

**DEMONS AND DOMESTICITY:
A HISTORY OF WOMEN AND THE LONDON GAS INDUSTRY,
1889-1939**

By

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A Thesis

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DEMONS AND DOMESTICITY

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ABSTRACT

When reflecting upon the history of women's employment and commercial advertising, the English gas industry does not usually spring to mind. Historical accounts of the late Victorian years and through the first half of the twentieth century depict the gas industry as being always on the defensive, struggling before the technological triumph of electricity. Such assumptions regarding the teleological march of progress, however, warrant closer examination. In contrast to this accepted view of the gas industry, the most progressive gas managers and engineers developed aggressive marketing techniques, using women as travelling sales personnel and experimenting with mass advertising, long before electricity posed any serious commercial threat. Despite significant interwar electrification, the gas industry expanded its domestic market, supported by a broad consumer base of women in the home cultivated by the industry's home service women.

This study focuses on the development of employment opportunities for women in the English gas industry from the 1880s to the 1930s, with a particular emphasis on the city of London. Secondly, it considers the corresponding expansion and diversification of the industry's marketing strategies, and the important role played by women in this process, as both the purveyors and consumers of domestic utility services. Women first entered the gas industry, not as in most businesses as clerical workers, but as professional demonstrators and later, home service women. Nicknamed "lady demons," short for lady demonstrators, these certified cookery teachers instructed ladies, servants and working-class housewives how to use and maintain gas cookers and appliances. As customer service personnel, the gas industry's home service women were highly visible, persuasive advocates for their employers, particularly during the interwar years, as electricity began to present a serious challenge to domestic gas sales. In addition to their public relations role, the home service staff

interacted with interwar feminist organizations, engaging in debates over housing standards, school meals and women's health.

To date, the historiography of the gas industry in England has addressed what appear to be traditional themes prevalent in business and labour history. These include narratives of technological and corporate progress; debates over market-driven capitalism versus governmental regulated industry; and the successes and failures of late Victorian New Unionism. Collectively, this research locates the English gas industry within the historiography of Victorian industrial development and the consequent struggles between capital and labour. This corpus of scholarship addresses concerns related to the production of gas from coal, but rarely with its consumption. This study offers a contribution to the existing literature by considering the second half of the production/consumption equation, particularly as it pertains to women as the buyers and sellers of public utilities services. Within the history of the English gas industry, the spread of popular advertising, the expansion of the domestic market and the employment of women are inextricably connected, therefore warranting simultaneous study. As well as formulating a history of women in the English gas industry, this study also attempts to understand the shifting relationships between gender, class and consumerism, moving towards an appreciation of how these discursive relationships construct popular perceptions of new and existing technologies.

By focusing on the expansion of female occupations in the gas industry, a topic that has escaped the notice of feminist and business historians alike, one still runs the risk of presenting a "me too" women's history that simply adds female experience to the existing historiography of evolving business practices and corporate modernization. Simplistic as this methodology might appear, it nevertheless creates a historical space, a starting point for the recovery and analysis of women's past experiences in areas of historical enquiry where their presence and contributions have remained unnoticed. Moreover, women's past interactions with the world

of commerce and business have become the focus of recent inquiry, as feminist scholars working on consumption and business acknowledge the importance of gender as a fundamental category of historical analysis. The following study offers a contribution to this developing area, while raising some broader questions regarding women's problematic relationship to commodities and "the world of goods."

This research makes extensive use of archival and printed material pertaining to the English gas industry in London. Principal sources include company records located in the London Metropolitan Archive, formerly the Greater London Record Office, and at the London Gas Museum at Bromley-By-Bow, unpublished papers in the Fawcett Library of Women's History at London Guildhall University, advertising ephemera from the John Johnson Collection at the Bodleian Library, and printed sources found in the British Library. Trade journals and company magazines were particularly useful for determining women's role in the gas industry and in charting the evolutionary development of advertising and sales practices.

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Abbreviations

| | |
|---------|--|
| BCGA | British Commercial Gas Association |
| COS | Charity Organization Society |
| COSMITH | Committee of Scientific Management in the Home |
| CPGC | Crystal Palace Gas Company |
| EAW | Electrical Association for Women |
| EMB | Empire Marketing Board |
| GLCC | Gas, Light and Coke Company |
| MARS | Modern Architectural Research Group |
| NCW | National Council of Women |
| NUWSS | National Union of Women's Suffrage Societies |
| PEP | Political and Economic Planning Group |
| SMet | South Metropolitan Gas Company |
| WEF | Women's Employment Federation |
| WGC | Women's Gas Council |
| WSPU | Women's Social and Political Union |

Abbreviations Used in the Notes

| | |
|---------|--|
| AAD | Archive of Art and Design, National Art Library, Victoria and Albert Museum |
| ATAOUFG | <u>A Thousand and One Uses for Gas</u> |
| BH | <u>Business History</u> |
| BL | British Library, Printed Books Collection |
| CAB | Cabinet Papers |
| EHR | <u>Economic History Review</u> |
| FL | Fawcett Library, London Guildhall University |
| GJ | <u>Gas Journal*</u> |
| JGL | <u>Journal of Gas Lighting*</u> |
| LMA | London Metropolitan Archives, Southampton Road, London SW |
| LCC | London County Council |
| LGM | London Gas Museum, Bromley-By-Bow, London |
| WHR | <u>Women's History Review</u> |
| V&A | Victoria and Albert Museum, National Art Library |

*In 1918, the Journal of Gas Lighting was renamed the Gas Journal.

Introduction

In December 1904, Miss Ethel Margaret Lovell-Wright of Northampton, earned herself a handsome Christmas present. She took first prize in a cookery competition held at the International Gas Exhibition in Earls Court, London, and received a gold watch from the organizing committee. To win the coveted timepiece, Lovell-Wright came first in several qualifying rounds, and was judged not simply on the quality of her cooking, but on her speed and efficient use of fuel. Because there were no restrictions on who might enter, many of the contestants were domestic subjects teachers, experienced cooks and professional demonstrators. In fact, the culinary champion, Miss Lovell-Wright, was herself a professional lady demonstrator “of many years standing” with the gas industry.¹ The significance of this commercial spectacle was twofold. This promotional event combined popular entertainment, in the form of the public exhibition, with advertising and consumer education. As the women bustled over their gas stoves, they clearly demonstrated that this volatile domestic technology was reliable, safe and easy to use. The exhibition’s competition, moreover, offered the gas industry’s lady demonstrators a valuable opportunity for displaying their professional culinary expertise, competing with one another for the traditional emblem of corporate respectability, the gold watch.

This award served to recognize officially the promotional work that cookery teachers had begun in the last two decades of the Victorian era. As a means of increasing the sale of gas appliances and services in England, the gas industry’s recruitment of women demonstrators coincided with the development of its overall advertising strategy, which targeted women in the home. By the end of the century, no trade exhibition was complete without its cookery lecture by a female representative of the gas industry.

¹ Last Day of the Exhibition, *Journal of Gas Lighting*, 20 December 1904, 898-899; Results of the Quick Cookery Competitions, *JGL*, 6 December 1904, 761; The Lady Lecturer and Teacher, *JGL*, 31 January 1905, 283.

During the Edwardian years, the lady demonstrators formed special sales departments within the major gas companies, calling directly on customers in their homes to offer personal instruction in the proper use and care of gas stoves. Part social workers, part salesgirls, the “lady demons,” short for lady demonstrators, moved between the traditionally gendered and separate spheres of work and home, consciously constructing a professional image that reconciled the social tensions of this new occupation. During the First World War, when gas women co-operated with government agencies to assist on the “domestic front,” such efforts further legitimized their professional status within the gas industry, consolidating their public role as spokeswomen for their customers. By the interwar period, the home service women actively promoted a new consumerism which targeted middle and working-class housewives managing their homes on limited budgets without the benefit of domestic servants.

In addition to this corporate agenda, the work of the home service women continued to have a social welfare dimension. Via the Women’s Gas Council, established in 1935, women in the gas industry interacted with a number of interwar feminist groups exerting pressure on the National Government to extend the school meals program, to raise the building standards for working-class housing, to issue family allowance payments to women and to create better facilities for infant nursery schools. Their efforts coincided with those of the “new feminists,” notably Eva Hubback and Eleanor Rathbone, whose social welfare reforms recognized and accepted women’s “equal but different” status as related to their domestic and maternal responsibilities.²

This thesis considers two major, but interlocking themes: the expansion of sales occupations for women in the English gas industry from the 1880s to the 1930s, and the parallel growth and diversification of the industry’s advertising strategies. Because the recruitment of women was

² Brian Harrison, Prudent Revolutionaries: Portraits of British Feminists between the Wars (Oxford, 1987).

an important aspect of the gas industry's evolving promotional methods, a history of women in the gas industry cannot afford to ignore the simultaneous development of its movement towards mass advertising. As a social history of the gas industry in England, with an emphasis on the major corporations in London, this study focuses on women's contributions to that industry, as promoters, purveyors and consumers of gas services and material goods. Given the inextricable connection between domestic ideology, advertising and female consumerism, this thesis attempts to understand women's problematic relationship with the burgeoning "world of goods" particularly within the context of the domestic sphere. In light of the industry's advertising methods, and the motivations of individuals who oversaw its promotional campaigns, this project also reconsiders several popular perceptions of the industry's overall public image, and its competitive rivalry with electricity.

To date, existing studies of the gas industry have been undertaken almost exclusively by historians of business, economics and labour. A small number of traditional Whiggish narratives document the expansion and development of the industry. Although company histories contain valuable source material, in general, they often lack critical perspective, with little analysis and scholarly insight.³ In contrast, a growing list of academic publications have addressed specific problems as they pertain to the gas industry. These include, for example, debates concerning industrial relations between management and labour; the impact of trade unionism on the industry; the influence of governmental control as opposed to free-market capitalism; and examinations of the political, economic and social forces which facilitated the creation of municipally-owned gas undertakings in some northern localities, notably Manchester and Birmingham.

As is often the case within economic, social and political history, the

³ Everard Stirling, A History of the Gas, Light and Coke Company, 1812-1949 (London, 1992); Hugh Barty-King, New Flame: The Illustrated History of Piped Gas (Tavistock, Devon, 1984); Trevor I. Williams, A History of the British Gas Industry (Oxford, 1981).

historiography of the gas industry contains definite ideological schools with the most rancorous debates erupting between the Whig-Liberals and the Marxist-Labour historians. The former group, represented by G.A. Chatterton, Joseph Melling, and Mary Mills, generally agree that, despite the overwhelming support by Victorian politicians and businessmen for free market commercial development, some aspects of economic state control and corporate welfare were evident in the nineteenth-century gas industry. For example, G.A. Chatterton refers to the Gas Acts of the 1860s as an indication that Victorian politicians did not hesitate to impose state controls over private industry if they thought it necessary to protect consumers against the excesses of laissez-faire capitalism.⁴ On the subject of industrial relations, Melling and Mills consider the South Metropolitan Gas Company's profit sharing plan as an example of cooperative goodwill between capital and labour, and a possible reason for the industry's remarkable lack of labour unrest between 1890 and 1945.⁵

In contrast to these favourable assessments, Marxist-Labour historians have presented a more critical view of the industry. Derek Matthews asserts that legislation over the industry was not an example of state intervention to ensure fair prices and service for consumers. Instead, the various gas acts protected the business interests of the largest metropolitan gas companies by facilitating mergers and company takeovers, otherwise known as "districting." Legislated price controls and production methods were a small concession for the commercial monopolies received by the London corporations, notably the Gas, Light and Coke Company and

4 D. A. Chatterton, "State control of public utilities in the nineteenth century: the London gas industry," Business History, 14, 2 (1972), 166-178.

5 Joseph Melling, "Industrial strife and Business Welfare Philosophy: the Case of the South Metropolitan Gas Company from the 1880s to the War," Business History, 21, 2 (1979), 163-179; Mary Mills, "The Gasworkers of South London," South London Record 3 (1988), 6-16; Mary Mills, "Comment: George Livesey and Profit Sharing: A Comment on Some Recent Literature," BH 33,4 (1991), 87-90.

the South Metropolitan Gas Company.⁶ In the area of labour relations, the subject of copartnership remains contentious. Matthews, along with Christopher Moss and Yvonne Kapp, dismiss George Livesey's plan as self-serving paternalism calculated to undermine support for trade unionism among gas workers and to inculcate workmen with acceptable middle-class values including frugality and corporate loyalty.⁷ J.F. Wilson, Robert Millward and Robert Ward investigate issues surrounding the ownership and management of gas companies in an effort to determine what factors contributed to the municipalisation of gas services in the northern regions of Lancashire and Yorkshire.⁸ Assuming what might best be labelled a revisionist perspective, Millward and Ward's statistical analysis of northern gas companies suggests that the municipalisation of gas services depended on a town's size, population density, municipal income sources and rate of population growth. The importance of political progressivism and party agendas should not be overstated since, according to Millward and Ward's statistical data, Liberal and Labour borough councils demonstrated no significant tendency to favour municipalisation over Conservative municipal councils.

Considered in total, the above works tell the history of the English gas industry from the perspective of business and labour. Thematically, it is an overwhelmingly male-centred history, devoted to industrial issues, political policy, urban development and the technical problems of large scale

6 See Derek Matthews, "Laissez-faire and the London Gas Industry in the Nineteenth Century: Another Look," *Economic History Review*, 39, 2 (1987), 244-263.

7 Derek Matthews, "Profit-Sharing in the Gas Industry 1889-1949," *BH* 30, 3 (1988), 306-328; Christopher Moss, "Industrial Copartnership, Labour Unrest and the Last Liberal Government," (unpublished M.A. thesis, McMaster University, 1983); Yvonne Kapp, *The Air of Freedom: the Birth of New Unionism* (London, 1989), 104-119.

8 J.F. Wilson, "Ownership, Management and Strategy in Early North-West Gas Companies," *BH* 33, 2 (1991), 203-221; John T. Wilson, *Lighting the Town: A Study of Management in the North West Gas Industry, 1805-1880* (London, 1991); Robert Millward and Robert Ward, "From Private to Public Ownership of Gas Undertakings in England and Wales 1851-1947: Chronology, Incidence and Causes," *BH* 35, 3 (1993), 1-21.

production. This study offers a contribution to the existing literature by focusing upon the second half of the production/consumption equation. Although the gas companies were monopoly capitalists, be they public or privately owned, they still advertised their services and used creative promotional methods to attract new customers. From the 1880s, competition with electricity motivated gas managers to invest seriously in advertising. It was not as historians of the gas industry have assumed, however, because gas men believed that electricity presented any imminent technical challenge.⁹ Instead, gas engineers worried about electricity because the public and the popular press appeared exceedingly vulnerable to the advertised claims of the electricians. Gas men clearly understood that, if they were to maintain their competitive edge and improve their public image, they had to rely on more than technical advancements and lower prices. Greater attention to the consumption of gas services, using advertising and commodity spectacles, was crucial to their economic survival.

The need to examine consumption as a field of historical enquiry is long overdue. In a recent collection of essays, John Brewer and Roy Porter note that one of the distinguishing features of modern Western society, in addition to industrialization and economic growth, has been the evolution of a “consumer economy, with the consumers to go with it.” Observing that social and political stability depend, to a great extent, on the ability of “politico-economic systems” to satisfy individuals’ material expectations, Brewer and Porter suggest that to overlook the origins and evolution of consumer capitalism, is to neglect a fundamental motivating force within modern Western history: the acquisition of material goods and services.¹⁰ The scholarly foundations for the development of a history of consumption were laid by Brewer, McKendrik and Plumb in their seminal 1982 study,

⁹ Stirling, History of the Gas, Light and Coke Company, 262-63; Barty-King, New Flame, 134-36.

¹⁰ John Brewer and Roy Porter ed., Consumption and the World of Goods (London, 1993), 1-7.

The Birth of a Consumer Society.¹¹ Since then, as Peter Stearns's recent review article suggests, the list of interdisciplinary publications devoted to this thematic area has substantially increased, taking in the history of retail sales, advertising, trade exhibitions and credit, along with investigations into the social construction and satisfaction of consumer desire.¹² The history of consumption has moved beyond the study of the retail trade by questioning the multiple meanings of consumer behaviour and the impact of that behaviour on social structures. Recent work has underlined that morality, class and gender increasingly shape and define shifting patterns of consumption.¹³

Yet, Porter, Brewer and Stearns readily acknowledge the difficulties of studying a topic as broad, and as vague, as consumer behaviour. They note the lack of any coherent analytical framework; the difficulties of periodization; the need for more comparative studies; and the ideological problems of analyzing consumption historically. For example, historians on the Right argue that to interpret the past in terms of increasing consumer activity relies on a Whiggish notion of progress by reading back into history for the roots of a modernist consumer ethos characteristic of post-war Western society. Marxist historians are equally sceptical about studying consumer behaviour over time since, superficially, consumption gives priority to personal desire over radical political ideology as a dominant force for historical change.¹⁴ As Gary Cross suggests in his recent study of

11 Neil McKendrick, Colin Brewer and J.H. Plumb, The Birth of a Consumer Society: The Commercialization of Eighteenth-Century England (Bloomington, Ind., 1982).

12 Peter N. Stearns, "Stages of Consumerism: Recent Work on the Issues of Periodization," Journal of Modern History 69 (March 1997), 103-117.

13 For example see: Mariana Valverde, "The Love of Finery: Fashion and the Fallen Woman in Nineteenth-Century Social Discourse," Victorian Studies 32, 2 (1989), 168-188.

14 Brewer and Porter, Consumption and the World of Goods, 2-4; Stearns, "Stages of Consumerism," 104.

interwar Britain, France and the United States, however, the advent of the mass consumer society was fundamentally political, and hardly the inevitable outcome of industrialization. According to Cross, the “collapse of communism is a surprising conclusion to a century which began with widespread doubts about the ability of capitalism to manufacture or distribute goods.”¹⁵ The apotheosis of modern consumerism has resulted in a chronic scarcity of time and leisure, devalued by the Fordist work-and-spend ethos, while the demise of European socialism offers consumers no clear alternative.

Feminist studies of consumer culture have introduced gender as “a category of historical analysis.”¹⁶ Victoria de Grazia asserts that feminist researchers recognize the traditional but problematic association of women with consumption, both as a result of the “household division of labour and as reified objects in the commodity exchange system.”¹⁷ Given women’s “subordinate social, economic and cultural position” and “the patriarchal nature of the organization and semiotics of mass consumption,” feminist scholars believe that women indeed are more vulnerable than men to the exploitive forces of commercial culture. This presents yet another ideologically loaded debate over whether consumer culture has liberated or victimized women, particularly as feminine spending patterns reflected the increasing commodification of the home from the late Victorian years onward to the present.¹⁸ Feminist historians observe critically the ironies

15 Gary Cross, Time and Money: The Making of a Consumer Society (London, 1993), 2.

16 Joan W. Scott, “On Language, Gender and Working-Class History,” International Labor and Working-Class History 31 (Spring 1987), 1-13. Scott urged social and labour historians to consider gender as a category of historical analysis.

17 de Grazia and Furlough ed. The Sex of Things, 7. Also see Lori Loeb, Consuming Angels: Advertising and Victorian Women (New York, 1994), 26-32; Penny Sparke, As Long As It's Pink: The Sexual Politics of Taste (London: 1995), chapter two.

18 de Grazia, The Sex of Things, 7; Sparke, As Long As It's Pink, 22-24.

of a social liberation that depended on mass advertising and spending men's money.¹⁹

While not indifferent to the moral debates surrounding female consumption, de Grazia's collection, and this dissertation, consider how patterns of consumption and methods of advertising both construct and reflect gender roles. Commercial practice blurs the assumed distinctions between masculine producers and "breadwinners" and female consumers, between the separation of male public and female private space. For example, the essentially feminine task of shopping broadened women's influence beyond the private domestic sphere, with resulting tensions over their legal ability to make binding contracts and credit arrangements.²⁰ The expansion of shopping districts after the 1880s extended Victorian women's physical mobility and independence by providing a sanctioned occupation that combined feminine domestic duty with public leisure and entertainment. This new freedom was not without risk, since unchaperoned women were exposed to the possible dangers of the crowded urban streets.²¹

Because women assumed responsibility for domestic spending, and as retail managers increasingly noted that women preferred to buy from other women, feminine contributions to the history of consumption warrant detailed study. As this work shows, the gas industry's continued success increasingly depended on the loyalty of female consumers in the home and the promotional and public service work of its lady demonstrators. As women entered sales jobs in the gas industry, existing and fluctuating definitions of femininity and masculinity shaped their evolving profession.

19 Margaret Beetham, *A Magazine of Her Own: Domesticity and Desire in the Woman's Magazine, 1880-1914* (London, 1996), 148-154; Rachel Bowlby, *Just Looking: Consumer Culture in Dreiser, Gissing and Zola* (New York, 1985).

20 Erika Rappaport, "A Husband and His Wife's Dresses: Consumer Credit and the Debtor Family in England, 1864-1914," in de Grazia and Furlough, *Sex of Things*, 163-187.

21 Judith R. Walkowitz, *City of Dreadful Delight: Narratives of Sexual Danger in Late-Victorian London* (Chicago, 1992), 47-52.

But selling gas was not like selling soap. It was a far more complex process, since consumer choice depended on the individual's access to that utility service. While the industry spokes people lobbied architects, builders and politicians, they aimed to educate and empower female consumers, helping them to make rational choices by demanding the most affordable and efficient utility system for their homes. Naturally, that meant coal gas. But while several economic historians have briefly mentioned the gas industry's efforts to attract female consumers and modernize its public image, no single study explores the social, political and gendered dimensions of that advertising process, or considers the roles played by women as buyers and sellers of domestic technology.²²

The lady demonstrators, professional, educated and middle-class, were the first women employed in the gas trade. To date, their contributions have escaped the notice of historians of that industry. Similarly, scholars of women and work have neglected the lady demonstrators and their attempts to create a role for professional female personnel within a predominantly male corporate world.²³ It remains surprising that the contributions of the gas industry's public relations specialist Maude Adeline Brereton have been absent from the historical record, particularly given her known connections to political progressivism.²⁴

²² Leslie Hannah, *Electricity Before Nationalisation* (London, 1979), 186; T.A.B. Corley, "Consumer Marketing in Britain 1914-60," *BH* 29, 4 (1987), 73; Sue Bowden and Avner Offer, "The Technological Revolution That Never Was," in de Grazia and Furlough, *The Sex of Things*, 267.

²³ Meta Zimmeck, "Jobs for girls: the expansion of clerical work for women, 1850-1914," in *Unequal opportunities: women's employment in England 1800-1918*, ed. Angela John (Oxford, 1986), 153-177; Lee Holcombe, *Victorian ladies at work* (Hamden, Conn., 1973). Possibly due to the prominence of the pioneer electrical engineer, Caroline Haslett, the role of women in the electrical industry has received slightly more attention. See Suzette Worden, "Powerful Women: Electricity in the Home, 1919-40," in *A View From the Interior: Feminism, Women and Design*, ed. Judy Attfield and Pat Kirkham (London, 1989), 128-147.

²⁴ Michael Freedman ed., *Minutes of the Rainbow Circle, 1894-1924* (London, 1989), 204.

In many respects, the lady demonstrators established a conduit between male producers in the workplace and female consumers in the home, between the public and the private spheres of work. Their mandate to assist and educate female consumers represents an early example of customer service, a now familiar aspect of modern retailing but one which existing histories of consumption have practically overlooked.²⁵ While the demonstrators were agents of the gas companies, many firmly believed that modern domestic technology would significantly reduce domestic labour and enable women to devote their time and energy to more important and rewarding activities outside the home. Feminist studies of domestic technology, in both the American and the British context, have shown that household mechanization had the opposite effect: the availability of specialized “labour saving” domestic equipment and cleaning products actually increased the amount of time that women spent on housework because it raised expected standards of cleanliness.²⁶ By some accounts, the corporate home economists are chiefly to blame for promoting an image of domestic perfection that depended on continuous consumption. Into the post World War Two era, women realized that the liberating potential of domestic technology had thus proved a false hope. Nevertheless, this should not negate the efforts of the gas industry’s home service women who saw a

25 Alison Adburgham, Liberty’s: A Biography of a Shop (London, 1975); Alison Adburgham, Shopping in Style: London from the Restoration to Edwardian Elegance (London, 1979); W. Hamish Fraser, The Coming of the Mass Market (Hamden, Conn., 1981); Bill Lancaster, The Department Store: A Social History (London, 1995). Studies of American consumer culture have devoted more attention to the topic of customer service and the role of in-store demonstrators. See Susan Porter-Benson, Counter Cultures: Saleswomen, Managers and Customers in American Department Stores, 1890-1940 (Chicago, 1986).

26 R.S. Cowan, More Work for Mother (New York, 1983); Caroline Davidson, A Woman’s Work Is Never Done: A History of Housework in the British Isles 1650-1950 (London, 1982); Christina Hardyment, From Mangle to Microwave: the Mechanization of Household Work (Cambridge, 1988); Suellen Hoy, Chasing Dirt: The American Pursuit of Cleanliness (Oxford, 1995); Pamela Walker Laird, “Progress in Separate Spheres: Selling Nineteenth-Century Technologies,” Knowledge and Society: Research in Science and Technology Studies 10 (1996), 19-49; Margaret Horsfield, Biting the Dust: the Joys of Housework (London, 1997).

direct correlation between hot water, decent meals and women's health.

As an occupational group, the lady demonstrators of the gas industry offer an interesting case study in the history of women, work and domestic consumption. After a brief introduction, chapters one and two consider how English women found a place in the predominantly male gas industry, noting the varied impacts of the Victorian domestic science movement, technological innovations in the gas industry and the rise of mass advertising via the trade exhibition. Chapter three examines the lady demonstrators' constrained attempts to reconcile definitions of Victorian femininity with their personal work experiences in the public sphere. At the same time, their efforts to reach female consumers were assisted by the industry's new publicity collective, the British Commercial Gas Association. Chapter four, the years of the First War, consider how the gas women's carefully constructed professionalism was simultaneously challenged and strengthened by the influx of female replacement workers. Chapters five and six examine the gas industry between the wars.

During these most turbulent decades, in terms of commercial rivalry and development, the gas industry undertook its most costly promotional schemes, notably the redesign of company showrooms, the production of documentary films and the construction of a model housing project. At the same time, the industry relied on its female sales personnel to modernize its corporate image and maintain domestic sales by appealing to women in the home. Although they represented the sales agenda of their employers, home service women still challenged prevalent assumptions regarding the economic value of women's domestic labour in the home and feminine professionalism in the business world. Miss Lovell-Wright's gold watch, awarded for her expert sales performance and her culinary abilities, suggests that the gas industry well-realized the commercial potential of domestic proficiency, in both the workplace and the home.

Chapter 1: The Victorian Kitchen Revolutionized

Introduction

What can a woman be worth
Who knows simply nothing of cooking,
Who handling the beauties of earth!
All helpless is looking?
For food to be pleasant and good,
Depends on the way that you treat it;
If carelessly roasted or stewed,
'Tisn't prudent to eat it.

It may be as soft as new bread.
It may be as tough as old leather;
May lie just heavy as lead,
Or light as a feather.
So life may be burdened with pain.
Or quite a succession of pleasure,
If men a good cook can obtain.
They call her a treasure.¹

On May 9, 1873, the reclusive Queen Victoria made a rare public appearance. She attended a cooking lecture. Accompanied by her daughters, the Princesses Christian and Beatrice, her Majesty was received ceremoniously by the commissioners of the International Exhibition, then being held at the exhibition grounds near Albert Hall. The Queen and Princesses were ushered into the Exhibition's School of Cookery to observe the preparation of a savory omelette by a qualified male chef and four kitchen maids. The school's official lecturer, J.C. Buckmaster, provided the commentary for this culinary spectacle, speaking in the best tradition of the Victorian orator.

¹ Herman Senn, ed. Cookery Annual and Exhibition Souvenir of the Universal Cookery and Food Association (London, 1894), 23.

Buckmaster's four minute presentation was an abbreviated version of the lengthy two-hour public lectures he was accustomed to delivering at the International. In those few minutes, however, Buckmaster outlined the purpose of the cookery school, that being to show "the best and most economical methods of domestic cooking" and the "variations to which kitchen utensils may be fairly applied without injury." He commented on the merits of egg dishes, as nutritious, easy to prepare and affordable, even "for the poorest of Her Majesty's subjects." In particular, Buckmaster underlined the importance of cleanliness and the perceived relationship between domestic order, family harmony and good character, since "dirt and virtue can never dwell comfortably together."² Throughout this dialogue the chef used a gas stove to whip up a parsley omelette. The golden delicacy was offered to the Queen and Princesses, they each tasted it, pronounced it "very good" and departed the Cookery School to tour the remainder of the exhibition. According to The Times, the entire excursion took less than forty-five minutes. Queen Victoria, with a cooking staff of forty-five, attending a cooking class? Absurd...perhaps, however, Buckmaster's lectures, which elevated cookery to a matter of national importance, were the sensation of the exhibition.³ Capacity crowds filled the auditorium twice daily, even paying an additional sixpence over the general one shilling admission fee to secure a front-row seat and a taste of the finished products.

The 1873 International Exhibition, especially its cookery school, embodied two fundamental preoccupations of mid-Victorian society: the idealization of home and the exaltation of industrial progress.⁴ Though apparently contradictory, these two sentiments were compatible. The home was the natural refuge from industrial society and could potentially mediate

² The Times, 10 May 1873, 5.

³ "Cooking at the International," The Times, 23 April 1893, 4.

⁴ Geoffrey Best, Mid-Victorian Britain 1851-1875 (London, 1971), 74, 277-78.

the de-humanizing effects of urban expansion and industrial change.⁵ The home was never an isolated sanctuary, however, and the Victorians welcomed technological advancements which made possible new standards in domestic comfort and efficiency. The use of coal gas for domestic lighting and cooking was one such innovation of the late Victorian period.

Borrowing the format of Buckmaster's cookery classes, appliance manufacturers and gas companies hired women, lady demonstrators, to market their products. Three contributing factors by the late 1880s influenced the corporations' decision to hire women as sales specialists. These were the expansion of the domestic science movement, technological change within the gas industry, and the development of Victorian advertising. This chapter examines these three areas to discover how Englishwomen found a place in the Victorian gas industry.

Good 'Plain Cooking': The Foundation of National Health

Queen Victoria's cooking lesson provides an evocative image of her public and private roles. As monarch and mother of the nation, Victoria was depicted as concerned with the well-being of all her subjects, and by extension, with the general health and strength of the nation. Indeed, the continued economic prosperity and political stability of the Empire was dependent to a large extent on the health of the working population. Buckmaster made this point in his opening remarks by thanking the Queen for her interest in the diets of even the lowest of her subjects. Such concern was not a particularly new phenomenon and aristocratic philanthropists, including the Earl of Shaftesbury and the Baroness Angela Burdett-Coutts, had long made the connection between working class poverty, eating habits and national health. In 1861, the Queen's own chef, Charles Francatelli,

⁵ Walter E. Houghton, The Victorian Frame of Mind, 1830-1870, reprint (London, 1985), 341-48.

published a cookery book specifically for the labouring classes.⁶ In 1873, the deplorable health of the working classes gained renewed attention, given Britain's sudden economic slump after almost two decades of prosperity. The alarming persistence of urban poverty and chronic under-employment among casual labourers stirred the middle-classes to worry about national deterioration and the growth of an unmanageable "residuum."⁷ By openly demonstrating an interest in the food of her people, the Queen overtly combined maternal sentiment with political design. In this respect, the royal outing to the International, though brief, was not insignificant.

Without exaggeration, the Queen was a recluse, making her appearance at the International all the more reason for comment. Since the death of the Prince Consort in 1861 and Victoria's subsequent withdrawal from public life, the political press increasingly questioned the importance of a monarch that neglected public duties.⁸ For example, Sir Charles Dilke, at that time an "aristocratic republican," objected to the cost of maintaining empty imperial palaces when Victoria preferred to reside in her private, and inconvenient, residences in northern Scotland and on the Isle of Wight.⁹ Support for English republicanism was at its height in the early 1870s, with an attempt on the Queen's life in 1872, however, events in France reversed this trend. English republicans were disheartened by the collapse of the Third French Republic and divided over their support for the radical Paris Commune.¹⁰ Moreover, Disraeli's Conservative government helped revive

6 Charles Elme Francatelli, A Plain Cookery Book for the Working Classes (London, 1861).

7 Gareth Steadman Jones, Outcast London: A Study in the Relationship Between Classes in Victorian Society (London, 1992), 127-133.

8 Adrienne Munich, Queen Victoria's Secrets (New York, 1996), 82-83.

9 Michael Pearson Smith, "Republicanism in Victorian Britain" (unpublished Ph.D. thesis, McMaster University, 1979), 269-272; chap. 10.

10 Smith, "Victorian Republicanism," chap. 9.

the monarchy, exalting the Crown as a symbol of imperial order in the famous 1872 Crystal Palace speech.¹¹ Nevertheless, despite declining support for republicanism and a gradual improvement in Victoria's popularity, her public appearances remained few, and she never entirely abandoned the role of a reclusive widow.¹² Therefore, given the infrequency of the Queen's London appearances, her attendance at the 1873 International Exhibition was newsworthy.

In some respects, the Queen's participation in the trade exhibition was a tribute to her dear Albert's memory. The annual exhibition, designed to foster trade and good relations between Britain and her European neighbours, followed the tradition of the public exhibition established by the Prince Consort with the Crystal Palace Exhibition in 1851. Like the Great Exhibition, the International was a 'commodity spectacle' of new inventions and consumer goods, a tribute to industry and entrepreneurship and a means of advertising merchandise to the Victorian public.¹³ Yet, despite the show's overtly international image, the Queen did not receive any foreign dignitaries, save a small contingent of Japanese commissioners recently arrived in England with their exhibition display; their subsequent introduction to the Queen appears almost coincidental.¹⁴ Based on contemporary accounts, the focal point of the royal visit was the omelette lesson in keeping with the 1873 Exhibition's thematic emphasis on food. Thus, Queen Victoria and the princesses were simultaneously royal patrons inspecting a national event, and an aging widow accompanied by her

¹¹ David Thomson, England in the Nineteenth Century, reprint (London, 1978), 171-172.

¹² David Cannadine, "The Context, Performance and Meaning of Ritual: The British Monarchy and the Invention of Tradition," in The Invention of Tradition, ed. Eric Hobsbawm and Terence Ranger (Cambridge, 1983), 118-120.

¹³ Thomas Richards, The Commodity Culture of Victorian England: Advertising and Spectacle, 1851-1914 (Stanford, Calif., 1990), 57-72.

¹⁴ The Times, 10 May 1873, 5.

daughters obtaining some practical instruction in domestic economy. Both clearly signify the public and private images of Victoria's bourgeois monarchy.¹⁵ Yet, even posturing as the middle-class matriarch, the presence of the Queen at a cooking lecture appears ironic. Despite Queen Victoria's apparent preference for 'plain meals', her social and political position demanded that her table be as magnificent as any in Europe.¹⁶

Certainly, in London throughout the spring of 1873, the subject of cookery fired the public imagination and Buckmaster's talks drew steady crowds throughout the International's six-week engagement. No doubt, Buckmaster's oratory skill contributed to the popularity of the lectures. A familiar speaker on technical subjects, J.C. Buckmaster had begun his oratorical career in the 1840s with John Bright at the Anti-Corn Law League.¹⁷ He followed Bright's advice and became a teacher, working at Mechanics' Institutes and giving occasional talks for the South Kensington Museum's Department of Science and Art, under the direction of Sir Henry Cole. Although Buckmaster knew nothing of cooking, Cole persuaded the science teacher to be the commentator for a series of public lectures organized to complement the Exhibition's food displays. Buckmaster's affable presentation combined with the novelty of seeing a professional chef at work and the promise of a 'taste' for a 6 pence front-row seat ensured the success of the lectures. Beyond their entertainment value, however, Buckmaster's lectures delivered practical instruction in economical cookery using simple but often unfamiliar ingredients, such as Italian macaroni, with the intent of introducing the British public to foods of other nations and of exploring

15 Deborah Cherry, Painting Women: Victorian Women Artists (London, 1993), 129.

16 John Burnett, Plenty and Want. A Social History of Food in England from 1815 to the Present Day (London, 1994), 193.

17 Dorothy Stone, The National: The Story of a Pioneer College, National Training College of Domestic Subjects (London, 1976), 5-6.

foreign substitutes for “those provisions whose price increased daily.”¹⁸

Based on his experiences at the International, Buckmaster became an outspoken advocate for the cause of good food, which he maintained constituted the natural foundation of British social, domestic and moral well-being.¹⁹ This position echoed existing views on the importance of home and family to national vitality. Yet, Buckmaster’s cookery crusade went a step further. Since good plain cooking was the key to health and happiness, ignorance of the culinary arts signalled potential social disintegration. Changing patterns of work and consumption, sustained by twenty years of unparalleled economic prosperity, resulted in a degree of social mobility among the newly affluent middle classes. According to Buckmaster and Henry Cole, the women among these aspiring ranks, no longer knew how to cook or manage their homes. By the same token, working-class women also needed domestic instruction to better utilize their scarce resources and correct the negative impact of women working outside the home.

The Victorian Home and Hearth

Buckmaster’s lectures adhered to a particular format, not unlike that of the performances of earlier technical showmen.²⁰ He differed essentially, however, in that he was not specifically promoting a product as much as he was advocating good cooking as a means to individual health and national well-being. Yet, the International contained a definite promotional element, given Buckmaster’s ostentatious use of products displayed in the Exhibition. Although the original intent of the cooking shows was public education, it

¹⁸ *The Times*, 25 April 1873, 4.

¹⁹ Stone, *The National*, 25.

²⁰ Richard Altick, *The Shows of London* (London, 1978); also see Simon Schaffer, “The Consuming Flame: Electrical Showmen and Tory Mystics in the World of Goods,” in Brewer and Porter, *Consumption and the World of Goods*, 489-526.

was a select public.²¹ Judging from the Exhibition's one shilling entrance fee, and the additional six pence cost of a front row seat, the majority of the lecture patrons were from the upper and middle classes. The reported crowds of "fashionable ladies, sweetly surprised in discovering that a gridiron is quite different from a frying pan" next to "stout middle-class housekeepers whose shrewd anxious glances betray their painful familiarity with the ways of plain cooks"²² implied that any information gained was then passed on to cooks and servants. Buckmaster's culinary advice to the wives of English labourers and his subsequent criticism of waste and ignorance was appreciated by his more affluent audience. It is probable, however, that few working women ever attended these educational lectures. Buckmaster's talks both reflected and contributed to a Victorian preoccupation on the part of the better classes with food and cooking, under the general subject of home management. In addition, his humorous anecdotes which pilloried the working-man's diet added to the popular view that the social and economic ills of the labouring classes stemmed from a basic ignorance of domestic economy.

The "cult of domesticity" and the development of distinct "separate spheres" for men and women are familiar themes in Victorian social and gender history.²³ The idealization of home and family and the responsibility of women in the creation of that comfortable haven was a fundamental tenet of middle-class Victorian society. Novels, manuals and magazines suggested that this ideal was firmly entrenched by the 1840s and corresponded with the expansion of the middle-class, the "industrial

21 The Times, 10 May 1873, 5.

22 The Times, 25 April 1873, 4.

23 Catherine Hall, "The Formation of Victorian Domestic Ideology," in Fit Work for Women, ed. Sandra Burman (New York, 1979), Leonore Davidoff, Worlds Between: Historical Perspectives on Gender and Class (New York, 1995); Catherine Hall and Leonore Davidoff, Family Fortunes. Men and Women of the English Middle-Class 1700-1850 (London, 1987).

bourgeoisie”, between 1780 and 1830.²⁴ Defined in opposition to the labouring masses and the landed aristocracy and gentry, the middle class adopted the ideals of laissez-faire capitalism, self-help and individualism, firmly rooted in an evangelical moralism which demanded a reform of manners and morals, political and family life. Evangelical writers of the 1790s, notably William Wilberforce and Hannah More, established a connection between religious and domestic virtues, it being woman’s special mission to provide a loving, Christian sanctuary from the evils of the outside world, thus demarcating clearly the separate spheres of home and work, female and male.²⁵

Corresponding changes in commerce and industry ensured the widespread adoption of this Evangelical discourse. The expansion of family shops to larger commercial and manufacturing enterprises often resulted in the physical separation of home and workplace, and consequently alienated many women from active involvement in family businesses.²⁶ While commercial families of the 1790s generally lived over their shops, by the 1830s, their descendants resided in suburban homes, with wives and children physically separated from the place of business. Absolved of commercial responsibilities, women were expected to focus on home and children, and indirectly contribute to the business by providing a tranquil refuge for husbands, fathers and male children. According to gender studies of the middle classes, masculine self-respect depended on a rigid moral code of behaviour in public and on an orderly, financially secure household, the

24 Hall, “Victorian Domestic Ideology,” 15. On the rising wealth of industrialists, bankers and merchants see W.D. Rubenstein, “Wealth, Elites and the Class Structure of Modern Britain,” *Past and Present* 35 (1977), 99-126; Harmut Berghoff, “British Businessmen as Wealth-Holders, 1870-1914: A Closer Look,” *BH* 33, 2 (1991), 223-240.

25 Hall, “Victorian Domestic Ideology,” 21-29; Leonore Davidoff, “Landscape With Figures,” in *Worlds Between*, 51-56.

26 Hall and Davidoff, *Family Fortunes*, 56-58.

maintenance of which demanded of men “a commitment to family life.”²⁷ Religious tracts praised this new professionalisation of motherhood as women’s “natural” place in creation, professing that women needed families to give their lives purpose and contain their sexuality. Without home and family, a woman was redundant.²⁸

Later generations of secular prescriptive authors, notably Mrs. Sara Ellis and Harriet Martineau, echoed the sentiments of the Evangelical writers. According to Hall and Davidoff, the domestic ideology of the 1830s and 1840s served as a buttress against the social and political unrest of these decades.²⁹ Moralists perceived the family as the basis of a stable society, while it was the duty of women to ensure social harmony via their moral influence within the home. Feminine virtue was manifest in all womanly activities, including the education of female children, the management of the housework and servants, or contributions to charitable work. Mid-century writers, including Lord Tennyson, John Ruskin and Coventry Patmore popularized the sentimental image of woman as the ‘angel in the house.’³⁰ The ostentatious decor of the prosperous Victorian home itself symbolized feminine moral influence and women’s elevated moral status. Like the carefully-contained parlour aspidistras, however, the activities and behaviour of these virtuous, gentle wives and daughters were

27 John Tosh, “Domesticity and Manliness in the Victorian Middle Class: The Family of Edward White Benson,” in Manful Assertions: Masculinities in Britain since 1800, ed. Michael Roper and John Tosh, (London, 1991), 48-51.

28 Hall and Davidoff, Family Fortunes, 114-115.

29 Hall and Davidoff, Family Fortunes, 180. For a discussion of the impact of gender on political and social debates during the 1830s and 1840s see Anna Clark, The Struggle for the Breeches: Gender and the Making of the British Working Class (Berkeley, 1995), chap. 11-13; Barbara Taylor, Eve and the New Jerusalem: Socialism and Feminism (London, 1983).

30 Catherine Hall, ‘The History of the Housewife’ in The Politics of Housework, ed. Ellen Malos (London, 1980), 62.

circumscribed by rigid social conventions.³¹

Contemporary debates over the true meanings of femininity, masculinity and family were constructed around these definitions of sexual difference which firmly upheld the old Evangelical values. Social critics introduced new evidence in support of women's 'natural' social and intellectual inferiority, despite their exalted moral and maternal influence. Mid-century physicians and educationists claimed that women were physiologically incapable of serious study given the size of the female cranium, and the possibility that intellectual exertion would result in nervous hysteria.³² Similarly, the 'limited energy theory' proscribed academic activities for adolescent girls since this interfered with the proper development of the female reproductive system rendering young women unfit for their true profession, marriage and motherhood.³³

Domestic Ideals and the Business of Housekeeping

The realization of a domestic ideal which depended on servant help and leisure time exceeded the expectations of most middle class families. Few women, even among the middle-class, sustained the image of the leisured Victorian matron, the attentive wife, virtuous mother and efficient manager of servants, as portrayed in the advice manuals and domestic magazines. According to Patricia Branca's study, average middle-class women, with family incomes of £150 to £300, had little extra money for lavish decorating and entertaining, let alone for an army of servants.³⁴ The

31 Sparke, As Long As It's Pink, 31-49.

32 Deborah Gorham, The Victorian Girl and the Feminine Ideal (London, 1982), 149-51.

33 Joan N. Burstyn, Victorian Education and the Ideal of Womanhood (London, 1980), chap. 5.

34 Patricia Branca, Silent Sisterhood (London, 1975), 55.

employment of at least one servant, however, often a young maid-of-all-work, relieved the woman of the house from the most extreme drudgery, and supplied a semblance of gentility. To keep a servant, even one, was one of the hall-marks of Victorian middle-class respectability. At all costs, the 'ladylike wife and mother' did not engage in any paid employment although her 'duties' might include charitable work amongst the less fortunate.³⁵ Women driven by financial necessity to contribute to the family income might do so covertly, by working at home. For example, fancy needlework and painting, traditional female accomplishments and a sign of refinement, were tacitly accepted female employments. Middle-class women performed these tasks in the home, even anonymously and under the outward assumption that the work was for pleasure and not for profit.³⁶ Evidently, economies of scale determined individual domestic practice, nevertheless overriding standards of female middle-class behaviour remained in place.

Female education effected the propagation of the Victorian domestic ideal. However, authors differed over the degree to which education should prepare girls for home life and motherhood. In her essay, 'Principles of Education,' the prescriptive writer Elizabeth Sewell recommended against sending girls to school as it was incompatible with their natures and expectations in life. She briefly summed up the ideal Victorian girl as a model of feminine virtue and restraint. 'Girls are to dwell in quiet homes, amongst a few friends; to exercise a noiseless influence, to be submissive and retiring.'³⁷ While boys of the prosperous middle classes--- businessmen, manufacturers, professionals with incomes between £800 and £1000---left home for at least a portion of their education, girls remained behind, trained

35 June Purvis, A History of Women's Education in England (Milton Keynes, 1991), 6-7.

36 Cherry, Painting Women, 82-83.

37 Elizabeth Sewell, "Principles of Education," reprinted in The Education Papers: Women's Quest for Equality in Britain 1850-1912 ed. Dale Spender (New York, 1987), 144.

by their mothers or a governess.³⁸ The instruction offered to girls revolved around the acquisition of 'ladylike' genteel accomplishments, including music, embroidery and French, accomplishments intended to charm prospective suitors.

Thanks to the reform efforts of mid-century feminists, including Bessie Rayner Parkes, Emily Davies and Jessie Power Cobbe and the gradual impact of the 1870 Education Act, educational opportunities for middle-class girls increased substantially by the 1880s³⁹ Given the combined emphasis on academic and aesthetic subjects, the new boarding and day schools were a vast improvement over the traditional ornamental education usually offered to affluent girls. Headmistresses at the girls' boarding schools, however, posed no challenge to pre-determined gender roles. Dorothea Beale, head of the prestigious Cheltenham Ladies College, insisted that if a liberal education made a man a nobler and better citizen, it could equally prepare a woman for her feminine role of duty or service, in the home or the outside world.⁴⁰ While female educationists generally disapproved of including practical domestic subjects in the school curriculum,⁴¹ headmistresses offered instruction in needlework, often in the form of making garments for the poor.⁴² Such charitable projects emphasised the feminine duty of service to others in keeping with the dominant domestic ideology.

The instruction of middle-class girls was equally constrained by

38 Purvis, History of Women's Education, 65.

39 Purvis, History of Women's Education, 73-74.

40 Felicity Hunt, "Divided Aims: the Educational Implications of Opposing Ideologies in Girls' Secondary Schooling, 1850-1940," in Lessons for Life: The Schooling of Girls and Women, 1850-1950, ed. Felicity Hunt, (Oxford, 1987), 8.

41 Hunt, "Divided Aims," 7.

42 Hunt, "Divided Aims," 82-83; Martha Vicinus, Independent Women: Work and Community for Single Women 1850-1920 (London, 1985), 141-144.

gender expectations. Patricia Branca and Carol Dyhouse suggest that the majority of middle-class girls were educated at home, and any free time was taken up with sewing and child minding so that a girl's domestic education was never-ending.⁴³ June Purvis' study of the Schools' Inquiry Commission of 1867-68 indicates that girls from lower-middle class families, the daughters of clerks, shop-keepers and skilled artisans, who received any formal education outside the home usually attended small, local day schools with around twenty pupils. The limited curriculum included reading, writing, arithmetic and needlework. Commenting on the girls generally poor academic performances, Commissioner Bryce noted that girls school attendance was frequently interrupted by home duties, such as the caring for younger siblings.⁴⁴ The Commissioner lamented that the girls' sewing was equally as poor as their handwriting.

Despite the alleged importance of the home and women's role within it, the formal acquisition of basic housekeeping skills received little attention until the late nineteenth-century. Housekeeping manuals and advice books helped remedy this perceived shortfall in young women's education. Dena Attar attributes the growing number and increasing specialization of mid-Victorian domestic manuals to the effects of industrialization, urbanization and social mobility, factors which re-defined gender roles and altered material conditions.⁴⁵ The strict delineation between male and female spheres and the Victorian cult of the home inflated expected standards of comfort and cleanliness as visible signs of middle-class affluence and respectability. By the 1870s, the gentle 'angel in the house' had to be an efficient manager in her own right. As middle-class households became larger and employed more servants, the public values of methodical precision

⁴³ Branca, Silent Sisterhood, 45; Carol Dyhouse, Growing Up in Late Victorian and Edwardian England (London, 1981), 11.

⁴⁴ Purvis, History of Women's Education, 70.

⁴⁵ Dena Attar, A Bibliography of Household Books Published in Britain 1800-1914 (London, 1987), 12.

and order were increasingly applied to the private sphere to ensure that the home remained a peaceful refuge from the outside world. The mistress and her servants were responsible for maintaining this domestic perfection, but surreptitiously, since the home was theoretically a haven of peace and tranquility, and not a workplace. Disruptive and noisy domestic chores must be carried out according to precise work schedules when male householders were absent. For example, the housekeeping manuals lamented the annoyance which the annual spring cleaning caused for men, in terms of cold meals and rolled-up rugs. There was little reference to the exhausting work of hauling down drapes or beating carpets outdoors that spring cleaning entailed for housewives and servants.

In addition, the mid-Victorian 'rationalization of housework' as explained in the housekeeping books emphasized the division of tasks into smaller units that could be repeated with greater frequency than in the past. For example, as Leonore Davidoff notes, the span between laundering was reduced gradually from the quarterly wash of dirty linen common in prosperous homes in the early nineteenth century, to the weekly wash of the mid-century middle-class home.⁴⁶ Alterations to housekeeping arrangements were reflected by changes in domestic architecture as rooms were designed for specific functions, such as eating or caring for children, while areas of intensive labour, especially the kitchen, were distinctly separated from the front rooms. In fact, any signs of meal preparation, including the smell of cooking odours, were concealed in an effort to preserve the image of efficient domestic perfection.⁴⁷ The 'ladylike homemaker'⁴⁸ of the middle classes was expected to maintain an immaculate and comfortable home, without apparent effort on the part of her servants

46 Davidoff, "The Rationalization of Housework," in Worlds Between, 85.

47 Davidoff, "Rationalization of Housework," 87; Annmarie Adams, Architecture in the Family Way. Doctors, Houses and Women, 1870-1900 (Montreal & Kingston, 1996), chap. 5.

48 Purvis, History of Women's Education, 7.

much less herself, but also without the benefit of practical training in household management. Apparently, despite women's 'natural' predilection to home and family, efficient housekeeping practices were not innate, but required cultivation and instruction, much the same as truly feminine behaviour was the product of correct education and a proper up-bringing.

Isabella Beeton wrote Household Management in 1861 because she felt that Victorian women desperately needed instruction in domestic affairs. The wife of journalist and publisher Sam Beeton, Isabella wrote for Beeton's Englishwoman's Domestic Magazine, a six-penny paper consisting of household advice, serialized fiction, fashion news and needlework patterns. A twenty-five-year-old newly-wed woman, Isabella was a novice housekeeper herself, but her practical suggestions and prudish notions on female behaviour made her a ready role model. On the basis of letters from her readers, Isabella attributed family discontent to the housewife's 'badly-cooked dinners and untidy ways.' In order to compete with the social attractions of the taverns, men's clubs and dining houses, 'a mistress must be thoroughly conversant with the theory and practice of cookery, as well as perfectly conversant with all other arts of making and keeping a comfortable home.'⁴⁹ Mrs. Beeton wrote for the upwardly mobile middle-class, the wives of successful businessmen and professionals, who were faced with running larger homes than their mothers but who lacked the requisite skills to manage several servants and larger budgets. Mrs. Beeton also addressed the problems of modest households and her information on plain cookery and invalid care could be applied to any income group.

Isabella's fundamental recommendations for successful household management depended not on the size of the family budget, but the personal qualities of the mistress. She stressed early rising, personal cleanliness in the form of daily cold or tepid bathes and hard work, performed intelligently and thoroughly. The mistress set an example to those in her household

⁴⁹ Sarah Freeman, Isabella and Sam: The Story of Mrs. Beeton (London, 1977), 186.

whether staff or family members since it was her conduct that shaped the atmosphere of the home. Mrs. Beeton could not overstate the importance of providing a good example for daughters so that they learned not only domestic skills, but the true value of efficient housekeeping. 'Let the mistress of every house rise to the responsibility of its management; so that, in doing her duty to all around her, she may receive the genuine reward of respect, love and affection!'⁵⁰ Isabella's formula for household efficiency rested with the woman of the house. Her behaviour and personality were paramount, and theoretically, unaffected by income levels.

Following Mrs. Beeton's example, other household manuals upheld the pervasive ideal of home as comfortable sanctuary despite differences in living standards. More importantly, this image was potentially within every woman's reach through skilful domestic economy, no matter how modest the family budget. Mrs. Eliza Warren's 1864 publication, How I Managed my House on £200 a Year, advocated cautious budgeting, living within one's means and a practical education for girls to instill in them a 'fondness for domestic association.'⁵¹ She stressed the need for skills in cooking, sewing, baking and washing. Like Beeton, Mrs. Warren recognized cleanliness as the hallmark of respectability. She lamented that, with rising incomes and social pretensions, middle-class girls were increasingly unprepared to assume the domestic responsibilities which they inevitably faced, with ruinous implications for the Victorian home. Her solution was better, standardized training in the household arts for girls and young women no matter what their economic and social background.

The apparent housekeeping crisis of mid-Victorian England, as perceived by writers Beeton and Warren, was fuelled by contemporary debates over the employment and education of working-class girls and women. In contrast to the prescriptive ideal of the middle-class ladylike

⁵⁰ Freeman, Isabella and Sam, 191.

⁵¹ Branca, Silent Sisterhood, 23.

homemaker, the model supported by the middle classes for the 'lower' orders was that of the 'good woman.'⁵² She was a practical housekeeper responsible for her own cooking, child care and housework. Thrifty, prudent and methodical, the wife of a wage-earning husband, the good woman knew her social place, and accordingly trained her daughters to accept a similar lot. The image of the good woman was presented as the solution to many of the problems of working-class life, such as alcoholism, crime and high infant mortality. Self-help writer Samuel Smiles promoted this ideal for over thirty years, insisting that the home's moral atmosphere was dependant on 'good mothers' and that even the poorest dwelling could be a place of 'comfort, virtue, and happiness' under the influence of a 'thrifty, cheerful and cleanly woman.'⁵³ Despite the economic and class differences of the idealized lady-like homemaker and the good woman, both models emphasised cleanliness as an expression of feminine virtue and moral influence, reflecting the persistence of Evangelical rhetoric. Good housekeeping practices revealed a woman's character, no matter what her station.

Social commentators and clergymen articulated concern over the impact of the factory system and sweated piece-work on the working-class home. The effects of women's work were most obvious in northern mill towns. The large numbers of married women employed in the textile industries in Lancashire and Yorkshire from the 1830s onward fostered a reversal in the economic position between men and women, creating tensions over the sexual division of labour. Factory deputations lobbied for shorter hours and restrictions against women's work in an effort to save male jobs and return women to their 'true spheres' of home and family.⁵⁴ Engels's 1844 indictment of industrial capitalism stressed the negative effects of women's employment on domestic relations given the unnatural and

⁵² Purvis, History of Women's Education, 7-10.

⁵³ Samuel Smiles quoted in Purvis, History of Women's Education, 11.

⁵⁴ Hall, 'The History of the Housewife,' 67.

emasculating situation of men at home cooking and minding children, while the women supported the family.⁵⁵ A northern factory inspector reported in 1861 that there was

no comfort in the dwelling of a working man whose wife is away from the home from 5.30 in the morning to 6.30 in the evening, except at mealtimes, for she is compelled to leave her children and her household to other hands; and having so little experience of her own, is quite unable to teach her daughter those attractive qualifications with which women keep their husbands from disreputable associations.⁵⁶

As a means of getting by, female mill operatives employed other women, often neighbours or relatives, to wash clothes and mind small children. Whether the household chores were accomplished by hired help or masculine assistance, either domestic system was completely at odds with the accepted image of the working-class wife.⁵⁷

The homes of female mill operatives offered middle-class observers the most obvious example of domestic chaos, however, a greater number of working women earned money at home via the outwork system. James Schmiechen's examination of the sweated industries reveals that the system was not a stage in factory production, but an entirely separate manufacturing process that relied heavily on unskilled and semi-skilled women and children.⁵⁸ Sweating was most common in the ready-made clothing industry, tailoring, shoe and bootmaking, dressmaking, shirtmaking and seamstress work. It was characterized by long, tedious hours, low pay and unhealthy surroundings since many laboured in cramped workrooms or

55 Frederick Engels, quoted in Sally Alexander, 'Women, Class and Sexual Differences in the 1830s and 1840s: Some Reflections on the Writing of a Feminist History,' History Workshop Journal 17 (Spring, 1984), 139.

56 Hall, "History of the Housewife," 69.

57 Clark, Struggle for the Breeches, 252-259.

58 James A. Schmeichen, Sweated Industries and Sweated Labour: The London Clothing Trades 1860-1914 (London, 1984), 40-42.

the homes of others.⁵⁹ Under such circumstances, the working-class home was also a workplace, as in pre-industrial times, and hardly fit the middle-class image of home as sanctuary from industrial society. The working class rarely questioned this combination of family and work; it was a fact of life. The sweated nature of piecework meant that the entire dwelling was taken up with some miserable employment, which either used small children in some menial capacity, like sewing on buttons, or occasioned their almost total neglect.⁶⁰ Like the women in the textile factories, women in the sweated industries often performed a double load of waged and domestic labour, undertaking “domestic duties” while the family slept.⁶¹ Middle-class commentators expressed horror at the standards of housewifery among working women and attributed the dirt and squalor not only to poverty, but also to simple ignorance and a lack of domestic pride.

Catherine Hall points out the uneasy relationship between free market doctrines in industry and the idealization of home and family. The former depressed men’s wages and encouraged the employers to hire women, both in the factories and as home-based pieceworkers, because females were cheaper. The resulting prosperity for the entrepreneurial classes made possible new standards in domestic order, thereby strengthening the ideal of home as private refuge, an ideal then internalized and aspired to by the working-classes. Not surprisingly, working women lacked both the financial means and the necessary time to fulfil such expectations.⁶² Nevertheless, working women were measured against the dominant standards of domestic practice because, as the household manuals suggested, efficient housekeeping was not dependent on money, but on the

59 Schmeichan, Sweated Industries and Sweated Work, 52.

60 Ellen Ross, Love and Toil: Motherhood in Outcaste London 1870-1918 (New York, 1993), 152.

61 Clark, Struggle for the Breeches 253-55.

62 Hall, “History of the Housewife,” 68.

character and personal habits of the mistress. Within the sorry homes of the working poor, mothers had not the means, time or experience to instruct their daughters in proper household management and cookery.

The Domestic Science Movement

Buckmaster's description of the working-man's dinner reflected the growing sentiment that female waste and ignorance was the source of domestic hardship in the homes of the lower orders. In an 'amusing sketch,' Buckmaster contrasted the French peasant's dinner with that of the British working man.

In the former case, long before the dinner hour, a couple of ounces of meat, some crusts of bread, a few savory herbs and onions had been simmering in a little earthenware pipkin over a handful of charcoal, and the result is a nourishing and palatable mess. On the other hand, the wife of the English labourer thought herself in luck if she could rush out and buy perhaps double as much meat or bacon, a few minutes before 12 o'clock. She would then hastily place her purchase, supplemented by an onion, on a greasy frying-pan and serve up to her hungry husband a black, burnt chunk of wholly indigestible meat. This was considered a good dinner, then what must a bad one be?⁶³

But the ineptitude which Buckmaster associated with working class cookery was equally prevalent, he maintained, in the kitchens of the rich and even the middle classes. To remedy the situation, he recommended that girls and women of all social groups take compulsory training in cookery and household management. Housewifery courses might complement the academic and artistic education offered to the girls of the prosperous classes and compensate for the poor example set for girls in working-class households.

According to Buckmaster and Cole, better training in the domestic arts was the obvious remedy to the apparent housekeeping crisis. They advocated the immediate establishment of a national cookery school. In

63 The Times, 25 April 1873, 4.

March 1874, the National Training College of Domestic Subjects opened its doors. Sponsored by the South Kensington Committee of Science and Art, the school resulted directly from the International's cookery classes and was outfitted with the utensils from the preceding lectures. Queen Victoria and the renowned philanthropist Lady Burdett-Coutts were among the school's aristocratic patrons. Although Cole envisioned a school for young women of all classes, the first lady superintendent, Lady Barker, offered classes for ladies only although they could bring their cooks. The two-week beginners course cost three guineas; an extra guinea exempted a pupil from scullery duty, although this option forfeited the course certificate. During the first year, 176 students successfully completed the course, twenty-seven of whom were professional cooks.⁶⁴

By the autumn of 1875 and under the directorship of Edith Nicolls, later Mrs. Charles Clark, the college expanded its courses to accommodate women of different economic groups. Nicholls actively promoted a scheme to reach working-class girls, especially from London's poorer districts. In addition to the ladies classes, the National Training College offered courses for women and cooks of households with weekly food budgets of twenty to one hundred shillings. A second course, cookery for artisans, was designed for women with food bills of between seven and twenty shillings per week.⁶⁵ Recorded working class budgets for the 1870s are scarce. However, judging from sample accounts from workers' homes in the 1850s and 1860s, a food expenditure of between seven and twenty shillings would have been about average for semi-skilled workmen and their families.⁶⁶ Classes for

64 Stone, The National, 11-14.

65 Stone, The National, 14-15.

66 Burnett, Plenty and Want, 169-173. According to Burnett, there was little change in the actual budgets of town-workers from the mid-century to the late 1870s and even up to the First War. Differences in standards were determined by occupation, number of dependents and location. The semi-skilled worker with a marginally comfortable weekly wage of around 30 sh. might spend 14 sh. per week on food, mainly of bread, cheese, potatoes, meat, milk, sugar and fruit. Sweated workers, the worst-paid members of the

adolescent girls taught plain cookery, intended for use in the artisan home or as training for employment as kitchen helpers and scullery maids. Under Mrs. Clark's supervision, the National Training College sustained Cole's intent of instruction for all classes, however dubious his motivations.

Late Victorian philanthropists upheld the regenerative effects of good cookery as sufficient reason for promoting housekeeping lessons for working-class girls and women. Regarding the moral and social value of cooking, Lady Burdett-Coutts confidently stated: 'If wives are clean, thrifty and good cooks, men will find their own homes so inviting they won't want to turn out to find comfort in public-houses or gambling saloons.'⁶⁷ The Universal Food and Cookery Association, co-founded in 1885 by J.C. Buckmaster and food writer and chef Herman Senn, maintained a similar position. It sponsored free lectures to working and middle-class wives and published two-penny pamphlets on artisan cookery. The Association was also an employment registry for professional chefs, cooks and domestic subjects teachers and offered annual achievement awards to its most outstanding members. In his treatise on the nation's eating habits, author Henry Thompson spelled out the connections between proper food, physical development and the health of the British "race." He was particularly concerned with infant and child nutrition, claiming that even among the affluent classes, children suffered the ill effects of poor nutrition, not from insufficient quantity, but from eating the wrong foods, thus demonstrating an allusion to the new science of dietetics.⁶⁸ For late Victorians, good cooking was fundamental to the nation's physical and moral well-being.

labouring poor, might earn 12 sh. per week with a food budget of only 3sh; for a contemporary account see Maud Pember Reeves, 'Round About a Pound a Week, reprint ed. (London, 1980), 75-93. According to this 1913 study of Lambeth labouring families, weekly wages averaged around 25 sh., with a weekly food budget of between 7 and 10 sh.

⁶⁷ quoted in Cookery Annual, Yearbook of the Universal Food and Cookery Association, (London,1902), 24.

⁶⁸ Henry Thompson, Food and Feeding sixth ed. (London, 1891), chap.1.

The National Training College became the model cookery school as similar institutions opened in Liverpool, Leeds and Gloucester. It was not coincidence that the advent of the private cookery college paralleled the state regulation of elementary schooling. Under the 1870 Forster Education Act, passed by William Gladstone's Liberal Ministry, school management continued at the local level, but visits from inspectors and curriculum guidance standardized primary education. The cookery colleges offered special courses to train teachers and lobbied heavily for the inclusion of domestic subjects for girls in state curriculums. It took almost twenty years, however, for a full range of domestic subjects, including laundering, cookery and housewifery, to be fully integrated into state curriculums.⁶⁹

Edith Nicholls and the cookery school's patrons, particularly Lady Burdett-Coutts, promoted domestic science as a way of improving living standards and the over-all health of the entire population. Formal instruction in domestic subjects was unheard of until after the 1870 Education Act which made elementary education compulsory for all children under twelve. Before that, the inclusion of needlework was justified as a practical skill but also because it taught girls to be quiet, to be occupied for long hours of time, and to be in mixed classrooms while freeing teachers to concentrate on the more academic curriculum of male pupils.⁷⁰ Domestic subjects, such as plain cookery, laundering and housewifery, gradually entered the state curriculum between 1874 and 1894 with enrollment restricted to older girls. Ironically, just when working-class girls were ensured at least some form of state education, more class-time was devoted to non-academic subjects as school curriculums became increasingly gendered.

The primary lobbyists for domestic instruction in the new state schools came from the domestic science colleges, especially those in the

⁶⁹ London Metropolitan Archive/LCC 1/Minutes of the London County Council Subcommittee on Cookery, 17 February 1876.

⁷⁰ Attar, Wasting Girls' Time, 38-41.

major urban centres of London, Liverpool and Leeds, the areas of greatest urban poverty. School board officials were hesitant to include domestic subjects because they envisioned problems of timetabling, the expense of equipping practice kitchens and the difficulty of finding qualified instructors. By late 1876, the School Board of London had equipped only seven cookery centres in east and south London.⁷¹ Girls from ten schools might attend in one week, for a half day, with two separate groups per day. Outlying schools were equipped with a cooker. The costs of the classes were offset by selling the demonstration results to the children, meaning that the lessons had to result in individual baked goods, like scones or cakes, that sold cheaply. Thus fiscal restraints overrode the original intent of providing instruction in nutritious cookery for working-class families. Maintaining order in the domestic classes was practically impossible, given the large numbers of girls per class, usually forty to fifty.⁷² Often, it was the cookery mistresses who assumed the blame, and superintendents' complained at their apparent 'inefficiency and inability to keep the classes in proper order and discipline.'⁷³

The teaching of domestic subjects was contentious for many reasons. Victorian feminist educators were critical because it gendered the curriculum and cheated girls of valuable instruction time which could be better spent. In response to Elizabeth Sewell's complaints against the subjects offered in the girls colleges, Dorothea Beale asserted that instruction in domestic arts should be acquired at home after a well-rounded education. Familiarity with the laws of health and physiology were fundamental to applied rational housewifery, providing a scientific basis for the development of practical skills and their efficient application.⁷⁴ The

71 LMA/LCC 1/ LCC Subcommittee on Cookery, 20 July 1876, 78.

72 Helen Sillitoe, A History of the Teaching of Domestic Subjects (London, 1933), 37.

73 LMA/LCC 1/LCC Subcommittee on Cookery, 11 July 1879, 194.

74 Attar, Wasting Girls' Time, 87.

debates around domestic subjects betray a class bias since even feminist advocates of girls' education considered it appropriate for working class girls.⁷⁵ For example, in the 1860s, Bessie Rayner Parkes, editor of the English Woman's Journal expressed her support for including the 'household arts' in the curriculums of industrial schools. A decade later, representatives of the domestic science colleges in England and Scotland lobbied the school boards to introduce domestic subjects for lower class girls.⁷⁶ Board school mistresses were sceptical about the efficacy of domestic subjects. After 1880, when school attendance up to age eleven became compulsory, teachers faced crowded classrooms and an extended curriculum; cookery classes added to their already demanding workload. Those teachers who accepted the validity of domestic instruction still objected to the amount of time devoted to it at the expense of academic instruction. Parents of board school girls complained that their daughters could learn housekeeping at home and that school should prepare them for something besides domestic service.⁷⁷ Parents dreaded the laundry lessons as girls were forced to return home wearing damp pinafores they had practice-washed in class.⁷⁸

Yet, despite administrative difficulties and the questionable efficacy of

75 Jane Rendall, "A Moral Engine"? Feminism, Liberalism and the English Woman's Journal," in Equal or Different: Women's Politics 1800-1914, ed. Jane Rendall (Oxford, 1987), 126.

76 Helen Corr, "The Schoolgirls' Curriculum and the Ideology of the Home, 1870-1914," in Uncharted Lives: Extracts from Scottish Women's Experiences, 1850-1982, ed. Glasgow Women's Studies Group (Glasgow, 1983), 79, 83-84.

77 Annmarie Turnbull, "Learning Her Womanly Work: Elementary School Curriculum 1870-1914," in Lessons for Life ed. Felicity Hunt (London, 1987), 96-97.

78 Historians of women's education have debated the motivations for the introduction of domestic subjects into state curriculums. See Dena Attar, Wasting Girls' Time, 37-38; Anna Davin, "Imperialism and Motherhood," History Workshop Journal 5 (Spring, 1975), 60-65. For the positive side of this debate see also Neville Marsh, The History of Queen Elizabeth College: 100 Hundred Years of University Education in Kensington (London, 1986), 31-36; Margaret E. Scott, History of F.L. Calder College of Domestic Science 1875-1965 (Liverpool, 1967), 14-21; Stone, The National, 20-25; Sillitoe, A History of the Teaching of Domestic Subjects, 37.

the lessons, domestic subjects instruction broadened under the rubrics of technical education for girls. The extension of government grants to include domestic subjects, the 'payment by results' system, finally undermined fiscal arguments to limit domestic economy classes. By 1893, the London School Board employed 105 home economy mistresses instructing 25,000 girls at ninety-nine cookery centres. As more state-funded schools adopted domestic subjects, the demand for qualified cookery mistresses escalated. These posts were filled by graduates of the domestic colleges, like the one started by Buckmaster and Cole.

In an address before the Universal Food and Cookery Association, Buckmaster reflected on the impact of the 1873 International Exhibition on the domestic science movement. Its purpose had been "to direct public attention to the importance and knowledge of food and cookery in the education of girls."⁷⁹ Evidently, the cookery crusade which Buckmaster helped launch some twenty years earlier, had developed into a national cause involving educators, health officials and philanthropists. By the 1890s, the domestic science movement showed no signs of abating given the alarming 'rediscovery of poverty' among the urban working poor by social investigators, notably Charles Booth and Octavia Hill.

Buckmaster, looking back over two decades, emphasized the International's contribution to the development of domestic science. But it had another important function. As a trade show about food and the technology of food production, the International Exhibition was a means of introducing the public to technological advancements, and was therefore an important medium of advertising and sales. In this sense, the exhibition format of the 1873 exhibition and the participation of gas appliance manufacturers has a direct correlation to the later involvement of lady demonstrators as expert sales personnel.

⁷⁹ "Lecture delivered by J.C. Buckmaster, Esq. J.P. at St. James' Hall, 10 November 1892," reprinted in Cookery Annual and Exhibition Souvenir of the Universal Food and Cookery Association, 1894, ed. Herman Senn (London, 1894), 131.

Coal Gas and the 'Public Good'

J. C. Buckmaster's 1873 cookery series was an appropriate model for the gas company demonstrations some twenty years later. An exposition of food and culinary techniques, Buckmaster aimed to entertain, to educate and to advertise. For example, the Cookery School's macaroni recipes were complemented by the working display of a pasta machine in the Exhibition hall supplied by the manufacturer who was based, not in Italy, but Camden.⁸⁰ By association, the lectures served the added purpose of demonstrating recent innovations in domestic technology to Victorian audiences, the most obvious being the use of the gas stove. Although Buckmaster assured his viewers that all of the demonstrated foods could be successfully prepared on a kitchen fire, the advantages of the gas stove were apparent in terms of cleanliness, temperature control and speed. It was no coincidence that the patent gas stoves of Sidney Leoni and Co. of London were featured in the Exhibition along with testimonials to their fuel efficiency.⁸¹ [Fig. 1]

Despite the rapid expansion of the gas industry throughout the nineteenth century, the use of coal gas for domestic purposes was not widespread until the 1880s.⁸² Early exponents of coal gas fuel, including the Scottish engineer William Murdoch and his associate Samuel Clegg, recognized its potential for commercial lighting applications. In 1792, Murdoch lit his home at Redruth, Cornwall with coal gas manufactured in a small iron retort in his back garden. A decade later, Murdoch illuminated Boulton and Watt's Soho foundry outside Birmingham; other commissions

⁸⁰ The Times, 2 May 1873, 5.

⁸¹ London Illustrated News, 17 May 1873, 458.

⁸² Davidson, Woman's Work, 63-66.

to light Midland cotton mills and factories followed.⁸³ Mill owners saw the advantages of gas lighting over oil lamps since the former burned brighter and therefore enabled the owners to extend hours and productivity. Murdoch and Clegg continued to experiment and develop technology for on-site coal gas production to fuel individual factories, however, Murdoch failed to grasp the wider implications of his inventions for public and domestic lighting.⁸⁴

Of all the early experimenters with coal gas, and there were many in addition to Clegg and Murdoch,⁸⁵ Fredric Winsor appreciated the possibilities of this new fuel. He anticipated a system of central gas production and distribution to serve private homes, light public streets and meet the needs of industry. Winsor, a German who emigrated to England from France after the Peace of Amiens in 1802, had conducted wood-gas experiments with the inventor Phillipe Lebon. Winsor had greater faith in the potential of coal gas and devised a plan for centralized manufacture and massive distribution via underground pipes. In Europe, this scheme met with wide disapproval given the lack of gas technology and the inconvenience of digging up the streets. However, Winsor hoped the English, with a higher level of industrialization compared to the Continent, might be more receptive.⁸⁶ England also had the coal resources and the mining and transportation systems to support such a venture on a wide scale. He came to London to promote his idea and drum up investors using live public demonstrations.

As Richard Altick notes, the public exhibition was a popular form of entertainment and sales promotion with a long and curious history. Long before the 1873 International or even the Crystal Palace in 1851, scientists

83 Stirling, History of the GLCC, 14-16; Davidson, Woman's Work, 33.

84 Stirling, History of the GLCC, 16-20.

85 Peebles, Evolution of the Gas Industry, 7-9; Davidson, Woman's Work, 33; Barty-King, New Flame, 13-15.

86 Barty-King, New Flame, 20.

and charlatans alike used public demonstrations to introduce new inventions and attract possible investors. Winsor adopted this promotional method and in 1804 conducted a series of public demonstrations at the Lyceum Theatre, London. According to Altick, because his English was poor, Winsor hired an actor to lecture while he demonstrated, however the thespian was prone to drink, and was not always available.⁸⁷ When possible, Winsor presented gas jets for lighting, and showed off the Imperial Patent Light Stove, recommended for both cooking and heating. Like Buckmaster's lectures seventy years later, crowds flocked to Winsor's performances; however, the Lyceum gas show was more novelty than commerce and in this respect closely followed a genre of scientific lecture designed to inspire awe and amazement first, and attract financial investors later.⁸⁸

Nonetheless, the Prince of Wales was sufficiently intrigued to invite Winsor to light the conservatory of his London residence, Carlton House, and thereafter mount a public display on Pall Mall. While visitors to the early indoor demonstrations complained of headaches and nausea due to the use of unpurified gas and improper ventilation, a situation hardly to Winsor's advantage, the outdoor lighting demonstrations had no such side effects, and proved more persuasive.⁸⁹ By 1808, Winsor had presented a paper to the Royal Society, and convinced the Westminster parish authorities to install gas lamps on a section of Pall Mall. He soon acquired a committee of influential backers to promote his ideas for a national chartered gas company, resulting in the formation of the Chartered Gaslight and Coke Company.⁹⁰

The details of the history of the English gas industry are well-

⁸⁷ Altick, Shows of London, 371.

⁸⁸ Schaffer, "The Consuming Flame," 490-494; Altick, Shows of London, 371.

⁸⁹ Stirling, History of the GLCC, 18-19; Barty-King, New Flame, 29.

⁹⁰ Stirling, History of the GLCC, 21; Barty-King, New Flame, 31-32.

documented, and however interesting, extend beyond the requirements of this study.⁹¹ What remains significant, however, was Winsor's original emphasis on coal gas as a public service which could substantially improve the lives of both rich and poor, in terms of comfort in their homes and safety in their streets. Indeed, gas did burn brighter than oil lamps and was favoured for that reason. Gas lights installed in St. James Park acted as a deterrent to thieves and prostitutes while the new lamps at St. Mary's church yard in Newington, South London were meant to ward off the unscrupulous 'resurrectionists.'⁹² Beyond the material benefits of gas, it was touted as the smoke-free fuel even at this early date. Conversion to gas could potentially eliminate the grimy fogs which were already choking Londoners in the early nineteenth-century. The absence of coal soot also eliminated the 'necessity of the most wretched profession among men, that of our degraded and pitiable chimney sweepers,' a filthy, hazardous job undertaken by young boys.⁹³ Although the hot, filthy working conditions at the gasworks and the sooty, smelly fumes of interior gas jets suggested otherwise, Winsor presented coal gas as both hygienic and humanitarian. These dual images remained central to gas advertising well into the twentieth century.

The gas industry underwent a period of rapid expansion following the 1812 establishment of the Gaslight and Coke Company and within three decades London was served by a dozen gas companies.⁹⁴ From the 1860s onwards, the gas industry was subject to numerous parliamentary controls which regulated quality, supply, price, and even the amount of dividends payable to stockholders. In essence, the controls were a trade-off,

91 See Introduction, *fn.* 3-7.

92 Barty-King, New Flame, 73,76.

93 Stirling, History of the GLCC, 18.

94 Williams, History of the British Gas Industry, 26-27, 34; Chatterton, "State Control of Public Utilities," 166-167.

compensation for the virtual monopolies the companies exercised over their respective districts. One such regulation precluded the gas companies from manufacturing gas-making machinery. This clause, coupled with the gas engineers understandable preoccupation with the difficulties of coal-gas production, purification, storage and distribution, ensured the expansion of a manufacturing sector geared to the needs of this burgeoning industry.

