
The impact of technology on the houses and the country estates of the landed aristocracy has been largely ignored by historians. In 1978, Mark Girouard published a pioneering chapter on the subject in his *Life in the English Country House*, but it was only in 1995 that the National Trust sought ‘to identify and record all early mechanical, electrical, gas and water systems... and other items of technological interest’ on their estate of over two hundred houses. Their ‘Country House Technology Project’ was subsequently expanded in 2008 by Marilyn Palmer and Ian West to embrace other publicly accessible houses and to provide a wider historical context. The fruits of their research, and that of others, were explored at a memorable conference in Oxford in 2010 and have now been published in this handsomely produced volume as part of the ‘Rewley House Studies in the Historic Environment’ series. The book is divided into three sections which consider individual houses, the development of technologies within the house, and their exploitation within the wider estate. These chapters are preceded by an introduction by Marilyn Palmer on the social impact of technology on the landed classes which provides a wide-ranging context for the book. There is a thoughtful concluding chapter by Paul Barnwell assessing the historical significance of technology in understanding how country houses were built and functioned.

Most country houses were built in an isolated location away from urban centres and were unable to take immediate advantage of the innovations in heating and lighting which were driven in the nineteenth and early twentieth centuries by factory owners and gas and electricity companies. For much of that period they were forced to be self-sufficient and many owners were slow to appreciate the potential of the new services. The motivation for adopting new technology was often prompted by a change in ownership, either by inheritance or by sale, and in the second half of the nineteenth century the *nouveaux riches*, who were acquiring country estates, were in the forefront of innovation although some hereditary owners, like the marquess of Salisbury at Hatfield, were not far behind.

The individual case studies have been carefully selected to illustrate different aspects of the overall story. They include a comprehensive account by Christine Hiskey of the Holkham Hall estate, from the installation of the water supply, heating and sewerage systems when the house was first built, through the introduction of gas and electricity in various forms, down to the most recent rewiring of 2005. Pete Smith’s chapter on Wollaton Hall concentrates on the changes made by Sir Jeffry Wyatville not just to bring greater comfort, but also in response to the threat of riot, and Paul Holden describes the
improved technology that was installed at Lanhydrock House following a disastrous fire of 1881. Maureen Dillon contributes a fascinating account of the development of lighting at Knole and its effects for the display of its collection of furniture. Pamela Sambrook considers how new technology affected the lives and working practices of the servants. Ian West provides a magisterial survey of the introduction of gas and electricity, Christopher Hunwick explores hydro-electric power at Alnwick Castle, and Paul Thomas looks at the provision and uses of water power in general with two brief case studies of Tyntesfield and Ickworth. On the wider estate, there are chapters on: heat in the kitchen garden by Fiona Fyfe, using Calke Abbey as an example; agricultural buildings by Susanna Wade Martins; and finally, the industrial exploitation of country estates by Marilyn Palmer.

This is an important and pioneering book which should stimulate further study in the field. Despite the multitude of different authors, it is lucidly written and illuminated by an excellent selection of illustrations. It not only redresses a neglected dimension to the scholarship of the country house, but it should also appeal to the informed visitor whose curiosity about the servicing of their privileged inhabitants has been stimulated in recent years by the new approaches to presentation that have been adopted by country house managers and, of course, by film and television programmes like Downton Abbey. It is highly recommended.

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