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Abstract: The vacuum cleaner under the stairs: women, modernity and domestic technology in Britain between the wars

This paper explores the ways in which new domestic technologies helped form modern identities for women as housewives and consumers in the inter-war years in Britain. An expanding mass media presented new role models for women, justified by ideas of 'progress'. Advertisers transformed the freedoms that women had gained during the First World War into consumer discourse through the figure of the modern housewife whose life could be liberated by use of the correct household appliance. They also played on anxieties about the 'servant problem'. However, the modern housewife could never achieve her 'ideal home' because it was in a constant state of flux; technology was constantly, albeit supposedly, improving.

This paper rejects functionalist critiques of domestic labour-saving technologies by feminists and Modernist design historians. It argues that for many women who lived in the new suburbs the significance of technology was in its symbolism rather than its rational claims to functionalism and efficiency. Although appliances did not necessarily save labour, they enhanced the status of the task, by recognising women's women. Domestic appliances were not, then, just valued for their labour-saving potential; they were also valued for the images that they projected. Moreover, the motive for the acquisition of appliances could be to participate in a shared sociability.

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The vacuum cleaner under the stairs: women, modernity and domestic technology in Britain between the wars

Introduction

In the inter-war years an expanding mass media in Britain presented a new role for women as modern housewives, justified by ideas of 'progress' and evolution.

Exhibitions, domestic advice manuals and numerous new women's magazines and popular newspapers educated women in new labour-saving technologies. Hence in 1922 a writer in the catalogue to the *Daily Mail's* Ideal Home exhibition declared:

Since the first Ideal Home Exhibition opened its doors in 1908 the progress of home-making has greatly accelerated. Woman's striving for more freedom, for self-expression, has probably been the greatest factor in this speeding up of the march towards the Ideal Home, and nothing has done more to bring the perfect home nearer than woman's determination to be freed from the thraldom of domestic duties carried out in archaic and inefficient ways.¹

Advertisers, as Martin Pumphrey points out, transformed the freedoms that women had gained during the First World War, in employment and legal rights, into 'consumer discourse' through the figure of the 'modern housewife' whose life could supposedly be liberated by the scientific and efficient use of the correct household appliance.² They also played on anxieties about the 'servant problem', which will be discussed later.

Whereas much research on women and modernity has been focused on the city and the department store, this paper is focused is on the ways in which women experienced modernisation through the physical spaces of the home. As Meaghan Morris has put it, 'modernity crept in through the back door, via the kitchen'. This

paper extends earlier work by the author on the 'suburban modernity' of the *Daily Mail* Ideal Home Exhibition, which itself was indebted to Alison Light and Sally Alexander's work on women and modernity.⁴ It continues to be inspired by Morris' 1988 challenge:

the cultural production of 'actual women' has historically fallen short of a modernity understood as, or in terms derived from, the critical construction of modernism. In this project, I prefer to study instead the everyday, the so-called banal, the supposedly un- or non-experimental, asking not, 'why does it fall short of modernism?' but 'how do classical theories of modernism fall short of women's modernity?'⁵

This paper also draws on more recent work on women and modernity by cultural historians Rita Felski, Erica Rappaport and Mica Nava.⁶ Judy Giles' work on women and the home usefully emphasises the constructions on domestic modernity and the housewife. It is particularly valuable for a nuanced reading of class in relation to the 'servant problem'.⁷

The 'servant problem'

The 'servant problem' sets the context for this paper. In consumer discourse it was used as a justification for why progress in homemaking was needed. The 'servant problem', which was discussed in the media before 1914, was primarily a concern with the quantity and quality of available servants. The young women who once went into service preferred the freedom, better pay and conditions of the occupations they entered into during the First World War. They worked in assembly industries making labour-saving goods that middle-class women bought. These occupations paid better wages than domestic service and enabled working-class women to purchase goods to ease their own domestic labour. However, many of the women employed in wartime industries were demobilised and forced back into domestic service after the war. By 1921, government grants given to the Central Committee on

Women's Training and Unemployment (set up during the First World War) were tied exclusively to domestic service training.¹¹ In 1922 the new Insurance Act stipulated that applicants were to accept any job which they were capable of doing and that they no longer had any right to a job with comparable pay and conditions to their previous employment.¹² Consequently, women were forced back into domestic service through legislation and economic expediency.

