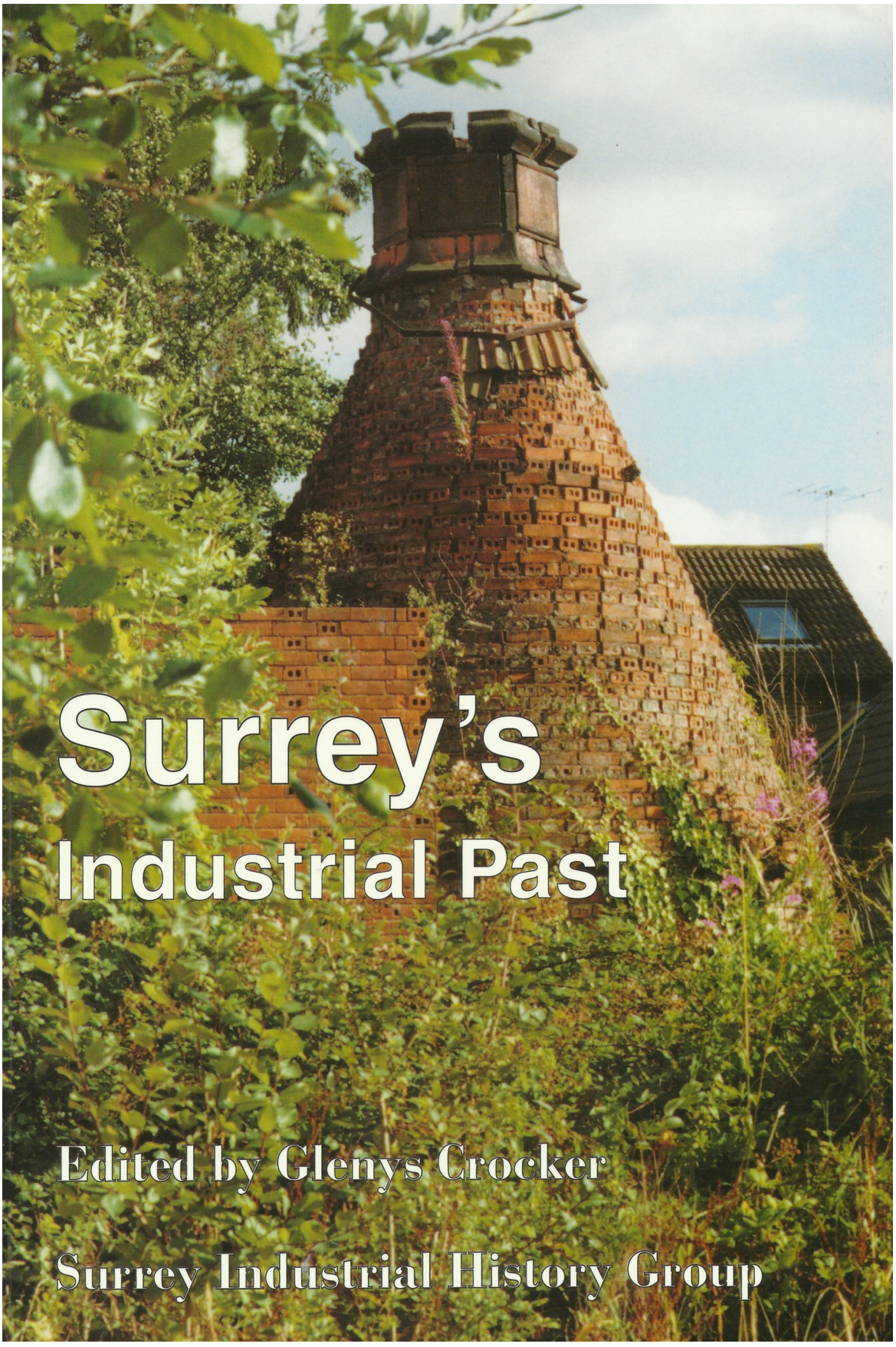
Surrey's
Industrial Past
Edited by Glenys Crocker
Surrey Industrial History Group

SURREY'S INDUSTRIAL PAST

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SURREY INDUSTRIAL HISTORY GROUP

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This online edition consists of 101 pages in A4 format.