For approximately the first fifty years, commercial lighting constituted the largest market. By the mid-nineteenth century, gas lighting had completely transformed Victorian society, as better-lit streets were safer for night outings while the illuminated theatres and concert halls served patrons of all classes. Although gas lighting was common for public use, it was still relatively unusual in the home. Hot, dirty and smelly, interior gas lamps required adequate ventilation, either by opening a door or window, to prevent the accumulation of sulphurous gas, the result of impurities in the gas and escapes from defective fittings. Manufacturers, particularly the William Sugg company, endeavoured to remedy these faults via the development of more efficient, attractive gas burners for the home. Improvements to gas meters eventually maintained uniform pressure at the works while measuring gas consumption with greater accuracy.⁹⁵

During the 1870s, several commercial regulations affected the future development of the industry. Pending the approval of the Board of Trade, the City of London Gas Act (1868) sanctioned company amalgamations, a rationalization process directed at reducing production costs and, theoretically, costs to consumers. Within ten years, the Gas Light and Coke Company absorbed six smaller London gas companies, while the South Metropolitan extended its territory through similar takeovers.⁹⁶ The expansionary years following the Gas Act were also characterized by huge capital investments by the GLCC, and to a lesser extent by the SMet, in new

⁹⁵ Barty-king, New Flame, 50.

⁹⁶ Chatterton, "State Control of Public Utilities," 173-175.

gas production technology. One notable achievement was the construction of Beckton Works in Barking, named after GLCC director Simon Adam Beck, which initiated production in November 1870. Beckton works enabled the GLCC to phase out its antiquated gas plants in central London at Brick Lane, Curtain Road, Blackfriars and Westminster, thereby transferring the bulk of its gas-making facilities to the East End. Construction at Beckton continued throughout the 1870s since each corporate amalgamation increased the company's production requirements, necessitating the closure of older, inefficient works. By 1882, Beckton was three times the size originally planned with twelve retort houses, a labour force of around 2,000 men and a products works facility to manufacture tar and chemicals.⁹⁷

Despite Beckton's state-of-the-art technology, the GLCC's huge capital expenditures and the rising cost of coal prices in the late 1870s kept London gas prices high. In contrast, smaller companies with less substantial capital investments, such as the South Metropolitan, offered gas at a slightly cheaper rate, raising questions from consumers and the Board of Trade. In Birmingham, mayor Joseph Chamberlain offered direct municipal control as the solution to discrepancies in gas services and prices, a disturbing precedent for private gas interests. Despite the amalgamations and technological improvements of the 1870s, London gas prices had not decreased at the rate anticipated. Dissatisfaction with the gas companies over prices contributed to a developing popular interest in electricity as an alternative source of light and fuel.

Gas Versus Electricity, and the Advent of Advertising

Historians of the gas industry, maintain that competition with electricity in the late 1870s instigated a burst of technological achievement, to meet the new competitor head on. According to Everard Stirling "the

⁹⁷ Stirling, History of the GLCC, 239-249, 264-266.

coming of electricity as a competitor of gas lighting prompted the gas companies to explore the possibility of developing the cooking, space heating and water heating loads which hitherto had been very much neglected.”⁹⁸ Hugh Barty-King reiterates this point: ‘...the opinion of most in the gas industry at the end of the 1870s [was] that the days of gas-lighting were numbered, and that the best course for the industry was to shake itself out of its complacency and improve gas lighting in order to make it acceptable...’ and ‘to concentrate on perfecting alternative ways of using gas as a fuel.’⁹⁹

This long-accepted view overstates the competitive threat which electricity actually posed. True, while the inventions of Swan and Edison gave pause for concern, the gas governors felt secure that electrical technology did not represent a serious immediate challenge. Comparative experiments with electric light undertaken by William Sugg, convinced the gas corporations that the new technology was expensive and produced a dimmer light.¹⁰⁰ Although several gas corporations made applications to local authorities to produce and sell electricity, the London corporations made no such move. Motions to this effect were presented to the GLCC board of governors in 1878 by both shareholders and company directors, but they were dropped, possibly because as Walter King suggested in the Journal of Gas Lighting, electricity would not be an established institution for many years, and the gas corporations felt confident that innovations in their industry could easily keep pace with anything electricity might offer.¹⁰¹ No doubt, Sugg’s comparative experiments contributed to this perception. In 1882, Sugg read a paper before the Institute of Civil Engineers, comparing the illuminating power of gas and electricity. He noted that the

⁹⁸ Stirling, History of the GLCC, 263.

⁹⁹ Barty-King, New Flame, 135.

¹⁰⁰ LMA/B/GLCC 34/GLCC, Minutes of Board of Governors, 18 October 1878, 454.

¹⁰¹ Barty-King, New Flame, 135.

members of the House of Commons had decreed gas obsolete and wired the House with electricity, only to discover the inadequacies of electric lighting. To Sugg's satisfaction, the politicians reverted to using the gas fixtures.¹⁰²

This is not to say that electrical breakthroughs in the 1870s had no impact on the development of new gas technology. They did. An obvious example is the invention of the Welsbach incandescent mantle, developed by the Austrian chemist Carl Auer, patented in 1877 and widely available by 1885. But what worried British gas engineers more than any material achievements in electrical technology, was the overwhelming enthusiasm with which the general public, and particularly the press, greeted this new American illuminant. For example, an article printed in Cassell's Family Magazine in 1880 entitled "From Gas to Electricity" prophetically described the incandescent bulb as "the light of the future" despite its then prohibitive cost.¹⁰³ A year later, The Times reported that at the opening of the re-built Savoy Theatre, the first public building to be lit entirely with electricity after the former theatre was destroyed by a gas-related fire, the electric lights were "cheered to the very echo" by a widely excited audience.¹⁰⁴ That same October, Chamber's Journal ran an article on electric light in New York, adding that in Britain "...the battle between electricity has fairly begun and it isn't hard to foresee to which victory will ultimately incline."¹⁰⁵ Reports of this nature worried gas men far more than the actual achievements of electricity.

Popular excitement over electricity peaked in 1882. A representative of Thomas Edison mounted an Electric Exhibition at the

102 British Library/ William Sugg, Gas As An Illuminating Agent Compared with Electricity: paper read before the Institution of Civil Engineers (London, 1882).

103 "From Gas to Electricity," Cassell's Magazine (1880), 282-285.

104 The Times, 12 October 1882, quoted in Barty-King, New Flame, 136; also "The Electric Light in Theatres," The Lancet 1, 1882, 188-189.

105 Chamber's Journal, 29 October 1881, 696.

Crystal Palace, where thousands of spectators witnessed the highest efforts of the world's leading electric lighting engineers. The Journal of Gas Lighting was typically critical. Editor Walter King sourly condemned the Sydenham show as "a huge advertisement" in the very worst sense, to be taken as such; it was unscientific, all art and money, a spectacle of mere showmanship. In King's words, Edison's show did "a vast amount of harm to impressionable people," creating a speculators' bubble to the detriment of gas shares.¹⁰⁶ In response, gas engineers rallied in support of their industry. In December 1882, another highly publicized show opened in the Crystal Palace. Sponsored by the Institute of Gas Engineers and jointly funded by gas corporations throughout the country, gas men hailed the International Electric and Gas Exhibition as "the vindication for gas lighting." It marked the gas industry's transition from product development to active product promotion at a time when Victorian businessmen in general were realizing the benefits of mass advertising.¹⁰⁷

Lori Loeb and Hamish Fraser make this point in their respective works.¹⁰⁸ They each attribute the growth of advertising in late Victorian Britain to rising middle-class incomes and the related phenomena of conspicuous consumption and competition within an expanded manufacturing sector which produced household goods, packaged foods, ready-made clothes and cosmetics. But selling gas was not like selling soap. Domestic gas installation was still considered an expensive luxury in 1882, and despite the gradual increase in domestic gas lighting, coal was the primary fuel for heating and cooking. Advertising slogans attacked both coal and electricity, emphasizing the clean, affordable comfort of gas. The 1882 Electric and Gas exhibition was followed by a succession of gas shows and lectures throughout Britain as corporations and appliance manufacturers

106 Journal of Gas Lighting, 4 July 1882, 11.

107 "The Encouragement of Gas Consumption," JGL, 9 May 1882, 830.

108 Fraser, Coming of the Mass Market; Loeb, Consuming Angels.

alike consistently employed this method of sales promotion. While manufacturers extolled the benefits of gas lights, stoves and heaters through their public lectures and displays, it took several years for the gas authorities to discover that women made excellent and attractive showmen.

Gas Cookery and Its Early Demonstrators

Although Winsor's 1804 Lyceum lectures included illustrations of both gas lighting and cooking, the latter was still relatively uncommon even by the 1880s despite the gradual increase in the domestic gas lighting. While the Aetna Iron Works, near Liverpool, manufactured primitive gas cookers as early as 1824, James Sharp, a Northampton gas engineer, was the first to publicize gas cookers and gas cookery.¹⁰⁹ In 1826, he was designing gas stoves and by 1828, had one installed in his own home. He staged public lectures and demonstrations in Northampton, and continued to do so after he moved to Southampton. During an 1836 lecture at the Leicester Mechanic's Institute, Sharp extolled the scientific benefits of gas over its competitors, the traditional open hearth and the new coal range, then also at the experimental stage. Because gas burned cleaner than either of the above methods, it eliminated the attendant problems of smoke damage to both food and kitchen interiors. Gas was more economical than coal as the heat could be easily regulated. And since "cooking by gas requires no attendance"¹¹⁰ one cook might prepare a large meal for literally dozens of people. Sharp's circular cooker was a monstrous two-tiered affair which featured a central boiler and several attached steamer compartments above, and below an enclosed 4' by 2' oven of circular tin heated by a 15" gas ring. Designed primarily for commercial purposes, such as hotel kitchens, the

¹⁰⁹ Williams, History of the British Gas Industry, 35; Davidson, Woman's Work, 66.

¹¹⁰ 'A Gas Cookery Lecture in 1836,' reprinted from the True Sun, (1836), Copartnership Journal of the South Metropolitan Gas Company (August, 1925), 189.

Sharp cooker was commissioned by several large establishments, including the Bath Hotel, Leamington. It appears from contemporary accounts that his smaller domestic models were less well received.

Alexis Soyer was perhaps the most famous early enthusiast of gas cookery. Having apprenticed in prestigious Parisian restaurants, Soyer emigrated to London to join his brother who was chef to the Duke of Cambridge. After a series of engagements in aristocratic houses, Soyer was appointed chef at the Reform Club. Like James Sharp, Soyer favoured gas for its economy, efficiency and cleanliness, and in 1841 he re-designed the club kitchens and installed gas stoves.¹¹¹ A culinary innovator in many respects, he designed several cooking stoves, patented prepared foods and bottled sauces, and penned several cookery books including pamphlets of recipes for feeding the poor. Throughout his career, Soyer remained an outspoken advocate of gas cookery in his books and through public lectures. In one celebrated gas demonstration, Soyer roasted a 535 pound baron of beef in an oven of brick and iron heated with 216 gas jets. Eight men carried the gigantic roast through the Exeter streets, followed by a brass band and a crowd of 1,300 hungry onlookers.¹¹²

Although these well-attended public events suggest a growing interest in gas cookery, as do the growing numbers of gas stoves patented around 1850¹¹³, the general misgivings about the safety of gas cooking were difficult to dispel. For example, fearing the explosive and toxic qualities of gas appliances and despite the fact that the Crystal Palace itself was gas lit, the exhibition's Royal Commissioners ruled that no gas apparatus could be

¹¹¹ Doreen Yarwood, The British Kitchen: Housewifery Since Roman Times (London, 1981), 95; Davidson, Woman's Work, 66; Sarah Freeman, Mutton and Oysters: The Victorians and Their Food (London, 1989), 169-173.

¹¹² Barty-King, New Flame, 115.

¹¹³ JGL, 13 January 1849, 3. Charles Ricketts patented a gas burning trivet suitable "for humble dwellings of the urban working population." Also see Hardyment, From Mangle to Microwave, 123. Three gas stoves were patented in 1850 by Alfred King of Liverpool, James Sharpe from Southampton and Ebenezer Goddard of Ipswich.

exhibited in operation. Disappointed by this decision, the Gasfitters' Association mounted a supplementary display at the Royal Polytechnic Institute, Regent Street which prominently featured Sharp's enormous gas cooker.¹¹⁴

Nevertheless, the misgivings of the Crystal Palace commissioners reflected some genuine problems with early gas appliances. Imperfect gas purification and inadequate ventilation of early gas stoves meant that the gas sometimes stank of hydrogen sulphide. Poor design and heat distribution too often resulted in food that was burnt from the gas jets, or soggy steamed in air tight compartments. In addition, the knowledge that gas was explosive and toxic if inhaled added to the perception that food cooked in a gas stove was equally poisonous.¹¹⁵ In addition to its known toxicity, gas stoves were relatively expensive. Although its advocates stressed the cheapness of gas in comparison to coal, the initial outlay for a gas stove and the installation of fittings was far higher than the purchase price of a coal kitchener.¹¹⁶ Thirty years later, the gas companies offered customers the option of renting cookers and meters from the gas companies. By that time, however, the coal range had captured the cooker market, while open-fire cooking, whether in a traditional hearth or a small grate, was still common.¹¹⁷

By the mid-nineteenth century the 'combination' coal kitchener had grown in popularity especially in the midlands and the south of England. But what made this cooker particularly popular was its movable panels

¹¹⁴ Hardyment, From Mangle to Microwave, 123; Yarwood, British Kitchen, 95; "Apparatus for Cooking by Gas," The Expositor, 12 April 1851, 1.

¹¹⁵ Freeman, Mutton and Oysters, 117-118.

¹¹⁶ Freeman, Mutton and Oysters, 120. During the 1850s, the cost of a solid-fuel range varied from £1 18s. to £25 for a large model compared to £16 to £28 for a small and medium gas cooker respectively, plus an installation fee for fittings and meters of £2-6.

¹¹⁷ Davidson, Woman's Work, 60-63.

which could be shifted to expose the fire or enclose it, thus producing the warmth and comfort of the open hearth with the convenience of flat cooking surfaces. It was this image of the open fire that contributed to coal's early advantage over gas. Given its connection to food, warmth and comfort, Doreen Yarwood describes the kitchen as the "heart of the British home."¹¹⁸ The kitchen fire, especially the open hearth, was vital to the well-being of the house and was never allowed to go out. The cosy hearth with its attendant roast of beef gently turning on a spit became a powerful image of English domesticity, whether in the grand country house or in the workman's cottage. While the combination kitchener with its glowing coals satisfied this sentimental ideal, the fully-enclosed gas stove did not.

In addition, the efficacy of the gas cooker was dubious regarding the preparation of that national favourite: roast beef. Henry Thompson's directions for roasting meat stressed the importance of a "clear, bright fire" and basting "frequently done with drippings from the pan below' using the open hearth and a mechanical device, the 'bottle-jack,' to turn the spit.¹¹⁹ This method of preparation had changed little since the sixteenth-century and continued to be the gastronomic ideal as much for the Victorians as it was for the Tudors.¹²⁰ In contrast, cooking inside the oven, as in gas stoves, was considered baking and despite the provision of spits and hooks inside the gas oven to simulate roasting, people still claimed that the taste of the meat could not compare to open-roasted beef. Cooks complained that a gas stove tainted the drippings and that the critical basting stage was nearly impossible.¹²¹

Evidently, despite the ardent efforts of gas inventors and chefs, like

118 Yarwood, British Kitchen, 11.

119 Thompson, Food and Feeding, 76.

120 Yarwood, British Kitchen, 73.

121 Freeman, Mutton and Oysters, 120.

Sharp and Soyer, gas cookery made no significant gains on the domestic market until the 1880s. Although it had been forty years since Sharp's first demonstrations, Buckmaster's 1873 utilization of gas stoves was still relatively novel, and to a great extent, the prejudice against gas remained. Attitudes began to change, given some technical innovations in the gas industry related to production, distribution and appliance manufacture. By the early 1880s, the gas interests were gradually recognizing the possible advantages of advertising to boost sales and cultivate a positive public image.

Conclusion

The cookery lectures at the 1873 International Exhibition set an important precedent both in terms of sales techniques and public education. The content, form and context of Buckmaster's talks foreshadowed the gas companies' later demonstrations, as they literally incorporated this promotional method. In addition, the 1873 lectures were illustrative of several important themes related to Victorian perceptions of class, gender and domesticity, perceptions which ultimately shaped the domestic economy movement, and by implication, the image and duties of the gas companies' lady demonstrators.

Buckmaster's talks suggest the growing impact of technology and consumption on the late-nineteenth century urban home. Given the developments in gas technology by the 1870s, this particular industry increasingly effected the Victorian home by setting new standards of comfort and efficiency. Gas lighting, as yet unchallenged by electricity, epitomized domestic modernity. By the 1880s, however, the highly publicized achievements in electric technology convinced gas engineers of the importance of consumer education. The lady demonstrators of the late 1880s served the agendas of both the domestic economy movement and the manufacturers and industrialists. At the same time, their developing profession provided new educational and employment opportunities for middle-class women.

Chapter 2: Exhibitions and the Spectacle of Selling

Introduction

When the future historian comes to write an account of the world's progress in the latter half of the nineteenth century, he will, if he wishes to be faithful, give due prominence to one special feature which has contributed to that progress in a very marked degree. We refer to the important series of exhibitions which have followed the wonderful display made in the glass house in Hyde Park in 1851.¹

There is nothing so serious to the businessman as taking a good, hard look at the competition. This was exactly the mission of a contingent of gas engineers who on February 28, 1882 inspected the Electrical Exhibition at the Crystal Palace. The show, held in the building's central nave, opened in late January; entrance to the electrical displays was included in the general admission price of one shilling. It must have been a wonderful sight: the gigantic greenhouse, that Victorian "monument to the commodity,"² radiant with the white light of electrical chandeliers in brilliant contrast to the grey, foggy winter of south London. According to contemporary reports, thousands of patrons visited the Crystal Palace that winter to view the dazzling rows of electric lights, the latest innovations from Europe and America, to marvel at the endless assortment of electrical inventions, from motors and telegraphs to electropathic belts and hair brushes. The Electrical Exhibition, sponsored by representatives of Thomas Edison, offered a promising glimpse of a not-too-distant future, where new levels of unimaginable comfort and hygiene, would be possible for all. The promise of the Great Exhibition of 1851 was nearer fulfilment than ever before. Yet, despite the crowds and the excitement over electrical technology, the fascination with electrical gadgets and the rush to invest in the new electrical companies, the gas managers concluded after their inspection of

1 Journal of Gas Lighting, 19 March 1895, 607.

2 Richards, Commodity Culture, 17.

the Electrical Exhibition that electricity posed no serious or immediate challenge to their own interests.

What could have induced the gas engineers to assume this nonchalance? Simply, it was the high-cost of electrical technology and the conviction that electricity offered no greater competition than did petroleum oil. Reporting on the Electrical Exhibition before the Midland Association of Gas Managers, president R.O. Paterson admitted that electricity must be viewed as a "rival illuminant" but like oil, one that was unadaptable to the varied needs of an entire community. Paterson based his assumptions on the inordinate amount of equipment required to produce electrical power.

One need only compare the long array of boilers, engines, dynamo machines, shafting etc. required to generate the electric current to do but a portion of the lighting of the Crystal Palace, with what would be required to supply, say, the Strand, to be convinced of the utter futility of the whole thing to supersede gas.³

In addition, Paterson cited the conflicting statements by electrical engineers regarding the cost of electric lighting. He also noted the questionable price estimates, based on "theoretical evidence" taken from experiments performed under the most ideal conditions, as further cause for doubting the efficacy of electricity as a viable alternative to gas. Walter King reiterated this conviction in the Journal of Gas Lighting to the point where bashing the electrical industry and its engineers became standard copy in the gas trade magazine. Having viewed the Edison show, King re-assured his readership that gas engineers might return to their own work "fully possessed of a renewed confidence in the future of gas lighting."⁴

If the 1882 International Electrical Exhibition did not persuade the gas companies to fear their new competitor, it did convince them that the electricity interests had one definite if not dubious advantage: they were better salesmen. Given the mounting public enthusiasm for electricity

3 JGL, 9 May 1882, 831.

4 JGL, 7 March 1882, 412.

throughout the 1880s, the gas companies grasped the importance of self-promotion as Victorian businessmen in general considered the possible benefits of advertising. By the late 1880s, appliance manufacturers and gas companies discovered that women made convincing and persuasive salesmen. While the cookery teachers were sympathetic to the commercial motives of the gas corporations, they undertook this promotional work for reasons of their own. Advertising and sales offered new employment opportunities for home economics diplomées and extended the impact of the domestic science movement beyond the artificial realm of the classroom and into the homes of Victorian householders. This chapter considers the gas companies active movement into the realm of advertising through the medium of public exhibitions and using lady demonstrators to sell their goods and services. The use of women in this capacity resulted in the creation of a permanent staff of female advisors, representing the dual agendas of the gas companies and the domestic science movement.

From Monopolists to Traders

As noted in the previous chapter, the public exhibition became a familiar promotional technique for Victorian merchants and manufacturers. The 1851 Great Exhibition provided a blueprint for all the subsequent commercial exhibitions, from South Kensington's International Exhibitions of the 1870s to the Health and Smoke Abatement Exhibitions of the 1880s.⁵ Edison and the gas companies were indebted to the 1851 Hyde Park exhibition; they both attempted to recapture some of that commercial magic by holding their respective shows in the Sydenham palace. The newspaper baron and proprietor of the Daily Mail Alfred Harmsworth, titled Lord Northcliffe in 1905, imitated the Crystal Palace format for his annual Ideal Homes Exhibitions first held at Earls Court in 1908.

Historians of Victorian Britain agree that the Great Exhibition of

⁵ Adams, Architecture in the Family Way, chap 1.

1851 signified several important social and economic changes. Geoffrey Best cites the Crystal Palace year as the beginning of three decades of relative political tranquility after the unrest of the eighteen-thirties and forties; it also inaugurated a period of unparalleled economic prosperity given the stable markets for British manufactured goods at home and abroad.⁶ According to Asa Briggs, the Great Exhibition contained a moral and an industrial message. On the one hand, it paid tribute to the Victorian gospel of self-help and hard work made apparent by the superiority of English manufacturing; while, on the other, it demonstrated the gospel of peace via free trade and constitutional monarchy.⁷ Similarly, Patrick Beaver describes the Great Exhibition as the embodiment of a mid-century political and economic idealism founded on the hope that the peaceful rivalry of free trade would eliminate military conflict between "civilized" nations.⁸ The Crystal Palace became the metaphoric ideal for mid-Victorian industrial capitalism. It represented the unequivocal acceptance of an "urban, capitalist destiny," precipitated by Prime Minister Robert Peel's 1842 "reflationay" fiscal measures, notably the introduction of an income tax.⁹ Despite earlier concerns regarding the moral and social consequences of Britain's rapid industrial development, the 1851 Exhibition showed British spectators that the nation had been transformed from a rural pre-industrial society to an urban manufacturing economy.

Richard Altick considers the 1851 Exhibition as the distinct break between traditional and modern forms of mass entertainment. This one

6 Geoffrey Best, Mid-Victorian Britain 1851-1875 (London, 1971), 2,3, 231.

7 Asa Briggs, Victorian People: A Reassessment of Persons and Themes 1851-67, 2nd ed. (New York, 1963), 40-43.

8 Patrick Beaver, The Crystal Palace 1851-1936 (London, 1970), 11-12.

9 David Eastwood, "The Age of Uncertainty: Britain in the Early-Nineteenth Century," Transactions of the Royal Historical Society, sixth series, vol. 8 (Cambridge, 1998), 114-115.

Exhibition, the most lavish and expensive of all the previous shows of London, was neither cause nor effect of this alteration, and yet its impact was unmistakable. "During the eighteen-fifties, the variegated complex of popular shows which had developed in the preceding half-century began to disintegrate." This disintegration he attributes to several factors, including the expansion of the London suburbs and the shift in population away from the cheap entertainment districts in central London. Similarly, the rational recreation movement and the opening of more public parks ensured that Londoners were less dependent on indoor shows. Altick contends that the Great Exhibition marks "the apotheosis of the lofty ideal of rational entertainment"¹⁰ and its legacy was seen in the new exhibition halls constructed for popular entertainment and commercial displays. These include the re-built Crystal Palace at Sydenham, the Alexandra Palace at Muswell Hill and Earl's Court in Olympia!¹¹ With the gradual progress of popular education, the charlatans and freaks of the travelling shows commanded less credence, while the educational role of the public exhibition gained in prominence.

In addition to its educational capacity, the commercial significance of the public exhibition increased substantially after 1851. Thomas Richards aptly characterizes the Great Exhibition as both museum and marketplace, in that it brought together a plethora of rare and exclusive things, all the while conveying the message that the commodities on display would one day be available to everyone. This utopia of consumption was perpetuated by the total absence of price lists, and the Commissioners' strict regulations prohibiting business transactions on the premises. Fixing real value to the displays would have shattered this egalitarian ideal!¹² But, as Richards

10 Altick, Shows of London, 456, 472.

11 Altick, Shows of London, 470.

12 Richards, Commodity Culture, 19, 38-39.

points out, the Great Exhibition was not “innocent of commercial purpose,”¹³ despite allegations to the contrary. The stalls were staffed by salesmen, while contemporary press reports revealed that prices of goods were of supreme interest as visitors mentally calculated values of the displayed merchandise, as if the exhibition were a vast auction house.¹⁴ Likewise, Hamish Fraser notes the commercial significance of the Great Exhibition. Over fifty-pages of the printed catalogue were devoted to advertising while the Exhibition prominently displayed a number of revolutionary consumer goods seen for the first time in Britain, including Issac Singer’s sewing machine.¹⁵

The Great Exhibition could be described as the first international trade fair.¹⁶ It illustrates unequivocally that, by 1851, the capitalist system had created a “dominant form of exchange” and was engaged in the process of creating a “dominant form of representation” which later legitimized advertising as a progressive business practice.¹⁷ In his semiotic analysis of the Great Exhibition and of Victoria’s Jubilee Celebrations of 1887 and 1897, Richards contends that the 1851 show established a language and format for representing the commodity. Its organizers incorporated the popular devices of Victorian spectacle---monumental architecture, fountains, elaborate scenery---to exalt manufactured goods, forever linking commodities to a technology of representation. The Great Exhibition capitalized on the ideology of empire, seizing on notions of British cultural, moral, political and economic superiority, stock motifs of later

13 Rosalind H. Williams, Dream Worlds: Mass Consumption in Late Nineteenth-Century France (Berkeley, 1982), 59.

14 Richards, Commodity Culture, 38.

15 Fraser, Coming of the Mass Market, 134.

16 Beaver, Crystal Palace, 12.

17 Richards, Commodity Culture, 3.

advertisements for everything from clothes to cosmetics. In addition, the Great Exhibition invented “a democratic ideology for consumerism.” Nevertheless, the ideal was not of a classless society, but one in which “everyone was equal in the sight of things,” the assumption being that all people desired the same consumer goods even if they could not afford them.¹⁸ Finally, 1851 proclaimed the myth of the abundant society for the commodities on display in Hyde Park heralding a new age of permanent prosperity, however false this perception may have been.¹⁹ The new “rhetoric of representation” attributed to the Crystal Palace transformed commercial practice by reifying the commodity exhibition. After 1851, the trade exhibition was the fundamental means of promoting consumer goods since it incorporated the winning combination of entertainment, education, leisure and commerce.

For decades, gas enthusiasts recognized the promotional value of the public display. Recall Frederick Winsor in the Lyceum Theatre or the parades of roast beef and brass bands lead by Soyer and Sharpe in the 1840s. The Institute of Gas Engineers mounted two displays in 1851: at the Crystal Palace and in the Regent Street Polytechnic. The latter clearly illustrates the commercial motivations of the gas engineers since the Great Exhibition commissioners forbade that any machine or apparatus be displayed in operation; however, one can only imagine the noise and physical danger to the public if such a rule had not been enforced. Similarly, recall that Buckmaster prominently demonstrated the gas stoves of the Leoni company in his popular lectures.

By the late eighteen-seventies, the gas companies and appliance manufacturers organized regular trade exhibitions, designed to educate the public in the safe uses of gas appliances, particularly the gas stove. An article in the Journal of Gas Lighting praised the efforts of the gas

18 Richards, Commodity Culture, 58.

19 Richards, Commodity Culture, 67.

undertakings in this respect. However, in view of the mounting promotional activities of the electrical inventors, there was little time for self-satisfied complacency. A revealing quote suggests the perceived urgency of increasing sales through public exhibitions.

Fortunately it appears to have become recognized (in theory, if not in practice) that it is now the duty of gas companies to discard the role of the monopolist, and take up that of the trader; and indeed that if gas managers at all desire the continued success of the concerns which are under their guidance, they must be prepared not only to exhibit their wares before the public eye, but to persist in extolling the advantages until its attention is attracted.²⁰

The author, under the pseudonym of "Owen Merriman," recommended the continued practice of "gas apparatus exhibitions" but suggested the addition of free lectures on the uses of gas "given in an interesting and popular style, and clearly illustrated" to encourage attendance and dispel misinformation. This article, which appeared shortly after the Edison display, indicates that the gas corporations were regular participants in trade exhibitions. Nonetheless, they needed to improve their sales pitch, perhaps by combining consumer education with entertainment through the medium of the popular lecture.

After the triumph of the Electrical Exhibition, something equally impressive was required, beyond a few eloquent spokesmen publicly fiddling with stoves. Something spectacular must counteract the "advertising evil" of the electricians, "not because it is necessary in the view of scientific and experienced engineers, but because it will be politic with regard to the public, and will help restore confidence."²¹ According to King, the "artful displays of lighting in gorgeously decorated and furnished rooms" had a far greater impact on the consumer than any published tracts on Swan or Edison. It was the spectacle that mattered. Reporting on a proposed gas exhibition, of

²⁰ JGL, 9 May 1882, 830.

²¹ "Exhibition of Gas Apparatus and Lighting at the Crystal Palace," JGL, 4 July 1882, 12.

comparable size and grandeur to the recent electrical display, King argued that the gas interests must act quickly, since the absence of a special display of gas lighting in the Palace to compare with the recent electric light show “would be interpreted by the public and blazoned in the newspapers as an acknowledgement of weakness and defeat on the part of the representatives of an effete system.” The gas companies had been challenged, and must respond, or sacrifice their reputations and their market.

From the beginning, the 1882 gas exhibition was the biggest publicity campaign the industry had ever undertaken. Indeed, it was the first collective exhibition ever staged by a group of independent and widely distributed organizations. The show was technically the responsibility of the Crystal Palace Gas Company which served the suburbs of south-west London; it assumed the financial management and risk of staging the show. However, the company directors appealed to the combined assistance of the gas interests to raise the necessary capital and ensure the success of the venture. The Journal of Gas Lighting editorials supported co-operative action to achieve the desired “never-to-be-forgotten manifestation of the possibilities of gas lighting;” selfish apathy would inevitably result in a mere “gas-fittings bazaar, without unity, organization or purpose.”²² The Gas Institute, a professional group of managers and engineers, nominated a representative committee, chaired by George Livesey of the South Metropolitan Gas Company, to assist the Crystal Palace gas managers with raising funds and staging the exhibit.

Despite Walter King’s persuasive appeals, general support for the joint venture was not immediate. The governors of the GLCC rebuffed Livesey’s initial requests for subscriptions.²³ However, with the Electric Lighting Bill before the House of Lords for a second reading and given Livesey persistent appeals, the GLCC soon reversed this decision. Corbett

²² JGL, 4 July 1882, 11-12.

²³ LMA/B/GLCC 36/Minutes of the Board of Governors, 28 July 1882, 269.

Woodall, secretary of the GLCC, was nominated to the organizational committee bringing with him a donation of £500 towards the upcoming exhibition, thereby matching the contribution of the South Metropolitan company.²⁴ Donations from gas corporations throughout Britain brought the total to just over £2,000, a sum that all but guaranteed success.

Scheduled to open in late November 1882, the gas engineers rushed their exhibition. Possibly, by following soon after the Edison show, they meant to stimulate a positive comparison with electricity while the previous exhibit was still fresh in the public's memory. In addition, since the electrical technicians were invited to participate, this gave the competition little time or resources to mount yet another lavish show. However, the gas engineers had difficulty meeting their own deadline. For a month, the Crystal Palace gas company ran apologies in The Times for the postponed opening. Indeed, when the Lord Mayor officially opened the Exhibition of Electrical and Gas Apparatus in mid-December 1882, many of the exhibits had not been installed, and the electrical lights and displays, confined to the North half of the building, were not yet in operation, to the obvious and rather smug satisfaction of the gas companies.²⁵

The aggrandizement of the gas industry and its fundamental contribution to the comforts of Victorian life was carefully orchestrated in the numerous displays. In addition to the old gas jets along the Palace roof, the South Nave was fitted with gas lamps, thirty feet above the floor, which virtually flooded the building with light. The Palace's decorative theme rooms, the Pompeiian, French and Birmingham Courts, theatrical in themselves, were particularly spectacular when lit with the latest incandescent gas-lamps and burners from manufacturers in England and the Continent. Rows of stalls exhibiting gas apparatus, lamps, stoves and engines filled the South Nave and the Western Corridor. To match the

²⁴ LMA/B/GLCC 36/Minutes, 4 August 1882, 271-272.

²⁵ JGL, 19 December 1882, 1075, 1078.

decorative rooms of the previous electric show, a suite of rooms furnished to middle-class taste illustrated the domestic applications of gas, particularly with respect to the kitchen. Judging by the space devoted to the exhibition, and the number of participants, it was an ambitious event.

The organizers, investors and participants of the Sydenham show, which closed in May 1883, hailed it a marvellous success. As a commodity spectacle, the exhibition brought to the consumer a new awareness of the possible uses for gas in the home; it was one huge advertisement. Moreover, the show reassured the investing public, the stockholders of both the private companies and the members of the municipal corporations that the uses for gas were still growing. By the spring of 1883, gas stocks regained former values while electrical speculation levelled off. The triumph of the organizers was marred slightly, however, by accusations that toxic gas fumes had killed the plants inside the Crystal Palace. The rumour was bolstered by the revelation that exhibitors had wastefully overused gas, as they literally attempted to outshine one another, despite the co-operative premise of the exhibition. However, the gas interests denied any responsibility for damage to the vegetation, based on the building's more than adequate ventilation; the nasty rumours they attributed to embittered electricians.²⁶

Despite the enthusiasm of journalists and electrical engineers, the British electrical industry lagged behind that of America, Germany and France. The pioneer power stations in England were sponsored by foreign companies, like Siemens in 1881 and Edison in 1882; neither was profitable and both closed in 1884.²⁷ After these slow beginnings, the British electrical industry made some important gains in the 1890s. R.E.B. Crompton's

²⁶ JGL, 8 May 1883, 815-16.

²⁷ Leslie Hannah, Electricity Before Nationalisation: A Study of the Development of the Electricity Supply Industry in Britain to 1948 (London, 1979), 3-7. Although Michael Faraday discovered electromagnetic induction in 1831, the practical application of electricity took decades. By 1857, electric generators were used at English lighthouses. The Siemens station was located in Godalming, Surrey and the Edison plant at Holborn Viaduct, London. Early electrical enthusiasts included Lord Salisbury who experimentally lit his home with electricity.

experimental station in the West End electrified a new development of terraced mansions. It proved more successful than the earlier ventures, but Crompton had the advantage of serving an elite affluent Kensington clientele. Entrepreneurs complained that the regulations of the Electrical Lighting Acts of 1882 and 1888 discouraged private investors. However, as Leslie Hannah suggests, a greater deterrent was the financial losses after the 1882 electrical “bubble” and the inability of electricity to compete with the established gas industry.²⁸

The gas industry’s 1883 exhibition marked an important turning point in terms of commercial practice. Like many Victorian businessmen, they were recognizing the need to advertise. In general, the leading members of the Gas Institute realized that they had to promote actively their industry, to develop and maintain markets and public confidence. No longer monopolists, like any other trader, they had to sell their services and products. It mattered little whether electricity was a real or a hollow competitor if the public believed that gas was outmoded, or soon to be. Astute businessmen, like Walter King and George Livesey, contended that the “commodity spectacle” was the best means of challenging the electrical interests. The public exhibition became the gas industry’s principle promotional strategy.

The Advent of Advertising

The history of Victorian advertising is well-documented. Historians of material culture generally agree that the industry’s development and

²⁸ Hannah, *Electricity before Nationalisation*, chap. 1. The early Electricity Acts (1882) (1888) granted permission to undertakings applying to dig up urban street to lay electrical wiring. To protect the public from the power of private monopoly, the act regulated prices and provided for the purchase of electrical companies after 21 years, extended to 42 in the second Act. Hannah asserts that the “speculative and experimental” nature of the early industry discouraged investors more than the legislation.

legitimization coincided with the years of Victoria's reign.²⁹ The Queen herself was a popular motif in advertisements for everything from cocoa to velvet; even her Jubilee celebrations were important commercial events, heavily-sponsored by merchants and manufacturers. But despite steady expansion from mid-century onwards, the business of advertising carried disreputable connotations. Originating with the sandwich-men, the bill-posters and the barkers described by Henry Mayhew, advertising constituted both a questionable practice and a public nuisance.³⁰ According to some Victorian social commentators, notably Thomas Carlyle, self-aggrandizement or 'puffery' was a degrading and wasteful practice; quality goods would sell themselves without gimmicks, slogans and gaudy images.³¹ However, a growing number of professional advertising agents and manufacturers thought otherwise; both groups were willing to risk some degree of criticism if it meant increasing product sales. Moreover, the Great Exhibition of 1851, which had focused unprecedented attention on the commodity, was practically an advertisement for advertising, despite the lofty political pretensions of Prince Albert.

By mid-century, the cost of advertising was considerably less expensive than ever before. Improved printing practices after 1848 lowered the price of wall posters and contributed to the great boom in public bill-posting; hereafter all available urban space, on hoardings and buildings, was plastered with posters.³² As Chancellor of the Exchequer, Gladstone's reformist fiscal policies, notably the repeal of the paper duties in 1860 and

29 Diana and Geoffrey Hindley, Advertising in Victorian England 1837-1901 (London, 1972); Leonard deVries and James Laver, Victorian Advertisements (London, 1968); T.R. Nevett, Advertising in Britain (London, 1982); Fraser, Coming of the Mass Market; Loeb, Consuming Angels; E.S. Turner, The Shocking History of Advertising (Middlesex, 1965).

30 Nevett, Advertising in Britain, chap 2-4.

31 Fraser, Coming of the Mass Market, 134.

32 Fraser, Coming of the Mass Market, 134-135.

1861, provided another important boost to the advertising industry.³³ Consequently, the number of newspapers and consumer magazines grew, as did the amount of printed space per issue devoted to commercial advertising.³⁴

As advertising prices declined, the most ambitious companies invested vast amounts in self-promotion, however much the majority of manufacturers resented the advent of advertising. The purveyors of soaps and patent medicines were the most extravagant in this respect. For example, by 1875, Thomas Barrett's advertising budget at A. & F. Pears exceeded £100,000 spent on everything from paintings by John Millais to endorsements from Lillie Langtry.³⁵ James Beecham invested £95,000 in advertising in 1884, while Thomas Holloway, another celebrated chemist, spent £50,000 in 1883. Businessmen were pressed to advertise in some form since it appeared that, in any particular product area, the first firm to advertise experienced so dramatic an increase in sales that its competitors were forced to follow suit.³⁶ As more companies were tempted to advertise, reservations about the respectability of the practice were slowly overcome. Increasingly, its opponents levelled their criticisms, not at the practice of advertising itself but, at its most tasteless manifestations; this included the erection of poster hoardings in Trafalgar Square or the projection of magic lantern images on the National Gallery.

In view of the growing dependence on advertising, Walter King's support for more self-serving promotional techniques was not surprising. Indeed, as stated earlier, the Electrical and Gas Exhibition of 1882 was in direct retaliation against Edison's show that same year. Despite the rush of

33 H.C.G. Matthew, Gladstone 1809-1874 (Oxford, 1988), 113.

34 Nevett, Advertising in Britain, 67-68.

35 Fraser, Coming of the Mass Market, 135.

36 Nevett, Advertising in Britain, 67, 71.

manufacturers to the newspapers and the popular journals, the gas industry's preferred advertising medium was the public exhibition. Individual appliance companies, like the Main Co. and John Wright & Co., sponsored newspaper advertisements for their stoves and heaters. Similarly, the William Sugg Co., a leading manufacturer of gas lamps, lighting apparatus and gas stoves, was an active promoter. Descriptive pictorials of Sugg's "Aladdin" Reading Lamp appeared in the *Illustrated London News* in 1887.³⁷ Nevertheless, the appearance of printed advertisements for gas services was unusual before 1900.

In contrast to the infrequency of its press campaigns, the gas interests regularly participated in the growing number of public commercial and educational exhibitions. As noted earlier, the gas appliance manufacturers entered wares in the South Kensington Internationals in the mid-1870s. Soon after, Mr. Warner, manager of the South Shields Gas Company, initiated the practice of mounting exhibitions devoted exclusively to gas apparatus.³⁸ Touting the cleanliness and comfort of gas as compared to solid fuel, the gas corporations and manufacturers were prominent supporters of both the Manchester Smoke Abatement Exhibition, held in the spring of 1882, and the International Health Exhibition staged in London in 1884. The industry used both of these events to construct a positive public image of gas as reliable, affordable and safe. By linking conversion to gas lighting and cooking with public health, improved housing and national well-being, the organizing themes of both the above exhibitions, the industry attempted to elevate the acquisition of gas appliances from a convenient luxury to a critical necessity. Published testimonials of physicians and scientists substantiated the gas engineers claims that gas use appreciably reduced smoke pollution and was a safe, non-toxic and inexpensive fuel for

³⁷ Barty-King, *New Flame*, 144.

³⁸ "The Encouragement of Gas Consumption," *JGL*, 9 May, 1882, 830. The journal reported on gas exhibitions in both Bristol and Stockport in 1882. The Bristol show liated 800 entrants and included a miniature working model of a gas works supplied by a Mr. Hunt of Birmingham; *JGL*, 3 October 1882, 596; 7 November 1882, 828.

cooking. The Smoke Abatement Committee tested gas cookers of various manufacture and size and offered its positive endorsement.³⁹ Victorian manufacturers, particularly the makers of food, drink and patent medicines, frequently emphasised the restorative and health-giving qualities of their products and sought testimonials to this effect. The gas interests went further. By incorporating the crusade for national health into their promotional pitch they assumed the role of benevolent capitalists, motivated by not only economic, but humanitarian concerns.

The Business of Selling

Possibly the most decisive marketing move the gas companies made was the decision to rent out appliances to their customers. While the trade exhibition introduced new technology to Victorian consumers, the rental payment scheme circumvented the obvious difficulty of paying for a large appliance in one lump sum. In the 1880s, gas stoves were not cheap. The purchase price of a gas stove averaged around £5-7 or about one tenth of a year's wages for a working man in steady employment. Only the affluent middle and upper classes could afford them; moreover, it was a considerable outlay for householders who simply wished to try gas cooking on an experimental basis. To remedy this economic difficulty, the Crystal Palace Gas Co. implemented the hire-out system in 1869.⁴⁰ By the mid-1880s, a growing number of gas companies throughout the country had adopted the rental plan with positive results.⁴¹ For example, in his 1882 annual report to

³⁹ Davidson, Woman's Work, 6, quoted from the Report of the Smoke Abatement Committee 1882 (London, 1883), 17.

⁴⁰ Davidson, Woman's Work, 67.

⁴¹ Three out of the four London gas companies had adopted the hire system by 1882: the Crystal Palace Co. in 1869, the SMet in 1878 and the GLCC in 1882. LMA/B/SMet, Minutes of the Board of Directors, 11 June, 1878, 447; JGL, 23 May 1882, 929; Davidson, Woman's Work, 67. Outside of London, the Gateshead Gas Co. at Newcastle-upon-Tyne also introduced hire cookers.

the SMet shareholders, company secretary and chief engineer, George Livesey attributed the past year's increased gas consumption despite a mild winter to the "considerable addition of gas cooking stoves let out on hire."⁴²

The hire-purchase system was not unique to the gas companies. Enterprising furniture salesman used this method of credit as a way of stimulating sales in the 1870s and 1880s, particularly in rural areas⁴³ Sewing machines had been financed by monthly instalment payments as early as the 1860s; the Singer Sewing Machine Company employed over thirty collectors calling for weekly instalments in London's East End.⁴⁴ However, according to Hamish Fraser, the hire-purchase system applied to only a few items before 1914, including sewing machines and pianos. His study reveals that in the latter decades of the nineteenth-century, Victorian retailers were less inclined to offer their customers credit and increasingly demanded cash payments. The no-credit policy maintained a steady cash flow, and eliminated tedious book-keeping and the often difficult task of repossessing goods in the event of defaulted payments. The new department and multiple shops strictly denied credit sales. In compensation, these progressive retailers, like Thomas Lipton or Jesse Boots, guaranteed their customers lower competitive prices.⁴⁵

As retailers, the gas companies were ideally placed to offer instalment payment schemes. They insisted on advance payment for stove rentals. If a customer defaulted payment, the gas service was discontinued rendering the stove useless. Householders could choose between three payment options. They could purchase a stove outright in cash; hire-purchase their

42 LMA/B/SMet/ Proprietors Minute Book, Directors' Report, 30 June 1882, 3.

43 Fraser, Coming of the Mass Market, 87.

44 Fraser, Coming of the Mass Market, 176.

45 Fraser, Coming of the Mass Market, 92-93. For a discussion of the growth of department and multiple shops see 111-121; also Lancaster, The Department Store: A Social History, 85-6; 104-5.

cooker by quarterly instalments paid in advance at the company offices; or householders could rent a stove from the company, again by advance quarterly payments made with the company cashier. Usually, maintenance costs were included in the quarterly rental fee, which averaged between two and three shillings, depending on the company. Some companies, like the SMet, hired out gas heaters for hot water at a quarterly rate of three shillings, four pence.⁴⁶ Service coverage varied as well. The SMet payment scheme included all maintenance and repair costs for its cookers, while the GLCC specified that some services were extra and payable prior to repairs.⁴⁷ These options were irrelevant to the consumer who had decided to use gas since the gas companies held a virtual monopoly in their respective districts.

Re-possession of the appliance followed any lapse in payment, and the large companies, like the SMet and the GLCC employed stove inspectors to undertake this work when necessary. In addition, because all gas meters, fittings and rented stoves were considered the property of the gas companies, they were legally protected from distress under the terms of the Gas Act. The case of Mr. T.A. Hardy illustrates this point. A Mr. Mulford rented a stove from the GLCC. When his property rent fell into arrears, however, Mr. Hardy seized and auctioned the stove. The GLCC brought Mr. Hardy, the auctioneer, before the bench claiming that the stove was a mere fitting for gas, and as the property of the company, was not liable to distress for rent or to be taken in execution thereof. The gas companies asked for this protection as essential in this aspect of their trade, and although the initial ruling was not in the GLCC's favour, the company won a later appeal.⁴⁸ In a sense, this ruling insured the gas companies' goods against

⁴⁶ Barty-King, New Flame, 147.

⁴⁷ LMA/B/SMet/ Proprietors' Minute Book, 30 June 1891, 82; B/GLCC/36, Minutes of the Board of Directors, 19 November 1886, 38.

⁴⁸ LMA/B/GLCC, Report of Court of Appeal, 26 July 1886. A similar court judgement ruled in the company's favour on 26 October, 1886 when Herbert Smith & Co. seized and auctioned a GLCC rental stove.

unlawful resale, a guarantee that ordinary retailers with hire-purchase agreements did not possess. The gas companies' hire scheme was successful because they used the terms of the Gas Act to protect their rental appliances. In addition, by demanding quarterly and not weekly advance payments, they offered an exclusive credit which required fewer, but larger payments than most instalment schemes, and was therefore beyond the majority of the working population who operated on slim weekly budgets. Theoretically, their clients were more solvent financially, and therefore, were lesser risks. In cases of default, moreover, the companies simply shut off the gas.

From its implementation, the hire-system worked exceedingly well. Although company reports indicate that there were stove returns, either from default or dissatisfaction, the number of stoves let out on hire increased exponentially throughout the 1880s and 1890s. In June, 1889, George Livesey reported that the SMet had 10,000 stoves on hire; a year later, stove rentals reached 13,864. The company director estimated that approximately 19% of their customers took advantage of the hire-system, while a "considerable number" of patrons owned their stoves outright.⁴⁹ The directors of the Crystal Palace Gas Co. estimated 1,171 hire stoves in use, while only 258 consumers owned their cookers outright.⁵⁰ Evidently, in conjunction with the public exhibition, the hire system increased domestic gas consumption and helped overcome the traditional prejudice against gas cookery. However, by the late 1880s, the gas companies added a new dimension to their promotional strategy. They used lady experts, often graduates of the cookery schools, to demonstrate their wares at the trade exhibitions.

⁴⁹ LMA/B/SMet/ Proprietors' Minute Book, Director's Report for Year End 30 June 1889, presented 14 August 1889, 66; Director's Report for Year end 30 June 1890, presented 20 August 1890, 74.

⁵⁰ LMA/B/CPGC/Crystal Palace Gas Company, Minutes of the Board of Directors, 29 March 1889, 81.

Lady Experts and the Travelling Show

From evidence in gas company records and industry publications, the lady demonstrators made their debut in mid-1888. While it is unclear which company or individual decided to place women on the exhibition platform, it appears that the London gas companies and the large appliance manufacturers initiated the adoption of lady salesmen. That year, the SMet gas company held exhibitions of gas apparatus in all parts of the company's south London district. The shows featured cookery lectures and, according to Livesey, the added publicity resulted in "a great demand for stoves, and in the dissemination of much practical information amongst consumers."⁵¹ The experiment with illustrated cookery lectures was repeated the following summer "with great success" as the SMET received orders for over 200 stoves per week "for many weeks in succession."⁵² In the spring of 1889, the Richmond Co. of London and Workington, mounted an exhibition of gas appliances at the Workington town hall. Mrs. J.B. Thwaites, a domestic economy teacher from Liverpool, offered a course in practical cookery in connection with the Richmond appliance display.⁵³ The Crystal Palace District Gas Company enlisted three women, the cookery author Mrs. Alting-Mees, and teachers Miss Stelfox and Miss Agnes Kelman, to give free lessons on gas stoves at parish halls within their district.⁵⁴

The purpose of the lectures was simple: to increase gas sales. This is affirmed by the Crystal Palace governors' explicit instructions that "the stoves to be used in the lectures are to be those let out on hire by this

⁵¹ LMA/B/SMet, Proprietors' Minute Book, Director's Report, year end 30 June 1888, presented 15 August 1888, 56.

⁵² LMA/B/SMet/ Proprietors' Minute Book, year end report 30 June 1889, presented 14 August 1889, 66.

⁵³ JGL, 23 April 1889, 778.

⁵⁴ JGL, 18 June 1889, 1139.

company and that none other will be allowed in the lecture halls.”⁵⁵ While it is difficult to imagine the cookery teachers smuggling in unauthorized cookers, the purpose of the lessons is clear. Blank hiring forms were distributed after the demonstrations. According to the engineer’s report, the majority of those in attendance, an average of 150 women per lecture, already had gas stoves, however they needed instruction regarding their use and care. Nevertheless, the engineer reported a more than fifty percent increase in stove rentals compared to the same month the previous year. For example, fifty-three new gas stoves were hired out for May, 1889 with another eighty-five for June.⁵⁶

But the Crystal Palace directors were unconvinced that the cookery lessons directly translated into sales. According to company records, stove rentals increased steadily throughout the entire year, and not simply when the company offered the spring and summer lectures. In January 1890, hire cookers totalled 1,501; two years later, in January 1892, the numbers reached 2,235 indicating a steady rise despite the infrequency of the cookery talks. Although the engineer reported that Miss Kelman’s lectures were always well-attended, the Crystal Palace directors discontinued the annual spring cookery lectures,⁵⁷ at the very moment when gas companies outside London were expanding the role of their female cookery advisors. Geography may account for this difference. London consumers could obtain information on gas appliances and rental schemes at the growing number of company showrooms, another marketing strategy initiated by the metropolitan companies around 1890.⁵⁸ Smaller companies lacked the

55 LMA/B/CPGC/ Minutes for the Board of Directors, 26 April 1889, 84.

56 LMA/B/CPGC, Minutes of Board of Directors, 24 May 1889, 91.

57 LMA/B/CPGC, Minutes of Board of Directors, 26 February 1892, 115.

58 LMA/B/GLCC 38, Minutes of the Board of Directors, 5 April 1889, 310. The secretary and general manager advised the board to establish showrooms for the permanent exhibition of gas apparatus to promote increased consumption of gas. GLCC, 18 October

necessary capital to outfit permanent showrooms, and depended more extensively on the local trade exhibition and the lady lecturer as a means of sales promotion.

If the London companies were ambivalent about employing women to sell gas stoves, the appliance manufacturers and rural gas companies were not. Literally dozens of small exhibitions organized by the major gas manufacturers toured the countryside. No exhibition was complete without a lady demonstrator to show off the best uses of the gas stove via her culinary expertise. The gas exhibitions were a form of travelling show. For example, during the winter of 1892, the Richmond Co. toured Sheffield in January, Carlisle in February, and Blackpool in March. A Miss Golding of London delivered twice daily cookery lectures at all three exhibitions, which usually ran from one to two weeks.⁵⁹ During that same winter, Richmond crews appeared in Darlington, Newcastle-on-Tyne, York, Middlesborough, Southport, Putney and Llandudno, the list goes on.⁶⁰ Every show presented free cookery lectures, by lady experts, including a Madame Gothard of London, Miss Owen of South Kensington and a Mrs. Bennett. On a few occasions, a professional chef was engaged, or Mr. E.M.T. Richmond presented his essay "Gas as a Public Servant." Not to be outdone by Richmond's sales blitz, the Davis Gas Stove Co., John Wright and Co. and the Fletcher Russell Corporation all mounted similar travelling exhibitions that year, complete with cookery demonstrations by qualified female experts.

[Fig. 2]

1889, 376; the GLCC opened its first showroom at Goswell Road at a cost of £630. Five years later, the GLCC invested £2,500 in its Kensington showrooms, not including the £1,500 annual rent for the property. GLCC, 28 September 1894, 80.

⁵⁹ JGL, 26 January, 1892, 161; 2 February 1892, 215; 23 February 1892, 355; 1 March 1892, 405.

⁶⁰ For detailed descriptions of the exhibitions and cookery lectures see JGL, 16 February 1892, 304; 8 March 1892, 453; 15 March 1892, 500-01; 22 March 1892, 549; 29 March 1892, 593. As the above list suggests, numerous gas exhibitions and cookery performances were staged during the winter and spring of 1892. For lists of the spring lectures see JGL, 3 May 1892, 811; 10 May 1892, 862; 24 May 1892, 978.

The appliance shows were co-sponsored by the local gas authorities and mounted in town halls throughout England. The exhibitions' organizers considered the class and gender of audiences when determining their program. Afternoon demonstrations often presented 'high class cookery' designed for middle-class female consumers; 'plain cooking' demonstrations occurred in the evenings in an attempt to draw a mixed working-class audience. The exhibitions were usually joint efforts co-sponsored by the local gas boards, tradesmen and the appliance manufacturers. An exhibition at Parkgate which featured the popular cooking talents of Mrs. Sophie Thwaites, was sponsored by the local Miner's Institute.⁶¹ This method of advertising must have been both expensive and labour intensive, considering the cost of transporting heavy gas appliances and publicizing the events, in addition to the effort of setting up and striking the displays on a fortnightly basis. However, it must have worked, since manufacturers continued this practice, and sales climbed. For example, in Sheffield, the number of stoves hired out rose from 400 to 1200 in only one week, after the Richmond display and Miss Golding's persuasive talks.⁶²

In some cases, the initiative to present cookery lectures originated with the women themselves. In 1894, Miss Ida Cameron approached the board of the GLCC with an offer of free instruction for their customers in the use of gas stoves given at her London cookery school. Cameron was an experienced instructor. A graduate of the Liverpool Training Centre of Cookery and former cookery mistress in a London Board school,⁶³ she was a familiar lecturer for the Davis Stove company. The governors agreed to Miss Cameron's proposal, purchasing tickets for the classes at one shilling ticket to be distributed among their customers. This suggests that, in some

61 JGL, 8 March 1892, 456.

62 JGL, 2 February 1892, 215.

63 LMA/LCC/Minutes of the LCC, Subcommittee on Cookery, 11 May 1883, 461; 5 October 1883, 475

cases, the initiative to hire women was coming from the domestic economy experts themselves. A year later, Cameron was engaged by the GLCC to run a cookery series for the company somewhere in the East End of London suggesting that she successfully promoted her professional services to the point of a securing another engagement with the London company.⁶⁴

By the 1890s, women had found a place in the British gas industry as appliance demonstrators, albeit on a contract basis. Several factors account for this development. One reason was the impact of competitive advertising. The Richmond Co. experimented with lady demonstrators, and given their success, the competition followed suit. The use of female demonstrators was a novel practice. However, it did not originate with the gas companies but the sewing machine manufacturers. Apparently, from the early 1860s, Isaac Singer employed attractive young women to operate sewing machines in the window of his New York shop. Singer's agencies spread throughout the United States, Britain and Europe and each store maintained a staff of at least one male salesman, a competent mechanic and a female demonstrator.⁶⁵

By the 1890s, shopping had become an increasingly feminine activity for both buyers and sellers. Female habits of consumption served as status symbols of their husbands' wealth as they made the rounds of the fashionable West End shops. According to Judith Walkowitz, the expansion of the mass market and the growth of the department stores in the late century expanded this consumerist activity to a wider range of middle-class women while it established new social patterns for the act of shopping itself.⁶⁶ Cafes, teashops and rest rooms catered to the needs of the feminine shopper. In an effort to appeal to its female clientele, department store

⁶⁴ LMA/B/GLCC 40, Minutes of the Board of Directors, 2 March 1894, 3; 21 June 1895, 201.

⁶⁵ Hardyment, Mangle to Microwave, 45.

⁶⁶ Walkowitz, City of Dreadful Delight, 46-47.

owners, such as Gordon Selfridge, included lounges, writing desks and lunch rooms within their commercial premises. Selfridge's advertisements urged female shoppers to spend their entire day in his stores, depicting his shops as self-contained social centres.⁶⁷ Such services afforded comfort and convenience for weary female shoppers. Within the feminized department store, these sanctioned and respectable spaces ensured that an unescorted lady might relax in a public place with no fear of harassment. The afternoon high-class cookery demonstrations sponsored by the gas companies and designed to attract middle-class ladies aptly characterizes the connection between female leisure, consumerism and entertainment. Further, the cookery show was simultaneously a public and a private space, like the feminized department stores, where respectable ladies might enjoy an afternoon's amusement unescorted and undisturbed.

The replacement of male assistants with females contributed to the feminization of material consumption.⁶⁸ Young single middle-class women were increasingly employed as sales assistants in the new department stores and multiple shops. Retailers realized quickly that neatly dressed pretty girls made a favourable impression on their customers and were particularly understanding of the fashion needs of female shoppers. Lady Mary Jeune praised the patient and perceptive sympathy of shop girls for their often exhausting customers in all matters of fashion, colour and taste, stating that the "no man can ever understand all these little refinements."⁶⁹ Shop girls had the added bonus of being cheap and tractable and despite marginal improvements in hours and wages, the daily routine meant standing for twelve-hour shifts with few

⁶⁷ Alison Adburgham, *Shopping in Style*, 168; Lancaster, *The Department Store*, 53-55. Gordon Selfridge, an American formerly with the Marshall Fields Company in Chicago, opened his Oxford Street store in 1909. It catered to middle-class women by offering a writing room, a reading and rest room, post office and information bureau.

⁶⁸ Walkowitz, *City of Dreadful Delight*, 49.

⁶⁹ Lady Mary Jeune, "The Ethics of Shopping," *Fortnightly Review* (January 1895), 126.

breaks, no fresh air or physical exercise.⁷⁰ As sales assistants, the lady demonstrators fared much better than their contemporaries in the large shops in terms of hours and status. Nevertheless, they still represented the movement to female sales personnel and the realization on the part of businessmen that selling was an increasingly seductive activity.

Businessmen were not the first to grasp the publicity value of female promoters. Late Victorian evangelical groups, particularly the Salvation Army founded in 1878, frequently used female speakers because, as Catherine Booth maintained, they were more successful “in gaining the ear of the people.”⁷¹ The public spectacle of female salvationist attracted capacity crowds given the sheer novelty of seeing a woman speak in public. Doubtless, the same curiosity which filled public halls for female evangelicals accounts for the capacity audiences of the lady appliance demonstrators at their evening performances. In contrast to the high-brow cuisine of the matinees, the evening shows of “plain cookery” were designed to appeal to mixed audiences, both in terms of class and gender. The Journal of Gas Lighting frequently commented on the number of men present at these evening demonstrations, the implication being that male customers attended to observe the public spectacle the women offered and not because they had need of culinary advice. In much the same manner that the female evangelicals sold religion, the lady demonstrators were feminine boosters for the gas industry.

But the promotion of gas appliances was a specialists’ business and required trained personnel. Improperly used, gas technology was potentially dangerous as one unfortunate demonstrator learned while showing a stove at the Lostwithiel Cookery School.⁷² The lady sustained facial injuries after an explosion when she went to light the stove; apparently, the gas had not been properly turned off from the previous lecture. Information concerning the proper handling and safety were

⁷⁰ Lady Jeune, “Ethics of Shopping,” 129. Lady Jeune was sympathetic to the shop assistants’ and their requests for improved wages, regular breaks and better food.

⁷¹ Walkowitz, City of Dreadful Delight, 74-75.

⁷² JGL, 5 March 1895, 503.

integral to the sales pitch. Doctors expressed their concerns about the safety of gas stoves, citing an incident where a customer had suffered serious injury as a result of an explosion that occurred as she opened the oven door. The injured party received a settlement of £50.⁷³ Not surprisingly, the gas companies wished to avoid accidents of this nature, either to its demonstrators or its customers, with the resulting litigation and negative publicity.

The domestic science colleges, well-established and respected institutions by the 1890s, supplied these qualified lady experts. In most cases, the cookery graduates were more than willing to promote gas appliances for the manufacturers and corporations since this provided an additional source of employment to the board cookery schools. By working the public lecture circuit, domestic subjects experts might broaden their professional credibility and the general impact of the domestic science movement. Headmistresses of cooking schools offered published testimonials for particular stoves.⁷⁴ Cooking mistresses doubled as lecturers on the exhibition circuit.⁷⁵ Increasingly, the cookery instructor was a trained professional whose opinion carried weight, much like the doctors who endorsed Victorian patent medicines. But unlike the often bogus referrals found in the medicine advertisements, the cookery teachers personally and publicly endorsed these appliances.

Faith in the lady expert was bolstered by Marie Jenny Sugg's popular book,

⁷³ "The Dangers of Gas Cooking-Stoves," *The Lancet*, 27 November 1897, 1403.

⁷⁴ *JGL*, 10 September 1895, 564. Matilda Lees Dods, Principal of Birmingham and Midland School of Cookery, endorsed the 'Parkinson gold medal gas cooker' claiming that it was used in all their cooking centres. Sophie Thwaites, of the International School of Cookery, Liverpool described the Parkinson' as 'easy to manage, very good in its results and most economical in the consumption of gas.'

⁷⁵ For several examples of these sorts of endorsements see: *JGL*, 7 June 1882, 1082. Miss R.M. Watts of Yorkshire School of Cookery demonstrated the stoves of C. Wilson & Co. of Leeds. She baked fifty loaves of bread which she then handed over to local miners involved in the coal dispute. Miss Thompson of the Nottingham & District School of Cookery demonstrated the Main cookers in a Nottingham exhibition. *JGL*, 12 April 1892, 678. Mrs. Wilkinson, formerly with the National School of Cookery in South Kensington, demonstrated for the Fletcher Russel Co. at Albert Hall.

The Art of Cooking By Gas.⁷⁶ Published in 1890 by the wife of William Sugg, Mrs. Sugg's book was both technical and practical. It presented detailed descriptions and illustrations of various gas appliances and their practical uses in the home, and pages of recipes tested by Mrs. Sugg in gas stoves. Apparently, Marie Jenny was the daughter of a French chef, and a culinary expert in her own right.⁷⁷ Not surprisingly, she spoke warmly of Sugg's award-winning Westminster Kitchener as suited to the cooking needs of the 'average family.' It was the GLCC's standard rental stove. [Fig. 3] In 1897, Lillie Richmond published a similar cookery manual advocating gas in the home. Although Miss Richmond aimed "to suit the tastes and requirements of all classes", the pages devoted to servants and their misuse of gas appliances or French recipes for garnishes and hors d'oeuvres suggests a middle-class readership. Still, it was a popular book, in its fourth edition by 1903, with sales over 30,000.⁷⁸ Both publications furthered the perception that women were able and effective spokesmen for the gas industry.

The domestic science movement had an important impact on gas sales in terms of creating a market for new technology in the home. As noted in chapter one, the enormous increase after 1860 in books, magazines and compendiums devoted to household management directly reflects the increased complexity and specialisation of middle-class housekeeping, and the perceived need to assist mid-Victorian women meet the higher expectations in this regard. The domestic economy movement developed out of this apparent 'housekeeping crisis'.⁷⁹ It helped foster a more informed middle-class female consumer, increasingly familiar with issues such as home management, infant health and hygiene. From the 1890s onwards, middle-class women were more aware of the benefits of modern conveniences, including the gas stove. For example, household manuals, like Mrs.

76 Marie Jenny Sugg, The Art of Cooking By Gas (London, 1890), 2-19.

77 Barty-King, New Flame, 146.

78 Lillie Richmond, Cookery Recipes. with special hints on Gas Cooking 3rd ed. (London, 1903).

79 Attar, A Dictionary of Household Books, introduction.

Beeton's Household Management, included comparative descriptions of cookers, furnishings and lighting arrangements. As Christina Hardyment notes, a comparison of the 1883 and 1893 editions reveals the increasing acceptability of gas cooking. In the former, the author praised the cleanliness and efficiency of gas cookers, but cautioned that few cooks knew how to use them safely and with good results. Ten years later, the account of gas cooking was more enthusiastic, possibly given the increased numbers of gas cookers in use and the declining prejudice against this method of cooking.⁸⁰ The official approval which gas stoves received in the 1893 Beeton's coincides with the gas industry's nation-wide exhibition blitz of 1892-93. The widely-advertised free cookery lectures by lady demonstrators addressed the author's earlier misgivings concerning the safety and accessibility of gas stoves, while the later positive endorsement constituted the best form of mass advertising given the manual's extensive readership.

Philanthropists and educationists hoped that home management instruction would improve the health of the labouring classes. Lady Burdett-Coutts and J.D. Buckmaster, ardent supporters of domestic economy training, firmly upheld this view, as did Edric Bayley, a prominent member of the London School Board.⁸¹ Better cooking on more scientific cookers was a possible means to this end. This alliance between the gas industry and the domestic economy advocates presented an unprecedented opportunity for the gas corporations. As school officials struggled to equip the housekeeping centres, appliance manufacturers and gas corporations offered to install and maintain classroom cookers, in exchange for a quarterly rental fee of between two and three shillings, depending on the company.⁸² From

80 Hardyment, Mangle to Microwave, 128.

81 Edric Bayley, Education in London Board Schools (London, 1888). Bayley was an active supporter of technical education for boys and girls, however, with the latter, this usually meant domestic subjects like cooking, knitting and laundry. Bayley made frequent comparisons between the German and English systems of education, and feared that the inadequacy of English schooling would cause Britain to lose its industrial prominence as the 'workshop of the world.'

82 LMA/LCC/Minutes of the LCC, Subcommittee on Cookery. 15 July 1892, 38. The Commercial Gas Co. let stoves to five schools, at 3sh, 6d per quarter, the agreement included normal stove maintenance. The GLCC rented stoves to 19 schools, at 3sh. 9d. per

the mid-1870s, the Fletcher Russell Co. had supplied the stoves to the London cookery centres; usually, the standard No. 140 model, a squat, solid cast-iron box that resembled a bank safe with a grill and four burners. Several cookery inspectresses reported complaints against the Fletcher stoves regarding their poor ventilation and emission of noxious fumes. Children and teachers complained of headaches, drowsiness and nausea; in some cases, girls were too ill to do their afternoon work after the morning cookery class. The company was instructed to immediately provide proper ventilation pipes in all cases of these stoves to carry the fumes, or the school board would seek replacements. Obviously, the corporations met the school boards' demands, since they hoped that if girls learned how to cook on gas stoves, they might influence their families to hire cooks, or at least, they would choose gas cookers for their own future kitchens. Conversely, future sales were threatened by early bad impressions of gas technology.

Cookers for the Working Class: The "Penny-in-the-Slot"

Historians of domestic technology identify the pre-payment meter, patented in 1888, as a significant innovation in Victorian gas technology.⁸³ While the Welsbach mantle improved the brilliance of gas lighting, the pre-payment meter expanded the market to the lower-middle and working classes by providing a more affordable payment system than the usual advance quarterly installments. In 1892, the SMet offered to install the penny mechanism on any meter or stove in their jurisdiction and gave a small bonus to any employees who obtained new customers for this service. The company supplied and maintained the fittings. In return, however, slot meter customers paid slightly more per cubic foot of gas than did 'regular' customers.⁸⁴

quarter, with a 10sh maintenance and repair charge; the SMet let stove to 17 schools at 2sh, 6d. per unit, with no specific charges for maintenance and repairs.

83 Hardyment, Mangle to Microwave, 128; Davidson, Woman's Work, 36.

84 LMA/B/SMet, Proprietors' Minute Book, Director's Report, year end 30 June 1893, delivered 16 August 1893, 100.

The “penny-in-the-slot” meter had an immediate effect on gas sales. George Livesey estimated over 6,800 new SMet customers for the year ending June 1893 as a result of the new payment scheme.⁸⁵ The majority of the slot meter customers were members of the lower-middle and working classes. According to Livesey’s report the increased consumption of gas resulted from “the demand of weekly tenants who, with scarcely any exceptions, did not use gas until the introduction of the coin meters.”⁸⁶ Landlords and tenants favoured the hire system since neither party invested permanently in the gas fittings or appliances; the gas company assumed the installation and repair costs.⁸⁷

The pre-payment boom was furthered by the philanthropic housing corporations and their movement to re-house the respectable working classes. In 1895, the GLCC signed a twenty-one year agreement with the Metropolitan Association for Improving the Dwellings of the Industrious Classes to supply pre-payment meters to all their buildings.⁸⁸ Between June and December, 1901, the SMet reported fitting 7,130 penny meters in London model tenements.⁸⁹ The increasing popularity of the automatic meter can also be gauged by the growing number of workers assigned to the task of emptying them. For example, the SMet

85 LMA/B/SMet, Proprietors’ Minute Book, Year end Report, 30 June 1893, reported 16 August 1893, 100.

86 LMA/B/SMet, Proprietor’s Minute Book, Year end Report 31 December 1895, reported 12 February 1896, 122.

87 LMA/B/SMet, Proprietors Minute Book, Year end report 30 June 1894 presented 4 August 1894, 108. In June 1894, the SMet averaged 300 new working-class customers per week, totalling 29,705 cookers leased; Proprietors Minute Book, 30 June year end report, presented 14 August 1901, 178; by 1901, the SMet served 116,000 working-class homes, with over 6,000 new customers in the last 6 months, 80% had gas cookers. Proprietors’ Minute Book, Year end report 31 December 1904, presented 30 January 1905, 30; in 1904, the company estimated 172,884 slot meter customers and of these, 150,113 hired slot-meter stoves.

88 LMA/B/GLCC 40, Minutes of The Board of Directors, 18 November 1895, 253.

89 LMA/B/SMet, Proprietors’ Minute Book, Report for year end 31 December 1901, presented 29 January 1902, 184.

employed ninety meter collectors in 1901 at an annual salary of £60.⁹⁰ [Fig. 4]

The slot meter was not without its disadvantages. Emptied monthly, slot meters were easy targets for thieves, presenting temptations too great for some customers, and even for company collectors. The companies did not hesitate to prosecute. For example, in October 1895, two boys Edward Guerney and William Cox were convicted of stealing money from one of the GLCC meters and received fourteen days hard labour.⁹¹ That same year, Enrico Poggi was sentenced nine months imprisonment for robbing a meter. The following year, J.W. Reid and W. Merridew received eighteen and twelve months hard labour for a similar offence.⁹² A prison term, even of several months, could have meant utter destitution for the families of the accused.⁹³ Meter inspectors kept strict watch and reported any discrepancies. For example, a West Ham court ruled in favour of the GLCC in a case arising from a tampered, meter valve which gave the customer considerably better value than the normal 25 cubic feet of gas per penny.⁹⁴ Finally, GLCC engaged two plain clothes constables to patrol its most problematic districts, presumably in the East End.⁹⁵

Entrusted with all those coppers, company collectors occasionally helped themselves to the meter money. The case of Thomas Lovell is one of many. Lovell, a twenty-eight-year old meter collector with the GLCC admitted to a company clerk that he was £16 short in his cash and could not pay it. The account books revealed

90 LMA/B/SMet, Proprietors Minute Book, year end report 31 December 1901, presented 29 January 1902, 184.

91 LMA/B/GLCC 40, Minutes of the Board of Directors, 21 June 1895, 201; 25 October 1895, 245.

92 LMA/B/GLCC 40, Minutes of the Board of Directors, 31 July 1896, 386.

93 George Sims, How the Poor Live and Horrible London (London, 1889), 87.

94 LMA/B/LCC, Notice to Consumers Re: Automatic Meters (special circular, GLCC, Horseferry Road, Westminster), April, 1896.

95 LMA/B/GLCC 40, Minutes of the Board of Directors, 28 February 1896, 307.

that he owed much more. With a warrant issued for his arrest, Lovett disappeared from his Kilburn flat but was later located in Lincolnshire working as a general labourer, his wife and three children having entered the poorhouse. Eventually, Lovett received six months hard labour for embezzlement of his employers' money.⁹⁶

However, despite the temptation which the company money meters presented, the advantages to the labouring classes appear undeniable. Gas managers, like Livesey, congratulated themselves on the "double satisfaction" of raising their revenues while "adding to the comfort and safety of the wage-earning class."⁹⁷

No doubt, Livesey's "double satisfaction" also stemmed from improved industrial relations between managers and gas workers after the labour unrest and New Unionism of the late 1880s. Under the leadership of Beckton stoker Will Thorne, in May 1889 the National Union of Gas workers and General Labourers successfully pressured the GLCC directors into accepting its demands for increased wages, an eight-hour shift for gas stokers and time-and-a-half pay for Sunday work.⁹⁸ In November 1890, under the threat of a general walkout, unionized gas workers at the GLCC pressured the company to grant pay rises to non and semi-skilled gas workers.⁹⁹ The gas workers' settlement was hailed as another victory for New Unionism following the labour unrest of the previous year, notably the successful resolution of the London Dock Strike in August 1889.

However, the victory was partial: Thorne's negotiations with the SMet gas company proved more difficult. While Col. Makins at the GLCC maintained a

⁹⁶ JGL, 1 October 1895, 677; 8 October 1895, 734.

⁹⁷ LMA/B/SMet, Proprietors Minutes, year end report 30 June 1901, presented 14 August 1901, 178

⁹⁸ Kapp, The Air of Freedom, 106.

⁹⁹ LMA/B/GLCC/ Minutes of the Board of Directors, 3 October 1890, 38; 14 November 1890, 53-54; 28 November 1890, 59. The company governors agreed to the following pay scales for weekly workers: labourers-8sh/week, bricklayers-12sh, carpenters 7sh., stokers 8sh, fireman fitter 18sh, lime burner 6sh. The company made the wage concessions to avert a strike at all GLCC works.

grudging tolerance of the gas workers union, George Livesey and the SMet governors upheld a strict anti-union policy. Well-known for his draconian tactics, Livesey overcame his company's labour disputes via old-fashioned paternal capitalism. In July 1889, to avoid a strike at his works, Livesey agreed to the same terms and conditions as reached by Thorne at the GLCC. However, in September, when the union attempted to enforce Rule 16, that all hands employed at the gas works be union members, the company responded, stating that it did not recognize the union, and preferred to employ non-union workers. To present an alternative to union membership, Livesey devised a copartnership scheme which offered bonus payments in the form of company savings accounts to some classes of workers.¹⁰⁰ Not surprisingly, Thorne advised the gassies to reject Livesey's scheme and in December 1889, two thousand men at the Vauxhaull works laid down their tools. Livesey immediately hired replacement workers, brought in special constables to protect 'free labour' and effectively locked-out the strikers. After a two-month strike, the economic hardship experienced by the workers and their families prompted Thorne's union to call off the strike in February 1890. Although Livesey had agreed to reinstate all striking workers, he retracted just four days after a settlement was signed.¹⁰¹

The failure of the SMet gas workers' strike and Livesey's intractable response illustrates the demise of New Unionism and the success of the employers' counter attack in the early 1890s.¹⁰² It equally reflects a declining public tolerance for labour disputes. Given the orderly and disciplined behaviour of the striking dock workers in the summer of 1889, their cause aroused public sympathy and

100 See Introduction *fn* 5, 7.

101 Kapp, *Air of Freedom*, 117-118.

102 John Saville, "Trade Unions and Free Labour: The Background to the Taff Vale Decision," in *Essays in Labour History*, ed. Asa Briggs and John Saville (London, 1967), 323.

media support, at least in the early stages of the dispute.¹⁰³ In contrast, the gas workers walkout initially elicited disapproval which turned to indifference as replacement workers overcame any inconvenience to the public.¹⁰⁴ Only the Coal Porters' and the Seamens and Firemen's Unions acted in support of the gas workers and this lack of labour solidarity further undermined Thorne's union. Finally, Livesey's failure to honour the terms of the negotiated agreement signalled another significant loss for New Unionism. The profit-sharing plan devised in direct challenge to the new gas workers union offered an important alternative in labour relations, and one that was later adopted by other gas corporations and companies outside the gas industry.¹⁰⁵ But were Livesey's intentions as self-serving as they appeared? Contemporaries, and later historians, have failed to agree. John Burns, famous early in his career for his labour activism with the Social Democratic Federation, a founding organizer of the National Union of Gas Workers, and a member of the 1892 Royal Commission on Labour, publicly denounced Livesey's copartnership scheme as "the golden link to bind men to their employers." Nevertheless, the SMet governor had his supporters, including George

103 Saville, "Unions and Free Labour," 322. Saville notes a change in public opinion, as reflected in The Times, regarding sympathy for the strike. The media increasingly expressed the view that workers were being coerced to remain on strike by union leaders, thus denying workers their right to work, and inhibiting the free movement of labour.

