

London Meetings

June 18 2019

Norman Field has a knack for posing deceptively simple questions which, when you think about them, are rather more complex. This evening's programme bore the title **The Pre-History of Recorded Sound** and the questions posed were "why didn't sound technology develop earlier?" and "why were sound recordings made mechanically (rather than electrically) for so long?"

To answer these questions Norman first gave us a crash course on electricity paying particular attention to the principles that when electric current passes through a wire it sets up a magnetic field; and that the opposite is also true, a crucial discovery given the importance of electro-magnets for sound recording. He then moved to the application of electricity to inventions, notably the telegraph and then the telephone, hugely powerful tools for commerce and finance where information, and the ability to get it before others, is a priceless commodity. The first practical telephone was patented in 1876. Edison's tin-foil phonograph would follow in 1877, an accidental spin-off of more pressing and lucrative projects. So – sound recording did not develop earlier because no one saw much opportunity to make money from it.

The other great driver of science is war. World War One saw great advances in valves and growing interest in the prospect of harnessing the powers of microphones and valves for electrical recording. In 1925 Western Electric produced a system which worked well and which they leased rather than sold. Other systems soon followed and electrical recording began to be introduced, imperceptibly at first as the record companies did not want their catalogues of acoustic recordings to be instantly outmoded.

Norman packed so much into this programme that it is difficult to do it justice in a brief note. He has that rare skill, an ability to present scientific concepts in plain English which anyone can understand. He could earn a fortune writing computer manuals.

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