It can be read online or printed out. The formatting allows both to work and colour photographs are now rendered in colour rather than greyscale.

A few amendments or updates are included in the text. They are noted at www.sihg.org.uk/updates.htm.

To allow the published indexes to be used, the original page numbers are given in brackets: [Page 123].

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LIST OF ILLUSTRATIONS

Cover: Kiln at Farnham Pottery: a rare survival of an early type of wood-fired kiln

Frontispiece: Coxes Lock Mill on the Wey Navigation

New photographs are by Chris Shepheard.

Unless otherwise acknowledged in the captions, older photographs are from the Chris Shepheard collection.

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PREFACE

This book, the work of members of the Surrey Industrial History Group, sets out to complement the series of industrial history Guides published by SIHG since 1990 and nearing completion in 1999. These are in the form of gazetteers, one for each of the eleven administrative districts of the county, and readers are referred to them for information on individual sites.

The book makes no claim to be a comprehensive survey of Surrey's industrial history but reflects members' interests and, in some cases, first-hand knowledge of industries in which they have made their careers. In part it provides a summary of published information in fields which have already been well-researched, but it also contains less-accessible material as well as results of new research. In these cases, reference to sources is given in the text or in notes to the chapters as appropriate.

Few chapters are the work of a single individual. Authors are not therefore identified in the text but are listed, with a note of their principal contributions, as follows: Stuart Chrystall (waterways); Alan Crocker (corn mills, paper mills); Glenys Crocker (gunpowder, textiles and leather); Francis Haveron (car manufacture, entertainment industry); Gordon Knowles (railways, aviation, aircraft industry); Christopher Mann (water supply); John Mills (sewage disposal, gas, chemical and process industries, gravel extraction in north-west Surrey); Gerry Moss (chemical and process industries); Derek Renn (roads and bridges); Jeff Sechiari (breweries); Chris Shepheard (defence, sand and gravel extraction in south-west Surrey); Malcolm Tadd (extractive industries); Peter Tarplee (defence, electricity, ice houses, watercress beds, essential oils); Peter Wakefield (communications).

The maps showing geology, turnpike roads, waterways and railways are from

A Guide to the Industrial Archaeology of Surrey, which was published by the Association for Industrial Archaeology in 1990 when its annual conference was hosted by SIHG.

New photographs are by Chris Shepheard, who has also acted as picture editor for the volume and has played a major role in planning and organising the compilation of the book. Finally, the project would not have been brought to completion without the hard work and determination of Peter Tarplee who has steered its progress throughout.

Glenys Crocker

May 1999

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Chapter 1

INTRODUCTION

Before the industrial revolution, when heavy industry became established in the North and Midlands, Surrey was a considerable manufacturing county. England was a great producer of wool in the Middle Ages. The monks of the Cistercian abbey of Waverley, near Farnham, reared sheep on the downs and by about 1300 were supplying raw wool to the cloth-manufacturing centres of Italy and Flanders. From being an exporter of wool, England became a manufacturer of cloth and 'Cloths of Guildford', which were made in a region extending from south-west Surrey into Sussex and Hampshire, gained a high reputation. The southern part of Surrey was on the fringe of the iron-working area of the Weald, which used ore from local ironstone, charcoal for fuel from local woodlands and water power for working bellows. Another early industry, in the district around Chiddingfold, was the manufacture of glass, again using local wood both for charcoal, for firing the furnaces, and for potash, to mix with sand as raw material.

The English woollen industry contracted in the seventeenth century as a variety of worsted and mixed fabrics — the 'new draperies' — became fashionable and different centres of manufacture grew up. Surrey was one of the districts where the old industry almost died out. Iron smelting too declined in the region after Abraham Darby introduced coke-fired furnaces at Coalbrookdale in Shropshire in the 1720s. The glass-makers left rural Surrey because of legislation in 1615.

The old woodland industries of coppicing and charcoal burning continued though and supplied one of the raw materials for the new industry of gunpowder making. The gunpowder industry, in which Surrey played a leading part in the early years, was one of many new industries which used water power. Watermills had long been used for grinding corn and from the thirteenth century onwards many were used to operate fulling stocks for processing woollen cloth.