Although domestic service declined in the inter-war years, it still represented the largest occupation for women. In 1911 there were 2,127,000 women in domestic service; ten years later the number had fallen to 1,845,000, but this figure still represented 32.5% of the female workforce. 13 By 1931, there was a momentary increase of 15% in the number of female indoor servants, caused by high unemployment and the economic recession. But from the mid-1930s, domestic service went into an irreversible decline. (By 1951, the numbers had fallen by more than three-guarters of a million to 343,000.)¹⁴ However, these figures, as Bowden and Offer point out, may mask the employment of women on a more casual and ad hoc basis. 15 In the 1920s, increasingly only the upper middle classes could afford to employ live-in servants and there was a shift away from residential servants to dailies amongst the lower middle classes. Furthermore, with post-First World War inflation in the 1920s, many middle class families, dubbed the 'new poor' by the popular press, struggled to maintain the standards and appearances their pre-war standards of living. By the 1930s, however, the 'new rich', the aspiring middle classes, emerged. Resident in the new estates of the extraordinary inter-war housebuilding boom, they too bemoaned the lack of servants. They used the discourse of the 'servant problem' to mask the fact that their incomes could not stretch to domestic service, as least not beyond casual help.

Scientific management techniques and the labour-saving home

The 'servant problem' prompted calls for more efficient homes that could be run with a reduced staff and led to the professionalisation of the middle-class housewife. Ideas from scientific management techniques were adapted for use in the home in popular domestic design advice manuals, promoting the use of labour-saving appliances. Like the factory owner, the householder was advised to make an expensive investment in specialised machinery that would reduce costs in the long term. The most influential example of this tendency was Christine Frederick's 1914 The New Housekeeping: Efficiency Studies in Home Management, which she followed a year later with Scientific Management in the Home: Household Engineering. Frederick, an American, adapted what might be called the 'ideology of efficiency' developed by F.W. Taylor in his *The Principles of Scientific Management* and Gilbreth's Applied Motion Study that had been used in factories (notably by Henry Ford) to rationalise the home. She suggested that when housekeeping was reformed according to the principles of efficiency it would turn housewives into professional managers of household affairs. Frederick's ideas soon spread. British domestic reformers quickly took up such ideas. The prolific writer on household management Mrs Peel, who worked for *The Queen Magazine*, as well as both the Daily Mail and its Ideal Home Exhibition, published The Labour-Saving House in 1917. In her autobiography she explained

The demand for labour-saving homes was further increased by economic depression which caused educated women to become their own cooks and housemaids, and to learn from personal experience how far hard and dirty domestic work might be eliminated from the day's domestic programme.¹⁶

Clementina Black, of the Women's Industrial Council, published her *A New Way of Housekeeping* in 1918.

In Holland a national Efficiency Institute was established in 1925.¹⁷ Famously, the *Congres Internationaux d'Architecture Moderne* discussed the issue of the efficient planning of the kitchen in 1926. The venue of Frankfurt for the meeting provided a valuable object-lesson in the kitchens of its recently completed mass housing scheme, which had been subjected to time and motion and ergonomic studies, resulting in Grete Lihotzky's Frankfurt Kitchen.

Rational housekeeping ideas rapidly became assimilated into the popular press. In August 1919, for example, the *Daily Mail* published a diagram drawn up by Mrs Guy, a member of the Ministry of Reconstruction's Women's Advisory Sub-Committee on Housing. The diagram showed how a well-planned kitchen could allow the 'kitchen worker' to reduce her movements when she made afternoon tea from 350 feet to 50 feet. The new scientific home management thus equated the home with the factory, referring to the housewife as a worker, the kitchen as her workshop and labour-saving appliances as her tools. 19

Modernism

Modernist organisations such as the Design and Industries Association also advised manufacturers to pay careful attention to Taylor and Gilbreth's work. The DIA, founded in 1915 to improve design in British industry, campaigned under the Arts and Crafts 'fitness for purpose' maxim for better design. The Association's early aesthetic principles followed W.R. Lethaby's Arts and Crafts ideals, focusing on the traditional 'art industries' of ceramics, textiles and furniture; in other words, manufacturing concerns with a traditional craft base and an established market. In the 1920s the DIA organised a consumer education programme through exhibitions and publications. One such exhibition in 1920 consisted of a series of eight domestic

rooms filled with 'good design'. It became preoccupied with what it called the 'Efficiency Style', which was based on the simple forms of Scandinavian applied arts.²⁰

In 1920 a group of housewives and designers who made up the Household Appliances Committee of the DIA judged a competition organised by the *Daily Mail* for 'the best individual labour-saving suggestions that could be compressed on a postcard'.²¹ One of the most ingenious commended entries depicted a labour-saving kitchen with a dresser, which could also be accessed in the dining room, with a slate lined safe underneath to store food. The dual-access dresser design ensured that only one journey was needed from the kitchen to the dining room, instead of ten. Another of their commended designs was for an 'artisan scullery' that consisted of the adaptation of 'the usual type of scullery sink' with a shelf to hold a washing bowl, and a draining board. Above the sink there was a draining rack for plates, and situated beside it a shelf to hold plates, and beside it a pot stand, thus ensuring that everything was in easy reach.²² Such a simple design would have appealed to the DIA not only for its rudimentary labour-saving arrangement, but also for its plainness and undisguised functionalism.