104 Stedman-Jones, Outcast London, 319. Stedman-Jones contends that public support for the dockers derived mainly from their good conduct throughout the two-week strike. The strikers discipline convinced the middle classes and politicians that the labouring poor of the East End were not the political threat previously feared. Kapp, Air of Freedom, 115-116. Initial public response to the SMet strikers was hostile however, with the return of normal services under replacement workers, the public lost interest. Worse than public indifference was the lack of support by other unions. Although the gas workers had backed the striking dockers with money and speakers, the action was not reciprocated. In response to his appeal for assistance from the London Trades Council, Thorne was advised to end the dispute.

105 Moss, Industrial Co-Partnership, 13-22.

Holyoake of the Mechanics' Institutes.¹⁰⁶ However, in the mid 1890s with the earlier labour crisis apparently behind them, managers like Livesey emphasized confidently the beneficial impact of the gas industry on the working-classes both in terms of home comforts and employment.¹⁰⁷

The cookery crusaders, like Buckmaster, praised the gas industry and the increased adoption of the gas stove, given its potential to raise culinary standards and general health among the working classes. Helen Bosanquet, an influential professional social worker with the Charity Organization Society, echoed this sentiment. Although she attributed working-class poverty to poor housekeeping, improvident spending via credit and an inability to plan beyond the immediate future, Bosanquet admitted that the poor diet of the working classes was related to inadequate housing conditions, not simply an ignorance of domestic management.¹⁰⁸

Here is a family living in two rooms, with no trace of store cupboard, pantry, or larder. True, there is perhaps a cupboard in each room, but these only just suffice to hold, one the coal, the other the crockery. It is clear that there can be no stock of

106 Labour Co-Partnership, 1 (October 1894), 27. John Burns condemned the plan on the basis that it only applied to "a few foremen" and was designed to crush the unions. Holyoake defended profit-sharing because, in conjunction with union activity, it offered the workers a means of acquiring savings while fostering co-operation between workers and employers. For the current debate between historians, see Matthews, Moss, Mills and Melling, Introduction, *fn.* 5-7.

107 South Metropolitan Gas Company, Co-Partnership Journal (November 1908), 250; Labour Co-Partnership 1, (October, 1894), 27; LMA/ Charity Organization Society/ COS Minute Book, 13 (December 1902-April 1908), Address by George Livesey, "Industrial Partnership and the Prevention of Distress" Special Meeting of the COS, 30 March 1903. George Livesey (1834-1908) epitomized the Samuel Smiles ideals of self-help, thrift and upright moral behaviour. The son of a gas engineer, Livesey spent his entire sixty year career with the SMet. A teetotaler who forbade the sale of beer in the gas works canteens, he was an ardent supporter of the temperance union, the Band of Hope. Despite the many improvements to gas production which resulted from his technical expertise as an engineer, Livesey believed that his profit-sharing scheme, copartnership, was his most important contribution to the industry because it forced the workers to save by holding back a wage bonus in a company savings fund. Livesey anticipated that his plan offered a solution to employer confrontations with labour unions and presented a means of undermining support for socialism among the working population.

108 Ross McKibbin, "Class and Poverty in Edwardian England," in The Ideologies of Class: Social Relations in Britain, 1880-1950 (Oxford, 1990), 167-196.

edibles; straight from the shop to the table is the only plan, and probably the healthiest in houses which are so closely packed with humanity.¹⁰⁹

From her observations of working-class life, Bosanquet knew that the great multitude of Londoners lived in cheap lodgings “poorly adapted to culinary purposes.” While a woman could balance a saucepan, a frying pan or a kettle over a small open grate, it was difficult to prepare a decent meal with so little means. Moreover, she added that even where a sympathetic landlord had put in a stove, or in the model dwellings where cookers were the norm, “the time and skill necessary to the art are often wanting.” Ready-cooked food, hastily purchased from the local fried fish shop or the eel-pie shop, was undeniably simpler for the working-class wife. Better housing and proper instruction in the safe use of domestic appliances could change this pattern. As the number of pre-payment cookers in working-class homes increased, so did the need for instruction in their proper use and care. Thus, the task of the gas industry’s lady demonstrators assumed both commercial and social dimensions.

Despite Bosanquet’s admission that most working class homes were ill-equipped for meal preparation, she still promoted the benefits of teaching women simple cooking and the elementary laws of health, particularly with respect to the care of infants and children.¹¹⁰ Even after two decades of sporadic state-funded domestic subjects training for girls and women, the continued poor health of the labouring classes gave cause for public alarm. Charles Booth’s extensive research indicated that the living standards of the London poor had changed little in twenty five years, despite the material prosperity of the late Victorian era. The calm resolution of the dockers strike and the decline of new unionism in the 1890s convinced the ruling classes that while the labouring poor constituted a serious social problem, they did not represent an imminent political threat.¹¹¹

109 Helen Bosanquet, Rich and Poor (London, 1899), 89-90.

110 Bosanquet, Rich and Poor, 92.

111 Stedman Jones, Outcaste London, chap. 16.

Earlier fears of social and physical degeneration re-emerged during the Boer War. General Maurice attributed the lagging campaigns in South Africa to the sub-standard physical condition of the British recruits.¹¹² Politicians, including the New Liberal Charles Masterman, equated the apparent 'racial degeneration' with imminent Imperial decline; the resulting Interdepartmental Committee on Physical Deterioration (1904) assumed the task of verifying these allegations.¹¹³ After extensive testimony from witnesses, the commissioners reported that despite outward signs of Edwardian prosperity, a large percentage of the urban working population lived in constant want, if not abject poverty. In general, working-class housing was overcrowded, unsafe and unsanitary. Poor nutrition was common, particularly among children, women and the aged.¹¹⁴ The study concluded that despite "the abundant signs of physical defects due to poverty, neglect and ignorance" there existed no evidence of "progressive hereditary degeneration."¹¹⁵ The "British race" was not in decline genetically, however, the negative impact of the urban environment on the health of the working population demanded an immediate response. Among its many recommendations, the report of the Interdepartmental Physical Deterioration Committee listed improved training for girls and women in domestic subjects, infant health and hygiene.¹¹⁶ The crusade of the Victorian cookery teachers, that being to make girls and women into better wives and mothers was rejuvenated and politicized by Edwardian fears of racial

112 Stedman Jones, Outcaste London, 330-31.

113 Report of the Interdepartmental Committee of Physical Deterioration, Minutes of Evidence, Vol I (1904), 13-14.

114 Burnett, Plenty and Want, 180.

115 Physical Deterioration Report, Vol. I, 14.

116 Diana E. St. John, "Educate or Domesticate?: Early Twentieth Century Pressures on Older Girls in Elementary School," Women's History Review 3,2 (1994), 191-218.

decline and imperial disintegration.¹¹⁷

“Lady Demons” and the Mission of the Gas Companies

By the turn of the century, no gas exhibition or demonstration was complete without the lady cookery expert. While the alleged job of the demonstrator was to educate and inform the consumer, the performances contained an undeniably sensual element. Reports of cookery demonstrations praised the pleasing appearance of the young women on stage in their crisp aprons and caps. Descriptions of the women’s “deft fingers” and “persuasive eloquence” lent an almost sensual dimension to the performances as did the references to the enticing smell of the cooking food and its olfactory impact on the crowd.¹¹⁸ The final distribution of the finished products, usually biscuits and cakes, completed the image that the demonstrations were a general assault on the viewers’ sight, smell and taste.

Some managers feared that the cookery demonstrations were becoming too entertaining. An article in the Journal of Gas Lighting grumped that consumers left the demonstrations with more vivid recollections of the food prepared than the stove it was cooked on. The article’s author suggested more technical information on the gas appliance itself and, especially, comparative facts on the costs of gas cooking vis-a-vis solid fuel. After all, the appliance, not the food, was of primary importance. However, once the attraction of the cookery demonstration was established, it was difficult to refashion the format from entertainment to technical education.¹¹⁹ For example, to add another dimension to the usual cookery

117 Jose Harris, Private Lives, Public Spirit: Britain 1870-1914 2nd ed. (Harmondsworth, Middlesex, 1994), 241-245; Geoffrey Searle, The Quest for National Efficiency, and Eugenics and Politics in Britain (Berkeley, 1971), 60-67; Richard Soloway, Demography and Degeneration: Eugenics and the Declining Birthrate in the Twentieth-Century (Chapel Hill, 1990).

118 “The Services of the Lady Lecturer and Teacher,” JGL, 24 January 1905, 218.

119 “Conducting Exhibitions of Cooking by Gas,” JGL, 17 January 1899, 126-127.

demonstrations, the organizers of the 1904 International Gas Exhibition, held at Earls Court in London added amateur cookery competitions for women and girls.¹²⁰ Although the purpose of the competition was to 'display the time and labour-saving merits of the gas-cooking stoves', the public competitions were essentially entertainment. Competitions for school girls had the added bonus of proving the simplicity and safety of gas stoves: even children could successfully operate them. It was the spectacle, however, that remained paramount. Walter King even compared the cookery shows to other forms of popular entertainment. A boxing competition, a football match, or favourite music hall artiste, could not have brought into the lecture hall a bigger and more mixed audience than on Saturday evening; and had the hall been twice or thrice the capacity, we have not the slightest doubt that it would have been filled. People went away from the doors in numbers, with almost rueful faces, because they could not get in.¹²¹

The exhibition organizers offered substantial prizes to the competitors: a gold and a silver watch for the two adult finalists and cash awards for the children.¹²² Increasingly, entertainment and advertising were overshadowing the technical and educational function of the cookery demonstration. Ironically, professional cookery teachers and lady demonstrators were not restricted from entering the competition, and consequently, they took home the gold watches.¹²³ Unfortunately, the sources do not indicate whether the general public knew that many of the adult contestants were professional demonstrators. Apparently, the gas industry had staged a perfect advertisement for its wares, while simultaneously rewarding its female speakers for their promotional abilities.

Could the expertise of the cookery teachers be engaged more profitably?

120 "Earl's Court Gas Exhibition," *JGL*, 11 October 1904, 1119.

121 "The Last of the Exhibition," *JGL*, 20 December 1904, 898.

122 "Last Day of the Exhibition," *JGL*, 20 December 1904, 899. The school girls received prize money of £2, 15sh and 10sh. for first, second and third.

123 "Last Day of the Exhibition," *JGL*, 20 December 1904, 898-99; "Results of the Quick Cookery Competitions," *JGL*, 6 December 1904, 761; "The Lady Lecturer and Teacher," *JGL*, 31 January 1905, 283.

The Journal of Gas Lighting addressed this question in a series of articles entitled “The Services of the Lady Lecturer and Teacher.” Reflecting on the immensely popular cookery demonstrations and competitions at the 1904 gas exhibition, Walter King questioned whether the gas companies made full use of the lady cookery experts who were prepared to assist them. Beyond the usual lectures and cookery classes, the writer advocated that the gas concerns hire qualified women full-time to undertake systematic visiting, inspecting and advising to consumers in their homes. In addition, the lady demonstrators might establish contacts with organizations connected to churches, chapels and factories which catered to the needs of mothers and young women. The experts could offer free cookery classes to girls and young women where instruction of this nature was not provided by the local school. The article noted the growing numbers of qualified domestic subjects graduates able to undertake this work.¹²⁴

The home visit format which Walter King suggested was standard procedure among settlement workers, district nurses and COS officials. Renowned charity workers, including Helen Bosanquet and district nurse Margaret Loan, had written on the efficacy of this practice and the proper etiquette required.¹²⁵ Despite the intrusive qualities often attributed to the COS, Bosanquet was sensitive to the unacceptability of unwanted lady visitors as an invasion of privacy. She recommended that visitations should not be made “unless on some definite errand; or unless acquaintance has been previously made with them; or lastly unless there is some special reason for believing that the visit will be acceptable.” These criteria were general guidelines, however, sufficiently broad and therefore unlikely to restrict the visitors in their charity work. Borrowing from the philanthropic model, the Journal of Gas Lighting stressed the importance of grace, tact and diplomacy, even comparing the lady expert to missionaries in a telling quote. King asked, “why the educated and refined lady charged with the duty and mission of the gas

124 “Lady Lecturer and Teacher,” JGL, 24 January 1905, 218.

125 Bosanquet, Rich and Poor, 142-152.; Bosanquet, Social Work in London 1869-1912 (London, 1914), 56; see also Margaret Loan, Outlines of Routine in District Nursing (London, 1905), 141, quoted in McKibbin, Ideologies of Class, 179-180.

suppliers should not be as welcome as the clergyman or the district visitor cannot be divined?"¹²⁶

Evidently, King failed to comprehend that, in many cases, Edwardian working-class women resented the stream of official visitors that routinely marched through their homes.¹²⁷ Add yet another "lady visitor" to the representatives from the parish, the school board or the housing authority, who regularly ventured into the homes of the labouring people.

Should one more visitor matter, particularly when the gas companies were simply safeguarding their own property? While providing an educational service and fostering good public relations, the lady experts could save the gas companies money. Although the hire-cooker market increased company revenues, service costs absorbed much of the profits. King lamented the rising costs of repairing hire cookers given the "terrible state of many samples of returned stoves seen at different works."¹²⁸ Improper stove use and customer negligence contributed to this situation. However, the lady advisors, in the combined role of inspector, house-to-house instructor, canvasser and defender among the ladies of the interests of the gas suppliers, could offer personal assistance and instruction to customers and their servants in the home.

Editorial response to the article was immediate; the majority of the letters were from cookery teachers, familiar names on the lecture circuit.¹²⁹ While all of the women agreed that lady demonstrators should be retained full-time with the

126 "Lady Lecturer and Teacher," *JGL*, 24 January 1905, 218.

127 Jane Lewis, "The Working-Class Wife and Mother and State Intervention 1870-1918," in *Labour and Love: Women's Experience of Home and Family 1850-1940*, ed. Jane Lewis (Oxford, 1986), 111-113; Ross, *Love and Toil*, 204-9.

128 "Lady Lecturer and Teacher," *JGL*, 24 January 1905, 218.

129 The *JGL* printed thirteen editorial letters and articles on the subject of the lady expert between January and March 1905. Eleven were from women, including Helen Edden, with the Davis Stove Co. and a former lecturer at the 1904 Gas Exhibit, Ida Cameron, of the GLCC demonstrations, Mrs. Sutcliffe, organizer of the Earl's Court cookery lectures, Mrs. Charles Marshall and Miss Rose Brown, demonstrators with the Richmond Co. and Mrs. Emilie Deane, who toured for the Willey & Co. stove works of Exeter.

gas companies, they differed over how the ladies might carry out their new jobs. The topic of home visits was controversial, and for good reason. Miss M.E. Betts of the Davis Stove Co. favoured surprise stove inspections with annual prizes for the housewife with the cleanest cooker throughout the year. In contrast, Mrs. Geoffrey Sutcliffe, the chief organizer of the recent Earl's Court cookery lectures and competitions, wrote that based on her own experience, it was not wise to call unexpectedly, however much "tact" one might possess. She cautioned: "Ladies, as a rule, do not like taking others into their kitchens; and cooks strongly object to it." Through advertising, customers could be invited to avail themselves of the lady teachers' expertise, either in the company showrooms or in the customers' homes. Home visits were useful, but a lady never intruded uninvited. Miss M.S. Birkett of Southport objected to home visits entirely, opining that canvassing "house-to-house" was "more suitable" for men. Birkett advocated closer co-operation between domestic economy schools and gas corporations.¹³⁰

In addition to the home inspection, the content of the lectures presented another topic for debate. Several lady demonstrators, including Miss Birkett, advocated the revision of the lectures' content to include more technical information on the care and use of gas stoves.¹³¹ Mrs. A. M. Collins, of Tollington Park, also recommended that the lectures be made more practical. She suggested a cleaning demonstration in addition to the cookery show at the end of every lecture. Mrs. Collins insisted that the lecturer "should take the stove to pieces and clean it in full view of the audience." Confidently she stated: "I think there is nothing undignified in this."¹³² Some demonstrators might however, since cleaning the stove was a dirty, disagreeable task, usually relegated to a domestic servant if one was kept.

The debate over to-clean-or-not-to-clean may have stemmed from the

¹³⁰ JGL, 31 January 1905, 282-3 (Betts and Sutcliffe); 14 February 1905, 419 (Birkett).

¹³¹ Birkett, JGL, 14 February 1905, 419.

¹³² "The Lady Lecturer and Teacher," JGL, 21 February 1905, 501.

demonstrators' apparent concerns to distance themselves from the illustrations of domestic servants found in appliance advertisements. As Victorian manufacturers used lady demonstrators to show off their stoves, by the 1890s, visual representations of women were increasingly incorporated into the trade literature and printed advertisements. But the portrayals of femininity found in the advertisements clearly contradicted the corporate image which the lady demonstrators actively sought to create in terms of class background, education and professional status. Not all appliance makers used images of women in their advertisements, and many did not advertise at all. However, those that did, specifically the Wilson Stove Company and the J. J. Coll Company, adopted a gendered language of visual representation developed by advertising agents and illustrators. Advertisements for other household products, like furniture polish and washing soap, suggest obvious parallels. Therein, women were often depicted as naive, sexual, and childish; frequently, they appeared as domestic servants, with inappropriately short skirts and exposed ruffled petticoats.¹³³ In the same manner that the illustrations of "lovely seaside girls" simultaneously represented "material comfort, sexual excitement and hard selling,"¹³⁴ the image of the flirtatious female servant was also a popular advertising symbol, whose sexual ambiguity was used to sell a variety of products from food and cigarettes to furniture polish and eventually gas stoves.

Recent scholarship on Victorian advertising and women offers some insight into the commercially constructed ideal of femininity and domesticity. Advertisements reflected the ideology of separate male and female spheres with women at the centre of family life entrusted with the health, happiness and moral well-being of men and children. According to Loeb, this sentimental portrayal of Victorian femininity contrasted with the hedonistic consumption of the late century,

¹³³ Opie, *Rule Britannia*, 84-85, 94-95; Hindley and Hindley, *Advertising in Victorian England*, illus. 4.1.

¹³⁴ Richards, *Commodity Culture*, 228.

as middle-class homes became the showcases for the “paraphernalia of gentility.”¹³⁵ Penny Sparke makes a similar point in her study on the gendered nature of taste, recognizing that Victorian women were increasingly responsible for the domestic appointment of the home and that the conspicuous display of tasteful affluence became a feminized activity.¹³⁶ As women constructed the perfect domestic interior, they were likewise pressured to aspire to physical perfection themselves, notes Margaret Beetham in her study of Victorian women’s magazines.¹³⁷ Evidently, given women’s increased participation in the mass market, late Victorian advertisements portrayed women as both consumers and objects of consumption.

The image of the female domestic servant in late Victorian advertising both asserts and contravenes this ideal of virtuous consumption. As a commodity, the maid herself was a symbol of respectability since the presence of a household staff, even a single maid-of-all-work, was an indication of middle-class status. Nevertheless, the maid also suggested social deviance. Associated with sexual promiscuity, servant girls frequently appeared in Victorian pornography as characteristically available and easily corruptible by male employers. The decline into prostitution was considered so serious an occupational hazard that middle-class philanthropists established homes and clubs for female servants in hopes of preventing this apparent downward spiral.¹³⁸ The cute maids of the late Victorian and Edwardian advertisements embodied both these themes. Set in respectable middle-class domestic interiors, they exuded a playful sexuality with teasing eyes or exposed petticoats and legs. For example, a popular advertisement illustration for “Heartease Cigarettes” showed a female domestic, in short skirt and fashionable heeled mules, tapping discreetly at a parlour door, a tray of cigarettes in one hand. Her doe-eyed expression and slight smile are unmistakably sexual, and hint at the

135 Loeb, Consuming Angels, 3.

136 Sparke, As Long As It's Pink, 44-45.

137 Beetham, A Magazine of Her Own?, chap. 10.

138 Pamela Horn, The Rise and Fall of the Victorian Servant (Dublin, 1975), 103-06, 133-36; Theresa McBride, The Domestic Revolution (London, 1976), 104-06.

sensual connection between the physical pleasures of sex, smoking and food.¹³⁹

The appliance makers adopted this symbolic language of female representation. A full-colour fold-out paper novelty, dated 1895 and distributed by the Wilson Stove Company, presented a young maid or cook with her mistress' gas stove.¹⁴⁰ Although a domestic servant, the young woman does not wear the traditional black and white uniform, dressing instead in pink, with her bare neck exposed. A trio of curious onlookers peer into the kitchen: a soldier, a policeman and an unidentifiable rake in top hat. Their noses look unmistakably red, either from the cold or drinking, and the men practically leer at the girl as if in some music hall farce. However, she stands at a distance, separated from them by the outside kitchen wall, safely assuming her air of teasing defiance. The squat iron cooker occupies almost half of the advertisement, however the tension between the woman and the three men absorbs the viewer's attention.

A 1903 advertisement for the gas stoves of the J.J. Coll Company also presents a temptress in the kitchen. [Fig. 5] Showing some leg, a pretty cook in fancy apron and green dress, against a bright red background, smiles coyly at the viewer while tasting a dish. She wears a chef's hat, similar to those required by cookery students, but this one sits casually askew on her curly head. She must be an accomplished cook for the stove contains a multi-course meal, illustrating the complete versatility of the appliance. However, the feminine cook's demure smirk undermines her culinary expertise. With no background setting, this image may have represented either a household cook or a youthful lady demonstrator. In either case, the manufacturer clearly adopted the conventional imagery of women, sex and food to promote its gas stoves to Edwardian consumers.

The image of the female cook found in the advertising material contrasted with the official self-image of the gas companies' lady demonstrators. Possibly, the debates regarding the propriety of performing scullery-work on stage indicated a genuine concern that, by doing so, they might be identified more closely with the

¹³⁹ Hindley and Hindley, Advertising in Victorian England, illus. 4.1.

¹⁴⁰ Opie, Rule Britannia, 95.

flirtatious kitchen maids found on the trade cards. The general consensus among the demonstrators was that public stove scrubbing was acceptable because they were trained domestic experts: cleaning the stove properly was simply one aspect of the demonstrator's job. However, it went unremarked that male lecturers and chefs were not expected to scrub out their stoves on stage. The notion that domestic tasks could be performed in a scientific and efficient manner points to another aspect of the domestic science movement which aimed to elevate the occupational status of housewifery and domestic service via standardized training. Unfortunately, by accepting that scullery work was part of the female demonstrators' job, women re-enforced the gendered nature of domestic labour, and foundered on the same dilemma as their contemporaries in the school system. Domestic labour would never be professionalised or widely respected as long as it remained exclusively women's work, particularly given the accepted perception that women's time was cheap.¹⁴¹

But even if the job demanded black leading a stove on stage, the "lady demon" must always be, in the words of Helen Edden "essentially a lady" because the class of consumers varied from the highest to the lowest. In the tenements of the East End, or the salons of South Kensington, the lady expert must never feel at a social disadvantage. In essence, the lady demonstrator had to fulfil a long list of prerequisites. She was a domestic college graduate, familiar with all types of cookery and housewifery. In addition, she was a technical expert on the operation and maintenance of gas appliances, although actually, she was not required to fix cookers, which was a fitter's job. She had to be a lady of excellent character, in possession of tact and good judgement, but of sufficient professionalism not to object to performing scullery duties in public. Realizing the complexity of the job, Miss Edden stated that "to gain the services of such a one, remuneration must be adequate."¹⁴² Miss Rose Brown, a cookery lecturer from Cambridge and author of housekeeping manuals, offered her services to any gas company for the annual

¹⁴¹ Annmarie Turnbull, "An Isolated Missionary: The Domestic Subjects Teacher in England, 1870-1914," *WHR*, 3,1 (1994), 82.

¹⁴² *JGL*, 31 January 1905, 283.

salary of £200.¹⁴³

Gas manager George Stevenson of Long Eaton explained that his company already engaged a full-time lady demonstrator: Miss Clegge joined his staff in 1902. She was hired in response to the huge increase in slot meter customers in his district, many of whom were “totally ignorant” of the “proper and economical use” of gas stoves.¹⁴⁴ Stevenson’s company opted for the regular appliance inspection, however, customers were duly warned. Formal calling cards, tactfully worded, were issued several days in advance of Miss Clegg’s visit, and the company reported few instances of hostility on the part of their customers. However, Stevenson did not recommend unannounced visits. The lady inspector imparted primarily technical information; she always took the stove apart, explained how it worked and emphasized the connection between proper maintenance and the efficient operation of the appliance. If the customer wished, Clegg would even cook a dinner and thus provide a complete personal home demonstration. Stevenson claimed that “the experiment [ie hiring a lady expert] proved a splendid investment”; maintenance costs decreased noticeably while gas consumption increased since customers used their stoves more frequently.

Following this editorial debate, the GLCC acted upon the women’s recommendations. The board moved “to engage the services of a lady to visit consumers at their houses and instruct them in the uses of gas-cooking stoves.”¹⁴⁵ They hired Helen Edden. A member of Buckmaster’s Universal Food and Cookery Association, and an experienced lecturer for the Davis Stove Company, Edden had recently impressed audiences at the 1904 Earl’s Court gas exhibitions. She accepted the job at £200 per year, fully double what cookery mistresses made with the London school board. By the end of the year, Edden had a staff of five.¹⁴⁶ Paid £1

143 *JGL*, 28 February 1905, 584.

144 “Lady Inspectors for Cooking-Stoves,” *JGL*, 14 February 1905, 418.

145 LMA/B/GLCC 44, *Minutes of the Board of Directors*, 19 January 1906, 14.

146 LMA/B/GLCC 44, *Minutes of the Board of Directors*, 23 November 1906, 150.

per week, her assistants still earned above average wages compared to female clerks and shop assistants.¹⁴⁷ In 1907, the South Metropolitan retained a Miss Wright, at £120 per year. Within a few years, Manchester and Birmingham added lady demonstrators to their staffs, as did even the smaller gas companies, such as Enfield, Croydon and Hornsey.¹⁴⁸

Company records suggest that the lady advisors enjoyed a certain degree of autonomy in the workplace. They formed completely new departments within the corporate structure and although management arrangements varied, the lady experts were usually a sub-group of the inspectors or sales departments. For example, Miss Edden reported to GLCC chief inspector Francis Goodenough, however, she managed her own staff of assistants.¹⁴⁹ Edden gave semi-annual reports before the board of governors, and was probably the first woman to attend their meetings. In addition to the occasional public lecture, the primary function of the ladies advisory staff was to visit and instruct customers in their homes in the proper use of gas-cooking stoves.

As Helen Edden's comments in the Journal of Gas Lighting implied, the GLCC ladies adhered to a strict code of etiquette and behaviour. Calling cards were always issued in advance; surprise visits were an invasion of privacy and might annoy or alienate the customer. The lady experts always wore hats and gloves, and gave the appearance of middle-class district visitors.¹⁵⁰ [Fig. 6] Given the

147 Nora Phillips, Marian Edwardes, Janet Tuckey, E. Dixon, eds., A Dictionary of Employments Open to Women (London, 1898), 110-11, 122, 135-136. Annual starting salaries for female clerks averaged at £35-40; sales assistants earned from £10-60 depending on the type of shop and board arrangements, while board school cookery teachers earned around £60.

148 LMA/B/SMet, Minutes of the Board of Directors, 8 September 1909, 91; "Cookery Hall," JGL, 14 October 1913, 129.

149 LMA/B/GLCC 44, Minutes of Board of Directors, 19 January 1906, 14; also see GLCC, 8 June 1906, 80; 26 October 1906, 135.

150 Helen Edden, The Household Gas Cookery Book (London, 1910), 288. This cookbook compiled by Edden contains numerous advertisements for gas stoves and heaters and includes a photograph of a lady demonstrator neatly attired in hat, gloves, and Edwardian day-wear, kneeling and gesturing beside a stove, while the lady of the house

constant walking, sturdy shoes were important. No matter how many calls she might make in a day, the lady demonstrator could never appear fatigued. Retired demonstrator Grace Horrigan recalled conversations with Maywyn Godby, an early GLCC cookery expert.

In the early days they [lady experts] were told not to visit more than one house on a street especially in the better areas, like South Kensington. The company women were not to give the idea that they were calling door-to-door, or arriving at a customer's home in a winded state.¹⁵¹

Efforts to define a corporate identity for women within the gas industry operated within the parameters of Victorian convention. Nevertheless, the lady demonstrators were engaged in the un-ladylike business of selling and cleaning gas stoves at a time when few women were considered technical experts. Just how much mechanical ability a lady needed to perform her job properly was open to interpretation. Fearful that the ladies might usurp their jobs or work status, some male inspectors and stove fitters insisted that the women could not carry tools or be allowed to perform routine repairs of any sort. Yet, given their familiarity with the stove operations, the women were fully capable of undertaking minor repairs, such as tightening a stove valve or unclogging a plugged gas jet. Instead, the women were instructed to report any necessary repairs; a company fitter would then call on the customer to fix the stove. Inefficient though this may have been, it preserved a gendered hierarchy of job classification and status. However, the women occasionally undertook repair work. For example, one amused SMet customer reported that a lady expert was mistakenly sent on a service call intended for a stove repairman. Much to the customer's satisfaction, the unnamed lady expert dismantled the stove, discovered the nature of the problem, a plugged gas

takes notes.

¹⁵¹ Interview with Pauline Horrigan, formerly head of Women's Advisory Staff, British Gas Council (St. George Hotel, Colchester, Essex) 8 December 1995.

jet, and cleared the mechanism with the aid of her nine-inch hat pin.¹⁵²

Offering instruction in customer safety was another integral aspect of the lady demonstrators job. Arguably, showing customers how to use the stoves safely and without injury was the most fundamental lesson. Judging from the content of the company literature and pamphlets, however, economical cookery and cleaning procedures received priority. For example, an early brochure entitled How to Use a Gas Cooking Range, written by Helen Edden, stressed the need for cleanliness while information on the lighting of the gas jets received considerably less attention.¹⁵³ Miss Edden's The Household Gas Cookery Book devoted less than one-half of its two hundred and sixty pages to gas safety.¹⁵⁴ Similarly, cookery experts and lecturers Amy Atkinson and Grace Holroyd listed cleaning procedures before safety precautions in their 1909 gas publication.¹⁵⁵ Their six point list included such fundamental information as *"DON'T turn the gas on before you open the oven door, and have a light ready to apply to it"* or *"DON'T forget to turn out the gas immediately you have finished using it"*. These were basic, but critical instructions to Edwardian women unfamiliar with gas technology. Unfortunately, having a spotless cooker was no guarantee against an explosion. No doubt the gas companies wished to downplay the potential danger of their appliances, and safety was conflated into a set of proscribed steps for proper use. While it appears that

152 "The Unfailing Hatpin," Co-Partnership Journal (September 1915), 208. Although this particular incident was reported in 1915, the author suggested that lady demonstrators had previously resorted to the hat-pin as a repair tool, and that in 1915, fixing stoves was still not considered a demonstrator's job despite the growing numbers of enlisted men. By 1918, the situation had altered completely with women undertaking a wide range of jobs in the gas industry, including stoking retort houses and loading coke.

153 John Johnson Collection/Gas and Electrical, Box 1/Bodleian Library/ Helen Edden, How to Use a Gas Cooking Range (Croyden Gas Company, n.d.). Cleaning instructions, the first listed in the text, were in italics and underlined, while information on lighting the stove received no special attention. Users were instructed to turn off the taps when the stove was not in use, however this critical information was only partially italicized.

154 Edden, Household Gas Cookery Book, 6, 11.

155 Amy Atkinson and Grace Holroyd, Practical Cookery with an Introduction on Cookery by Gas (Leeds, 1909), 5.

the lady demonstrators were responsible for imparting some information on gas stove safety, the more conventionally feminine issues of cleanliness and domestic economy received company priority.

Conclusion

As combination sales assistants, domestic science teachers and social workers, the lady demonstrators were the first women employed by the gas companies. Initially, the manufacturers engaged women on a contract basis to demonstrate their products. Capitalizing on the advertising appeal of cookery performances, the appliance makers and gas corporations used the soft sell of “deft fingers and persuasive eloquence” to break down prejudices against gas cooking. As the numbers of hire cookers increased, the corporations enlisted women to educate and advise consumers in their homes. The lady experts joined the ranks of the other outside gas workers, such as the fitters and the meter collectors.

The lady advisors were not simply responding to the dictates of the corporations. Much of the initiative for this new occupation came from the cookery teachers themselves as they sought to widen their employment opportunities through professional self-promotion. Representing the ideals of both the domestic science movement and Victorian capitalism, and working in a completely new profession, the lady demons moved between the public and the private domains. Although they were professional women working outside the home, the lady demonstrators promoted an ideal of Victorian domesticity which they personally did not represent. This tension is revealed in the debates concerning the proper conduct for demonstrators, the implied assertion being that one can be both a working woman and a lady. In addition, the lady demonstrators were important conduits between the gas corporations and their consumers of all classes and fostered the development of customer relations, a now familiar aspect of product promotion. As domestic experts and corporate representatives, the lady demons blurred the traditional boundaries between the separate spheres of home and work.

Chapter 3: Gas and Water Feminism: “Lady Demons” and the Edwardian Home

Introduction

Twelve little maidens all in a row
Whence do they come, whither do they go?
With radiant smiles and voices sweet
Tripping along with such dainty feet.

Twelve pretty maidens all in row,
What are they doing, I'd like to know?
Tripping along through snow and sleet,
In winter's cold, or summer heat.

So late to bed, so early to rise,
Working alike beneath gloomy skies,
Or fainting 'neath the sun's hot rays,
Without a look or word of praise.

Twelve little “Demons” all in a row
Working hard for The Gas Light Co.!
Teaching the wives to bake and boil;
And to clean a stove without any toil.

They teach them all they want to know
From skinning a whale to stuffing a crow!
To blaze a kipper, or grill a mouse
This is why they trip from house to house.

So on they toil from day to day
With never a thought of rest or play--
Till a shaft is loosed from Cupid's bow
Which lures them from The Gas Light Co.

For Hymen's luminous torch burns bright
Changing the “Demons” to Angels of light
In bridal array, far away they go--
Alas! and alack for The Gas Light Co.

(signed) L.P.
A “Demon”¹

1 “Twelve Little Demons,” Co-Partners' Magazine (September 1911), 130.

The above verse appeared in the September 1911 issue of Co-Partners' Magazine, the official staff journal of the Gas, Light and Coke Company. The company magazine kept the employees informed of the progress of its new profit sharing scheme, introduced in 1909; it also reported the companies many social events-- from the gas works' cricket leagues to the children's Christmas parties. To foster a sense of community within the gas industry, and conciliation between workers and management, the journal covered major publicity events, like the national gas exhibitions and reprinted the official minutes of the general stockholders' meetings. Although the GLCC was not overtly anti-union, the editors avoided any reference to trade union activity or employee discontent. Co-Partners' was a carefully monitored company publication which promoted the ideal of co-operation between workers and management. It seldom gave voice to workers' grievances of any kind, except perhaps in the case of the "Twelve Little Demons."

The comic poem signed "A Demon" satirized the daily routine of the lady demonstrators as they undertook their customer calls. Despite the demonstrators' constant efforts to construct a professional self-image, the cookery experts were presented as innocent "little maidens" with honeyed voices and sweet smiles "tripping along" on "dainty feet." In contrast to the social, corporate and even political imperatives of their work, the author poked fun at herself and her colleagues as "they trip from house to house" instructing housewives to perform unimaginable culinary feats from skinning whales and stuffing crows to grilling mice. Obviously, the poem was a joke.

Nevertheless, behind the satire lay a smoldering element of discontent which made its appearance in the company journal unusual. The "lady demon" referred to the long hours and the extremes of weather the canvassing women endured without apparent company recognition for either their efforts or their dedication. Perhaps the author felt the demonstrators might as well offer lessons in roasting rodents, for all the

governors knew of their work. She warned the company that the lady demonstrators would readily abandon their professional positions and join ranks with the housewives they advised. Hymen, god of marriage, becomes a deliverer capable of transforming the professional public-serving “Demons” to “Angels” sheltered in the private sphere. Only then would the company have realized its irreparable loss.

The poem revealed a sense of dissatisfaction with the patriarchal male-centred corporation. The author, however, neglected to mention that often newly-wed women merely exchanged one set of governors for another. Further, the domestic expertise of the young housewife may not have been any more appreciated by her new husband than her old employer. As the poem suggested, gender ideology defined both the workplace and the home. The lady demonstrators straddled the two, but not without apparent difficulty. The author’s contrasting images of the corporate “Demons” faint with heat, toil and the grime of the streets with that of the idealized “Angels” in gauzy bridal gowns suggested a longing for the latter and more conventional career choice, particularly during that sweltering summer of 1911.²

Although female demonstrators became permanent staff members around 1905, their professional responsibilities were open to question by gasmen and demonstrators alike. This chapter examines the development of a female corporate identity within the gas industry in light of contemporary social and political events related to the Edwardian “woman question.” These include the movement for women’s suffrage and the corresponding debates concerning women’s work and advanced education. At this same time, proposals for state intervention to improve public health, housing and child welfare further legitimized the work of the lady demonstrators and, simultaneously politicized the business imperatives of the gas companies. In addition, the expanding responsibilities of the gas company lady

² In August of 1911, England experienced an intense heat wave with recorded temperatures over 90 degrees F.

demonstrators coincided with the industry's development of national advertising campaigns directed at female consumers.

At the turn of the century, the gas industry embarked on a program of corporate modernization. Increased attention to advertising, and particularly advertising directed at women of different classes, was an important aspect of this process. Despite its alleged conservatism, an image upheld by business historians and scholars of industrial design, the Edwardian industry founded a sophisticated publicity organization that anticipated the importance of appealing both directly and indirectly to feminine purchasing power for consumer durables.³ The British Commercial Gas Association, an industry-wide publicity organization formed in 1911, targeted builders, architects and doctors, in the hope of convincing these professionals of the advantages of gas. Under the combined leadership of sales specialist Francis Goodenough and public health activist Mrs. Maud Adeline Cloudesley Brereton, both "Progressives," the BCGA adopted the mandate already assigned to the lady demonstrators: improved service and customer education. To this end, the BCGA propaganda addressed social issues of relevance to different classes which ranged from the servant crisis and domestic economy to child welfare and the problems of working-class housing. In a recent article on the failure of electrical appliances to make an impact on the interwar English home, Sue Bowden and Avner Offer note that in comparison to electricity, the gas industry made a "strong commitment to advertising" to women of all classes.⁴ This chapter argues

³ The conservative image of the gas industry is upheld by business historians and historians of design. Business historians of the gas industry suggest that its technical innovations were motivated by the belief that electricity threatened to undermine their industry. Stirling, *History of the GLCC*, 262-63, 277; Barty-King, *New Flame*, 138, 144-45. Design historian, Adrian Forty, focuses on the innovative nature of electrical designs, to the complete neglect of the gas industry's comparable accomplishments. Adrian Forty, *Objects of Desire: Design and Society since 1750* (London, 1995).

⁴ Sue Bowden and Avner Offer, "The Technological Revolution that Never Was: Gender, Class and the Diffusion of Household Appliances in Interwar England," in *The Sex of Things*, ed. deGrazia and Furlough, 267.

that this “strong commitment” originated with the BCGA, and was sustained, to large extent, by the work of Maud Adeline Cloudesley Brereton, although her extensive contributions have gone practically unnoticed by historians of women and business. An outspoken advocate for women’s rights to better working and living conditions, by her example she proved that women might also be highly successful in the masculine world of business. Further, the adoption of public causes to promote gas effectively politicized the lady demonstrators and their work.

“A Power in Any Community”: Women and Work

At a meeting in 1909 of the National Commercial Gas Association of America, Mrs. Helen Armstrong presented a paper on the work of lady demonstrators in the United States. So impressed was Walter King with Armstrong’s advice to lady experts and gas companies that he reprinted her entire article with his full endorsement.⁵ Armstrong’s comments echoed many of the statements articulated by her English counterparts in their 1905 letters. Like her British contemporaries, she emphasized the importance of cookery demonstrations in the company showrooms. She stressed the promotional value of supplying stoves and regular instruction on their use to local domestic science colleges, school boards and hospitals. She attested to the value of speaking engagements with women’s clubs and church groups.

Like Helen Edden and her staff, Armstrong appreciated the impact of the home visit since women inspectors “prove a strong practical advertisement for gas as fuel.” She cited the recent successful experiments with lady inspectors undertaken by gas companies in New York and St. Louis. According to Armstrong, the lady demonstrators provided several important functions. Their regular visits after the installation of a range ensured that the customer was satisfied with the stove and knew how to use it properly. By responding to any additional inquiries and calls, they secured

5 “Demonstration Work by Gas Companies,”JGL, 20 April 1909, 158.

new business via their prompt and personable assistance. Finally, they apprised the business manager of conditions in customers homes, thus acting as intermediaries between female consumers and male producers. As Edden and her "Demons" well-knew, it was a job that demanded training in domestic economy and public-speaking. It also required a large measure of patience and tact; and the ability to offer opinions without being officious or condescending.

Armstrong listed a number of appropriate physical characteristics. The ideal demonstrator was of "middle age" since she inspired confidence more quickly than a young girl. She should not be a local person since a stranger was less likely to inspire criticism or waste time with gossip. Most of all, Armstrong demanded that the lady expert be neat and tidy since "a young woman who is careless in her dress, or has untidy hair has no business in a kitchen."⁶ The chief disadvantage to this admirable list of qualities was that the lady experts might well soon marry company men, a situation our disgruntled "Demon" alluded to in her 1911 poem.

In fact, despite the poem's suggestion that disenchanted lady demons might retreat from the working world into the domestic sphere, it appears that married, widowed and single women alike engaged in this type of work. Among the eleven correspondents to the Journal of Gas Lighting debate, five women were single and six were either married or widowed. Some demonstrators, such as Mrs. Charles Marshall of Enfield and Mrs. Godfrey Sutcliffe of East Croydon, were wives of gas engineers, working for the same companies as their husbands. Their active participation in gas promotion reflected a pattern of family co-operation, initiated by women like Marie Sugg and Lillie Richmond, who both worked alongside their respective entrepreneurial male relatives. Moreover, it was possible that married or widowed women appeared as more reliable culinary experts, the assumption being that they were more experienced cooks or domestic managers than single women. Some of the most celebrated lecturers in the business were,

6 "Demonstration Work by the Gas Companies," JGL, 20 April 1909, 159.

or had been, married. For example, Mrs. E. Middletown, a “favourite with the cooking classes,” spoke twice daily for two solid weeks to packed audiences at the 1907 Manchester Gas Exhibition; her skilful presentations and excellent speaking voice allegedly drew the crowds like a magnet.⁷ Even after the establishment of permanent ladies advisory departments in the gas industry, married or widowed women continued to work alongside single women. Two of the eleven demonstrators pictured in a GLCC group portrait were either married or widowed. [Fig. 7] None resembled the “little maidens” described in the literary tribute, “Twelve Little Demons.” Judging from the praise lavished on popular demonstrators, like Mrs. Marshall, Mrs. Middletown and Miss Edden, competence, initiative and a good voice, were more relevant to their employers than the women's marital status.

Helen Armstrong suggested that given the “nerve-wearing” nature of this career, few women could perform this job for long. She recommended short hours and good pay, but gave no specifics. Despite the difficulties of the job, Armstrong maintained that the chief service of the lady expert was to “secure and maintain the goodwill of the housewife” on behalf of the gas company. In this respect, and working through local schools and women's organizations, the lady demonstrators had the potential to become “a power in any community.”

Helen Armstrong's comments, which asserted the power of women, coincided with contemporary debates concerning the woman question in general and female suffrage in particular. By the Edwardian years, the problem of “surplus women” was familiar to educationists, social commentators and philanthropists. In the closing decades of the nineteenth-century, Victorian authors lamented the growing numbers of single women, particularly among the educated classes. The imbalance was attributed to a male predilection to delay marriage until financial success which often meant forgoing wedlock entirely. Male emigration and colonial service also

⁷ “Manchester Gas Exhibition,” *JGL*, 29 October 1907, 347; *JGL*, 5 November 1907, 415; *JGL*, 12 November, 1908, 489.

accounted for the apparent growth of unwed ladies.⁸ Proposed solutions included emigration or respectable employment for “redundant” gentlewomen.⁹ While Meta Zimmeck notes that some recommended female employments, like dog-walking or table decoration, were little more than frivolous time-wasters, a growing body of literature on women’s professional and artisan work described valid options for those seeking a career.¹⁰

Among social commentators, however, there existed the growing fear that educated women intentionally chose spinsterhood over marriage and motherhood preferring personal freedom and a dangerous independence. The “New Woman” lampooned in the popular press could be seen riding her bicycle in rational dress, smoking in public or offering her unsolicited opinions at political meetings. She emerged as the undesirable and shocking stereotype of female emancipation.¹¹ While the “advanced” women or rebellious “Girton Girls” constituted a small minority, according to Judith Walkowitz, women’s fiction disseminated the image of the new female; for example, she appeared in the feminist works of Olive Schreiner and the more traditional pages of the Girl’s Own Paper. Even women who deprecated female emancipation, notably Mrs. Eliza Lynn Linton, positioned themselves in relation to the New Woman by asserting the importance of

8 Jane Lewis, Women in England 1870- 1950: Sexual Divisions and Social Change (Bloomington, Indiana), 1984, 75.

9 Elizabeth L. Banks, “New Paid Occupations for Women,” Cassell’s Family Magazine (1893-4), 586-87.

10 Meta Zimmeck, “Jobs for the Girls: The Expansion of Clerical Work for Women, 1850-1914,” in Unequal Opportunities: Women’s Employment in England 1800-1918, ed. Angela V. John (Oxford, 1986), 157. Guidebooks for women’s employment include Margaret Bateson, Professional Women Upon Their Professions (London, 1895); Phillips, Edwardes et al., A Dictionary of Employments Open to Women; M. K. Lyttleton, Women and Their Work (London, 1901); Women’s Industrial Council, Trades for London Girls and How to Enter Them (London, 1909); M. Mostyn Bird, Woman At Work (London, 1911).

11 Walkowitz, City of Dreadful Delight, 72. Also see George Romanes, “The Capacity of Women,” Nineteenth Century (May 1887), 654-67.

women's maternal role to the continued well-being of the nation.¹²

Fears of racial deterioration and imperial decline added a sense of political urgency to the debates over women's work, marriage and motherhood. Eugenicist Karl Pearson blamed the falling middle-class birthrate on the increased number of educated women who refused to have children. Sexologist Havelock Ellis accepted an "equal but different" interpretation of gender roles but maintained that women had essential nurturing qualities that fit them for motherhood in their "proper sphere."¹³ Women responded to this exaltation of motherhood in a variety of ways. The outspoken feminist writer, Cicely Hamilton, condemned the legal and social restrictions of marriage and demanded female equality in terms of work, education and political rights.¹⁴ Socialist feminist Ethel Snowden used maternalist arguments as ample justification for female enfranchisement.¹⁵ She argued that if women's maternal contribution was critical to the racial health of the nation, then surely they deserved representation. Other female suffragist groups adopted a similarly maternalist position. For example, the National Union of Women's Suffrage Society cited women's superior morality as reason enough for granting them the vote.¹⁶ Finally, female suffragists asserted that given the Liberal Government's (1906-14) increased concern for standards of

12 Walkowitz, City of Dreadful Delight, 72. Lewis, Women in England, 99. Eliza Lynn Linton condemned the independent New Woman and accused unwed middle-class women of shirking their 'racial duty' to the state.

13 Lewis, Women in England, 99.

14 Cicely Hamilton, Just to Be Married (London, 1909).

15 Ethel Snowden, The Feminist Movement (London, 1912).

16 Lisa Tickner, The Spectacle of Women. Imagery of the Suffrage Campaign 1907-1914 (Chicago, 1988), 216-219. Tickner notes that "motherhood" legitimized women's participation in a wide range of reform movements from rescue work to municipal politics.

public health, rates of infant mortality and the availability of decent housing, women deserved consultation in political matters that affected them so directly.

Within these ongoing social and political debates, the lady demonstrators undertook the public mission of the gas companies, that being to educate and instruct women customers in their homes. However, in Edwardian London, lady demonstrators of another sort occupied the streets. Both the NUWSS (1897) led by Millicent Fawcett, and Emmeline Pankhurst's militant Women's Social and Political Union (1903) staged elaborate political processions.¹⁷ The marches involved thousands of women from numerous professional groups including teachers, nurses, artists and writers, gardeners, home-makers and businesswomen.¹⁸ The appearance of Helen Armstrong's article, promoting the educational power of women demonstrators in their communities, coincided with the political assertions of the female suffragists. The rallies and processions highlighted the economic and social contributions of women workers--whether as professionals, manual workers or homemakers--as ample reason for their enfranchisement.¹⁹ Although the women's suffrage movement fragmented over tactical issues, polarizing constitutionalists and militants, the spectacular processions successfully focused public attention on the rights of working women and their demands for dignity and decent wages.²⁰

17 Norman McCord, British History, 1815-1906, 3rd ed. (Oxford, 1995), 453-454. The National Union for Women's Suffrage formed in 1869. The amalgamation of several suffrage groups, including the NUWS, created the NUWSS in 1897.

18 Tickner, Spectacle of Women, 80-86; 90-98.

19 Tickner, Spectacle of Women, 100.

20 Tickner, Spectacle of Women, 111-119, 122-131. Tickner describes suffrage processions on June 18 and 23, 1910, organized respectively by the militant WSPU and the constitutionalist NUWSS. The Women's Coronation Procession, June 17, 1911 was the largest demonstration with contingents from throughout the Empire, marching female workers and historical pageantry.

Unfortunately, it is not known whether any lady demons participated in the suffrage campaign, attended its processions or even supported the cause. The Association of Teachers of Domestic Science avoided an official stand on the franchise question, although its members were free to participate in rallies if they chose. Despite the suffragists' respect for the important but often unrecognized contributions of housewives, the question of teaching domestic subjects to school girls remained a contentious issue.²¹ However, not all suffragists saw a conflict between domestic instruction and female emancipation. Miss Baddeley, Principal of the Gloucester School of Domestic Science, considered domestic studies a "potent weapon" for combating social problems such as unsanitary housing and inadequate nutrition. Further, the application of rational scientific methods to home management was but one aspect of a wider reform movement which included female political emancipation.²²

As noted earlier, the lady demonstrators drew professional inspiration from three different occupational groups: social workers, domestic subjects teachers and shop assistants. Given the similarities in education, professional status and social responsibilities, the lady cookery experts identified most directly with the first two. Nonetheless, the demonstrators were essentially sales personnel, however much they or their employers chose to extend and redefine that role via customer visitations and public lectures. The lady demonstrators combined the duties of all three of the above female occupations and shared similar preoccupations with job status. Amid Edwardian debates over women's suffrage and women's work, all three occupational groups sought professional recognition in much the same manner as the lady demons.

21 St. John, "Educate or Domesticate?", 194-99.

22 Archives of King's College/University of London/KWA/GPF 11/Miss Baddeley, unpublished speech at the opening of the extension of the Gloucester School of Domestic Science, 7 October 1911, 4-6.

Women in the Public Sphere

Social Workers

Traditionally, charity work ranked among the genteel occupations open to respectable women until the late nineteenth-century, although it was usually undertaken by well-meaning volunteers. According to F.K. Prochaska, philanthropy was the most common vocation for the leisured lady who desired self-expression within the traditional sphere of female duty. Evangelical authors and activists, from Hannah More to Harriet Martineau to Josephine Butler, maintained that women were ideally suited to charitable works given their apparent natural benevolence, compassion, patience and self-sacrificing tact. The overlap between religion and charitable work further enhanced its suitability for feminine involvement as did the moralistic character of the causes themselves, notably temperance, female rescue work and parish visitations.²³

Historians studying female participation in Victorian charities note the movement to improved organization, specialized committee work and co-operation with local government.²⁴ During the latter half of the nineteenth century, the numbers of philanthropic groups increased in response to what Martha Vicinus calls the “social dislocation brought about by industrialization and urbanization.” Although women’s involvement in charity work stemmed from their traditional role of aiding the unfortunate, it was also related to the “increasing bureaucratization” of government and social services. Vicinus claims that by 1893, an estimated twenty thousand women in England maintained themselves as paid philanthropic workers while

²³ F.K. Prochaska, Women and Philanthropy in Nineteenth-Century England (Oxford, 1980), 5-13.

²⁴ Patricia Hollis, Ladies Elect: Women in English Local Government 1865-1914 (Oxford, 1987); Martha Vicinus, Independent Women: Work and Community for Single Women 1850-1920, (London, 1985), chap. 2 and 6; Walkowitz, City of Dreadful Delight, chap. 2.

around half a million worked on a semi-professional or voluntary basis.²⁵

The development of Octavia Hill's Charity Organization Society (COS) after 1869 exemplifies this movement from voluntarism to professional social work. Initially sponsored by a donation from John Ruskin in 1865, the COS provided model housing to both accommodate and reform the "deserving poor."²⁶ By 1870, it had become an umbrella organization for a number of charities, offering training in visitation methods and social investigation techniques, an early form of sociology. The COS encouraged its members to become poor law guardians and COS-trained women acted as rent collectors, sanitary inspectors and district visitors. It inculcated a businesslike attitude among its workers that Patricia Hollis describes as "tough, stringent and judgemental." Workers confidently separated the "deserving poor" from the mendicant and ascribed poverty to habitual thriftless waste, and not unemployment or ill health, a moralistic simplicity which ignored the hard realities of working-class life.²⁷ Still, historians credit the COS with professionalising charity work. For example, it introduced the case-system of formally interviewing clients, a data-gathering method enlisted by Charles Booth's researchers for his studies of London in the 1880s.²⁸

Like the COS, the university settlement movement offered charitable employment for middle-class women, and furthered the

25 Vicinus, Independent Women, 211-212.

26 Henrietta O. Barnett, "Women as Philanthropists," in The Woman Question in Europe, ed. Theodore Stanton (London, 1884), 114-115; for a discussion of Victorian classifications of "the poor," see Rachael Vorspan, "Vagrancy and the New Poor Law in late-Victorian and Edwardian England," English Historical Review (January, 1977), 65.

27 Hollis, Ladies Elect, 202-203. Hollis is understandably critical of the COS hard line, however some caseworkers, notably Beatrice Webb and Eleanor Rathbone, developed an understanding of the systemic nature of poverty, redirecting their attention to broader social and economic reforms.

28 Many of Booth's investigators were COS rent collectors and visitors including Beatrice Potter, Ella Pycroft and Clara Collett.

development of social work as a paid occupation. The settlement movement began in 1884 with Canon Samuel Barnett's establishment of Toynbee Hall in Whitechapel. Barnett intended to foster friendship between classes and bring culture to the illiterate masses via interaction with young university men from Oxford and Cambridge. The object was primarily cultural not charitable. In 1887, the first women's settlement, Lady Margaret Hall in Southwark, offered a similar opportunity for female students from Oxford's Lady Margaret College, using the COS as its inspiration. Aiding the London poor and exploring their unfamiliar world contained an element of adventure and freedom which appealed to genteel young women raised in the more restricted atmosphere of respectable society.²⁹ Female settlers became directly involved in their new communities in a variety of ways, by organizing clubs for working girls, holding classes on infant health and conducting home visits in the COS style.³⁰ The leaders of the women's settlement movement were determined to make philanthropy a paid profession by offering training courses connected to the COS School of Sociology, although they only graduated a dozen women per year.³¹ Whether volunteers or professionals, settlers increasingly saw themselves as experts on working-class life and poverty.

There are some important similarities between these early social workers and the lady demonstrators. Like the COS and settlement workers, the cookery advisors made routine calls to working class homes, keeping official records of these visits, thereby adopting the formal case-paper system. In addition, like the social workers, the lady demons enjoyed a great deal of independence and freedom of movement, the "hallmarks of

29 Ross, Love and Toil, 15-17; Vicinus, Independent Women, 221; Walkowitz, City of Dreadful Delight, 52-53.

30 Vicinus, Independent Women, 214-220.

31 Vicinus, Independent Women, 242.

the modern woman.”³² Both groups were visible public women in communities where they, in many cases, did not reside. The demonstrators’ preoccupation with personal appearance and genteel behaviour suggests their concern to act as role models in working-class communities and, by their appearance, ensure a certain degree of respect, much like the female municipal health inspectors. One demonstrator, Miss M.E. Betts, suggested that lady inspectors wear official uniforms or badges to literally clothe them with “real authority” and also make them easily identifiable to passers by and their customers.³³ It was well-known that uniformed district nurses passed unmolested in even the roughest neighbourhoods.³⁴ Possibly, Miss Betts sought similar protection for female gas representatives. Finally, like the professional social workers, the lady demonstrators saw themselves as specially trained experts surrounded by amateurs. Salaried full-time social workers felt superior to occasional volunteers and donors.³⁵ Similarly, the “gas cookery lecturers” considered themselves a highly select group distinguished from other “teachers of cookery” by their oratory and technical skills.³⁶ Outspoken lady demonstrators, notably Helen Edden and Mrs. Charles Marshall, feared that their professional image was being undermined by ineffective presenters whose cookery talks reflected “the

32 Walkowitz, City of Dreadful Delight, 68.

33 JGL, 31 January 1905, 282.

34 Walkowitz, City of Dreadful Delight, 58.

35 Morley, Women Workers, 234. Morley distinguished between professional women serving the public municipal authorities as health inspectors and the “health visitors” appointed by private charities. The latter usually have “no universally recognized standard of attainments” while the municipal inspectors had attended university and held government certificates. Female inspectors received £65-100 per annum. Also see Vicinus, Independent Women, 227. Full-time social workers often received no salary, and actually paid board of £30-35 per year. Department heads sometimes received a small stipend.

36 JGL, 31 January 1905, 283.

principle of the ‘bus driver’s holiday: an inarticulate jumble,” while other lectures deteriorated into a chaotic “scramble for cakes.”³⁷ Uniformity and strict standards of presentation, etiquette and appearance were fundamental to the lady demonstrators’ evolving professionalism.

Domestic Subjects Teachers

Obviously, despite the demonstrators’ attempts to distinguish themselves from the average cookery teachers, the two groups had a great deal in common in terms of class background, training, work objectives and the professional associations to which they belonged. Yet, compared with the thousands of cookery teachers, the lady demonstrators constituted an elite minority responsible to the governors of private corporations and not the ratepayers and councillors of local school boards. As a result, the demonstrators were better paid and had more professional autonomy than their colleagues in the public sector. Moreover, despite some gas directors’ reservations about hiring women permanently, the “demons” were not subject to the same constant academic challenges that the domestic subjects teachers encountered. Despite the complaints of feminist educators, domestic subjects were increasingly integrated into the curriculums of elementary and secondary schools after the 1902 Balfour Education Act. Against mounting criticism, domestic economy teachers defended both their professional status and the scientific merit of their discipline.

Education historians have analyzed the incorporation of domestic subjects for girls into school curriculums.³⁸ All of these works address the

37 Letters from Edden and Marshall, *JGL*, 31 January 1905, 283.

38 Attar, *Wasting Girls’ Time*, 99-104; Dyhouse, *Girls Growing Up in Late Victorian and Edwardian England* (London, 1981), 84-98; Turnbull, “Learning Her Womanly Work: The Elementary School Curriculum, 1870-1914,” in *Lessons for Life: the Schooling of Girls and Women, 1850-1950*, ed. Felicity Hunt (Oxford, 1987), 83-100; Felicity Hunt, “Divided Aims: the Educational Implications of Opposing Ideologies in Girls’ Secondary Schooling, 1850-1940” in *Lessons for Life*, 3-21; June Purvis, *A History of Women’s Education in England* (Milton Keynes, 1991), 26-29.

impact of the domestic science movement on educational policy and the creation of a gendered curriculum which stipulated that girls in state board schools received mandatory domestic subjects training. The extension of domestic training stemmed from concerns over racial degeneration and the notion that better-educated mothers might recoup the “physical and moral health of the people.”³⁹ Eugenacists and educators argued that girls, particularly working-class girls, required practical lessons that were applicable in the domestic sphere to better prepare them for motherhood.

How best to achieve the desired improvements in public health was open to debate. For example, in 1906, HM Chief Woman Inspector Maud Lawrence outlined proposals to standardize domestic subjects curriculums with the focus on simple inexpensive dishes and the elimination of technical information in favour of practical instruction.⁴⁰ However, shortly thereafter, the implementation of the school meals program, also in 1906, meant another re-direction of domestic instruction. The task of preparing and serving the mid-day meal often fell to the cookery teacher with class-time devoted to its preparation. Thus, school girls went from preparing bath buns sold for a half-penny to peeling endless vegetables for the daily soup pot. In neither instance did they learn to prepare affordable family meals. Moreover, astute social critics, such as the labour activist and feminist Charlotte Despard, noted that the LCC pawned the school meals program off onto the domestic subjects teachers to save money on food and facilities, with little consideration for the needs of either the children or the teachers.⁴¹

There was little consensus regarding domestic subjects for female

39 J.D. Buckmaster, “Cooking as a Branch of Domestic Education,” The Universal Food and Cookery Association Cookery Annual, ed. C. Hermann Senn (London, 1906), 52.

40 Dyhouse, Girls Growing Up, 95.

41 Charlotte Despard, “The Feeding of School Children,” The Times Educational Supplement, 7 April 1914, 66.

students in the upper grades or in private schools. Some head mistresses resisted the introduction of domestic subjects, not because girls had no need of domestic science, but since it took valuable time away from more important academic subjects. Critics like Ida Freund, a lecturer at Newnham College, Cambridge, feared that the vogue for domestic science would lower teaching standards in girls' schools. Against these objections, supporters like Margaret Gilliland, Lillian Faithfull and Sara Burstall stressed the scientific foundations of cookery, laundry and hygiene.⁴² Botany, physics and chemistry provided a solid foundation for the study of domestic subjects as applied sciences and Faithfull anticipated the day when the distinction "between the professional woman and woman whose education includes a study of home science will tend to disappear."⁴³ As a graduate of Somerville College and former Vice Principal of the women's department at King's College London, Faithfull realized the connection between education and professional legitimacy. She publicly defended that university's decision to confer degrees in Household and Social Science, despite the feminist rage vented in the pages of the radical feminist journal, The Freewoman.⁴⁴ Hilda D. Oakley, Warden of King's College for Women, stressed the scientific components of the King's program, the emphasis on ethics and economics, and the university's high academic standards.⁴⁵ As Nancy Blakestad's study reveals, King's offered more than just "degrees for housewives" and graduates found employment in a range of developing

42 Dyhouse, Girls Growing Up, 162-169; see also Margaret Gilliland, "Home Arts," (1911), in The Education Papers: Women's Quest for Equality in Britain 1850-1912, ed. Dale Spender (London, 1987), 316-324; Lillian Faithfull, "Home Science," (1911), Education Papers, ed. Spender, 325-327.

43 Faithfull, "Home Science," in Education Papers, 327.

44 Dyhouse, Girls Growing Up, 168.

45 Hilda D. Oakley, "The Teaching of Home Science and Economics," The Times Educational Supplement, 1 August 1911, 112.

fields, including social work and business, although initially teaching at the college level absorbed the greatest numbers.⁴⁶

Even before Edwardian educators debated the King's degree, cookery teachers defended themselves and their discipline against critics within the teaching profession. The prestige of the cookery teacher suffered for a number of reasons. Because they were not on the staff of any particular school, cookery teachers had no real authority and head mistresses often resented the disruption of sending girls to the local cookery centres.⁴⁷ Inspectors complained that cookery teachers had no control over their classes, were inadequately trained and mismanaged school funds. Domestic subjects teachers responded in the pages of their professional journal asserting the "dignity and greatness" of their work given its impact on national health.⁴⁸ How poorly the nation showed its sympathy for the overworked and underpaid cookery mistresses standing over hot stoves, simultaneously minding the saucepans, the ovens and the children! And all for a paltry wage of £60 per year! The Cookery Teacher condemned the notion that domestic subjects teachers were not committed to their professions and were more likely to marry after a few years than other teachers as mere justification for their continued low salaries. Despite the alleged importance of domestic training to national health, cookery teachers were constantly defending their professional credibility, to feminist

46 Nancy L. Blakestad, "What's the Use of Learning This?" *Careers of KCHSS Graduates 1910-1949*, Envoy: Queen Elizabeth Old Student's Paper (Autumn, 1992), 7-14. Blakestad notes that between 1910-1919, the majority of King's KCHSS graduates took jobs in teaching (45.7%). Social work absorbed only 8.7 as did jobs in industry and business. Blakestad comments on the low numbers of graduates in social work, an area the program founders had hoped to serve. Equally curious were the numbers of women who entered business and industry, a job market that had not been anticipated. Blakestad attributes this to "new opportunities in the gas and electrical industries as home service advisors, demonstrators and in product development."

47 Testimony of Mr. J. Lewis, West Green Board, North London, Interdepartmental Committee of Physical Deterioration, vol 1, 321.

48 The Cookery Teacher (May 1904), 34.

reformers and their fellow educators.

In contrast to the board cookery teachers, the lady demonstrators enjoyed higher wages and greater job satisfaction. Unlike the teacher in the classroom, the lady demon had more individual autonomy and was exposed to far less public criticism. Ironically, the demons greatest critics were domestic economy teachers who feared that the entertaining gas demonstrations trivialized cookery classes.⁴⁹ One board school cookery teacher suspected that students attending these “peripatetic lessons get ideas of pretty dishes and sweets, and become disgusted with class methods of drill in plain household cookery.” Although the editor defended the lady demons as potentially promoting the “science” of cooking, a degree of professional differentiation occurred within the domestic economy movement. As the lady demons adapted their domestic subjects training to the public platform and the private home, classroom cookery teachers worried that the image of the corporate domestic expert might somehow damage their own assertions of scientific professionalism. After all, the lady demons were saleswomen for the gas companies, and as the *Cookery Teacher* reminded its readers, even domestic service was a more “respectable occupation” than shop work.⁵⁰

Shop Assistants

As Lady Jeune noted in her 1895 article on shopping, the introduction of the female shop assistant must be attributed to late Victorian changes in retail distribution. The advent of the department store and the multiple shop meant fewer shop keepers and more assistants. It also meant that shopping became recreational, and even addictive.⁵¹ According to Lee Holcombe, female shop assistants soon dominated certain areas of retail

49 *The Cookery Teacher* (March 1904), 19.

50 *The Cookery Teacher* (June 1904), 60-61.

51 Lady Mary Jeune, “The Ethics of Shopping,” 120-121.

stores where the customers were generally women, including shops for drapery, millinery, hosiery, stationary, flowers, underwear, baked goods and dairy products. Despite the long hours, low pay and physical restrictions, shop work possessed the pretensions of middle-class respectability, especially for working-class girls with social aspirations. As Holcombe points out, however, the professional self-image of the shopgirl was seldom shared by the public. The middle and upper classes considered shop workers on the same level as domestics while the labouring classes mocked their pretensions to respectability.⁵² Peter Bailey maintains that, for men of all classes, the shopgirl and other women in the service sector occupied a "middle" ground of sexuality. Neither "prostitutes" nor "ladies," their questionable status offered an invitation to erotic fantasy and the male query that if they sold things, did they also sell themselves?⁵³ In contrast, Bill Lancaster notes the development of a "labour aristocracy" among retail salesgirls, particularly within the large and expensive department stores, such as the Bon Marche, Harrods and Whitley's. These establishments favoured grammar school graduates and offered special training courses to their girls, who then prided themselves on their manner and appearance both inside and outside the shop.⁵⁴

Perhaps given the ambiguities of the sales assistants' image, the lady demonstrators carefully distinguished themselves from this group of working women. Hence, their assertions of the importance of lady-like behaviour, education and class status. Similarly, the demons protested against canvassing door-to-door, a common sales technique usually

⁵² Holcombe, Victorian Ladies At Work, 106-7, chapter 5; Lancaster, Social History of the Department Store, chap. 8.

⁵³ Peter Bailey, "Parasexuality and Glamour: The Victorian Barmaid as Cultural Prototype," Gender and History 2 (Summer 1990), 1-2, 35,32 quoted in Walkowitz, City of Dreadful Delight, 46.

⁵⁴ Lancaster, The Department Store, 137-38.

undertaken by male sales representatives. Mrs. Charles Marshall dismissed the canvassing suggestion on the basis that “the visits would place the instructress in an equivocal position; no woman of education would undertake the mission.”⁵⁵ Marshall implies that any truly qualified lady demonstrator would never agree to put herself in a socially questionable situation even for her work.

Despite these assertions, however, the “lady demons” were technically saleswomen, representatives of the gas companies like the male outdoor canvassers. Although the women cultivated a professional self-image and closely identified with social workers and domestic subjects teachers, at times they were painfully reminded of their commercial status. A poem signed “M.M., another Demon” entitled “How to Grill A Demonstrator” provided another glimpse into the demonstrator’s routine. The author, probably Miss M. Menhinick, described the discomfort of working outdoors during the hot summer of 1911 when London recorded temperatures over ninety degrees. She related the tiresome wait on blistering doorsteps until someone answered her persistent knocks, the agony of trying to maintain a feminine composure despite heat exhaustion.⁵⁶ Waiting in the broiling sun for the mistress or her servants to open the door, the demonstrator was reminded that she was, despite her professional pretensions, a servant of the gas company and its customers. Like the shop assistant, her social position remained undefined. Evidently, given the realities of the workplace, it was difficult to maintain the image of the placid lady-like professional no matter how one tried.

55 JGL, 31 January 1905, 283.

56 “How to Grill a Demonstrator”, Co-Partners’ Magazine, (September 1911), 132. The poem was probably written by Miss M. Menhinick, the only demonstrator with those initials. The middle stanzas convey the discomfort of the job which those who have work long hours outdoors will understand. “Then place her on a doorstep, Neath the suns hot rays: Never mind her knocks and rings, She must stand that blaze. As the front door blisters, Let her do so too; The sun with scorching heat, Will grill her through and through. Degrees 90 in the shade, 1-2-0 in the sun: Oh! the Demonstrator’s lot, Is surely awful fun!”

As a professional group, the lady demonstrators reflect the social tensions of the pre-war years within the context of the suffrage movement, maternal feminism and Edwardian debates over women's work and education. However, their emerging profession was equally representative of changing commercial strategies within the gas industry itself, evident by the Edwardian years. These include an increased attention to salesmanship and advertising, and the growing diversification of promotional techniques. Women, as buyers and sellers, were an important aspect of this trend. Given the promotional material of the electricity industry, gasmen realized they had to market more than gas lighting, cookers and heaters. They had to construct and sell an image of domestic perfection; and they aimed this message at female consumers.

The Science of Selling

Francis W. Goodenough, chief inspector with the GLCC, was a firm believer in the advantages of mass advertising. An ambitious young man from Devon, Goodenough joined the GLCC in 1891, but rose quickly through the company's ranks. Beginning as a junior clerk, he moved up to assistant superintendent of the rental department, to chief inspector and finally chief controller of the newly-created sales department by 1910.⁵⁷ For this latter position, he received a generous annual salary of £1000, successfully transcending the dream of most aspiring Edwardian clerks.⁵⁸ Over the span of his forty-five year career with the gas industry, Goodenough was an active member of numerous business organizations

⁵⁷ "Twenty-Five Years' Service as Executive Chairman: Presentation to Sir Francis Goodenough", Journal of Gas Lighting, 14 October 1936, 121; Stirling, History of the GLCC, 288. Goodenough held the position of chief controller of gas sales until his retirement from the GLCC in 1931. He was knighted in 1930.

⁵⁸ LMA/B/GLCC 45/Minutes of the Board of Directors, 4 February, 1910, 171. Also thanks to Geoff Spurr, McMaster University, for his research on Edwardian clerks.

concerned with international trade, advertising and salesmanship. In addition, he was a member of the British Institute of Social Service, an group dedicated to “the dissemination of information relating to social service and industrial betterment, in order to improve and elevate national life.”⁵⁹

Through his connections to the BISS, Goodenough joined the Rainbow Circle (1894-1931), a descendent of the earlier London Ethical Society. The Circle was a debating and discussion group, for “Progressivism,” whose aim was the formulation of a “rational and comprehensive view of political and social progress” with the intention of developing a political and economic doctrine that might ultimately be the basis of a programme for action and social reform. The Circle attracted Liberals and moderate socialists, with a methodological and ideological focus that Freedden describes as “new liberal.”⁶⁰ Its membership included politicians, journalists, academics and civil servants, notably the Fabian essayist Graham Wallas, the journalist and liberal theorist J.A. Hobson, Herbert Burrows, co-founder of the Social Democratic Federation, and the nation’s first Labour Prime Minister, Ramsay MacDonald. Of the group’s total sixty-five members, only five were businessmen with direct connections to industry. Goodenough was an active participant in the group from the time that he joined in 1911, until its dissolution in 1931. On four occasions, he formally addressed the Circle; three of his four talks considered industrial and labour matters, such as trade unionism and copartnership, the labour problems during the First War, and the future of British industry after the war.⁶¹ Judging from the recorded transcripts of Goodenough’s talks, his political views were not entirely in accord with his fellow members. For example, following his paper on “Co-Partnership,”

59 Michael Freedden, ed., Minutes of the Rainbow Circle, 1894-1924 (London, 1989), 5-10; appendix II.

60 Freedden, Rainbow Circle, 1-7.

61 Freedden, Rainbow Circle, 226, 258, 282, 322, 354.

Goodenough was criticized for being “unduly severe” in his discussion of trade unions and the character of the working-man. Although the membership agreed that profit-sharing between labour and capital offered some possible solutions to the current labour difficulties, the success of a co-partnership plan depended on industrial stability and the employer’s ability to predict profits. Because of the “steadiness” of the gas industry, it was ideally suited to profit-sharing, however, two-thirds of all workmen went from “job to job” within a fluctuating and unpredictable labour market. Despite this reaction, Goodenough remained within the Circle, committed to the notion that industrial questions could not be settled via direct state intervention, but required greater co-operation between management and labour. From both a moral and a practical perspective, employers were responsible for the welfare and safety of their workers, as well as the development of strategies that enabled workers to share in the profits of industry.⁶²

Described by his colleagues as a “great salesman,” Goodenough represented a new generation of gas men whose expertise lay in the areas of marketing and management and not technical engineering.⁶³ Sales, not production or distribution, was Goodenough’s principal concern and he conducted business by the maxim: “it is no use manufacturing cheaply what you cannot sell.”⁶⁴ Although Goodenough recognized the promotional value of regular trade exhibitions and cookery demonstrations, he claimed that the circulation of effective printed literature and newspaper advertisements remained underdeveloped. One of Goodenough’s earlier attempts to address this oversight had been flatly rejected by the GLCC governors: they dismissed his request for £1,500 to print and mount posters for cooking

62 Freedon, Rainbow Circle, 226, 323.

63 Stirling, History of the GLCC, 284, 289, 308-10.

64 British Commercial Gas Association, First Annual Report & Report of the Proceedings of First Annual Conference, October 8-9, 1912 (Manchester, 1912), 33.

stoves on company hoardings.⁶⁵

Goodenough persisted in selling the idea of advertising to the gas industry. In 1907, before a meeting of the Institution of Gas Engineers, held in Dublin, Goodenough stressed the importance of developing gas sales via co-operative advertising. Scientific advertising offered a sure means of attracting business and educating the public; and as the official supervisor of the GLCC's lady demonstrators, Goodenough advocated publicity directed at female customers.⁶⁶ He wholeheartedly endorsed the work of the lady demonstrators, maintaining that sophisticated promotional material could enhance the educational service already performed by the company women in consumers' homes, in the showrooms and at regular trade exhibitions. In addition, comprehensive advertising could appeal more effectively to influential professional groups, including architects, teachers, sanitary inspectors and government officials whose conversion to gas might generate sales indirectly.⁶⁷ To this end, Goodenough proposed the creation of an industry-wide publicity organization jointly funded by subscriptions from participating gas and appliance companies. Such a venture would reduce promotional costs and ensure that even the smaller gas undertakings had access to "first-class advertising experts."⁶⁸

Despite Goodenough's enthusiasm, there was no immediate support for such an organization. As noted previously, appliance manufacturers and gas companies collaborated at trade shows and these temporary co-

65 LMA/B/GLCC 44/Minutes of Board of Directors, 16 March 1906, 43.

66 Stirling, History of the GLCC, 288, 295. As Controller of Gas Sales, Goodenough was responsible for all gas inspectors, canvassers, showroom attendants and lady demonstrators.

67 "Remarks of Francis Goodenough", BCGA First Annual Report and Conference Proceedings (Manchester 1912), 24.

68 W.W. Mason, "Co-Operative Advertising of a Public Utility," Gas Journal, 23 July 1924, 391.

operative ventures may have fostered Goodenough's plan for a permanent publicity group.⁶⁹ However, despite these occasional joint efforts, individual companies commissioned their own visual propaganda, usually in the form of trade cards and pamphlets, which they distributed to customers in company showrooms and at public exhibitions.⁷⁰ At the time of Goodenough's Dublin speech, the majority of gas manufacturers did not advertise beyond a few local campaigns or industry trade journals.

Eventually, it was the misleading advertisements of the Electricity Publicity Committee,⁷¹ under the direction of H.B. Fenwick, that stimulated the gas industry to collective action. Not surprisingly, the electricity advertisements contained damaging statements about its competitor, emphasizing the "poisonous compounds" of "destructive gases." Electricians warned housewives that "unless electric light is used in the house, the good effects of spring cleaning will be lost in a few months" with the reappearance of the "usual disheartening dinginess." While Walter King retorted that inverted incandescent lamps left no dirt, smoke or discolouration, he urged "lethargic" and "shortsighted" gas managers to retaliate against the competition's propaganda by supporting a gas publicity committee based on Goodenough's earlier proposals.⁷² Soon after King's 1911 article, a group of gas managers founded the British Commercial Gas Association with GLCC directors Corbett Woodall and Francis Goodenough as president and

69 JGL, 4 October 1904, 19.

70 Bodleian Library/John Johnson Collection/Gas and Gas Appliances, Box 1 & 2, Example of gas advertisements in this collection: John Wright Co. "Wright's Gas Stoves," May 1901; GLCC, "Modern Gas Lighting and Heating," 1910; GLCC "A Talk on Hot Water Comfort," 1910.

71 This organization appears to have been short-lived and historians of the electrical industry described the 1919 British Electrical Development Association as the first publicity group. Hannah, Electricity Before Nationalisation, 77; R. A. Hennessey, The Electric Revolution (Newcastle upon Tyne, 1971), 134.