When the woollen industry declined many redundant fulling mills were converted to paper mills, which also used water-powered hammers to reduce linen rags to pulp. Other water mills were used for crushing dyewoods, grinding tobacco for snuff and driving machinery in metal-working trades. Industries grew up along rivers, and not only the larger ones like the Wey and the Mole but also their small tributaries.

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The sixteenth and seventeenth centuries brought a great increase in industrial 'projects', as the enterprises of the period were known. Among the Tudor and Stuart 'projectors' were members of the Evelyn family who established gunpowder mills at Tolworth and Godstone and at Wotton and Abinger in the Tillingbourne valley where they also set up brass and copper mills. The Tillingbourne, which rises on Leith Hill and joins the River Wey just south of Guildford, also drove waterwheels for corn milling, fulling. iron forging and papermaking and provided power for the Chilworth gunpowder mills which operated for nearly 300 years. The valley is now largely rural, its ponds used for fisheries; and watercress beds, established in the 1850s, are still active in the 1990s at Abinger Hammer.

Even more bustling with activity in the past was the River Wandle, considered at the beginning of the nineteenth century, when forty industrial undertakings were carried on along its course, to be the hardest-worked river of its size in the world. The Wandle is, however, largely outside the scope of this book, since it belongs to that part of Surrey which has been lost to London.

The historic county of Surrey extended to the south bank of the Thames but local government changes in 1889 and 1974 took away about a fifth of its area and a larger proportion of its population and industry, leaving the administrative centre of Surrey, Kingston upon Thames, outside the modern county. The changes of 1974 also brought an addition in the form of Spelthorne, an area north of the Thames which historically had been part of Middlesex, and a loss in the vicinity of Gatwick airport.

The Surrey of this book is the modern county, but the lost metropolitan areas are not rigidly excluded because the influence of London cannot be ignored. It is most obvious in the spread of the built-up area and the growth of commuter suburbs and transport links but Surrey has also provided London with services of many kinds — sites for storage reservoirs, hospitals for the mentally ill and handicapped and the Victorian cemetery at Woking with its rail link to Waterloo.

The industries of the historic county, up to the beginning of the twentieth century, are admirably described in the Victoria County History, the four-volume work published between 1901 and 1911 as part of a national series. The second volume contains chapters on iron; lime burning, stone quarries, fuller's earth etc; pottery; glass; Battersea enamels; gunpowder; leather; cloth; miscellaneous textile and allied industries; tapestry; felt and hat making; dyeing, bleaching, calico printing; brewing; distilling; vinegar and British wines; aerated and mineral waters; soap and candle making; metal and machinery works; paper; printing and printing machinery. Many of these, such as Liberty's textile printing works at Merton, Mitcham lavender, Paine's fireworks at Mitcham and Brock's at Sutton, were carried on in metropolitan Surrey but the modern county has had a wide range of manufacturing industries, such as the wax refinery and the Monotype works near Redhill, the Thames Ditton statue foundry whose prod-ucts went all over Britain and the Empire, the knitwear industry at Godalming, British Aerospace and the firms which make Formula One racing cars.

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Surrey has played a major role in nursery gardening, on the sandy soils of the north-west, and in market gardening to supply London. Work on the land, however, is a major study in itself and beyond the scope of this book. The model farms of the nineteenth century are therefore excluded, as are the systems of water management devised from the late sixteenth century onwards for seasonal 'floating' of the meadows, to improve their fertility. Some crops are featured: watercress growing, with its special irrigation works, hop growing in relation to brewing, herb growing in relation to the distilling of essential oils and woodlands as a source of fuel and raw material for early industries.

The book begins with the natural resources of the underlying rocks, the quarrying and mining industries which exploited them and the industries based on processing the materials extracted out of the ground. Next it moves to corn milling, the earliest industry to use water and wind power and to the brewing of beer. The woollen industry, the next to use water power and the most important industry in the Middle Ages, comes next followed by other textiles and the manufacture of leather; then the other manufacturing industries which developed from Tudor times onwards. The supporting industries follow, first transport by road, canal, rail and air and the manufacture of aircraft and vehicles, then public utilities for the supply of water, power and communications, defence and finally the leisure and entertainment industries.