The DIA contributed an essay on 'The Equipment of the Ideal Home' to the book of the 1920 Ideal Labour-Saving Home competition, organised by the *Daily Mail* for that year's Ideal Home exhibition. Here, the DIA explained the Arts and Crafts 'fitness for purpose' maxim it had adopted in its campaign for 'good design' thus: 'a thing must first 'do the job' for which it is made, and that decoration which conflicts with this end is simply bad design'.²³ The essay was an exhaustive study of the minimum standard for each item that was needed to ensure efficiency in the home. In DIA discourse its 'Efficiency Style' was presented as the logical labour-saving

solution. It presented its Modernist ideals as common-sense: 'All ordinary commonsense people want every article of use in the house to be so pleasant to look upon in shape and colour that no further decoration is needed'. The cleanliness and the brightness of the simple, everyday crockery on the dresser were all that was needed to decorate a small room, said the DIA. Thus in such surroundings housework would be lessened and cheered and become 'more of a pleasure than a drudgery'.²⁴

As well as its design, the placing of furniture was said to be of utmost importance. The DIA strongly recommended simple cheap, painted furniture, devoid of so-called superfluous decoration: 'What is to be specially noted is the absence of all "attached" and "pretentious" decoration, all applied mouldings and other irrelevant complications'. In case the furniture it advocated seemed too 'severe', the DIA advised: 'like all simple, rightly designed things — that is, designed for their purpose — they grow on one, and make one impatient of fussy, irrelevant, dust-collecting excrescences or degradations, such as machine-carving and other shams'. The furniture seemed modern, and, indeed, shocking, to the public of the Ideal Home Exhibition. Ironically, such designs were influenced by the Arts and Crafts movement, which drew on historical vernacular traditions. Consequently, what was thought of as 'modern' looked both backwards and forwards. Wealth and social status were more clearly signified by decoration to the aspirational middle-class audience.

Furthermore, such furniture may also have had undesirable connotations of working-class culture and 'making do'.

The messages of the DIA were promoted within the Ideal Home Exhibition not only as lessons in 'good design', but also as warnings on 'bad design'. Thus the DIA contributed a domestic 'Chamber of Horrors' to the 1920 Ideal Home Exhibition,

warning visitors what to avoid when decorating or furnishing a home, in order to emphasise and illustrate its message. The DIA aimed to demonstrate 'fitness for purpose' by showing the 'approved pattern' and the 'horrible example' in pairs 'to enforce the moral'. The DIA's sense of morality spilled over into the language that was used to describe the exhibit: 'There is a *depraved* china milk-jug, for instance, with a hollow handle which fills with milk. The handle can never be properly cleaned and acts as a poison-centre. A *virtuous*, sensible milk-jug will keep it company'.²⁷ Such a description constructed a moral geography of the kitchen. It seems no coincidence that the words the DIA used (highlighted above) were also those that were used to describe the desirable and undesirable conduct of women, at a time when reformers were concerned with the attainment of good mothering for the future of the race.²⁸ The DIA, then, presented 'good design' as a commonsense solution that saved labour, and was part of a moral design for living.

Overall, then, the Labour-Saving Home was thought to be achieved only through the adoption of the most efficient techniques and technologies of house planning, architecture and housework. In post-First World War England the term 'efficiency' had a broader appeal, promising not only to liberate housewives from the drudgery of housework, but also to get the economy back on its feet.

Modernist critics were as quick to disparage what they called 'sham' modernistic domestic architecture and interiors as they were to condemn the old-fashioned and nostalgic. They particularly vent much criticism on suburbia. They were equally scornful of labour-saving appliances, especially those that they regarded as 'gadgets. A 1933 review of the Ideal Home exhibition in the *Journal of the Royal Society of Arts* is typical:

Everything can be bought at Olympia except philosophy...The rival vacuum cleaners, like so many attenuated ant-eaters, go through their tricks with

gusto. Clothes whirl like wild *corps de ballet* in transparent tanks, getting washed the while. Fountains of inverted cream come spurting from clever little devices, to the infinite advantage of dishes that would have been dull for lack of it ²⁹

Modernists also objected to the application of what they thought of as superfluous surface decoration to appliances, where form certainly did not follow function, although this undoubtedly made them attractive to consumers. Later in the 1930s they also objected to the application of streamlining, inappropriate to the function of appliances.³⁰

Labour-saving appliances

For consumers, labour-saving appliances were believed to be — so advertisers told them — a solution to the 'servant problem', as if they were electric servants and actually replaced human labour. For example, a 1920 Western Electric vacuum sweeper advertisement declared 'Another servant in the house'. The advertisement, however, showed a mistress with her maid, inferring that it would be the latter who would actually use the appliance. Paradoxically, early domestic appliances were usually so expensive that only more affluent households that could afford to keep servants could purchase them.

