



Photo: © MarkPeacockPhotography.com, 2010

Late 1600s (France): Jean Picard agitates a mercury barometer and achieves a faint glow (of static electricity) above the mercury column. Early 1700s (UK): Francis Hauksbee develops glass tubing and a vacuum pump to study electro-luminescence. From the outset, the manipulation of electricity is linked to luminous tubing.

1600s 1700s

NEONMILESTONES

1890s (US): Nikola Tesla develops wireless luminous tubing and uses it in demonstrations. He dubbed it "as lovely a phenomenon as can greet our eyes," yet never succeeded in making luminous tubing commercially.

1800s

Mid-1800s (Germany): Expert glassblower Heinrich Geissler bends tiny luminous tubes into popular electro-scientific curiosities.

1898 (UK): Sir William Ramsay and Morris Travers isolate the noble gases and name one "neon"—seeing the orange-red glow holds them "spell-bound."



Beginning in the mid-1890s (US): Daniel McFarlan Moore creates lasting luminous-tube installations using ordinary air or nitrogen. He lights exteriors, interiors, and crafts signs with words.

Early 1900s to 1910s: Moore tubing spreads in northeastern US and in European cities.

1910s (France): Georges Claude uses Moore tubing filled with neon, then develops his own luminous-tube patents, and a company, Claude Neon Lights, franchised, after WWI, around the world.

Beginning in the 1920s to 1930s (US): As US highway miles expand, neon signs light not just urban areas, but also the roadside places in between. America's highway landscape becomes forever linked with colorful flashing neon.

Mid-1930s (Europe): Neon art emerges.

1940s (US): WWII material restrictions and blackouts put the sign industry on hold and darken existing electric signs for the duration. Then returning servicemen use the GI Bill to attend neon schools, and open mom-and-pop neon shops across the US.

Mid-twentieth century (US): Growing cities like
Las Vegas carry neon to new heights and new lows.
Neon becomes linked with gambling, drinking, and
illicit sex. Old signs in poor repair come to represent
the failure of neighborhoods and even of society.

1960s (US): Inspired by European neon art, neon art emerges in the US. By the late 1970s, a movement favoring neon brings forth sign shops-as-galleries, books and magazine articles, and signs for "edgy" new businesses. Concerted efforts begin to keep neon vibrant.



1909 (US): John Madine and Russell Trimble create a commercial luminous-tube sign using neon for the Ingersoll Watch Company.



Beginning in the mid-1920s (US): Neon signs appear and catch on slowly, at first in larger cities, becoming fashionable symbols of modernity. American companies with their own patents, compete with Claude Neon companies.



1930s (US) Phosphorescent coatings and colored tubing allow an explosion of new colors.



End of WWII to 1960s (US): With businesses interested in a "new look," neon signs grow brighter using more and more tubing. As cars drive faster and faster, signs become flashier to draw in customers traveling at greater speeds. They also grow "whiter"—hiding tubing behind the new look of plastic faces. Eventually, the neon behind the plastic is deskilled to modular fluorescent tubing.



1960s (US): In step with highway beautification efforts that limit billboards, "Scrap Old Signs" campaigns demolish thousands of historic neon and incandescent signs.

2010s (US): Collectors establish open-air neon-sign parks as tourist attractions. Online groups promote neon preservation and restoration. Some sign shops in urban areas see increase in neon work.

Photo Credits Left Column: *Electrical World*, authors, Leon Gimpel, American Sign Museum, Randall Ann Homan, Thomas Hawk, Bruce Nauman, Corky Scholl.

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1980s to 2010s (US): Museum of Neon Art founded in 1981. Other museums follow. Neon-sign restoration efforts start small yet eventually spread across the US as people recognize neon's historic and community value.

Despite an active restoration and preservation movement, lack of broader awareness of restoration practices and misunderstanding of neon-sign materials' historical value leads historic signs to be destroyed in conversion to LEDs. Historic signs continue to be lost. Our neon heritage needs you!



