## **A Lighting Timeline**

Lighting cues seem to have been written into Greek plays - the festivals played from sunup to sunset, and many of the lines refer to times of day.

The sun was the first major source of lighting instrument, and clouds were the first dimmer (!).

The Romans moved pageants into the Great Halls.

**1545:**

[***Sabastiano Serlio***](http://www.infoplease.com/ce6/people/A0844500.html) -- colored light liquids in bottles (red wine, saffron (yellow), ammonium chloride in a copper vessel (blue).

 Brightly-polished barber basin and a round bottle as a lens

3 qualities of light: distribution, intensity, color

**1550:**

Leone de Somi - full illumination for happy scenes, but tragedy much darker (candles, crude oil lamps, torches, and cressets (hanging lamps).

Stagehands walked around and snipped wicks, the audience was lit

Candles were of tallow and fat

**1573:**

[***Inigo Jones***](http://www.greatbuildings.com/architects/Inigo_Jones.html) (or click [here](http://archaeology.org/9703/newsbriefs/st.pauls.html)) (English - stage designer) returns from Italy with knowledge of the Proscenium Arch and footlights, and comes up with ideas for masques

**1580:**

[***Theatro Olimpico***](http://www.greatbuildings.com/buildings/Teatro_Olimpico.html) is the first permanent theatre in Italy

**1618:**

[***Theatro Farnese***](http://www.britannica.com/bcom/eb/article/idxref/5/0%2C5716%2C80833%2C00.html)  in Parma - the first theatre with a permanent proscenium arch and curtains

**1628:**

Joseph Furstenbach

Footlights (floats) and sidelights

**1638:**

Nicola ***Sabbatini*** - writes book on theatre - suggests system of dimmers lowering metal cylinders over the candles

Giacomo da Vignola - ideal lighting angle is along the diagonal of a cube

 (1930's - Stanley ***McCandless*** writes it in book)

17th century (1600's)

Paris - many chandeliers

Gas becomes used

**1783:**

Candles ruled the day till the invention in 1783 in France of the kerosene lamp with adjustable wick

Followed closely with a glass chimney - could make individual float lights

Used for 100 years

**1791:**

Illuminating gas produced in quantity - William Murdock - each building could produce its own

However, gas required constant attention and wasn't easy to control

**1803:**

***Limelight*** probably invented, but not widely used till 1816 in Philadelphia

Invented by Henry Drummond - heating a piece of lime with a flame of oxygen and hydrogen (for a followspot or to indicate sunlight). A green-ish tint.

Was used as the first spotlight in Paris Opera houses

**1845:**

***Drury Lane Theatre*** is the first to use gas in England)

**1809:**

Electric Arc - discovered by Sir ***Humphrey*** [***Davey***](http://www.astro.virginia.edu/~eww6n/bios/Davy.html) (or Humphry Davy, depending on who is spelling it) - took 90 years to be fully accepted.

**1816:**

First limelight theatre -- ***Chestnut Street Theatre*** in Philadelphia

Greater control of and more brightness (colorsilk cloth or woven cotton).

Increased heat and many fires caused, and had gas smell and green-ish tint.

**1878-1898:**

[***Henry Irving***](http://etext.virginia.edu/railton/yankee/irving.html) (and click [here](http://www.fwkc.com/encyclopedia/low/articles/i/i012001174f.html)) (England) initiated lighting rehearsals, transparent laquers of colored class to limelight with electricity to incandescents, footlights of different colors and broken into sections, and wanted to dim the house lights

**Electricity!**

**1841:**

First incandescent lamp patent - [Edison](http://memory.loc.gov/ammem/edhtml/edbiohm.html) - not practical

**1846:**

The first electric carbon arcs used as spotlights at the Paris opera - inefficient -- not a serious threat to limelight

**1879:**

The Jablachkoff candle - the first useful lightbulb - "electric candle" - used at Paris Hippodrome - a carbon arc (invented 40-50 years earlier, but limelight was too ingrained, even well into the 1920's.

The first practical electric spotlight

**1881:**

***Savoy Theatre*** in England - the first completely electric theatre

**1882:**

A big push - electric theatre at the exposition in Munich, Germany -- with a saltwater dimmer to control the new power source - went like wildfire...

As technology develops and advances at a more rapid rate, so did development of more effective lighting equipment

Edison - first practical lightbulb

Incandescent to tungsten -halogen lamps

Laquer to gels.

Electric lighting went from the marquee to the outer lobby to the inner lobby to the house to the stage