

Institute of Physics

LONDON AND SOUTH EASTERN BRANCH REMS SECTION

Visit to British Engineerium and Preston Manor Sunday April 6th 2003

This visit has been organised by Antony Balchin

The British Engineerium (<http://www.britishengineerium.com/>) is a beautifully restored working Victorian pumping station and museum of mechanical antiquities. In 1866 the Goldstone Pumping Station was opened by the Brighton, Hove and Preston Constant Service Water Supply Company with the "No 1" 120 hp Woolf Compound condensing beam engine, built by Easton and Amos. Standing over a 160 feet deep well, it was supplied with steam by three boilers and their adjacent coal cellars. The engine was capable of lifting 130,000 gallons per hour to a mean height of 250 feet. In time, even this addition to the area water supply proved inadequate. In 1875, under the direction of the newly formed Brighton Water Corporation, "No 2" Engine house was built for a second beam engine, the 250 hp jet condensing Woolf compound engine by Eastons and Anderson. This engine, at 15-18 rpm, could lift 140,625 gallons per hour through a 400 feet maximum lift, and at normal speed it was capable of lifting 2.25 million gallons per day. In 1934 it was re-equipped with four new Lancashire boilers by Yates and Thom, one of which is still in use today. Restoration work started in 1975 on the boilers and auxiliaries and No 2 Engine Machine tools still in operation include the original Earnshaw gap-bed lathe and Archdale planing machine. Every moving part, except the main beam and crankshaft assembly was taken down to floor level and was laboriously cleaned and polished. Starting in January 1976, restoration and conversion of the coal store into the main exhibition hall was also undertaken and the museum was formally opened on Good Friday 1976. The boiler is lit and the 16 tonne Corliss horizontal engine and original Eastons and Anderson beam engine are run on the first Sunday in the month.

Preston Manor (<http://www.brighton-hove.gov.uk/bhc/museums/prestonmanor/>) is a delightful old Manor House, which evokes the atmosphere of an Edwardian Gentry house both 'upstairs' and 'downstairs'. Dating from c.1600, rebuilt in 1738 and substantially added to in 1905, the house and its contents give a rare insight into life during the early years of the 20th century. Explore more than twenty rooms over four floors, from the servants' quarters, kitchens and butler's pantry in the basement to the attic bedrooms and nursery on the top floor. The Manor also comprises walled gardens and a fascinating pets' cemetery. Adjacent to Preston Park is the 13th-century parish church of St Peter.

The visit starts at the British Engineerium at 11.00 and lasts about 2 hours. Following lunch (at Churchill Square?) we will visit Preston Manor for a guided tour starting at 15.00.

To get around: From Brighton station a 400-yard walk downhill to Churchill Square enables you to catch a Number 5B bus to the Co-op Superstore in Hove. The Engineerium is just around the corner from this bus stop. The bus also calls at Hove station. We would return by bus to Churchill Square for a Number 5A bus to Patcharn, which passes by Preston Manor. The bus fare is £1 for each trip. There will be trains to Brighton and Hove from Victoria and King's Cross. Persons travelling by road will find limited parking at the Engineerium, or they may find space at the nearby Co-op Superstore car park. Near Preston Manor there is a car park at Withdean Stadium, or kerb-side parking off Preston Drive. Maps will be provided.

There are no limits on numbers for this visit. The entrance fees and guide will £9.00