td>1914 Same</td>
</tr>
<tr>
<td>1921</td>
<td>Same</td>
<td>40</td>
<td>9.9</td>
<td>1915 Same</td>
</tr>
<tr>
<td>1922</td>
<td>Same</td>
<td>40</td>
<td>10.1</td>
<td>1917 Same</td>
</tr>
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<td>1926</td>
<td>Same</td>
<td>60</td>
<td>10.3</td>
<td>1917 Gas-filled (drawn wire)</td>
</tr>
<tr>
<td>1926</td>
<td>Gas-filled (drawn wire)</td>
<td>60</td>
<td>11.1</td>
<td>1921 Same</td>
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<td>Same</td>
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<td>11.2</td>
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<td>60</td>
<td>11.3</td>
<td>1925 Same</td>
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<tr>
<td>1929</td>
<td>Same</td>
<td>60</td>
<td>11.5</td>
<td>1926 Same (inside frosted)</td>
</tr>
<tr>
<td>1930</td>
<td>Same</td>
<td>60</td>
<td>12.0</td>
<td>1928 Same</td>
</tr>
<tr>
<td>1932</td>
<td>Same</td>
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<td>1935</td>
<td>Same</td>
<td>60</td>
<td>12.5</td>
<td>1930 Same</td>
</tr>
<tr>
<td>1937</td>
<td>Same (coiled coil)</td>
<td>60</td>
<td>13.8</td>
<td>1931 Same</td>
</tr>
<tr>
<td>1939</td>
<td>Same</td>
<td>60</td>
<td>13.9</td>
<td>1932 Same</td>
</tr>
<tr>
<td>1941</td>
<td>Same</td>
<td>60</td>
<td>13.9</td>
<td>1933 Same (750 hours)</td>
</tr>
<tr>
<td>1942</td>
<td>Same</td>
<td>60</td>
<td>13.9</td>
<td>1934 Same</td>
</tr>
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<td>1943</td>
<td>Same</td>
<td>60</td>
<td>13.9</td>
<td>1935 Same</td>
</tr>
<tr>
<td>1944</td>
<td>Same</td>
<td>60</td>
<td>13.9</td>
<td>1936 Same</td>
</tr>
<tr>
<td>1945</td>
<td>Same</td>
<td>60</td>
<td>13.9</td>
<td>1937 Same (coiled coil)</td>
</tr>
<tr>
<td>1946</td>
<td>Same</td>
<td>60</td>
<td>13.9</td>
<td>1938 Same</td>
</tr>
<tr>
<td>1947</td>
<td>Same</td>
<td>60</td>
<td>13.9</td>
<td>1939 Same</td>
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<td>Same</td>
<td>60</td>
<td>13.9</td>
<td>1947 Same</td>
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</table>

* All data are for 115-volt lamps.


Figure D-1: Table used to calculate historic lighting schemes (Bright Jr. 1972, 331).
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Adaptive Reuse


**Charleston Context**


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