72 JGL, 21 February, 1911, 511-512.

executive chairman respectively.⁷³

Gas, Electricity and Images of Modernity

Beyond the desire to curry customer favour, the propaganda efforts of the electrical industry fostered the need for a more aggressive advertising strategy. Although the domestic use of electricity was not widespread during the Edwardian years, it had revolutionized urban transportation and communications, and was increasingly used in public buildings and theatres.⁷⁴ By the end of the First War, electric lighting was still confined to the rich and only six percent of all British homes had electrical wiring.⁷⁵ Yet, despite the low demand for expensive, inefficient electrical appliances, their manufacturers promised that the “magic influence” of “trained lightening” offered consumers a “future of mechanized ease.”⁷⁶ Part of the modern image of electricity derived from Continental and American accomplishments, particularly the lighting spectacles of the Paris Exhibitions in 1889 and 1900.⁷⁷ By the turn of the century, the electrical industry emerged as the driving force of the second industrial revolution and the epitome of technological modernity even though its domestic applications

73 BCGA, First Annual Report and Conference Proceedings, 19, 33.

74 Hannah, Electricity Before Nationalisation, 14-22; Paul Thompson, The Edwardians: The Remaking of British Society (London: 1975), 294.

75 Hannah, Electricity before Nationalisation, 187.

76 Bodleian Library/John Johnson Collection, Box 1. H. J. Dowsing ed. Crystal Palace Electrical Exhibition Catalogue (London, 1892), section F.

77 Williams, Dream Worlds, 84-90.

remained insignificant.⁷⁸

One cannot dispute Hannah's point that in terms of actual domestic sales, electricity was a struggling industry until the interwar period. Nevertheless, the impact of the early electrical industry cannot be measured simply in terms of sales. The electrification of urban transportation offered but a glimmer of what was yet to come, and even though electricity serviced a tiny minority of British homes, the dream of total electrification inspired the public's imagination.⁷⁹ Master chef Herman Senn, a founding member of the Universal Food and Cookery Association, enthused over the electrical stoves, kettles and grills presented at his Association's 1893 exhibition. Senn, an instructor at Kensington's National School of Domestic Subjects, informed his readers that "electricity promises a revolution in our kitchen arrangements, an absence of dirt, and danger from fire and explosion."⁸⁰ The undeniably negative aspects of gas, the toxicity and the soot, were highlighted by Senn's unrestrained enthusiasm for electricity.

The advantages of electricity extended beyond the actual comparison of relevant merits. Electricity promised a utopian future where humanity commanded the forces of nature. Articles and advertisements alluded to the mystery of "captured lightning" harnessed to the service of modern man and woman. An 1895 article in Black and White marvelled at Margaret Fairclough's demonstrations of electrical appliances in her Gloucester Road Cookery School. Possibly the first electrically fitted kitchen, Miss Fairclough's novel "school with trained lightning" was supplied by R.

78 C.F. Brackett and F.L. Pope ed. Electricity in Daily Life (London, 1891). This collection of essays described the existing and anticipated applications of electricity to industry, transportation and the home.

79 Illustrated London News, 17 May 1884, 472-473; Dowsing ed. Crystal Palace Electrical Exhibition Catalogue, section F.

80 Herman Senn, "Cooking by Electricity" in The Cookery Annual and Exhibition Souvenir. Universal Food and Cookery Association (London, 1894), 123.

Crompton & Co., the exhibitors at the Food and Cookery Association.⁸¹ An endorsement for electrical kettles assured ladies of the safety of placing their new appliance on the table. On the surface, it appeared an ordinary kettle “while the water within boiled by electricity, the only visible sign of any unusual connection with the kettle being a delicate line of silken cord, through which the magic influence is conveyed to water.” Described as both “the most beautiful” and the “most mysterious of all the forces of Nature,” electricity had the power to transform the material world.⁸² It promised a “cultural revolution”⁸³ made possible by technology and the social democratization of mass consumption. Such was the popular image of the electrical industry at the turn of the century, and although electricity failed to light many homes and streets, it fuelled the public imagination.

If enthusiastic Edwardians hailed electricity as the light of the future, what was the popular perception of the gas industry? Was it viewed as the public servant of the people, as George Livesey confidently stated, or as a monopolistic business whose interests were protected by government legislation as critics asserted? An analytical chemist writing in Chamber's Journal credited the electrical industry with “rousing into activity the dominant gas companies” and for this alone, the new competitors “deserve a large amount of public gratitude.” The author asserted that the “threatening position” of the electric light prompted the gas companies to lower prices, improve the illuminating power of gas and find new applications for it, particularly in the areas of heating and cooking.⁸⁴

Like many contemporary articles already cited, Chamber's chemist

81 Quoted in Davidson, Woman's Work, 37.

82 Bodleian Library/John Johnson Collection/Box 1, Electricity: The Light of Today (London, 1893), preface.

83 Williams, Dream Worlds, 84.

84 “Two Recent Improvements in Lighting,” Chamber's Journal, 11 June 1887, 374.

overstated the immediate threat of electricity on the gas industry. An 1877 handbook for gas users confirms that gas engineers were constantly developing gas technology, while the expansion of new domestic applications for gas pre-dated the electric light. The serious rival for the heating and cooking market was actually coal.⁸⁵ Moreover, price reductions did not result from the “threat” of electricity. Price cuts stemmed from technological improvements to gas burners, the reduction of gas waste from leaky mains and the decline of capital costs, given the steadily declining price of coal after the fluctuations of the early 1870s.⁸⁶ Competition between rival gas companies also affected prices. Although “districting” and amalgamation curtailed this to some extent London consumers, represented by the Gas Consumer’s Protection League, protested the price discrepancies between the GLCC and the SMet. Although technically government legislation determined the maximum price which could be charged to consumers, the terms were sufficiently flexible to ensure that the gas companies maintained a substantial profit margin and between 1891-95, the SMet and GLCC paid average annual dividends of 12.7 percent.⁸⁷ Mounting consumer and local government agitation concerning the GLCC’s higher prices led one gas director to defend his industry against accusations of waste and price inflation. To withstand the constant and ill-founded criticisms, he contended the gas-man must “have a very broad back” because “he is fairer game than

85 William Richards, The Gas Consumer’s Handy Book (London, 1877), 1, 16-17.

86 Matthews, “Laissez-faire and the London Gas Industry in the Nineteenth-Century: Another Look,” 256-260. Nowhere in Matthews’s detailed analysis of gas pricing does he mention electrical competition as a factor. Price changes depended on coal prices, capital expenditures, such as the price of iron, and the reduction of waste because of improved gas mains.

87 Matthews, “Laissez-faire and the London Gas Industry,” 257.

almost any other.”⁸⁸

Consumer protests finally resulted in an 1899 House of Commons enquiry under Sir James Rankin. As a witness before the commission, SMet chairman George Livesey accused the GLCC of “over-capitalization, inadequate engineering skill and incompetent coal buying.” Livesey proposed that his company take over the GLCC interests south of the Thames, even though, as Stirling notes, the GLCC customers in those districts were charged the same price as SMet users in hopes of deflecting customer discontent.⁸⁹ While none of the committee recommendations were implemented, the Rankin enquiry damaged the GLCC’s public image and strained relations between London’s two largest gas companies.

The Rankin report coincided with a series of GLCC retirements and the appointment of managers dedicated to restructuring the company. With the death of Col. William Makins in 1906, Corbett Woodall, the chief engineer at the Imperial Gas Co., assumed the company directorship. After receiving heavy criticism from the Rankin Committee, general manager, John William Field, retired to a seat on the board of governors. His successor, David Milne-Watson, was another example of the new management class. A young barrister from Edinburgh, he joined the GLCC in 1897 as Field’s assistant, assuming the general managership in 1903. With the death of GLCC director Corbett Woodall in 1916, Milne-Watson assumed the position of Managing Director. He was appointed GLCC Director in 1919 and knighted in 1927.⁹⁰ Like Goodenough, his expertise lay in the fields of

⁸⁸ “Gas Works Management and Consumer’s Interests” Chamber’s Journal, 19 February 1898, 190.

⁸⁹ Stirling, History of the GLCC, 284-5. In 1898, the GLCC north of the Thames charged 3 shillings per thousand cubic feet of gas; the SMet charged 2sh. 3d. for the same measure and when the gap widened, the government undertook an investigation. Stirling admits that Livesey’s charges were accurate and the GLCC suffered despite its “admirable organization on paper” from “inexpert execution,...uninspired technical advice and a pedestrian engineering policy.”

⁹⁰ Stirling, History of the GLCC, 289, 293.

management, and not engineering. The new leadership favoured increased departmentalization and specialist officers at company headquarters took control of designated operations. Goodenough's promotion to chief inspector of the new Sales Department reflects this management trend.⁹¹

One aspect of this modernization plan was the improvement of customer service to restore public confidence, particularly after the negative publicity of the Rankin enquiry. Although gas sales and cooker rentals appeared unaffected by the controversy, Goodenough remained convinced that the gas industry could not take its customers for granted. Improved service to the consumer meant the development of a highly trained sales staff, which included lady demonstrators. But, equally it relied on "judicious" advertising whose benefits could not be underestimated in terms of generating sales, fostering public goodwill and assuming the offensive against any misinformation disseminated by the electric industry.⁹² Like Goodenough, company chairman Corbett Woodall realized the strategic importance of advertising. Against those critics who saw "publicity work as beneath the dignity of the gas profession," he countered that advertising was no longer simply "a blatant business principally associated with quack medicines." Advertising was an "honourable and scientific profession based on truth and honesty," "an integral part of every progressive business." To prove itself truly "progressive," the gas industry needed a publicity organization.⁹³

In Britain, publicity was critical to the electrical industry because it had a well-established and less expensive rival, but one whose faults were

91 Stirling, History of the GLCC, 295-6, chapter 19.

92 Bodleian Library/John Johnson Collection, Box 2. Institution of Gas Engineers, Gas Versus Electricity-Which is the Better Light? (London, 1902). A comparative assessment that warns consumers "You will be told that electricity is the cheaper light-- NOT TRUE." Their consulting chemist, Vivian B. Lewes, Royal Naval College, Greenwich, was also a spokesman for the Smoke Abatement Society.

93 BCGA, Annual Report and Proceedings of First Conference, 19-20, 33.

evident to most consumers. If it was true that the “second industrial revolution” was powered not by electricity and oil as some late-nineteenth-century writers asserted, but by advertising and credit,⁹⁴ then the electrical industry still retains prominence within the retailing revolution of the 1890s. By the same token, the gas industry was an equally important force given its developing marketing strategies which included advertising at trade exhibitions, permanent displays at company showrooms, the use of female demonstrators and pre-payment schemes to serve customers of varying economic backgrounds. All of the above techniques were widely practiced by “progressive” late Victorian businessmen and place the gas industry at the fore of the retail revolution.

Progressive Advertising and the “Ultimate Consumer”

Woodall’s assertion that the advertising business was “honourable and scientific” reflected the exact sentiments of modern admen themselves. Edwardian businessmen increasingly agreed that advertising was a sure means of securing business and educating the public.⁹⁵ Although the medium was still exploited by confidence men and the purveyors of questionable products and pornography, by the turn of the century the developing advertising industry faced increasing regulation both from public authorities and the industry itself.⁹⁶ The 1907 Advertisements Regulation Act empowered local councils to enact bye-laws to control excessive bill posting, while the industry’s Advertisers Protection Society expressed concern over the publication of fraudulent or misleading advertisements in newspapers. This latter concern arose not from the desire to protect

⁹⁴ Judith Coffin, The Politics of Women’s Work: The Paris Garment Trades 1750-1915 (Princeton, 1996), 95.

⁹⁵ Clarence Moran, The Business of Advertising (London, 1905), chap. 1.

⁹⁶ T.R. Nevett, Advertising in Britain (London, 1982), chapter 6.

consumers but to safeguard the interests of its members who believed that cheap “catch-penny announcements” undermined the credibility of all advertising material. While the publishers responded that they could not possibly verify every commercial claim, the philosophy of a paper was easily measured by the quality and character of its advertisements. The Times exemplified a superior moral standard in 1909, declaring that the:

best modern advertising has the publication of facts for its basis. The day of successful claptrap and vulgarity, still more the day of exaggerated and deceptive misrepresentation, is quickly passing away. So far from these being fostered by advertising agents, the whole tendency of the best and most successful agents is to repress them. Even apparently trivial inaccuracies are on principle, excluded from advertising.⁹⁷

Such was the ideal of socially responsible advertisers. But beyond simply telling the truth about a product, some advertisers assigned themselves a higher objective. In the words of psychologist and business author Walter Dill Scott, advertisers were no longer “bamboozelers,” like P.T. Barnum, simply out to make a profit by whatever fraudulent means.

The advertiser in the past may have been the exploiter of the public, but the new generation of advertisers are becoming more and more the protectors of society. In the past they may have in all too many instances misled the unwary, but the successful advertisers of to-day are becoming the trusted guides of the ultimate consumer.⁹⁸

Scott emphasized the importance of winning the confidence of the public, not only through advertising, but also by good reliable service, the most valuable asset a businessmen possessed. No longer the Victorian charlatan or master of puffery, the modern advertiser was a scientific expert with a moral duty to inform and educate consumers, many of whom were women.

Astute Edwardian advertisers recognized that shopping, for both

97 Quoted in Nevett, Advertising in Britain, 125.

98 Walter Scott Dill, The Theory of Advertising: A Simple Exposition of the Principles of Psychology in Their Relation to Successful Advertising (Boston, 1905), 395, 407-08.

necessities and luxury goods, was a feminine activity. As Clarence Moran stated, advertising “must appeal to women” because “it is their peculiar function to spend.”⁹⁹ Even the cleverest advertisements were unsuccessful if they failed to attract Mrs. Consumer. To win her attention and her business, advertisements should be “wholesome, simple and attractive.” Like Walter Dill Scott, Moran assumed that responsible advertisers were educators and advisors able to counsel consumers. Because women were perceived as the principal buyers of household goods, but were also more vulnerable than men to false and exploitive advertising, Edwardian businessmen stressed the need to ensure that female consumers made rational choices. Although shopping extended female power beyond the private domestic sphere, male businessmen and advertising agents attempted to control and direct that power, to safeguard the interests of female consumers charged with spending Mr. Breadwinner’s wages.

Francis Goodenough could not have put it better; from its inception, the BCGA embodied these practically heroic business ideals. Theoretically, the BCGA was dedicated to meet the needs of all consumers of every class with the goal of improving the welfare and health of the nation by raising the quality of domestic life. This humanitarian goal “so directly bound up with personal and public health and preventive medicine” elevated the status of the BCGA beyond mere commercial purposes.¹⁰⁰ Even when addressing the competition, the BCGA retained a lofty idealism. Despite the provocative assertions of the Electricity Publicity Committee, the BCGA claimed that their intent was not to damage electric interests. They were “rivals” but not “foes” and Woodall urged the electricians to abandon “cheap journalism” and “to respect British traditions and compete like sportsmen.” Evidently implying that the competition resorted to slander, he exhorted

99 Moran, Business of Advertising, 15-16.

100 Mrs. M.A. Cloudesley Brereton, “The Study of the Problems of Domestic Economy as a Factor in Salesmanship,” Papers Delivered to the Second Annual General Meeting and Conference of the BCGA (October 1913), 108.

them to use honesty, integrity and good taste in their advertising material. Besides, not all electricians were direct competitors since some BCGA members were municipal corporations with combined gas and electric services.¹⁰¹

The British Commercial Gas Association

In early 1912, the BCGA began active service from its offices in central London. The association executive hired a small staff of journalists and illustrators under the direction of general manager William M. Mason.¹⁰² They also hired journalist Maud Adeline Cloudesley Brereton as writer and editor-in-chief of the association's two monthly magazines. The first of these publications, The Bulletin, was an industry paper conceived for a readership of gas employees-- fitters, workmen, salesmen and clerks-- who probably did not read the more technical gas journals. The second paper, A Thousand and One Uses for Gas, addressed a more commercial market with the intent of developing domestic sales. While each issue targeted a specific audience, like architects, builders and health officials, they all carried a similar message: gas as a public service could improve the well-being of the nation, whether in schools, factories, hospitals or homes. In addition to the monthlies, the BCGA produced their own advertisements which they placed in a variety of magazines from Queen, Home Chat, Country Life and Punch to the Journal of British Architects, Building World, The Lancet and Baby.¹⁰³

101 "The British Commercial Gas Association," JGL, 12 November 1912, 492; H. James Yates, "Aims and Claims of the BCGA," First Annual Report and Conference Proceedings of BCGA, 135. Yates, a Birmingham gas engineer, offered that municipal concerns held the balance between gas and electricity. The rival industries needed "to recognize the legitimate sphere of each and their respective advantages," meaning that the "legitimate sphere" of electricity was transportation and communications, while gas maintained its lead in the areas of lighting and fuel.

102 "Cooperative Advertising of a Public Utility," GJ, 23 July 1923, 391.

103 BCGA, First Annual Report and Conference Proceedings, 40.

In total, they advertised in thirty-two journals and six London dailies, from The Times to the Daily Mail. This ensured that their message received the widest possible circulation among consumers of different class and economic backgrounds. The organization was funded by subscriptions from members, usually manufacturers and gas corporations. In 1912, these included two-hundred fifty gas companies and the major appliance makers-- Richmond, Sugg, Davis, Main and Parkinson--indicating that the publicity group was genuinely an industry-wide collaborative effort. Contribution rates were based on the annual revenues of member companies and thereby ranged from several guineas to thousands of pounds.¹⁰⁴ As Goodenough anticipated, by sharing expenses and staff, "the volume of advertising could be increased to the advantage of the industry as a whole."¹⁰⁵

The BCGA was indicative of the movement to greater departmentalization evident in the management re-structuring of the GLCC. From the beginning and up until nationalization in 1948, the driving forces within the BCGA were executives of the GLCC, from Woodall and Goodenough to Milne-Watson. Goodenough held the chairmanship of the executive committee until 1936 and as a "pioneer" in advertising and marketing, he was credited with the success of the venture. In terms of the advertising profession as it existed in 1912, the BCGA was a distinctively modern organization. Although the London Post Office Directories listed 339 advertisement agents and contractors in 1906, according to Nevett's study, the vast majority of these firms were brokers of advertising space who worked for a publisher's commission in addition to their business fee. In contrast to the space brokerage agent, advertising consultants wrote and

104 "Cooperative Advertising of a Public Utility", GJ, 23 July 1924, 391. W.M. Mason doesn't give the exact percentage but indicated that the largest subscriber, presumably the GLCC paid over £6,000 in annual dues. GLCC, Minutes of the Board of Directors, 10 January 1913, 139. This subscription method was used to raise money for other joint ventures. In 1913, the GLCC pledged £2,708 to the National Gas Exhibition based on a rate of one guinea per 10 million cubic feet of gas sold in the previous sales year.

105 GJ, 4 October 1936, 111.

designed advertisements and might either work independently or be contracted by an agency. Unlike the brokers, consultants did not accept commissions from the media but represented the business interests of their clients.¹⁰⁶

By asserting control over the production and distribution of the industry's advertising and arranging contracts directly with publishers, the BCGA avoided any commercial dealings with intermediary agencies or consultants. In this respect, they were able to strive for and maintain the high degree of professional integrity so important to Woodall and Goodenough. But, on the practical level, it made good business sense because it was cheaper and more efficient. Although the gas industry organized the BCGA in response to a similar action by the electrical interests, the formation of an advertising agency that was controlled, funded and dedicated to one industry must still be considered ambitious, particularly considering the size of the gas industry and the general conservatism of gasmen. Similarly progressive was the decision to appoint a female public health specialist as head of their editorial staff.

The "Woman's Point of View"

An outspoken advocate of public health, modern housing and "the science of housekeeping," Maud Adeline Cloudesley Brereton combined social activism with business. After twenty years training in public health and authorship, she chose to represent the gas industry since they addressed issues of health and sanitation from a practical perspective.¹⁰⁷ Although, it is unclear how Mrs. Cloudesley Brereton became interested in health matters, we do know that she began her career as a teacher. Born in

¹⁰⁶ Nevett, Advertising in Britain, 108.

¹⁰⁷ Mrs. M.A. Cloudesley Brereton, Response to H. James Yates, First Annual Report & Conference Proceedings of BCGA, 149-151.

London and educated at Hockerill College, Bishop's Stortford, Maud Adeline Ford held several prestigious teaching posts within a few years. In 1893, she served as headmistress of St. Andrew's Girls Secondary School, Willesden; the following year, she became headmistress of the Baroness Burdett Coutts School, St. Anne's, South Highgate. In 1895, she was Principal and later Bursar of Homerton Training College, Cambridge. She apparently gave up teaching with her first marriage in 1897, to Homerton's principal, John Charles Horobin.¹⁰⁸

Maud Adeline's interest in public health increased after her marriage to educationist Cloudesley Brereton in 1904. A graduate of St. John's College, Cambridge and the University of Paris, Brereton was an occasional lecturer at the London School of Economics and worked as an inspector with the London County Council. He lectured in America, Germany and France, wrote special reports for the Board of Education, conducted government studies on secondary schools and published translations of the works of the French philosopher, Henri Bergson. Significantly, Cloudesley Brereton was a member of the Rainbow Circle from 1906 until 1931 and his contributions focused on topics related to educational reform.¹⁰⁹ It is possible that Goodenough was introduced to Mrs. Brereton through her husband's connection to this intellectual association.

Due to Cloudesley Brereton's influence, Maud Adeline was one of only two women ever to address the Rainbow Circle. This accomplishment appears all the more remarkable since, according to Jose Harris, this debating society of "London's progressive intelligentsia never included a single woman among its members, and often listened to lectures that emphasized women's moral and physical incapacity for civic affairs."¹¹⁰ Maud

¹⁰⁸ Maud Adeline had two sons with Horobin and was widowed in 1902.

¹⁰⁹ Freedon, Rainbow Circle, 15, 184-85; 270-71; appendix II.

¹¹⁰ Harris, Private Lives, Public Spirit, 31.

Adeline's chosen topic, "Motherhood, the Home and Medical Inspection in Schools," dealt with the health of elementary school children. To develop a better awareness of health issues in the home, she urged greater co-operation between school medical inspectors and parents, beginning with public clinics for infants and preschool children.¹¹¹ It is probable that Maud Adeline shared her second husband's conviction that education and health were the foundations of national well-being. In 1907 she was honoured by the French government "for services to International Public Health."¹¹² By 1912, Mrs. M.A. Cloudesley Brereton belonged to several health organizations including the Institute of Hygiene. She also edited The Mother's Magazine, a journal dedicated to infant and child care, and women's health and welfare issues.¹¹³

Although married twice and the mother of three sons, domestic life apparently did not impinge on Maud Adeline's career if one might judge from her long list of achievements throughout her life with Cloudesley Brereton.¹¹⁴ Similarly, her positive description of modern companionate marriage with its emphasis on the importance of intellectual compatibility between husband and wife suggests a degree of personal autonomy that few

111 Freedon, Rainbow Circle, 11, 204.

112 "Mrs. M.A. Cloudesley Brereton," The Woman Engineer (September-October 3,12), 1932, 180.

113 Advertisement for M.A.C. Brereton's *The Mothers' Magazine*, in The Common Cause, 17 March 1916, 650. My thanks to Myra Baillie for this last reference.

114 Cloudesley Brereton died in 1937; Maud Adeline died in 1946. Brereton, The Woman Engineer, 180. After her appointment to the BCGA, she later joined the Institute of Journalists, was Vice-President of the Society of Women Journalists, and was a consultant with the Ministry of Food and Agriculture during WW1. In 1926, she was elected to the Royal Sanitary Institute and that year became the first woman Honourary Fellow of the Institution of Sanitary Engineers. From 1923-24, she chaired of the Association for Education in industry and Commerce. After her retirement in 1932 from the BCGA, she remained a consultant for that organization.

married middle-class women enjoyed.¹¹⁵ So firm was her conviction in the positive value of such “true partnerships” that Maud Adeline Cloudesley Brereton believed the settlement of the “many outstanding women’s questions” depended on the arbitration of married couples who possessed a “full and comprehensive view of the two-sided problem.” The resolution of gender-related issues should not be left to “those who boast that in celibacy is their strength” no matter how “invaluable and indeed essential their assistance.”¹¹⁶ For Mrs. Cloudesley Brereton, debates over women’s work, education and motherhood extended beyond the immediate controversies, but concerned the “prospects and interests of the future generation.” Sympathetic to the social applications of eugenics as a means of improving maternal and infant health, Mrs. Cloudesley Brereton shared the views of numerous middle-class reformers of various political backgrounds.¹¹⁷

Clearly, Maud Adeline Cloudesley Brereton advanced the objectives of the Edwardian domestic subjects movement by emphasizing the relationship between scientific housewifery, public and racial health and female emancipation. Like other women professionals in the domestic subjects movement, including cookery teachers and lady demonstrators, Mrs. Cloudesley Brereton occupied the paradoxical position of reinforcing “women’s home-centredness” while expanding their own personal horizons outside the household. In Annmarie Turnbull’s words, they increased their own autonomy “without fundamentally challenging male power within the accepted sexual division of labour.”¹¹⁸ Nevertheless, as Turnbull rightly

115 Mrs. M. A. Cloudesley Brereton, The Mother’s Companion (London, 1909), chapter one.

116 Brereton, Mother’s Companion, 12.

117 Michael Freeden, “Eugenics and Progressive Thought: A Study in Ideological Affinity,” Historical Journal 22, 3 (1979), 645-671.

118 Turnbull, “An Isolated Missionary,” 82.

concedes, by advancing the needs of women in the home, domestic subjects instructors aimed to help women conquer “their own sphere” and within this context their contributions to the pre-war women’s movement cannot be readily dismissed. By turning to the gas industry to relieve women “from the treadmill scouring and scrubbing and scrubbing and scouring, day in and day out, from year end to year end,” Maud Adeline forcefully asserted the “women’s point of view” and thereby enlisted the BCGA to help to free women from the domestic sphere.¹¹⁹

The “Silent Servant” and the “Working Man’s Friend”

Despite the contradictions between profit margins and social welfare, the image of modern capitalism serving the needs of the ordinary man and woman was impossible for gasmen to resist. The National Gas Exhibition in 1913 at Shepherd’s Bush, London, celebrated this idea with elaborate displays, entertainment, lectures and conferences intended to illustrate to the public the advantages of this wondrous albeit underrated service.¹²⁰ This exhibition marked the centenary of the gas industry in Britain and was advertised extensively throughout the country. Mrs. Brereton, a member of the organizing committee, hosted hundreds of reporters at an exhibition preview. The Times commented favourably on the collective exhibition, and praised the industry’s tenacity and adaptability against electrical competition with the result that the gas industry retained “a far larger share of private and public lighting than at one time appeared possible.”¹²¹ This

119 M.A.C. Cloudesley Brereton, “The Study of the Problems of Domestic Economy as a Factor in Salesmanship,” Second Annual General Meeting & Conference BCGA. Papers and Discussions, 112.

120 “The National Gas Exhibition,” Co-Partners’ Magazine, (October 1913), 161; JGL, 7 October 1913, 19-32.

121 The Times, Engineering Supplement, 1 October 1913, 21.

despite earlier predictions of the industry's rapid decline following Edison's fabulous displays in the Crystal Palace of 1882.¹²²

But the National Exhibition of 1913 was more than mere grandstanding. The accompanying lectures and conferences reveal a genuine commitment to public health and domestic economy. Lecturers at a conference on food and cookery included Herman Senn of the Universal Food and Cookery Association and Dr. Joseph Priestley, medical officer of health for the borough of Lambeth. Prominent Labour Party member Dr. Marion Phillips was a conference vice-president.¹²³ Speaking on "Cookery in its Relation to Health," Dr. Priestley reinforced his advice on nutrition by the preparation of an enormous four-course meal cooked in two hours at the cost of a penny for gas.¹²⁴ On the same platform, domestic economy teacher Mildred Atkinson, of Battersea Polytechnic, upheld the value of domestic instruction to working-class children as a means of improving national health. Margaret McKillop of Somerville College, in a paper entitled "The Penny-in-the-Slot Meter: the Working Man's Friend," illustrated how to achieve the greatest cooking value for a penny. She recommended the economy of the double-boiler pot and urged the companies to sell pots and pans at cost price to customers to ensure that all classes of gas consumers had access to proper kitchenware.¹²⁵

Whether the gas cooker was in reality the "working man's friend" remained questionable. According to the Fabian social investigator, Maud

122 For example, Chamber's Journal predicted the rapid demise of gas lighting in the 1880s, see Chamber's Journal, 29 October 1881, 696; 11 June 1887, 374.

123 BCGA, Gas in the Home, Office and Factory: Hints on Health, Comfort and Economy: A Series of Popular Lectures at the National Gas Congress and Exhibition (London, 1913), ii.

124 "Food and Health: The Value of Proper Cooking," The Times, 6 October 1913, 3.

125 "Conference on Food and Cookery," JGL, 7 October 1913, 33.

Pember Reeves, the slot-system often resulted in undercooked food since a penny of gas gave insufficient time to cook a proper meal.¹²⁶ When the gas meter expired half-way through one family's dinner, the Lambeth customer in a "flash of genius" saved the meal from being underdone by extracting a penny from the baby's umbilical dressing. A district visitor had bandaged the coin in place to put pressure on the infant's abdomen.¹²⁷

Recommendations for scotch oatmeal and double-boilers appear equally misguided in light of Reeves's descriptions of working-class budgets and ill-equipped sculleries. Nevertheless, the list of conference participants which included scientists, industrialists, teachers, architects and doctors suggests a professional concern for the health of all classes that extended beyond conventional advertising. And even Reeves admitted that an inefficient gas cooker was still better than a broken-down coal grate.

However, the most obvious beneficiaries of improved gas technology were middle-class urban dwellers. Advertising for the 1913 exhibition targeted this group. Bearing the caption, "The House Comfortable," a full page advertisement in the Daily Express depicted gentlemen enjoying a game of billiards, a little girl at her piano lesson, a young woman in a dressing gown brushing her hair before a gas fire and a cheerful uniformed servant greeting her mistress.¹²⁸ [Fig. 8] Each scene suggested comfort and convenience while the notice promised that "half the work of the house is saved where there are no grates to clean, no coals to carry, no fires to lay, and where fire irons and scuttles do not exist." Middle-class customers worried over the domestic servant shortage might consider the advantages of gas technology. The elimination of servant problems was a recurring

126 Pember Reeves, Round About a Pound a Week, 59. Reeves stated that gas cooking "ought to be an excellent way of cooking, but under the penny-in-the slot system, it is a way which tends to underdone food."

127 Pember Reeves, Round About a Pound a Week, 52.

128 The Daily Express, 1 September 1913, 1.

theme in gas advertising. A 1913 advertisement depicts a middle-class housewife and the family cook preparing a meal together over the same gas stove. Both maid and mistress appear relaxed in their work, suggesting a harmonious relationship between employer and employee, all due to the prudent decision to install a gas cooker.¹²⁹ [Fig. 9]

The theme of gas technology as the solution to domestic difficulties was repeated in another illustration from Brereton and Edden's book. [Fig. 10] An aproned young housewife, with sleeves rolled up in the midst of her baking, appears interrupted by the arrival of unexpected guests. However, thanks to her gas cooker, extra meal preparations could be taken in stride. Domestic technology was particularly helpful to those servantless housewives, who still had to keep up appearances, especially when entertaining. As a passage from Arnold Bennett's novel, Buried Alive, suggests, women used the gas stove to replace daily domestic help. "With the charwoman, a pair of gloves for coarser work, and the gas stove, you made naught of domestic labour."¹³⁰ In a popular lecture delivered at the 1913 gas exhibition, entitled "The Silent Servant," Miss Constance Williams assured her listeners that gas would eliminate the need for domestic help altogether. With apparent seriousness she asserted: "I am quite convinced that a gas cooker in the house is quite as important to the ordinary housewife as a good, kind husband."¹³¹ Ironically, Miss Williams had no grounds for comparison, but her point was well taken.

But was the gas stove the answer to women's domestic problems as Miss Williams so confidently stated? Probably not. A gas cooker would not

129 Mrs. M.A. Cloudesley Brereton and Miss Helen Edden, Cooking by G.A.S. (London, 1913), 8. The caption reads: "A Gas Cooker reduces the work of the house, keeps the cook satisfied, and increases the excellence of the cooking."

130 Arnold Bennett, Buried Alive, pub. 1912, (London, 1949), 78-79.

131 Miss Constance Williams, "The Silent Servant: How the use of Gas can Minimize Life's Little Worries," Popular Lectures at the National Gas Congress, 72.

prevent a restless servant from departing or keep home the husband who liked to drink. In some respects, the gas stove introduced new domestic problems. As noted earlier, the meter's money box tempted customers to rob the companies. While most meter thieves were male, women resorted to this crime if the family was destitute, as in the case of a young Stratford woman who stole one shilling, eight pence from the gas meter because her husband was out of work for two months.¹³² If the meter presented a temptation to distressed customers, the gas stove itself offered a permanent release from domestic problems as it came to be used as an instrument of suicide. According to Olive Anderson, suicides by gas poisoning were unusual in the 1880s and 1890s, however, in 1909 the Registrar General reported 130 cases. Women used this method more than men, possibly because it was "painless, accessible and reassuringly familiar."¹³³ On the same day that the London dailies reported the opening of the Shepherd's Bush Gas Exhibition, they also described in detail the suicide of a thirty-year-old woman, the wife of a Fulham clerk, who was found with her head in the gas cooker.¹³⁴

The Home and the Nation

Despite such negative publicity, Maud Adeline Brereton's remarks to the BCGA membership revealed her faith in the emancipatory potential of domestic technology. She called upon the gas industry to hasten "the social and economic emancipation of women" by providing efficient and labour-saving appliances. Through technology, gas men had the power to

132 "Temptation of the Slot Meter," The Times, 24 March 1913, 24.

133 Olive Anderson, Suicide in Victorian and Edwardian England (Oxford, 1987), 367, fn. 95.

134 "A Wife's Last Words," The Daily Telegraph, 1 October 1913, 5; "Woman Smoker's Suicide," Daily Express, 1 October 1913, 3.

“revolutionize our home life.” Speaking before the predominantly male audience, Maud Adeline cautiously avoided a suffrage stance and denied the intention of “dragging in any question of votes or no votes for women.” Yet, she forcefully decried the “certain type of man [who] talks the utter rubbish about women staying home and minding her business or her babies.” Instead, she argued that women’s emancipation depended on their release from wasteful domestic labour that their time might be directed to more generous and useful purposes, such as paid employment or voluntary service. In this manner, the modern woman might use her “broader and deeper education” to extend her sphere of influence beyond her own private domain, and effect the “Home-life” of the community in general that others “may profit by her knowledge and experience.”¹³⁵ She insisted that the gas industry consider the needs of its female customers of all classes. According to Brereton, working women living in unserviced homes experienced the greatest material deprivations. For example, she asserted that the sanitary standards imposed on working women by school inspectors were entirely unrealistic in the absence of hot water.

Although Maud Adeline skirted the suffrage question, her broad definition of the “Home” and defense of women’s social contributions echoed the maternal feminist arguments of the female suffragists.¹³⁶ Similarly, in her demands that women be released from “repetitive and soul-killing drudgery” via labour-saving technology and efficient home management, Brereton returned to a theme already outlined in her 1909 book, The Mother’s Companion, and reflected the current pre-war debates over

135 M.A.C. Brereton, “A Study in the Problems of Domestic Economy,” 112.

136 In October 1913, the suffrage question was extremely controversial because of a fresh outbreak of suffragette militancy. That month the WSPU burned down the country house belonging to the brother of Home Secretary McKenna. WSPU militant Annie Kenney was fasting in prison and Mrs. Pankhurst was on a speaking tour in America to raise money for the cause.

domestic organization.¹³⁷

The servant shortage of the early century led middle-class women to explore methods of simplifying housework as they undertook more of the actual work themselves. Plans for co-operative housekeeping with modern flats serviced by communal kitchens appeared in Fabian tracts, the radical feminist press and even the pages of the popular press, including T.P.'s Weekly.¹³⁸ The letters in TP's Weekly explored practical alternatives to housekeeping difficulties and servant hassles which included proposals for flats with communal dining rooms and housekeeping staffs. Socialists and feminists were critical of housekeeping from a more ideological perspective. In a 1903 critique of the home and domestic ideology, American feminist Charlotte Perkins Gilman noted that while technology eliminated the distinction between male and female spheres, sentiment still dictated that women should remain exclusively in the home. Although gas technology in the form of "the gilded pipes of the steam heater and the flickering evanescence of the gas range" released women from the physical necessity of tending the hearth, social convention still restricted women to the home. As Gilman put it: "the matchbox has freed the housewife from that incessant service, but the feeling that women should stay at home is with us yet."¹³⁹ Similarly, Maud Brereton's remarks to the gas association were a protest against traditional definitions of women's sphere and, while she asked gas managers to lead the domestic revolution, she also defended her own right to leave the hearth untended.

137 Carol Dyhouse, Feminism and the Family in England 1880-1939 (Oxford, 1989), chap. 3.

138 Dyhouse, Feminism and the Family, 111-123 for a discussion of the Fabian Women and the proposals in the Freewoman. For the popular interest in co-operative housekeeping, see letters to T.P.'s Weekly, 26 December 1902, 210; 2 January 1903, 247; 9 January 1903, 278; 16 January 1903, 314; 30 January 1903, 342; 6 February, 1903, 406-7; 13 February 1903, 438; 20 February 1903, 474; 6 March 1903, 438.

139 Charlotte Perkins Gilman, The Home. Its Work and Influence (New York, 1910), 22, quoted in Dyhouse, Feminism and the Family, 114.

To attain the type of domestic transformation which she envisioned, Mrs. Brereton advanced recommendations for improving customer service and sales. Too often the gas managers underestimated the power of the salesman and left this important job to inexperienced, albeit charming young men. Effective gas salesmen should be educated technical experts, equally able to advise the "woman doctor" or the poor housewife. She suggested the appointment of well-paid regional sales consultants who understood the economic and social side of the gas campaign and might co-operate with existing sales staff, including the lady demonstrators. She asked gas managers to become more involved in public health organizations and to subscribe to various periodicals for their sales staff in an effort to familiarize them with current debates concerning domestic economy from the perspective of school teachers, school committees, women and homemakers.¹⁴⁰

Her comments elicited a generally favourable acceptance. However, although the respondents appreciated the sentiment of her suggestions, they hesitated that expert salesmen and reading rooms were costly experiments. Nevertheless, the managers agreed that salesmen were inadequately trained and often quite unfamiliar with their customers' needs. On the "woman question," the gasmen were mildly sympathetic but dismissed her anticipation of gender equality as beyond present day expectations, and even utopian. W. Armitage, an alderman from Doncaster, quipped that some of the suggestions he "read with fear and trembling," and he wondered how Mr. Brereton felt about his wife's apparent aversion to domestic labour.¹⁴¹ Against these comments, Maud Adeline replied that utopian though her vision of the modern society might be, "unless we do

¹⁴⁰ Brereton, "Problems of Domestic Economy," 117-127.

¹⁴¹ Brereton, "Problems of Domestic Economy," 128-139. Respondents to Mrs. Brereton included David Milne-Watson, GLCC; Douglas Helps, Reading; Alderman F.S. Phillips of Salford; R.W. Edwards of Aldershot and Alderman W. Armitage, Doncaster, 128-139; see 135 for Armitage's remarks.

long for something that is much beyond our grasp, we cannot get anything.”

Further, she reminded her colleagues:

... the domestic problem does not begin and end with the individual home, but is at the bottom as home life is at the bottom of all life: and that you who have in your keeping, as doctors and other professional men, such enormous responsibilities and enormous power for good or evil over the lives of the people whom you serve, should look to the broader aspects of the work you have undertaken.¹⁴²

Maud Adeline Brereton's remarks to the association membership considered the social and moral responsibility the gas companies owed to their customers, and women in particular. It was an invitation to co-operate with housing authorities and local governments to ensure that workman's homes were properly fitted with basic gas appliances like stoves and water boilers. It was a cogent reminder of the need to assure middle-class consumers that, despite the promises of electricity, gas was their “silent servant,” the answer to domestic labour problems and the means of freeing women from useless toil. Brereton concluded that comfortably heated, cleaner homes and better food equalled a healthier population, and hence a stronger nation.

In some respects, Maud Adeline's message was both familiar and problematic. While her emphasis on women's needs as consumers was unique, her references to the regenerative potential of gas technology was not. Cooker sales had been given a political imperative by the 1904 Interdepartmental Report on Physical Deterioration which cited nutrition as the critical factor in determining the size and general health of urban dwellers. Gas men supported the teaching of domestic subjects in board schools by supplying free classroom cookers for girls' instruction and for the preparation of school meals for destitute pupils.¹⁴³ But the paradox

¹⁴² Brereton, “Problems of Domestic Economy,” 135.

¹⁴³ LMA/B/GLCC 44, Minutes of the Board of Directors, 6 November, 1908, 448. Isidore Salmon of the London Country Council asked the GLCC for the “free loan of gas apparatus” to prepare school meals for underfed children; the company agreed to “gladly

remained, that even the most socially conscious businessmen were essentially capitalists and not philanthropists. While training schoolgirls to use gas stoves could be seen as an investment in future sales, the return on other forms of customer service, from advertising to lady demonstrators, was more difficult to measure. R. W. Edwards of Aldershot cautioned that even benevolent capitalists must consider their responsibility to pay shareholders the expected dividends and customer service was an expensive practice.¹⁴⁴

A Thousand and One Ways to Domestic Bliss

Despite ongoing debates on the merits of propaganda,¹⁴⁵ the campaigns of the BCGA and the influence of Maud Adeline Brereton underscore the gas industry's commitment to advertising and customer education. Mrs. Brereton continuously promoted the interests of women as consumers in the home and the workplace. Speaking to architects, housing authorities and sanitary engineers, she defended women's rights to efficient, well-ventilated homes in the same manner that factory employees had the right to safe work premises.¹⁴⁶ She contended that labour-saving fixtures, like gas fireplaces, stoves and water heaters, eliminated physically demanding jobs for all classes of women, such as carrying water for baths, fetching coal and cleaning coal grates, tasks that were often relegated to

co-operate with the LCC."

144 Brereton, "Problems of Domestic Economy," 132.

145 W. M. Mason, "Notes on Salesmanship and Advertising," *JGL*, 14 October 1913, 150-151.

146 "Domestic Lighting, Heating and Cooking--Problems considered from the Women's Point of View," *JGL*, 7 April 1914, 40-43. Before a meeting of the Institute of Sanitary Engineers, Brereton advanced plans for remodelling five house plans, each one representative of different economic levels, with the objective of eliminating the unhealthy, damp basement kitchen.

young female domestics.¹⁴⁷

Similarly, Brereton recognized the benefits of gas technology on the working lives of women teachers, nurses and factory workers.¹⁴⁸ Reporting on the numerous applications for gas technology, Maud Adeline Brereton argued that the achievement of domestic bliss depended not on women's relegation to the private sphere, but on mechanized efficiency in both the home and the workplace. The example of gas-operated laundries illustrates Brereton's point. She contended that the arduous task of doing the weekly wash, "which makes most homes no home," should be assigned to efficient commercial laundries. The time and energy saved by sending the washing out might be directed to less physically-demanding remunerative work, like dressmaking, which in turn could offset the laundry charges.¹⁴⁹ Maud Adeline insisted that laundries, predominantly staffed by women, install gas-operated steam washers, mechanized mangles, rollers, and gas-irons to lighten the work performed by female employees. Like the Fabian author Clementina Black, an outspoken critic of female sweated labour, Brereton supported legislation to limit the hours of laundry workers and dictate improvements for commercial facilities.¹⁵⁰ In addition, Brereton praised the efforts of the government inspectors responsible for enforcing the new

147 Brereton and Edden, Cooking by Gas, preface.

148 A Thousand and One Uses for Gas, July, 1913; 3-4; "Laundries and Their Equipment," ATAOUFG (December, 1913), 3-7; "Domestic Hot Water from the Cottage to the Mansion," AHAOUFG (September, 1915), 3-14.

149 Brereton, Mother's Companion, 95-96.

150 Clementina Black, Sweated Industry and the Minimum Wage (London, 1907), 31-32. Black reports on the long hours in commercial laundries and quotes a factory inspector, Miss Vines. Vines prosecuted an employer for keeping women for 28 consecutive hours, with a 2.5 hour rest on the floor during the night; another firm employed an ironer for 37 consecutive hours, a "calendar worker" put in 32 straight hours including meal times and short breaks. In 1905, the Laundry Act extended the terms of the factory acts to cover commercial laundries because they used mechanized equipment, however, inspectors had difficulty enforcing the specified 12 hour day.

standards of ventilation, hygiene and temperature for laundry workrooms.¹⁵¹ Photographs of commercial premises show women operating the internally heated collar-shaping machines at the Birkbeck Hygienic Laundry. The laundering facilities of the restaurant-chain Pond & Spiers presents endless rows of ironing tables and gas irons.¹⁵² According to Mrs. Brereton, gas technology had the potential to eliminate the drudgery associated with laundry work, whether it was done at home or on commercial premises. In either case, the benefits to women workers were significant. Nevertheless, despite the occupational improvements made possible by legislation and technology, and the increased demand for skilled female operatives to run specialized ironing equipment, Edwardian investigators still considered laundry work a difficult trade "suited to strong girls only."¹⁵³

Still, Brereton's conviction that technology could improve the lives of working women reflected her commitment to women workers and public health. Like contemporary groups of feminist activists, including the Women's Industrial Council and the Women's Labour League, Brereton defended the need for improved working-class housing, for clean and well-lit work premises and for sanitary rest areas for employees. In common with these organizations, she advanced the importance of motherhood, infant

151 M.A.C. Brereton, "Laundries and Their Equipment," ATAOUFG (December 1913), 3-4.

152 "Laundries and Their Equipment," ATHOUFG, 5- 6.

153 Trades for London Girls and How to Enter Them (London, 1909), 105-107. Wages in commercial laundries ranged from 2-3sh. per day for operating the washing machines or "preparing" articles for ironing. Skilled shirt and collar machinists and "fine ironers" earned between 18-25 sh. per week, a good wage compared to factory jobs or sweated home work. Domestic subjects colleges and the new "polytechnicals" offered certified training in laundry work but on site apprenticeships for girls in training were still common.

health and nutrition.¹⁵⁴ Similarly, Maud Adeline Brereton contested the perceived differences between separate male and female spheres, and used maternal feminist arguments to defend women's participation in public life. But most importantly, Maud Adeline Brereton sought these objectives, not through government lobby groups or political activism, but by working from within the male-centred corporate world.

Conclusion

The establishment of the BCGA illustrates the gas industry's dedication to increasing sales and improving customer service. Despite the conservative image of the gas industry, the creation of an industry-wide publicity organization was a modern business strategy. The growing numbers of lady demonstrators and their continued participation in gas exhibitions and cookery lectures illustrates their importance to a public relations strategy. While the lady demonstrators remained central to customer service and education, the advertising material produced by the new publicity organization was a powerful tool to assist the women in their work. As domestic science professionals, the lady demonstrators embodied characteristics of several related occupations. Yet, working in the business world, they were neither social workers nor teachers, but glorified, albeit highly-trained, shop assistants. In a conscious effort to create a distinct professional image, the demonstrators identified with women teachers and social workers based on their shared training and concern for public health.

Maud Adeline Brereton became an important ally in advancing the professional mandate of the lady demons. She urged gas managers to consult on a regular basis with the demonstrators, who maintained close contacts with customers in the showrooms and in their homes. Similarly,

¹⁵⁴ Ellen Mappen, Helping Women at Work: The Women's Industrial Council 1889-1914 (London, 1985), 23-24; Christine Colette, For Labour and For Women: The Women's Labour League, 1906-1918 (Manchester, 1989), 110-128.

Maud Adeline articulated the needs of female consumers in both the private and the public sphere, not only to gasmen, but to architects, builders and employers. A dedicated public health activist and maternal feminist, she firmly believed in the liberating effects of modern technology for women of all classes. While her concern for infant and maternal health, public sanitation and housing was shared by other groups of Edwardian female investigators, Brereton stands out because she chose to work from within the predominantly male business world.

Chapter 4 : War and Reconstruction

Introduction

It will come as a surprise to the housewife and a triumph to the cook to learn that it is more patriotic to boil the kettle on the gas stove than on the kitchen fire; more patriotic to sit in a room with an unromantic gas fire than in one heated with glowing coal; and that every shovelful of coal means the loss up the chimney of valuable gases that ought to be used in killing Germans.¹

The British Government's declaration of war against Germany in August 1914 eventually drew the nation into the largest continental military conflict it had ever experienced, exceeding even the Napoleonic wars. At the outset however, British politicians were optimistic that the fighting would be over in a few months. Businessmen, like H.E. Morgan of W.H. Smith booksellers, supported this view; his wartime maxim, "business as usual," implied that the war would soon be won. Politicians and businessmen alike adopted Smith's slogan in agreement that government interference in the economy was unnecessary. Winston Churchill used this phrase in defence of non-intervention; he remained convinced that the profits of normal enterprise were required to win the war.²

By October 1914, the anticipated three to four months encounter had evolved into a stalemate between opposing trenches on the Western front from the Swiss border to the English Channel. Trench warfare was costly in terms of troops, and Lord Kitchener called for an army of six hundred thousand men. Understaffed and ill-equipped, the War Office struggled with the practical and administrative problems of outfitting and supplying the thousands of new recruits. Amid reports of profiteering and unfilled army contracts, the political leadership realized that, despite the revered principles of laissez-faire liberalism, the current situation

1 "Keep the Gas Fires Burning!" Co-Partners' Magazine, February 1916, 30.

2 Arthur Marwick, The Deluge: British Society and The First World War (New York, 1965), 39; Samuel J. Hurwitz, State Intervention in Great Britain 2nd ed. (London, 1968), 63.

necessitated some form of government intervention to organize industry, thus ensuring the availability of military provisions and equipment, including munitions.³ The mobilization of labour and industry intensified with the creation of the Ministry of Munitions in late May 1915, by the Asquith Coalition Government. Moreover, the implementation of conscription, under the Military Service Acts passed in January and May of 1916, served as further proof of the growing subordination of private interests to the national cause.⁴

Despite the initial "business as usual" maxim and the government's early reluctance to intervene in private enterprise, the gas industry experienced state controls from the very beginning of the conflict. Chemical by-products of coal gas production, particularly toluene and benzol, were essential raw materials for the manufacture of high explosives, notably TNT (tri-nitrotoluol). Although parliamentary regulations, in place since the late 1860s, already set gas prices and dividend rates payable to stockholders, immediately after the declaration of war with Germany, the Asquith government imposed wider restrictions on the industry. Orders-in-Council sanctioned chemical exports and requisitioned stocks of essential chemicals; later sets of regulations affected gas prices, production operations, and labour relations at the gas works. These regulations, primarily designed to maintain the required chemical supplies for munitions manufacture, also meant that domestic consumers purchased lower quality gas at higher prices, produced with the assistance of female replacement workers.

Not surprisingly, war depressed the manufacture and sale of gas appliances, like cookers and water heaters, because the use of metal was restricted to military purposes. In light of this diminution of domestic sales, the gas industry advertising agency, the British Commercial Gas Association, called a truce with the electrical industry, concentrating instead on war-time

3 E.M..H. Lloyd, Experiments in State Control (Oxford, 1924), 19-22.

4 Marwick, The Deluge, 56-62; 76-85.

propaganda. More than ever, they claimed that gas offered middle-class housewives a solution to chronic servant shortages, exacerbated by the growing war-time demand for female workers to replace enlisted men. Equally, gas was a comfort to the thousands of women in the workforce, who had less time for domestic chores. After 1916, anticipating the need for post-war housing, the BCGA promoted their services to builders, architects and municipal councils on the premise that gas was a necessity in “homes fit for heroes.” The underlying message was clear: the gas industry was assisting the war effort at several levels by providing primary materials for arms manufacture, feeding workers and soldiers at canteens, and supporting housewives on the domestic front. In addition, the industry looked forward to peacetime prosperity, fully prepared to work in co-operation with public housing authorities and private builders to resolve the housing shortage.

Historians have noted that, by early 1915, the drain in manpower from the factories to the battlefields, coupled with the need for manpower in munitions manufacture, gradually created an unprecedented demand for women workers in many fields.⁵ Demanding assurances that it was a temporary measure, trade union representatives agreed to support the government’s “Charter for Labour” by relaxing trade practices. The terms of the Treasury Agreement (March 1915) and the Munitions of War Act (July 1915) enabled munitions manufacturers and industrialists to maintain production in essential war work by substituting unskilled male and female workers for skilled men.⁶ Given its connection to arms production via chemical manufacture, the gas industry was entitled to meet its labour

⁵ Gail Braybon, Women Workers in the First World War (London, 1981); Angela Woollocott, On Her Their Lives Depend (Berkeley, 1994); Arthur Marwick, Women at War 1914-18 (London, 1977); Martin Pugh, Women and the Women’s Movement in Britain 1914-1959 (London, 1992), chap. 2; Deborah Thom, “Women and Work in Wartime Britain,” in The Upheaval of War: Family, Work and Welfare, 1914-1918, ed. Richard Wall and Jay Winter (Cambridge, 1988), 299-325.

⁶ Chris Wrigley, David Lloyd George and the British Labour Movement (New York, 1976), 98-99; 102-109; 113-114.

requirements under the terms of the above agreements. As of 1915, the lady demonstrators were no longer the only female gas employees, however, women's wartime participation in this area remains largely undocumented.⁷

This chapter examines three related themes. First, it considers the experiences of female replacement workers at the gas works, and their contributions to the war effort. As industrial workers, the female "gassies" inadvertently challenged previous definitions of male and female work. Although few women remained at the works after 1918, their success as fitters and inspectors called into question the notion that home service advisors were somehow less mechanically inclined than male inspectors. While the war generated industrial opportunities for women, it also presented new challenges for the demonstrators, the second theme of this chapter. As they co-operated with local food committees and government officials on the "domestic front," the demonstrators further legitimized their professional status within the gas industry, ensuring their public role as spokeswomen for their customers. Finally, this chapter explores the gas industry's participation in the reconstruction debates over post-war housing construction. Maud Adeline Brereton continued her previous campaign for well-serviced, rationally-designed houses, in conjunction with the British Commercial Gas Association's newly-appointed housing consultant, H.H. Creasey. Both Brereton and Creasey articulated the industry's position in terms of class and gender, championing the cause of working-class women who demanded affordable homes fitted with modern conveniences. Serving the needs of female consumers became more than a matter of good business policy, as customer service was politicized by housing legislation and competition with state-funded electrical plants. This struggle over the domestic market, acted out in the post-war reconstruction debates, set the

⁷ Existing studies of women and the First War tend to focus on female munition workers and women's experiences in the military and nursing. See Gail Braybon, "Women and the War," in The First World War in British History, ed. Stephen Constantine, Maurice W. Kirby and Mary B. Rose (London, 1995); Braybon, Women Workers and the First World War; Woollacott, On Her Their Lives Depend; Marwick, Women at War.

stage for the interwar rivalry between gas and electricity. Women, as buyers and sellers of domestic technology, were at the very centre of this commercial contest. However, before considering the above questions, it is necessary to give an account, albeit brief, of the general impact of the war and subsequent government policy, on the gas industry.

An Industry At War

With the coming of war, the gas industry became the focus of government attention and one of its partners in arms production. It was hardly "business as usual." Chemical by-products extracted in the making of coal gas were crucial to munitions manufacturing, particularly toluene used in the manufacture of TNT, the new explosive adopted by the British Army just before the outbreak of the war. Although the processes of chemical recovery from coal gas had been first developed in Britain, for several reasons the chemical industry was not well-established for commercial purposes. The curriculum of Britain's elite public schools and universities, notably Oxford and Cambridge, traditionally favoured classical education over the natural sciences, therefore failing to train and graduate sufficient numbers of qualified chemists and engineers. Moreover, state policies, including restrictive patent laws and free trade on imported chemicals, hampered the development of new industries at home. In contrast, the German chemical industry flourished in connection with the artificial dye industry, pioneered by innovative German chemists and supported by industrial entrepreneurs.⁸ For this reason, significant amounts of the British chemicals extracted from coal gas were exported to Germany, as raw materials for the dye industry and for the production of chemical drugs and photographic chemicals. Hence the War Office not only wished to conserve

⁸ Sidney Pollard, Britain's Prime and Britain's Decline: The British Economy 1870-1914 (London, 1989), 32-34; Keith Vernon, "Science and Technology," in ed. Constantine, Kirby and Rose, The First World War in British History, 81-82.

chemical materials for domestic arms production, but they were also anxious to deprive Germany of access to British war materials.⁹ The government lost no time in assuming control over essential chemical stocks, thereby building up reserves. Moreover, the export sanctions helped develop strategies for the control of private enterprise: prohibition of exports, stock requisitions, and compulsory changes in production processes, all of these strategies were later applied to other industries as the war continued.

The first step in this process of government intervention consisted of export restrictions imposed on essential chemicals. On August 5, 1914, the War Office prohibited the export of munitions materials, including benzol, coal-tar toluene, phenol, and nitro-toluene, under the auspices of the Army (Supply of Food, Forage and Stores) Act.¹⁰ Despite these measures, explosives manufacturers complained to the government that speculators withheld chemical supplies, especially toluene. The growing crisis in raw materials supply was exacerbated by the realization that there would be no short and easy victory for the Allies. The munitions industry required increased government supervision to eliminate profiteering and maintain a continuous flow of supplies to the armed forces.

To help alleviate the chemical supply problem, in November and December 1914, Lord Moulton's Committee on the Supply of High Explosives issued requisition orders to all gas companies, tar-distillers and coke oven operators. The order was authorized by a clause in the Defence of the Realm (Consolidation) Act, inserted in late November 1914.¹¹ W. F. Wintour, the director of Army Contracts, and R.H. Brade of the War Office, informed all gas undertakings distilling their own tar that, for the duration

⁹ Great Britain, Ministry of Munitions, History of the Ministry of Munitions VII, IX, (1976), 22-23.

¹⁰ History of Munitions, VII, I, 5.

¹¹ History of Munitions, VII, IV, 2, 12-13.

of the war, the government assumed control of their "whole output" of toluene stocks and substances containing in excess of three percent toluene. Existing contracts remained in place, if possible, unless they conflicted with the interests of British or Allied military requirements. Gas undertakings which distilled their own tar, such as the GLCC and the South Metropolitan Gas Company, were required to submit returns estimating their current chemical output, and all future dealings were subject to permits issued by Lord Moulton's committee. To stimulate production, the government offered a generous fixed price at 3 shillings 4 1/2 pence per gallon for pure toluene and 3 shillings for commercial toluene because it required an additional distillation process to remove the benzol residues.¹² As a result of these measures, the War Office requisitioned practically all of the gas industry's toluene output for TNT manufacture, leaving a small percentage for the dye industry.¹³

Government controls over chemical stocks and pricing were soon followed by recommendations for actual chemical production processes with the object of increasing the levels of pure toluene extracted from coal tar. In November 1914, Lord Moulton asked the gas companies to supply information on their existing facilities for tar distillation, with the intention of assessing current means of production, and encouraging the expansion of distillation works for toluene, phenol and pure benzol. Commercially, the most important by-product extracted from coal-gas was benzol, which was used in England and France as motor fuel. The distilled benzol contained a significant amount of toluene, as much as ten per cent. The presence of toluene improved the quality of the benzol because it rendered it less likely to freeze. Given the large volume of domestic benzol production, government officials estimated that nearly one half of the nation's supply of toluene was lost through the sale of toluene-rich commercial benzol. In

¹² History of Munitions, VII, IV, 17.

¹³ History of Munitions, VII, I, 5; VII, IX, 2-4; Appendix, VII, 89-92.

December 1914, Lord Moulton's Committee on High Explosives ordered all distillers, including gas companies, to recover this toluene before selling the benzol by restricting the sale of all benzol that contained in excess of three percent toluene. Producers could substitute the toluene levels with naphtha or xylol to lower the freezing point. This restriction resulted in an accumulation of benzol stocks, in excess of the producers' capacities for distillation and benzol storage. To alleviate this problem, Lord Moulton's committee issued special permits for benzol sales, until distillation facilities at the gas works were sufficient to meet the committee's stringent standards.¹⁴

Despite these attempts at increasing stocks and regulating supplies, shortages of British toluene continued because domestic production simply could not fulfil the demands of the munitions industry. Munition factories required enormous quantities of toluene: two tons of toluene were needed to produce three tons of TNT.¹⁵ Purchasing agents for British munition makers competed for essential chemicals on the American market, forcing up prices and production costs on munitions contracts. In early 1915, the War Office intervened, albeit reluctantly, by purchasing and distributing chemicals to inexperienced contractors at the new shell factories. The shortage of toluene was so critical that in February 1915, the War Office purchased all toluene available on the American market at the "ridiculous price" of two dollars per gallon.¹⁶ Throughout the spring of 1915, the continued shortages of essential chemicals were reflected in the shell crisis on the Western Front; according to military commanders, low ammunition stocks contributed to Britain's' dismal showing at the second battle of Ypres and the failed advance at Festubert. Public accusations of incompetence

¹⁴ History of Munitions, VII, IV, 15-17.

¹⁵ Guy Hartcup, The War of Invention. Scientific Developments, 1914-18 (London, 1988), 47.

¹⁶ History of Munitions, VII, I, 7.

appeared in The Times and the Daily Mail, seriously undermining Asquith's leadership. The controversy resulted in the Asquith- Bonar Law Coalition Government in late May 1915, followed by the formation of the Ministry of Munitions, in June 1915, headed by David Lloyd George.¹⁷

Historians have attributed the "shell crisis" of mid-1915 to inefficient armaments production facilities, manpower shortages and distribution delays. There can be little doubt, however, that the shortage of essential chemicals was another important contributing factor. As noted above, prior to the formation of the Ministry of Munitions, Moulton's Committee of High Explosives had taken steps to encourage increased chemical extraction from coal-tar products. In the manufacturing process for coal gas, benzol and toluene passed into the gas, since both chemicals improved illuminating power and the caloric value of the final product. Reviewing the returns from Lord Moulton's gas industry surveys, the government estimated that 5,000 tons of toluene per annum escaped with coal gas; officials appealed to the gas companies to alter production processes for maximum toluene recovery. Charles Carpenter, director and chief engineer at the South Metropolitan gas company, responded to the emergency by developing a process for synthesising phenol from benzol to produce toluene.¹⁸ Adopting Carpenter's discoveries, the larger gas works installed special plants for "scrubbing" the gas via exposure to creosote oil, the new distillation process which resulted from Carpenter's experiments. The process was initiated at twelve of the largest gas works in March 1915; by November, about six hundred gas undertakings employed the new process.¹⁹ The government assumed the cost of erecting and operating the special distillation plants, which were run

17 Keith Middlemas, Politics in Industrial Society: The Experience of the British System since 1911 (London, 1979), 75; Maurice W. Kirby, "Industry, Agriculture and Trade Unions," in The First World War in British History, ed. Constantine, Kirby and Rose, 53-55.

18 Hartcup, War of Invention, 47-48.

19 History of Munitions, VII, IV, 21.

by the gas companies and supervised by inspectors from Moulton's Explosives Supply Department.²⁰ After June 1915, the Ministry of Munitions assumed responsibility for monitoring the chemical distillation plants at the gas works.

As a result of this process, the gas works doubled their toluene production, to the great satisfaction of the Ministry's Explosives Supply Department. By late 1915, the chemical shortage was less critical as a result of the economic incentives to the gas companies, increased domestic production, the development of alternative chemical explosives and organized state supervision, remedying the munitions crisis of the previous spring. The "scrubbing" process extracted all the benzol and toluene from coal gas, however, the process reduced its candle-power by fifty percent and the calorific-value by four to five percent. To maintain a standard of quality for consumers, the Explosives Supply Department granted the gas companies permission to put back the benzol extracted from "scrubbing." This concession was rescinded when the demand for benzol increased after August 1915. No enrichment substitute could be found in adequate supply, with the result that the quality of gas sold to British consumers fell well below the official standards laid down by the Board of Trade.²¹

In order to protect the gas companies should they be unable to meet pre-existing quality levels, the government issued a circular in November 1915 under the provisions of DORA, making gas "scrubbing" mandatory and the final product exempt from previous calorific standards.²² Moreover, local authorities were requested to overlook the deterioration of gas quality in

²⁰ History of Munitions, VII, IV, 18. In January 1915, Lord Moulton's Committee of High Explosives became part of the Explosives Supply Branch of the War Department; five months later, this organization was taken over by the Ministry of Munitions, and known thereafter as the Explosives Supply Department, with Lord Moulton appointed as director-general of explosives supply.

²¹ History of Munitions, VII, IV, 21-22.

²² History of Munitions, VII, IV, 22-23; VII Appendix, VIII, 93.

the interests of "meeting national needs." To prevent consumer protests, the government asked municipal officials to stop testing gas for heat and illuminating power, or at least, to keep from the public the results of quality control tests.²³ In combination, these regulations extended government control over the production, pricing and marketing of coal-gas chemical by-products, thereby bringing this aspect of the gas industry under direct state supervision.²⁴

Despite the usual reluctance on the part of businessmen to accept government intervention in private enterprise, the gas industry accepted these controls. From the outset, the government paid generous fixed prices for requisitioned stocks of essential chemicals, meaning that the industry was well-compensated and guaranteed a market. As the demand for chemicals increased, state funding partially subsidized the installation and maintenance costs for the new gas "scrubbing" facilities. The gas companies appreciated that public intervention enabled them to expand their previously neglected chemical production works; gas managers anticipated the benefits of post-war diversification in the chemical industry, an area that had remained underdeveloped in comparison to Germany. Finally, gas managers were no strangers to government regulations, since gas quality and prices were already regulated by the Board of Trade.²⁵ Unfortunately, the Government was slow to regulate coal prices for industrial consumers or give priority, in terms of supply, to essential war industries. Attempts to control coal costs, such as the Price of Coal (Limitation) Act, passed in July 1915, only applied to coal sold in the domestic retail market. The problem of industrial supply and pricing came under the scrutiny of the Coal and Coke Supplies Committee, formed in January 1916 to investigate the allocation of

²³ History of Munitions, VII, Appendix X, 94.

²⁴ History of Munitions, VII, IV, 15-17.

²⁵ Matthews, "Laissez-faire and the London Gas Industry," 258-253; Chatterton, "State Control of Public Utilities," 177-178.

coal to essential industries.²⁶ Because the gas industry depended on two highly-regulated industries, coal and munitions, it was unlikely they could have escaped government regulation.

Gas companies adapted their products works departments to meet the increased demand for chemical coal-gas by-products. The GLCC directors boasted that they were “absolutely the first in rendering this national service.”²⁷ As early as September 1914, their chief research chemist, W. Gordon Adam, issued instructions for expanding the production of “essential chemicals” to aid munitions manufacture.²⁸ The shortage of gas chemists or engineers with chemical training put further pressure on the gas companies attempting to cope with new production processes and regulations. As late as February 1918, the Journal of Gas Lighting continued to report shortages of experienced chemical workers. Although the chemical laboratories of the major gas undertakings were sufficiently staffed, the smaller companies still desperately needed trained chemists. Under the Munitions of War Amending Act (May 1917) and its Schedule of Protected Occupations, skilled munitions workers were exempt from overseas military service;²⁹ this list included chemical engineers required in the gas industry. For some months, women replacement workers had made up the shortfall in the chemical testing laboratories. The South Metropolitan’s company journal commented on the excellent work being done by “lady” chemical technicians, many of whom were science

26 Hurwitz, State Intervention, 174-75; “Coal-Price Limitation---and After,” GJ, 26 November 1918, 458.

27 “Keep the Gas Fires Burning,” Co-Partners’ Magazine (February 1918), 30.

28 Stirling, History of the GLCC, 304-05.

29 Wrigley, David Lloyd George and the British Labour Movement, 189.

graduates.³⁰ In June 1916, the Daily Telegraph praised the work of the female technicians, noting their apparent competence at “doing research and testing work.”³¹ Nonetheless, while the Government financially assisted the gas companies to expand chemical facilities in order to meet increased demands, politicians could do little about the chronic shortage of experienced chemical technicians required to supervise the chemical works.

Although the war created a ready market for gas by-products by boosting the chemical industry, the overall impact of the war on the gas industry remains difficult to access. According to some studies, the conflict had a decidedly negative effect on the gas industry. German U-boats targeted gas company collier ships, endangering critical coal supplies, destroying company property and killing gas employees. At the end of the war, the GLCC possessed only six collier ships, out of a fleet of eighteen, purchased or built since 1912. In addition, works maintenance fell behind given the shortage of materials and labour, leaving many gas works producing below capacity.³² To conserve gas and minimize the risk of air raid attacks at night, the Government instructed local councils to reduce public lighting, thereby decreasing revenues from municipal gas consumption. Although gas companies received guaranteed prices for their chemical by-products, this revenue was offset by increased production costs, reflected in the prices of coal, oil and labour.³³

Rising production costs were exacerbated by faltering equipment, forcing the gas industry to increase prices for domestic consumers. Only

30 "Sir Henry Roscoe's Visitor," Copartnership Journal (May 1916), 110; "Our Women Workers," CoPartnership Journal (August 1918), 129.

31 "Women and Gas Supply Work," JGL, 20 June 1916, 656.

32 Stirling, History of the GLCC, 305-307.

33 Select Committee on Gas Undertakings (Statutory Prices) Report (1918), 37-50, quoted in Williams, History of the British Gas Industry, 52.

two months into the war, the GLCC raised its charges. As of mid-October 1914, “penny-in-the-slot” meters passed only 24 cubic feet of gas per penny, compared to the usual rate of 25 feet, reflecting the new price of 3 shillings. 6 pence. per 1000 cubic feet of gas. By March 1915, “ordinary” consumers also saw their rates increase from 2 shillings. 8 pence. to 3 shillings. for 1,000 cubic feet of gas.³⁴ In August 1918, SMet chairman Charles Carpenter estimated that the cost of gas had risen almost one hundred percent from a pre-war price of 2 shillings 2 pence. per one thousand cubic feet to 4 shillings in 1918.³⁵

Since the 1870s, government legislation determined the gas companies’ prices and profits using a sliding-scale set by the Board of Trade. Under this system, the government set a “standard price” charged to consumers and a corresponding “standard dividend” paid to shareholders. Any increase in the price of gas, above the standard rate, reduced the allowable dividend; conversely, if gas companies reduced the cost of gas, they might increase their dividend payments. The system ensured that consumers paid reasonable prices for gas services, rewarding companies for careful management while creating incentives to keep prices low.³⁶ During the First War, given the high production costs and controlled prices for residual products, the gas companies were forced to raise their prices above the allowable standard, thereby reducing their dividends to below the standard rate determined by the sliding scale. To address this situation, the gas companies appealed to the government to abandon temporarily the sliding scale rates. The resulting Statutory Undertakings (Temporary

34 LMA/B/GLCC 45/ Minutes of the Board of Directors, 16 October 1914, 395; 5 March 1915, 456.

35 “South Metropolitan Gas Company,” GJ, 6 August 1918, 250.

36 Cmd. 1381 xvi 717/ Board of Trade, Reports by the Standing Committee (and Sub-Committees) on the Investigation of Prices. Gas Apparatus - Sale and Hire (May 1921), 5-6.

Increase of Charges) Act, passed in June, 1918 authorised companies to increase gas prices to maintain their shareholders' dividends at three-quarters the pre-war rate.³⁷

Consumers complained. For example, in a letter to the Gas Journal, J.G. Hawkins of Wisbech accused the gas companies of profiteering, given the perceived reluctance to reduce shareholders' dividends to offset rising production costs. Instead, the companies applied to the government for permission to raise their prices for domestic gas.³⁸ Hawkins did have grounds for complaint. At a general meeting of company stockholders in early 1918, the governors of the GLCC reported an available surplus of over £500,000, despite the rising costs of labour, shipping and coal, and the price restrictions for "residuals" like sulphate of ammonia. According to company chairman, John Miles, domestic sales were up by six percent over the previous year. Revenues from the rental of stoves, meters and fittings brought in £36,000; gas-rental yielded an additional £541,000. While Miles was obviously pleased by the GLCC's wartime prosperity, he described the situation "in these times" as "almost embarrassing," considering the increased charge the company made to domestic consumers that year.³⁹

Complaints about rising costs combined with public concerns over the deterioration of the quality of the gas. According to Mrs. C.S. Peel, of the Ministry of Food, some consumers experienced nausea and faintness from "bad gas."⁴⁰ Still, the Minister of Munitions exhorted the public to choose gas over coal. Public authorities were asked "not to test too searchingly the quality of their gas supply," while private customers were advised "to

37 Report of the Board of Trade, Gas Apparatus Sale and Hire, 6.

38 "Prices of Stoves and Meters," GJ, 6 August 1918, 255.

39 "The General Meeting of the Company," Co-Partners' Magazine (March 1918), 1.

40 Mrs. C.S. Peel, How We Lived Then 1914-1918 (London, 1929), 101-2.

tolerate small inconveniences,” presumably ill health and expensive fuel, in view of the national emergency.⁴¹ For most of the war, the debased quality of gas remained unchallenged, until February 1918, when the Portsmouth Corporation prosecuted the Portsea Island Gaslight Company for not maintaining its required calorific standard. Fearing additional litigations against other gas companies, the Ministry of Munitions intervened, asking the Treasury Solicitor to represent the Portsea Company in its appeal against the court’s decision. The Ministry wanted to reassure the gas companies that they were not liable for reducing gas standards if engaged in supplying raw materials for armaments.⁴² With the government’s assistance, the court reversed its ruling against the Portsea Island company, sending a clear message to municipalities and consumers that the gas companies were exempt from pre-war quality controls, leaving customers no recourse. Individual irate consumers, like Mr. Hawkins, were branded “un-English” while gas men dismissed public criticism as another indication that the “war was getting to everyone’s nerves.”⁴³ In light of the gas industries sustained profits, despite cost increases, and the addition of new state-subsidized facilities for chemical production, it appears that the large gas companies, like the GLCC and the SMet, did not fare all that badly during the war.

Gas managers realized that, once the war was over, they faced the enormous task of restoring normal customer service and re-building consumer confidence. Perhaps, in an attempt to deflect the mounting criticisms of war-weary consumers, the gas industry drew attention to its most positive contributions to the war effort. Throughout the war, the industry heavily publicized the role of its female replacement workers. It

41 "Keep the Gas fires Burning," Co-Partners' Magazine (February 1916), 30.

42 History of Munitions, VII, IV, 23.

43 GJ, 6 August 1918, 255.

made extensive contributions to public service work with the government. Its advertising service, the BCGA, moreover, made active preparations for the anticipated reconstruction housing boom, with gas stoves and hot water boilers for every British hero and heroine.

Women at the Works

In the initial stages of the war, female unemployment increased, particularly in the traditionally female “sweated trades,” like dressmaking and millinery, since the patriotism of wealthy women abstaining from luxury purchases put labouring women out of work.⁴⁴ The situation soon reversed. By mid-1915, constant military enlistment resulted in a general labour shortage, felt equally in transportation, the civil service, and manufacturing, while the demand for supplies created industrial jobs which women increasingly filled.⁴⁵ Under the terms of the Treasury Agreement, negotiated in March 1915 between Lloyd George and participating trade union representatives, the unions agreed to relax restrictive trade practices for the duration of the war, including regulations prohibiting women and unskilled workers from entering some industrial trades.⁴⁶ The Munitions of War Act, passed in July 1915, further legitimized the practice of labour “dilution,” substituting women and unskilled men for skilled workers, in essential war industries like munitions production.⁴⁷

44 Diana Condrell and Jean Liddiard, Working For Victory?: Images of women in the First World War, 1914-18 (London, 1987), 7.

45 Woollacott, On Her Their Lives Depend, 17.

46 Wrigley, Lloyd George and the British Labour Movement, 98-99.

47 Braybon, Women Workers in the First World War, 53; Woollacott, On Her Their Lives Depend, 91-92.

Given its relationship to arms productions, the gas industry easily justified labour dilution. After mid-1915, companies maintained production by replacing enlisted workers with women dilutees until the “ordinary breadwinners” were no longer “required by their country.” Initially, the women undertook the “work for which the special faculties of the sterner sex are not needed,” such as the jobs of office clerks, meter readers, collectors, inspectors, chemical laboratory technicians, appliance repairmen, delivery van drivers and lamp-lighters.⁴⁸ As conscription further depleted the male work force, women assumed even the heaviest and dirtiest jobs at the gas works, including loading and hauling coke and coal, emptying and recharging spent oxide in the gas purification tanks, and performing general labour as mates to bricklayers, carpenters, and pipe-fitters.⁴⁹ Company general manager, David Milne-Watson, reported that the GLCC relied on approximately one thousand six hundred female workers, distributed almost equally between the clerical staff and the various gas works.⁵⁰ By late 1917, the South Metropolitan employed 1,915 women; over one-third were retort house and chemical production workers, jobs which director Charles Carpenter considered were the most physically-taxing in the business.⁵¹ These estimates compare favourably with the findings of the War Cabinet Committee on Women in Industry, whose report verified that, in July 1918, some 5,000 women worked in the gas

48 “The Gas Woman,” *JGL*, 29 June 1915, 742; *JGL*, 10 August 1915, 308; “Women and Gas Supply Work,” *JGL*, 20 June 1916, 655-66.

49 “Women’s Work in the Gas Industry,” *ATAOUFG* (February 1918), 3-19.

50 “Women Workers in the Gas Industry,” *GJ*, 5 February 1918, 239.

51 Archives of the London Gas Museum, Bromley-by-Bow/ South Metropolitan Gas Company, London, “Occupation and Total Number of Women Employes,” November 25, 1917.

industry, most of whom replaced male workers.⁵²

In comparison to their male co-workers, female “gassies” worked the same hours, but usually for less pay. Like the men, women did regular eight-hour shifts, with an hour break for dinner. They put in the same forty-eight hour week, doing six continuous shifts, including night work, which the women apparently, accepted with no complaint. Gas managers claimed that, in terms of actual physical work performed in an eight-hour shift, a woman worker accomplished two-thirds the output of a man, entitling her to two-thirds the pay.⁵³ Pay scales for piece-rate jobs, like filling and loading sacks of coke, did not differentiate between male and female workers. For piece-work, managers noted that the output and earnings of female workers approximately equalled that of males, despite the accepted wisdom that women did one-third less work than men. A reporter for the Gas Journal noted that women preferred time-rates for good reason. When a thoughtful SMet foreman supplied a female crew with smaller shovels, the women requested the larger ones used by the men so that they could earn the same amount of money.⁵⁴ Female gassies were also entitled to the “war wages” bonus, but received nearly fifty percent less than their male co-workers. The GLCC paid its men 15 shillings. per week in war bonuses while women received 8 shillings, 6 pence.⁵⁵ Where women and men worked for the same piece rates, they earned the same twelve and one half percent war bonus, although in trades other than gas industry, only

52 Fawcett Library/London Guildhall University/Report of the War Cabinet Committee on Women in Industry (1919), Cmd. 135, xxxi: Part 2, chapter III, 96.

53 FL/Report on Women in Industry, 96, 143.

54 “Manning Retort-Houses With Women,” GJ, 22 January 1918, 156.

