

SUE WOLFE : DOROTHY HODGKIN

Dorothy was born in Cairo on 25th May 1910. At this time her father was working for Egyptian Education Service. He later moved to the Sudan where he was Director of Education and Antiquities.

Dorothy was the eldest of four daughters. Her parents seemed to have split their time between England and the Middle East.

Dorothy's mother had lost her four brothers in WW1 this was when she became a strong supporter of the League of Nations, her parents were also members of National Educational Union which was far more focused on science subjects.

Dorothy attended one of these meetings with them when she was just ten years old. Perhaps this was the spark for Dorothy, as she made herself a laboratory in the attic of the family home in Norfolk. With an old chemistry set she analysed different things she found such as garden soil, and sand. She also made solutions of alum and copper sulphate, which in time turn into crystals. Which Dorothy found fascinating. She was encouraged by a family friend, Dr Joseph, who gave her chemicals to work with.

In 1921 Dorothy went to grammar school in Suffolk where she was one of only two girls allowed to study chemistry with the boys. At this point she decided to study chemistry at university.

1928. She spent one season in between school and university with her parents who were living in Jerusalem at this time, and excavating the archaeological site of Jerash (now in Jordan). Here she documented the patterns of the mosaics and glass tesserae, noting how they were all different structures but combined made a whole.

Her attention to the precise scale and shape of these mirrors can be seen in her later work on the patterns in chemistry.

1928 Dorothy went to Oxford, it was at this time she had her first attack of rheumatoid arthritis. After a chance meeting with Dr Joseph she went on to Cambridge
Back in Oxford Dorothy worked on solving the atomic structures of molecules such as penicillin and insulin by using X-ray crystallography.

In 1936 she was appointed a fellow and tutor in Oxford, one of her pupils was Margaret Roberts. Later of course Margaret Thatcher. While prime minister she hung a picture of Dorothy in her Downing Street office, in respect of her.

Dorothy however was a life long member of the Labour Party !!!!!

During the war she was aware of secret work being conducted on antibiotics, she went on to solve the structure just as the war ended.

She had identified the atomic structure for Penicillin Vit B12

1964 Dorothy was awarded the Nobel Prize for this work, the only woman to receive one for science

1969 when she was in her late 50's she finally cracked the structure of insulin. Her ankles were so swollen it was not unusual to see her working in her lab in slippers. She didn't let her severe rheumatoid arthritis get in the way of her work, she just adapted her equipment where necessary.

She retired from public life in 1988 and died in 1994

Apart from being an amazing scientist she appears to have been a kind, humble and generous individual. Who gave so many people a chance to live a full life.