



# A HISTORY OF STREET LIGHTING IN THE OLD AND NEW TOWNS OF EDINBURGH

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# EVOLUTION OF STREET LIGHTING

The first known version of a street light came into being in around **140bc**. The Greeks and Romans used **oil lamps** to illuminate paths and roads outside their homes. Richer residents employed lanternarius slaves to ensure.

Whereas in the ancient Chinese civilization they **captured fireflies** in transparent or semi-transparent containers and used them as lanterns on streets.

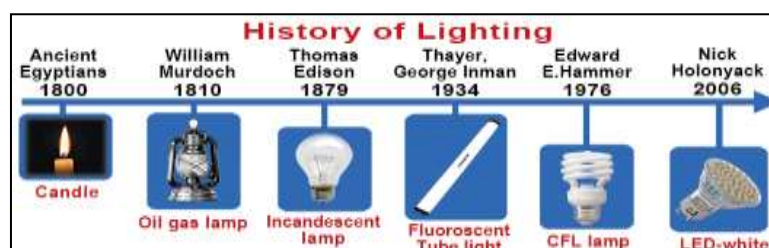
This process continued into the Middle Ages when **candle street lights**, which came into play around **1417** (commissioned by Sir Henry

Barton, Mayor of London), illuminated the major towns and cities in England. One more method to brighten the streets at nights were “**link-boys**”, children servants that wealthy citizens of London paid to carry torches while accompanying them through the city.

**The first public street lighting** was with gas and was demonstrated in Pall Mall, London on January 28th, 1807 by Frederick Albert Winsor. **Gas street lighting** wasn't widely available until the mid-nineteenth century. Then came the electricity era replaced the ancient practices of street lighting



Figure 1

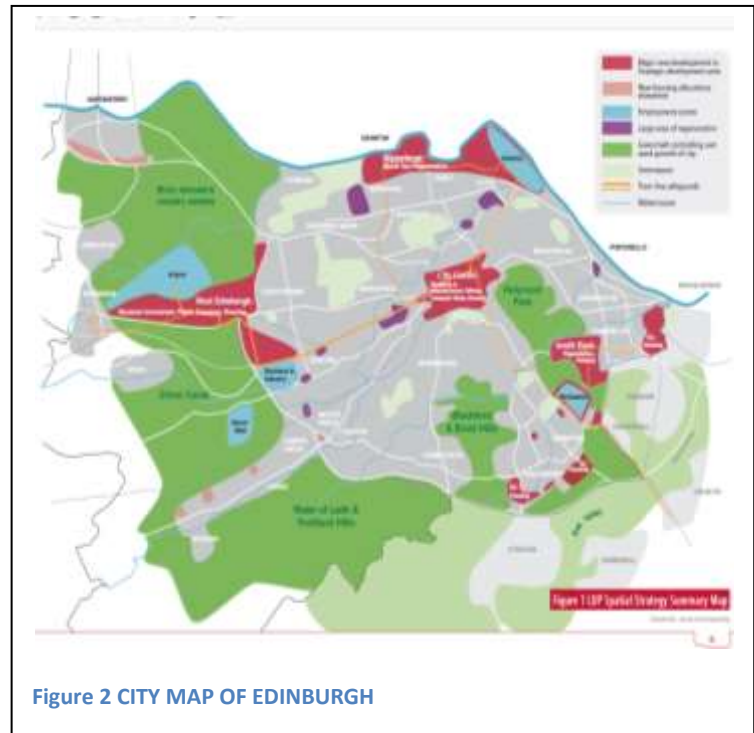


# INTRODUCTION TO EDINBURGH

Edinburgh is the capital city of Scotland, situated in Lothian on the southern shore of the Firth of Forth.

It is the second most populous city in Scotland and the seventh most populous in the United Kingdom.

Known as “*the Athens of the North*”. Divided between the medieval Old Town and the Georgian New Town and listed as a **UNESCO World Heritage Site**.