55 “General Meeting of the Company,” Co-Partners' Magazine (March 1918), 1.

male workers over age twenty-one qualified for the same bonus.⁵⁶

The London gas companies attempted to provide for the comfort, safety and hygiene of its indoor and outdoor female gas workers. According to Mrs. J.S. Lee, the women's matron at the GLCC, that company furnished its female clerical staff with their own rest room, complete with sofas, easy chairs and a small library, as a place for the women to leave outdoor clothing and take their meals. To enhance their skills, female clerical workers were invited to take courses in languages, accountancy and shorthand. Mrs. Lee's chief complaint on behalf of the indoor staff was that the women and girls required "some open space" for a bit of "much-needed" exercise despite their generally favourable working conditions.⁵⁷ Female outdoor workers were also supervised by forewomen; they too enjoyed separate cloakrooms and canteens. In addition, the GLCC provided "rational dress" for female

labourers--- overalls, smocks and caps---made by its own staff of workwomen stationed at the Horseferry Road offices.⁵⁸ Obviously, the need for exercise was less a problem for outdoor workers engaged in physical labour, however access to fresh-air at the gas works was another matter. One former gas worker, a Miss J. Tewkesbury recalled: "Many is the time the girls would be affected by the gas, the remedy being to walk them up and down in the fresh air, and then drink a bottle of Guinness."⁵⁹

Superintendents Misses M.H. Fawcett and R. Stubbington selected and supervised the South Metropolitan's female workers, and reported

56 Report on Women in Industry, 143.

57 "The Ladies' Corner, Westminster," Co-Partners' Magazine (February 1916), 30; "Women's Work in the Company," Co-Partners' Magazine (March 1917), 36.

58 "Women's Work in the Company," Co-Partners' Magazine, 36-38.

59 Letter from Miss J. Tewkesbury to Imperial War Museum, 21 October 1975, quoted in Marwick, Women at War, 79.

similar conditions as the GLCC. Giving evidence before the Committee on Women in Industry, Miss Stubbington reported that every forewoman was required to know first aid in case of accidents. Dr. Ethel Bentham regularly examined the female gas workers for occupational health problems, but generally the women experienced improved health despite the difficulty of the work. Stubbington and Fawcett assigned women to particular jobs according to their physical ability. To accommodate the women, where possible, the company replaced unnecessarily heavy tools with lighter ones, adjusting wheel barrows to reduce some of the weight off the workers' arms. Stubbington noted that although her company had found that the output of women workers was roughly two-thirds that of men, the quality of the women's work was equal or better, particularly in tasks requiring manual dexterity. The women equalled the men in terms of "timekeeping" and absence from sickness or other causes. Employee turn-over was fairly low: sixty per cent of those women who had started with the company in July 1915 were still working with the SMet in November 1918. The company estimated that about fifty-percent of its female workers were married, some of them wives of gas men doing military service.⁶⁰ Apparently, the gas companies were sensitive to the special needs of its female employees, making every attempt to avoid injury and ill-health as a result of heavy physical labour.

Occasionally, the companies' lady superintendents organized recreational events for their outdoor female employees. In August 1917, one hundred and twenty women employees at the GLCC's tar and ammonia products works embarked on a "pipe fitters holiday" at Theydon Bois. The works matron, Mrs. Thomson, planned games, races, and an outdoor meal; the cost for the outing was supported by subscriptions from the works superintendent, staff and foremen.⁶¹ In another show of company spirit,

⁶⁰ Report on Women in Industry, 129.

⁶¹ "Women Employees' Outing," Co-Partners' Magazine (November 1917), 176.

several Beckton women played an exhibition cricket match, on the field of the Beckton Cricket Club, as the Gas Works team met their sisters from the Products Works. Arranged by the lady superintendents of both groups, the match was an unusual display of female athleticism, and outside the company's regular sports leagues, which catered to men.⁶² This exhibition game indicates that the women were attempting to fill every aspect of the gas worker job, at the works and on the company cricket pitch.

As women proved themselves capable of even the most laborious tasks, the wartime female gas worker in sooty smock, clogs and trousers, symbolized the feminization of industrial work as much as the "munitionettes," despite the former's smaller numbers and lack of publicity. On July 29, 1918, a deputation of female gassies from the GLCC, dressed in their work uniforms, participated in the procession of women war workers, marching from Hyde Park to Buckingham Palace for an official presentation to the King and Queen. Commenting on the women's reaction to the public display, J.S. Lee, the GLCC women's superintendent, stated that the gas women were "specially pleased to be allowed to take part in this occasion, as they felt they were now recognized as war workers."⁶³ Evidently, the women saw themselves as playing a vital role in the war effort at home, and appreciated the public recognition they finally earned.

By 1917, the London gas companies utilized female replacement workers in almost every capacity to maintain production levels in this important industry. [Fig. 11] With appropriate tools, clothing and training, few tasks were considered too arduous or dangerous for female workers, with the exception of stoking furnaces in the retort houses. Faced with the critical shortage of male labour in mid-1917, however, and in preparation for the upcoming winter season the South Metropolitan challenged this

62 "Beckton Station," Co-Partners' Magazine (September 1918), 121.

63 "Royal Silver Wedding: Presentation of the Address of the War Women Workers at Buckingham Palace," Co-Partners' Magazine (August 1918), 98.

preconception by experimenting with female stokers. That summer, Thomas Curr, the chief engineer of the Vauxhall works, brought in female crews to operate the stoking equipment at three of the four retort houses at this south London works, thereby proving that women were capable of undertaking every job at the works.⁶⁴

The South Metropolitan company stressed the importance of proper training to develop the women's skills and confidence. Carbonizing foreman, J. Strutt, implemented a three-week program designed to acclimate the women to the retort houses while providing instruction in the various tasks, beginning with the least skilled, forking up coke, to the most difficult task, that of operating the hydraulic coal chargers. Trainees worked partial shifts, observing skilled female workers in action, before permanently joining a crew. A trained forewoman headed every crew. Strutt described the women as "apt pupils" who acquired the necessary skills with astonishing rapidity.⁶⁵ Moreover, the company praised the women for their overall stamina and courage. Strutt reported that the female stokers "carry on" even during air-raids, "replacing their caps by steel helmets."⁶⁶ After a raid, the crews remained until the next teams arrived, and under some circumstances, the women worked double shifts.⁶⁷ Although the company recruited its retort women from all occupations, the majority were former "laundry girls" between the ages of eighteen and twenty-eight.⁶⁸ Possibly, Strutt and Fawcett favoured this occupational group because they were already accustomed to heavy work in hot temperatures. Despite the

64 "Editorial Notes: Retort-House Women," GJ, January 29 1918, 174.

65 "Manning Retort Houses with Women," GJ, 22 January 1918, 153-155.

66 "Women's Latest Field---In the Retort-House," GJ, 2 April 1918, 17.

67 "Manning Retort Houses with Women," GJ, 22 January 1918, 153.

68 "Women's Latest Field---in the Retort-House," GJ, 2 April 1918, 17.

demands of the job, retort women reported that they enjoyed better health than at their pre-war employments. While the women's improved constitutions were attributed to the constant exercise, adequate nourishment must also have been a factor. Even with the long hours and hard work, studies indicate that women's overall health improved during the war years because working women had more money to spend on food for themselves, while company canteens offered hot nourishing meals.⁶⁹ Women gas stokers had access to hot food and drinks, like tea, coffee and mineral water, at a company canteen which catered exclusively to the needs of the SMet's women gas workers.⁷⁰ Although the provision of canteens for workers was a wartime innovation aimed at improving workers' efficiency, canteens at gas works were common even in the late nineteenth-century.⁷¹ Facilities designed specifically for women gas workers were definitely a product of female war work.

As an example to other companies, the South Metropolitan's experiment with female stokers received widespread publicity in the gas trade press. Company directors invited gas managers from other companies to visit the Vauxhall works, and witness for themselves their female crews in operation. In preparation for the winter of 1918, and at the request of the Dilution Department of the Ministry of Labour, the SMet extended its training program at Vauxhall to accommodate women gassies from other companies. Several gas corporations availed themselves of this service,

69 Woollacott, On Her Their Lives Depend, 63-65.

70 "Manning Retort Houses with Women," GJ, 22 January 1918, 154.

71 LMA/GLCC 32/Minutes of the Board of Directors, 21 June 1872, 51; 27 September 1872, 173. Beckton Gas Works, opened in 1871, included a canteen where workers could obtain hot food, drink and a daily ration of one pint of beer.

including Sheffield, Newcastle, Richmond, Woking and Birmingham.⁷² The South Metropolitan formed a special crew of female stokers, the "Women Operative Gas Demonstrators," who were available to be sent anywhere in the country to train and assist local women in retort-house work. Vauxhall's crew of female stokers were an entirely new class of "lady demons." The W.O.G.D. worked in close co-operation with the Dilution Department; the Ministry of Labour paid the salaries for this special team while a Mrs. Pennington, a female dilution officer, spent a month herself at the Vauxhall works observing the women at retort-house work.⁷³ Pennington then visited gas companies throughout the country, urging them to adopt the use of female stokers, thereby overcoming the critical labour shortages and releasing men for the armed forces.

Previous enquiries had suggested the possibility of using women in retort-house work. Early in 1917, representatives from the National Gas Council, an organization of gas managers, met with members of the Reserved Occupations Committee, the Ministry of Munitions and Neville Chamberlain, the Director of National Service, to determine if more men could be spared from the gas industry. As a result of this meeting, the BCGA published a list of guidelines for gas managers, listing occupations for women at the works. Regarding retort-house work, the report advised that women should not perform the most dangerous and difficult tasks, like operating "hand charged" retorts, filling and cleaning the coal furnaces, or clearing the ascension pipes through which the gas escaped from the oxidized coal. However, the report concluded that women were entirely capable of working, charging and discharging coal retorts fitted with

72 "Vauxhall Sends Forth Women Stokers," GJ, 1 October 1918, 19; "The Women Gas-Workers of Woking," GJ, 3 December 1918, 514; "Women Workers in the Retort-House," GJ, 17 December 1918, 611-12.

73 "Women Workers in the Retort-House," GJ, 17 December 1918, 611.

electrically-operated hydraulic equipment.⁷⁴ That year, the SMet successfully used female crews on hydraulically filled retorts. However, it was the only company to do so.

Gas managers readily acknowledged the existing success of female labourers at the gas works, albeit in performing unskilled or repetitious industrial tasks.⁷⁵ Stoking retort-houses was another matter. It required not only strength and endurance but mechanical skill to operate the heavy hydraulic equipment used to load and discharge the coal ovens. A retort worker performed several specialized tasks, undertaken in quick succession, as a member of a four-man crew, each responsible for different sets of tasks. Experienced stokers were agile and strong, with good manual dexterity, and methodical efficiency. The majority of gas engineers and male stokers were convinced that women were inherently unfit for retort work, because it was hot, tiring and dangerous.⁷⁶ Although they refused to give the exact reasons for this position, it was possible that workmen and managers alike anticipated that women would be unable to master the required mechanical skills to load and discharge the retort ovens, could not work collectively in crews, and would collapse under the strain of the eight-hour shifts.

It was also a matter of gender. Female stokers infringed on the last male preserve in the gas industry. Their presence threatened to erode a traditional hierarchy of job skills that was inherently masculine and political. Since the mid-nineteenth century, stokers were the most militant labour activists in the gas business. As noted in chapter two, they had organized illegal strikes, had formed the first gas workers union in August 1889 under the leadership of stoker Will Thorne, and had faced black-listing for their

74 "Women's Work in the Gas Industry," ATAOUFG (February 1918), 3.

75 "Manning" Retort-Houses with Women" GJ, 22 January 1918, 153; "Editorial Notes: Retort-House Women," GJ, 29 January 1918, 174.

76 Labour Dilution in Retort-Houses," GJ, 6 August 1918, 247.

convictions.⁷⁷ They were among the highest-paid labourers at the gas works, and took great pride in being the physical backbone of the industry. Male stokers were not readily inclined to surrender their jobs, their occupational status, or their wages to female dilutees even under wartime labour shortages. It was no co-incidence that the first company to test the militancy of the stokers by hiring female retort workers was the South Metropolitan, a company well-known for its antipathy to trade unionism. The SMet's gas stokers raised no objections, although the introduction of female stokers drew negative reactions in other quarters.

The members of the National Union of General Workers were "strongly opposed" to the introduction of women into retort houses, on the basis that females were "unsuitable" for the job. In early August 1918, Labour MP, Will Thorne, the current Secretary of NUGW, publicly denounced the use of female stokers before the House of Commons, despite his patriotism and general support for the terms of the Treasury Agreement. In response, Arthur Kellaway, the Minister of Munitions, defended the gas industry's efforts to overcome the shortage of male workers, thereby maintaining a level of productivity that was vital to the munitions industry. Further, he praised their successful training programs for female stokers.⁷⁸

The Chief Dilution Officer at the Ministry of Munitions urged gas companies to use the slower summer months to train women stokers, avoiding the labour shortages of the previous winter. Having witnessed the success of the SMet with female retort crews, the Ministry of Munitions circulated a letter among gas companies. It stated that future company requests for the exemption of male gas workers' from military service or employers' demands for replacement Army Reserve Munitions Workers

⁷⁷ Kapp, *Air of Freedom*, chap. 1, 3; J.T. Ward and W. Hamish Fraser ed., *Workers and Employers: Documents on Trade Unions and Industrial Relations in Britain since the Eighteenth Century* (London, 1980), 127.

⁷⁸ "Female Labour in Gas-Works," *GJ*, 6 August 1918, 255.

would be subjected to stringent review. The industry's labour demands must be met "by the employment of women" unless managers could demonstrate that every effort failed to secure sufficient female replacement workers.⁷⁹ Nevertheless, Kellaway wished to avoid confrontation with male gas stokers and possible work stoppages. To alleviate tensions and assure the men that the use of female stokers was an emergency measure, he proposed consultations with workmen's organizations in the various localities where the introduction of women retort-house workers was proposed or already adopted. Some corporations, like the Gas Light and Coke company, wished to avoid labour confrontations with stoking crews, respecting the trade union's objections to female stokers. Although women were used to clean and maintain retorts, the GLCC did not use female stoking crews because, according to general manager David Milne-Watson, "women were not suited for this type of work even in wartime."⁸⁰

In most cases, the consultation process diffused labour protests. Initially, female stokers met with resistance in both Sheffield and Birmingham. At the Neepsend works, Sheffield, the company superintendent, Mr. Johns, and Lady Superintendent, Mrs. Cockshot, introduced seventy women stokers in August 1918. Thirty of these female stokers received training at Vauxhall, as did Mrs. Cockshot.⁸¹ Protests by male stokers were immediate. To address the situation quickly, the company called a meeting between the workers, company managers and government dilution officers. To convince the men that the company had no ulterior motives but to maintain production until "the boys came home," three Sheffield stokers accompanied their local NUGW secretary, Mr. Blackburn, to London for the purpose of touring the Vauxhall works.

79 "Labour in Gas Works Next Winter," GJ, 30 July 1918, 203.

80 Report on Women in Industry, 129.

81 "Vauxhall Sends Forth Women Stokers," GJ, 1 October 1918, 19.

Reassured that the measure was temporary, the union representatives returned to Sheffield, in support of women stokers.⁸²

Birmingham presented a similar case. When the issue of dilution in retort-houses was broached, the municipal gas corporation sent a deputation to London to see Vauxhall, resulting in a signed agreement between the Gas Corporation and the Municipal Workers' Union outlining a policy for experimenting with dilution at the Nechells works' retort houses. When the women arrived on site, however, some twenty-five men downed tools in protest, despite the earlier agreement of co-operation. A meeting of the men convened and a resolution passed that the policy of dilution, which had been mutually agreed upon, must be honoured. The striking stokers returned to work with no penalty, provided that they agreed to assist the women as previously negotiated.⁸³ The implementation of women stokers aroused less resentment at Newcastle, Richmond, Bournemouth, Prescot and Woking. Several explanations may account for this. Co-operation may be related to the impact of positive industrial relations between men and management. In the example of Woking, whose gas works were described as "destitute of men" since the beginning of the war, there were few men present to protest the use of female stokers while the need for replacement workers was obvious.⁸⁴

After the Armistice was signed on November 11, 1918, women remained at the gas works throughout the winter of 1918. Although men were dismissed from munitions factories, gas managers were reluctant to replace their skilled female gassies with unskilled munitions men, many of whom were medically unfit for gas work. Managers considered some wounded soldiers and sailors equally unsuitable for the physical demands of

82 "Women Workers in the Retort-House," GJ, 17 December 1918, 611-12.

83 "Women Workers in the Retort-House," GJ, 17 December 1918, 612.

84 "Women Gas Workers of Woking," GJ, 3 December 1918, 514.

the gas works. Although gas managers requested the immediate release of “trained stokers from the Colours,” they anticipated a continued shortage of skilled gas workers throughout the coming winter, a shortage which could only be met by keeping on female substitutes, even extending the use of female stokers.⁸⁵ However, the gas companies reassured former employees that their jobs were waiting in accordance with the terms of the Treasury Agreement and the Munitions Act of 1915. The South Metropolitan issued the statement that “each man who wishes to come back to his work will find his job, or one at least as good, ready for him.” Replacement workers who faced unemployment understood the circumstances. Nevertheless, the directors expected job vacancies, offering first consideration to those workers who efficiently “carried on” during the war. Praising the female stokers for their “admirable courage and determination,” the South Metropolitan’s director anticipated optimistically that these workers would find “softer jobs in the great world of industry.”⁸⁶ Despite their successful pioneer efforts, the women stokers were a temporary institution, but one that worried male trade unionists all the same.

Throughout the war, unions and workmen expressed a variety of responses to increased female employment in industry. Some industrial unions, particularly those representing unskilled and poorly organized groups, claimed to support the notion of workers’ equality, regardless of sex. In contrast, the skilled workers’ unions, especially in the aircraft and engineering trades, voiced the loudest protests against women workers, fearing that female substitution would depress wages, undermine job status, and create post-war male unemployment.⁸⁷ The National Union of General

85 “Women Workers in the Retort-House,” GJ, 17 December 1918, 612.

86 “Women and Workers and Unemployment,” Copartnership Journal (January 1919), 5.

87 Braybon, Women Workers in the First World War, 67-82.

Workers, which represented both male and female gas workers, was generally supportive of women workers, providing they did not threaten male wages or job status. Historically, the NUGW was one of the first general unions to organize and admit unskilled women workers.⁸⁸ Speaking before the Committee on Women in Industry, union representative John Jones estimated that, in 1918, the NUGW represented three-hundred fifty thousand workers; sixty thousand were women of whom forty thousand had joined during the war.⁸⁹ Jones reported that the union was not hostile to the employment of women in industry. Its membership advocated a policy of equal pay for equal work, disagreeing with the stipulation that an equal output must be produced. According to Jones, there was no such stipulation in the case of men who also differed in individual output. However, Jones criticized the use of female workers in trades "for which they are unsuited;" he included in this list of unsuitable occupations the use of women in carbonization works, in chemical products works and in the gas retort houses. He gave no specific reasons for female exclusion from these jobs, but simply stated that the introduction of women must not depress wages.⁹⁰ In this respect, Jones and the NUGW offered the same criticisms of women workers as did the more specialized unions which excluded female members altogether.⁹¹

Jones made special reference to the gas stokers and the impact of female labour on their jobs. Prior to the war, many NUGW members were naval reservists employed as stokers. Their places were gradually taken by

88 Kapp, Air of Freedom, 84-85.

89 "Evidence from Men's and Women's Unions," Report on Women in Industry, Appendices, 41.

90 "Evidence from Men's and Women's Unions," Report on Women in Industry, Appendices, 41.

91 Braybon, Women Workers in the First War, 76-80.

women, working for two-thirds the pay at six shilling per eight hour shift. Jones feared “very serious trouble” when the men came back, even though he admitted the existence of a post-war shortage of skilled male labour for retort-house work. He worried that gas managers would overcome the labour shortage by retaining their pioneer female crews in the retort-houses. In a telling remark which indicates the strategic importance of the equal pay policy, Jones stated that “equal pay alone will not prevent the employment of women on unsuitable work,” such as stoking gas retorts.⁹² Jones favoured a “uniform minimum wage” for unskilled men and women, and the implementation of a gender-specific employment code, set by joint industrial councils, to designate occupations as either male or female work. According to Jones, the women stokers agreed that returning men should have their jobs back, but he failed to comment on the mounting pressure to replace women with unskilled male workers released from munitions work.

Jones’s testimony reflected the wartime debates over work, equal pay and gender equality.⁹³ The NUGW was outwardly supportive of its female members, advocating equal pay for equal work. This ensured that women doing men’s work, like the female gassies, obtained adequate reward for their labour without depressing the wages of skilled workmen. However, NUGW leaders anticipated that equal pay for equal work would discourage female industrial employment after the war because women workers would appear less attractive in comparison to men. Moreover, the NUGW’s support for designated male and female occupations suggests a definite strategy to keep women out of certain trades. Jones’s specific example of the gas stokers indicates that, despite the alleged co-operation between management, male stokers and trade unionists, and the small number of

⁹² “Evidence from Men’s and Women’s Unions,” Report on Women in Industry, Appendices, 41.

⁹³ Braybon, Women Workers and the First World War, 100-101; Harold Smith, “The Issue of ‘Equal Pay for Equal Work’ in Great Britain, 1914-19,” Societas 8 (Winter 1978), 39-51.

companies that actually used female stokers, the NUGW membership still feared that this example of women doing “men’s work” would permanently undermine their wages and job status. Will Thorne used these same arguments when he protested against the introduction of female stokers to Arthur Kellaway before the House of Commons. The continued presence of women at the gas works after the Armistice presented further cause for concern. Unlike the munitionettes, whose jobs began to disappear in mid-1918 even before the war ended,⁹⁴ the female gas workers awaited a more gradual displacement as a result of military demobilisation. Despite the women’s small numbers (approximately two-thousand five-hundred women performed outdoor work and of these less than four-hundred were stokers) the trade unionists considered women gas workers a dangerous precedent. In addition, the increased use of hydraulic equipment further undermined arguments that women were “unsuitable” for employment in heavy industry.

In actuality, Jones and the NUGW had little to fear. In compliance with the law, gas managers reassured the government and the NUGW that returning men had jobs waiting. Before the same committee that heard Jones, Albert Stokes, of the South Metropolitan, explained that despite their satisfaction with women stokers, his company fully intended to disband the female crews as soon as skilled male replacements could be found. Nevertheless, he offered no definite timetable. Stokes agreed with John Jones that retort-houses were not places for women. Restrictions of female employment came under the Restoration of the Prewar Practices Act, passed in August 1919, which compelled employers to release “unskilled” replacement workers, or face fines levied by tribunals.⁹⁵ Although the companies appeared in no immediate haste to replace competent female gassies with untrained men, particularly for the winter season of 1918-1919,

94 Woollacott, On Her Their Lives Depend, 105-109.

95 Woollacott, On Her Their Lives Depend, 109.

by mid-1919, the female stokers were let go.

Long after the war, both the SMet and the GLCC retained some of their female employees, albeit in more appropriate “peacetime jobs,” such as lighter labouring work, clerical jobs, technical duties in chemical laboratories and meter index reading.⁹⁶ Outdoor women workers disappeared from the works, but not the general offices, showrooms or testing laboratories. The displaced workers were not the unionized male gassies, but the male indoor staff who witnessed the post-war feminization of clerical work and the entrance of women into light industry.⁹⁷ As of 1918, the lady demonstrators were no longer the only women employed by the gas industry. Yet, they retained a certain status, as the first women’s department. Throughout the war years, as the gas industry dedicated its services to the war effort at home, the demonstrators widened their sphere of influence beyond the showrooms and the customers’ kitchens.

Women on the “Domestic Front”

In terms of the lady demonstrators’ career development, the Edwardian years were characterized by the expansion of professional opportunities within the gas industry. During the First World War, the gas industries’ domestic experts undertook public service work to assist women in the home, extending their professional authority. In some respects, the staff members of British Commercial Gas Association, particularly Maud Adeline Cloudesley Brereton, deserve credit for this last development. Brereton continued as editor of the BCGA publicity journals throughout the war. Since coming to work for the BCGA in 1911, she anticipated that women had a much larger role to play in both the gas industry and public service. Her recommendations were soon put to the test, not necessarily

⁹⁶ Report on Women in Industry, 130.

⁹⁷ Braybon, “Women and the War,” 157-160.

because gas managers intentionally created more opportunities for women, but given the political events of August 1914 which necessitated the increased employment of women.

The lady demonstrators, known after 1912 as home service advisors, were enlisted to fight the war on the home front. They assisted ordinary women cope with the daily stresses of food shortages, fuel scarcities, rising prices, and servant difficulties. As public relations officers, they unofficially represented the government by disseminating information for the Ministry of Food, the Board of Education, and Food Production Department. Officially, they represented their own industry, literally putting a positive public face on the gas industry's war work. As the war dragged on, and consumers grew impatient with high gas prices and poor quality, the home service advisors' task became even more strategic for the companies: they maintained a buffer between consumers and producers in spite of growing public dissatisfaction.

David Lloyd George's Coalition Government, formed in December 1916, created five new departments designed to take control of domestic problems related to the war. Food and coal shortages prompted the creation of the Ministry of Food in late December 1916, with Lord Devonport, the ennobled retailer, appointed Food Controller. Despite severe shortages of butter, sugar, bread and meat, the government did not favour official rationing, apparently given the anticipated problems of administering the program. Instead, Lord Devonport's department made recommendations to the public to practice "voluntary rationing," to grow vegetables in allotments, to limit restaurant dinners to three courses; rice throwing at weddings was circumscribed, as was feeding stray animals. Though well-intentioned, such measures failed to curb profiteering and hoarding, or eliminate shop queues, the serious problems of wartime food distribution. Housewives complained over the chronic shortages and escalating costs of food staples like potatoes, wheat, sugar and margarine. In some cases, the Food Controller intervened by imposing "price controls." However, in the

absence of systems for enforcement and distribution, the maximum price guides were simply ignored, or circumvented by food retailers and producers. Given the potato shortage of early 1917, farmers evaded the Ministry's price controls by over-charging for additional retail services, like "carting."⁹⁸

Food shortages were exacerbated by German U-boat attacks on British shipping. Public frustration bordered on panic over the feared depletion of food supplies; on April 27, 1917, the country had only a four day stock of sugar.⁹⁹ Liberal journalist G.K. Chesterton worried that an exaggerated preoccupation with food shortages created a national famine frenzy on the Home front, sending a disturbing message to the Allies and a heartening one to the enemy.¹⁰⁰ Labour unrest and workmen's walkouts, including the nation-wide engineers' strike of May 1917, coincided with the food shortages;¹⁰¹ discontent over dilution and conscription was exacerbated by the government's inability to solve the nation's food problems.¹⁰² Ostensibly for reasons of ill-health, Lord Devonport resigned his post in May, 1917.

The new Food Controller, Lord Rhondda, a coal magnate currently serving on the Local Government Board, assumed more direct interventionist policies, expanding his staff to implement the new regulations. Under his control, the Ministry stabilized prices by issuing subsidies to bakeries, and by setting and enforcing rigid price controls on staples, like milk, sugar and bread. In addition, Lord Rhondda's ministry

98 L. Margaret Barnett, British Food Policy During the First World War (Boston, 1985), 118.

99 Barnett, British Food Policy, 120.

100 Bishop, Social History of the First World War, 107.

101 Wrigley, Lloyd George and the British Labour Movement, 191-193.

102 Barnett, British Food Policy, 130-131.

consulted with consumer groups, notably the War Emergency Worker's National Committee. A workers advocacy organization originally formed to concentrate on industrial relations, the WEWNC also focused on workers' living conditions outside the workplace, for example, by monitoring the prices of food, rent and coal, and pressuring the state to assume more responsibility for the pricing and distribution of food supplies.¹⁰³ According to Margaret Barnett, Lord Rhondda was anxious to reassure the labour movement that he was a consumer advocate, despite his long-time support for free trade practices. An amendment to the Defense of the Realm Act, in June 1918, gave the Food Controller the power to requisition food stocks from suppliers. This measure was followed by a series of "maximum prices orders" and attempts to limit the wholesale profits on the sale of meat, butter and cheese.¹⁰⁴ Unfortunately, price controls disrupted systems of distribution. As Barnett notes, once retailers were limited by what they could charge, merchants at a distance from distribution centres could not compete against those with lower transportation costs. Throughout 1917, severe shortages continued in rural areas and munitions centres, renewing consumer protests and labour discontent.¹⁰⁵ Finally, in January 1918, Lord Rhondda's ministry introduced rationing for some items, like sugar, meat and margarine. The Ministry of Food issued ration books of coupons for every person in Britain. Moreover, the Food Controller empowered food committees to extend local rationing, where necessary, for tea, cheese, jam. By July 1918, the rationing program overcame the worst defects of the distribution system, eliminated the queues and soothed the labour unrest

103 Barnett, British Food Policy, 131; Royden Harrison, "The War Emergency Workers' National Committee, 1914-1918" in Essays in Labour History 1886-1923, ed. Asa Briggs and John Saville (New York, 1971), 227, 232, 237-38.

104 Barnett, British Food Policy, 136.

105 Barnett, British Food Policy, 140-142.

associated with food shortages.¹⁰⁶

Several accounts of wartime food rationing bestow credit for its success on Lord Rhondda and his staff. They compare the failed Devonport policies for “voluntary rationing” and “meatless days” with those of his successor, asserting that Rhondda’s team of civil servants brought the food crisis under control by fixing prices and directly purchasing and requisitioning food from manufacturers, importers and distributors.¹⁰⁷ This interpretation relies heavily on evidence provided by the Ministry of Food itself, particularly the writings of William Beveridge, who acted as Under-Secretary to the Ministry’s Permanent Secretary, Ulick Wintour.¹⁰⁸ In contrast, other reports of wartime food policy suggest that the Lord Rhondda’s staff responded to mounting public pressure from labour and consumer groups, like the WEWNC, and was not without its own share of administrative bungling. Lord Rhondda’s staff finally introduced official rationing after several municipalities, Birmingham being the largest, implemented local ration programs to solve their own distribution problems. The creation of a Consumers Council, an advisory body to the Food Controller which reported on the practical impact of food policies, provides further evidence that the Ministry of Food implemented official rationing to satisfy the insistent demands of ordinary consumers and workers.¹⁰⁹

The wartime pre-occupation with food supplies and the rising cost of living cast new importance on the promotional work of the gas industry. BCGA advertising reflected the themes of official propaganda by imparting

106 Barnett, British Food Policy, 148-89; Burnett, Plenty and Want, 245-247.

107 Lloyd, Experiments in State Control, part III; Burnett, Plenty and Want, 246-248; Marwick, The Deluge, 192-194.

108 Burnett, Plenty and Want, 246-247; Sir William .H. Beveridge, Economic and Social History of the World War: British Food Control (London, 1928).

109 Barnett, British Food Policy, 143-45; 153-157.

images of national service, fuel conservation and individual sacrifice for the greater cause. A 1915 BCGA advertisement in Punch ran the slogan “Better Economize in Fuel Than in Food,” under an illustration of two uniformed men sitting down to eat. The implication was that gas cookers were more fuel efficient and therefore, constituted a more patriotic alternative. Fighting men needed decent nourishing food, and consumers were asked to rationalize their cost-cutting measures by setting priorities.¹¹⁰ [Fig. 12] Another wartime advertisement stressed the importance of gas fires to health and hygiene. Under the heading, “Gas Appliances as an Aid to Good Nursing,” an anxious uniformed nurse watches a solitary inert man, possibly a wounded soldier recuperating at home or in a private hospital. The text suggests the various ways that gas appliances add valuable comfort to the sickroom, thereby facilitating the patient’s full recovery.¹¹¹ [Fig. 13] Both advertisements identified the gas industry with the war effort; gas appliances prepared the nation’s men for battle, and hastened their recovery afterwards. In addition, gas was the patriotic alternative to coal, because its by-products sustained the munitions industry. By showing women in domestic support roles, fighting the war at home by aiding the men in health and in sickness, gas advertising reflected the official propaganda of women at war, working behind the scenes, but in a critical capacity. Following this same theme, the BCGA publications featured articles on women’s war contributions. Praise for female patriotism was combined with descriptions of workers canteens and hospital kitchens serviced with gas.

The gas industry addressed the wartime difficulties that many housewives experienced. Maud Brereton advised middle-class housewives how to manage comfortably despite the shortages of coal, food and domestic help. The BCGA endorsed the recommendations of the Coke and Coal Supplies Committee, a government group appointed in January 1916 which

¹¹⁰ Punch, 16 June 1915, iv.

¹¹¹ Punch, 17 February 1915.

sought ways to limit coal consumption for essential purposes. For obvious reasons, the government's public appeals to substitute gas and coke for coal pleased the gas industry. Gas managers and publicists were less enthusiastic about the report of the Coal Conservation Committee, which determined that the coal supply, if "properly utilized" was capable of producing three times the current fuel output.¹¹² To impress consumers on the national importance of using gas, to save coal and produce munitions, the BCGA and the industry press reiterated the official propaganda of the food controller, warning housewives that the "the war must be won in the homes of our people."¹¹³

The dearth of domestic help represented another wartime frustration for some segments of the population. The demand for women workers in factories and offices meant that fewer numbers entered domestic service, given the low pay, irregular hours and limitations on personal freedom that characterized this increasingly unpopular occupation.¹¹⁴ In recognition of this, Brereton published a book on gas and the one-maid house, offering "many valuable hints and suggestions for better management and greater comfort."¹¹⁵ Evidently, this publication addressed an affluent readership, since Brereton optimistically assumed that mistresses could still procure at least one servant, despite the declining numbers and the dubious experience of those willing to accept servant positions. Vera Brittain lamented the series of "ever-changing and inefficient maids" she engaged in mid-1918,

112 Hurwitz, State Intervention in Great Britain, 175-176.

113 "Wartime Cookery," quoted from Capt. C. Bathurst, M.P., Co-Partners' Magazine (April 1917), 63.

114 Horn, Rise and Fall of the Victorian Servant, 166-167; Martin Pugh, Women and the Women's Movement in Britain, 1914-1959 (London, 1992), 21.

115 M. A. Cloudesley Brereton, The One Maid House (London, 1916), frontispiece.

with the result that she often managed her parents' home by herself.¹¹⁶ Nevertheless, Brereton's book indicates the gas industry's early attempts to help its customers adjust their circumstances according to the social dislocations of war.

As the BCGA devoted its staff and resources to wartime work, member gas companies enlisted their own employees to disseminate information to the public. The lady demonstrators assumed much of this work. A department already designed to educate housewives and offer practical assistance to consumers, they easily assumed the role of official propagandists, complementing the volunteer work of several organizations, including the National Food Economy League and the Food Reform Association.¹¹⁷ In co-operation with the Ministry of Food and local food control committees, home service advisors gave regular demonstrations in company showrooms to encourage both food and fuel economy. To persuade women to make use of seasonal fruits and vegetables, particularly the produce they grew in their own company allotments, gas demonstrators gave presentations on food preservation techniques, like drying and canning.

The gas women also continued the established practice of visiting customers' homes. Helen Edden, the principal of the GLCC women's advisory staff, estimated that, as of early 1918, approximately 130,000 consumers or their servants had received instruction from her staff in its twelve years of existence.¹¹⁸ Articles on nutrition and food rationing advised working families how to stretch food budgets and scarce provisions. During the severe food shortages of early 1917, when potatoes were hard to

116 Vera Brittain, Testament of Youth, first pub. 1933, (New York, 1980), 429.

117 Pugh, Women and the Women's Movement, 13.

118 "Women's Advisory Staff," Co-Partners' Magazine (March 1918), 30.

come by, flour expensive and food queues common,¹¹⁹ Edden offered suggestions for the preparation of foods still available in reasonable quantities at affordable prices, like rice, lentils and beans. One reader warned Edden that to publicize the economy of any one food was to ensure that it either disappeared from store shelves or dramatically rose in price. Nevertheless, she maintained it was worth the risk of price hikes to call attention to the nutritional and economic value of substituting grains and legumes for potatoes and wheat, reasoning that housewives were unfamiliar with these foods, and had requested information on their preparation.¹²⁰ To economize on cooking time and fuel, of particular importance to working women, Edden recommended the use of the home-made “hay-box,” a makeshift slow-cooker, for finishing dishes like oatmeal porridge and stews.¹²¹ As Lord Devonport’s staff preached that “the War must be won in the homes of our people,” the lady demonstrators’ routine also assumed an overtly patriotic dimension.¹²² As representatives of the gas companies the “lady demons” worked directly with British housewives and local food committees, passing on official propaganda, trying to ease the mounting tensions over food and fuel shortages. Their local community-based wartime work addressed the needs and concerns of ordinary housewives. In this respect, the women’s advisory staffs extended their public relations role from corporate representatives to community educationists, working directly with women in their own communities.

Unfortunately, there is little evidence to suggest how successfully

119 Marwick, The Deluge, 191-192.

120 Helen Edden, “War Time Cookery,” Co-Partners’ Magazine (April 1917), 63-64.

121 Helen Edden, “War Time Cookery” and “Rations for Working People,” Co-Partners’ Magazine (April 1917), 63-64. In her reconstruction cookbook, Mrs. C.S. Peel, of the Ministry of Food, included a section on “haybox” cookery indicating its continued use. See Mrs. C. S. Peel, ed. The Daily Mail Cookery Book (London, 1920), 16-24.

122 “Women’s Advisory Staff,” Co-Partners’ Magazine (March 1918), 30.

the demonstrators transmitted the official “domestic front” propaganda. Previous studies have shown that, once in place, the Ministry of Food’s official rationing program curbed the worst problems of wartime food shortages by stabilizing prices and ensuring fair distribution.¹²³ The home service advisors played an unacknowledged role in this process. As domestic economy experts, they assumed the job of transmitting information and assistance to women in the home, coping with the frustrations of “voluntary rationing” and unfamiliar foods. Already a familiar liaison group who represented both producers and consumers, the lady demonstrators took on the added role of government representatives. How useful were their recipes for one-pot meals of boiled butter beans, or warming-pan “hay-boxes” is anyone’s guess, just as it is impossible to judge how many housewives actually attended the showroom demonstrations. According to Martin Pugh, housewives took not the slightest notion of the food propaganda; he contends that “its chief function was to give status and employment to those who purveyed it.”¹²⁴ While this statement may hold some truth, it does not apply equally to all the groups concerned with food supplies. Edden criticized the recipes “for artful concoctions of strange comestibles” which appeared in the women’s pages of newspapers. As professional home service advisors, Edden believed that part of her job, and that of her staff, was to counteract this barrage of advice with rational “truly economical” plans for wartime domestic management.¹²⁵ With this in mind, the lady demonstrators, re-named the women’s advisory staff, extended their official mandate, their duties and their professional reputations since the first “lady demons” drew curious crowds at gas exhibitions some thirty years earlier.

123 Burnett, Plenty and Want, 246-252; Barnett, British Food Policy, chap. 5.

124 Pugh, Women and the Women’s Movement in Britain, 14.

125 “Wartime Cookery,” Co-Partners’ Magazine (April 1917), 63.

The gas industry's publicity organization assumed the role of domestic propagandists, complementing the work of the demonstrators. As noted above, BCGA wartime advertising illustrated the gas industry's contributions to the war effort, fighting on the home front by producing essential chemicals for munitions and maintaining services for domestic consumers. BCGA executive chairman, Francis Goodenough, hoped that by stressing the industry's war service work, consumers would overlook rising prices and lower fuel quality. Money spent on wartime propaganda was an investment in post-war sales.¹²⁶ But the advertising was more than crass self-interest. The BCGA used its well-organized publicity services to educate its employees and customers on domestic issues, including the national importance of food and fuel conservation.

In some instances, the gas industry's food campaigns predated similar plans later adopted by the government. The "National Food Preservation Campaign" provides one such example. In the summer of 1917, before the formal implementation of rationing or government-sponsored food preservation schemes, the BCGA published information on food preservation and home canning in an effort to help consumers preserve that year's abundant harvest.¹²⁷ Gas companies were particularly interested in food preservation since employees were encouraged to supplement food scarcities by growing their own produce on company allotments. Unfortunately, the industry's attempts to initiate local food preservation projects failed to prevent much of that year's bountiful fruit crop going to waste, or glutting urban markets. After conducting its own research on food preservation, in November 1917, the Ministry of Food and the Board of Agriculture's Department of Food Production officially launched their own plans for home canning aimed at the following growing

¹²⁶ "Seventh Annual Report of the General Committee," The Bulletin (October 1918), 160.

¹²⁷ "Fruit and Vegetable Conservation," ATAOUFG (August 1917).

season.¹²⁸ Possibly to promote the adoption of home canning, Labour MP J.R. Clynes, Parliamentary Secretary to the Ministry of Food, suggested that civilians would soon be unable to purchase jams and preserves as stocks were requisitioned for the armed forces. Housewives had to produce their own, or go without.¹²⁹ The government officials responsible for the project enlisted the BCGA to assist with public education via its extensive publicity network.

The BCGA readily assisted the government campaign. To promote the patriotic need for food preservation, the staff designed a poster for the government, donating five thousand copies of the seven thousand five hundred that were printed. In addition to the poster, the BCGA re-issued thirty-thousand copies of the previous year's Association pamphlets on home canning for distribution through local food committees and circulated over half a million government leaflets and booklets on food preservation. In addition to the distribution of official propaganda, the BCGA staff acted in an advisory capacity to the Ministry of Food by supplying instructions on food preservation for future government publications.¹³⁰ Stressing the nutritional importance of fruit and vegetables as a substitute for meat, the BCGA literature offered technical instructions for operating home canning equipment via the "sugarless methods" of bottling and drying. To distribute the costs of the required equipment, the BCGA suggested that consumers form co-operative "canning clubs" or that grocers purchase canners to hire out to customers.¹³¹ The BCGA answered letters from consumers and co-

128 "The Association and the Food Preservation (Canning, Bottling, Drying) Campaign, Bulletin (October 1918), 172.

129 "Special Food Conservation Number," ATAOUFG (July 1918), 3-4.

130 "Report of the Executive Committee of the BCGA," Bulletin (October 1918), 173.

131 "Communal Canning," ATAOUFG (July 1918), 4-6.

operated with the education committees of county councils. Directly involved with consumers at the local level, the BCGA sought solutions to the wartime food crisis by initiating projects, like food preservation. After the government launched its own food preservation campaign in late 1917, the BCGA staff became unofficial information officers, distributing literature and answering customer queries on the government's behalf.

It was not an entirely satisfactory situation for the BCGA. Although they endorsed the government food preservation program, the executive objected to the "red tape regulations" they encountered in co-coordinating a program that answered to three separate agencies---the Board of Education, the Food Production Department, a subsidiary of the Board of Agriculture, and the Ministry of Food.¹³² Apparently, the Board of Education published information on food economy and home gardening, the Food Production staff promoted "canning and bottling," while food drying was handled by the Ministry of Food. Frustrated consumers, seeking information directly from government departments, wrote letters to the BCGA complaining that their enquiries never seemed to reach the appropriate government office. Gas managers and lady demonstrators offered solutions to the information problems by working with secretaries of agriculture sub-committees, arranging local exhibitions and lectures, and setting up government information bureaus in company showrooms.¹³³

While co-operating with three government agencies on a single project, the BCGA also complained that the Food Production Department had no idea of the needs of average housewives. For its campaign, the Department promoted a single canning apparatus, the Royal Home Canner, even though the device was too large and too expensive for ordinary home use. To reach the greatest number of small fruit growers and encourage

¹³² Hurwitz, State Intervention in Great Britain, 218-219; "The Association and the Food Preservation (Canning, Bottling, Drying) Campaign," Bulletin (October 1918), 172.

¹³³ "The Association and the Food Preservation Campaign," Bulletin (October 1918), 172.

housewives to try home canning, the BCGA designed and patented smaller and less expensive equipment. The Food Production Department approved the designs, authorizing their immediate manufacture. The most ingenious of these inventions was the "Wash-Copper Canning Set" which inserted into any ordinary household copper, whatever the fuel, converting the family washing machine into "an efficient and economical canning and bottling appliance."¹³⁴ Experienced in both industrial design and dealing directly with consumers, the gas industry lent these practical skills to the government campaigns for food conservation. Unfortunately, the 1918 food production campaign co-incided with a poor fruit crop, given that year's hot, dry growing conditions. Nonetheless, the Food Production Department felt that the effort was justified, if only because it laid the foundations for future campaigns, to the credit of the gas industry's efforts.

Although the overall success of the food preservation campaign remains unclear, it indicates several things about the gas industry and wartime food policy. First, it illustrates that the gas industry initiated corporate-sponsored programs for food conservation in an effort to assist its employees and customers overcome the wartime hardships of food shortages. To carry this out, the gas industry relied on the contributions of its home service women, working with consumers in the home and through local food committees, and its publicity organization, the BCGA, which produced and distributed information to consumers and employees. When called upon by the government to support public projects, the gas industry adapted its organization to this purpose, despite the apparent frustration of dealing with government bureaucracies. As a business organization working directly with consumers to address the wartime food shortages, it provides another example that extra-governmental programs

¹³⁴ "How the Gas Industry is Helping the Government to Save the Country's Fruit and Vegetables," ATAOUFG (July 1918), 8.

influenced government activity, as Barnett maintains.¹³⁵ But the gas industries motives were not entirely altruistic. While the BCGA promoted domestic propaganda for themselves and the government, as noted above, the executive committee chairman, Frances Goodenough, readily admitted that public service constituted the best form of wartime advertising, inevitably leading to increased domestic gas sales once the conflict ceased.¹³⁶ Gas managers eagerly anticipated the housing boom that postwar reconstruction must surely bring.

“A Gas Cooker in Every Home”

The plans, the promises, the priorities for reconstruction, all developed throughout the war years. The term “reconstruction” implied, not merely a return to the past, but compensation for the present and hope for the future. In many respects, the vision of a reconstructed society became a vague incentive to keep the British people behind the war effort, especially during the “three bitter years” after 1916.¹³⁷ Preparations for the after-war years began in March 1916, when Asquith named a Cabinet Committee on Reconstruction to investigate the problems that might occur. Twelve months later, Lloyd George reorganized the same group as the Reconstruction Committee. In August 1917, he established a Ministry of Reconstruction, headed by Christopher Addison, to conduct research and shape public policy concerning the anticipated problems of dealing with

¹³⁵ Barnett, British Food Policy, 147-157.

¹³⁶ “Seventh Annual Report of the General Committee,” Bulletin (October 1918), 160.

¹³⁷ Paul Barton Johnson, A Land Fit for Heroes: The Planning of British Reconstruction 1916-1919 (Chicago, 1968), 4.

demobilised soldiers, munitions workers and replacement labour.¹³⁸ Separate administrative branches dealt with finance, manufacturing, transport, labour and industrial organization; the ministry's branch for social development included subcommittees on health, education and housing. Advisory councils appointed committees and sub-committees to study specific problems, report their findings and make recommendations back to the Ministry.¹³⁹ Throughout the remainder of 1917, a committee headed by A.S. Comyns Carr, studied the proposals for extended unemployment and health insurance; committee members William Beveridge, Mona Wilson and Arthur Greenwood agreed on the need for a Ministry of Health to administer such programs. H.A.L. Fisher's educational committee addressed the problem of adult education, drafting proposals for a new education bill. Lord Haldane's Coal Conservation Committee cooperated with the new Department of Scientific and Industrial Research to consider plans for a national electrical supply system that was both efficient and inexpensive.¹⁴⁰ It was a complex bureaucracy, intended to draft a plan for the post-war society, that would compensate for the hardship of the war years and soothe existing class tensions.

Housing became a flashpoint for debates over reconstruction and state intervention. Given the wartime building moratorium on new houses, and the resulting shortages and rent strikes that marked the war years, the need for more and better housing quickly became a central reconstruction issue. Moreover, by 1917, building costs had risen approximately one hundred percent from pre-war levels with prices expected to remain high for several years after the war. Private builders were discouraged from

138 Johnson, Land Fit for Heroes, 71-4. Addison was formerly the Minister of Munitions in the Lloyd George Coalition Government. His credibility was damaged after the engineers' strike in May 1917 and he was moved to the new Ministry of Reconstruction.

139 Hurowitz, State Intervention in Great Britain, 287-290.

140 Johnson, Land Fit for Heroes, 79-80.

initiating new construction because of the anticipated capital loss, particularly given the rent controls imposed by the 1915 Rent and Mortgage Restriction Act.¹⁴¹ In June 1916, the Local Government Board first outlined this problem to the Reconstruction Committee, advocating state subsidies for local authorities and private builders to offset the costs of post-war housing construction. Later, in May 1917, the LGB continued its investigations into the housing problem, conducting interviews with numerous interested groups, including the National Housing and Town Planning Council, the Garden Cities and Town Planning Association, the Workmen's National Housing Council, and representatives of private enterprise.¹⁴² Labour groups, women's organizations, architects, businessmen and politicians all debated how to build enough homes for all of Britain's heroes.

The housing debate was highly politicized, on several levels. In terms of labour relations, Lloyd George's government used promises about reconstruction housing policy to curb wartime industrial unrest on several occasions: in mid 1917 just after the May engineers' strike; and in early 1918, as labour reacted against the enlistment of as many men as possible, including skilled workmen, for that spring's planned German offensive.¹⁴³ Moreover, to avert a post-war unemployment crisis, the Minister of Reconstruction anticipated that house-building would absorb demobilized soldiers and unemployed munitions workers. In the closing months of the war, the government's support for the Tudor-Walters Report (1918) was equally calculated to defuse social unrest. A housing study undertaken by the Ministry of Reconstruction, this progressive report recommended that

¹⁴¹ John Burnett, A Social History of Housing 1815-1985, 2nd ed. (London, 1986), 221.

¹⁴² Mark Swenarton, Homes Fit For Heroes: The Politics and Architecture of Early State Housing in Britain (London, 1981), 67-70.

¹⁴³ Swenarton, Homes Fit For Heroes, 70-77; Wrigley, Lloyd George and the British Labour Movement, 230.

working-class housing reflect “garden-city” model planning of the type previously built for occupants with higher incomes.¹⁴⁴

Disagreements over governmental jurisdiction, in terms of responsibility for housing policy, reflected another aspect of the housing debate. The Local Government Board supported the view that, as in the past, local authorities assumed control over their own housing programs, changed only by the addition of state assistance. In contrast, the Ministry of Reconstruction and the Treasury envisioned a housing program that was integral to an overall plan for reconstruction, requiring direct government supervision and funded by Treasury loans. Addison favoured the appointment of regional housing commissioners by the LGB to oversee the work of local authorities, empowering the government to intervene if local councils failed to meet their housing obligations.¹⁴⁵ In return, the local authorities demanded limited loan liability to protect themselves against financial losses over housing construction. In early 1919, due to renewed labour unrest in London and Glasgow, including strike threats by coal miners and railway workers, the housing campaign assumed national significance. Discontent stemmed from the pressures of demobilisation and the continued high cost of living. Moreover, the Wages (Temporary Regulation) Act, signed in November 1918, lifted the prohibition against lock-outs and strikes, officially reinstating the bargaining power of the unions, including the militant Amalgamated Society of Engineers and the Triple Alliance of miners, railwaymen and transport workers. The example of the Bolshevik’s October Revolution and the Labour Party’s adoption of a modest socialist constitution further contributed to working-class restlessness.¹⁴⁶

By mid-March 1919, the Housing Bill was before the House of

¹⁴⁴ Swenerton, Homes Fit For Heroes, 95-96; Burnett, Social History of Housing, 225.

¹⁴⁵ Swenarton, Homes Fit for Heroes, 75-76.

¹⁴⁶ Eric Wigham, Strikes and the Government 1893-1974 (London, 1976), 47-51.

Commons. The Bill's supporters, PM Lloyd George, Chancellor of the Exchequer, Austen Chamberlain and Auckland Geddes, the former President of the Local Government Board, all emphasized the social and political importance of, not simply more houses, but better housing standards. Anticipating the counter-revolutionary effect of the housing programme, politicians, such as N. P. Billing of Hereford and J.D. Gilbert, MP for Southwark, asserted that all new houses, even those constructed for working-class families, needed hot-water systems, bathrooms and gardens. By building houses to higher standards and by limiting housing density, the government could effectively demonstrate that working-class aspirations could be met under the existing political system.¹⁴⁷

The gas industry fully appreciated the social and economic significance of housing reform. Public housing schemes, whether subsidized by government grants or loans, represented a tremendous commercial opportunity for gas companies.¹⁴⁸ The advertising literature produced by the BCGA, however, presented the housing debate in terms of class and gender, stressing the social implications of gas technology in the reconstruction years. Basic services, like hot water, were not the exclusive right of a privileged minority. As early as 1915, reflecting the wartime debates over working-class dwellings, Maud Adeline Brereton asserted that hot water was not a luxury reserved for the affluent, but an essential for all members of the community.

It is manifestly unfair to expect a working man's home to be kept clean if not means are provided whereby an adequate supply of hot water can be readily obtained. The hot-water supply in working-class dwellings will at no distant date become a question for the united consideration and mutual suggestion of housing committees, sanitary officials, municipal engineers, and all

¹⁴⁷ Swenarton, *Homes Fit For Heroes*, 80-87.

¹⁴⁸ "Housing Schemes," *GJ*, 13 August 1918, 295.

interested in the moral welfare of the poor. ¹⁴⁹

Brereton accurately predicted that domestic technology would be a contentious social issue in the reconstruction years ahead. Several years before the reconstruction housing reports, she published a long list of recommendations for builders and architects in the BCGA press, insisting that all new dwellings contain provisions for hot water boilers and “penny-in-the-slot cookers.” In addition to increased facilities in individual homes, Brereton recommended central stations for doing laundry and bathing, particularly supporting that recent innovation, the “spray bath,” as hygienic and cost efficient.¹⁵⁰ Brereton regretted that some landlords and builders still refused to install gas services for their tenants, under the wrongful assumption that the property owner was financially liable for the carcassing and equipment rental. Given her background in public health and interest in child welfare, Brereton supported a general levelling-up of building standards.

Her views coincided with those expressed by wartime housing advisory groups, including the Workmen’s National Housing Council (WNHC) and the Women’s Subcommittee on Housing. Since 1915, the WNHC had lobbied the LGB for improved standards to municipal housing made possible via state subsidies; they recommended a minimum of three bedrooms per house, a separate bathroom with hot and cold running water, and enforcement of minimum space standards for housing density.¹⁵¹ In late 1917, under pressure from the Women’s Labour League, Addison’s Ministry of Reconstruction appointed a women’s committee to consult with

¹⁴⁹ “Domestic Hot Water from the Cottage to the Mansion,” ATAOUFG (September 1915), 3-4.

¹⁵⁰ “Domestic Hot Water From the Cottage to the Mansion,” ATAOUFG (September 1915), 4.

¹⁵¹ Swenerton, Homes Fit for Heroes, 91.

housewives on the question of post-war housing. In October 1918, the Women's Subcommittee on Housing issued its interim report, recommending provisions for gas cookers, hot and cold water and bathrooms in separate rooms from the scullery, as standard necessities in both private and public housing.¹⁵² Subcommittee chairman, Lady Gertrude Emmott, a long-time acquaintance of Maud Brereton and the wife of a prominent Liberal MP from Oldham, shared Brereton's conviction that government respond to women's demands for higher housing standards and labour saving domestic technology.¹⁵³ Echoing Brereton's earlier comments made before the BCGA in 1913, Lady Emmott's report reasserted the positive potential of technology on women's lives. Consider the importance of hot water.

The everyday work of the house as well as the laundry work is doubled by the lack of a proper supply of hot water. The extra strain on the woman's strength, coupled with the waste of time, leaves her without the opportunity or energy to attend to other household tasks or secure any form of recreation for herself.¹⁵⁴

Although she made no direct reference to the earlier recommendations of the WNHC, Maud Adeline endorsed the women's committee report in the BCGA press, quoting passages from committee members, Lady Emmott and Mrs. C.S. Peel, a domestic economy specialist and wartime consultant with the Ministry of Food. For example, having read numerous letters from working women, Mrs. Peel concluded that women wanted "a gas cooker in every house" to save labour and fuel costs.¹⁵⁵ The

¹⁵² Alison Ravetz, "View from the Interior," in A View From the Interior, ed. Attfield and Kirkham, 194-197.

¹⁵³ Ministry of Reconstruction, Women's Housing Subcommittee, First Interim Report, Subcommittee of the Advisory Council of the Ministry of Reconstruction(September 1918), Cmd. 9166, x: 629, 4-6.

¹⁵⁴ Women's Housing Sub-Committee, First Interim Report, 5.

¹⁵⁵ "Government Housing Schemes and the Gas Industry," Bulletin (October 1918), 180.

women's report advocated labour-saving design features, like easy-to-clean floor surfaces, "built-in fitments" for cooking utensils, and drain-boards for sinks, pressing for the same design elements that Brereton had included in her re-constructed kitchen designs, prepared for the Institute of Sanitary Engineers. In many respects, the women's subcommittee reiterated the same recommendations that Brereton had publicly articulated since joining the BCGA seven years earlier.

The official housing document, the Tudor-Walters report, reaffirmed the need to raise working-class housing standards above pre-war levels. The final report, which appeared in November 1918, represented the views of committee members, such as architect Raymond Unwin, a founder of the Garden City Movement. The report recommended several variations of the traditional terraced cottage, but with wider frontages, gardens, three bedrooms, separate sculleries, bathrooms and indoor toilets.¹⁵⁶ It called for the construction of 500,000 homes within three years. Although some of the recommendations of the Women's Housing Subcommittee were missing from the official reconstruction document, including the emphasis on labour-saving design, and provisions for children's playgrounds and nurseries,¹⁵⁷ it still marked a radical departure from the housing schemes of the pre-war era, in terms of building standards, design and construction. Whereas previous building schemes reduced standards to cut building costs, the Tudor-Walters Report suggested that economy depended on efficient design, like the avoidance of dormer windows, and the practice of grouping chimney flues. The government endorsed the Report, modelling the 1919 housing legislation, the "Addison Acts," on its ambitious recommendations.¹⁵⁸

156 Burnett, Social History of Housing 224-226.

157 Ravetz, "A View From the Interior," 196-97.

158 Swenarton, Homes Fit for Heroes, 109-111.

In 1919, the Coalition Government passed two housing acts, initiating the new policy of state-supported housing, under the supervision of Addison, President of the Local Government Board, and later, Minister of Health. The first of these, the Housing and Town Planning Act (July 1919) required local authorities to survey their districts and submit plans for housing development to the Ministry of Health. The Treasury agreed to cover all building expenses for approved housing schemes, over a token penny rate, ensuring that local authorities and ratepayers were not fiscally responsible for the entire cost of working-class housing. Rents were fixed independently of costs, reflecting the rent controls of existing working-class houses, at least, until the reconstruction housing shortage was resolved.¹⁵⁹ The second of the "Addison Acts," the Housing (Additional Powers) Act (November 1919), was intended to stimulate private builders into activity after the slow start made by local authorities. It granted a lump sum subsidy of £120-£130 per house not over a certain size, built for purchase or for rent. There was no restriction on the price of the house, or who might occupy it; the measure was simply a cash incentive to stimulate the building trade.¹⁶⁰

The gas industry enthusiastically supported the government's commitment to provide 500,000 new homes. They equally supported the Tudor-Walters's ideals that good design saves money; for gas men, this meant installing gas instead of electric lights and coal stoves. While this had always been a standard theme of gas advertising before and during the war, the gas managers were preparing to do battle with the electrical industry for the domestic market.¹⁶¹ Gas men, like W. Dunn, argued that electricity was still too costly for housing schemes, even for basic lighting, and therefore, a waste of government funds. Taking this point to the Royal Institute of

¹⁵⁹ Kenneth O. Morgan, Consensus and Disunity: The Lloyd George Coalition Government 1918-22 (Oxford, 1979), 89-90.

¹⁶⁰ Burnett, Social History of Housing 226-227.

¹⁶¹ "Electricity Supply Memoranda," GJ, 17 December 1918, 613.

British Architects, he contended that gas companies had the right to install mains in the new streets, leaving home owners and tenants the option of connecting their services to the homes.¹⁶² Gas men had to ensure that as many of those half-million new homes as possible were fitted for gas.

Design competitions and housing conventions followed the legislation, as local authorities, architects and builders, considered their alternatives now that the government directives were in place. The BCGA participated in these public debates, enlisting its own housing expert, H.H. Creasey, to lobby builders and architects on the gas industry's behalf. An employee of the GLCC in Frances Goodenough's Gas Sales Department, Creasey was the company's special consultant, who dealt with the enquiries of businessmen and professionals, like doctors and architects.¹⁶³ Creasey monitored the housing conferences, quoting the high profile housing experts, to bolster arguments that gas appliances were both cost effective and labour saving in working-class homes. The BCGA assessed the winning designs of the 1919 Ideal Home Competition, redrawing several of the architectural layouts and substituting gas fixtures for the coal stoves and electrical lights favoured by some architects. Creasey challenged the growing perception shared by members of the architectural profession, that gas lighting was outmoded by electricity.¹⁶⁴ Creasey quoted the opinions of several of the "Ideal Homes" judges, including Labour Party member Mrs. Sanderson Furniss formerly of the Women's Subcommittee on Housing, social reformer Seebohm Rowntree and architect Sidney D. Adshead, who advocated the "simplification" and "standardization" of the mass-produced

162 "Electricity Too Costly for Housing Schemes," GJ, 26 November 1918, 984.

163 Stirling, History of the GLCC, 300, 322.

164 H. H. Creasey, "Government Housing Schemes and the Gas Industry, Part 1," ATAOUFG (November 1919), 185-86.

“Standard Cottage.”¹⁶⁵ Their combined support for gas fires and stoves provided an unofficial endorsement for the industry.¹⁶⁶ Illustrated advertisements reflected the new emphasis on working-class consumers, particularly women, by marketing the gas stove as “the Housewife’s Friend.”¹⁶⁷ Architects, like Edwin J. Sandgrove, the President of the Royal Society of Architects from 1916 to 1919, recognized that women’s wartime participation in the labour market had forever changed feminine expectations of work and family. In an article in the BCGA press, Sandgrove asked his readers:

Does anyone imagine that now that the war is over, and our fighting forces have---more or less---returned, these women are going back to the old conditions of humdrum house-drudgery? Of course not. Why should they?¹⁶⁸

Sandgrove continued that women rightfully demanded “better treatment than the earlier generation of wives received in the matter of the planning and equipping of the home.” Because many women would remain in the workforce after the war, and given the unavailability of domestic help, Sandgrove asserted that labour-saving devices were critical to domestic and even national efficiency. By aligning itself with progressive housing reformers, who represented the interests of workers and women, the BCGA stressed their industry’s capacity for beneficial public service.

165 S. Martin Gaskell, Model Housing from the Great Exhibition to the Festival of Britain (London, 1987), 76-80.

166 National Art Library/ Victoria and Albert Museum/ Daily Mail Ideal (Workers) Homes Competition Catalogue (1919); H.H. Creasey, “Government Housing Schemes and the Gas Industry, Part I,” ATAOUFG (November 1919), 178, 181; Creasey, “Government Housing Schemes and the Gas Industry, Part II,” ATAOUFG (December 1919), 193, 195-196.

167 “Suggestions for Local Advertisements,” ATAOUFG (September 1919), xxiii; ATAOUFG (October 1919), xxxi.

168 Edwin J. Sandgrove, “How We Shall Build the New England?” AHAOUFG (September 1919), 157.

In tune with the post-war problems of economic constraint and continued shortages, the BCGA emphasized the cost efficiency of gas. An advertisement in Punch, ran the caption “Intelligent Economy and the Government Housing Scheme,” claiming that by installing gas fires, housing authorities could save £30 per house on bricks alone, with a total saving of £15 million of public money.¹⁶⁹ The BCGA corroborated its findings by consulting with architects interested in government housing and garden-city planning. W.J. Swain, the architect for Seebohm Rowntree’s model housing estate, Rowntree Garden Suburb Estate, York, verified that the substitution of coal fires for gas would indeed provide a savings, in both materials and manpower.¹⁷⁰ Considering the issue of domestic labour, Swain contended that, while builders, politicians and architects debated the merits of different services, “the women should be the final judges.”¹⁷¹ Women recognized the importance of gas services, as Lady Emmott’s committee report had revealed. Gas slogans adopted the optimistic language of reconstruction; their advertising phrase, “Housing in the New Era,” integrated the dual promises of efficiency and economy, while gas engineers reminded builders that the installation of gas equipment during, not after, housing construction was an “essential preliminary” indicative of economical design.¹⁷² While this was good news for local authorities, the gas men directed their message at private builders, businessmen like themselves, who wanted to stretch their construction subsidies as far as possible. To illustrate their point, individual gas companies, like the South Metropolitan, assembled “all gas” model rooms for the “typical ‘Government’ home,” at

169 Punch, 5 November 1919, xix.

170 Creasey, “Government Housing Schemes and the Gas Industry,” ATAOUFG, (November 1919), 196-97.

171 W.J. Swain, “The House We Want,” ATAOUFG (March 1920), 26.

172 The Bulletin, (October 1919), xxxvi.

reconstruction trade exhibitions, including the Building Trades Exhibition, at Olympia, and the Victory Exhibition, held at the Crystal Palace.¹⁷³

Despite the optimism of architects and businessmen, including Sandgrove and Creasey, within six months Addison's housing program was experiencing difficulties. The fate of Addison's acts have been well-documented. Mark Swenarton argues that the sharp economic down turn in 1920 ground housing development to a halt. After the immediate post-war boom, the decline in foreign trade, increasing unemployment, coupled with the continued shortage and high cost of building materials, eventually undermined the optimistic expectations of housing reformers, including Raymond Unwin and Ashton Webb.¹⁷⁴ Kenneth Morgan contends that the housing projects foundered because of municipal politics and labour problems. Local councils were slow to initiate housing schemes, while private builders avoided participation in public housing projects because they could make higher profits on commercial projects, like warehouses, department stores, cinemas and offices. In addition, the post-war building industry suffered labour shortages, particularly for skilled trades, like bricklayers, masons, joiners and slaters. Efforts to increase the numbers of workmen in the building trades were resisted by the builders unions, who saw increased apprenticeships and the upgrading of unskilled men as labour dilution. In 1920, Lloyd George blamed the obstructiveness of the building trades in limiting their industry for the failure of the government's housing program.¹⁷⁵

Inflation and high interest rates of the post-war slump also prevented municipalities and private builders from undertaking projects, despite the promised government subsidies for contractors. In February

173 "Gas Installation for the Small Home," Copartnership Journal (May 1920), 176-77; "Gas Exhibits at the Crystal Palace," Copartnership Journal (September 1920), 294.

174 Swenarton, Homes Fit for Heroes, 91-99, 155-161.

175 Morgan, Consensus and Disunity, 90-92.

1921, submitting to pressure from the Chancellor of the Exchequer, Austen Chamberlain, Addison agreed to reduce the proposed housing expenditures, amending the housing targets by half to 250,000. One month later, Lloyd George replaced Addison as Minister of Health with the conservative businessman, Alfred Mond, a move which sealed the fate of the government's housing initiatives. By July 1921, the Cabinet Finance Committee suspended assistance to local authorities for housing construction, while still honouring its commitment to complete 176,000 houses already underway. Addison resigned from the Cabinet, his ambitious housing programme sacrificed in the interests of fiscal austerity as the Coalition Government, increasingly dominated by budget-conscious conservatives like Austen Chamberlain, retreated from its promised social programs.¹⁷⁶

After 1921, in the interests of providing cheaper homes, the municipal housing authorities abandoned the building recommendations outlined in the Local Government Board's Housing Manual regarding the size, construction and density of housing estates. In 1919, the LCC drew up plans for 29,000 dwellings to be constructed over five years, to house 145,000 residents; only 8,799 were completed before the suspension of the Acts in mid 1921. However, those tenants lucky enough to receive houses built under the Addison Acts reported satisfaction with the designs and amenities.¹⁷⁷ In the interests of saving money, municipal councils still opted for gas installations, even for lighting, at some urban estates, such as Roe Green in Hendon. While gas managers described this as a victory for the industry, housing experts were disappointed that model dwellings were still equipped with gas lighting, and not electricity. Nevertheless, electric lighting was making rapid progress, despite the BCGA's aggressive advertising. In terms of domestic technology, local councils constructed homes with

¹⁷⁶ Morgan, Consensus and Disunity, 97-104.

¹⁷⁷ Burnett, Social History of Housing, 230-231.

multiple-services; some flats came equipped with gas fires, coal stoves and electric lights as if no one service could be trusted with the entire domestic workload. Gas managers, uncomfortable with this coexistence, feared the eventual takeover of electricity. They acted accordingly, as will be seen in the following chapter, by modernizing the industry's image, reaching out to women in the community, emphasizing the value of customer service, and actively participating in the interwar housing movement.

Conclusion

The years of war and reconstruction transformed the gas industry in a number of ways. Although the industry suffered material losses, in terms of damaged and destroyed colliery ships and lapsed structural maintenance at the works, these losses were offset by the new chemical production facilities erected with government funds. Production expenses were offset somewhat by price hikes to consumers, while the decline in quality and service was easily blamed on the exigencies of war. Consumers were disgruntled, but left with little recourse.

The industry promised, however, that all would be well in peacetime. To this end, the BCGA participated in the reconstruction housing debates; "Housing in the New Era" of peace and prosperity would mean gas services for all classes, resulting in reduced domestic labour for women and improved health for British citizens in general. By identifying with progressive housing reformers, BCGA spokespeople, like H.H. Creasey, helped politicize the industry's commercial message. The attention which housing committees directed towards women's needs in the "domestic workshop" placed Maud Brereton and her "gas and water feminism" at the fore of labour-saving design. In the reconstruction years, housing represented more than a shortage of adequate homes. The promised "homes for heroes" signified the dissolution of pre-war class barriers, the anticipation of material and democratic equality, and new expectations for

national efficiency after the individual and collective sacrifices of the war. Demobilized men expected jobs, dignity and decent wages. Demobilized women, who remained in the workforce, expected the same, and resisted the return to menial low-paying jobs, like domestic service. In terms of housing standards, men and particularly women, demanded significant improvements, including utility services like hot water, gas stoves and indoor bathrooms. As wage-earners whose economic worth was constantly reaffirmed in the national press, post-war women valued their own labour more highly than before. And more than ever, they resented the wasted time and effort of domestic drudgery, especially hauling water and coal.

Throughout the war years, the numbers of women gas employees increased in all areas of the business, as female labourers proved themselves capable of even the most arduous tasks. Although the male trade unionists needlessly feared the encroachment of women at the works, after the war some women employees remained, usually as office staff and technicians in the company laboratories. No longer the only women in the gas industry, the "lady demons" or women's advisory staff retained a certain prestige as the first women with permanent jobs in the industry. Despite the gas managers undying praise for their female workers, the demonstrators were the only ones whose jobs were not called into question by post-war reconstruction. Given their already public role, they easily assumed the responsibilities of distributing wartime domestic propaganda and in this capacity, further enhanced both their professional image and public credibility. During the interwar years, the subject of the following chapters, the gas industry relied still further on the home service women to mediate between the corporation and the female consumer in the home. After all, if Britain's heroines were being asked to trade their overalls for aprons, the very least they could expect were efficient "domestic workshops."

Chapter 5: Marketing Modernity: Gas versus Electricity Between the Wars

Introduction

There is no question that in everyday life our surroundings have a large psychological effect, and beauty---like cleanliness---is a material producer of such effect, and of the very best order. Therefore, it is to our interest to cultivate beauty in our gas-using appliances, so long as it is not subversive of utility, and therefore of economy and efficiency, which to-day are of marked importance to the people, with the buying power of money so much below what it was ten years ago, and taxation at the level at which it is.¹

Addressing the annual meeting of the BCGA, held at Wembley, Sir Lawrence Weaver, a chief organizer of the 1924 British Empire Exhibition, considered the relationship between art, industrial design and commerce. An architect, journalist, director of the advertising agency the London Press Exchange and member of the Rainbow Circle, Sir Lawrence stressed the value of artistic beauty in everyday life.² Moreover, he emphasised the importance of educating the producers and consumers of manufactured objects to appreciate the aesthetic importance of design, even in mass produced objects used for the most ordinary purposes.³ This aesthetic ideal combined the design legacy of the British Arts and Crafts Movement, popularized by William Morris and Walter Crane, with the more recent modernist school of industrial design which originated on the Continent with architects, notably Walter Gropius at the Bauhaus school.⁴ Although the machine aesthetic of industrial modernism had few strict adherents in England, gas men agreed that their industrial engineers had

¹ "Art in Industry," GJ, 22 October 1924, 219.

² Freedon, Rainbow Circle, 367.

³ "Art in Industry," GJ, 219.

⁴ Penny Sparke, Felice Hodges, Emma Dent-Coad, Anne Stone, Design Source Book (London, 1986), 86-87; Penny Sparke, An Introduction to Design and Culture in the Twentieth Century (London, 1986), 45-49.

to achieve a necessary balance between “desirable efficiency and attractive appearance” when designing consumer durables, like stoves and gas fires.

That gas men were considering “the Influence of Beauty in Commerce and Industry,” the title of Weaver’s address, indicated that they fully appreciated that their industry had entered a new commercial era characterized by intense competition with electricity. To meet this aggressive competition and maintain their levels of domestic consumption, gas managers and the BCGA executive preached the necessity of devoting greater attention, not only to customer service, but also to consumer tastes. Despite the threat posed by electricity, David Milne-Watson and Frances Goodenough remained confident that their industry was “very much alive” with a “great future before it.”⁵ They realized that this “great future” depended, to a large extent, on the persistent cultivation of the domestic market. It depended on the support of loyal female customers who relied on the gas industry to make their homes cleaner and more comfortable, and their communities safer, healthier places to live.

This consumer-oriented message was evident throughout the interwar period, the subject of this chapter. As the Conservative and Labour governments turned their respective attentions to developing a cheaper national electrical service,⁶ the gas industry responded by directing its resources towards the retention and expansion of its domestic market via customer service, intense advertising and design improvements to gas appliances. The campaign to electrify British homes began during the interwar years, bolstered by the construction of the national grid between 1926 and 1933.⁷ Economic histories of the interwar period have documented this technological achievement as have studies of domestic technology and

⁵ “The Gas Exhibit: First Official Visit,” GJ, 21 May 1924, 526.

⁶ Hannah, Electricity Before Nationalisation, 88-104.

⁷ Hannah, Electricity Before Nationalisation, 186-192.

design.⁸ The use of electricity increased between the wars, however, levels of domestic gas consumption also grew over the same period, although this last fact has received much less attention. In a study which seeks to explain the slow adoption of electrical “consumer durables” in interwar Britain, despite the popular image of the newly-electrified nation, Avner Offer and Sue Bowden note that, although home owners and tenants adopted electric lighting, for heating, cooking and washing, women still preferred gas because it was “clean, easy, quick and economical.”⁹ Contemporary sources reveal that even in electric homes, some tenants continued to use candles and oil stoves given the high cost of electric power.¹⁰ Based on their “cursory reading” of interwar women’s magazines, Bowden and Offer write that, in comparison to their electrical competitors, the gas industry’s advertising appealed to women of every class, in a concerted effort to develop and retain their domestic market.¹¹ Although studies of the interwar period generally overlook the social and economic impact of the gas industry, it was never eclipsed by electricity between the wars.

This chapter takes up Bowden and Offer’s general observation regarding the promotional strategies of the gas industry. The large metropolitan companies, like the GLCC and the SMet, and the industry’s publicity group, the BCGA, worked in several mediums to present their

⁸ Charles Loch Mowat, Britain Between the Wars 1918-1940 (Cambridge, 1983), 342-43; Sidney Pollard, The Development of the British Economy, 1914-1990, 4th ed. (London, 1992), 43-45; John Stevenson, British Society 1914-45 (London, 1990), 109-110; John Stevenson and Chris Cook, Britain in the Depression. Society and Politics 1929-39 (London, 1994), 17-18; Forty, Objects of Desire, 184-200; Suzette Worden, “Powerful Women: Electricity in the Home, 1919-40,” in A View From the Interior: Feminism, Women and Design, ed. Attfield and Kirkam, 128-47.

⁹ Bowden and Offer, “The Revolution That Never Was,” 255-56.

¹⁰ “Dissatisfaction with Electricity at Eltham,” GJ, 15 September 1926, 613.

¹¹ Bowden and Offer, “Revolution That Never Was,” 267.

message to female consumers. Some methods were traditional, like the trade exhibitions, but others were costly innovations, such as documentary films and a corporate-sponsored housing development. While the electrical industry's propaganda addressed affluent consumers, gas advertising stressed the affordable comfort of gas and was directed at a broad consumer base which included working-class women. Despite the perceived view of the gas industry as conservative and hopelessly out-moded, for their advertising campaigns Milne-Watson and Goodenough enlisted the assistance of well-know social progressives, including the filmmaker John Grierson and architect Maxwell Fry. In an effort to appeal to female shoppers and maintain the loyal custom of English housewives, they consulted feminist designers and housing specialists, including Elizabeth Denby and Dorothy Braddell. To appreciate how the gas industry attempted to modernize and feminize its corporate image, let us begin with a look at the gas industry's largest trade extravaganza of the interwar period, its contribution to the British Empire Exhibition in 1924.

Wembley and the World of Women

Despite the royal pageantry and cultural show-and-tell of the national pavilions, the 1924 British Empire Exhibition was about buying and selling. It was the largest international exhibition on British soil since 1851. King George V opened the event on April 23, St. George's Day. His entourage motored from Windsor to north London, completing the journey by carriage, arriving at Wembley in traditional processional style and waving to the crowds that lined the new town's streets. Edward, the popular Prince of Wales and President of the Exhibition, attended the opening ceremonies to the delight of the crowd. Despite the dull grey skies, over 50,000 people crowded into Wembley stadium to witness the official commencement of this six-month-long event. Plans for an imperial trade exhibition had been proposed in 1910, but the war and reconstruction had delayed the Empire

Exhibition until the mid-twenties.¹²

Wembley, in north-east London, was an obvious location. A rapidly expanding suburb and the site of the new sports stadium completed in 1923 for the Football Association cup finals, Wembley was easily accessible by rail and road, an important consideration since organizers expected an average of 75,000 daily visitors.¹³ Set in 220 acres of grounds, spectators could experience the wonders of the entire Empire in a single day--- from the exotic architecture of the east, represented by a replica of a Burmese pagoda, a rebuilt Malaysian mosque and an ersatz Taj Mahal--- to the more everyday sights of distant dominions, including a tour of an Australian sheep run or a wander through an artificial street market of commercial Hong Kong.¹⁴ For adventurous pleasure-seekers, the Exhibition contained a forty-acre amusement park of roller coasters and water chutes that reporters claimed made New York's Coney Island look like a "back street."¹⁵ For visitors of "a more serious turn of mind," the amusement park included a replica of Tutankhamen's tomb and a "full-sized model colliery" complete with a shaft and underground miniature railway for the coal cars.¹⁶ At a cost of about £12 million sterling, this exhibition brought the "empire in

¹² "Opening of the Empire Exhibition: Pioneers of the Scheme," Daily Telegraph, 24 April 1924, 13.