Endorsements for Neon: A Light History

This glorious technicolour journey through the geographies, histories, politics and cultures of neon is a tour de force; rigorously researched, insightfully written and stunningly illustrated—it is an utter delight.

-Harriet Hawkins, Professor, Department of Geography, Royal Holloway University of London

Despite all the books out in recent years with vintage signs and neon as their subject, we've long needed this accessible historic narrative aimed squarely at neon, fueled by passion and work experience, and sharpened with new field research. I love how it is bookended with recent stories of preservation and restoration, all anchored by community passion.

-Martin Treu, Author, Signs, Streets, and Storefronts: A History of Architecture and Graphics along America's Commercial Corridors

DeLyser and Greenstein draw readers into a world where commerce and art meet in a beguiling history that explains the changing meanings of one of the twentieth century's most ubiquitous forms of advertising and place making.

Vanessa R. Schwartz, Director, Visual Studies Research Institute,
 Professor of Art History and History, University of Southern California

The authors share new findings that change and enhance even the well-read expert's understanding of neon's early history. They share their expertise in preserving historic signs, with important restoration case studies and an outline of best practices that can help ensure a brighter future for historic signs everywhere.

-Thomas E. Rinaldi, Author, New York Neon

DeLyser and Greenstein bring over four decades of experience in the field, from conducting exhaustive community- and archivally- based research to preserving and restoring signs. They bring to light a full spectrum of people: those who work behind the scenes lifting neon to new heights, those who restore it to full glory, and those who commemorate its legacies. Their "light history" offers weighty consideration of a popular art form and its continuing impact on place and placemaking.

-Catherine Gudis, Director, Public History Program, Professor of History, University of California, Riverside, Author, Buyways: Billboards, Automobiles, and the American Landscape

The authors reveal fresh insights and through meticulous research, dispel falsehoods repeated in the literature for decades.

-Douglas C. Towne, Editor, Society for Commercial Archeology

DeLyser and Greenstein follow makers, merchants, and moralizers to range lucidly over the matters of technology and craftsmanship, culture and commerce, optimism, dissolution, nostalgia, and rebirth that surround neon like a halo. Telling stories of signs, the authors create a shimmering narrative written in multicolored bouquets. You will be dazzled.

-Sandy Isenstadt, Professor and Chair, Department of Art History, University of Delaware



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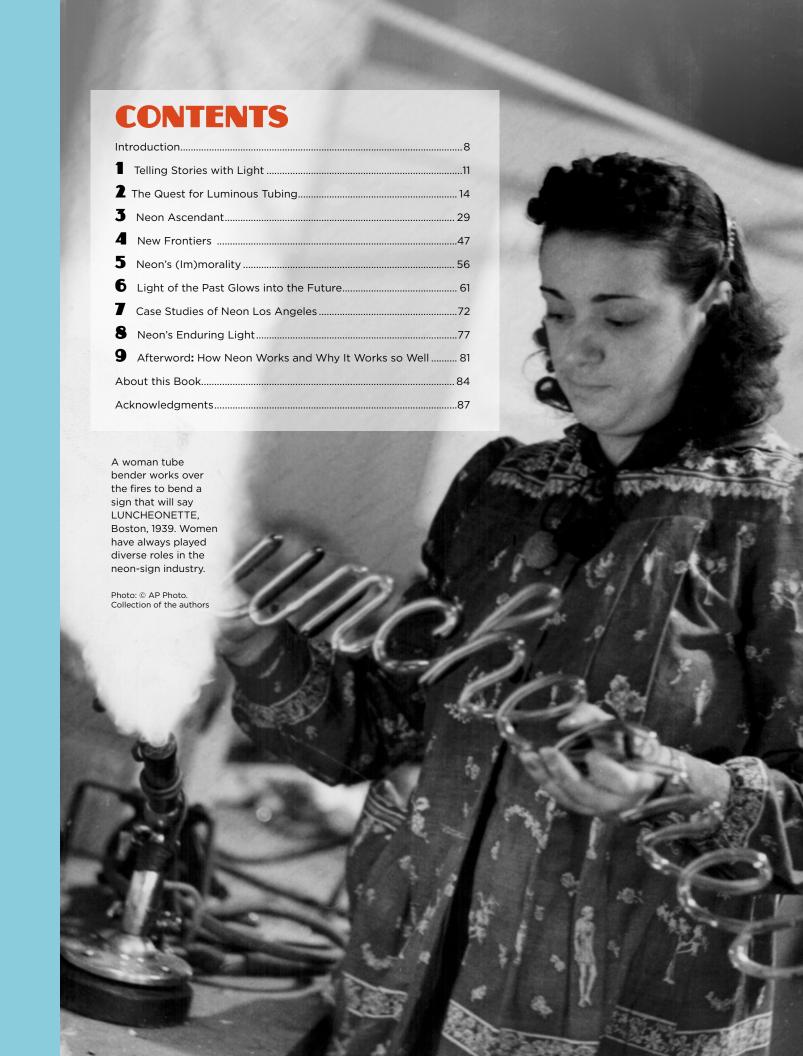
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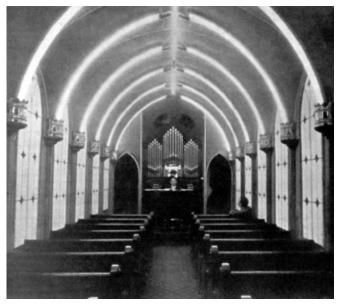


