Today light is available at the flick of a switch and it is only when there is a power cut that we realise what it would have been like for our ancestors to live without instantaneous lighting.

Before the 1920s it would have been unusual for homes to be lit exclusively by electricity and so past the hours daylight, light would have been supplemented to various degrees with the light of the hearth, candles, oil and gaslight as necessary. Interior lighting would have been a smoky and smelly process and with candles being a large expense, an abundance of light would have signified prosperity, even in grand houses; large chandeliers would have only been lit on special occasions.

Electric lighting during the 20th century has been dominated by the incandescent lamp, a design which has changed very little in appearance since its first invention by Edison and Swan in the 1870s. This prevalent technology has been around for such a long time that we’ve all grown familiar with a 60W BC or ES incandescent lamp and have tended to measure our lighting requirements by their performance.

All this is now changing as lighting is currently undergoing a major transformation, with the breakthrough of LEDs representing the most significant development in lighting technology since the invention of electric light itself. Light Emitting Diodes have been around for years in the form of indicator lights on electrical devices such as the on/off button of your television. However recent advances mean that the light emitted is much brighter and now suitable for use in architectural environments.

Past and present lamps have always come with their own drawbacks. Incandescent lamps are fragile, inefficient and give off a lot of heat. Fluorescent lamps are cumbersome, ugly and contain varying levels of mercury, while gas lamps such as sodium or metal halides tend to give poor colour rendering and are inflexible with regards to switching due to warm up times and non dimming. LEDs are robust, have a long life, are energy efficient, offer a broad colour spectrum and rendering value and are dimmable, therefore hugely beneficial in most architectural applications, particularly in listed buildings where fixtures are often mounted at height and access for lamp changing or adjustment is precarious.

The latest LED technology brings increased scope to use light creatively and for illumination to be seamlessly integrated and controlled within a space. With LEDs being small they can be used in ways that previously wasn’t possible, for example concealed into bookshelves or discreetly engineered in handrails to illuminate stairs. They can even be used in fabrics and clothing.

Nevertheless with this being a new lighting technology, the quality and output of light still varies from LED product to product, and the heat management, optics...
and quality of the chip used make a vast difference to the colour and stability of the light output. Today more than ever before specialist lighting consultants are playing a key role within a design team, enabling clients to access the most innovative solutions, and guiding property owners through the bamboozling terminology and control options, to provide stunning visual effects, whilst ensuring compatibility and ease of use.

By nature listed buildings are characterised by their unique story and heritage and their lighting plays an essential role; from the layout and aspect of windows and fireplaces through to fixtures and chandeliers. When it comes to restoring a listed property today, inventive lighting can be used to accentuate a building’s distinctive architectural features, whilst still preserving the historical fabric of the space.

“Lighting is often an afterthought in the process, behind the colour scheme and the soft furnishings,” says Rory Marr, Director of Enlighten Design Ltd. “But when you think of the impact lighting can have on a space, it is vital to consider its integration from the start, particularly as listed properties often require bespoke solutions and the advent of LEDs opens up many more possibilities.”

ENLIGHTEN DESIGN LTD ARE INDEPENDENT LIGHTING CONSULTANTS BASED IN GATESHEAD HERE ARE THEIR TOP TIPS FOR LIGHTING HERITAGE ENVIRONMENTS:

• Don’t be afraid of contrast, as light and dark is important for the creation of ambiance. Uniformly bright light throughout an area will not be in keeping with an interior that was originally designed to be lit by daylight, gas or candle light. More sympathetic lighting will reinforce the natural light during daytime and will often use symmetry as a starting point, with pools of illumination accentuating unique architectural features or illuminating areas of activity.

• Think about your furniture layout before you plan the lighting. Consider how you want to use the room and the layout for items such as artwork and bookcases, as this will help you to decide what you want to light and to create a space with the right focus, comfort and soul.

• Aim to light walls rather than the floor. Directing a glow onto surfaces enables the light to be better perceived by the human eye and can transform the scale and appeal of a space. Table lamps and uplights can be used to build up a softly layered approach without having to chase into the fabric of the building.

• Give your artwork the gallery treatment. There are luminaires available which can highlight the exact area of a picture without fading it, as well as discreet spotlights which can bring out the textures and forms of beautiful sculpture. If you are not sure at what height pictures are going to be hung in advance, it is worth getting the electrical contractor to cable in advance such that the final height can be decided upon later.

• Check out an LED fitting before purchasing. LEDs come in various colour temperatures and some will not show up certain colours accurately. A good way to test how well a LED represents colour is to put something red such as piece of card or fabric under the light and if the colour rendering is good, then the red colour will look the same. This is important to ensure that the colours you’ve used in your interior decoration are going to look as intended.

• Use lighting controls to make your space multi-functional. Options can range from simple dimmer switches which provide instant flexibility through to fully functioning lighting control systems, whereby lights can be grouped into ‘scenes’ and programmed. For home environments it is often a good idea to put table lamps on 5 amp sockets so that they can be controlled at the flick of a single switch and dimmed together. There is even scope to control lights wirelessly through wifi, so no chasing of cables is required.

• Seek advice if you are unsure. LEDs have developed from the need to save energy and reduce overall lighting costs. As with all new innovations there are technical challenges to get your head around. Working with experts in the field will give you peace of mind to ensure the results you are after.

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Left: Prior’s Hall, Durham Cathedral
Right: Cathedral Church of St Barnabas, Nottingham