A surprise guest: X-rays

When X-rays were discovered in 1895, Röntgen was persuaded that they were analogous to visible light, but, despite his efforts, he was unable to determine their precise nature. He gave up in the end and called them X-rays.

Röntgen - © Deutsches Röntgen-Museum

Rays that pass through solid matter!

Röntgen persisted in his quest to understand this strange radiation. He placed different objects between the Crookes tube and the photographic plate, and noticed in the process that the rays traversed the solid matter! One day, after having inadvertently placed his hand in the path of the rays, he recognised the bones of his hand on the plate...
In 1901 Röntgen was awarded the first Nobel prize for physics.

Rays generating intense research

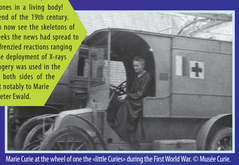
There followed an intense period of research to understand the nature of X-rays. The scientists, and the Germans in particular, were convinced that they were faced with a wave. Röntgen's work had already shown that this radiation had high energy and a very short wavelength. All of these characteristics were to be used in 1912, when Laue and then the Braggs had the idea of applying X-ray radiation to crystals, first to understand the nature of the radiation and secondly to analyse their inner properties.

Wilhelm Conrad Rontgen's laboratory

Röntgen's first X-ray image, 1895
Coll. Deutsches Röntgen-Museum

X-rays can «see» the bones in our body!

This image of Röntgen's wife's hand, with her ring and ... the bones in a living body! shook the world at the end of the 19th century. With Röntgen's rays we can now see the skeletons of the living. In a matter of weeks the news had spread to all the continents, raising frenzied reactions ranging from the irrational to the deployment of X-rays in medicine. X-ray imagery was used in the First World War on both sides of the front, thanks most notably to Marie Curie and Paul Peter Ewald.



Marie Curie at the wheel of one the «little Curies» during the First World War. © Musée Curie.

X-rays, ... and all the fun of the fair

If X-rays can show the insides of our bodies, perhaps they can show even more...? This opened the door to all manner of extra-scientific applications, including the «neo-occult», as can be seen from the article in the Illustration of April 1897. In the fun fairs and commerce demonstrations of radioscopy or the «fluorescence of vitrified materials» became big business. Exotic bill boards flourished... some of which quite correctly showing the sun as the real source of X-rays. The fashion reached its height in about 1900, innocent of any danger the rays may present.

LUMINOSITÉ DES SUBSTANCES VITRIFIÉES

ACCESSOIRES POUR SÉANCES de NÉO-OCCULTISME

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