Edinburgh is today a thriving political, financial, cultural and commercial centre of a little less than half a million inhabitants, and an attractive destination for new residents and visitors.

Compared to other Scottish cities, Edinburgh is steadily gaining population and getting more visitors. In fact, the tourist sector is still expanding, differently from other European cultural capitals.

# EVOLUTION OF STREET LIGHTING IN EDINBURGH

## I. OIL LIGHTING:

Edinburgh Town Council, as predecessors of the City of Edinburgh Council, appointed the first public lamplighter in the Old Town in **1701**. This followed the issue of a Royal Charter in **1688**, granted by King James II and VII. The Charter empowered the Council to install lanterns where they considered it appropriate.

According to remarkable manuscript Notes on the history of Edinburgh, the earliest indication of public street lighting installation probably goes back as far as **1684**, when the Lord Provost brought 24 lanterns from London to be fitted up in the **High Street and Cow gate**. This made these two the first streets in Edinburgh to be lit with public street lighting.



Figure 3 oil lighting

## II. ARRIVAL OF GAS LIGHTING:

Gas lighting was first introduced to Edinburgh in 1819 by the erection of eighteen pillars (probably wooden posts) for gas lamps on North Bridge. This prominent event was preceded by the establishment of the Edinburgh Gas Light Company in 1817, north of the Canon gate.

In December 1821 the Committee decided that from 1st January 1822 the public gas lamps should be lit at one hour after sunset that the one half is extinguished at three o'clock am, and the remainder continued till one hour before sunrise.

According to the data submitted to the Lighting Department for the month of May 1820 the total number of lamps was 4781, of which 1980 were gas lit.

September 1820 to May 1821 <b>Total - 4802</b>	Oil lamps – 4765, Gas lamps – 37
September 1821 to May 1822 <b>Total – 5339</b>	Oil lamps – 4731, Gas lamps – 408
<b>Making an annual increase of 537</b>	



Figure 4 Gas lighting

## DESIGN OF THE GAS LIGHTING:

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From a design point of view, the Old and New Towns used different strategies.

Incandescent gas mantles were invented in **1885** and by 1895 were reasonably cheap. In Edinburgh, incandescent mantles, in the four-sided lanterns that many of us remember, were fitted between **1900** and **1907** and in all new lamps thereafter and new mechanism like stop watch was added to the design.

Till 1900 new designs for gas lamp came up and a trial and error happen for it till the invention of the electricity.



Figure 5



Figure 6 Globe from a gas lantern, c. 1900





## DECLINE OF GAS LIGHTING:

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In the electricity era all the oil and gas lamps were replaced from the streets of Edinburgh.

**On 21st April 1965 a small ceremony organized by the City Council was held in Ramsay Garden, at which the last gas lamp in Edinburgh was turned off.**

Electricity arrived in Edinburgh first in **1881** with the trial installation of electric street lighting in Princes Street, Waverley Bridge and North Bridge.

The innovation appealed to citizens who could enjoy safe and well-lit streets. Electric lamps were easier to operate, for cleaning and gave more illumination than oil and gas lamps.

But to sustain the heritage many gas lantern, converted to electricity and still in use.



Figure 8 an Edinburgh gas lantern, converted to electricity but still in use, in Belgrave Mews, 2010



Figure 9 Conversion to electricity on the streets of Edinburgh

## IMPLEMENTATION OF GAS LIGHTING IN PRESENT CONTEXT:

In rural areas like Dandi, where government have provided them with 24 solar street light but are not working and not maintained properly (according to the analysis from our rural studio studies). And as Dandi is near to the coastal region so the solar sheets need regular maintenance.

So gas street lighting can be better alternative than solar street lights. Some gas street lights come with the stop watch mechanism and with the help of this mechanism we can adjust timings of usage.



Figure 10 Lantern interior. Note the mechanical stop cock, open to show how the timing was adjusted with the seasons. The gas pipe in the centre leads to the pilot light. City Museum Collections Centre, 2010

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