¹³ "Opening of the Exhibition," Daily Telegraph, 24 April 1923, 13; Loch Mowat, Britain Between the Wars 1918-1940, 177-78, 227; Stevenson, British Society 1914-45, 387.

¹⁴ "Festival of Empire," The Times, 23 April 1924, special supplement.

¹⁵ "Exhibition Opened Amid Wondrous Scenes," Daily Express, 24 April 1924, 3.

¹⁶ "General Notes from the Exhibition," GJ, 30 April 1924, 316.

little” to this north-London suburb.¹⁷ However, within the stirring speeches and the royal rhetoric of fraternal co-operation for the “better development of the family estate,”¹⁸ the fundamental message of Wembley, like that of the Great Exhibition in 1851, was commercial development.¹⁹ Displays of Australian butter, Canadian lumber and Indian carpets were cogent reminders to businessmen and consumers of the variety of goods available within Britain’s domains, while strengthened inter-empire trade promised a shared prosperity for this metaphorical family of nations.

It was the sort of event in which the publicists for the gas industry revelled. Well-experienced in the practice of co-ordinating collective trade displays, the gas managers and manufacturers had staged their own industrial exhibitions in London since the Great Exhibition in 1851, with successful collaborative events in 1882, 1904 and 1913. In addition, the metropolitan gas companies were regular participants in a variety of publicity events, including the Universal Cookery and Food Association shows and the *Daily Mail* Ideal Home Exhibitions held at Olympia.²⁰ Add to this experience, the advertising acumen of the BCGA staff, still directed by William Mason and Maud Adeline Brereton with Francis Goodenough retaining his chairmanship of the executive committee, and the gas industry

¹⁷ “Exhibition Opened Amid Wondrous Scenes,” Daily Express, 24 April 1924, 1.

¹⁸ “Exhibition Opened Amid Wondrous Scenes: The King’s Eloquent Tribute,” Daily Express, 24 April 1924, 1.

¹⁹ Richards, Commodity Culture , chap 1.

²⁰ For reports of the gas industry’s involvement in public exhibitions see BL/Universal Food and Cookery Association, Cookery Annual and Exhibition Souvenir (London, 1894); “The Gas Exhibition,” The Cookery Teacher (November 1904), 136-38; “The Exhibition,” The Cookery Teacher (March 1905), 70; National Art Library, V&A/, Daily Mail Ideal Home Catalogue (April 1910), 34-35; Ideal Home Catalogue (October 1913), 32; “The Ideal Home Exhibition: Gas Well Represented,” GJ, 2 March 1923, 602; “The Ideal Home Exhibition,” GJ, 5 March 1924, 546.

could draw on years of accumulated ability in terms of raising funds, coordinating participants and constructing displays. Chief organizers of the British Empire Gas Exhibit included Goodenough and Milne-Watson of the GLCC and Charles Carpenter of the South Metropolitan: these three alone had participated in numerous trade shows. The gas trade journal noted with satisfaction the large number of co-operative displays, "organized by industries and not separate firms," erected alongside their own pavilion in the Palace of Industry.²¹ The gas industry had long used this collective promotional style, pooling resources and talent to create larger, more impressive exhibition displays. The total cost of the gas exhibit was approximately £80,000, but Goodenough assured gas managers that "the impression of progressive life and enterprise that is being created in the public mind" by their ambitious exhibit would "more than repay every penny that is being spent on the enterprise."²² As always, Goodenough was a firm believer in the power of advertising.

The British Empire Gas Exhibit was designed with the consumer in mind, and in particular, the female consumer. Occupying a large corner site on the main avenue of the Palace of Industry, the gas exhibit consisted of a large reception lounge surrounded by a series of model rooms decorated in various period styles, from Early Regency to Queen Anne. Another set of rooms was arranged around the theme of "The Seven Ages of Woman," with each chamber decorated to represent a feminine stage in life, from the girl-child in the cosy nursery, to the schoolgirl cleaning up after a hockey-match, to a young working-woman efficiently managing her own business, ending with the mature matron relaxing at home. Each room was fitted with the appropriate gas appliances and fixtures, tastefully furnished by Messrs. Osbourne and Company of Grafton Street and Messrs. Heal and Son

²¹ "A Great Exhibition," *Co-Partners' Magazine* (March 1924), 51; "The British Empire Exhibition," *GJ*, 30 April 1924, 314.

²² "General Notes from the Exhibition," *GJ*, 30 April 1924, 316; Francis Goodenough, "What Wembley Means to the Industry," *GJ*, 30 April 1924, 315.

of Tottenham Court Road. The display rooms were staffed by female gas demonstrators to create the effect of a living tableaux.²³ Notably absent from the “seven ages” were any scenes of married women caring for husbands and children with the aid of gas in the home. No doubt women needed little reminder of that frequent domestic scenario. By depicting the advantages of gas throughout the entire female life cycle, the industry stressed that gas technology offered numerous advantages to women of all ages, in all walks of life. Additional display rooms included models for working-class flats, of special importance considering the Labour government’s intentions to boost housing development under John Wheatley’s 1924 Housing Act. Finally, the exhibit included a demonstration hall, with a platform for cookery demonstrations, several fully-equipped model kitchens, and rowed seating for about one hundred-fifty patrons.

The entire exhibit was designed to appeal to women. The organizers selected a location, not in the Palace of Engineering where the electricity display was housed, but in the Palace of Industry, near the exhibits of silks, jewellery, pottery, food and music, those items “of special interest to every woman .” Stressing the importance of colour and design in creating a “restful atmosphere,” architect H. Austen Hall, chose a classical early Georgian design, using an overall colour scheme of “cool grey, picked out with gold” and linoleum floor covering “of a very soft tone of grey, with a black border.”²⁴ The “Seven of Ages of Woman” series was designed in consultation with Mrs. Ethel M. Wood, the director of the Samson Clark advertising agency.²⁵ Like Maud Adeline Brereton, Mrs. Wood was a female pioneer in the field of advertising with a keen interest in the female consumer in the home. After the First War, she chaired a government

²³ “General Notes From the Exhibition,” *GJ*, 30 April 1924, 317-18.

²⁴ “General Notes from the Exhibition,” *GJ*, 317.

²⁵ Nevett, *Advertising in Britain*, 149.

enquiry into the problems of domestic service for women, as workers and employers.²⁶ Given her continued association with the BCGA, Maud Adeline Brereton handled much of the exhibit's publicity which was directed at the feminine market. By organizing the entire gas exhibit around a large central lounge, invitingly appointed with comfortable armchairs, end tables, telephones and the latest gas fireplaces, the committee hoped to attract visitors via this artistic resting place, which would be "appreciated, especially by women, on a tiring day, which all exhibitions tend to provide."²⁷ Milne-Watson remarked with humour that their lounge of upholstered chairs provided a haven for foot-sore spectators. The gas exhibit's lounge resembled the rest areas for women found in the major department stores, spaces designed to make shopping a pleasant, restful activity. In total, the exhibit communicated to women that gas in the home ensured comfort, luxury and ease.

Although some gas men, notably Sir Arthur Duckham, opined that the exhibit under-represented the industrial uses of gas, Milne-Watson defended its focus on domestic gas applications. It was a critical promotional strategy, designed to remind consumers, particularly women, that gas was a "modern" source of heat, light and power. Not only was gas reliable and economical, but it was "compatible with any scheme of decoration and furnishing, 'modern' or period, costly or inexpensive."²⁸ Despite the growing popularity of electric lighting, promoters were anxious to assure female consumers that the golden age of gas had not faded with the pre-war Victorian era. Gas still offered a viable alternative to costly electricity, even for lighting purposes.

²⁶ "General Notes from the Exhibition," GJ, 30 April 1924, 319.

²⁷ "The Rest Lounge," GJ, 30 April 1924, 317.

²⁸ "The Gas Exhibit: First Official Visit," GJ, 21 May 1924, 525-26.

The Politics of Publicity

The exhibition at Wembley enabled gasmen to assess their recent progress and plan for the future. Before his assembled colleagues, Milne-Watson, governor of the GLCC, reported on the present state of the industry. In 1924, the gas industry throughout the United Kingdom employed approximately one-hundred-fifty thousand workers, servicing eight million homes and businesses, consuming a ton of coal every two seconds. Milne-Watson stated that the industry was growing, providing more jobs each year despite the introduction of labour-saving equipment and the modification of work processes to reduce heavy work. He was proud that his industry was not "aggravating in any way the serious problem of unemployment" which remained around one million in June 1924 despite the gradual economic recovery which followed the 1920-1921 slump.²⁹

Those had been troubled years for the gas industry. Immediately after the war, production and maintenance costs continued to increase dramatically given the escalating costs of labour, coal and gas equipment, such as stoves and meters, forcing gas companies to raise their prices for gas and equipment rentals.³⁰ At the same time, new government legislation affected the way consumers were charged for their gas, and while gas engineers welcomed the changes, the new policies came into effect during the depths of the reconstruction slump. Consumers interpreted the new billing system as a clever means of concealing price increases and marketing sub-standard gas.

The Gas Regulation Act (1920) legislated a new method of measuring

²⁹ "The Gas Exhibit: First Official Visit and Luncheon," *GJ*, 21 May 1924, 526. For a discussion of the 1920-1921 slump and slow recovery after mid-1923, see Aldcroft, *The British Economy*, vol. 1, 5-11; 12-14.

³⁰ Board of Trade, Reports by the Standing Committee (and Sub-Committees) on the Investigations of Prices. Gas Apparatus (Sale and Hire) (May, 1921), Cmd. 1381 xvi, 717, 4-5.

and charging for gas based on calorific heat units, or British Thermal Units (BTU),³¹ as opposed to the previous system of measuring gas by its candlepower and charging by the cubic foot. The therm, 100,000 BTUs, became the new standard unit for gas production and sales.³² Under the new system, consumers only paid for combustible gas and not inert constituent gases, such as oxygen, carbon dioxide and nitrogen. In addition, the 1920 Act deregulated the gas production process, permitting companies to take advantage of new methods and additives, but stipulating the minimum permissible levels for pressure and calorific value, although these varied slightly throughout the country. The gas companies were required to inform consumers about the new thermal method of calculating gas consumption, notifying them of any changes in the pressure or composition of the gas. If the gas composition or pressure was altered, the companies had to adjust consumers' meters and fixtures, at company expense, to ensure that the gas burned safely and efficiently.³³

Generally, gas engineers applauded the terms of the 1920 Act, although the accountants dreaded the extra bookkeeping of switching from one method of price calculations to another. They also warned that consumers would find the change confusing unless they were properly informed.³⁴ Unfortunately, the 1920 Gas Act, which re-instated the pre-war sliding scale for pricing and dividends, coincided with the high production costs of the reconstruction slump. To avoid the penalties of raising gas

³¹ One BTU is the amount of heat required to raise the temperature of one pound of water one Fahrenheit degree. A therm equals 100,000 BTUs.

³² "Gas Regulation Act," GJ, 11 August 1920, 280, 292-3.

³³ Fuel Research Board, Report to the Board of Trade (January, 1919), Cdm. 108 xxii, 569, 4-9.

³⁴ "Price and Dividend Movements on the Therm Basis," GJ, 29 September 1920, 385.

prices, the companies hiked the equipment rental fees for stoves and meters. Consumers demanded a public enquiry into price, complaining that the companies used the new thermal system to unfairly increase prices, while maintaining dividends to shareholders.

The gas companies defended their price increases before the Board of Trade. Responding to a 1921 public enquiry on increased rates for equipment rentals, the GLCC representative declared that their production costs were between two and three times higher than pre-war levels: in 1919, production costs exceeded pre-war levels by eighty percent, rising an additional sixty-four per cent by 1920. They blamed the staggering post-war increase on higher wages after the absorption of demobilized men and the reduction of the work week from fifty to forty-seven hours. Capital costs for stoves and meters had doubled between 1913 and 1918, rising another fifty per cent by 1919. The companies responded by raising the rental charges since an increase to gas prices would have necessitated a dividend reduction. After 1920, consumers paid fifty per cent more for their existing stoves and even higher rates for new stoves, up to 100 to 200 per cent above the pre-war equipment rental charges.³⁵ Coal shortages incurred by the miners' strike, from April to July 1921, pushed production costs even higher. During the work stoppage, the gas companies were advised by Stanley Baldwin, head of the Board of Trade, to conserve coal supplies by reducing gas pressure and "stretching" the coal gas by adding "water gas," a lower quality gas made from coke and steam.³⁶

With the deregulation of gas processing under the 1920 Gas Regulation Act, the companies were permitted to extend coal gas with "water gas" even though the later product contained high levels of carbon monoxide. While this solution conserved coal stocks, the end product, a

³⁵ Board of Trade, Gas Apparatus (Sale and Hire), 3-5.

³⁶ CAB/24/127/C.P. 3133/Coal Mines Stoppage. Report on Emergency Arrangement, April 1-4 July, 1921, 608-615; 641.

mixture of coal and water gas, was potentially harmful given its dangerous levels of odourless toxic carbon monoxide. After 1921, the sudden increase in accidental carbon monoxide poisoning deaths aroused a public outcry against the gas companies.³⁷ Members of the scientific community, including Professor W.A. Bone with the Fuel Research Board, joined the editor of The Times in accusing the gas companies of endangering consumers. SMet chairman Charles Carpenter publicly defended the industry, writing on behalf of the Gas Companies Protection Association.³⁸ The Board of Trade and the gas industry still contended that it was unnecessary to restrict the permissible levels for carbon monoxide in domestic coal gas because the 1920 Act already enforced a system of regular gas testing by a team of impartial experts. However, to help assuage public fears, the Board's president, Stanley Baldwin, appended a special order to the 1920 Act stipulating that no gas containing carbon monoxide could be sold to domestic consumers unless it had been treated to smell like pungent coal gas.³⁹ Unsatisfied, the press continued to demand a full investigation.⁴⁰

³⁷ LMA/B/GLCC 49/ Minutes of the Board of Directors, 20 May 1921, 428, reported the deaths of three persons by coal gas poisoning; GLCC, Minutes, 3 June, 1921, 434, reported another two deaths; "Gas Burner Danger," The Times, 21 January 1922, 7, described the death of a Manchester family of three; "Carbon Monoxide Danger," The Times, 4 February 1922, 4, reported proceedings of an inquest into the death of four members of a Liverpool family.

³⁸ The Times, 2 January 1922, 6; 6 January 1922, 6; 12 January 1922, 11; 16 January 1922, 6; 21 January 1922, 7; 9 February 1922, 19; 17 February 1922, 11.

³⁹ The Times, 11 February 1922, 10; 14 February 1922, 15.

⁴⁰ In late 1922, the Daily Mail and the Pall Mall Gazette criticized the gas companies regarding gas quality and pricing. The Times resumed its attack in early 1923 by printing an editorial by Professor Bone, a critic of the industry. Milne-Watson, Goodenough and Carpenter, of the two largest metropolitan gas companies, defended current gas standards and pricing. See The Times, 4 January 1923, 11; 8 January 1923, 10; 10 January 1923, 7; 12 January 1923, 9; 16 January 1923, 7; 17 January 1923, 5; 1 February 1923, 7; 15 February 1923, 18; 17 February 1923, 11; 26 February 1923, 15; 28 February 1923, 8; 5 March 1923, 13; 10

The public's agitation over gas prices and carbon monoxide levels eventually resulted in the 1921 Board of Trade enquiry. Following two years of public meetings, interviews with gas company representatives and municipal officials, the investigating committee determined that the method of calculating gas usage by the therm was not responsible for increased gas consumption and subsequent increased charges. Nevertheless, the Board of Trade committee was not satisfied that consumers received the best quality gas appliances, reporting that many homes used gas cookers that had been in service for twenty years, failing to justify a fifty per cent increase in the rental fee. The committee recommended a policy of regular appliance renewal, such as that undertaken after the war by Goodenough at the GLCC.⁴¹ It also recommended better communication with consumers, noting that the companies who invested in educational publicity, like the SMet, received fewer customer complaints. Regarding carbon monoxide levels, the committee maintained that the gas companies were "free to supply gas of whatever quality and composition" they found suitable, trusting that the gas testing referees and the scenting of water gas offered protection enough for consumers.⁴² A few criticisms notwithstanding, the Board of Trade enquiry favoured the gas industry, helping to restore its damaged public image.

Although the report absolved the companies of any direct blame for the recent increases in carbon monoxide deaths, the LCC undertook its own study into the matter. In January 1923, the council passed a motion that the Public Control and General Purposes Committees consider whether legislative action was necessary to prevent the gas companies from spreading "illness and death by poisonous fumes as consequence of imperfect

March 1923, 7, 11; 15 March 1923, 21.

⁴¹ Board of Trade, Report Departmental Committee, Methods of Charging for Gas on a Thermal Basis (1923), Cmd. 1825 xi 569, 7; 13-16.

⁴² Board of Trade, Method of Charging for Gas on a Thermal Unit, 6-7.

gas or faulty mains or pipes.”⁴³ Following a two year study, the LCC report concluded that, although electric lighting remained the “best means at present available for artificial illumination,” electrical wiring was too expensive to install in all the new council houses and schools. Electrical installations cost approximately £20 per house, compared to the gas companies fee of from £1 to £3 for carcassing.⁴⁴ Several prominent public officials, including Herbert Morrison and Susan Lawrence, both members of the LCC and the Labour Party, and MP Percy Harris, strongly favoured electricity. Morrison condemned the council’s “retrograde” decision not to install electric lighting in the new east-end public housing developments, like Beacontree and Collingwood.⁴⁵ Curiously, the issue of gas toxicity and customer safety, the original purpose of the enquiry, was absent from the LCC final report, being overshadowed it seems by economic comparisons. Like the earlier Board of Trade report, the LCC investigation was reassuring news for the gas industry, given its conclusions that gas was safe and inexpensive. Nonetheless, the report suggested that electricity--- presented as modern, clean and convenient---was the new fuel of choice, and only fiscal restraints prevented the council from adopting it more extensively.⁴⁶ Gas services--- out-moded, but cheap---were a sorry second best, at least until a national electrical system reduced prices for local authorities and consumers.

⁴³ LMA/LCC/Administrative County of London, Meeting of Council, “Report: Gas versus Electricity in the Home,” 24 February 1925, 3.

⁴⁴ LMA/ London County Council, Report Re: Gas Versus Electricity, 5; “Housing Schemes,” GJ, 17 September 1926, 417.

⁴⁵ “Gas or Electricity for Housing Schemes,” GJ, 14 February 1923, 402; “The King at Becontree,” GJ, 13 June 1923, 666; “London County Council Housing Schemes,” GJ, 10 September 1924, 733; “Gas and Electricity in L.C.C. Dwellings,” GJ, 27 October 1926, 239.

⁴⁶ LMA/LCC, Report Re: Gas versus Electricity, 3

Plans for reorganizing the electrical industry dated back to 1917, when PM Asquith appointed a wartime Coal Conservation Committee, under Lord Haldane, to investigate the problems of fuel shortages, including the question of electricity supply. Lord Haldane's subcommittee reported that the existing system of small, local power companies be restructured to incorporate large generating plants with regional distribution areas controlled by a national board of electricity commissioners. Addison's Ministry of Reconstruction inherited the earlier proposals of Lord Haldane's committee. Its Electricity Supply Committee asserted that a national electrification plan was critical to the post-war reconstruction of industry, if the government wished to check the spread of small private generating stations, a further hindrance to industrial efficiency.⁴⁷ Reorganization proposals ranged from suggestions for voluntary co-operation between existing electricity companies to Sir Archibald Williamson's bold plans for centralized control and complete public ownership under the management of the Board of Trade.⁴⁸

The draft bill of the Electricity Supply Act (1919) reflected Williamson's vision of a unified system controlled by district boards and electricity commissioners. The bill's proposals for compulsory purchase and state management met with powerful opposition from municipal and private undertakings, led by electrical industrialist George Balfour and the Federation of British Industries. Drastically amended in both the House of Commons and the House of Lords, the final Electricity Supply Act fell far short of its original proposals, merely sanctioning the appointment of a central group of commissioners mandated to encourage greater cooperation between local interests, but leaving the overall organization of the electrical industry virtually unchanged. Several trade organizations resulted from the 1919 Act, including the establishment of the British Electrical Development

⁴⁷ Johnson, Land Fit for Heroes, 41, 191.

⁴⁸ Johnson, Land Fit For Heroes, 426-430.

Association (EDA),⁴⁹ a group charged with developing common sales and advertising material for the industry, in much the same manner as the gas-oriented BCGA. Although the Joint Electricity Authorities, formed under the 1919 Act, made some strides towards standardized power voltages and interconnection schemes between individual undertakings, plans for a national electricity grid were postponed until the 1926 Electricity Supply Act. This latter piece of legislation finally initiated the widespread electrification of Britain.

As members of the Federation of British Industries, it is possible that the gas companies supported George Balfour's bid to undermine the 1919 Electricity Act. Balfour used the fear of nationalisation to generate support from other industrial sectors; quite possibly the gas industry representatives, like Goodenough and Milne-Watson, opposed any parallel schemes for their industry. And gas engineers were decidedly nervous at the prospect of competing with a re-organized state-supported electrical industry. Despite the watered-down proposals of the 1919 Act, the gas industry still faced an aggressive and expanding competitor, working to provide better service to consumers in an effort to ward off plans for public control. To counter this, gas men and women had to re-build their industry, secure as much of the new housing market as possible and restore consumer confidence in their services, particularly after the public relations fiascos of the carbon monoxide fears and consumer complaints of profiteering. The costly display at Wembley's British Empire Exhibition, advertising the modernity, reliability and economy of gas in the home, illustrated this image-making process at work. By the mid-twenties, as the electrical industry's EDA imitated the promotional strategies of their rivals, gas men fully appreciated that sales, service and showrooms were integral to the survival of their industry. This point became more apparent as competition with electricity intensified over municipal housing schemes after the construction of the "national grid" between 1926 and 1932.

⁴⁹ Hannah, Electricity Before Nationalisation, 77.

“Service First”

Economic historians of the interwar period generally agree that the electrical industry ranks as one of the most significant “growth sectors” in Britain between the wars.⁵⁰ Describing the electrical industry as the “symbol of the new industrial Britain,” Sydney Pollard maintains that electricity freed industry from its traditional dependence on the coalfields in the north and west. This precipitated the expansion of light industry in the Midlands and the south east, another “growth sector” of the interwar years. Manufacturers favoured these areas given the easy access to the consumer markets and consequent reduction of distribution costs.⁵¹ This relocation of jobs and capital from the north to the south exacerbated the increasing problem of regional imbalance as the southern counties experienced an economic recovery after the mid-twenties while the north and western regions continued to decline given their dependence on depressed “export-oriented” staple industries, notably coal, iron, steel and shipbuilding⁵²

Despite the 1919 Electricity (Supply) Act, which encouraged company amalgamations, the industry remained inefficient and expensive. Numerous small undertakings serviced handfuls of customers throughout the country. With no system of standardized currents for either electrical producers or appliance manufacturers, consumers were offered a variety of voltages, depressing the demand for electrical services and consumer goods. In addition, electricity was still far more expensive than either coal or gas. The 1925 Weir Committee Report and the resulting Electricity (Supply) Act

⁵⁰ Stevenson, British Society 1914-1945, 108-09; Stevenson and Cook, Britain in the Depression, 17; Mowat, Britain Between the Wars, 455; Pollard, Development of the British Economy, 44-45.

⁵¹ Pollard, Development of the British Economy, 43.

⁵² Aldcroft, The British Economy, 15-22.

of 1926 introduced a series of reforms designed to make the industry more efficient, accessible and cheaper. Under the Act, a Central Electricity Board controlled all the wholesaling of electricity with powers to concentrate production in larger “super-stations;” also included were plans for the construction of the “national grid.” Completed in 1934, this network of high-tension transmission cables and pylons facilitated intra-regional connection schemes. As a result of the grid system, electrical production and consumption increased exponentially throughout the thirties: electrical output in 1925 was 6,600 million kilowatts, rising to 11,413 million kilowatts in 1931, to 22,877 million in 1937. By 1937, the industry serviced nine million consumers, compared to only two million in 1923.⁵³ Electrification stimulated the demand for a range of consumer goods, including cookers, vacuum cleaners, irons, radios, heaters and even refrigerators, available at retailers and electric showrooms and offered on the popular hire-purchase payment system. Assisted wiring schemes helped home owners and landlords pay the initial installation costs of electrical wiring, usually for lights and a few low-power sockets. Deferred payment arrangements and mass advertising stimulated consumer demand, while mass production reduced prices, placing electrical consumer durables within the reach of a growing segment of the population.⁵⁴

There remains little doubt that the electrical industry made great strides during the interwar period. Yet, Avner Offer and Sue Bowden have concluded that, despite the large number of British households wired for electricity (seventy-three per cent by 1937), the full benefits of domestic electrification were enjoyed by a small, affluent, urban minority.⁵⁵ They

⁵³ Pollard, Development of the British Economy, 44; Hannah, Electricity Before Nationalisation, chap. 4; Mowat, Britain Between the Wars, 455.

⁵⁴ Hannah, Electrification Before Nationalisation, 197-98; Stevenson and Cook, Britain in the Depression, 17.

⁵⁵ Offer and Bowden, “Revolution That Never Was,” 245.

contend that, although electric lighting grew in popularity, the vast majority of households did not possess the full range of electrical labour-saving appliances, such as cookers, vacuum cleaners, irons and washers, because these articles were expensive to purchase and costly to operate. Assisted wiring schemes provided for a minimum of electrical fixtures and did not include sockets of sufficient voltage to accommodate high-current appliances, like heaters and cookers. Although these consumer durables were available via hire purchase schemes, middle and lower-income families tended to use the hire-purchase system to acquire “non-gendered” leisure appliances, like wireless sets. Electric lighting was another “non-gendered” convenience since it could be enjoyed equally by all members of the household. The purchase of “gendered” domestic equipment, labour-saving devices for women’s use in the home, had less claim on the family budget given the low-value attached to female domestic labour and the existence of cheaper substitutes, like gas.⁵⁶ Leslie Hannah observes a similar point in his study of the electrical industry before nationalisation. By 1939, two-thirds of British homes had electrical service, but it was often restricted to a lighting circuit and a single plug socket. Appliance ownership levels remained low until after 1945, with the exception of the electric iron and the radio.⁵⁷ During the interwar years, electricity did not radically transform the British home or significantly reduce women’s domestic labour. According to Hannah, ready-made clothing, packaged food, reduced family-size through birth control and the amenities of running water and lavatories included in the new housing estates, were more significant labour-savers than electrical services.⁵⁸

⁵⁶ Offer and Bowden, “Revolution That Never Was,” 250-259.

⁵⁷ Hannah, Electricity Before Nationalisation, 205-06; 77 per cent of British homes owned electric irons; Offer and Bowden, “Revolution That Never Was,” 260, Table II, 71.5 per cent had radios.

⁵⁸ Hannah, Electricity Before Nationalisation, 208.

An interwar report on the electricity industry in Britain substantiates the above argument. In its 1936 study, the Political and Economic Planning Group (PEP) concluded that the number of domestic electricity consumers had risen by three hundred per cent in just ten years while the cost per unit of electricity had declined by about sixty per cent. Despite these factors, electrical usage in the home was confined to electric lighting.⁵⁹ This resulted in a “low ‘average’ consumption per consumer,” even with a socket for a wireless set and an electric iron. Consumers shied away from the heavy-current heat-generating appliances, like water heaters and cookers. According to the report, sales of electric cookers, boilers and heaters remained low given the high cost of electrical appliances, the lack of standardized voltages and the expense of switching from one fuel to another. For example, the study found that of the 6.6 million domestic electricity consumers, only 650,000 used electric cookers and a mere 120,000 had electric wash boilers. The slow adoption of electric cookers they blamed on the problem of standardisation and the high cost of the special “machine-bottomed” cooking utensils required for use with the solid hot plates.⁶⁰ Nowhere does the report acknowledge the overall efficiency of gas appliances over electrical ones, or consumer preferences. As will be seen, this was also an important factor which depressed sales of electrical goods and services.

Though home owners and tenants might have preferred a single fuel source, be it gas or electricity, throughout the interwar years, the average English home relied on several fuels: electricity for lighting, gas for cooking, a coke boiler for hot water and the open coal range for heat and some cooking in winter. Although gas lighting was losing popularity, the market held steady because of the increased demand for cookers and to a

⁵⁹ Political and Economic Planning Group, Report on the Electrical Industry in Britain (London, 1936), 76.

⁶⁰ PEP, Report on the Electricity Industry, 77-84.

lesser extent, for boilers, gas fires and gas refrigerators.⁶¹ By far, the most common domestic appliance was the gas cooker.⁶² A 1939 study of the gas industry, undertaken by the Political and Economic Planning group, revealed that seventy-five per cent of families in Britain used gas cookers, approximately nine million homes, compared to the one million electric cookers then in service. The report indicated that gas cookers consumed seventy-five per cent of gas used in the average household. Only five per cent of home-heating requirements were met with gas fires and heaters, while gas boilers accounted for only twenty per cent of water heating needs. The combustion of solid fuels, such as coal and coke, made up eighty per cent of water heating, however this figure included the popular coke boiler, a product heavily promoted by the gas industry. Domestic consumers were the heaviest gas users; between sixty and seventy per cent of all gas produced went to home consumption.⁶³ The vast majority of gas consumers used the slot-meter payment system: of the eleven million homes that used gas, seven million had pre-payment meters.⁶⁴ It appears then that gas cookers, and the women who used them, sustained the industry throughout the interwar years. It was a market that the gas industry recognized, cultivated, appreciated, and rarely took for granted.

Since the advent of the BCGA in 1911, influential individuals with

⁶¹ Political and Economic Planning, Report on the Gas Industry in Great Britain (London, 1939), 5-10.

⁶² Elizabeth Roberts, Women and Families. An Oral History, 1940-70 (Oxford, 1995), 29; Davidson, Woman's Work, 68; PEP, Report on the Gas Industry, 79.

⁶³ PEP, Report on the Gas Industry, 5. Breaking down the uses of gas, the PEP report compares the 60-70 per cent domestic load, with 10-20 per cent commercial, 10-20 per cent industrial, 5 per cent public lighting. Unfortunately, the domestic load figure does not break down into specific percentages for domestic lighting, heating, cooking.

⁶⁴ PEP, Report on the Gas Industry, 77-79.

the industry, notably Goodenough, Milne-Watson and Carpenter, stressed the commercial value of advertising and dedicated customer service. Due to the industrial priorities of the war years, domestic appliance design failed to keep pace with this spirit of enthusiastic retailing. In 1920, the gas companies were promoting virtually the same models of gas cookers, in terms of external appearance and features, that they had in 1895. After the war, however, manufacturers devoted their attentions to improving appliance designs, considering both mechanical efficiency and consumer tastes. This movement towards better design was motivated by a post-war preoccupation with improving national efficiency and health standards. Design groups, such as the Design and Industries Association, promoted a Taylorist ideal that rational design eliminated wasted effort and ensured greater overall productivity, both in the workplace and at home.⁶⁵

Technical innovations developed during the war, such as metal enamelling, found new commercial applications. The widespread use of vitreous enamel metal surfaces for stove construction, usually in white or cream with blue or green trim, were a design innovation of the early twenties, replacing the old cast iron models. Increased concern for home sanitation resulted in higher domestic standards for work undertaken by both housewives and hired domestics. Not only were enamelled stoves simpler to keep clean, their smooth surfaces appeared more sanitary and efficient. Thermostatic heat control, first introduced in 1923 with the Radiation Company's New World H16 cooker, was another significant mechanical innovation because it allowed cooks to control oven temperatures, ensuring better results with less attention during cooking.⁶⁶ Enamelled surfaces and the provision of stove legs, were important labour-saving features as increasing numbers of women did their own housework

⁶⁵ Forty, Objects of Desire, 115-118.

⁶⁶ Yarwood, British Kitchen, 100; Davidson, Woman's Work, 67; Hardyment, From Mangle to Microwave, 128-30.

because of the shortage of domestic servants.⁶⁷ Maud Brereton praised the labour-saving features of the new enamel stoves in the BCGA press. Her ideal kitchen of 1924 included an enamelled 'Regulo' Radiation 'New World' cooker, set in a tiled recess. Brereton assured readers that the cooker's "simple lines" were designed "to reduce cleaning operations to a minimum and to prevent the accumulation of dust and dirt." While the raised legs simplified cleaning beneath the appliance, the 'New World' was more convenient than the older legless models since it allowed "the cook to inspect the food without much stooping."⁶⁸ [Fig. 14]

During the twenties, given the expense of the enamelled cookers, stove manufacturers continued to produce the cast-iron models for working-class slot-meter customers. In 1920, R. & A. Main Ltd. marketed their cast-iron "Surrey" model as a "housing" cooker because of its small dimensions and low price.⁶⁹ Housing authorities overseeing public housing projects continued to install cast-iron cookers, such as the standard Richmond "Bungalow" cooker, presumably to keep installation and rental costs low.⁷⁰ By the early 1930s, however, manufacturers developed compact enamelled models for the working-class market, including the Radiation Company's 'Kingsway' New World. In 1934, R & A Main company replaced its black-iron cookers with the cream-coloured enamelled "GLC O," designed for the Gas Light and Coke Company's slot-meter customers. This model, equipped with oven thermostats and constant pressure controls, was the first gas cooker produced on an assembly line; in 1934, the company

⁶⁷ Yarwood, British Kitchen, 97, 100.

⁶⁸ "Up-to-Date Labour-Saving Kitchens," ATAOUFG (February 1924), 13, 15.

⁶⁹ "Main's 'Housing' Cookers," GJ, 1 June 1920, 495.

⁷⁰ "Up-to-date Labour-saving Kitchens," ATAOUFG, 15; "The King at Becontree," GJ, 13 June 1923, 666; "Smokeless Heating, Cooking, Water-heating and Lighting Equipment in Housing Schemes," ATAOUFG (October 1926), 89-94.

turned out 210,000.⁷¹

Given the high cost of electricity, gas was still popular with housing authorities until the mid-twenties. In 1926, Brereton estimated that of the 28,500 houses constructed under the LCC housing schemes, 22,000 were lit by gas, while gas cookers were installed in “almost every one.” Six-thousand houses were served by a combination of gas and electricity, and only 500 were wired exclusively for electric lighting.⁷² While some municipal councillors, notably Morrison and Lawrence, regretted that electricity was not more widely used in working-class dwellings, the tenants generally favoured gas because it was cheaper and, by now, a familiar domestic fuel source.⁷³

The 1926 Electricity (Supply) Act had an immediate impact on the gas industry, and particularly, the use of gas lighting. After the 1926 Act, with its promise of less expensive and more available electrical services, private and municipal housing developments abandoned gas lighting in favour of “all-electric” flats or a combined service of electricity for lighting and gas for cooking and heating.⁷⁴ Tenants openly debated the merits of each utility service. In one instance, tenants mounted a public protest against electrical services. Five hundred housewives, occupants of the Woolwich Borough Council’s estate at Eltham Hill, complained that their all-electric flats were too expensive, signing petitions to this effect. In particular, the women requested the removal of the electric cookers which they claimed had been installed, at a cost of £10,000 to the corporation, to increase the consumption of electricity generated at the Woolwich municipality’s own electrical station.

⁷¹ Barty-King, New Flame, 204.

⁷² “Smokeless Heating, Cooking and Water-heating in Housing Schemes,” ATAOUFG (October 1926), 96.

⁷³ “Gas and Electricity in LCC Dwellings,” G.J. 27 October 1926, 239.

⁷⁴ PEP, Report on the Electricity Industry, 78-79.

Tenants complained that an electric cooker cost about seven to eight shillings per week to operate, and although the SMet offered to install slot-meter gas cookers free of charge, the women protested that under the terms of the house rental agreement, they were prohibited from removing the corporation cookers. A public meeting with the Woolwich Borough's Housing Committee, where a group of tenants requested that the gas prohibition be rescinded, resulted in a rowdy debate between those who favoured the all-electric houses versus those who desired a combined service. The resulting shouting match between tenants prevented a motion, allowing for consumer choice, to be put to the floor and the Eltham Hill housewives were left with their costly electric cookers.⁷⁵ The Eltham Hill tenants' protest indicates the politicized nature of the debates over municipal services. Adopting a form of political protest, the public petition, the women demanded freedom of choice as consumers and as citizens of Woolwich Borough. That the meeting degenerated into a show of temper indicates the level of public tension that existed, particularly when consumers believed that their municipal authorities were motivated by a desire to increase electricity sales and not provide the cheapest service for working-class families.

Perhaps learning from the Eltham Hill incident, other councils were more amenable to combined services. The Islington Borough Council agreed that the GLCC should install a gas supply, cooker, and one lighting point in each of the one hundred eighty-eight tenements at the Hornsey Rise Housing Estate, at a cost of £1 per dwelling. At the same estate, the borough installed electric lighting at a total cost of £3,320⁷⁶ Combined services of gas and electricity were increasingly common after 1926. By 1927, the LCC provided both at some of its housing estates. Although the post-war

⁷⁵ "Dissatisfaction with Electricity at Eltham," GJ, 15 September 1926, 613; "Dissatisfaction with Electricity at Eltham: Noisy Public Meeting," GJ, 22 September 1926, 66-67.

⁷⁶ "Housing Schemes," GJ, 17 November 1926, 417.

developments at Becontree, Roehampton, Belling, Downham, Norbury, White Hart Lane and Old Oak had no electricity for any purposes, the portions of Downham and Becontree still under construction after 1927 were wired for electrical lighting and provided with one socket per flat. At the request of tenants, electrical suppliers installed electrical wiring at several existing housing estates, including Becontree and Old Oak, while the suppliers wired the new estates throughout south London, at Kennington, Kennings, Bermondsey and Watling. At the LCC's Watergate Street estate, tenants received a combined gas cooking/ electric lighting service, however the SMet was denied permission to "carcass" the new houses for gas lights.⁷⁷ Similarly, the Lewisham Borough Council restricted the SMet from installing gas lighting services at its new housing scheme in Grove Park, since the housing committee desired a combined service of gas cooking and heating, with electric lighting. Although the gas company protested that consumers were being denied their "choice of illuminant" and simply requested permission to carcass fully the new homes, at no expense to the municipality, the Lewisham Council maintained its decision not to allow carcassing for gas lights.⁷⁸

Significantly, the reaction against gas lighting by the municipal housing authorities occurs after the 1926 electricity legislation. Until then, municipal housing schemes favoured all-gas installations to cut building costs. After the new legislation and its provisions for assisted wiring schemes, housing authorities opted for combined services, of gas for cooking and heating, and electricity for lighting. It was a trend that the gas engineers observed somewhat nervously, perhaps suspecting that the decline of domestic gas lighting would be followed by similar reductions to the heating and cooking

⁷⁷ LMA/South Metropolitan Gas Company, Minutes of the Board of Directors, 29 June 1927, 159.

⁷⁸ LMA/South Metropolitan Gas Company, Minutes of the Board of Directors, 20 July 1927, 251; 17 August 1927, 261.

loads. Moreover, to encourage the use of electricity, the LCC Housing Committee advised the aggressive promotion of hire-purchase electrical appliances, available in showrooms from electrical undertakings, in conjunction with a policy of customer education using female demonstrators and an efficient maintenance service.⁷⁹

This resembled the program of maintenance and service that the gas industry had consistently developed since the Edwardian years, evidenced by the early addition of lady demonstrators to their sales departments and the formation of the BCGA to oversee the industry's public relations activities. In anticipation of the commercial impact of the 1926 Electricity (Supply) Act, Goodenough warned gas men that the legislation which promised to standardize and develop a national electrical supply, would either stir them to fresh activity or precipitate the industry's demise. According to Goodenough, a "satisfactory supply of good gas" in itself, was insufficient "to win and hold the custom of the community unless accompanied by complete and satisfactory service" made known to the customer "by persistent publicity of all kinds, local and national." He predicted that the future prosperity of the gas industry depended on how well they succeeded over the next five year period.⁸⁰ Slightly over a decade later, in 1939, the report of the PEP group revealed that the gas industry had successfully enlarged its domestic sales despite vigorous competition with electricity.⁸¹

Whether the increased gas sales throughout the 1930s were a direct result of the industry's advertising schemes remains difficult to conclude, since it is impossible to measure the real economic return of elaborate showrooms, customer service and advertising. It is certain, however, that

⁷⁹ "Electricity Supply Memoranda: Housing Estates," GJ, 19 October 1927, 176.

⁸⁰ Francis Goodenough, "How to Meet the Electricity Development Scheme," GJ, 3 February 1926, 270.

⁸¹ PEP, Report on the Gas Industry, 3-5.

the gas industry invested heavily in these forms of publicity between 1926 and 1939 in a conscious effort, not simply to increase sales, but to modernize its public image by addressing social issues, like child welfare, housing and pollution. All were topics of direct concern to women, as housewives, citizens and consumers. Thus women, as buyers and sellers of domestic technology, were essential to this image-building process given the industry's concern to present itself as a progressive corporate citizen, maintaining and protecting the interests of female consumers both inside and outside the home.

Popular Modernism and the Gas Industry

In a 1924 editorial reflecting on the success of the Wembley exhibit and its lessons for gas promoters, an anonymous gas engineer concluded: "There is no better means of advertising than practical demonstration."⁸² Although, for most products, advertising meant a catchy phrase, a cute jingle or a comic poster, marketing an "essential commodity" like gas was a much more "complicated matter." The engineer continued that just as gas was the most comprehensive of all the different branches of engineering, so the industry had to "consider, adopt, reject, or adapt all the known methods [of advertising] and if necessary, evolve new ones of its own" to ensure that the capabilities of the industry reached as many consumers as possible. While the editorializing engineer supported the ongoing publicity work of the BCGA, he concluded that a well-staffed and properly appointed "permanent exhibition"---the company showroom---was a superior, albeit underrated, promotional method.⁸³ It was a familiar message, particularly for those who had attended the BCGA conference in 1912 where the topic of improved

⁸² "The Present Position of the Gas Industry by a Gas Engineer," GJ, 30 April 1924, 309.

⁸³ "Present Position of the Gas Industry," GJ, 308-09.

showroom facilities had been raised before the assembled gas men.⁸⁴ In that early address, George Clary, of the Cardiff Gas Company, urged managers to consider the economic advantages of spacious sales facilities in high-traffic locations staffed by knowledgeable salesmen and lady demonstrators. He detailed the importance of window displays, showroom design and cookery classes as strategies for attracting business.

As previously noted, the large metropolitan undertakings, such as the GLCC and the SMet, opened their first company showrooms in the 1890s.⁸⁵ It was usually a matter of displaying some lighting fixtures, meters, stoves and gas fires in the company offices at various works to show customers the latest gas inventions as they came in to pay their quarterly instalment fees. With the advent of the lady demonstrators and the cookery shows, gas managers enlarged their central showrooms, constructing permanent lecture theatres and model kitchens to attract female consumers on a regular basis.⁸⁶ The SMet company adopted the additional promotional tactic of co-operating with local furniture merchants to create joint displays. Together the SMet gas company and furniture salesmen leased and outfitted model homes so that consumers saw the appliances correctly installed in fully-furnished, decorated houses, not within the constructed artifice of the office-showroom or display window.⁸⁷

The suspension of normal trade during the war years affected the role of gas company showrooms. Throughout the duration of the war, these commercial spaces doubled as public meeting places, used by

⁸⁴ George Clary, "Showrooms in Relation to Gas Supply," First Annual Report and Conference of the BCGA, 171-206.

⁸⁵ See chapter two; also Stirling, History of the GLCC, 278, 283.

⁸⁶ Stirling, History of the GLCC, 300.

⁸⁷ Walter T. Layton, "Gas in the Home," South Metropolitan Gas Company Co-Partnership Journal (December 1909), 269-275.

women's groups and local food councils distributing information on food and fuel rationing. After the war, the showrooms resumed their former commercial purpose. However, managers wished to retain that image of the gas showroom as a local meeting place for women, developing what Victoria de Grazia described as a "feminine public sphere" by catering to both the social and material needs of the interwar consumer-housewife.⁸⁸ Reflecting the current trends in commercial architecture, the developing feminine culture of shopping and increasing importance of advertising, the gas company managers reconstructed their showrooms during the interwar years to modernize the sales atmosphere while simultaneously offering female consumers entertainment, information and leisure. The gas showroom was not simply a house of business, but a public gathering place.⁸⁹

Under Milne-Watson, the GLCC introduced a policy of updating its company showrooms while raising its standards of architectural design and display. Working in consultation with several architects, H. Austen Hall and Walter Tapper, the company devised "a look" for its offices and new showrooms. In the interests of "good taste in commercial architecture"⁹⁰ and a twenties design historicism, Milne-Watson favoured plain brick exteriors, with the company name in clean bronze lettering, for the large urban premises such as the remodelled central offices in Horseferry Road or the expansive new offices and showrooms constructed in districts throughout London, including Islington, Kensington, Golders Green,

⁸⁸ Victoria de Grazia, "Empowering Women as Citizen-Consumers," in The Sex of Things, ed. de Grazia and Furlough, 281.

⁸⁹ "Gas Light and Coke Company's New Central Showrooms: Service Enterprise at Horseferry Road," Co-Partners' Magazine (May 1926), 128.

⁹⁰ Stirling, History of the GLCC, 319-321.

Hackney, Barking and Stratford.⁹¹ By the 1930s, the company favoured the machine aesthetic of streamlined art deco. In contrast to the classical forms and traditional materials of the twenties, the modernists favoured bright metal showroom frontages reflecting the new popular commercial architectural style.

According to Penny Sparke, art deco, with its stylized imagery and rounded geometric forms, was “the first truly popular modern style.”⁹² Coined after the new style presented at the 1925 Paris Exposition des Arts Decoratifs, art deco included numerous stylistic variations, from the brilliantly coloured geometric patterns of the 1920s to the streamlined metallic modernism of the 1930s. In America and Europe, mass produced items, such as radios, dishes, women’s toiletries and costume jewellery, adopted the deco style making this design and its associations with elegant modernism, available to consumers of even modest means.⁹³

Art deco also inspired new designs for commercial architecture and retail displays. American department store owners appreciated the connections between visual display and consumer desire, turning to modern store design as a means of attracting business in a highly competitive retail market. According to cultural historian Neil Harris, even in the “boom years of the 1920s,” department stores experienced dwindling net profits. In the drive to increase sales and having exhausted the possibilities of “increased efficiency,” retailers looked to the “architecture of merchandising.” Given

⁹¹ “Gas Light and Coke Company’s New Central Showrooms: Service Enterprise at Horseferry Road,” Co-Partners’ Magazine (May 1926), 128-132; “Opening of the Company’s New Showrooms in Islington: The Union of Art and Utility,” Co-Partners’ Magazine (December 1925), 310-313; “Opening of the New Kensington Showrooms,” Co-Partners’ Magazine (November 1926), 303-311; “Gas Service in East London,” GJ, 30 July 1930, 252-254; “Our New Premises at Hackney,” Co-Partners’ Magazine (August 1931), 311-312; “Our New Showrooms and Offices at Stratford,” Co-Partners’ Magazine (April 1924), 159-160.

⁹² Sparke, As Long As It’s Pink, 126.

⁹³ Sparke et al., Design Source Book, 100-104;119-125.

its associations with modernity, efficiency and personal comfort, designers of modern retail interiors and display windows adopted the deco style for the major commercial establishments in large cities. Architects redesigned store interiors to create a modern look by adding new lighting, streamlining exteriors and removing excess counters. Retailers hoped the new look would generally stimulate customer imagination. By surrounding the shopper with new objects, tastefully and dramatically displayed, department stores outpaced museums and art galleries as the arbiters of popular taste.⁹⁴

While American architects and designers embraced the art deco style, throughout the twenties, their British counterparts favoured a design historicism inspired by the seventeenth and eighteenth centuries.⁹⁵ This trend was evident even in retail store design. Austen Hall's 1924 British Gas Exhibit at Wembley, with its mock-pillared "early Georgian" central lounge in cream and gold and model rooms of "period reproduction" furniture, aptly characterized this design trend. Hall repeated the same design layout for the Gas Light and Coke Company's Islington premises, completed the following year.⁹⁶ The new office-showrooms at Kensington reveal a similar vernacular historicism. The square three-storey red brick building with Portland stone dressings, arched portals and cornices was conceived in the "English Renaissance" style, as a tribute to nearby Kensington Palace while the building's spacious columned entrance hall and display rooms adopted the favoured Georgian classicism, "redolent of good

⁹⁴ Neil Harris, "Museums, Merchandising and Popular Taste: The Struggle for Influence" in Cultural Excursions: Marketing Appetites and Cultural Tastes in Modern America (Chicago, 1990), 70-4.

⁹⁵ Sparke et al., Design Source Book, 120.

⁹⁶ "Opening of the Company's New Showrooms in Islington," Co-Partners' Magazine (December 1925), 311.

taste and quiet charm.”⁹⁷ Via its offices and showrooms, female consumers received the message that their homes might also reflect this “good taste and quiet charm” made possible with the affordable comforts of gas appliances.

By the end of the twenties, the historical trends in British design gradually gave way to the modernist lines of art deco as an increasing number of young architects adopted the new style. While Britain lacked the dramatic deco skyscrapers that transformed the large American cities, new hotels, theatres and office buildings incorporated art deco motifs in facades and foyers.⁹⁸ Preferences for antique and reproduction furniture shifted towards modernist designs in chrome, steel and leather in settings enhanced with mirrors, concealed lighting and rich carpeting. Cinemas featured dramatic deco interiors, familiarizing the general public with this architectural design style.⁹⁹

Architects favoured streamlined deco for anything associated with technology and speed, from airport design to the interior of deluxe railway trains and ocean liners. Frank Pick, Vice-Chairman of the London Passenger Transport Board and an enthusiastic supporter of the modern style, selected simple geometrical shapes for the new tube stations in the city’s north and west, creating what some contemporaries considered “the most satisfactory series of modern buildings in England.”¹⁰⁰ Under Pick’s direction, the London Transport Board developed a public image based on a

⁹⁷ “Opening of the New Kensington Showrooms,” Co-Partners Magazine, 307-08.

⁹⁸ Dan Klein, Nancy A. McClelland and Malcolm Haslam, In the Deco Style (London, 1987), 227-231.

⁹⁹ Klein, et al, Deco Style, 211-12; Sparke et al., Design Source Book, 120-21; David Dean, The Thirties: Recalling the English Architectural Scene (London, 1983), 100-102; plates 18, 19.

¹⁰⁰ J.M. Richards, An Introduction to Modern Architecture reprint (London, 1959), 99-100; Dean, English Architectural Scene, 89-92.

comprehensive design strategy which included transport stations, signs, posters and a corporate logo. Pick and his design team translated the avant garde forms of cubism and de Stijl into commercial design for the masses. Retailers of quality merchandise, like haberdashers Peter Jones, Sloan Square and Simpson's department store in Picadilly Circus selected modernist designs for their respective new stores, under construction between 1935-9.¹⁰¹ By the mid-thirties, a small group of progressive metropolitan retailers were using artistic design to attract consumers, paying increased attention to lighting, mirrors, colour and line.¹⁰²

The lesson was not lost on the gas industry. Maud Brereton, still chief editor at the BCGA, continued to oversee the production of the Association's advertising material, and it cannot be said that she failed to keep up with design trends. She appreciated the value of imaginative, creative work, commissioning layout designs from contemporary artists.¹⁰³ By the late twenties, the BCGA's promotional material clearly reflected the modernist style, exemplified by Clive Gardiner's cubist urban landscape of fractured asymmetrical forms and flattened perspectives.¹⁰⁴ [Fig. 15]

In 1931, the public relations department at the Gas, Light and Coke Company furnished the industry with a popular mascot. Eric Fraser, a freelance commercial artist who supplemented his income by teaching at Camberwell School of Art, was asked to design a figurative image that anthropomorphized the physical properties of the live gas flame. Fraser

¹⁰¹ Dean, English Architectural Scene, 92-96; Richards, Modern Architecture, 29, 144.

¹⁰² Harris, Cultural Excursions, 361.

¹⁰³ "Mrs. M.A. Cloudesley Brereton Relinquishes the Editor's Chair," GJ, 29 June 1932, 864.

¹⁰⁴ Alan Windsor, Handbook of Modern British Painting 1900-1980 (Aldershot, Eng., 1992). 109. A painter known for his cubist inspired murals, Clive Gardiner was also principal of Goldsmith's College between 1929 and 1957.

had a reputation for producing unconventional designs and his bizarre cartoon-like creation, Mr. Therm, certainly sustained that image.¹⁰⁵ Within months of his first appearance, Mr. Therm's flat schematic face, haloed head and stylized limbs appeared on hoardings, motorbuses, trade exhibition posters and in showroom windows. [Fig. 16] Mr. Therm provided the industry with a popular publicity motif, a means of product branding practiced by other successful manufacturers. An earlier attempt at finding a product motif to suit the industry had been a utter failure. Artist Septimus Scott had designed the "Spirit of Coal," a sinewy giant emerging from a flame, for the 1924 Wembley exhibition. This tormented-looking figure appeared sporadically in advertisements and at trade shows, but was never adopted as a universal product symbol.¹⁰⁶ In contrast, Mr. Therm had personality. He was easily recognized by consumers, reflected a contemporary artistic style, and added a playful element to the gas industry's usually serious image. As a public relations motif, Fraser's cartoon had many strange incarnations, but perhaps the most bizarre tribute to Mr. Therm was the Gas, Light and Coke Company's Therm Band, formed in 1934. The musicians wore ridiculous bulky cardboard costumes with cutout holes for their faces, impersonating the ubiquitous mascot.¹⁰⁷ As a product symbol, Mr. Therm represented the gas industry until the 1960s.

Showroom design in the thirties also reflected the industry's increasing attention to commercial modernism. The Oxford Street showrooms, opened in January 1937, aptly illustrate the gas industry's adoption of commercial deco. [Fig. 17] Using clean, bold lines for the

¹⁰⁵ Pat Hodgson and Bruce Cowen, Eric Fraser: An Illustrator of Our Time Exhibition Catalogue (London, 1991), 9, 19; Harris, Cultural Excursions, 361. Harris names Fraser among a list of British artists, including Vanessa Bell, Henry Moore, Paul Nash, Tom Purvis and Barbara Hepworth who did advertising work between the wars.

¹⁰⁶ "Gas: The Spirit of Coal," Punch, 6 May 1925, xi.

¹⁰⁷ Cowen and Hodgson, Eric Fraser, 21.

store's frontage and company lettering, in conjunction with another deco inspiration, concealed external lighting, architect Michael Tapper created an attractive retail facade, well-suited to central London's busiest shopping district. Once inside, the consumer entered a bi-level showroom in monochromatic blue. On the main level, six pillars of blue glass supported cluster gas burners with reflectors floodlighting the showroom displays of the latest gas appliances, including refrigerators, enamelled cookers, gas fires and water heaters. The lower level, reached by blue-carpeted stairs, contained model kitchens and a fully-equipped cafe bar, complete with chrome stools and red upholstery.¹⁰⁸ A report of the opening ceremonies noted the showroom's proximity to another modernist landmark, the BBC's new Broadcast House, completed in 1932. The GLCC had also used modernist elements, such as "Stay Brite Steel" and "strip lighting" at its new Queen Street showroom, which opened in 1936.¹⁰⁹ Modern deco schemes appeared in the new suburban showrooms, in Twickenham, Kingsbury and Edgware Road.¹¹⁰

At Leytonstone, in the north-east, the company commissioned architect Grey Wornum to design its sixty-second showroom.¹¹¹ A well-known advocate of the modernist school, Wornum designed the Royal Institute of British Architects' new Portland Place building which was

¹⁰⁸ "Opening of the New Oxford Street Showrooms," Co-Partners' Magazine (January 1937), 10-11.

¹⁰⁹ "New Queen Street Showrooms," Co-Partners' Magazine (December 1936), 566-568.

¹¹⁰ "Mr. Therm at Twickenham," Co-Partners' Magazine (July 1934), 312; "Up-to-Date Gas Showrooms for Growing N.W. London District," GJ, 10 June 1936, 776.

¹¹¹ "New Showrooms at Leytonstone," Co-Partners' Magazine (September 1937), 505-6.

completed in 1932; he was later known for his innovative designs of liner interiors, notably the 1938 Cunard luxury ship, the Queen Elizabeth.¹¹² Wornum's modernist storefront design for the GLCC's showrooms relied on symmetrical lines and rectangular shapes to create a machine-like austerity. The undersized company lettering above large showcase windows suggested that, by themselves, the tasteful commodity displays sufficiently identified the premises to passing consumers. This reflected a modernist retail aesthetic which viewed the store window as a "silent loud speaker," in recognition of the immediate impact of visual information.¹¹³ [Fig. 18] By adopting a modernist architectural style for its new showrooms, the GLCC consciously presented itself as a corporation that was efficient and in-step with the times.

London's second largest gas concern, the South Metropolitan Gas Company, also expanded its showroom facilities between the wars, opening new premises in the suburbs and rebuilding existing showrooms.¹¹⁴ Following current retail designs, the company selected streamlined deco typography for its new showroom frontages located, respectively, at Charlton and Walworth Road in south-east London; both opened in 1937. Despite this design innovation, the South Metropolitan company appeared unsure of the selling value of minimalist modernism, since their interior display areas at the Charlton and Walworth premises appeared overly-fully and congested, reflecting the old "more is better" retail aesthetic.¹¹⁵ While

¹¹² Dean, English Architectural Scene, 82-3, 92.

¹¹³ Sparke, As Long As It's Pink, 128.

¹¹⁴ "Local Offices and Showrooms," Copartnership Journal (May 1929), 127; "Company's New Showrooms at Court Road, Mottringham," Copartnership Journal (June 1937), 168.

¹¹⁵ "Charlton Showrooms," Copartnership Journal (July 1937), 213; "Walworth Road Showrooms," Copartnership Journal (August 1937), 231.

the SMet adopted a cautious acceptance of art deco retail design, they experimented with different types of retail space, including the patronage of Brixton's new Granville Arcade. Opened in June 1937, this one-acre shopping centre, described as the "largest and most modern of its kind," provided spaces for 112 lock-up shops. The SMet leased two spaces: one for displaying merchandise and the other for regular daily cookery demonstrations with seating for fifty people.¹¹⁶ Although this marked a departure from the usual high street showroom, the SMet showroom managers anticipated a brisk business because the new marketplace was the shopping hub for housewives from a three mile radius.

Striking the right balance, between modern and traditional elements, in gas showroom design was a difficult problem. As A.V. Bishop of Ipswich observed, few other businesses catered to consumers from such a broad social and economic spectrum. According to Bishop, "high-class" shop owners arranged their windows with uncrowded simplicity because affluent consumers required less immediate product information, relying instead on the retailers' reputation. The "poor-class" retailers displayed as much merchandise as possible, with prices written clearly, to allow the windows themselves to do the selling. Because the gas industry appealed to consumers of different class and economic backgrounds, they needed to gear their showrooms accordingly. Bishop believed that "a 'tony' showroom" deterred the poorer class of customer, while a display lacking polish and distinction failed to attract the better-class consumer. Yet, gas showrooms had to cater to both types.¹¹⁷ According to Bishop's observations, "tony" stores favoured artistic, modernist designs while "cheap" shops relied on a more old-fashioned retail aesthetic. But modern attractive retail design need not be an indicator of high prices. Bishop preferred the strategy of frequently-rotated "neat displays" of variously priced goods, with a

¹¹⁶ "Gas in the Marketplace," Copartnership Journal (June 1937), 181.

¹¹⁷ A.V. Bishop, "The 'Tone' of Showrooms," GJ, 15 February 1928, 37.

permanent display of “cheap lighting fittings” in a separate, but visible, section of the showroom. While the SMet experimented cautiously with modernist store layouts, the GLCC, under David Milne-Watson, utilized contemporary design more extensively, confident that art deco showrooms would attract, not intimidate, its less affluent consumers. As streamlined art deco appeared in an increasing number of public spaces and left its imprint on a wide variety of mass-produced consumer goods, deco design epitomized a fashionable, feminine modern style, made accessible to consumers of even limited means via the popular hire-purchase plans.

As noted earlier, gas cookers succumbed to the influence of streamlined art deco design. Dorothy Braddell, an interior design specialist and the wife of architect D'arcy Braddell, co-operated with the Radiation Company to design the innovative Kabinat gas cooker. This compact gas cooking stove featured a folding cabinet top and front door so that, when it was not in use, the stove resembled an upright radio. [Fig. 19] The new consumer status symbol the gas refrigerator, which appeared on the market in 1926, exemplified the best of domestic art deco with its gleaming enamelled surfaces, rounded curves, and sleek bakelite and chrome handles. That gas appliances could be stylish, even beautiful, was a remarkable alteration. In the early years of gas stoves, the lady demonstrators listed the benefits of gas technology as fuel economy, reduced domestic labour and culinary efficiency, but made no mention of interior design. The cast-iron cookers of the pre-war era lacked aesthetic appeal, but it mattered little, since they were hidden in tiny sculleries or basement kitchens. The enamelled cookers developed in the mid-twenties changed all that, as did the new priorities in domestic interior design. As a result of the housing investigations of the First War, including the Tudor-Walters Report, architects designed working-class cottages and flats with larger kitchens by combining the scullery and living-dining room areas. Regarding homes for the more affluent, interwar architects transformed the basement kitchen/scullery, that hidden nether world of servants, into a main-level

workspace.¹¹⁸

Gas appliances, in a range of colours, enabled housewives to choose installations to match the colour-schemes of their homes while the showroom interiors of cream, blue and green perfectly complemented the displayed enamelled appliances in the same tones. Showroom sales managers encouraged women to view their gas cookers with the same "critical eye" that they would their carpets and furniture, replacing domestic equipment when it became worn or out-of-date. Because women were responsible for outfitting the family home, they were the natural target audience for showroom services. Women were also more able to appreciate a stylishly appointed showroom than male consumers. According to GLCC general manager, R. W. Foot, women's awareness of the whims of fashion and popular design made them better domestic consumers because they were "more susceptible to change in their household arrangements than their men-folk who were wont to put up with what they had."¹¹⁹ The advantage of updating gas appliances, in comparison to other redecorating projects, was that the company fitters did the replacement work while payments were easily managed via hire-purchase plans or pre-payment meters.

"Housing Problems" and Corporate Solutions

In the mid-thirties, the gas industry undertook its most progressive advertising projects to date, a direction which earned gas men the reputations of being humanitarian businessmen and supporters of the

¹¹⁸ Burnett, Social History of Housing, 232-234, 274-76.

¹¹⁹ "New Showroom at Ilford," Copartners' Magazine (March 1936), 100.

arts.¹²⁰ To win such public acclaim, the BCGA commissioned a series of documentary films dealing with social issues, the best known being *Housing Problems, Enough to Eat* and *Children at School*. At the same time, the governors of the GLCC sponsored the construction of a modern housing estate in North Kensington. Kensal House provided affordable housing for sixty-four working-class families relocated from slum houses slated for demolition. Despite the evident philanthropic merits of these projects, the films and the housing project were essentially advertisements for the gas industry. Let us first consider the gas industry's use of documentary film.

As a new advertising medium, documentary film fit the needs of the commercial market perfectly, offering a combination of entertainment, education and publicity, David Milne-Watson's three fundamentals of "good propaganda."¹²¹ The gas industry was not the first to explore the commercial possibilities of film; for example, Shell-Mex, Imperial Airways and Anglo-Persian Oil were also sponsoring their own filmic "infomercials."¹²² Stanley Baldwin's Conservatives funded a film department at the Empire Marketing Board. A government department that existed between 1926 and 1933, under later Labour and National Governments, the EMB promoted the consumption of Empire-made goods and foodstuffs. Under the imaginative leadership of civil servant, Sir Stephen Tallents, and the creative direction of John Grierson, a philosophy graduate interested in the relationship between the film industry and public opinion, the EMB film group produced several documentaries intended to educate British consumers about the economic and social benefits of

¹²⁰ Rachael Low, The History of the British Film 1929-1939: Documentary and Educational Films of the 1930s (London, 1979), 92-94; Forsyth Hardy ed. Grierson on Documentary (New York, 1947), 216; Elizabeth Sussex, The Rise and Fall of British Documentary (Berkeley, 1975), 62.

¹²¹ "Our New Films," Co-Partners' Magazine (November 1936), 515.

¹²² "The Gas Industry Presents," Co-Partners' Magazine (November 1937), 611; Swann, British Documentary Film Movement, 106-107.

Commonwealth trade. The EMB film unit and its successor group at the General Post Office attracted young film makers who shared Grierson's ideas that films should educate citizens, raise public awareness about the need for social reform and dignify the labour of ordinary workers.¹²³ The gas industry's social documentaries, produced between 1935 and 1939, fit that agenda.

In 1935, the BCGA commissioned its first series of publicity films. These black and white productions, from ten to thirty minutes in length, ranged in subject matter from domestic problems and cookery tips, to visual explanations of the gas manufacturing process and social concerns related to housing and public health.¹²⁴ It was this latter group, the films that explored social problems, that attracted critical acclaim, earning the BCGA and the GLCC a respected place in the British documentary film movement. For example, *Housing Problems*, the most outstanding piece in that first film series, was a documentary about urban slum clearance and rehousing. It consisted of a series of interviews with a group of Stepney tenants, the majority of whom were women, describing their deplorable housing conditions and the personal frustrations of slum life: the rats and insects, the falling plaster, the constant damp, the overcrowding, the absence of sanitary conveniences.¹²⁵ A second group, recently rehoused in council flats, expressed their satisfaction with their new homes, compared to the dirt and vermin of their previous quarters. None of the women mentioned the usual problems associated with re-housing: the loss of community and the

¹²³ Erik Barnouw, *Documentary: A History of the Non-Fiction Film*, 2nd revised ed. (New York, 1993), 89-95; John Baxendale and Chris Pawling, *Narrating the Thirties: A Decade in the Making* (London, 1996), 25-28.

¹²⁴ Library of the Science Museum/British Commercial Gas Association, *Modern Films on Matters of Moment* (London, 1939), 3.

¹²⁵ See interviews with tenants Mrs. Hill and Mrs. Graves, *Housing Problems* documentary film, Associated Realist Films, directed by Arthur Elton and Edgar Anstey, 1935.

distance from work and shops. The film also featured maquettes of proposed new housing estates to replace the existing slums, including Quarry Hill, in Leeds and the GLCC's own project, Kensal House, in North Kensington.

From its first screening in the Stepney town hall in late 1935, *Housing Problems* attracted immediate public attention.¹²⁶ As we have noted, other major corporations were already making promotional films; however, according to film supporters including Paul Rotha and Grierson, *Housing Problems* was the first corporate-funded film that was not directly about the sponsor or its product.¹²⁷ In addition, it was also the first filmed interview with working-class men and women in their own homes, allowing them to relate directly their experiences to the camera.¹²⁸ Apparently, John Grierson's sister, Ruby Grierson, an associate of Anstey and Elton at the film unit, deserved much of the credit for the film's realistic quality. She interviewed and pre-selected the participants prior to filming, and questioned the subjects on camera. Film historians have suggested that her presence probably helped put the interviewees at ease, especially the working-class housewives.¹²⁹ Moreover, the housing film focused attention on a systemic social problem, namely, the need for affordable homes for working-class families, alluding to the National government's inability to effectively address this issue.

Throughout the thirties, housing remained a highly politicized issue.

¹²⁶ Swann, British Documentary Film Movement, 106-107; Winston, Claiming the Real, 43-45; Sussex, The Rise and Fall of British Documentary, 61-64.

¹²⁷ Hardy, ed. Grierson on Documentary, 178-79; Paul Rotha, Documentary Diary: An Informal History of the British Documentary Film, 1928-1939 (New York, 1973), 156-57; Swann, British Documentary Film Movement, 106-107.

¹²⁸ Barnouw, Documentary, 95.

¹²⁹ Sussex, Rise and Fall of British Documentary, 64; Winston, Claiming the Real, 44.

The housing programmes of the twenties had little effect on the living conditions of the lowest-sector of the population, the working-poor, who still resided in overcrowded decaying houses. Private enterprise built few houses for rent, and the main beneficiaries of the Chamberlain housing subsidies were middle-class home owners. The new council dwellings built under the Wheatly Act served the housing requirements of a lower income group, including small clerks, tradesmen and skilled workmen in stable employment. Rents for council houses averaged around fifteen shillings per week, still exceeding the means of the mass of poorer workers.¹³⁰ While families with stable incomes were able to migrate to the new suburbs, however, the urban poor had few options but to remain in the older neighbourhoods, occupying the vacated homes of their social betters which landlords subdivided for maximum occupancy and profit. As long as there was an actual shortage of homes, landlords and councillors did not demolish existing dwellings, however decrepit or unsafe for habitation. By 1928, Baldwin's Conservative government pledged itself to slum clearance, a topic of concern to all parties in the 1929 election.¹³¹

Ramsay MacDonald's Second Minority Labour Government of 1929-31 tackled the problem in 1930. Arthur Greenwood, the Minister of Health, presented a Housing Act that awarded subsidies for slum clearance based on the number of persons rehoused; it also specified that local governments submit five-year plans for slum clearance. The deepening economic crisis of 1931 and the subsequent collapse of the Labour government by the end of the year diverted the attention of MacDonald's new National Government

¹³⁰ Burnett, Social History of Housing, 238; Glynn and Oxborrow, Interwar Britain, 223-224.

¹³¹ Stephen Merrett, State Housing in Britain (London, 1979), 49-50.

away from housing to unemployment and stabilizing the currency.¹³² The National Government returned to housing legislation in 1933, maintaining grants for slum clearance programs and introducing a building society scheme to facilitate cheap finance for investment for rental property by private enterprise. The final major piece of interwar housing legislation, the 1935 Housing Act, continued municipal subsidies for slum clearance and introduced an additional grant to eliminate overcrowding by construction of multi-story flats.¹³³ Slum clearance legislation served as an important political gesture, but the housing act contained a fatal flaw: the omission of clear guidelines for local authorities as to what constituted a slum in need of demolition and replacement. In effect, slum clearance depended entirely on local political initiative!¹³⁴ Still, on a more positive note, progressive borough councils undertook ambitious five-year plans to eradicate their worst houses. The LCC proposed to rehouse five per cent of its population, equalling the demolition of 33,000 dwellings to be replaced with 60,000 new ones.¹³⁵

By the mid-thirties, when the BCGA commissioned the film *Housing Problems*, there existed in Britain a wide polarity in housing conditions. The middle-class housewife in the new suburbs, living in a three-bedroom semi-detached cottage, enjoyed the comforts of a modern home: electric lights, hot water, a private bathroom. In contrast, the inner-city slum dweller, renting several rooms with no water, no W.C. and no kitchen, lived much

¹³² For a discussion of the currency crisis, see Robert Skidelsky, Politicians and the Slump (Harmondsworth, 1970); on the neglect of housing policy, see Merrett, State Housing, 50.

¹³³ Keith Laybourn, The Evolution of British Social Policy and the Welfare State (Keele, 1995), 202-203; Merrett, State Housing, 50-51, 311-12.

¹³⁴ Marian Bowley, Housing and the State 1919-1944, 2nd ed. (New York, 1985), 244.

¹³⁵ Bowley, Housing and the State, 156-57.

like her Victorian ancestors.¹³⁶ This widening discrepancy in material standards of living became a major preoccupation of the gas industry, ultimately resulting in the production of a documentary on this subject, and the construction of a model housing complex, Kensal House. Although these projects constituted an elaborate advertising program designed to improve the company's image and cultivate customer loyalty among the urban working-class, these projects still identified a social problem and proposed a possible solution.

Film historians concur that the BCGA and the GLCC were motivated by commercial interests, agreeing that the film makers convinced the businessmen to produce socially relevant films.¹³⁷ According to Edgar Anstey and Arthur Elton of Associated Realist Films, they "succeeded in persuading the gas industry" to identify their organization with a social cause, specifically slum clearance, "to the advantage of both." In Anstey's words, the gas industry appreciated the subject's importance because it had a "liberal tradition, a non-conformist tradition."¹³⁸ As young documentary film makers, who had worked with Grierson at the EMB and the GPO, both Anstey and Elton accepted the "Grierson notion" that no corporation, either public or private, could dissociate itself from national social issues, particularly if it provided a public service. But considering the personalities involved in the gas industry's decision to make films like *Housing Problems*, and the BCGA's existing commitment to advertising, it seems doubtful that the gas men required all that much persuasion by film makers like Grierson, Anstey and Elton.

The idea may have originated with A.P. Ryan. An Australian who worked alongside Grierson at the EMB, Milne-Watson hired Ryan in 1931 to

¹³⁶ Margery Spring Rice, Working-Class Wives: Their Health and Conditions (Harmondsworth, Middlesex, 1939), 128-154.

¹³⁷ Barnouw, Documentary, 94-95.

¹³⁸ Sussex, Rise and Fall of British Documentary, Anstey interview, 62.

manage the GLCC's new publicity department, taking over where Frances Goodenough left off after his retirement that year. Ryan anticipated that documentary film was a medium perfectly suited to the promotional needs of the gas industry because of its ability to reach a wide audience. Not only did the industry have to persuade individual consumers of various economic circumstances, but more importantly, it had to convince municipal politicians, architects and builders that gas was still a viable alternative to electricity. Ryan's successor at the GLCC, S.C. Leslie, another Grierson disciple formerly with the advertising agency, the London Press Exchange, was equally enthusiastic about film.¹³⁹ Milne-Watson hired both these men on the basis of their creative talents and because they ranked among the most progressive individuals in the world of advertising.

But even if the medium was new, the message was not. The strategic use of socially progressive advertising had always been the mandate of the BCGA under the guidance of Mason, Brereton, Milne-Watson and Goodenough. Goodenough, the "born publicist," served as BCGA executive chairman from 1912 to 1936; the production of *Housing Problems* was one of the last major projects completed under his direction.¹⁴⁰ As we have already seen, Milne-Watson shared this preoccupation with advertising and corporate image-making. He served as the GLCC director from 1919 until his death in 1945; throughout that time, he sat on the BCGA executive, as the General Secretary. As previously noted, Milne-Watson undertook an extensive modernization program after World War I, which included updating company showrooms, expanding customer service

¹³⁹ Swann, *British Documentary Film Movement*, 13, 23, 50, 99; Stirling, *History of the GLCC*, 346-8.

¹⁴⁰ Stirling, *History of the GLCC*, 321; "Twenty-five years Service as Executive Chairman: Presentation to Sir Francis Goodenough on his retirement," *GJ*, 14 October 1936, 120-121.

facilities and creating a public relations department under A.P. Ryan.¹⁴¹ Both Goodenough and Milne-Watson were highly sensitive to the importance of creating a positive public image for both the GLCC and the industry in general, effectively using the BCGA for this purpose. Throughout her twenty year career with the BCGA, Maud Brereton had consistently identified the gas industry with social welfare causes related to housing and nutrition.

In accordance with this mandate, the BCGA promotional literature upheld a progressive position on a variety of social issues. Between the wars, housing remained a predominant theme.¹⁴² Anticipating the reconstruction building boom under the quotas of the Addison Acts, the gas industry had enthusiastically supported government promises for state-funded housing schemes, stressing that the working classes had as much right to comfortable and fully-serviced accommodation as the middle and upper classes. Naturally, their trade literature stressed the fuel and cost efficiency of gas stoves, lights, water heaters and fires, apparatus made affordable to the working-classes via hire-purchase payment agreements and penny-in-the-slot meters.¹⁴³ As we have seen, throughout the twenties, the BCGA aggressively promoted its services to builders, architects and local

¹⁴¹ Stirling, History of the GLCC, 324-26.

¹⁴² M.A. C. Brereton, "Problems of Domestic Economy," Papers Delivered to the Second Annual General Meeting and Conference of the BCGA, 108-10; "Laundries and Their Equipment," ATAOUFG (December 1913), 3-7; "Domestic Hot Water from the Cottage to the Mansion," ATAOUFG (September 1915), 3-11.

¹⁴³ Edwin Sandgrove, "How Shall We Build the New England," ATAOUFG (October 1919), 155-58; H.H. Creasey, "Government Housing Schemes and the Gas Industry: Part I," ATAOUFG (November 1919); Creasey, "Government Housing Schemes: Part II," ATAOUFG (December 1919).

politicians.¹⁴⁴ Therefore, in light of this sustained interest in housing policy and construction, it was not surprising that the BCGA sponsored films about housing and nutrition. It is probable, therefore, that Anstey and Elton did not have to work all that hard to convince the BCGA executive of the importance of these topics, from both a social and a promotional perspective.

But, despite the BCGA's enthusiasm for film, some gas men were initially sceptical. According to one critic, *Housing Problems* was "overdone" in its graphic depictions of slum life, contained "too little of the gas message" and was far less effective than an actual demonstration of modern gas appliances in use.¹⁴⁵ Responding to this criticism, the BCGA reported that working-class audiences in London received the film enthusiastically by applauding after each screening, leading the association to plan a series of public showings throughout the country, from Newcastle to Liverpool, and the south-west.¹⁴⁶

Milne-Watson, S.C. Leslie and the BCGA executive were entirely satisfied with the film's reception, and planned a documentary series on various social themes. In 1936, Anstey produced *Enough to Eat*, a film about malnutrition; dietary scientist Sir John Boyd Orr participated in the production, with narration by the renowned biologist Julian Huxley. Like *Housing Problems*, the nutrition film contained interviews with working-class women, who related their continuous struggles to stretch their food budgets. Government representatives, such as Herbert Morrison of the LCC, acknowledging that malnutrition constituted a national health crisis, described public initiatives to address the problem via school meals

¹⁴⁴ "Two Domestic Problems and Their Solution: Cooking and Refuse Disposal," *ATAOUFG* (February 1924), 14-17; "Labour-Saving Bungalows," *ATAOUFG* (April 1924), 34-44; "Smokeless Heating, Cooking, Water-heating and Lighting Equipment in Housing Schemes," *ATAOUFG* (October 1926), 90-97.

¹⁴⁵ "Candid Criticisms of the BCGA Publicity Films," *GJ*, 9 October 1935, 139.

