1. Record Nr. UNINA9910461231703321 Autore Tomory Leslie <1974-> Titolo Progressive enlightenment [[electronic resource]]: the origins of the gaslight industry, 1780-1820 / / Leslie Tomory Cambridge, Mass., : MIT Press, c2012 Pubbl/distr/stampa 0-262-30045-1 **ISBN** 1-280-49921-4 9786613594440 0-262-30124-5 Descrizione fisica 1 online resource (361 p.) Collana Transformations: studies in the history of science and technology 338.4/79621324094109033 Disciplina Soggetti Gas-lighting - Great Britain - History Gas light fixtures industry - Great Britain - History Distillation - Research - Europe - History Industrial revolution - Europe Electronic books. Inglese Lingua di pubblicazione **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Contents; Preface; Abbreviations; Introduction; Part I. The Roots of Gas Lighting; Chapter 1. Gas Lighting and Pneumatic Chemistry; 1.1 Introduction; 1.2 A Gas Plant of the Early Nineteenth Century; 1.3 Pneumatic Chemistry, 1650-1790; 1.4 Apparatus and Techniques of Pneumatic Chemistry, 1700-1790; 1.5 Lighting with Gas; 1.6 Conclusion: Chapter 2. Industrial Distillation: 2.1 Introduction: 2.2 Industrial Distillation; 2.3 Philippe Lebon and the Thermolamp; 2.4 Zachaeus Winzler and the Thermolamp in Germany; 2.5 Technological Bifurcation; 2.6 Conclusion; Part II. A Question of Scale Chapter 3. Boulton & Watt3.1 Introduction; 3.2 From Invention to the First Pilot Plant; 3.3 Finding a New Market in 1806; 3.4 Design Work; 3.5 The End of Gas Lighting at Boulton & Watt: 3.6 Conclusion: Part III. Building a Network; Chapter 4. Frederick Winsor and the National Light

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Sommario/riassunto

An argument that the gas industry was the first integrated large-scale technological network and that it signaled a new wave of industrial innovation. In Progressive Enlightenment, Leslie Tomory examines the origins of the gaslight industry, from invention to consolidation as a large integrated urban network. Tomory argues that gas was the first integrated large-scale technological network, a designation usually given to the railways. He shows how the first gas network was constructed and stabilized through the introduction of new management structures, the use of technical controls, and the application of means to constrain the behavior of the users of gas lighting. Tomory begins by describing the contributions of pneumatic chemistry and industrial distillation to the development of gas lighting. then explores the bifurcation between the Continental and British traditions in distillation technology. He examines the establishment and consolidation of the new industry by the Birmingham firm Boulton & Watt, and describes the deployment of the network strategy by the entrepreneur Frederick Winsor. Tomory argues that the gas industry represented a new wave of technological innovation in industry because of its dependence on formal scientific research, its need for large amounts of capital, and its reliance on business organization beyond small firms and partnerships--all of which signaled a departure from the artisanal nature and limited deployment of inventions earlier in the Industrial Revolution. Gas lighting was the first important realization of the Enlightenment dream of science in the service of industry.