4: An Illustrated History of Chester Leadworks by Geoff Pickard Pbk. 216 pages. Lydney: Lightmoor Press 2017. ISBN: 978 191103 823 8

by Roy Coppack**

This book provides a welcome addition to the small number of detailed studies of Chester industries, all the more so as it is written by a very experienced local historian who has previously published accounts of Crichton's Deeside shipyards and of railways around Saltney. His account of the Leadworks continues this series and highlights a number of little-known facts about this enterprise that had such a strong presence in our community.

The Leadworks were founded by the Walker family, pioneers of the industrial revolution, whose fortune was based on iron manufacturing in the Rotherham area, and in that enterprise they were early users of James Watt's steam engine. In 1778 they branched out into lead manufacturing in Newcastle upon Tyne, followed by Chester in 1799. Members of the Walker family managed the Chester works, lived in the company house until 1890 and took an active part in the civic life of the city.

The works began by producing white lead used in paint and the lead shot needed for the war against the French. Both used new processes acquired by Walkers and best suited to larger volume production.

Lead ingots were bought from outside smelters until 1834, when Walkers built a factory at Bagillt, although production was transferred to the Chester site around 1900. By the 1950s environmental pressure led to the construction of a 300-foot chimney, a major landmark alongside the shot tower. The range of products from the factory will come as a surprise to the outsider: white lead, shot, red lead, lead frit for pottery, sheet, pipes, lead-coated steel and nuclear shielding. The company employed 258 workers in the 1970s including twenty-one laboratory staff, a commercial department of sixty-three, and fifteen in transport. There is a very full discussion of health and environmental issues, with lists of the company doctors from 1850.

There was a strong connection between the Chester Archaeological Society and the Leadworks over many years. Most recently, the late Dennis Nicholls, Secretary and Chairman of the Society, was the manager of the works and produced a short history of the

^{**} Roy Coppack, formerly Industrial Archaeology Adviser, Chester Archaeological Society

shot tower that was published in various forms, including *Cheshire Life* volume 24. A O Walker, one of the partners in the works, was one of the leading members of the Society in the 1880s and encouraged Robert Newstead to apply for the post of curator of the Grosvenor Museum when it first opened. Newstead, who was an outstanding gardener, also designed the extensive show gardens alongside the on-site company house, then occupied by a member of the Parker family.

This book is unique in terms of industrial history since it deals with every aspect of the products derived from lead, with a clear detailed explanation of the processes involved in a form easily understood by the general reader. Each process is carefully explained with flowcharts and detailed photographs; indeed high-quality photographs, maps and diagrams are a hallmark of Pickard's works. The sequence illustrating the shot tower process gives us all the detail we need to understand its complexities.