Bowden and Offer have described three strategies that advertisers used to market electrical appliances: firstly, servants who used electrical appliances would be more productive and ease the transition from the live-in to the daily; secondly, servants would rather work in a household with the most up-to-date appliances (for example, a 1922 advertisement for the Red Star washing machine declared 'Maids will welcome it'); thirdly, electrical appliances were less trouble than servants.³¹ They have argued that although electric appliances had the potential to alleviate the 'unskilled, hard physical labour involved in many household tasks' the opportunity to

install and use them was not taken up in interwar England. The use of electrical appliances was limited in the inter-war years until after the Second World War. primarily through their high cost and the inconsistencies of electrical supply that was not standardised. There were still numerous different AC and DC systems in use in the late 1930s, even within the same towns.³² This meant that appliances might become obsolete even if the household moved only a few streets away. Furthermore, as manufacturers had to make different models of appliances for different voltages prices were kept very high. The appliances that were, in fact, used tended to be the smaller ones such as irons that were little changed in design, other than being wired for electricity which made them easier to use. Nevertheless, in 1935 only 25 per cent of households had an electric iron. In 1939, however, nearly three-quarters of those with electricity had electric irons, which had become more affordable in the intervening years.³³ Furthermore, Bowden and Ovsner found that since the 1920s, 'households on both sides of the Atlantic have consistently given priority to leisure appliances [such as radios and televisions] over housework durables'.34 They partly ascribe this difference down to the low value placed on women's time and hence time-saving. They ascribe the demand for appliances amongst middle-class women as based on 'the perceived ability of the appliances not only to alleviate the domestic servant problem but also to permit middle-class women to become "better" housewives, to permit them to do work their grandmothers and mothers would have delegated to servants'. 35 Most working-class women used appliances only in their capacity as part-time and casual servants in middle-class homes rather than their own 36

Thus, contra to the claims of consumer discourse, the modern housewife could never achieve her 'ideal home' because technology was constantly, albeit

supposedly, improving. Each ideal was surpassed by another. For example, each Ideal Home Exhibition promised to surpass the previous one with its labour-saving innovations and the promise of improvement. Indeed, the 'ideal home' was in a constant state of flux.

Feminist critiques

Feminist historians of technology such as Ruth Schwarz Cowan in *More Work for Mother* have argued that domestic appliances increased rather than saved labour by enabling ever-higher standards of cleanliness.³⁷ They have noted, firstly, that appliances were largely aimed at middle class women who did not previously labour in the home. Therefore they increased labour for (some) women. For example, laundry may previously have been done outside the home by commercial laundries; the advent of washing machines meant that this task was now done inside the home. Furthermore, the professional laundries depended upon the labour of working-class women, which means that appliances often merely substitute one woman's labour for another's. Labour-saving appliances can, then, be said to create more work. This is particularly true of tasks concerned with hygiene, which appliances enable to be performed to ever-higher standards. For example, vacuum cleaners replaced sweeping and beating and meant that higher standards of cleanliness could, and therefore should, be attained. However, such critiques have been informed by the same concerns with functionalism and efficiency as Modernist design historians who when considering aesthetics concentrate on the question of whether or not an object adheres to the modernist maxim of 'form should follow function'.

A recent study has concurred with Vanek's 1971 work that claimed that time spent in housework had barely changed since 1926 and rejected Gershuny and

Robinson's later claims otherwise. Bittman, Rice and Wajcman argue that domestic technology continues to not reduce women's unpaid labour and in some cases increases it, concluding that 'the domestic division of labour by gender remains remarkably resistant to technological innovation'.³⁸

Labour-saving and symbolic status

For many women the application of scientific management techniques and new technologies to the home was an implicit recognition that the home was, too, a site of production. Thus labour-saving appliances operated in the realms of the symbolic and social rather than the rational, economic and productive. This argument is informed by work on material culture and the home, particularly by Judy Attfield, Alison Clarke and Daniel Miller.³⁹ What, then, might domestic appliances mean to their female consumers?

