

***Spring, 2000***



WHEN the Museum was founded, the core of the collection was the magnificent series of astrolabes, sundials and other mathematical instruments offered to the University in 1922 by Lewis Evans (1853-1930), on the condition that the place assigned for its permanent exhibition met with his approval. The instruments were temporarily displayed in the Bodleian Library until Evans's offer was formally accepted. On 5th May 1925, the Old Ashmolean Building - which Evans greatly approved of - was opened to the public, with Evans's collection on display alongside instruments that R. T. Gunther, the first Curator, had obtained from Oxford colleges.

Unlike his brother, the archaeologist Sir Arthur Evans (1851-1941), discoverer of Knossos, Lewis Evans was not an Oxford man. Having studied chemistry at University College in London, he settled into business life and eventually became chairman of the family's paper-making firm of John Dickinson & Co. Ltd. Until his retirement, he lived like an industrial squire near the paper mills, at Russels, a country house outside Watford.

In the course of fifty years, Lewis Evans built up his collection, with a strong preference for instruments that were signed and dated. An early account of his astrolabes and their provenance can be found in Gunther's monumental *The Astrolabes of the World* (1932) which, for most of the sixty or more pieces from Lewis Evans's collection, specifies when Evans acquired them (between circa 1880 and 1922) and from whom: some thirty collectors, dealers and auctioneers in such places as London, Paris, Venice, Florence, Milan, Monte Carlo and Algeria.

Often the prices paid by Evans are also mentioned by Gunther, and these range from a modest £4-10 for an Italian astrolabe bought in Venice in 1899, to a staggering £1,450 for an Arsenius astrolabe acquired at the Roussel sale in Paris in March 1911. These are extremes, but considering that typical prices recorded are between about £30 and £120, it is clear that Lewis Evans spent a large amount of money on his collection.

One item for which Evans did not have to pay was Godwin's cardboard astrolabe dated 1802, 'formerly the property of the Rev. Lewis Evans FRS'. This object would have been passed down to him from his great-grandfather, vicar of Froxfield, who was an accomplished mathematician and astronomer. Both the Rev. Lewis Evans and his son Thomas Simpson Evans had been mathematical instructors in the Royal Military Academy at Woolwich, so it is fair to say there was an element of heredity in the interest for mathematical instruments displayed by Lewis Evans the younger. Lewis Evans built up a library of historic books and manuscripts, which he gave to the University alongside his instruments. Although not a prolific writer, he published several papers on sundials between 1900 and 1904, drawing largely on his own rapidly expanding collection. In 1911 the *Archaeological Journal* printed an illustrated paper by him with descriptions of over thirty European and Oriental astrolabes, seventeen of which were from his own collection.

By his generous gift to the University, Lewis Evans moved his collection from the intimacy of his home into the public domain. But already before the exhibition in the Bodleian Library, there had been occasions when outsiders could see some of his treasures. It is known that Evans exhibited items from his collection at the Society of Antiquaries and at Royal Society conversations, for instance, as early as the 1890s. In terms of the potential number of viewers, it is unlikely that any occasion ever surpassed the two exhibitions held at the White City in 1910 and 1911, to which Lewis Evans lent a selection of his collection.

The exhibition site was created at Shepherd's Bush, London in 1908 for the Franco-British Exhibition, which aimed to display and promote the industrial achievements of both countries. Besides the 'serious' exhibitions of machinery and products, there was a wide range of novelty attractions and side-shows. Arranged around spaces with such names as the 'Court of Honour', 'Court of Arts', 'Court of Progress' and 'Elite Garden', dozens of pavilions and exhibition halls were erected, whose stuccoed exteriors earned the site the nickname the Great White City. In 1908, Britain also staged the Olympic Games, and the Stadium was built into the Franco-British Exhibition complex.

The huge site covered 140 acres, some eight times that of the Great Exhibition of 1851, and it remained in use for exhibitions and British industries fairs until 1938. It is now devoted to housing, including a White City Estate, BBC Television Centre and BBC offices. The Central Line underground station opened there in the 1950s was named 'White City', a reminder of the extravaganza that during the first decades of the 20th century had drawn vast crowds to this part of London.