¹⁴⁶ "The Gas Films," *GJ*, 4 December 1935.

programmes and milk rations for nursing mothers at welfare centres.¹⁴⁷ In 1937, the Realist Film unit and Grierson's Film Centre produced several additional social documentaries for the BCGA. *Children at School*, a "review of the public education system," was also an indictment of the continued use of unsafe and badly-equipped school buildings; *The Smoke Menace* described the problems and ill effects of unchecked air pollution.¹⁴⁸ Although the BCGA's more commercial productions outnumbered its social documentaries by about four to one, it was the latter group that earned them the reputation of being progressive businessmen and committed supporters of the fledgling British documentary film movement, a reputation of which Milne-Waston was exceedingly proud.¹⁴⁹

The gas industry's largest and most expensive advertisement has escaped the notice of film scholars and business historians. Kensal House, shown in *Housing Problems* as an architectural maquette, was the real advertisement for gas, the cure for slum clearance, for child malnutrition, for smoke pollution. This all-gas model block of flats, designed by a committee of modernist architects and constructed near Ladbroke Grove, North Kensington, addressed the urgent need for slum clearance, offering a clear alternative to the "problem moments" portrayed in the documentaries. Kensal House was an enormous promotional investment aimed at municipal authorities, at the authors of public housing policy and at the consuming public, particularly women. Moreover, it was an expression of social and economic planning, a demonstration that the public and the private sector could effectively cooperate to solve social problems as complex as slum

¹⁴⁷ "A Review of the Gas, Light and Coke Company's Films," *GJ*, 14 October 1936, 157-58.

¹⁴⁸ "The Gas Industry Presents--" *Co-Partners' Magazine* (November 1937), 608-611; Science Museum/*Modern Films on Matters of the Moment*, BCGA film catalogue, 5-10.

¹⁴⁹ David Milne-Watson, *The Times*, 16 June 1938, 12; Hardy, ed., *Grierson on Documentary*, 216; Low, *Documentary and Educational Films*, 92-94.

clearance.

Kensal House is rarely viewed in this manner, that of the GLCC's greatest advertising experiment and an expression of the interwar planning debate. [Fig. 20] Architectural historians of the interwar years consider Kensal House from a design perspective. In Kensal House, Peter Dean sees the expression the modernist ideals which motivated Maxwell Fry and his peers in the MARS group: the belief that society itself might be rebuilt through efficient, progressive design.¹⁵⁰ According to Alistair Service, Kensal House exemplified the "international modernism" inspired by Le Corbusier, characterized by the flat roof, the clean lines and use of industrial materials, including reinforced concrete and pre-fabricated steel.¹⁵¹ Martin Gaskell described Kensal House as a transitional building, representative of the shift from the nineteenth-century working-class tenements to the modern flats constructed after the Second War.¹⁵² But Kensal House was more than this. It was transitional in the sense that it presented a desirable alternative to past and future high-density housing schemes, both of which proved to be extremely problematic. To the architects and businessmen responsible, Kensal House demonstrated that the modernist style was not reserved for elitist luxury flats and Surrey estates; it demonstrated that working-class housing could be modern, attractive, comfortable and cost-efficient.

At the opening ceremonies for Kensal House, in March 1937, Milne-Watson outlined the reasons why his company built a block of flats. According to him, it was pointless to rehouse working-class people in new houses or flats with "old-fashioned laborious kitchens and equipment." Kensal House demonstrated that working-class tenants could be provided

¹⁵⁰ Dean, The Thirties, 22, 60-63.

¹⁵¹ Alistair Service, The Architects of London (London, 1979), 191-92.

¹⁵² S. Martin Gaskell, Modern Housing From the Great Exhibition to the Festival of Britain (London, 1987), 102-103; Dean, The Thirties, 60-63.

with every gas amenity that middle class families demanded, and without abnormal capital outlay or prohibitive operating costs, a prescription to “the problem of providing the right living conditions for re-housed slum dwellers.”¹⁵³ Considering the GLCC’s successful 1933 legislative challenge against forty local housing committees who had restricted the use of gas lighting in their districts,¹⁵⁴ the construction of Kensal House was a clear but costly celebration of this political and commercial victory.

To undertake the project, in early 1935, they invited submissions from a group of established architects, including Robert Atkinson, C.H. James, Grey Wornum, Michael Tapper, and Maxwell Fry. Although both Tapper and Wornum later produced showroom designs for the GLCC,¹⁵⁵ Fry won the housing design competition. According to him, it was not that Milne-Watson was a committed follower of the modernist MARS aesthetic, but rather that his winning design incorporated the circular curve of an old gasholder, although it was not specified as available for the building scheme.¹⁵⁶ The GLCC also enlisted the assistance of Elizabeth Denby, as housing manager. A journalist and recognized authority on working-class housing and interior planning, Denby had collaborated with Fry on an earlier project, another modernist housing complex, Sassoon House, built in south London.¹⁵⁷

¹⁵³ “Opening of Kensal House,” Co-Partners’ Magazine (April 1937), 181.

¹⁵⁴ “The Gas, Light and Coke Company’s Bill,” The Gas World, 8 April 1933, 348-349; “Gas in Council Houses,” Co-Partners’ Magazine (August 1936), 375-76.

¹⁵⁵ “Oxford Street Showrooms,” Co-Partners’ Magazine (January 1937), 13; “New Showrooms at Leytonstone,” Co-Partners’ Magazine (September 1937), 505-06.

¹⁵⁶ Maxwell Fry, Autobiographical Sketches (London, 1975), 143.

¹⁵⁷ Service, Architects of London, 190-91; “Opening of Kensal House,” Co-Partners’, 181; Fry, Autobiographical Sketches, 142.

In Kensal House, both Denby and Fry saw the expression of an ideal of what working-class housing could be. Fry noted it was “no ordinary block of flats, but a community in action.”¹⁵⁸ In her 1938 book on public housing and urban planning in Europe, Denby advocated the development of small scale, carefully planned multi-storey urban communities. She strongly condemned the wasteful fashion for “garden city” speculative building, the type of suburban sprawl that absorbed valuable agricultural land and encouraged road construction, but left the urban core empty and “rotting.” Although Denby made no direct reference to her employer’s housing complex, Kensal House stood in obvious contrast to the failings of interwar British housing developments, which she cited in her study.¹⁵⁹

What was so special about a re-enforced concrete block of sixty-eight flats, built on land donated by private industry, jointly funded by public subsidies and corporate investors? There are many past examples of businessmen funding model housing for the working-classes. Notable examples date from the late nineteenth-century including Port Sunlight, built by the soap magnate, W.H. Lever and Bourneville, constructed by the Quaker cocoa manufacturer George Cadbury. At the turn of the century, Joseph Rowntree enlisted Raymond Unwin to design his model estate, New Earswick, outside York. Port Sunlight was a company town, a model village for Lever’s employees and an expression of his version of profit-sharing; Bourneville and New Earswick provided employee housing, but also accepted suitable tenants who did not work for the village patron. In common, they shared the “garden city” aesthetic of the planned cottage estate with its semi-detached houses, winding lanes and private gardens, meant to house the middle classes, tradesmen and the skilled sectors of the

¹⁵⁸ Fry, Autobiographical Sketches, 143.

¹⁵⁹ Elizabeth Denby, Europe Re-Housed (London, 1938), 260-278, see also Elizabeth Denby, “Plan the Home,” Picture Post, 4 January 1941, 21-23.

working-classes in regular employment.¹⁶⁰

In contrast to the garden lanes and low-density cottage dwellings of earlier corporate-sponsored housing, Kensal House was a space-efficient “urban village”, built and priced for slum dwellers. Like Raymond Unwin and Sir Ernest Simon,¹⁶¹ a Liberal housing reformer then undertaking the Wythenshawe development south of Manchester, Maxwell Fry aspired to design homes that provided privacy, comfort, fresh air and sunlight for their occupants. However, he was convinced that these specifications were possible within a multi-story flat complex. Internal stairways and private balconies offered tenants a sense of privacy, while the complex’s cafe, recreation rooms and common gardens created a community atmosphere. The on-site nursery school, with its classrooms and fenced playground, was one of the first day nurseries in Britain, and according to Fry, the first to be constructed in conjunction with a housing scheme. Staffed by a head teacher, several assistants and a cook, the creche provided full and part time daycare for children between the ages of two and five, to assist working women or simply provide some relief for busy mothers. When it opened in January 1937, there were sixty-six children enrolled.¹⁶² Although the school was on the estate, the Board of Education and the LCC jointly supervised its operations. Children of the tenants were given priority, however, school vacancies were filled from the “overcrowded and badly housed families in the

¹⁶⁰ Burnet, Social History of Housing, 181-83; Gaskell, Model Housing, 65-69.

¹⁶¹ Stevenson, British Society 1914-45, 222-23; 228, 233.

¹⁶² Fry, Autobiographical Sketches, 143-44; S.C. Leslie, Kensal House (London, n.d.); Madge Waller, “Toys for Wartime Nurseries,” Fanfare (Autumn 1943), 4; LGM/ Minute Book, Capital Housing Association, Ltd., 30 September 1937; 30 September 1938.

immediate neighbourhood.”¹⁶³

Although it was not a garden estate, Fry and Denby attempted to establish a cohesive community at Kensal House using physical design and social facilities; likewise, the tenants were expected to “take responsibility for the order and good atmosphere of the estate.” For example, there was a tenants’ Executive Committee, made up of elected representatives from each staircase of the building and chaired by Denby. The committee dealt with such issues as noise control, club activities in the common rooms and the preservation of the estate’s trees, flowers and grass.¹⁶⁴ In this manner, Kensal House was “no ordinary block of interwar rental flats,” but anticipated all the elements of the modern housing co-operative.

As noted above, the housing boom of the twenties depended on private speculation builders. The majority of the homes constructed were too expensive for families in the lowest income brackets, with the result that the middle and skilled working-classes were the chief beneficiaries. There was a crucial need for high-density affordable housing. A number of modernist architects, such as the members of the Tecton group, were experimenting with designs for what Le Corbusier termed the “vertical garden city.” However, these designs, notably Berthold Lubetkin’s Highpoint One, at Highgate, were for luxury flats with rents from £130 to £234 per year and included service flats and maids’ bedrooms.¹⁶⁵ Even modest fully-equipped flats, such as the block constructed along Broad Street in Lambeth, or Evelyn Court in Hackney, commanded rents of between fifteen and eighteen shillings per week, still beyond the means of

¹⁶³ “An All Gas Contribution to the New London,” GJ, 24 March 1937, 780-81.

¹⁶⁴ “All Gas Contribution,” GJ, 782.

¹⁶⁵ Dean, The Thirties, 53-54; Service, Architects of London, 186.

most slum tenants.¹⁶⁶

In contrast, Kensal House was purposely constructed to assist families with very low incomes. Modelling its administrative organization on the Peabody Housing Trust, the directors of the GLCC formed a subsidiary company, the Capital Housing Association Limited, to oversee the construction and management of Kensal House. Its board of directors included Milne-Watson, who also sat on the National Housing Committee, Stephen Lacey, the company's chief controller of sales and S.C. Leslie, the GLCC's publicity manager. Housing activist and Kensal House manager, Elizabeth Denby, also sat on the board. Although the Capital Housing Association was a limited company of public shareholders, the GLCC controlled the scheme, having funded the housing venture with a capital loan of £58,892.¹⁶⁷ The company also made up the nursery school's annual £200 shortfall, and loaned money to the Capital Housing Association for its social clubs.¹⁶⁸ In addition to the corporate funds, the Association received an undisclosed amount from the Treasury, under the terms of the 1935 Housing Act. In consultation with the Kensington Borough Council, the board of the Capital Housing Association selected 380 slum dwellers, including 244 children, to occupy the new flats. The rent for a three-bedroom flat with separate kitchen, living room, bathroom and two balconies was eleven shillings, six pence per week; the two-bedroom version let for nine shillings, six pence---roughly four shillings less than the average weekly rent of a London council house. The gas company stressed that while Kensal House rents were within the means of the unskilled labouring class, tenants also saved on fuel costs, ideally leaving more of the weekly

¹⁶⁶ "Gas in Housing and Slum Clearance," ATAOUFG (June 1934), 2-8; "Gas Provides Hot Water Requirements in 320 Flats," GJ, 12 December 1934, 819.

¹⁶⁷ LGM/Minutes of the Capital Housing Association, 30 September 1937.

¹⁶⁸ Minute Book, Capital Housing Association, 30 September 1938.

budget for food.¹⁶⁹ In this respect, the company addressed the interrelated problems of poor housing and inadequate nutrition, social ills that feminist investigators increasingly defined as women's health issues.¹⁷⁰

Women's pressure groups had long noted the effects of poor housing on women's health. In her study of pre-war Lambeth, Maud Pember Reeves described the difficulties of working-class families from the perspective of the women, managing on slim budgets, living in overcrowded, unserviced houses.¹⁷¹ The wartime Women's Housing Subcommittee, chaired by Lady Emmot, consulted working-class women regarding their housing priorities for the reconstruction years, while the Women's Co-Operative Guild campaigned for higher standards in the construction of low-rent working-class housing. In 1933, the Women's Health Enquiry Committee, chaired by Gertrude Tuckwell, questioned 1,250 married working-class women about their health, housing, children and family budgets. In her report of the committee's findings, secretary Margery Spring Rice of the North Kensington Women's Welfare Centre, stressed the relationship between women's health and housing. Because the "house is a mother's workshop," women felt the effects of poor living conditions more than husbands and children, who spent more time outside of the home. In her introduction, Dr. Janet Campbell recognized the connection between women's poor health, bad housing and excessive domestic labour.¹⁷² The committee recommended affordable fully-serviced houses, that were private

¹⁶⁹ Leslie, Kensal House, 6-13, 22.

¹⁷⁰ Deirdre Beddoe, Back to Home and Duty: Women Between the Wars 1918-1939 (London, 1989), 90.

¹⁷¹ Beddoe, Back to Home and Duty, 91; Maud Pember Reeves, "Family Life on a Pound a Week," in Women's Fabian Tracts, ed. Sally Alexander (London, 1988), 200-223.

¹⁷² Margery Spring Rice, Working-Class Wives: Their Health and Conditions (Harmondsworth, Middlesex, 1939), 131; introduction by Dr. Janet Campbell, ix.

and easy to maintain. They also noted the health benefits of even a few hours of weekly leisure time for working women, identifying the need for community facilities where women might gather outside of the home, without spending much money.

Kensal House addressed these feminist concerns. Using new materials and rational design, Maxwell Fry and Elizabeth Denby constructed flats that would minimize the “soul-killing drudgery” that robbed women of their time, strength and overall health. In addition, the provision of a nursery school for toddlers addressed the child care needs of women who worked outside of the home, or afforded some relief for mothers with several small children. The community centre met women’s need for leisure time, providing a meeting place that was convenient and inexpensive. In her 1939 publication, Spring Rice includes an illustration provided by the Gas, Light and Coke Company of the Kensal House community centre, where a group of women are seated at tables, visiting and sewing over cups of tea.¹⁷³ Evidently, the Women’s Health Enquiry Committee were familiar with the gas company’s housing experiment. As feminist housing reformers lobbying on behalf of working-class women, they recognized that Kensal House offered solutions to many of the health issues that they attributed to poor housing.

Nevertheless, there can be little doubt that Kensal House was a corporate-funded advertisement, and a very expensive one. Perhaps the most obvious point in this regard was the building’s use of switch-controlled gas lighting. This artificial illuminance was suffering a rapid decline in favour of electricity despite technological improvements, such as the development of the wall switch system. Even the GLCC’s 1933 parliamentary actions, resulting in an act which prohibited municipal governments from restricting the use of gas services in their council

¹⁷³ Spring Rice, *Working-class Wives*, illustration #14, titled “The Community Centre of a new block of flats in W. London, Gas, Light and Coke Company.” Although the author does not name the building, it must be Kensal House, given the building’s location and origin of the photograph.

dwellings, did not significantly increase the numbers of new gas lighting installations. Although gas remained popular for cooking and heating, few architects and builders seriously considered gas lighting for new buildings after 1930.¹⁷⁴ Ignoring the apparently retrogressive lighting arrangements, Kensal House was favourably received by the architectural community, even by the editors of the pro-electric journal, the Architectural Review. In particular, they noted the building's many labour-saving design features, including the painted walls, pre-fabricated kitchen cabinets, steel counter tops and linoleum floors. The complete elimination of coal for either cooking or heating further reduced domestic labour and the need for fuel storage in the flats.¹⁷⁵ In particular, the architectural press appreciated the "urban village" concept of Kensal House; it was considered a viable solution to the problems of slum clearance and urban renewal. That it was a flagrant advertisement for a major utility corporation apparently mattered little at the time. Kensal House addressed the "problem moment" captured on film in *Housing Problems*; it made possible a better life for at least 380 working-class Londoners while illustrating to politicians and municipal officials that slum clearance need not mean suburban estates and urban degeneration. It was an invitation to the business community to participate actively in social redevelopment.

Conclusion

Although the gas and electrical industries had coexisted warily for decades, it was not until the interwar years, and the implementation of parliamentary measures to encourage electrical development, that the two power industries became serious competitors for the domestic market. Gas men and women working in sales, advertising and public relations, realized

¹⁷⁴ Davidson, Woman's Work, chap. five.

¹⁷⁵ "Nursery School and Flats, Ladbrooke Grove," Architectural Review 81 (1937), 207-210.

the urgency of the situation, undertaking sophisticated promotional strategies for cultivating and maintaining customer loyalty. Design historians have portrayed the gas industry as conservative and retrogressive compared to its more modern competitor. This assumption rests on the obvious advance of electrical lighting compared to the demise of gas as an illuminant.

Despite the decline of gas lighting, the electrical industry did not supersede gas during the interwar period. Although there was a rapid increase in the numbers of electrical consumers between 1926 and 1939, the gas industry retained its competitive edge in the domestic market for home heating, cooking and even refrigeration. In a concerted effort to modernize its corporate image, while retaining and developing a loyal customer base, the gas industry, particularly the BCGA and the GLCC, adopted a series of sophisticated costly promotional strategies. Their use of a modernist retail design aesthetic in show rooms and at trade exhibitions, their experiments with documentary film and model housing construction indicate that the gas industry was far from old-fashioned in its approach to public relations and advertising. Amid the planning debates of the mid-1930s,¹⁷⁶ the housing and film projects offered a subtle political commentary on the possibilities of greater cooperation between businessmen and politicians to remedy Britain's chronic social problems related to housing and health.

Within all of these projects, those individuals who were responsible for the industry's public relations policies, including Milne-Watson, Goodenough and Brereton, considered their impact on female consumers in the home. More than ever before, the industry paid close attention to the "women's point of view," directing advertising and sales campaigns at women and remodelling showrooms in fashionable colour schemes. This dedication to the feminine market is clearly seen in the advancements of the companies' home service departments between the wars, the subject of the final chapter.

¹⁷⁶ Daniel Ritschel, The Politics of Planning: The Debate on Economic Planning in Britain in the 1930s (Oxford, 1997), 10-14.

Chapter 6: “A Women’s Industry”

Introduction

The gas industry is a women’s industry. It is the biggest industry which caters for the daily needs of women. Seventy per cent of the gas output in this country is sold for home use.You have ten million women who are regular daily customers. Think what Gordon Selfridge would do if he could have all these millions of women on his books, making daily purchases from him! I can tell you the first thing he would do to make sure of keeping their custom: he would engage the best women he could find, so as to keep the woman’s point of view in the forefront. ¹

In the early thirties, the British Commercial Gas Association experienced a few changes, not the least being the retirement of Maud Adeline Brereton in 1932. As chief editor of the Association’s in-house publications, consultant to the mainstream press and advisor to professional groups, including architects and physicians, Brereton was said to have combined the “qualifications of the expert publicist with the crusading zeal of the reformer.”² An important aspect of this “crusading zeal” had consisted of drawing the industry’s attention to the fact that women were their best customers, and should be treated as such. In addition, Brereton had used her position to demonstrate that women were capable of success in the male world of business and commerce. As the new head of the BCGA’s home service section, Mrs. Eileen Murphy, was no less forceful in this area. Murphy’s inaugural address to the BCGA in September 1934, focused exclusively on women and the industry, as consumers and employees.

¹ Eileen Murphy, “Women’s Activities in the Gas Industry: Home Service as It Exists Today,” *GJ*, 29 September 1934, 304.

² “Mrs. M.A. Cloudesley Brereton Relinquished the Editor’s Chair,” *GJ*, 29 June 1932, 864-865; “Changes at the BCGA,” *GJ*, 29 June 1932, 864. General manager, William Mason, also retired in 1932; J.C. Walker was appointed general secretary of the BCGA to oversee the office administration, however Mason was not replaced because, the Executive Chairman Francis Goodenough, recently retired from the GLCC in 1931, was more available for consultation by the BCGA staff. After Brereton’s retirement, the advertising work was contracted out to the London Press Exchange.

According to Eileen Murphy, gas managers needed the assistance of both groups of women if their industry was to survive national electrification. If not in production and distribution, at least in the crucial areas of buying and selling, the gas industry was a women's industry. And no one contradicted her.

After decades of warily watching their competitors, by the 1930s, gas managers were keenly aware that the electrical industry posed a genuine threat to the continued existence of their own industry. To better meet this challenge, they promoted the sales and service aspect of their industry by initiating training programs for salesmen and maintenance inspectors. In addition, gas managers relied on their home service departments, staffed by women, the acknowledged experts in personal customer service: they continued to represent the gas industry in women's homes and in the showrooms. Although the sales managers appreciated the women's efforts in this capacity, for the most part, they remained unconvinced that the women advisors could expand their responsibilities to include inspecting gas equipment in the home or holding senior sales positions in the showrooms.

Considered within the context of the interwar debates over gender and work, home service women successfully defended their existing professional status. Only a few actually undertook inspection work traditionally done by men, however, these women were highly praised by their employers and other home service women, and held up as role models within the industry. With the inauguration of the Women's Gas Council in 1935, an organization which brought together women gas employees and female consumers, the lady demonstrators established professional associations with a network of post-suffrage feminist organizations, including the National Council of Women, the Association of Business and Professional Women and the Women's Citizens Association. Through these affiliations, women in the gas industry participated in a number of social welfare causes, including the campaigns for better health and housing, cleaner air and family allowances.

Historians have noted that the women's movement experienced a severe decline during the interwar years. Feminist debates over post-suffrage strategies and priorities created divisions within the old suffragist pressure groups, while feminism itself had little appeal for a younger generation of women, more concerned with fashion and entertainment, than political and social activism.³ For example, the former suffragette Sylvia Pankhurst lamented that for young women in the nineteen-thirties, feminism meant wearing shorts and smoking cigarettes.⁴ In contrast to the dwindling support for the old suffragist groups, organizations that appealed to the women at home thrived throughout this period; among these were the Women's Institutes and the Townswomen's Guilds. As an organization with a mandate to serve the needs of women in the home and professional women in the workplace, the Women's Gas Council combines these two types of interwar women's clubs, functioning simultaneously as a pressure group, an educational society and a recreational club. Although the WGC staff and executive hesitated to label their activities "feminist," for a variety of reasons to be discussed, their agenda fits that of the interwar "new" social welfare feminists. This final chapter considers the work of the home service women between the wars, their continued efforts to develop a professional identity and their contributions to social welfare campaigns aimed at child welfare, housing and nutrition. Historians have accused corporate home economists of promoting a "cult of domestic consumerism," designed to keep women in the home.⁵ However, this superficial reading of their work, at least in the case of the gas demonstrators, overlooks their

³ Pugh, Women and the Women's Movement in Britain, chap. 4; Beddoe, Back to Home and Duty: Women Between the Wars, 135-145; Harold Smith, "British Feminism in the 1920s," in British Feminism in the Twentieth Century ed. Harold Smith (Amherst, Mass., 1990), 47-65.

⁴ Harrison, Prudent Revolutionaries, 317.

⁵ Margaret Horsefield, Biting the Dust: The Joys of Housework (London, 1996), 147-148.

pragmatic approach to social activism and their positive interactions with thousands of women in the home.

“Goodwill Advertising”: The Women’s Advisory Staff and Interwar Housewives

When considering the efficacy of advertising, gas men unanimously agreed on the dual importance of attractive prominent showrooms and accomplished lady demonstrators as a means of reaching female consumers.⁶ Facing vigorous competition from the electrical industry, they expressed their continued enthusiasm for public cookery demonstrations and instructional visits. Described as “goodwill advertising,” the demonstrators visits and classes had been the mainstays of gas home service departments since the Victorian and Edwardian years.⁷ Showroom expansions and urban housing development meant that the gas companies increased their home service departments accordingly. In 1922, the GLCC had a women’s advisory staff of twelve; by the late thirties, this number had grown to around fifty.⁸

During the early twenties, as the numbers of permanent women employees grew, the company formally established set wage scales for female staff officers, including typists, telephone operators, and salespersons. The home service women, classed as “lady representatives,” were categorized as either “indoor” or “outdoor” workers, with respective starting salaries of £65 and £80 per annum. Experienced home service

6 For example, see Philip G.G. Moon, “Sales and Service,” *GJ*, 20 June 1923, 733-35; T.P. Ridley, A Gas Engineer, “The Present Position of the Gas Industry,” *GJ*, 30 April 1924, 308-310; “Local Publicity,” *GJ*, 3 November 1926, 295-297; “BCGA District Conference at Buxton: Local Publicity,” *GJ*, 25 May 1927, 502-503; Francis Goodenough, “Essential Factors in the Promotion of Gas Sales,” *GJ*, 28 November 1934, 687-688.

7 T. P. Ridley, “Local Publicity,” *GJ*, 297.

8 “Lady Demons,” *Copartners’ Magazine* (January-February 1942), 17.

women were paid accordingly: those in the highest wage bracket, Class C, made between £130 and £200 per year.⁹ Department heads, a special category, took home even more. Helen Edden, the company's first lady demon and principal of the home service department since its establishment in 1905, received £375 per annum at the time of her retirement in 1922.¹⁰ However, Helen Edden remains an exception. In 1906, she started at the generous salary of £200 per year. After the implementation of official pay scales in 1922, seventeen years later, that salary was now the maximum wage that an experienced Class C home service woman could expect. For example, Edden's successor, Ethel Willans, assumed her new job at £175 per year, representing a significant saving for her employer. Willans also had a long employment history with the company. She joined the GLCC's home service staff around 1910, the eighth "lady demon" on Helen Edden's team, at the starting salary of £1 per week and the potential of earning up to 40 shillings per week.¹¹ Although Willans's pay more than tripled as she moved from demonstrator, to showroom attendant and finally, to principal director of home service, her salary never approached that of Helen Edden. Nevertheless, under the company's official pay scales, home service women earned more than the typists and telephone operators who were paid between £40 and £60 per year; starting salaries for skilled shorthand typists compared favourably with the wages of "indoor" lady representatives, including the showroom saleswomen and receptionists. Home service women undertaking personal home visits and public demonstrations were still the best paid women in the gas industry, with experienced Class A

9 LMA/B/GLCC 49/Minutes of the Board of Directors, 13 January 1922, 27.

10 LMA/B/GLCC 48/Minutes of the Board of Directors, 17 December 1920, 361.

11 LMA/B/GLCC 44/Minutes of the Board of Directors, 23 November 1906, 150; 30 June 1911, 394. The Board agreed to increase the maximum weekly wages paid to demonstrators from 30 sh. to 40 sh. "attained after five years in service, by annual increases according to merit."

demonstrators receiving between £90 and £120 per year.¹²

Interwar writers reporting on female employment noted the irregularities in the demonstrating profession. According to Vera Brittain's 1927 study, demonstration work in showrooms and at trade exhibitions was often part-time, with long and irregular hours. Part-time demonstrators earned around twenty seven shillings per week, with a commission for goods sold. In contrast to these short-term jobs, "good firms" offered regular positions to domestic science graduates to demonstrate products like cooking apparatus, household utensils and patent foods. According to Brittain's estimates, these jobs paid around £3 per week. Although the gas industry had employed full-time lady demonstrators since 1906 and expanded its home service departments in the interwar years, Brittain made no specific mention of this pioneer group of female sales professionals. Instead, she described the new prospects for women in the electrical industry, particularly the growing need for trained "electrical advisors" to visit householders and explain "the use of new kinds of apparatus, such as electric stoves, refrigerators, bed-warmers and kettles."¹³ Evidently, the electrical industry adopted their competitors' practice of hiring specially-trained domestic experts to visit consumers in the home.

The job of cookery demonstrator, the first position open to women in the gas industry, remained an important part of their home service duties. Between the wars, gas companies increased the frequency of these public demonstrations, probably to counter the effects of electrical advertising by ensuring that housewives remained loyal to gas. Approximately half of the Gas Light and Coke Company's new and renovated urban showrooms included special lecture theatres for the regular demonstrations. By 1937,

12 LMA/B/GLCC 49/Minutes of the Board of Directors, 22 June 1922, 84.

13 Vera Brittain, Women's Work in Modern England (London, 1928), 41-2; 48-9.

the GLCC had twenty-three specially-equipped lecture theatres.¹⁴ The largest showroom offices, Kensington and Barking for example, featured lecture halls with platforms and seating for two hundred persons. To improve the acoustics at the Kensington theatre, the GLCC went to the extra expense of lining the walls with three-ply quilted fabric to ensure that housewives missed not a word of their demonstrators' talks.¹⁵ Even the smaller gas showrooms, including those in Ilford, Islington, Hackney, Kilburn, Kingsbury and Edgware, featured demonstration theatres with raised platforms, model kitchen equipment and seating for around forty viewers.¹⁶ The Kingsbury lecture room had the added novelty of gas air conditioning, while the spacious Acton demonstration hall doubled as a staff dining and recreation room.¹⁷ Like the GLCC, the South Metropolitan's updated gas showrooms also featured lecture rooms for cookery demonstrations with seating for between forty and sixty persons.¹⁸ The Eltham showroom's theatre, designed by W. Watson, adopted tiered seating which fanned out from a tiled fully-equipped model kitchen, allowing everyone an "unrestricted view of the demonstrator at work." For the purposes of illustrating the number of heat units consumed during each

¹⁴ "Lady Demons: the Story of a Volunteer Corps," Copartners' Magazine (January-February 1942), 17.

¹⁵ "Opening of the New Kensington Showrooms," Co-partners' Magazine (November 1926), 311; "Gas Service in East London," GJ, 30 July 1930, 254.

¹⁶ "Opening of the Company's New Showrooms in Islington," Copartners' Magazine (December 1925), 310; "New Showrooms at Kilburn," Copartners' Magazine (June 1927), 224; "Our New Premises at Hackney," Copartners' Magazine (August 1931), 312; "New Showroom at Ilford," Copartners' Magazine (March 1936), 100; "New Showrooms at Edgware," Copartners' Magazine (April 1936), 151-52; "New Showrooms at Kingsbury," Copartners' Magazine (July 1936), 321.

¹⁷ "Our Fiftieth Showroom," Copartners' Magazine (July 1932), 263.

¹⁸ "Local Offices and Showrooms," Copartnership Journal (May 1929), 125-127; "Gas in the Market-place," Copartnership Journal (June 1937), 181; "New Showrooms at Eltham," Copartnership Journal (July 1938), 153.

demonstration, many of the new lecture halls came equipped with enormous gas gages, the size of a public wall clocks. [Fig. 21]

In terms of format, the interwar demonstrations were much the same as the pre-war versions: before a live audience, a woman demonstrator cooked something in a gas stove, illustrating the most efficient use of the appliance. The programs differed, however, since they were conducted with greater frequency during business hours to mainly female audiences. Throughout the war years and immediately after, attendance at cookery demonstrations was a patriotic duty, a way for the housewife to gather information on rationing and fuel conservation. By the mid-twenties, cookery demonstrations resumed their former commercial purpose. Demonstrations incorporated a variety of marketing techniques: the soft-sell methods of customer service and public relations and the more aggressive tactics of flamboyant advertising and the showroom sales pitch. The cookery demonstration was a recognized means of attracting thousands of potential female customers to gas showrooms on a regular basis. The South Metropolitan Gas Company held daily cookery demonstrations at its six largest showrooms, including Bermondsey, Woolwich and Vauxhall. At four demonstrations per showroom each week, with an average attendance of forty women per demonstration, the South Metropolitan reached approximately nine-hundred sixty customers per week via this promotional method. Another eight demonstrations per week were held in two separate furniture shops, Holdron's and Chiesman's, reaching another three-hundred twenty women, bringing the total number of customers attending per week to around 1,280.¹⁹ Ethel Willans at the GLCC's home service department, estimated that in 1937, over one hundred thousand women attended nearly seventeen hundred demonstrations given by the company's home service staff.²⁰

19 "Cookery Demonstrations," Copartnership Journal (March 1929), 73.

20 "Lady Demons," Copartners' Magazine (January-February, 1942), 17.

Demonstrations began at mid-afternoon, usually three o'clock, just the time that housewives might have a bit leisure time between preparing and serving noon-time meal and the children's' return from school for their evening "tea."²¹ Pre-arranged demonstration programs appeared in the local press and in the showrooms, presenting a combination of several domestic tasks. For example, while the demonstrator cooked a four-course meal in the gas stove, she might have washed a load of clothes in a gas-washing machine, illustrating how domestic equipment saved both time and energy. Extra time was filled with impromptu requests for quick dishes, like omelettes, while throughout the talk, the demonstrator responded to a steady stream of questions from the audience. Reporting on her impressions of a home service presentation in Croydon, Eileen Murphy noted the numerous requests for various special dishes and the demonstrator's willingness to comply indicating that "the programme of lectures and demonstrations [was] actually planned by the consumers."²² Evidently, via the demonstrations, home service women created a genuine dialogue between the gas companies and their female consumers. C.M. Croft, the chief engineer at the Wandsworth, Wimbledon and Epsom District gas company, described cookery demonstrations as "one of the cheapest and most intimate forms of effective publicity" because they established a "sympathetic bond between the consumer and the company."²³

Despite the obvious commercial intent, the cookery demonstrations were also a form of entertainment. Not only were they cheap publicity, but also cheap outings for housewives. In the late thirties, Mrs. E. Warne of Walhamstow regularly attended cookery demonstrations as a young housewife. She recalled that the hour-long programs usually ended with

21 Spring Rice, *Working-Class Wives*, 96-99.

22 Eileen Murphy, "Free Advice for Housewives," *The Gas World*, 15 September 1934, 657.

23 C.M. Croft, "BCGA Eastbourne Conference: Service to the Consumer," *GJ*, 13 November 1929, 281.

tea and biscuits, while the finished results were raffled off to audience members, so that several lucky women took home something for the evening meal.²⁴ Perhaps for this reason, home service departments were advised to present simple, everyday dishes suitable for “the average household.”²⁵ As Mrs. Warne noted, stopping in at the gas demonstration was a pleasant diversion while performing the daily shopping.²⁶ Historians of working-class women have noted that most interwar housewives had little time or money for personal leisure.²⁷ Possibly, the gas cookery demonstration offered women of limited means a brief respite from the daily routine of housework, child care, laundry and meals, with the added bonus of a free cup of tea and the chance to win the family’s evening meal.

On occasion, the gas companies presented their demonstrations in co-operation with large department stores. According to Bill Lancaster, English department store owners experimented with creative methods of attracting business in the twenties and thirties within an increasingly competitive retail market. Enthusiasts of such commercial showmanship included Gerrard Bentall, whose south-west London store hosted baby competitions, musical performances and a Christmas in-store circus, complete with elephants and a lion. Store owners mounted in-store demonstrations of domestic arts, like sewing and flower arranging and offered customers free “mothercraft” and “fathercraft” classes. Between the wars, “imaginative manufacturers” used teams of travelling demonstrators to advertise new products in department stores. For example, Colley

24 Interview with Mrs. E. Warne at her home, Walthamstow, London, 28 October 1995.

25 Miss B. Randle and Miss M.A. Chalkley, “Gas Service from the Feminine Point of View,” The Gas World, 12 April 1930, 392.

26 “Lady Demons: The Story of a Pioneer Corps,” Copartners’ Magazine (January-February, 1942), 17.

27 Beddoe, Back to Home and Duty, 115-131.

Shorter, the manufacturer of the colourful hand-painted pottery known as “Bizarre Ware,” sent his head designer Clarice Cliff and a group of female assistants on a tour of department stores to publicly demonstrate their technique.²⁸ Lancaster observes that electrical appliance manufacturers also used in-store demonstrations to sell new products, however he neglects to note that this promotional method was first popularized, to a great extent, by the gas industry. By the interwar years, their promotional methods were adopted by a growing number of retailers and manufacturers.

Prior to arrangements with the furniture shops Holdron’s and Chiesman’s, the South Metropolitan staged regular cookery shows at the Bon Marche, Brixton in an on site company-sponsored model gas kitchen. In 1935, the GLCC offered a series of demonstrations and hourly talks at Selfridge’s Oxford Street store, in the heart of London’s busiest shopping district.²⁹ This high-profile series was a departure from the usual home-style menus presented in district showrooms for working-class wives. At Selfridge’s, the company tailored the lectures to appeal to single business girls and more affluent middle-class housewives by presenting topics ranging from “Sensible Snacks for Business Girls” and “Sane Slimming” to “Kitchen Planning” and “Cooks and Cooking.” For working-class girls window-shopping in Oxford Street, a favourite pastime for young women,³⁰ attendance at the GLCC’s Selfridge demonstrations offered a glimpse into the world of layer cakes, iced drinks and gourmet menus from famous hotels. Interwar gas demonstrators, working in the showrooms, at trade exhibitions, department stores or, on occasion, in special off-site

28 Lancaster, The Department Store, 96-102.

29 “A Demonstration of Gas Cookery,” Copartnership Journal (October 1922), 294; “A Super Gas Demonstration: Week’s Display at Selfridge’s,” GJ, 6 November 1935, 362.

30 Sally Alexander, “Becoming a Woman in London in the 1920s and 1930s,” in Metropolis London: Histories and Representations since 1800, ed. David Feldman and Gareth Stedman Jones (London, 1989), 263-64.

demonstrations at busy “tube” stations,³¹ offered their audiences a subtle combination of entertainment, public education, domestic advice and advertising.

As the numbers of lady demonstrators grew between the wars, the occupational scope of home service departments expanded to include female sales representatives and showroom managers engaged in the sale of gas services and appliances. As noted in the previous chapter, during the First War, the gas companies employed women as showroom attendants, replacing enlisted men. For example, throughout the war and up until 1921, the Gas Light and Coke Company appointed Ethel Willans as manager of its showrooms, until she replaced Helen Edden as head of home service. Although there are no exact figures to indicate how many women remained in the sales departments after the war, the creation of official pay scales for “indoor lady representatives” suggests that female salespersons were not the anomaly they had been prior to the war.³² In support of this claim, Francis Goodenough of the GLCC remarked in 1934:

More women are employed on the selling side than ever before. In addition to specialist cookery demonstrators, there are women receptionists, showroom managers and saleswomen, many of whom have taken the course in Domestic Gas Salesmanship. The importance of having at least one educated woman of some social standing to meet customers in the showrooms and outside them is widely recognized.³³

As Chief Inspector and later District Controller of Sales for the Gas Light and Coke Company, Goodenough had consistently supported the role of the women’s advisory staffs since their establishment around 1905. On the assumption that female sales personnel were as able to sell the “big ticket” consumer durables as their male co-workers, he welcomed the

³¹ “A Gas Appliance Display at an Underground Railway Station,” The Gas World, 9 January 1932, 38.

³² LMA/B/GLCC 49/Minutes of the Board of Directors, 13 January 1922, 27.

³³ Francis Goodenough, “Essential Factors in the Promotion of Gas Sales,” GJ, 28 November 1934, 688.

expansion of female occupations in the gas industry during the interwar years, as growing numbers of women assumed active roles in showroom sales, in addition to the task of demonstrating appliances in use.

The expansion and modernization of showroom facilities focused the industry's attention on salesmanship. Although publicity specialists, including the BCGA's Maud Brereton and William Mason, had recommended improved training for salesmen, it was not until the interwar years and the genuine threat of electrical competition, that gas men seriously considered the need for professional development in this area. Brereton had long lamented the erroneous assumption that any young man of neat appearance would suffice as a gas salesman; moreover, indifferent and misinformed sales personnel damaged the industry's reputation, resulting in lost sales.³⁴ In an effort to better train showroom personnel, beginning in 1922, the BCGA organized regional meetings for salesmen. At these "Salesmen's Circles," guest speakers delivered papers on a variety of relevant topics, ranging from the latest technical innovations in gas merchandise and showroom design to the benefits of local advertising and the new psychology of selling. Reports of regional meetings and national conferences appeared in a special salesmen's monthly supplement included in the Gas Journal after 1922.³⁵ To standardize the training of its salesmen, the BCGA organized a certified educational program for gas salesmen, offered in conjunction with the regular circle meetings.³⁶ Francis Goodenough, an ardent supporter of the sales training program, urged gas administrators to encourage their salesmen to attend their local Salesmen's

34 M.A.C. Brereton, "The Study of the Problems of Domestic Economy as a Factor in Salesmanship," Second Annual General Meeting, 117; M.A.C. Brereton, "Addresses to Gas Salesmen: Exact Knowledge as a Factor in Salesmanship," Gas Journal, Gas Salesman Supplement, 29 May 1929, 137-138.

35 "The Circles," Gas Journal, Gas Salesman Supplement, 25 April 1923, 58; "Annual Meeting of Gas Salesmen," GJ, 12 October 1927, 119.

36 London Gas Museum/ Building Up Gas Sales: The Domestic Gas Salesmanship Course (British Commercial Gas Association, n.d.).

Circles by paying their employees' travel expenses and when necessary, providing time off work.³⁷ By the late twenties, via this growing network of conferences, training schemes and trade publications, showroom salesmen were accorded a new level of professional status within an industry that had traditionally emphasized production over marketing.³⁸

How did this image of the new professional salesmen affect women employed in gas sales and service? Although women worked in the showrooms and interacted with consumers via their home service demonstrations, published accounts of the Salesmen's Circles suggest that women did not regularly attend these information sessions. Instead, women in gas sales were called upon to advise and assist salesmen on the best means of appealing to female consumers, including housewives and career women. For example, an article in the Gas Salesman supplement, written by a "Saleswoman," described for male readers the domestic life of the working bachelor woman, and the importance of gas appliances in the female "family of one."³⁹ The author cautioned salesmen never to underestimate the social conscience of the modern educated woman, who was even more aware of contemporary issues, such as fuel conservation and national efficiency, than male consumers given her "natural bent towards personal domestic economy." Writing from the dual perspective of the experienced salesperson and the working woman, the female author provided an insider's report, describing exactly what single women needed

³⁷ Francis Goodenough, "Salesmen's Circles---An Appeal to Administrators," GJ, 12 October 1927, 120.

³⁸ Porter-Benson, Counter Cultures, fn. 265. The occupational development of the sales profession for men has been surprisingly overlooked by retail historians. Within the American context, Porter-Benson suggests that, by the interwar years, a growing number of salesmen worked for commission selling the "big ticket" items, notably cars and appliances. Selling these "hard goods" was extremely competitive and depended on the salesmen's technical expertise, or at least his ability to convince the customer that he was competent in this respect.

³⁹ A Saleswoman, "The Home of the Bachelor Woman," Gas Salesman Supplement, GJ, 11 January 1928, 5-6.

and wanted in their compact flats.

In order that gas salesmen might understand the "woman's point of view," home service women were periodically invited to speak at sales meetings. On another occasion, Miss M. A. Tench, a home service advisor with the Darlington Gas Company, lectured a group of salesmen on developments in gas cooker design, including the women's positive and negative reactions to various stove features as a result of home use.⁴⁰ On a similar theme, lady demonstrators Miss B. Randle of the Gas, Light and Coke Company and Miss M.A. Chalkley, Tottenham District Gas Company, addressed the Southern District (London Area) Gas Salesmen's Circle. In their respective talks, both women listed the priorities of the "average woman" shopping for gas appliances and the positive merits of regular cookery demonstrations and service calls by demonstrators, especially after a new cooker had been installed. In addition, they mentioned the importance of overlooked details which effected cooking results in various stove models--the sizes and weights of baking pans, the placement of grills and browning shelves---details familiar to home service women, but not necessarily to their male co-workers. Called upon to address male showroom attendants on the particular needs of feminine consumers, the industry recognized the special relationship that home service advisors had with their customers.

But home service women also used these speaking engagements to emphasize their longstanding contributions to the industry, their continued importance and the need for greater co-operation between the various departments involved in service and sales, from showroom salesmen to gas fitters and inspectors. A number of gas managers supported their women demonstrators in this respect. In a effort to improve customer service and extend the role of its home service department, W. Clark Jackson, manager of the Neath Gas Company, substituted his male gas inspectors with "lady inspectors" because women established a better relationship with female

⁴⁰ Miss M.A. Tench, "Improvements in Gas Cookers," Gas Salesman Supplement, GJ, 30 October 1929, 261-62.

customers, and were generally allowed into consumers homes with greater ease than male inspectors. Jackson contended that women had successfully undertaken the inspection and repair of gas appliances during the war, and when properly trained, were highly effective in this area of work.⁴¹ In a later address to the Midland District Gas Salesmen's Circle, Mr. A. Forshaw raised the issue of extended training for women advisors to include more technical information; fitters and meter inspectors, on the other hand, might benefit from some basic knowledge of gas cookery. Despite the difficulties of initiating such a plan, Forshaw anticipated that the crossover of duties might eliminate service delays and facilitate interdepartmental co-operation in the ultimate objective of increasing gas sales despite electrical competition.⁴²

Not surprisingly, interwar proposals to extend the demonstrators occupational duties drew mixed reactions. Responding to Jackson's advocacy of "lady inspectors," a male gas inspector argued that women customers placed more faith in the recommendations of a male inspector than a female, except in the area of cookery.⁴³ Forshaw's suggested plan for breaking down the occupational barriers between male fitters and female demonstrators elicited a mixed response. While one editorial saw this scheme as a means of overcoming "the strict demarcation" of vocations as imposed by craft unions, another writer warned that, given the "great number of men unemployed," gas workers would naturally oppose any plans to train women for a traditionally male occupation.⁴⁴ Despite the home service women's greater confidence in the workplace and their sense of

41 "Politic Service---Lady Inspectors," GJ, 25 May 1927, 483-84.

42 "Gas From a Woman's Point of View: Mr. A Forshaw Gives Some Second-Hand Impressions," The Gas World, 7 February 1931, 133-34.

43 "Lady Inspectors," GJ, 1 June 1927, 578.

44 "The Proper Blend," and "Two Illustrations," The Gas World, 21 February 1931, 173-74.

professional self-worth, in light of the above debates over skill and gender, it is easy to understand why the interwar women advisors' still made their service calls outfitted with handbags, not tool chests, technically little better prepared to deal with a mechanical stove malfunction than the pre-war lady demons armed only with their trusty hat-pins.

Gender was an issue in the showroom as well. Although some gas managers, notably Francis Goodenough, fully endorsed women's entrance into a variety of gas sales jobs, other high-ranking gas men maintained that women lacked the masculine traits necessary for the tough job of selling "hard goods": personal aggressiveness and mechanical ability. Ironically, while gasmen considered women's technical knowledge sufficient to demonstrate appliances, these same skills were somehow inadequate when it came to the job of actually selling domestic equipment in the showrooms. A debate on this topic developed at the 1927 annual conference of the BCGA, between the outspoken Maud Brereton and the conference's guest speaker, Miss Gladys Burlton. Miss Burlton had been invited to address the overwhelmingly male membership of the BCGA on the topic of "Salesmanship in the Showrooms." As the former Director of Education and Staff Controller to Selfridge's department store and a past chairman of the Association for Education in Commerce and Industry, Burlton was a recognized expert on the arts and science of selling. When asked her opinion of saleswomen, she stated that although experienced lady demonstrators made excellent saleswomen and sales staff trainers, and "a feminine touch" was desirable in the showroom, overall, women's chief weakness in the showrooms was their inability to grasp technical matters, leading female customers to place more confidence in male salesmen.⁴⁵ In defense of women showroom attendants, Maud Brereton responded that women trained in domestic economy made highly effective salespersons, since they possessed a technical familiarity with the appliances and were

⁴⁵ "Salesmanship in the Showrooms by Miss Gladys Burlton," GJ, 12 October 1927, 122, 124.

more sympathetic to women's domestic issues than young salesmen. Women, she argued, were entirely capable of assuming greater responsibility in the industry.

This same point was taken up by Mrs. Eileen Murphy at the 1934 BCGA annual conference, held in Sheffield. A speaker at that year's conference, Murphy had been recently appointed head of the BCGA's Home Service section. She was instructed to "co-ordinate the activities of women engaged in the gas industry and to foster additional contacts between gas undertakings and housewives in the districts."⁴⁶ As the new head of home service, Murphy did not replace Maud Brereton as editor of the BCGA publications after her retirement in 1932.⁴⁷ She did assume Brereton's role as the Association's female spokesperson, stridently boosting women's contributions to the industry whenever possible. Her remarks to the BCGA membership in 1934 were reminiscent of Brereton's inaugural speech some twenty-two years earlier. Murphy recognized the prejudice against women in business, particularly in the "old days," but she hoped that prejudice did not exist in the gas industry. Slightly chastising her listeners, she stated:

Remember, there is no gender in brains. It should make no difference in business whether a person's legs are concealed in petticoats or in trousers. In fact, if any difference is made, surely the petticoats should have the advantage in an industry where women form the bulk of the customers!⁴⁸

According to Murphy, seventy per cent of the gas output in Britain sold for home use, making women responsible for using three-quarters of

46 "Interesting BCGA Appointment," The Gas World, 25 August 1934, 178.

47 "Mrs. M.A. Brereton Relinquishes the Editor's Chair," GJ, 29 June 1932, 864-65; "Changes at the BCGA," GJ, 29 June 1932, 864. BCGA general manager William Mason and editor Maud Brereton retired from the BCGA in 1932. After this, all the Association's advertising work was handled by the advertising agency, the London Press Exchange, although the BCGA retained its editorial staff for the association publications.

48 Eileen Murphy, "Women's Activities in the Gas Industry: Home Service as It Exists To-day," The Gas World, 29 September 1934, 304.

the total gas made. As the largest industry catering to the daily needs of women, Murphy declared that “the gas industry is a women’s industry;” and therefore they should offer “brilliant employment prospects for the best women.” She asked gas managers to value and respect the potential of their home service employees, “to give them more scope and responsibilities” beyond routine cookery demonstrations. Home service, in her view, included a wider range of employment opportunities than ever before, including jobs for demonstrators, saleswomen, showroom manageresses, receptionists, lecturers and interior architects.⁴⁹ But despite her crusading tone, Eileen Murphy was cautious before her male audience, never mentioning the contentious issue of female gas inspectors, even stressing that women “should not try to do men’s work.”⁵⁰ What exactly constituted “men’s” and “women’s work” Murphy left undefined.

The gas industry’s debates over female salesmanship and the expansion of female employment reflect a larger series of contemporary questions. Within the context of interwar debates over gender and work, and in conjunction with the advent of the professional salesman, by assuming a more active role in the gas showrooms, home service women may have inadvertently undermined the aspiring professionalism of their male co-workers. Although home service demonstrators were respected as female sales experts, particularly when called upon to explain the “feminine point of view,” they were not included as equals in the salesmen’s circles. Moreover, suggestions for broadening the occupational mandate of the home service women by training them to perform appliance inspections and minor repairs rattled the carefully reconstructed perceptions of male and female occupations within the industry, perceptions previously shaken by women’s

49 Murphy, “Women’s Activities in the Gas Industry,” *Gas World*, 304-05; Eileen Murphy, “Home Service,” *GJ*, 3 October 1934, 67-68; “Our Home Service Section ‘At Home,’” *News: A Newspaper for the Employees of the Gas, Light and Coke Company* (February 1938), 6-7.

50 “Home Service: Mrs. Eileen Murphy Champions Women in the Gas Industry,” *The Gas World*, 6 October 1943, 304.

work experiences during the war years. Although a few companies, like the Neath Gas Company, braved the criticism and overlapped duties, the vast majority still held that home service women and gas inspectors must undertake entirely separate functions, thereby continuing to observe a hierarchy of skill that the war had only temporarily dismantled.

Despite these ongoing discussions on the role and duties of the women demonstrators, on the whole in terms of professional advancement, the gas women fared much better than other groups of interwar female white-collar workers. In the civil service and the teaching profession, women faced an increasing number of professional barriers, most notably the marriage bar.⁵¹ Within the gas industry, home service women were not similarly restricted; in fact, the industry continued to hire married women for some of its highest profile positions. The gas women's increased sales duties in the showrooms and at trade exhibitions served to enhance their public and professional roles in both the workplace and the community, particularly as gas managers believed that the women fulfilled the dual role of simultaneously representing the needs of the female consumer and the interests of the gas companies. However, it was the Women's Gas Council (WGC) established in 1935, which officially consolidated the gas industry's female employees. By the late thirties, under the rubric of this organization, home service women hosted their own professional conferences, published a journal for women consumers and female gas employees and cooperated with a network of interwar women's service groups lobbying in support of social welfare causes. Moreover, while the WGC helped create professional networks for women in the gas industry, its first and foremost objective was the development of positive public relations between the gas industry, via its demonstrators, and its female consumers in the home.

51 On the marriage bar in teaching and the civil service, see Beddoe, Back to Home and Duty, 5, 42, 82-85; Lewis, Women in England, 197-200; Smith, "British Feminism in the 1920s," in British Feminism in the Twentieth Century, 53; Pugh, Women and the Women's Movement in Britain, 90-100.

The Women's Gas Council and Interwar Housewives

Although the BCGA and the GLCC usually led the way in term of public relations schemes, the idea for a women's gas club did not originate in London, but in Yorkshire. In January 1934, prior to Eileen Murphy's promotion at the BCGA and her crusading remarks on behalf of gas women, Mr. W.B. McLusky, manager of the Halifax and District Gas Company, offered his showroom as a meeting place for local women interested in public service and community affairs. According to McLusky, the Halifax Gas Development Association started among a group of prominent local women, including the mayoress, however membership was open to anyone wishing to attend.⁵² Monthly meetings were held in the gas showrooms, with a set speaker followed by a question period or debate. Topics of discussion included housing, slum clearance, smoke abatement and nutrition or "dietetics." On occasion, the company's home service women addressed the meeting, either lecturing or performing demonstrations. Special outings included "motor coach" trips to new gas showrooms or tours of large restaurants, shops and factories using gas. After one year, the new organization reported ninety-six members, including Eileen Murphy. Murphy enthusiastically claimed that the association's membership was representative of the community: it included young mothers, business women, politicians, civil servants, social and church workers and elderly ladies, without "distinction of class, age or calling." According to McLusky, a woman did not have to be a gas consumer to join, although he supposed that all the members used gas, given the "unforced enthusiasm for gas" among the membership.⁵³ Murphy and McLusky anticipated the steady growth of local branches, federated in a national union of women's gas associations,

⁵² "G.D.A.," GJ, 17 October 1934, 200-201; "Gas Development Association for Women: Halifax Centre Visit Bradford," GJ, 12 December 1934, 809.

⁵³ "Under the Lens: This Woman Business," GJ, 12 December 1934, 811.

representing the interests of all domestic consumers of gas to outside official bodies, while maintaining a strong local connection between staff and consumers.

The plan for a gas club for women was probably inspired by a similar organization affiliated to the electrical industry. In 1924, Mrs. M.L. Matthews founded the Electrical Association for Women (EAW), an organization designed to collect and distribute information on the use of electricity as it effected women in the home and the community. The group's secretary, Miss Caroline Haslett, was a well-known figure in the electrical industry. A founding member of the professional organization, the Women's Engineering Society (WES), established in 1919, Haslett joined other female engineers, trained during the war, who were lobbying for job security and advancement in this male-dominated sector. The WES actively promoted technical education for girls leading to careers in science, commerce and industry. The EAW, an offshoot of the WES, directed its attentions to customer education with the intention of bridging the gap between electrical consumers and producers, anticipating the labour-saving potential of electrical services for women in the home. To demonstrate electrical labour-saving devices, the EAW constructed a model all-electric house, Bristol House, which was used as a training centre for demonstrators.⁵⁴ According to Suzette Worden, neither the Electrical Development Association, the industry's public relations group, or the Institute of Electrical Engineers expressed any initial interest in the EAW, however the WES lent its immediate support. The EAW flourished. By 1940, it had eighty-five branches, with 9,000 members, drawn from the middle-class. It published a journal, The Electrical Age for Women, had members on local electricity and housing committees, and instituted training programs for saleswomen and demonstrators in an attempt to increase

⁵⁴ "Bristol House," The Woman Engineer (December 1935), 70-71.

women's employment in the electrical industry.⁵⁵

By 1934, with the EAW already a decade old, there was little doubt that the gas industry drew inspiration from this group. Although the editors of the Gas Journal disparaged "Miss Haslett's girls," describing them as bored middle-class do-gooders whose ultimate crusade in the name of "Progress" was "to instal an electric cooker in every slum kitchen," they admitted that the gas industry might profit from a similar federation, run by professional women.⁵⁶ David Milne-Watson contacted the Women's Employment Federation (WEF) to recruit someone capable of setting up a national organization. WEF executive committee member, educationist Mary Wolsely-Lewis, recommended Miss Kathleen Halpin for the job.⁵⁷ The daughter of an upper level civil servant, Halpin had lived in Paris for a year after leaving school in 1922; upon her return to London, she took secretarial training, eventually working at the Encyclopedia Britannica and The Architect's Journal. Between 1932 and 1935, Halpin was the personal secretary to the Foreign Secretary Sir John Simon. As a member of several post-suffrage feminist groups, including the Fawcett Society, the London Society of Women's Service and the Women's Employment Federation, Halpin met prominent constitutional suffragists, including Pippa and Ray Strachey, whose continued dedication to the women's movement inspired younger women like herself who had not personally campaigned for the vote.⁵⁸ Recalling her first interview with Milne-Watson, where he outlined

55 Worden, "Powerful Women," 134-148; Sparke, As Long As It's Pink, 153-54; British Library/Electrical Association for Women: A Introduction to the Society (London, n.d.).

56 "Under the Lens: This Woman Business," GJ, 12 December 1934, 811.

57 Fawcett Library/6/Women's Employment Federation/493/Women's Employment Federation: National Federation of Organisations concerned with the Employment and Training of Educated Women, 1. Milne-Watson was a vice-president of this organization.

58 Video-taped Interview with Miss Kathleen Halpin, Chagford Street, London, 23 September 1996; Second Interview with Miss Kathleen Halpin, Chagford Street, London, 27 September 1996.

his ideas for an organization that would “do for the gas industry what Caroline Haslett had done for electricity,” Miss Halpin reflected that he “had pitted me against the cleverest woman in London with ten years start.” Nonetheless, in May 1935, she accepted the job of organising secretary for the Women’s Gas Council because it was “a challenge.”⁵⁹

While Milne-Watson and Wolsley-Lewis played leading roles in the establishment of the national Women’s Gas Council, the tough job of opening local branches fell to Kathleen Halpin. In an unpublished essay on the early years of the WGC, Halpin referred to herself as “the commercial traveller,” selling the idea of a women’s organization to gas undertakings. I was forever travelling all over the country, setting up branches and talking at meetings. First I had to persuade local managers and there was a fair amount of male prejudice to overcome. Some of them couldn’t see why a women’s organization was needed. If there was a ladies circle already, I had to persuade them to join us. If there wasn’t, I’d ask for names of people who might make a suitable president and chairman and talk to them. They’d appoint a committee and get started. We were very lucky having the home service advisors. They generally took a very active part in organising new branches and handling the secretarial side.⁶⁰

After the inaugural meeting with Miss Halpin, the branches were on their own, albeit under the patronage of the local gas undertakings. The clubs met monthly in the gas showrooms, at mid-afternoon, with an average attendance of 150 women, mainly housewives. Members paid an annual subscription fee of one shilling, to offset the operating costs of the central office. Within each branch, the secretary was the only salaried member, however, this position was usually held by a home service woman.⁶¹ Topics

⁵⁹ First Interview with Miss Halpin, 23 September 1996.

⁶⁰ Private papers of Miss Kathleen Halpin, “Women’s Gas Federation: Our Story 1935-1985,” (unpublished paper, 1985), 2.

⁶¹ Miss M. Goggin, “My Day’s Work in the Gas Industry,” *Fanfare* 2, 7 (1938-39), 6. Miss Goggin, head of Home Service in the Commercial Gas Company, London had one staff demonstrator assigned to the company’s two WGC branches, in Poplar and Bow; Branch News, *Fanfare* 2, 5 (1938), 51, Mrs. E.M. Menhinick, a demonstrator with the GLCC since the “Lady Demon” era, served as secretary to the West Ham branch of the WGC until she

presented at meetings ranged from traditionally domestic themes, such as “interior decoration” and “hints on careful buying,” to information on family health and welfare: “home nursing and first aid” and “care of the teeth.” In addition, members were invited to recommend topics of interest, or suggest club outings. According to one pioneer WGC member, Mrs. E. Warne of the Walthamstow and Leyton District branch, the local chapters planned their own events and meetings, although the minutes were sent to headquarters for official approval. Branch delegates were invited to attend the annual general meetings.⁶²

Even within the WGC’s first year, Halpin’s recruiting skills showed impressive results. At its first annual meeting, in June 1936, she welcomed 400 delegates, who represented 7,000 members from twenty-three branches throughout the country. By 1939, the WGC reported an estimated 13,000 members in forty two branches.⁶³ As a national body representing the interests of women throughout the country who used gas in their homes, the WGC aspired to “bridge the gap between the scientist and the housewife and link the manufacturer with the consumer.” In Halpin’s words, the WGC was a “means of collecting and distributing information about gas as it affected the home, child welfare, hygiene, housing, slum clearance, and smoke abatement---all subjects of vital importance to women.” In addition, via its associations with a network of women’s service organizations, including the National Council of Women in Britain, it served

retired in 1938 due to failing eyesight.

⁶² Interview with Mrs. E. Warne, Walthamstow, 2 November 1995; See also London Gas Museum/Women’s Gas Council papers/Women’s Gas Council, Walthamstow and Leyton District Branch, Formation of the Branch and Report of the First Meeting, 3 November 1938; WGC, Walthamstow and Leyton Branch, Agenda for First Meeting, 3 November 1938; WGC, Lea Bridge District Branch, Aims and Objectives, November 1938; WGC, Lea Bridge District Gas Company, Invitation Letter to New Members, September 1938.

⁶³ London Gas Museum/WGC First Annual Report for June 1935-March 1936 (London, 1936), 5; WGC, Fourth Annual Report, June 1938-March 1939 (London, 1939), 3.

as the “housewife’s voice on Government and Public Committees.”⁶⁴ Beyond this educational and political mandate, the Council’s meetings and field trips provided a social outlet for middle and working-class housewives, as did the cookery demonstrations already offered in the company showrooms.⁶⁵ That the WGC served “an educational, professional and social function” was clearly stated at the first annual meeting; and despite their close co-operation with the gas industry, WGC organizers did not consider it a “commercial concern.”⁶⁶

While the Women’s Gas Council brought together women in the home, it doubled as a professional organization for those employed in the gas industry. Activities intended for women in the business included conferences for gas demonstrators and regional meetings, modeled after the salesmen’s circles. For example, within the first year, Halpin and Wolsley-Lewis organized a “summer school” for home service women. Held in Cardiff in September 1936, and jointly sponsored by the WGC, the local domestic science college and the Cardiff Gas Light and Coke Company, the first school drew ninety-eight delegates. The women attended a series of seminars, delivered by professional businesswomen, on technical subjects, such as refrigeration, and public service issues, including the problems and challenges of the demonstrator’s job.⁶⁷ The success of this event resulted in annual summer schools and gas cookery conferences for demonstrators,

64 “Women’s Gas Council Hold First Annual Meeting,” GJ, 3 June 1936, 733.

65 London Gas Museum/ WGC, First Annual Report, 10. A party of 200 women visited the British Industries Fair, Birmingham and 140 WGC members attended the 1936 Ideal Home Exhibition, London; “The Women’s Gas Council,” Copartnership Journal (April 1937), 107; “Woolwich Women’s Gas Circle and Downham Women’s Gas Circle, Visit to Ascot Water Heaters, Ltd.,” Copartnership Journal (November 1937), 347.

66 London Gas Museum/WGC, First Annual Report, 6.

67 London Gas Museum/ WGC, Second Annual Report, 1936-37 (London, 1937), 5-6; “The Women’s Gas Council,” GJ, 28 April 1937, 209; Branch News: Summer School for Demonstrators,” Fanfare 1,3 (1937).

until political events in late 1939 suspended this activity⁶⁸

To bring demonstrators together on a more regular basis, the WGC encouraged the formation of "Demonstrators' Circles." At these sessions, home service women met monthly throughout the fall and winter months to hear guest speakers and to exchange ideas on their work. The London and Home Counties Demonstrators' Circle, convened its first meeting in January 1937, under the chairmanship of Ethel Willans. As an organization dedicated to career development, the London circle immediately affiliated with the British Federation of Business and Professional Women. Within a year, the circle reported 135 members--- home service women from gas undertakings in London and the surrounding area. Unfortunately, despite this successful start, the London area circle remained the only demonstrators' club, probably because insufficient numbers elsewhere in the country did not justify the formation of additional groups.⁶⁹

As a means of serving its educational mandate, the Women's Gas Council executive co-operated with technical schools to establish certified training programs for gas demonstrators. In 1937, the WGC and the Battersea Polytechnical School offered a course in Gas Cookery Demonstration for domestic science students interested in pursuing careers in the gas industry. Miss Godfrey, a home service advisor with the GLCC, instructed her students twice weekly for two terms; the syllabus extended beyond cookery lessons, including methods for successful public speaking, demonstration practice and the mechanical workings of gas apparatus.

68 London Gas Museum/WGC, Third Annual Report 1937-1938 (London, 1938), 9-10; WGC, Fourth Annual Report, 1938-1939 (London, 1939), 11-12; WGC, Fifth Annual Report 1939-1940 (London, 1940), 4-5. The Summer School for Demonstrators, to be held in August 1939 in Manchester, was cancelled due to the outbreak of war.

69 London Gas Museum/WGC, Second Annual Report 1936-1937 (London, 1937), 7-8; WGC, Third Annual Report 1937-1938 (London, 1938), 10; WGC, Fourth Annual Report 1938-1939 (London, 1939), 10-11; "Women's Gas Council: Demonstrators' Circle Meets," GJ, 24 March 1937, 778; "London and Home Counties Demonstrators' Circle," Fanfare 2,4 (1938), 42; "Demonstrators' Circles," Fanfare 2,3 (1938), 39; "Demonstrators' Circle," Fanfare 2,6 (1938-39), 40.

After a final examination, successful candidates received a certificate awarded by the Women's Gas Council Training Sub-Committee, an educational advisory group consisting of home service women and representatives of domestic science colleges and the Board of Education.⁷⁰ For students interested in the gas industry but not wishing a career in home service, the WGC offered the Elementary Gas Homecraft Course, held in company showrooms.

In addition to its training programs and the conferences, the WGC fulfilled its educational and social mandate via the publication of a quarterly magazine. Under the editorship of Miss A.M.S. Wilson, Fanfare first appeared in December 1936, at a cost of sixpence per issue.⁷¹ In its first edition, Wilson enthusiastically outlined the journal's intent:

As women introduce modern methods into running their homes, they find themselves with more leisure. How to fill this time for their own happiness and the benefit of others? Only the individual can answer for herself, but it is up to Fanfare to help her with suggestions and to keep her in touch with the work and pleasures of the modern world.⁷²

By "work" Wilson referred to contemporary efforts to eradicate slums, improve urban air quality and eliminate useless toil via modern technology. Brimming with optimism, despite "wars and rumours of wars," Wilson saw the present age as a step towards "a brave new life," with women contributing as never before. "We have a right to herald it with a fanfare of trumpets and sometimes we will blow our own!"⁷³ This editorial

⁷⁰ London Gas Museum/WGC, "Training of Demonstrators," First Annual Report 1935-36, 13; WGC, "Training of Demonstrators," Second Annual Report 1936-37, 7; WGC, "Training of Demonstrators," Third Annual Report 1937-1938, 8-9; WGC, "Training of Demonstrators," Fourth Annual Report 1938-1939, 10.

⁷¹ "Fanfare: First Issue of the New WGC Magazine," GJ, 16 December 1936, 788; WGC, Second Annual Report 1936-37, 9.

⁷² Miss A.M.S. Wilson, "Editorial," Fanfare 1, 1 (1936), 3.

⁷³ Wilson, "Editorial," Fanfare 1,1 (1936), 3.

characterized the tone of the magazine: moderately feminist with an emphasis on maternal issues, of no definite political party bias, but stressing social progressivism and women's responsibilities and rights as citizens, at every level of government, be it local, national or international. Kathleen Halpin described Fanfare as "a magazine for women who were beginning to think for themselves."⁷⁴

Fanfare aimed to satisfy a broad readership, be they home service advisors or lower middle-class housewives. The content was mixed, including the usual offerings found in interwar women's weeklies: recipes, fiction and housecraft.⁷⁵ Despite these similarities to other popular women's magazines, Wilson also ran articles on more serious topics, including women and public service, employment opportunities for women, infant and maternal health and school meals for children.⁷⁶ Not surprisingly, Fanfare's lead articles often contained an endorsement for the gas industry. For example, a story on the history and current work of "The Invalid Kitchens of London," a meals-on-wheels service dating back to 1912, mentioned that the 85,585 meals served annually to needy adults and children were prepared in gas cookers.⁷⁷ Given the industry's sponsorship, such "boosterism" was to be expected, however, it was neither obvious nor offensive. Wilson avoided direct negative comparisons between gas and electricity, never alluding to the fierce and ongoing competition between the two industries. Such professional restraint may have been a combination of editorial good taste coupled with the realization that it was hard to argue

⁷⁴ Video-taped interview with Miss Kathleen Halpin, September 23 1996.

⁷⁵ For a discussion of interwar women's magazines, Pugh, Women and the Women's Movement in Britain, 209-219.

⁷⁶ For example see Lilian Baker, "Schools for Mothers," Fanfare, 2,2 (1938), 11-13; "Model Kitchens for Modern Houses," Fanfare 2,2 (1938), 20-23; "More Women in Public Life?" Fanfare 2,3 (1938), 9-11; Dorothy Norman, "Feeding the Nursery Folk," Fanfare 2, 4 (1938), 13-15.

⁷⁷ "The Invalid Kitchens of London," Fanfare 1,1 (1936), 11-17.

with the growing popularity of electrical lighting.⁷⁸

Keeping the membership abreast of the WGC's activities was another important function of the publication. In a regular news section, the secretaries and chairmen of local branches reported on the events of their respective clubs. Additional columns addressed the Council's activities at the London headquarters in Grosvenor Place, clearly emphasizing the WGC connections to other prominent women's and public service organizations, including the National Federation of Women's Institutes, the National Union of Townswomen's Guilds, the National Smoke Abatement Society, and the National Women Citizens Association. Realizing that not all of its members subscribed to Fanfare, which was an expensive publication compared to popular women's magazines, such as Woman and Woman's Own, Wilson printed the WGC news as a special supplement that was free to every member.⁷⁹ This gesture indicated that the WGC was dedicated to keeping its members informed of its local, national and international activities, connecting its readers to ongoing political and social issues of relevance to women.

From its inception, the Women's Gas Council, aligned itself with a network of women's organizations dedicated to improving women's working lives, in the public and private sphere. This was understandable, since its list of vice-presidents included a number of women who were active in several organizations whose leadership and committee membership tended to overlap. Consider the example of one Women's Gas Council vice president, Lady Emmott. The widow of Lord Alfred Emmott, Liberal MP for Oldham, she chaired the Women's Subcommittee on Housing (1918) and later she ran as an Independent Liberal in 1922 for Oldham. She lost, partly

⁷⁸ Video-taped interview with Miss Kathleen Halpin, 23 September 1996. Miss Halpin remarked with irony that she lived in an all-electric flat, despite her continued preference for gas cookers and heaters.

⁷⁹ London Gas Museum/ WGC, Second Annual Report 1936-37 (London, 1937), 11; Irene Dancyger, A World of Women: An Illustrated History of Women's Magazines (Dublin, 1978), 142-144; Beddoe, Back to Home and Duty, 14-15.

on a Liberal split as voters rallied behind either the Lloyd George or the Asquith supporters, but also because of her forthright support for women's issues. Lady Emmott openly endorsed the political programme of the National Union of Societies for Equal Citizenship, an amalgamation of women's suffrage groups, headed by Eleanor Rathbone.⁸⁰ Hereafter, Emmott dedicated her time to women's concerns, serving as a vice-president of the National Council of Women of Great Britain, an organization whose agenda addressed political, educational, legal and work-related issues of importance to women in the workplace and the home.⁸¹ An active member of the Women's Employment Federation, in 1933, she supported the group's efforts to end the marriage bar and its program for broadening the employment prospects for educated women, attending WEF conferences with better remembered feminist activists, including Ray and Pippa Strachey and Marjory Spring-Rice.⁸² Lady Marjorie Nunburnholme, another WGC vice-president, was a committed WEF member whose "generous donations" to the WEF kept the organization afloat.⁸³ Lady Nunburnholme became president of the National Council of Women in 1934. Lady Emmott and Lady Nunburnholme served together on numerous subcommittees, such as an investigative committee on public health and child welfare, whose membership included Eva Hubback. In addition, Lady Emmott chaired the WEF's committee for Parliamentary and Legislative activity.⁸⁴

80 Pugh, Women and the Women's Movement, 186.

81 BL/Women in Council: National Council of Women News 1 (January 1931), 3.

82 Fawcett Library/WEF/ Executive Meeting Minutes 6 April 1933.

83 Fawcett Library/WEF/Executive Meeting Minutes 9 December 1933, 2.

84 BL/National Council of Women-Handbook 1931-32 (London, 1932), 2, 28; Harrison, Prudent Revolutionaries, 278-287. Eva Hubback, a former suffragist and close associate of Eleanor Rathbone and Ray Strachey, was active in the NUSEC promoting a feminist agenda that included family allowances, women's access to free birth control information and the prevention of child poverty.

Women's Gas Council executive members and staff were similarly active within a circle of interwar women's groups. We have already noted Wolsley-Lewis's joint participation in the WEF and the National Council of Women. WGC executive member, Lady Ruth Balfour, also sat on the WEF. She and Wolsley-Lewis co-wrote a series of newspaper articles on careers for women in non-traditional sectors, such as agriculture, advertising, "auctioneering" and photography.⁸⁵ In 1936, Balfour represented the WGC as a delegate to the Public Health Committee, of the International Council of Women, which met in Yugoslavia that year.⁸⁶ Kathleen Halpin and Mary Wosley-Lewis represented the WGC at meetings of the Women's Employment Federation. Executive member Ethel Willans attended her share of affiliate meetings, representing the WGC at gatherings of the Association of Teachers of Domestic Science, the National Safety-First Association and the British Federation of Business and Professional Women, an organization dominated by Caroline Haslett of the Women's Engineering Society. Under the auspices of the WGC, women in the gas industry became part of an overlapping network of organizations dedicated to furthering women's employment and educational opportunities.⁸⁷

Serving the interests of women in the home, the Women's Gas Council participated in a number of projects intended to draw attention to the continuing problems of domestic architecture. In 1937, Halpin was elected to the executive of Lady Sanderson's Women's Advisory Housing Council, a revived version of the 1917 reconstruction committee chaired by Lady Emmott. A Labour Party representative on that earlier committee,

85 FL/WEF/Executive Meeting Minutes 26 February 1935, 5; 10 October 1935, 1-2.

86 LGM/WGC/ Second Annual Report, 1936-37, 15-18.

87 LGM/WGC/ Fourth Annual Report, 1938-39, 4-5. The British Federation of Business and Professional Women was concerned about the treatment of business and professional women in Fascist countries. Had not the war redirected their activities to labour concerns at home, the Federation planned to send delegates to the International Labour Conference at Geneva.

Lady Sanderson's new group resumed the work of the former organization: to undertake and collate research on working-class housing, and report its findings to the Ministry of Health. In addition, Lady Sanderson's committee urged the appointment of more women to local housing committees given their knowledge of women's needs and problems.⁸⁸ In a show of support, the WGC passed a resolution "that branches should consider the question of getting more women councillors put up for municipal elections and other committees."⁸⁹ Since the Edwardian years, women in the gas industry, notably Maud Brereton, had lectured on the topic of efficient domestic design and the labour-saving possibilities of gas technology for heating and cooking. Articles to this respect appeared regularly in the promotional literature of the BCGA throughout the twenties.⁹⁰

Prior to the establishment of the Women's Gas Council, home service women participated in research groups aimed at improving working conditions for women in the home. As a member of the National Council of Women, Ethel Willans undertook research for the Council of Scientific Management in the Home (COSMITH). An ad hoc committee of the National Council of Women Household Service Committee, COSMITH was formed in 1931, under the chairmanship of Mrs. E.M. Wood, the advertising executive and consultant on domestic design who had worked on the gas industry's 1924 Wembley exhibit. COSMITH was established to ascertain whether methods of scientific management currently revolutionizing industrial processes could simplify domestic work in the home.⁹¹ Willans's

88 LGM/ WGC, Third Annual Report 1937-38, 4-5; 12-13.

89 LGM/WGC, Third Annual Report, 1937-38, 12.

90 For example see "Labour-Saving Bungalows," ATAOUFG (April 1924), 34-43; "Home Equipment on Common Sense Lines," ATAOUFG (July 1925), 58-64; "Labour-Saving Kitchens," ATAOUFG (February 1928), 11-16; "Gas in London's Homes," ATAOUFG (April 1930), 36-42.

91 FL/WF/Box 563/Letter from Mrs. E.M. Wood to Mrs. Stocks, L.C.C. (March 1939) regarding the history and purpose of the Council of Scientific Management of the Home.

home service staff presented gas customers with a questionnaire dealing with the “common faults found in kitchens;” her staff then collected and analyzed the data, and thereby arrived at recommendations for ideal heights for work surfaces and shelves.⁹² In conjunction with the surveys, COSMITH members, most of whom were domestic economy experts, used time and motion theories to evaluate equipment, interior layouts, natural and artificial lighting and sequences of work.⁹³ The COSMITH group included Caroline Haslett, from the Electrical Association for Women, A.C. Franklin of the Townswomen’s Guilds, women lecturers from King’s College, London and the London School of Economics, as well as professional female architects, notably Dorothy Bradell.⁹⁴ For the female investigators involved in this research, domestic scientific management meant anything related to the operation of the home including minimum standards for nutrition and family household budgets, and support for family allowance payments to women as a way of bringing all families up to a national minimum standard of living. COSMITH members were particularly concerned that their research should benefit lower-middle income families earning around £3 per week, and to this purpose, they promoted their housing designs to borough councils and speculation builders, setting up “Kitchen Clinics” to advise builders and consumers. In addition, they presented their findings at International Scientific Management Conferences in Amsterdam (1932) and London (1935).⁹⁵

92 FL/WF/Box 563/Letter from Ethel Willans to Mrs. Raphael at the Institute of Industrial Psychology, 9 March 1934; COSMITH, List of Subcommittees at 1 June 1937. Mrs. Raphael was also a COSMITH member.

93 FL/WF/Box 563/ N.C.W. Household Service Sectional Committee, 1-5.

94 FL/WF/B4/ Box 563/ COSMITH, Membership List, 1 June 1937.

95 Fawcett Library/WF/Box 563/“Scientific Household Management,” copy of paper presented at Fifth International Scientific Management Congress, Amsterdam, July 1932; British Library/ National Council of Women of Great Britain, “Household Service Committee: The Research Sub-Committee.” National Council of Women Handbook 1936-37 (London 1937), 82-83.