Front cover is based on the historic neon rendering of Beryl Wallace at the Earl Carroll Theatre in Los Angeles, California.

Original sign design for Earl Carroll by Don Riha and fabrication by Electrical Products Corporation.

Back cover photo © the authors, 2021. Welder sign (late 1940s) in the collection of Justin Pinchot, Pasadena, CA.





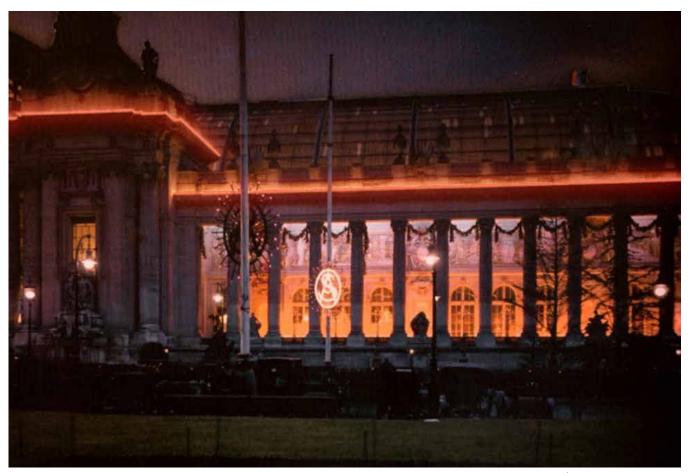
In 1898 Daniel McFarlan Moore created a model of a stone church he named the *Moore Vacuum Tube Chapel* and inside held a wedding, dramatically lit by vaulting arcs of white Moore tubing.

Electrical Engineer, May 12, 1898



In 1911 Georges Claude filled Moore tubing with neon to celebrate the Normandy Millennium and light the exterior of a much grander church: the Saint-Ouen Abbey in Rouen.

