

Researcher: Kathryn Jones - Sublime Structures - Crystal Palace TV Transmitter - Jan 2018

Sublime Structures: Crystal Palace TV Transmitter

Opened by the BBC on 28th March 1956 to replace the Alexandra Palace mast in north London, which had broadcast the first regular TV service to the world in 1936.

The Crystal Palace site may have been chosen in part because television pioneer John Logie Baird had already broadcast from the south end of the park in the early 1930s. His company Baird Television Limited moved from Covent Garden to Crystal Palace in 1933. 40,000 square feet of new buildings - including television studios - were constructed inside Paxton's Crystal Palace, and the 275 foot high South Water Tower (designed by Isambard Kingdom Brunel) had antennae attached to the top so it could be used as a transmitter. Transmission continued until the Crystal Palace was destroyed by fire in 1936.

(<http://www.bairdtelevision.com/crystalpalace.html>)

Photo of the transmitter in 1964:

<https://www.architecture.com/image-library/ribapix/image-information/poster/industrial-building-systems-and-components-ibsac-exhibition-crystal-palace-sydenham-london/posterid/RIBA63565.html>

Crystal Palace is the most important transmitter in the UK in terms of population covered, being the main station covering London and parts of the Home Counties; an area of approximately a 40 mile radius in total.

In 1956, the first colour transmissions were broadcast from the Crystal Palace transmitter. It was also the first transmitter in the world to broadcast stereophonic sound using the NICAM digital sound system, for the First Night of the Proms in July 1986.

The transmitter stands on the site of the Aquarium, which was destroyed in 1941 during demolition of the north water tower - this was done deliberately so that German planes could not use the tower as a navigation aid.

The transmitter is 219 metres high. It is the fifth tallest structure in London, and the tallest that isn't a building.

Workmen can travel the first 130 metres in an electric lift, which takes 6 minutes, and the remaining 89 metres you have to climb yourself. It takes 35 minutes in total to reach the top.

(<http://www.bbc.co.uk/news/uk-england-33048598>)

The analogue signal was switched off in April 2012, to complete the digital switchover in time for the 2012 London Olympics.

It transmits at the maximum power applicable to digital transmission (200 kw e.r.p), one of only 3 transmitters in the UK to do so. It transmits both digital television and radio services, as well as phone signals.

To preserve the listed site of the original Victorian Crystal Palace, the buildings that house most of the technical equipment had to be built underground.

The transmitter has become a much-loved local and London landmark, jokingly known as the "Eiffel Tower of South London". It can be seen from many of the tallest buildings and places in the city, including from the top of Tate Modern and Parliament Hill.