

Glasgow: City of Light

Materials Walking Tour

Evening Stroll (see map) [1]-[2]-[5]-[7]-[9]:

~1 mile/~1.6 kilometers

Daytime Diversions [8] or [10]

Best time:

The bright lights are welcome in the depths of winter when Glasgow experiences 17 hours of darkness. As summer approaches, the days lengthen and by May/June, Glasgow basks in 16 hours of daylight. However, the city's multicolored lights may still be enjoyed at dusk (around 10 p.m. in summer), after you've gone out for a curry!

The latest lighting technologies are evident throughout the city of Glasgow, Scotland. Metal halide lights, fiber-optic cables, and light-emitting diodes (LEDs) give Buchanan Street ([1] on the map) a dramatic blue glow. At night, the River Clyde, viewed from the South Portland Street Suspension Bridge [2], looks spectacular with the George V, Glasgow, and Victoria bridges and the Glasgow Weir illuminated with blue LED floodlighting [3-6]. The vibrant red, amber, and green LED traffic lights on Glassford Street [7] also add their color to the city streets.

This vivid lighting is only possible due to new developments in materials ranging from semiconductors to metal alloys. Blue LED lighting (and green LED traffic lights), for example, have emerged from recent research on InGaN. Lamp glass breakage



Glasgow Weir illuminated with blue LEDs ([6] on the map). Courtesy of Steve Hosey at DRS Graphics.

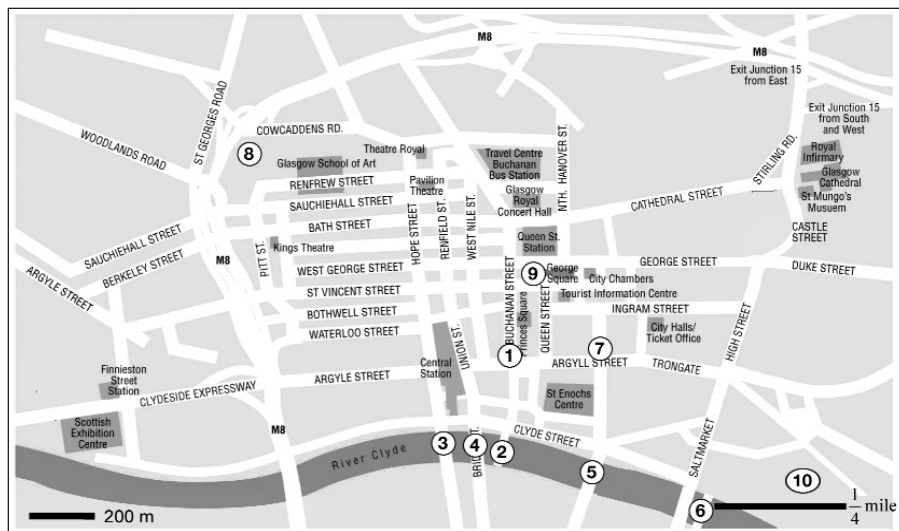
due to temperature swings may be practically eliminated through the development of glasses with low coefficients of expansion. And lamp housings being manufactured from low-copper aluminum alloys can now resist all kinds of weather.

In the early 18th century, public lighting was uncommon, even in the large cities, and nightfall brought with it almost total darkness. Glasgow at that time was more like a village, but it had ideas above its station, and in 1767 the Town Council decided that lamps should be provided.

Lighting at that time was very primitive, consisting of an occasional oil lamp on a wooden pedestal. The complexity and expense of these oil lamps made large-scale street lighting impractical. As the 19th century began, the discovery of the illuminating properties of coal gas by Scot William Murdoch paved the way for a transformation of nighttime Glasgow. In 1817, the Gas Light Company was formed, and on September 15, 1818, the first street-light proper was switched on in Glasgow. By day, gas lighting can still be seen at the Tenement House, 145 Buccleuch Street [8].

In 1879, electric lighting was introduced. Glasgow City Chambers in George Square [9] was one of the first buildings to benefit from this new-fangled technology. In 1885, the council made the adventurous decision that the Banqueting Hall should have electric light. Grand electric chandeliers called electroliers were installed—and can still be seen today, although the odd light bulb has been changed! Today, every light bulb bears witness to the father of the Industrial Revolution, James Watt. In 1882, 63 years after Watt's death, the British Association gave his name to the unit of electrical power. Glasgow commemorates this famous Scottish engineer with a statue—paid for by public subscription—on the southwest corner of George Square.

The achievements of James Watt are also celebrated on Glasgow Green, located east of the city center [10]. Glasgow Green has been a public park since the




For a more detailed map, see www.glasgowguide.co.uk/maps-full.html.

15th century. On a daytime stroll through the park, visitors will find, near Nelson's column (erected to honor Britain's naval hero), a boulder that bears the inscription, "Near this spot in 1765 James Watt conceived the idea of the separate condenser for the steam engine."

Also to be found on the Green—behind Glasgow's People's Palace, the city's social history museum—are 19th- and 20th-century lampposts—examples of work from some of Glasgow's cast-iron foundries.

While yellow, low-pressure sodium lamps still illuminate Glasgow's streets, they are gradually being replaced by white, high-pressure sodium lights. Throughout the city, materials advances in lighting are being used to enhance the city's architecture. Colored fluorescent lights, fiber optics, and LEDs are all used to magnificent effect—meeting visitors around every corner. Come and see!

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