From the start, science featured prominently at the exhibitions held at the White City. At the Franco-British Exhibition of 1908, there was a Science Court covering 14,000 square feet, filled with exhibits 'representative of the actual work of scientific exploration, both past and present, and also of the history of scientific discovery, including some of the modern work in the various branches of experimental science'.

Past and present science was also included in the ensuing exhibitions held on the site: the Imperial International Exhibition in 1909, the Japan-British Exhibition in 1910, and, marking the crowning of King George IV, the Coronation Exhibition of 1911. The official catalogues of the Japan-British and Coronation exhibitions both give extremely detailed descriptions of the science sections, and make exciting reading for historians of scientific instruments.

In the 1910 exhibition, Lewis Evans's entry was recorded as 'A Series of Astrolabes from various countries, covering the period from A. D. 1067 to about 1600' together with 'A Collection of Portable Sundials, Star-dials or Nocturnals, and early Quadrants including a Roman dial of the third century, and instruments from Japan, China, England, France, Germany, Italy and Spain.'

The 1911 entry is more detailed, so that one can match all the astrolabes displayed with Gunther's description of them in *The Astrolabes of the World* except for two, which were probably sold or exchanged by Evans between 1911 and 1922. Nine astrolabes were listed in total, dating from the 14th to the 17th century, and including Moorish, Arabic, Indian, German, French, Italian and Spanish examples.

Of the two astrolabes not mentioned in Gunther, one was described as 'An Arabic Astrolabe, 81/4 inches in diameter, for 27 stars, and 3 plates. Its maker is the humble servant of his Lord Muhammad, the son of Ahmad-al-Batuli. God support him.' A.H. 900 = A.D. 1495.; the other as 'An Italian Astrolabe, 63/4 inches diameter, for 21 stars, with 3 plates; 1521. Specially made for Astrological purposes.'

Lewis Evans's display of portable sundials and quadrants covered examples from the 16th century onwards, including twenty specimens from England, eighteen from Germany, six from France, three from Italy, two from China, and two from Japan. The collection of surveying instruments was not itemized.

To place Lewis Evans's exhibit in perspective, the other exhibitors of historic instruments are worthy of mention. Some were private individuals. The collector George H. Gabb lent five items and Henry P. Baggage of Cheltenham sent a portion of the 'Analytical Engine' designed by his father. The astronomer E. Ball Knobel, who was later to be one of the earliest 'Friends of the Old Ashmolean' and was to help Gunther with his study of astrolabes, lent five old instruments, including an Arabic astrolabe which Lewis Evans bought from him after the exhibition and a planispheric quadrant by Magini, now in the Museum.

There were also several institutional exhibitors of historical material, such as the Royal Geographical Society; the Royal Observatory and the Royal Scottish Museum, Edinburgh; the Wheatstone Laboratory of King's College, London; the Admiralty, which lent a series of timekeepers, including Harrison's H2, H3 and H4; the Royal Astronomical Society; and Gonville and Caius College, Cambridge, which lent two astrolabes.

While many manufacturers of modern instruments exhibited, only one lent historic material. This was the firm of Negretti and Zambra, London, which provided a 'Historical display of Deep Sea Thermometers'. Of all the private and institutional exhibitors, Lewis Evans entered by far the largest number of instruments.



The *Official Guide and Catalogue* for 1911 wrote that in the Hall of Science 'the tourist may spend a very pleasant and instructive hour' looking at 'illustrations of the hundred and one marvellous discoveries which have had so much to do with the building up of the Empire'. Considering the abundance of attractions at the White City, one can only speculate how much attention the millions of visitors to these mega-exhibitions did indeed give to the science sections.

Most visitors will have been drawn mainly to the more lively exhibits, such as a set of Marconi apparatus sending messages from one end of the building to the other, or a working seismograph, of which the *Official Guide and Catalogue* almost wistfully wrote 'should an earthquake take place in any part of the world while the exhibition is open, the installed seismograph will record it'. How many visitors paused to gaze at the old instruments on display we will never know. What we do know is that those who had an interest in the history of science and its instrumentation had an opportunity to see some of the finest examples in Britain, in no small part due to Lewis Evans's own enthusiasm for the subject, of which the Museum is now the beneficiary.

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