

Curator: Dr Geraldine Mate - Curator of Science and Technology in Society (Cultures and Histories Program)

Topic: The History of X-ray technology

My name's Geraldine Mate. I'm the curator of Science and Technology at the Queensland Museum. What I'd like to speak about is the X-ray technology that we hold in our collection. We've got X-ray tubes that go back to the 1900s and extend to something much more modern.

Some of the earliest X-ray tubes we've got are these small X-ray tubes and these came in around the 1900s. X-ray experiments were first done in January 1896 in Europe but by July 1896, X-ray experiments were being done in Brisbane as well.

This is an example of an X-ray tube from 1912, which clearly shows some of the physical science behind the X-rays. So basically, there's a cathode and an anode in the X-ray tube and the cathode shoots electrons in, which are then focussed on what's called an anti-cathode which is this metal piece in the middle. That then emits X-rays which are directed and used to take the medical photos.

Some of the additional material we have to support our X-ray tube collection, are things like X-ray plates which was the way original X-ray images were developed; and also things like protective wear: like the safety goggles; lead-lined aprons; gloves; and so forth.

Our collection actually extends to some of the more modern X-rays. This is a Rhodium X-ray tube and these components would be something we would see more recently in X-ray machines.

Medical imaging now has gone much further and they're using some very high-tech equipment such as the Synchrotron in Monash to do medical imaging at a much higher frequency (shorter wavelength) and also to give them more detailed pictures.

One of the things that having a collection like this means is that we can see where our scientific principles have come from and how far they've brought us today in terms of modern technology for medicine.

May 2009