

Dramatic origin of the fairy light revealed

Published on: 18 December 2017

Newcastle University energy expert Dr Sara Walker sheds light on the very first fairy lights as part of BBC TWO'S 'Inside the Factory' Christmas Special.

Dating back 135 years, it was at the Savoy Theatre in London that the term 'fairy lights' was first coined.

Opened in 1881, the Savoy was the first public building in the world to be lit entirely by electricity, fitted out with 1,200 incandescent light bulbs created by North East inventor Sir Joseph Swan.

A year later, Swan was commissioned by the theatre's owner - Richard D'Oyly Carte - to create miniature lights to adorn the dresses of the lead fairies on the opening night of Gilbert and Sullivan's *Iolanthe*.

The show opened to critical acclaim and led to dresses adorned with lights powered by small battery packs hidden beneath the folds of the cloth becoming the must-have fashion accessory of high society ladies.

And a year later Edward Johnson, a colleague of Swan's US rival Sir Thomas Edison, became the first person to put fairy lights on a Christmas tree – a publicity stunt which would become a global, Christmas tradition.

Transforming the theatre experience

Telling the story with the help of BBC presenter and historian Dr Ruth Goodman, Dr Walker says the invention of the light bulb totally transformed the theatre experience.

"Prior to this, theatres were lit with gas lights but these were dangerous, hot and used up the oxygen as they burnt so the air in the theatre would become unbearable by the end of the performance," explains Dr Walker, a senior lecturer and Deputy Director of the National Centre for Energy Systems Integration led by Newcastle University.

"Swan's invention which encased a carbon-coated filament in a vacuum connected to an electricity source allowed us to use light in a way that we had never been able to before.

"Instead of a flame – which is basically what every light source before this had been – Swan had created something that was safe, gave out very little heat but lots of light and was long lasting."

The father of the fairy light

North East pioneer and father of the fairy light Sir Joseph Swan was born on 31st October 1828 in Sunderland. He was a physicist, chemist and pioneer of the first incandescent light bulb. He was also the first person in the world to use electric lights in buildings. The first private residence to be fully electrically lit by Swan was Lord Armstrong's home at Craggside, Northumberland, now owned by the National Trust.

Since those first fairy lights at the Savoy, technology has moved apace and LEDs are now replacing the tradition light bulb.

“In the early days it was the vacuum that was the limiting factor,” explains Dr Walker.

“After carbon-coated-cotton came tungsten wire filaments, and now we have fluorescent lights and LEDs which work in a different way again.

“I don’t suppose when Swan made those very first tiny lights for the fairies at the Savoy he would ever have imagined how they would one day twinkle in homes across the country for Christmas.”

Presented by Greg Wallace, Cherry Healey and Ruth Goodman, Inside the Factory Christmas Special will air tonight (Monday 18th December) at 19:30HRS on BBC TWO.