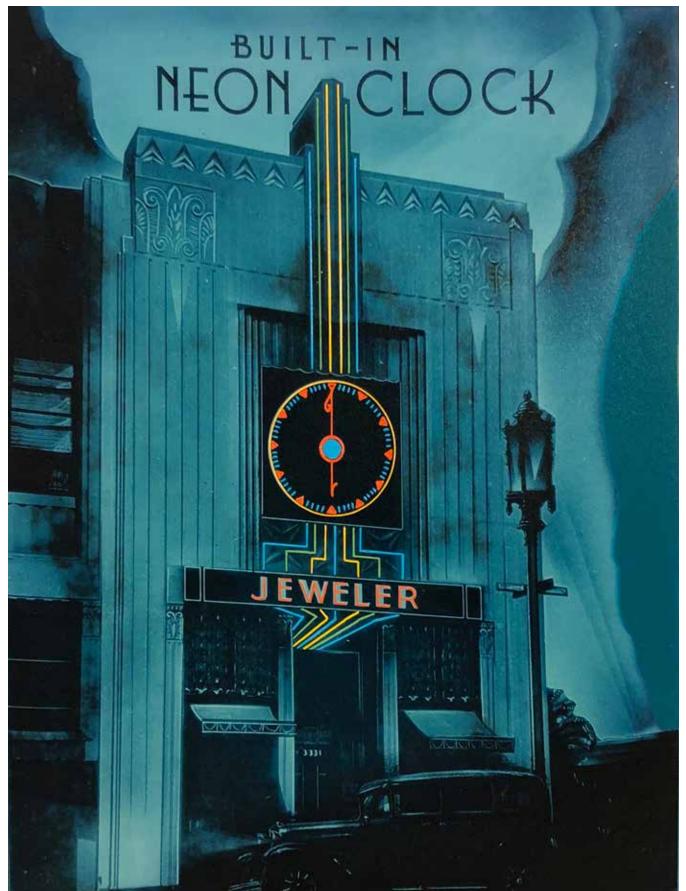
Photo: Léon Gimpel, Paris, France, 1910. Photos 12 Archive / Société Française de Photographie, Paris, France



In 1910 Georges Claude used Moore tubing filled with neon to light the exterior of the Grand Palais des Champs-Élysées for the Paris Salon de l'Automobile.

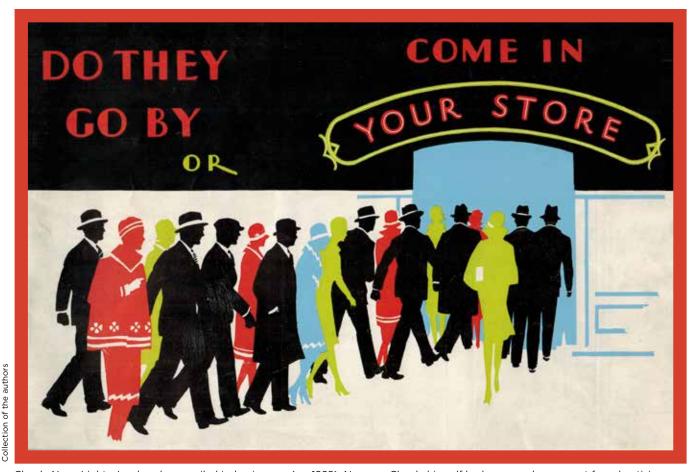
Photo: Léon Gimpel, Paris, France, 1910. Photos 12 Archive / Société Française de Photographie, Paris, France

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Prominent neon shops like Los Angeles-based Electrical Products Corporation made catalogs featuring dramatic modern designs.

Modern Designs in Electrical Advertising by Electrical Products, Corp., 1932. From the archives of the American Sign Museum, Cincinnati, OH



Claude Neon Lights, Inc. brochure mailed to businesses (ca. 1929). Neon, as Claude himself had proposed, was great for advertising.

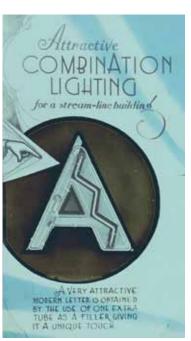
3. NEON ASCENDANT

The neon signs that began to appear in US cities in the mid-1920s arrived in a crowded lit-sign landscape with established conventions of what signs should look like. In some ways, luminous tubing (whether by Geissler, Moore, or Claude) was radically different from what incandescent bulbs could offer—the new lines of light-filled-glass, bent in any shape, appeared to leap off the face of signs, and the brilliant red-orange and pale-blue colors stood out against the night.