COSMITH members sought ways to integrate labour-saving methods into the homes of middle and working-class women, not simply through the purchase of kitchen equipment, but via efficient design principles. With the benefit of hindsight, historians point out that the concept of “labour-saving technology” was highly problematic, corrupted by the demands of domestic science and persuasive advertising. Its proponents, including the Americans Christine Frederick and Lilian Gilbreth, used the promise of technology and management theories in a bid to professionalize housework, reassuring women that housewifery constituted a satisfying and respectable career. Unlike the Edwardian material feminists, Charlotte Perkins Gilman or even Maud Brereton, they did not consider technology as a tool for female social and economic emancipation. In addition, the propaganda of domestic scientists and product advertisers altered women’s perceptions of minimum standards of domestic hygiene, so that they spent more time than ever before cooking, cleaning and washing clothes. Time saved in one area was allotted to another task, and household chores, like cleaning carpets, were undertaken with greater frequency.⁹⁶

That said, it is easy to be critical of the home service women, such as Ethel Willans, as corporate domestic scientists, selling cookers and gas services, teaching women how to be professional housewives, despite their own careers in the business world. It must be remembered, however, that the work of the home service women and the Women’s Gas Council had several dimensions, including the recognition of specific design problems as they effected women in the home, and the development of strategies for change. They recognized that, although the majority of young women between the wars worked before marriage, most would spend a great deal of their adult lives in the home, as mothers and housewives. As mediators moving between their customers and the corporations that produced gas appliances and services, between government housing authorities and

⁹⁶ Hoy, *Chasing Dirt*, 153-157; Horsefield, *Biting the Dust*, 140-150; Schwartz Cowan, *More Work for Mother*, 173-187; Davidson, *Woman’s Work*, 204.

builders, the home service women and the Women's Gas Council acted as a pressure group, representing the interests of ordinary housewives.

As an executive member of the Women's Gas Council, Ethel Willans continued her work with COSMITH. Both Willans and Halpin represented the WGC on Lord Leverhulme's British Management Council, a think-tank of businessmen and industrialists searching for ways to improve the efficiency of British industry using Taylorist scientific management. In September 1938, Willans and Halpin were among one hundred British delegates who attended the Seventh International Management Congress held in Washington D.C. Although the conference focussed on business concerns related to administration, distribution, personnel and agriculture, for the first time, the organizers included a separate home management section. Lillian Gilbreth, an American management consultant known for her applications of time motion studies to household routines, was a principal organizer of these meetings.⁹⁷

Representing COSMITH, Ethel Willans presented a paper wherein she noted the difficulties of applying time and motion studies to domestic labour. Daily housework entailed fewer repetitions per task than industrial jobs, and women usually undertook several tasks at one time.⁹⁸ Willans explained that by using its contacts with a number of women's organisations, COSMITH had polled housewives about their homes. While they wanted to learn of chronic design problems, even in relatively new homes, COSMITH strove to impress upon women that, as workers whose input was vital to the national economy, they had the right to expect better, more efficient workplaces. Willans expressed the need to help women find a means of articulating their dissatisfaction with poorly designed houses that equalled excessive walking, lifting and cleaning. She stated: "If only she (the housewife) can be incited to make herself heard and refuse to buy or live in

⁹⁷ Private papers, Miss Kathleen Halpin, Program of The Seventh International Management Congress, September 19-23 1938, Washington, D.C., 46, 49.

⁹⁸ FL/WF/563/COSMITH, Report by Miss E. Willans, 12 December 1938, 8-9.

a badly planned house, our work will be half done.”⁹⁹ Willans added that co-operation with manufacturers was critical, and in the interests of developing labour-efficient designs for kitchen equipment, COSMITH passed their findings on to the British Standards Institution, which was slowly turning its attention to domestic equipment. In the ensuing discussion, delegates noted that the proportion of income spent on renting or purchasing a home was too large, thereby diminishing the family food budget.

As an example of how this problem might be addressed, Kathleen Halpin described Kensal House, a modern working-class housing complex that actually saved its tenants money because of its efficient gas services.¹⁰⁰ Although this housing solution was heavily subsidized by private industry, namely the GLCC, borough councils in the metropolitan area, including Chelsea, Paddington, Stoke Newington, Islington and Westminster, were studying Kensal House as a possible model for their public housing estates.¹⁰¹

As conference delegates and as visitors to a foreign country, Willans and Halpin were struck by the differences between America and Britain, differences they both wrote about on their return to London in late 1938. They agreed that American women fared better than British housewives, the former possessing far more “mechanical contrivances” that theoretically minimized housework. This being her first visit to the United States, Miss Halpin marvelled at American plumbing, describing the “joy of constant and efficient hot water,” and the attractions of central heating,

⁹⁹ FL/WF/Box 563/COSMITH, “Planning of Kitchens and Developments in Time and Motion Study,” paper delivered by Edith Willans at Seventh International Management Congress, Washington, D.C., 19-23 September 1938, 3.

¹⁰⁰ Kathleen Halpin, unpublished papers, “Report of Seventh International Congress of Management,” Washington, D.C., 19-23 September 1938, Home Management Session, 13.

¹⁰¹ “Kensal House Scheme,” *GJ*, 15 February 1939, 440.

luxuries that the majority of English homes still lacked.¹⁰² Both women were surprised by the number of American papers presented that addressed family dynamics and the psychological role of the home, and not actual physical improvements to domestic architecture, as if the problems of urban housing had been solved. Reflecting on her impressions of the Washington conference, Halpin recalled that she initially believed that the Americans were “further ahead on the issues of home management.” She later decided that British women’s groups were undertaking similar projects, but did not express it in the same manner; in the U.S., it was “all talk, but not necessarily more action.”¹⁰³

This summation of America seems sadly ironic considering the final note of Halpin’s trip to the United States. The Munich Crisis of October 1938 raised fears of imminent war with Germany. Kathleen Halpin and Ethel Willans cut short their stay, returning home on the *Empress of Britain* to London streets filled with cheering as Chamberlain announced his successful appeasement of Nazi aggression in Europe.¹⁰⁴ The Women’s Gas Council soon turned its agenda to wartime activities on the “domestic front”; scientific management and affordable fully-equipped kitchens would have to wait for another reconstruction era.¹⁰⁵

102 Kathleen Halpin, “To America and Back,” *Fanfare* 2, 5 (1938-39), 7-10; FL/WF/Box 563/ Miss E. Willans, COSMITH, 1.

103 Videotaped Interview with Miss Halpin, 23 September 1996.

104 Video-taped interview with Miss Kathleen Halpin, 23 September 1996. Halpin recalled that because of the threat of war in Europe, they had no trouble changing their booking due to the great number of cancellations. Halpin laughed that she, her mother and Miss Willans were given the bridal suite for their return voyage.

105 Katherine Bentley Beaumann, *Green Sleeves: The Story of the Women’s Voluntary Service/Women’s Royal Voluntary Service* (London, 1977), 16, 166; “Women’s Gas Council: Miss Halpin to Assist Work on Evacuation,” *GJ*, 4 January 1939, 39. Kathleen Halpin joined the WVS in late 1938; under renewed threat of war with Germany, she was asked to oversee the evacuation of children from London to Wales, and was given temporary leave from her duties at the WGC.

Gas Women and Interwar Feminism

In terms of the interwar women's movement, where do we place the home service women and the Women's Gas Council? According to both contemporary and historical accounts, the women's movement divided along class and party lines after women thirty and over received the vote under the Representation of the People Act (1918). These divisions were exacerbated by disputes over priorities and tactics for implementing feminist change, debates which pitted "equal rights" feminists against the "new" social welfare feminists. Party politics complicated matters further, particularly for women in the Labour Party, whose feminist commitment was constrained by a party which placed unified class interests over gender differences.¹⁰⁶

Writing at the end of the twenties, Vera Brittain identified three main divisions within feminist societies. The "equal rights feminists" aimed specifically at obtaining equal status, pay and opportunities for women. Lady Rhondda's Six Point Group and its publication, Time and Tide, focused on issues of female equality, particularly the amendment of the 1918 legislation to enfranchise all women on the same terms as men, at age twenty-one, and not thirty. Elizabeth Abbott's Open Door Council campaigned against any form government measures which imposed prohibitory regulations on women's employment, regardless of the trade, profession or working conditions. Brittain identified the second group of feminists as members of the National Union of Societies for Equal Citizenship. Descendants of Millicent Fawcett's constitutional suffragists, the NUSEC directed its energies to reforms necessary to achieve equality of "liberties, status and opportunity" between men and women. Brittain noted that the

¹⁰⁶ Jane Lewis, "Beyond Suffrage: English Feminism in the 1920s," Maryland Historian 6 (Spring 1975), 1-17; Smith, "British Feminism in the 1920s," in British Feminism in the Twentieth Century, 47-65; Harold Smith, "Sex vs. Class: British Feminists and the Labour Movement, 1919-1921," Historian 8 (November 1985), 19-37; Pat Thane, "The Women of the British Labour Party and Feminism 1906-45," British Feminism in the Twentieth Century, ed. Smith, 124-143; Pamela M. Graves, Labour Women: Women in British Working-Class Politics 1918-1939 (Cambridge, 1994), chap. 4.

organization's executive were divided over priorities.¹⁰⁷ The dispute erupted between equality feminists, who favoured adherence to a strict equal rights agenda, such as the opposition of protective work legislation, and the "new feminists" led by Eleanor Rathbone, who gave priority to social welfare reforms aimed specifically at women, including family allowances and birth control. Although the equality feminists did not oppose these reform measures, they believed that by focusing on maternal issues, the new feminists reinforced traditional notions of sexual difference and female essentialism.¹⁰⁸ Vera Brittain's third group, the most moderate feminists in the women's movement, preferred work "for women's social welfare to heated battles for equality of status." This group included the National Council of Women of Great Britain, and its affiliate the International Council of Women.¹⁰⁹ In many respects, the NCW aligned with the "new feminists" by supporting campaigns for family allowances, nursery schools and increased public funding for maternal and child health.¹¹⁰

By the late thirties, the divisions within the women's movement were even more pronounced than they had been a decade earlier. According to Eleanor Rathbone, the "old" equal rights feminists, pejoratively nicknamed "Me-too-feminists," remained preoccupied with a narrow agenda which aimed for equal legal and political rights with men. In contrast, she maintained that the greatest legislative challenges had been won, and women should no longer measure their wants by men's achievements. If the women's movement was to survive, feminists had to recruit support from ordinary women, wives and mothers in the home, finding support through moderate organizations, such as the Townswomen's Guilds and

107 Brittain, Women's Work in Modern England, 173-74.

108 Smith, "British Feminism in the 1920s," 60-61; Pugh, Women and the Women's Movement in Britain, 236-240.

109 Brittain, Women's Work in Modern England, 173-74.

110 BL/National Council of Women, NCW Handbook 1931-32 (London, 1932), 7-20.

Women's Institutes. "New feminism" recognized that women were equal, but different from men, and therefore, did not share identical needs and aspirations. This difference she attributed to women's maternal qualities and their compassion for "human suffering." Whether feminine difference was a product of biology or social conditioning she hesitated to say. But Rathbone firmly believed that it was women's responsibility to address the social and economic injustices which mothers and children faced, notably by supporting plans for ameliorative legislation.¹¹¹

In addition to these tactical and political divisions, historians have described a general anti-feminist sentiment that undermined popular support for the post-suffrage women's movement. Throughout the suffrage campaign increasing numbers of women endorsed the feminist demand for the vote. Later, as a result of the First World War, women challenged gendered notions of their capabilities by performing non-traditional work, for example, working as retort stokers in the gas industry. Both the suffrage campaign and women's wartime employment undermined traditional demarcations between male and female spheres. After the war and women's partial enfranchisement, however, the popular vision of social reconstruction presented by politicians, intellectuals and the media stressed a return to pre-war social relations and traditional sex roles, but with a slight difference. Marriage manuals stressed the virtues of conjugal harmony as a means ensuring normalization after the war, putting a final end to the "sex antagonism" of the pre-war suffrage campaign. Moreover, according to Susan Kingsley Kent and Sheila Jeffreys, the new rhetoric of sexual liberation and companionate marriage served to reinforce the interwar adulation of modern domesticity and motherhood. In contrast, feminism became associated with old-fashioned spinsterhood or the malaise of

¹¹¹ Eleanor Rathbone, "Changes in Public Life," in Our Freedom and Its Results, ed. Ray Strachey (London, 1936), 57-74.

misguided women trying to imitate men.¹¹²

Although the discourse of sexual reform, as promoted by psychologist Havelock Ellis, may have reflected a post-suffrage anti-feminist backlash, the images of domestic bliss and contented maternal womanhood found in the popular press more effectively eroded post-suffrage feminism. Immediately after the war, the press urged women to leave their factory jobs and return to their normal duties at home. Ray Strachey noted that those who remained in the workforce were branded “blacklegs,” although only months before the press had praised female workers for their wartime contributions.¹¹³ The images in advertising also pressured women to resume cheerfully their wifely duties, as the advertisers of cocoa, cosmetics and cleaning products stressed the importance of feminine beauty and the virtues of domesticity. Deirdre Beddoe notes the changing images of women in advertising between 1918 and 1920, as slogans about factory girls were replaced by those of happy young wives. In addition, she observes the enormous growth of women’s magazines during the twenties and thirties, including Good Housekeeping, Woman’s Own and Woman’s Illustrated. All extolled the importance of motherhood, elevated domesticity to a science and equated femininity with consumption. With a focus on housecraft and romantic fiction, and few references to feminism or professional women, by implication, these publications reinforced a negative stereotype of emancipated women.¹¹⁴

Brian Harrison cites several factors which combined to erode the feminist movement between the wars. According to his reasoned analysis,

112 Sheila Jeffreys, “Sex Reform and Anti-Feminism in the 1920s,” in The Sexual Dynamics of History, ed. The London Feminist History Group (London, 1983), 179; Susan Kingsley Kent, “Gender Reconstruction After the First World War,” in British Feminism in the Twentieth Century, ed. Smith, 71-75.

113 Ray Strachey, The Cause: A Short History of the Women’s Movement in Great Britain (London, 1928), 79.

114 Beddoe, Back to Home and Duty, 9-33.

the post-suffrage feminist demise was a natural slump, resulting from the elimination of its primary “cause,” female enfranchisement, a shifting focus to international feminist causes, like peace and anti-fascism, and the advance of domestic political conservatism under Baldwin’s governments. Feminism was no longer fashionable among younger women. The established offshoots of the old suffragist societies were increasingly dominated by gray-haired activists, while interwar women MPs “often publicly disclaimed feminist views.”¹¹⁵

Within this environment, it is not surprising that Eileen Murphy, the director of home service for the BCGA, was cautious, even contradictory, in her attitude to the women’s movement, at one time stating: “I can never be accused of being a feminist, but after seeing the good work women are doing in the gas industry, I have automatically become the woman’s champion.”¹¹⁶

Within the gas industry press with its overwhelmingly male readership, Eileen Murphy distanced herself from feminist politics, despite her outspoken advocacy for women’s employment opportunities in the gas industry through the Women’s Gas Council and the Women’s Employment Federation.¹¹⁷ Her predecessor, Maud Adeline Brereton, had adopted a similarly evasive position vis-a-vis the suffrage movement. Recall that in 1913, before the gathered members of the BCGA, Brereton had been equally hesitant to support openly women’s suffrage, despite her friendship

¹¹⁵ Harrison, Prudent Revolutionaries, 309-310; for international feminist activity, see Beryl Haslam, From Suffrage to Internationalism: The Political Evolution of Three British Feminists, 1908-1939 (New York, 1999), chap. 5.

¹¹⁶ “Home Service: Mrs. Eileen Murphy Champions Women in the Gas Industry,” The Gas World, 6 October 1936, 340.

¹¹⁷ Eileen Murphy, “Women’s Activities in the Gas Industry,” The Gas World, 29 September 1934, 304-305; LGM/WGC, Fourth Annual Report 1938-39, 6. Murphy gave several talks to the WEF on “Careers for Women in the Gas Industry” and “Openings for Women in the Gas Industry.”

with suffragist Alice Zimmern.¹¹⁸ Instead, she had urged her male colleagues to consider how gas technology could emancipate women from the home, releasing them for more important work in the public sphere. It is entirely conceivable that both Murphy and Brereton appreciated that women in the business world could easily antagonize their male colleagues by strident pronouncements of support for feminist activities.

Describing her feminist politics, the Countess of Limerick also chose the middle way. A vice-president of the Women's Gas Council with a number of other public offices, including a seat on the London County Council and a membership to the Kensington Housing Association, she did not consider herself a "full-blooded feminist." She celebrated the "enormous change" in women's position over the past fifty years, and although she insisted that women had an important role to play in public life, she did not personally support "any widespread agitation to have women admitted to every occupation where men are employed."¹¹⁹ Instead, the Countess favoured "organising our institutions in such a way as to include the variety and freshness of ideas and outlook characteristic of the two sexes rather than encouraging everyone to have the same conventional outlook and training." She praised women's valuable contributions to municipal affairs, maternity and child welfare work, education, social work and health services. Moreover, she stated that women were pre-eminently suitable for the management of housing estates given their practical knowledge of domestic requirements. For the Countess, it was no longer simply a matter of "Women's Rights," but "Women's Duty" as citizens to make the best use of their qualifications and political voice in the interests of national life. The Countess reflected that there was "no more need of a feminist movement" now that women had the vote, had proved their capabilities during the war,

118 Anne Clendinning, "Gas and Water Feminism: Maud Adeline Brereton and Edwardian Domestic Technology," *Canadian Journal of History* 33, 1 (April 1998), 12-13.

119 LGM/WGC/"Address by the Countess of Limerick," *Third Annual Report 1937-38*, 17-18.

and were entering new areas of public work, not because they were women but because they had the necessary education and expertise.

The Countess's audience should have come away with contradictory impressions of women's potential for public office and professional employment. By her account, the old equal rights feminist movement had run its course; women were able to succeed in the public sphere, not because they demanded it, as a right to redress past wrongs against their sex, but because they deserved it, based on the merits of their education and training. Nevertheless, as women, they were still inherently better suited to some types of work, for example in the social services and teaching; women's essential maternal qualities made them more sympathetic to domestic issues related to housing and child welfare. However contradictory this line of reasoning might appear, it was quite in keeping with the contemporary ongoing debates among interwar women's groups, as they disputed priorities, politics and strategies, now that women had equal access to the political system.

The Countess of Limerick's separation of "women's rights" from "women's duty" becomes clear in light of these debates. Demands for "rights" was the call of the "old" feminists, still associated with a radical egalitarian agenda that resisted special treatment for women, still haunted by that link to the militant suffragettes of the WSPU. In contrast, "duty" alluded to "new" feminism, the social welfare concerns taken up by Rathbone's NUSEC, and its offshoot group, the National Council for Equal Citizenship. "Women's duty," to reform society in accordance with the needs of women and children, was the moderate reformist agenda of the National Council of Women.

Evidence suggests that the Women's Gas Council supported this latter brand of feminism. For example, in 1938, Rathbone was invited to address the WGC at their fourth annual meeting. She was unable to attend, but her colleague, Marjorie Green, the secretary of the Family Endowment Society, delivered a lengthy address on the need for family

allowances; a transcript of this talk appeared in the WGC's annual report.¹²⁰ In addition, the WGC was an affiliate of the National Council of Women, an organization associated with a moderate "new" feminist perspective. When questioned about feminism in the thirties, Kathleen Halpin recalled: "The Women's Gas Council was not overtly feminist but they agreed that society needed changing. They supported family allowances, school meals and nursery schools."¹²¹ Finally, the WGC's close association with the Women's Employment Federation, an offshoot of the NUSEC,¹²² confirms its ties to interwar "new" feminist activity. Hesitant though they were to identify themselves as "full-blooded" feminists, the WGC leadership supported various strategies designed to assist women in the home and the workplace, including calls for affordable working-class housing to higher safety standards for clerical workers.

Conclusion

Between the wars, equal rights feminists criticized the maternalist social reform agenda, fearing that it marginalized more important issues related to equality in the public sphere, for example, the elimination of the marriage bar from the civil service and the teaching profession, or the demand for equal pay. In addition, they maintained that social reforms directed specifically at women, to assist wives and mothers, merely conformed with the traditional social-sexual dichotomy of the working male bread-winner and female nurturer in the home. From this

¹²⁰ "Fourth Annual General Meeting," *Fanfare* 2, 6 (1938-39), 40; LGM/ WGC, *Fourth Annual Report 1938-1939*, 18-22.

¹²¹ Video-taped interview with Kathleen Halpin, 23 September 1996.

¹²² Pugh, *Women and the Women's Movement*, 242.

perspective, the Women's Gas Council and the home service advisors were part of the problem, particularly given their close association with the domestic science colleges and the manufacturers of household technology.

In a sense, this is true. As experts in household matters, the gas companies' home service women promoted a feminine ideal that was traditional, maternal and domestic. Edith Willans stated that her department expanded to meet the needs of its female clientele "because we found that women wanted to know how to run their homes in the best way."¹²³ In their efforts to bring to women the information that they "wanted to know," the home service women participated in wider social debates concerning modern technology, the psycho-social impact of rational design and "the politics of planning," perhaps the greatest reorganizing concept of the thirties.¹²⁴ It should also be remembered that although the home service women promoted an ideal of domestic efficiency, via labour-saving gas technology and rationalized design, they did not assume that all women were housewives and mothers, or indeed, that married women did not work outside the home. There were enough examples of professional women, some married with children, within their own ranks, for home service women to dismiss so narrow a view of women's work. Like the practical women they were, the home service advisors recognised that women assumed the responsibility for the care and management of the home, a situation that was not likely to change. Even some lady demonstrators had difficulty combining housework and full-time employment.¹²⁵ Women in public life, including Eva Hubback and Dora Russell, expressed the frustrations of balancing both, and socialist feminist

123 "100,000 Women Want to Know," *Modern Living* (Summer 1939), 21.

124 Ritschel, *The Politics of Planning*, 1-17.

125 Conversation with Pauline Horrigan, St. George's Hotel, Colchester, Essex, 6 December 1995. Mrs. Horrigan recalled one GLCC home service supervisor whose personal housekeeping habits were atrocious. She requested that the lady's name remain unpublished.

Margaret Cole, looked to rationalization and technology, not radical sex role reversals, as the agents of women's release from domestic drudgery.¹²⁶

Among the numerous women's service clubs that catered to housewives between the wars, the Women's Gas Council most resembled the Townswomen's Guilds, the Electrical Association for Women and the Women's Institutes. It differed from these groups, however, because the WGC also functioned as a professional association for women in the industry, forging contacts via local meetings and national conferences. Its magazine, Fanfare, reflected this dual role by running articles of joint relevance to women in the industry and the rank and file membership. In this respect, the WGC sustained and developed the home service women's sense of professional achievement and solidarity, amid a social and economic climate that was not sympathetic to women's work. Granted, men were not competing for these jobs, and in most cases, home service advisors were warned off the male trades within sales and service. Nevertheless, spokeswomen like Eileen Murphy asserted that women in the gas industry were capable of greater responsibility, and the lady inspectors at Neath confirmed that position.

¹²⁶ Harrison, Prudent Revolutionaries, 317-18; Dyhouse, Feminism and the Family in England, 144.

Conclusion

The significance of domestic technology lies in its location at the interface of public and private worlds. The fact that men in the public sphere of industry, invention and commerce design and produce technology for use by women in the private domestic sphere, reflects and embodies a complex web of patriarchal and capitalist relations.

As this study has shown, the gas industry's "lady demons" and home service women mediated between the private and public worlds of domestic consumption and industrial production. The gas women operated at the centre of this "complex web." An occupational group dedicated to increasing domestic sales via personalized customer service, the lady demonstrators assured housewives that gas technology would eliminate useless toil, improve housing standards, and help them to raise healthier children. From a contemporary perspective, looking backwards from a society saturated by advertising, it is easy to be sceptical of the lady demonstrators' sincerity and their sense of social purpose. The gas women must be considered, however, within the historical context of Edwardian progressivism, the child welfare movement, the reconstruction plans for building "homes fit for heroes," and the maternal reformist agenda of interwar "new feminism." Their work intersected with this broad range of social welfare reforms. The dedication of individuals, notably Maud Adeline Brereton, Helen Edden, Ethel Willans and Kathleen Halpin, indicate that their interest in the health and well-being of their female customers extended beyond an employer's rhetorical concern. They believed that affordable gas technology substantially improved women's working lives in the home and the work place, reducing the time spent on household labour and making possible new standards of domestic comfort.

Feminist critics have pointed out the fallacy of this position, noting

¹Judy Wajcman, "Domestic Technology: Labour-saving or Enslaving?" in Inventing Women: Science, Technology and Gender, ed. Gill Kirkup and Laurie Smith Keller (Milton Keynes, 1992), 254.

that domestic mechanization actually increased the time that women spent on housework. The professional home economists, particularly those who worked in advertising and sales, have been singled out for criticism, accused of colluding with the corporations by promoting unrealistic domestic standards and the costly equipment to achieve them. Sociologist Judy Wajcman questions this school of thought, particularly its brand of "technological determinism, where technology is said to have resulted in social changes." Instead, she considers the historical, material and social circumstances under which women promoted and accepted domestic technology, thereby positing an alternative feminist analysis of the mechanization of the British home. Wajcman writes:

The common feminist stress on the negative effects of domestic technology has contributed to the view that women have been duped. There is a tendency among some feminist scholars to assume an unqualified anti-technological stance and to imply that modern housewives are worse off than their grandmothers. This tendency is evident in those authors who stress the increasing isolation of the domestic worker and see domestic labour as having lost much of its creativity and individuality. Once we recognize that the mechanization of the home did bring substantial improvements to women's domestic working conditions, even while it also introduced new pressures, women seem less irrational.

Continuing this argument, English women's growing acceptance of and reliance upon gas technology from the late Victorian era to the interwar years was entirely rational, as was the home service women's promotion of this domestic infrastructure.

2 Ruth Schwartz Cowan, "The 'Industrial Revolution' in the Home: Household Technology and Social Change in the Twentieth Century," Technology and Culture, 17 (1976), 1-23; Davidson, Women's Work, 190-192; Hardyment, Mangle to Microwave, 187-189.

3 Susan Strasser, Never Done: A History of American Housework (New York, 1982), 245; Pamela Walker-Liard, "Progress in Separate Spheres: Selling Nineteenth-Century Technologies," Knowledge and Society, 10 (1996), 43-45.

4 Wajcman, "Domestic Technology: Labour-saving or Enslaving?" 241.

5 Wajcman, "Domestic Technology: Labour-saving or Enslaving," 250; Wajcman critically cites K. Reiger, "At Home with Technology," Arena, 75 (1986), 109-110.

Wajcman also questions the caricature of the consuming housewife duped by the avaricious adman and the corporate home economist. She admits that people were often taken in by false promises, and that housewives have been “susceptible” to “well-targeted” advertising campaigns; however, she believes that the “effectiveness of the professional experts in imposing new notions of domestic life has been overestimated.” The acquisition of domestic capital goods, such as cookers, heating systems and washers, enabled English women to rationalize domestic labour by allocating less time to repetitive heavy jobs, such as hauling coal and water. In addition, domestic technology compensated for the declining numbers of working-class women entering domestic service, as more middle-class women undertook their own domestic chores. If domestic technology failed to deliver women from household toil because it elevated housekeeping standards, the problem lies not with the technology, but with the social relations within which it operates. Sociologists Christine Bose and Philip Bereano have arrived at similar conclusions, positing that while the “technological infrastructure of the household” eliminated the physical difficulty of some routine tasks, technology did not free women from the domestic sphere because “its goal was never to decrease male power in the home.”

After twenty-five years of feminist scholarship, it should come as no surprise that the promise of domestic mechanization was undermined by social constructions of work and gender. However, if domestic technology did not challenge “male power in the home,” it had the potential to raise women’s status within the domestic sphere, while simultaneously asserting the interconnections between the unpaid private and paid work. As shown in chapter three, Maud Adeline Brereton’s Edwardian “gas and water feminism” anticipated that domestic mechanization

6 Wajcman, “Domestic Technology: Labour-saving or Enslaving?” 249-250.

7 Wajcman, “Domestic Technology: Labour-saving or Enslaving?” 240-241.

8 Christine E. Bose and Philip L. Bereano, “Household Technologies: Burden or Blessing?” in *The Technological Woman: Interfacing with Tomorrow*, ed. Jan Zimmerman (New York, 1983), 92.

would minimize the heaviest household chores, thereby allowing women time for more valuable pursuits, such as paid work, community service or leisure time spent with their husbands and children. Brereton urged her male colleagues at the BCGA to recognize that women's time was of real value, and should not be wasted even on routine unpaid domestic work. Her assertion that "home life" was the bedrock of society echoed the maternal feminist arguments of her contemporaries then lobbying for political representation.

During the interwar years, Ethel Willans and Kathleen Halpin reasserted the need to modernize the domestic sphere, working through a network of women's organizations which included the WGC, the NCW and COSMITH, and the WEF. Promoting domestic gas technology to rationalize "women's workshops," they also hoped to elevate women's status in the home. By focusing attention on housing standards, nutrition, working-class budgets and women's health, the basis of the "new feminist" program between the wars, the home service women asserted women's equal status as citizens, while recognizing their different social responsibilities and needs, as mothers. Nevertheless, as women working in business, sales and advertising, the gas industry's home service women demonstrated, by their own example, that domestic technology enabled women to make choices. In chapter six, Ethel Willans described her work with COSMITH as a form of consumer consciousness raising. She wanted to make women aware that they had the right to voice their housing needs to builders, architects and housing authorities. It was a form of female empowerment, again asserting the value of women's time and labour, and their right to control their working environment. In so doing, Willans and Brereton continued the efforts of an earlier group of Victorian women who had identified the connection between domestic architectural reform and the "woman question."

It can be argued that by stressing women's domestic contributions, the home service women, and indeed the "new feminists," reinforced gender differences, including the sexual division of labour. Like their female colleagues working in advertising, despite the good intentions of either group, the gas demonstrators

offered “an essentially conservative approach to domestic reform.” However, as Alison Ravetz notes, a broad spectrum of women activists and organizations welcomed “labour saving” domestic technology and architectural designs. It was not until the late 1950s that women grew dissatisfied with their “mechanized isolation” in the suburban new towns, and even then, the extent of this phenomena remains open to question.

How then, should historians of women, work and business interpret Eileen Murphy’s 1934 assertion to the BCGA that the gas industry was a “woman’s industry”? The employment of women as company lecturers and demonstrators in the late 1880s was an integral aspect of the gas industry’s evolving promotional strategies, as outlined in chapter two. While this created a new form of employment for the graduates of the cookery colleges, the lady demonstrators consciously attempted to define their new profession, in terms of its public image, duties, pay and job status. Ideologies of class and gender underwrote these discussions, as the women’s social and occupational status, and their technical expertise were debated by gas managers and lady demonstrators alike. In fact, despite the home service women’s certified training and increasing responsibilities, they continued to work within an industry that viewed them with some caution. As seen in chapter four, debates about women’s mechanical skills, physical strength and endurance were common throughout the First War as female replacement workers undertook a range of industrial jobs at the gas works, including stoking the retort houses. Given proper training and equipment, women successfully performed previously designated masculine forms of employment, thereby challenging existing assumptions regarding the categories of skilled male versus

10Dianne Dodd, “Women in Advertising: The Role of Canadian Women in the Promotion of Domestic Electrical Technology in the Interwar Period,” in Despite the Odds: Essays on Canadian Women and Science, ed. Marianne Gosztonyi Ainley (Montreal, 1990), 151.

11 Ravetz, “A View from the Interior,” 200-201; Judy Attfield, “Inside Pram Town: A Case Study of Harlow House Interiors, 1951-61,” in A View from the Interior, ed. Attfield and Kirkham, 215-16; Frank Schaffer, The New Town Story (London, 1972), 192-94. In contrast, Schaffer contends that the incidence of female dissatisfaction in the new towns was highly exaggerated.

unskilled female work. Although the women “gassies” were relieved of their wartime posts in 1919, their example had definite repercussions. During the twenties, with the outdoor female replacement workers gone, male white-collar workers raised their concerns about job designations. Some managers, inspectors and showroom personnel questioned the ability of female employees to undertake anything beyond cookery demonstrations, based on the women’s assumed poor understanding of technical matters. Although women like Brereton and Murphy understood the fallacy of such a claim, few women performed traditionally “male” jobs, such as inspecting appliances or collecting money from the gas meters after the war. Although the gas industry had praised the technical abilities of its over 2,000 female replacement workers during the war years, those same skills were deemed inadequate now that the war was over, and skilled women workers posed a perceived threat to men’s jobs within the industry.

Nevertheless, Eileen Murphy’s claim warrants some consideration. The lady demons successfully created a new profession for women within this industry. Despite their small numbers---there were about one hundred fifty home service women active “in and around London” by the late thirties---they reached thousands of female consumers via public lectures, club meetings, in-store displays and home visits. As a result of this activity, the gas industry’s home service women established a connection between the corporations and their reported eleven million female consumers.

By some accounts, women’s relationship to the “world of goods” has been entirely negative. Female shoppers, blinded by opulent displays and seduced by advertising, have abandoned themselves to the pleasures of the marketplace, recklessly running up debts, shoplifting or coveting what they cannot have. In a recent history of the department store, Bill Lancaster presents a more positive assessment of women’s experiences in late Victorian consumer culture. While the expansion of the mass market created employment for women in shops, journalism and advertising, the proprietors’ growing awareness of customer relations fostered the merchandising ethos that the “customer is always right,” and the customer was

12 Bowlby, Just Looking, 31-32; Beetham, A Magazine of Her Own, 154.

usually a woman. In addition, women's participation in consumer activity subverted a number of traditionally "feminine" qualities, including "dependence, passivity, religious piety and domestic inwardness." According to Lancaster, women were not "passive consumers," but used their purchasing power to make rational and calculated choices, even applying those choices to political ends, in terms of store boycotts and support for the co-operative movement. Lancaster's description of the rational female consumer aided by the professional woman of business aptly characterizes the gas industry's home service women and their customers.

This is not to suggest that gas managers were indifferent to the commodity spectacle, be it a trade exhibition or a tastefully appointed showroom. As this study has shown, it was Edison's 1882 Crystal Palace exposition and the resulting public enthusiasm for electricity that influenced gas men in their decision to actively promote their own product, perceiving themselves as "tradesmen" and not simply "monopolists." Despite the early predictions of the popular press, the commercial showdown between gas and electricity did not occur until the interwar period, as described in chapter five. To modernize the industry's public image and maintain the loyalty of female customers, the London gas companies expanded their promotional practices, making documentary films and constructing an expensive model housing complex, Kensal House. Showroom reconstruction was an important aspect of this modernization scheme. Using contemporary design, be it tasteful Georgian classicism or streamlined art deco, the GLCC and the SMet created inviting public spaces for female recreation and leisure, where women might relax, meet for a chat, have a cup of tea, hear a talk, watch a free film, or see a demonstration. Like the managers of the large department stores described by Lancaster, gas company managers and home service women designed programs to attract, entertain and even educate female consumers.

When compared to its rival, electricity, the English gas industry has often been characterized as conservative and old-fashioned by business historians and

13 Lancaster, The Department Store, 190-191.

14 Lancaster, The Department Store, chap. 6.

scholars of industrial design. By most accounts, the gas industry's technological advancements and its commercial diversification away from lighting into heating and cooking were motivated by a fear of electrical competition, and not by any independent entrepreneurial spirit. Yet, this characterization rests, not on historical evidence, but on a late Victorian popular discourse which prematurely predicted the demise of gas, and the rapid ascendancy of electricity. As this study has shown, gas men were motivated to promote their own industry in response to this popular discourse and the flamboyant showmanship of Edison and Swann, not simply because they feared the imminent demise of gas lighting. By the Edwardian years, the gas industry easily out-distanced electricity in terms of advertising and public spectacle, thanks to the collective efforts of the BCGA under the guidance of Francis Goodenough, William Mason, David Milne-Watson and Maud Brereton.

Curiously, studies of the electrical industry have offered more positive assessments of the continued commercial success of the English gas industry. In their discussion of interwar electrification and its failure to radically transform the English home, Sue Bowden and Avner Offer noted that, despite a preference for electric lighting, British housewives still adhered to coal gas for cooking, heating and washing because gas was familiar and less expensive. Cost and fuel efficiency were important determining factors, as the consumer protests indicated in chapter five. Offer and Bowden suggested that, in comparison to electricity, the gas industry directed its advertising to women of all classes, and not simply to an affluent urban minority. According to Hannah, gas cookers were "better designed and easier to use," although for reasons that remain unclear, design historians have shown a limited interest in domestic gas technology. Perhaps they too have been

15 Hannah, Electricity Before Nationalisation, 204.

16 Bowden and Offer, "The Revolution that Never Was," 267.

17 Bowden and Offer, "Revolution that Never Was," 267.

18 Hannah, Electricity Before Nationalisation, 206; Forty, Objects of Desire, chap. 8; Sparke, Introduction to Design and Culture, 125.

swayed by the sort of “technological determinism” that equates new technology with social advancement.

Finally, there remains the issue of commercial motivations. Although the gas managers’ continuously reiterated the ameliorative potential of gas technology, their fundamental interest was not social welfare, but the expansion of gas appliance sales and services. Despite some connections to progressive circles, they were practical businessmen, not philanthropists or politicians. Although the advocates of domestic economy preached the benefits of healthy cooking, gas men commissioned women demonstrators to sell stoves based on the latter’s ability to appeal to other women. Despite the obvious labour-saving merits of gas technology for Edwardian housewives, as extolled by enthusiasts like Maud Brereton, the “lady demons” were originally hired to decrease the maintenance and repair costs on company-owned rental cookers. While Kensal House offered a solution to the housing problems associated with slum clearance, the GLCC only really needed to build just one such complex to convey this message. During the interwar years, the home service women and the industry-sponsored Women’s Gas Council were important adjuncts to the gas industry’s sales departments, valuable components of its comprehensive advertising campaigns. Although the success of the women’s home service departments was always difficult for gas managers to measure in terms of profits, the women’s apparent corporate contributions lay in the areas of public relations, customer service and the developing field of market research.

This sales agenda was often at variance with the home service women’s own perceptions of their professional duties and their responsibilities to women in the home. While it remains true that the women recognized the commercial basis of their work, the “lady demons” and the home service women added a sense of social purpose to their corporate mandate. In debating their professional duties, the early “lady demons” compared themselves to social workers and district visitors, identifying strongly with these public welfare professionals. The essential difference, however, was that the lady demonstrators had to respect the rights of privacy of their customers, who they hired to assist and to serve. Thus the “lady demons” lacked the official status of the health visitors whose interventionist

policies often aroused working-class resentment. Maud Brereton elected to work for the private sector, specifically the gas industry, because she believed in that industry's potential to fundamentally improve the living conditions of working families while relieving women from the worst aspects of domestic labour. Between the wars, home service women used the Women's Gas Council to establish professional networks with other working women, and to publicly represent the needs of women in the home, in terms of housing reform and social programmes. While it can be argued that theirs was an essentially conservative message which represented and reaffirmed women's domestic roles, their support for school meals, for day nurseries and family allowance payments reflected the overall demands of interwar new feminists.

Unfortunately, it remains unclear exactly how gas managers interpreted this limited feminist involvement. When David Milne-Watson recruited Kathleen Halpin to do for them what Caroline Haslett had done for the electrical industry, did he also realize that the former suffragist Haslett actively promoted the entrance of women into the engineering trades, despite male opposition from within her industry? Given the general reluctance of gas managers to employ women in traditionally male jobs, such as gas inspectorships, it appears unlikely that Milne-Watson advocated that particular aspect of Dame Caroline's work. As might be expected, the commercial agenda of the gas managers, the aspirations of its female employees and the needs of their female customers in the home were not always complementary. For example, in a letter to the Evening Standard, a London housewife suggested that gas cookers should be elevated on legs, to relieve women of excessive stooping when using and cleaning their stoves. Responding to this letter, the Gas Journal's editor jeered that women had to bend down to scrub their floors anyway, and that domestic labour gave women that "lithe figure" so fashionable in the twenties. Nevertheless, the following year, the BCGA praised a new line of "modern gas equipment for kitchens," including an enamelled, elevated

19 Worden, "Powerful Women," 134-137.

20 "She Stoops to Conquer," GJ, 2 November 1927, 309.

gas range with the hot-plates and the oven “on the same level” to eliminate unnecessary stooping. Although the gas industry may not have been the “woman’s industry,” that Eileen Murphy hoped for, gas men still realized that they could not afford to ignore the dictates of their female consumers.

21 “Labour-Saving Kitchens,” ATAOUFG (February 1928), 14.

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WEF Women's Employment Federation Executive Meeting
Minutes

London Metropolitan Archives, Northampton Road, London

ACC 900 National Society's Training College of Domestic Subjects,
Hampstead
B/CPGC Crystal Palace Gas Company, London
B/GLCC Gas, Light and Coke Company, London
B/SMet South Metropolitan Gas Company, London
LCC London County Council Subcommittee on Cookery

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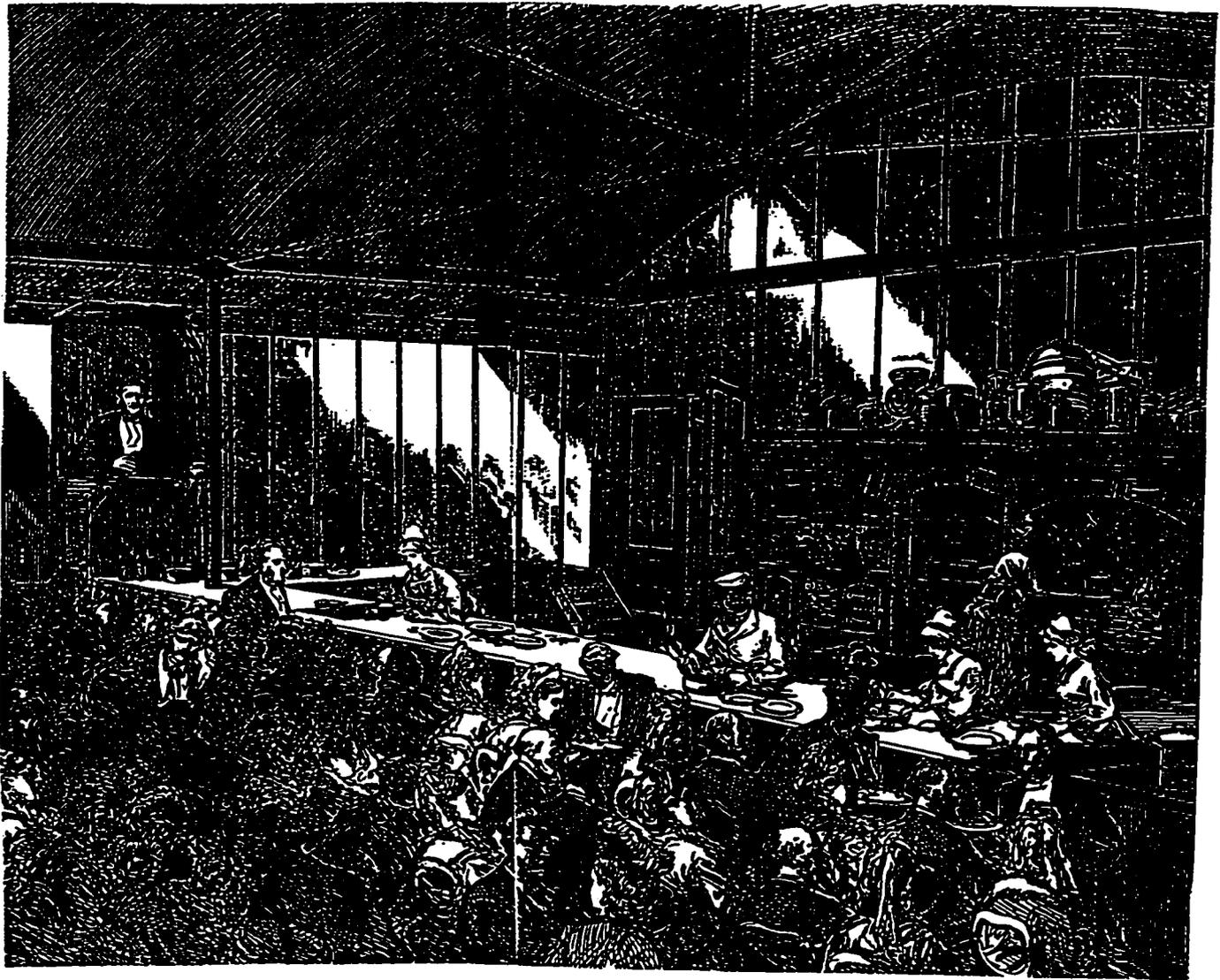


Fig. 1 Buckmaster's Lecture on Cookery at the International Exhibition
The Illustrated London News, 17 May 1873, 457.



Fig. 2 Davis Gas Stove Company, Bognor Gas Exhibition, 1905
Gas Journal, 2 April 1930, 40.
By Permission of the London Gas Museum, Bromley-by-Bow, London

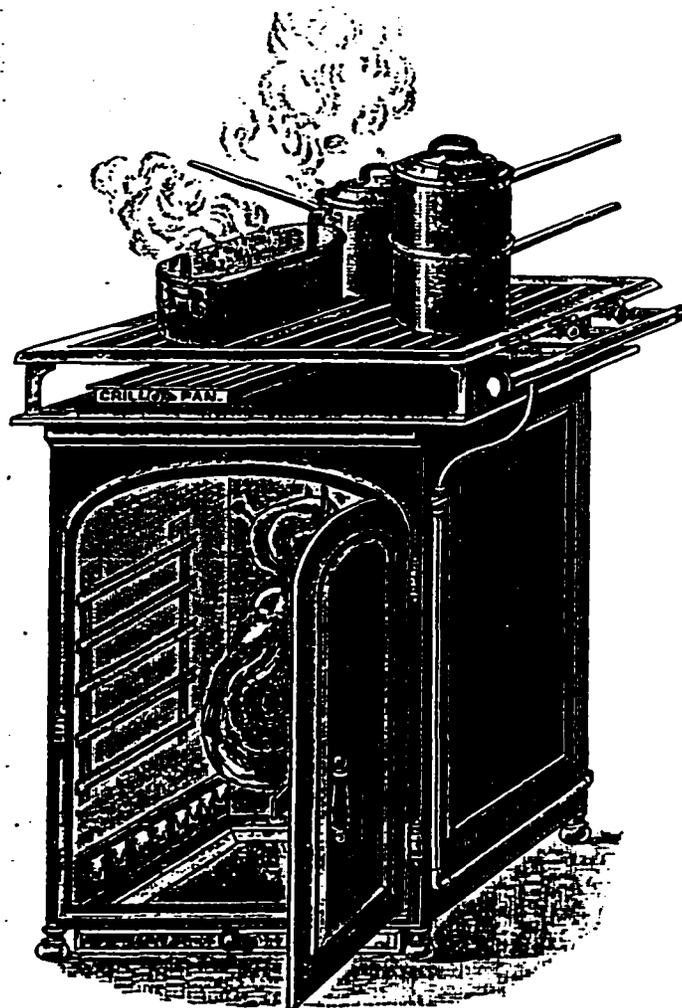


Fig. II.—THE WESTMINSTER KITCHENER.

Fig. 3 Sugg's Westminster Kitchener
Marie Jenny Sugg, The Art of Cooking by Gas (London, 1890), 21.



Fig. 4 Emptying the Penny-in-the-Slot Meter
Photographic Still from The Manufacture and Applications of Gas,
1913 film, produced by the BCGA
By Permission of the London Gas Museum



THE
"EUREKA"
COOKER
can be
RENTED
for a nominal
Quarterly sum
from the
GAS OFFICE

Fig. 5 "Eureka Cooker," J.J. Coll Gas Appliances
John Johnson Collection
By Permission of the Bodleian Library, Oxford

If you have occasion to cook a
GALLUS DOMESTICUS
and are not certain as to the best way
of doing it, please send for one of our
EXPERT DEMONSTRATORS
in the Economical Use of the Gas
Cooking Stove.



WE employ a Staff of Expert Lady Demonstrators, one of whom we will send, *free of charge*, to the residence of any of our consumers who may desire instruction, for herself or her servants, in the best way of using the various parts of the Gas Cooker for Grilling, Roasting, Baking, Boiling, Simmering, Toasting, Bread-making, Cake-baking, Jam-making, etc., etc., so as to secure

**THE BEST RESULTS FOR THE
SMALLEST CONSUMPTION OF GAS.**

Please state on your post card whether morning or afternoon would be most convenient for the Demonstrator's call, give a clear week's notice, and address—

The Gas Light & Coke Co., (Dept. H.C.) HORSEFERRY ROAD,
WESTMINSTER, S.W.

N.B.—Gallus Domesticus : A Plain, Everyday Chicken.

b

Fig. 6 "Expert Lady Demonstrators"
Helen Edden, The Household Gas Cookery Book (n.d.), 289
By Permission of the London Gas Museum



GAS SALES DEPARTMENT—WOMEN'S ADVISORY STAFF.

Front Row : MISS M. MORRIS, MISS B. RANDLE, MISS HELEN EDDEN, MISS E. WILLANS, MISS E. MORFEY.

Back Row : MRS. C. S. GILBERT, MISS C. EVANS, MISS A. LAURIE, MISS M. MENHINICK, MISS C. ABBOTT, MRS. F. HOLMES.

Fig. 7 Women's Advisory Staff, GLCC
Co-Partners' Journal, October 1917, PP 1091 Eg. p.26
By Permission of The British Library

THE HOUSE COMFORTABLE

You should have a gas fire in every room in the house. No matter what the weather is, your rooms can by that means be kept at an even temperature in a way that would be totally impossible with a coal fire.

A gas fire can be lighted just long enough to take off the chill of night or early morning and turned out again at once; or it may be kept burning half on so that it looks and feels cozy without making the room too hot; or again it can be turned on to the full to give warmth for the coldest day.

The Billiard-table is as accessible as if the room were in use all day if there is a gas fire there—so is the piano in the drawing-room.

Half the work of the house is saved where there are gas fires to heat, no coals to carry, no fires to lay, and where fire-bricks and scuttles do not exist.

At THE NATIONAL GAS EXHIBITION, OPEN on the 1st of OCTOBER at SHEPHERD'S BUSH, you will find much of interest both in regard to home and business life. The Secretary of the British Commercial Gas Association, 67, Victoria Street, London, N.W., will be pleased to furnish you with full particulars respecting the Exhibition, or in regard to the use of Gas in the Home.

A London Physician says:—
"Every one who is in any way delicate, especially on the chest, should have a gas fire in the bedroom."

Fig. 8 "The House Comfortable"
 The Daily Express 1 September 1913, 1



Fig. 9 "A Gas Cooker"
Maud Adeline Brereton and Helen Edden, Cooking By G.A.S.
(London, 1913), 9
By Permission of the London Gas Museum

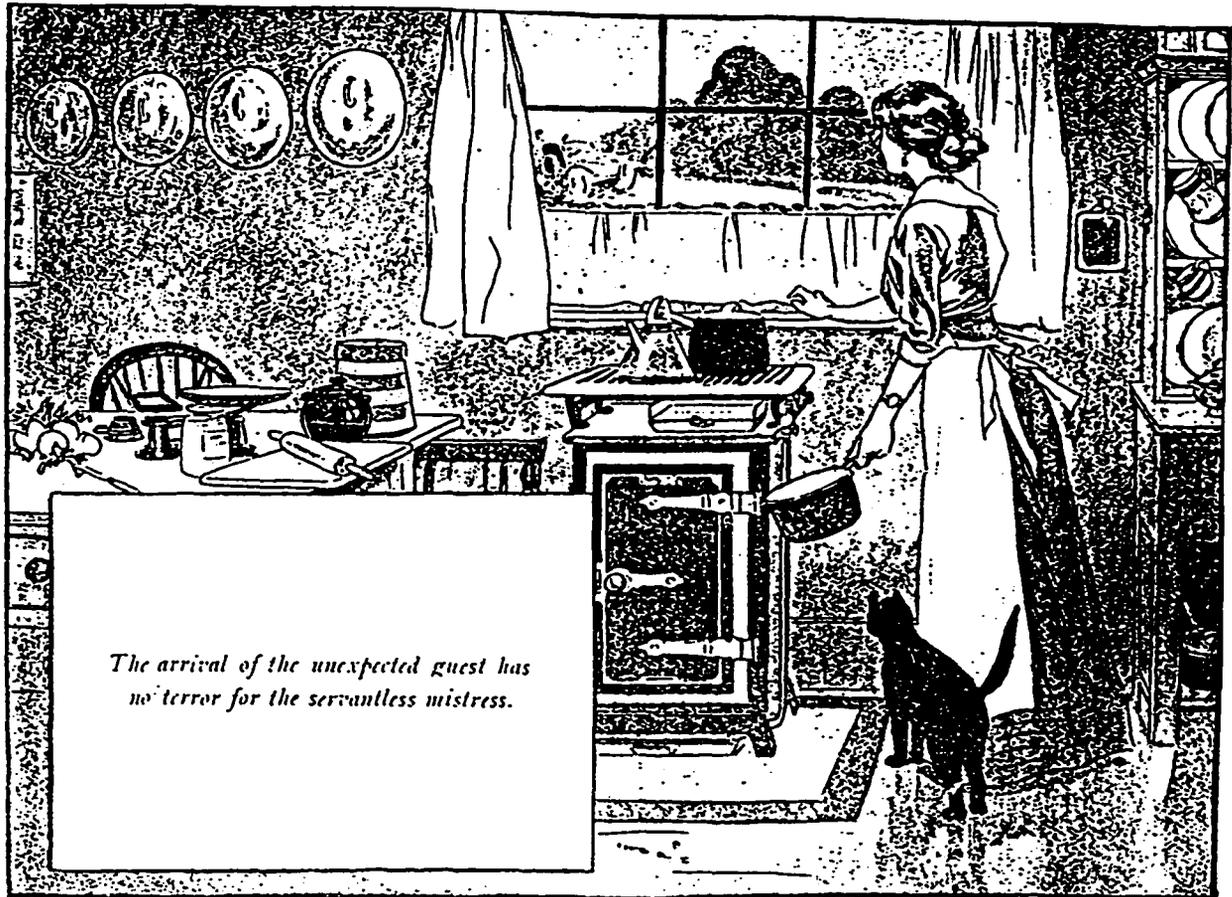


Fig. 10 "The Servantless Mistress"
Maud Adeline Brereton and Helen Edden, Cooking By G.A.S.
(London, 1913), 24
By Permission of the London Gas Museum



THE PRODUCTS WORKS, BECKTON.
WORKS MATRON, AND TYPICAL WOMEN WORKERS IN UNIFORM.

Fig. 11 Works Matron and Typical Women Workers in Uniform
Co-Partners' Magazine (March, 1917), frontespiece
By Permission of the London Gas Museum



Good Cooking for Good Men.

GIVE your men folk good, honest food, well cooked on a Gas Cooker. You can afford good food all the more easily because the Gas Cooker saves money by avoiding waste.

If you use a coal fire you must light it long before you cook with it, and it will burn long after the cooking is done.

But a Gas Cooker needs no preparation and is turned out the moment you have finished work; so that no fuel is wasted.

BETTER ECONOMISE IN FUEL THAN IN FOOD.

For all particulars please write to The British Commercial Gas Association, 47, Victoria Street, Westminster, S.W.

KH

Fig. 12 BCGA, "Good Cooking for Good Men"
Punch, 16 June 1915
By Permission of the London Gas Museum



Gas Appliances as an Aid to Good Nursing.

A GAS FIRE will keep the sick room at an even temperature practically without attention. A Gas Fire makes no work and therefore saves traffic and noise.

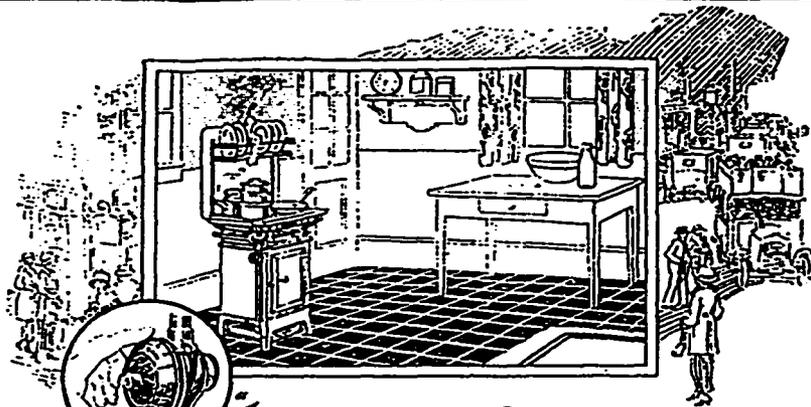
A Gas Water-Heater is independent of the kitchen fire—it is ready for use at a moment's notice always. It gives abundant hot water—really hot—at the shortest notice at any hour of the day or night.

A Gas Cooker can be conveniently installed in a room adjoining the sick-room and makes the quick and punctual preparation of the invalid's food a matter of perfect simplicity.

An inverted incandescent Gas Burner gives a pleasant light that is very restful to the eyes.

Full particulars from the British Commercial Gas Association, 47, Victoria Street, Westminster, London, S.W.

Fig. 13 BCGA, "Gas Appliances as an Aid to Good Nursing"
Punch, 17 February 1915
By Permission of the London Gas Museum



*"I can do my Shopping whilst
the dinner is cooking"*

THE housewife who has a "New World" Cooker can cook and look after her other household duties at the same time. An ingenious device called the "Regulo" Heat Controller keeps the temperature of the oven at the proper degree for the cooking in hand. For instance, suppose you want to cook a chicken. The instruction card supplied with every "New World" Cooker tells you to set the dial of the "Regulo" to figure 7, and leave the chicken in the oven for 30 minutes. The setting is a simple hand movement. When this is done you can leave the oven to look after itself. Even basting is unnecessary. You have the comforting assurance that a perfectly cooked meal will result. To realize just what this means in taking the worry and uncertainty out of cooking, see a "New World" demonstration at your local Gas Showroom.

Write for free copy of the Radiation "Ten Minute" Recipe Book. Full of practical, up-to-date cooking information of special interest to busy housewives. Also articles on Cuddles & Parties, Picnic Parties, Brides' Treats, Wines. Also complete Viatic, Cheri, Cocktail, Licorice, Mince, Turkish Coffee, etc. Make sure of your free copy and write now to Radiation Ltd. (Dept. P. 11) at any of the addresses given below.

Radiation

The largest manufacturer of
Gas Appliances in the world.
ARDEN HILL & CO.
44 Queen Victoria Street, E.C.4
The DAVIS GAS STOVE CO.
124
4 Oxford Street - W.1
FLETCHER, RUSSELL & Co.
124
45 Fisher Street, Southampton
Rm. W.1
The RICHMOND GAS STOVE
& HEATER Co. Ltd.
44 Queen Victoria Street, E.C.4
WILSON & MATTHEWSON
124
4 Queen Street - E.C.4
JOHN WRIGHT & Co.
44 Queen Victoria Street, E.C.4

**"New World"
Self-Controlled
Cooker**

Recipe Book



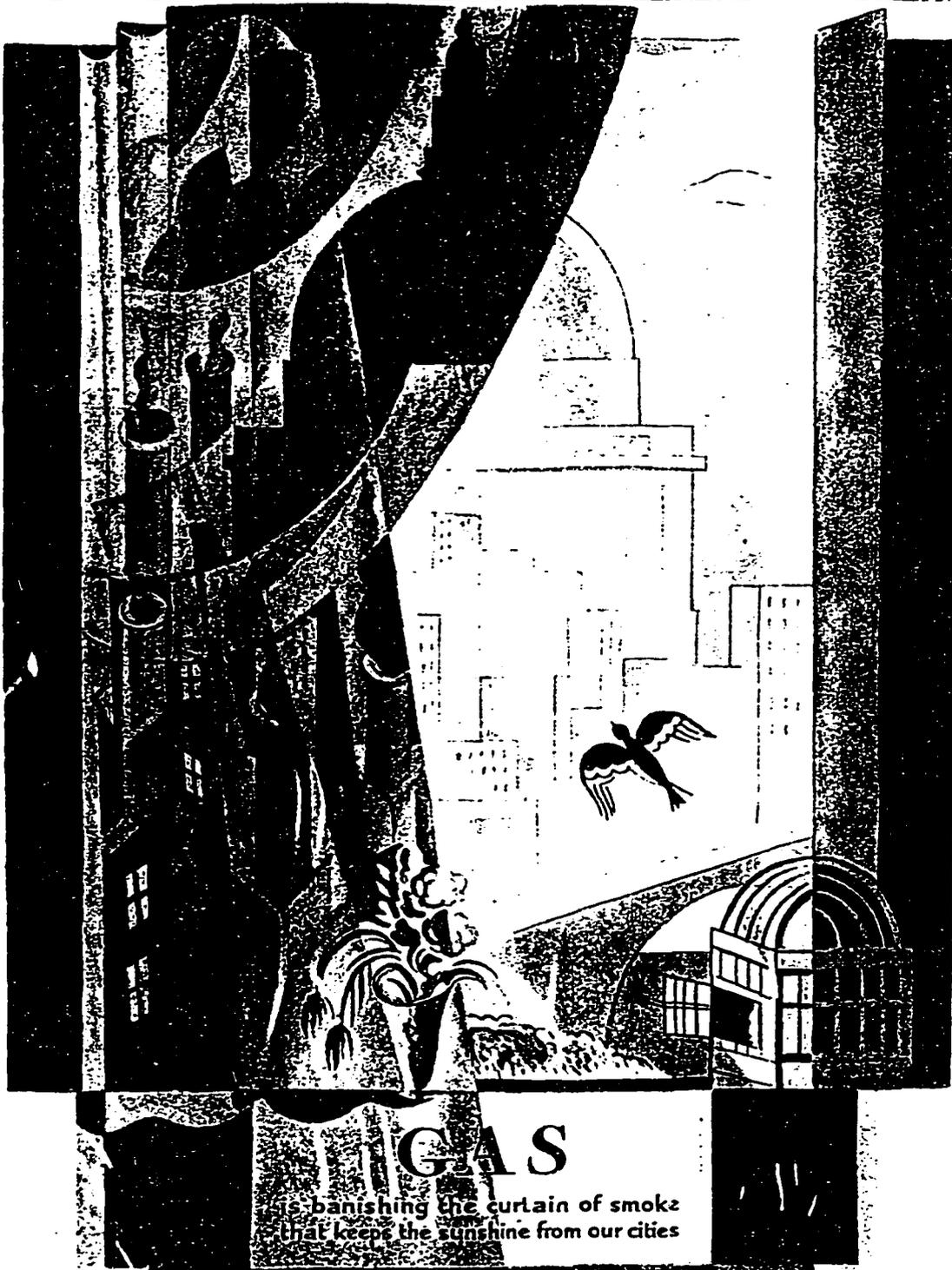
Free on Request

Fig. 14 "The New World Cooker"

Punch 23 April 1924

By Permission of the London Gas Museum

The advertisement promises women that technology enables them to do several tasks at once, even if it means leaving the house.

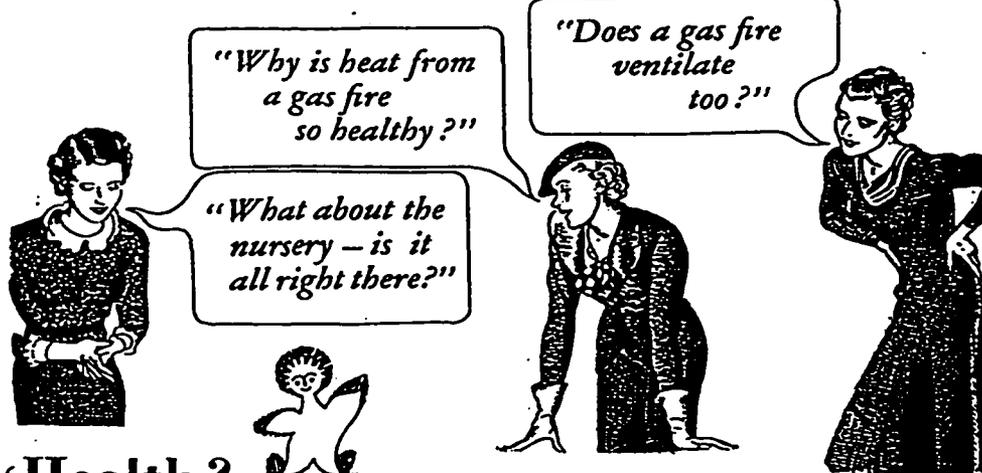


Clive Gardner

For the latest data on Smoke and Fog write to The British Commercial Gas Association, 28, Grosvenor Gardens, S.W.1.

Fig. 15 "Gas"
Punch 4 November 1929
By Permission of the London Gas Museum

"Please Mr. THERM-



'Health?

Why, a gas fire is the healthiest heat you can get — especially for the nursery, because . . .

- | | | |
|--|---|--|
| <p>1 It ventilates — changes the air in a room 4 or 6 times an hour.</p> | <p>2 The rays from a gas fire have the same health-giving powers as the sun's rays.</p> | <p>3 Equally healthy on the purse — gas is the cheapest form of heat on tap!</p> |
|--|---|--|



With so many colours to choose from gas fires are now part of the furnishing scheme. They make every room look smarter and keep the whole house pleasantly warm and make the nursery safe for the children to play in. You'll say —

"Our house is *healthily* warm now it's UP-TO-DATE with

GAS

£1000 in CASH PRIZES! Send for the new book about gas — free — and enter the competition.

This interesting book tells you all about the latest gas appliances for bringing your home up-to-date. It also contains full particulars and free entry form for a novel competition of skill. Obtainable at your nearest gas showroom or send this coupon to The British Commercial Gas Association, 28 Grosvenor Gardens, London, S.W.1.

Name _____
Address _____

Fig. 16 "Please, Mr. Therm---"

Punch 24 October 1934

By Permission of the London Gas Museum

The playful corporate mascot also assumed the role of the male technical expert, who was always available in the showroom to answer women's questions.

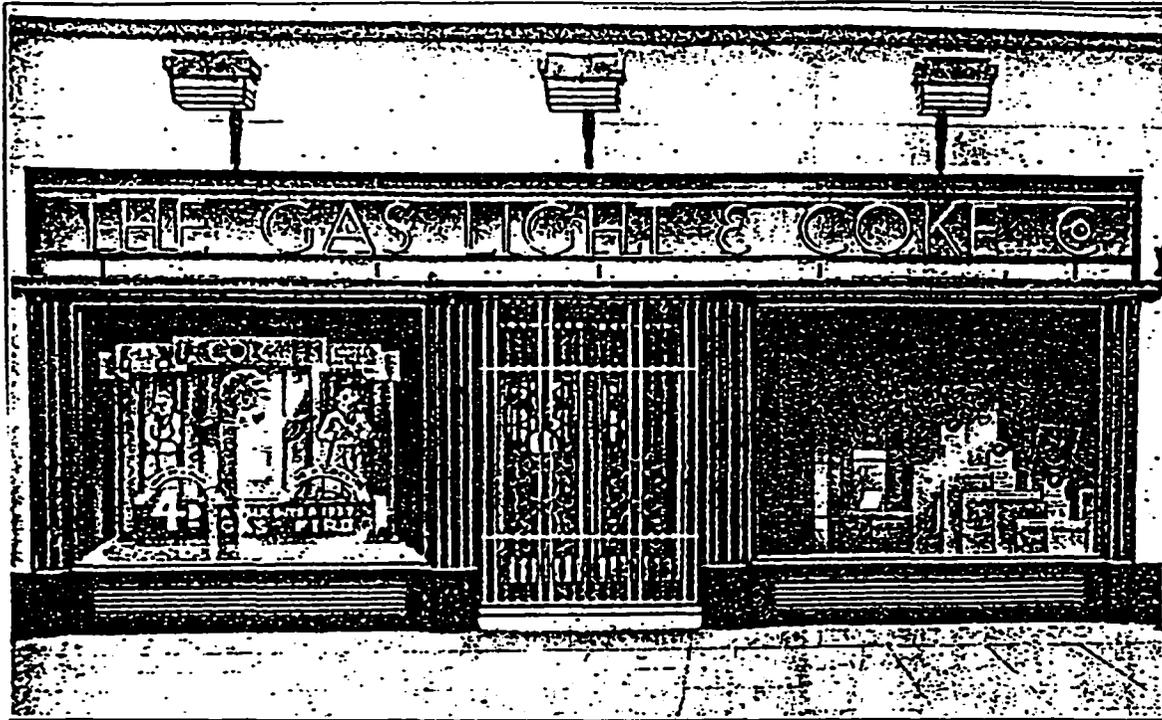


Fig. 17 Oxford Street Showrooms, GLCC
architect: Michael Tapper
Co-Partners' Magazine (January, 1937), 13
By Permission of the London Gas Museum



Fig. 18 Leytonstone Showrooms, GLCC
architect: G. Grey Wornum
"Current Architecture," The Architectural Review 82 (October, 1937), 142.



Fig. 19 "The Kabinet" Gas Cooker
designed by Dorothy Braddell
A Thousand and One Uses for Gas (May, 1934), 5
By Permission of the London Gas Museum

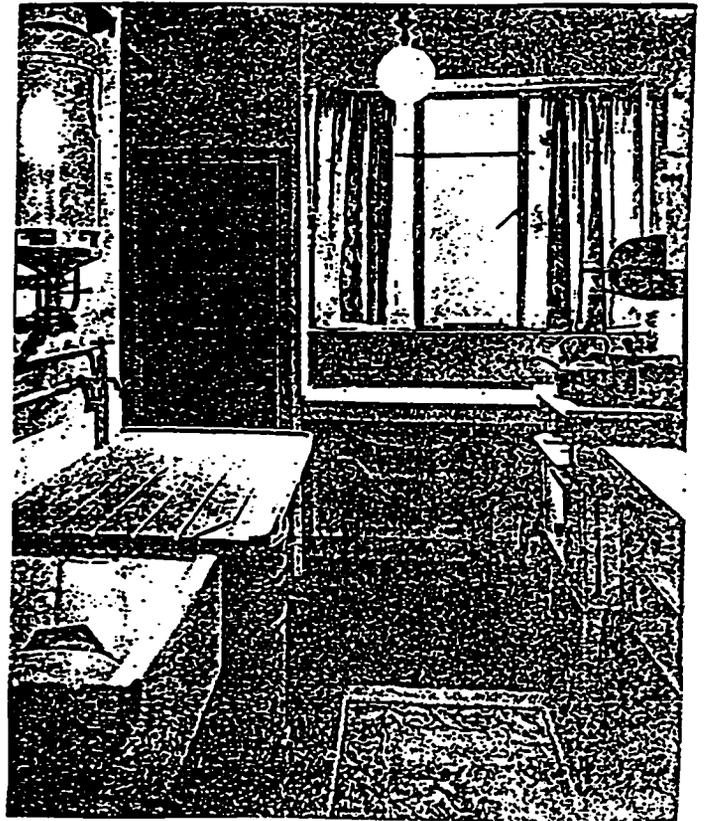
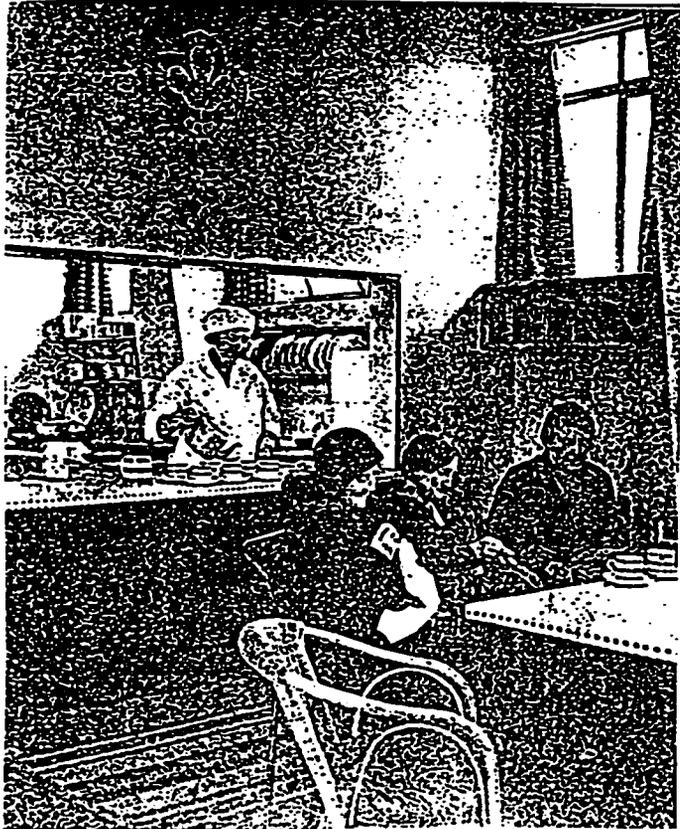
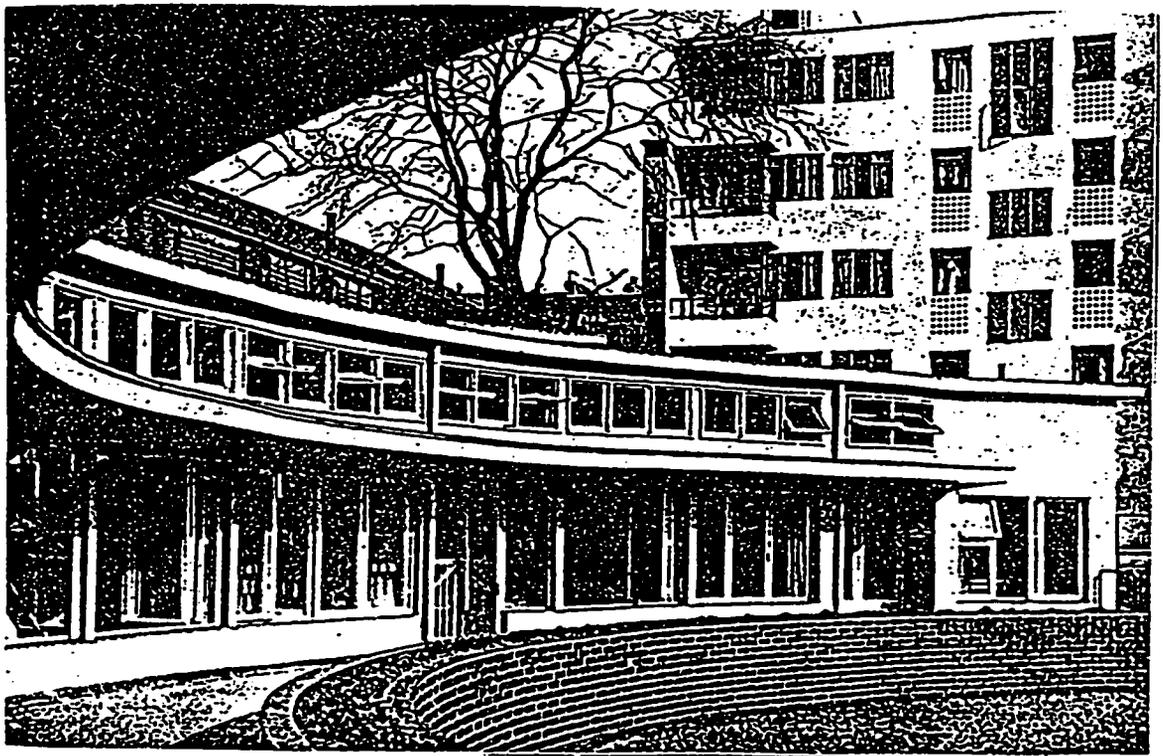


Fig. 20 GLCC's Kensal House, Ladbroke Grove
architect: Maxwell Fry

Views of the semi-circular nursery school, the kitchen interior of a flat, and the social room's cafe.

S.C. Leslie, Kensal House (London, n.d.)

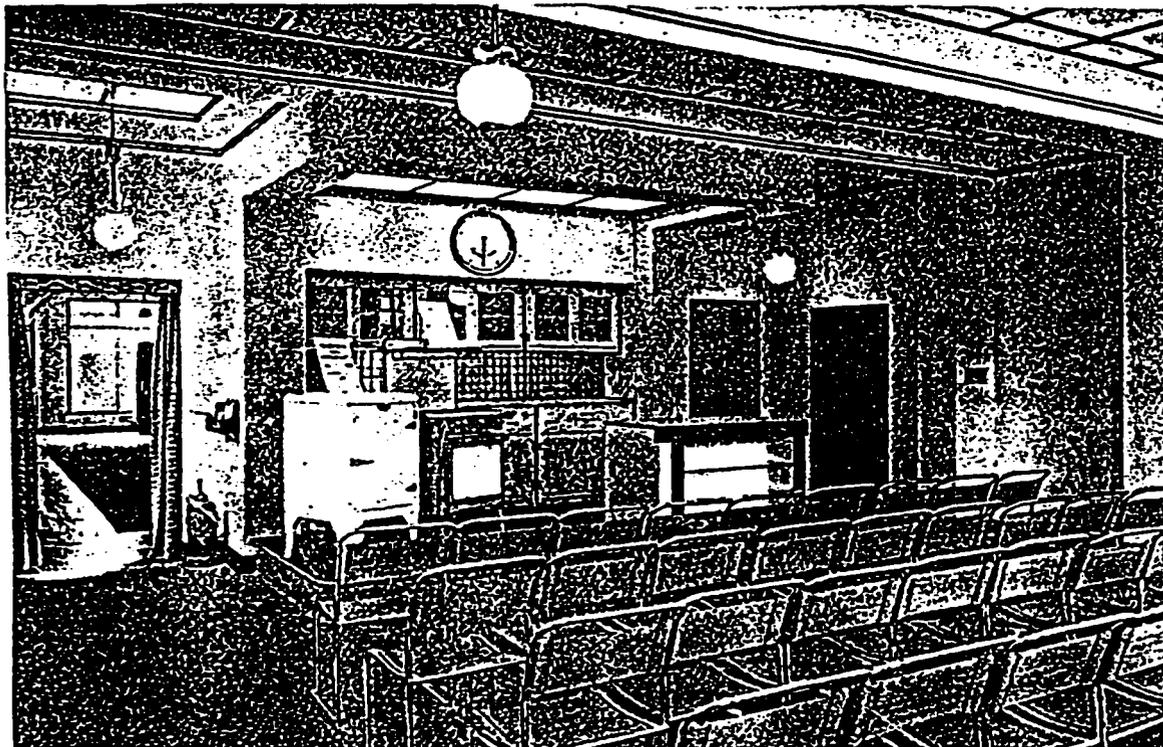


Fig. 21 Demonstration Room in the Feltham Showrooms
Co-Partners' Magazine (July, 1937), 416.
By Permission of the London Gas Museum