History of Radiography

X-rays

 were discovered in 1895 by Wilhelm Conrad Roentgen

 (1845-1923) who was a Professor at Wuerzburg University in Germany. Working with a cathode-ray tube in his laboratory, Roentgen

 observed a fluorescent

 glow of crystals on a table near his tube. The tube that Roentgen

 was working with consisted of a glass envelope (bulb) with positive and negative electrodes encapsulated in it. The air in the tube was evacuated, and when a high voltage

 was applied, the tube produced a fluorescent

 glow. Roentgen

 shielded the tube with heavy black paper, and discovered a green colored fluorescent

 light generated by a material located a few feet away from the tube.

He concluded that a new type of ray

 was being emitted from the tube. This ray

 was capable of passing through the heavy paper covering and exciting the phosphorescent materials in the room. He found that the new ray

 could pass through most substances casting shadows of solid objects. Roentgen

 also discovered that the ray

 could pass through the tissue of humans, but not bones and metal

 objects. One of Roentgen's first experiments late in 1895 was a film of the hand of his wife, Bertha. It is interesting that the first use of X-rays

 were for an industrial (not medical) application, as Roentgen

 produced a radiograph

 of a set of weights in a box to show his colleagues.