But dramatic signs were not new. Lighted letters called "opal glass" had become popular across the country beginning about a decade before the new neon signs arrived. Typically opal glass was made of opaque white glass that when molten was formed into letters, then mounted into a metal sign box, and lit by bulbs from within. Prestigious customers such as the

owners of Los Angeles' Bradbury Building featured opal-glass signs. Opal-glass letters had the added advantage of being legible by night or day—neon signs (with their thin, clear glass tubing) were typically not legible in daylight. To make neon signs readable by day, designers included painted letters or metal channel letters. But the new look of neon was not the only viable option for signage.

Also, while luminous tubing offered a new look, the new neon signs would advertise the same businesses, be erected on the same buildings, and use mostly the same boxes (or "cans") on which to mount the illuminated letters—the supporting technologies and business substrate hardly changed at all. The new neon signs fit into an existing urban landscape, where the aesthetic traditions of the time both welcomed and resisted the new look.



Detail from Modern Designs in Electrical Advertising by Electrical Products, Corp., 1932. From the archives of the American Sign Museum, Cincinnati, OH.

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Collection of the authors

EARL CARROLL THEATRE

In Los Angeles the new colors debuted in extravagant fashion at the December 1938 opening of Hollywood's Earl Carroll Theatre. Built in the theme of light, the exterior used a polished-aluminum marquee (this metal was more popular on the West Coast because of the aircraft industry, compared to the East Coast's prevalent stainless steel) proclaiming the name and cleverly flashing a sequence, using the letters in

the word theater to advertise one of the venue's pioneering offerings—dinner—EAT/AT/THE/THEATRE. The building, designed by architect Gordon B. Kaufmann, was a slab-sided modernist structure painted in four shades of green with its significant ornamentation in neon: a 20-foot-tall "flesh colored" neon portrait (by designer Don Riha) of star performer Beryl Wallace's face, ringed by the Theatre's "mission statement" (in polished aluminum backlit by blue neon), THRU THESE PORTALS PASS THE MOST BEAUTIFUL GIRLS IN THE WORLD.

Then, dramatically punctuating small steps in the building's walls, eight 36-foothigh vertical white tubes cast a sharp line on one side and an "airbrushed glow" on the other. The white and pink colors, then so newly developed, would have been startling, all the more so because the artwork was not erected on the building's roof or over the top of architectural details on its front (as was common with electric signs), but was instead integral to its architecture: the neon was mounted straight into the façade; the building was light.





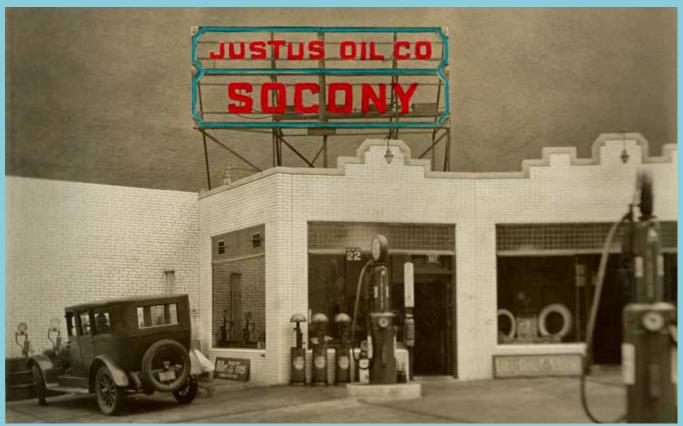
Beryl Wallace was the star performer at the Earl Carroll Theatre. It was her face rendered in the design of the Theatre's 20-foot-tall portrait in orchid neon.

Beryl Wallace Family Archives ca. 1938

historyofneon.org

AUTOMOBILES AND NEON

Neon signs developed synergistically with automobiles and automobility—though they moved people in different ways (one literally, the other more figuratively), they often acted together to guide people through America's urban and rural landscapes.



Agnoli Sign Co. photo album, from the archives of the American Sign Museum, Cincinnati, OH, ca. 1929



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Photo: © RoadsideArchitecture.com, Chicago, IL, 2012



Photo: © Al Barna, Austin, TX, 2016. Sign by Neon Jungle

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