



Measuring chain
c. 1900



Level
c. 1940



Water pipe
c. 1800

THE EXHIBITION AND MILLER PORTRAIT UNVEILING

Heriot-Watt University and the Museum Committee of the East of Scotland Association of the Institution of Civil Engineers have great pleasure in welcoming the Association for Industrial Archaeology (AIA) members, other supporters, and friends to an exhibition in the University's newly created School of the Built Environment. We hope that you will find the displays evocative of the practice and work of our predecessors, many of whose achievements continue to make a valuable contribution to society.

Our Museum Collection of nearly 250 civil engineering related artefacts, one of the finest of its kind, contains such diverse treasures as old personal computers, pre-steam locomotion railway relics, Telford letters, and structural iron from a 19th century building and 3 world record-breaking bridge spans. See if you can spot them! Our range of surveying instruments includes finely crafted brass examples with telescopes up to 30 in. long. Land surveyor Thomas Carfrae's much worn level (item 77/00) is of interest for its probable use in surveying Grainger and Miller's proposed steam-locomotive operated railway from Edinburgh to Glasgow in 1831.

This Edinburgh and Glasgow Railway project and its extension to Berwick-on-Tweed which eventually developed into the present main line with its long tunnels and viaducts was engineered by John Miller C.E., F.R.S.E. (1805-83), the subject of today's portrait unveiling. Other railways for which Miller acted as engineer were, the North British with its lines radiating from Edinburgh; Dundee and Perth; Dundee and Arbroath; Glasgow, Paisley, Kilmarnock and Ayr; Glasgow, Dumfries and Carlisle via Ayrshire and at least 20 others in Scotland. Large masonry viaducts which Miller engineered included the Almond (46 arches), Avon, Dunglass, Cockburnspath, Roxburgh, Markinch, Ballochmyle (170 ft. high and 181 ft. main span) and Lugar (150 ft. high) which he considered his greatest work. Miller retired a wealthy man in 1849, aged 44.

In 1982 at my initiative the Civil Engineering Department of the University through the good offices of Professor Arthur Bolton acquired a portrait of Miller's senior partner Thomas Grainger C.E., F.R.S.E., who was born and buried within 3 miles of the University. After a long search for a similar portrait of Miller with the help of Mr. Roddy Simpson I managed to track down one by the same artist as for Grainger, the eminent Sir John Watson Grodon, to the Tweeddale Museum, Peebles. Through the generosity of the Scottish Borders Council Museum and Gallery Service, whom I should now like to take this opportunity of thanking, the portrait has been restored and loaned to the University. It is now hung with that of Grainger in the well-frequented students' long gallery thus reuniting the principals of an outstandingly successful engineering firm.

I should also like to thank Professor John Archer, Principal and Vice Chancellor of the University, for performing the unveiling, my co-members of the Museum Committee and others for their unstinting help with tonight's arrangements, John Crompton for AIA input and everyone else present for coming and supporting the occasion.

Roland Paxton
Chairman

OBJECTIVES OF THE MUSEUM COMMITTEE

To form, develop and promote knowledge of a permanent collection of historical artefacts associated with civil engineers, particularly instruments, on behalf of the East of Scotland Association of the Institution of Civil Engineers (ICE).

PRESENT MEMBERSHIP OF COMMITTEE

Professor Roland Paxton, Chairman;
Dr David McGuigan, Secretary;
Professor John Swaffield; Sam Barron; Jim Dignan;
Mrs Fay Fyfe; Professor Paul Jowitt; Ted Ruddock;
Ex Officio, Ken Laing (Chairman ESAICE);
Richard Williams (Secretary EASICE).



Theodolite
c. 1860



Steel band chain
c. 1900



Water current meter
c. 1940