Bowden and Ovsner have argued that labour-saving appliances were not as widespread as has been previously thought, although the evidence that survives in the form of magazines and advertisements might encourage us to think otherwise. Grace Lee-Maffei's cautionary advice on the study of domestic design advice literature as consumer discourse is worth bearing in mind here. Furthermore, as Gaby Porter has argued, it is probably testimony to the expense and value placed on such objects that they are included in museum collections. This, then, poses some particular problems for the design historian in terms of evidence.

However, a further interrogation of advice literature that eschews an emphasis on the rational and scientific does go some way towards suggesting an alternative reading of the modern housewife. For example, Nanci Clifton Reynolds, a Girton-educated economist, was a leading inter-war writer on housework. She made

broadcasts on the BBC and wrote regularly for *The Listener* and *Country Life*. She published *Better Housework by Better Equipment* (1929), a domestic advice manual, and even opened her own shop called 'Easier Housework' in Streatham, South London, which exhibited at the Ideal Home exhibition. She was also a popular and accomplished demonstrator of labour-saving appliances.⁴²

Reynolds wrote in 'Making Housework a Pleasant Game' in the 1929 *Daily*Mail Ideal Home Exhibition Catalogue:

The modern housewife has discovered that, if she uses the correct household appliance for her work, if the right tool is used for every task, she can have a perfect home, and at the same time, plenty of leisure... Housekeeping can become a game. It can be played to time, with pauses for rest and periods of effort.⁴³

She suggested that scientific principles of household management could be fun, but only if the housewife had purchased the appropriate appliances: 'It can provide endless interest and be the subject of daily experiment but, without the saving help of the correct household appliances it loses its glamour and becomes dull and wearisome'. '44 The appliance was not, then, just valued for its labour-saving potential. It was also valued for the image that it projected; it could invest a boring and tiresome task with glamour. Thus the modern identity of housewife depended upon the possession of the most up-to-date appliances. This is not, however, to suggest that all women actually did feel glamorous and fulfilled when they did housework. Indeed, recent work by Judy Giles, Clare Langhamer and Fiona Hackney suggests that middle-class women attempted to differentiate their own identities within the category of 'housewife' by emphasizing their creative homemaking skills over the 'rough' work of household maintenance. '45

Denise Riley has written about how the idea of 'woman' was a shifting signifier in the inter-war period.⁴⁶ Added into this were the transformations and shifts in class

identities, which were literally displayed in women's homes, in their activities as housewives and homemakers. Thus labour-saving appliances were used to mark out and perform these new identities, to create an impression. Paul Oliver, for example, has pointed out that many women were careful not to let the possession of a vacuum cleaner convey the fact that they no longer hired domestic help:

But though the sound of the vacuum cleaner could be heard in the street, emphasising that the house was clean and kept in good order, the housewife preferred not to be seen actually engaged in the process; while she was unseen there was still the possibility that someone else was employed to do the housework in *her* well-run home.⁴⁷

The housewife, therefore, kept the vacuum cleaner stowed away in the cupboard under the stairs. It was 'a complex symbol of the transitional position of the middle class'. As Amanda Vickery argues, however, envy is not the sole motivating force in women's consumer practices. There is a subtle difference between keeping up with the Joneses and wanting to be like them.

Another source of information on the meanings of domestic appliances to their users is oral history. When I curated 'Ideal Homes', a retrospective of the Ideal Home exhibition for the Design Museum in London in 1992, I included a section called 'the Back of the Kitchen Drawer'. Working with the National Federation of Women's Institutions, I solicited gadgets that women had bought at the exhibition and displayed them accompanied by extracts of the letters written by their owners. For most, questions of function were not paramount, the gadgets operated as souvenirs of their visit to the exhibition, the point and act of consumption, and as a commemoration of a stage in life histories (for many the gadgets invoked intense memories of setting up home) and of what the anthropologist Janet Hoskins has called 'biographical objects'. ⁵⁰ Magazines and novels of the period also illuminate what women might have thought of as 'modern'.

The term 'labour-saving' came to signify a suburban modernity in the inter-war years that was far-removed from the dictums of the Modern Movement in architecture and design. Moreover, the motive for the acquisition of goods could be to participate in a shared sociability. In the 1934 Ideal Home Exhibition, the cartoonist Heath Robinson lampooned the new labour-saving suburban England, with its commercial culture of homemaking, driven forward by progress, with the creation of a house named 'The Gadgets'. The house was nearly twenty feet tall and stood on a site measuring fifty by thirty feet. It was peopled by Mr and Mrs Glowmutton and more than twenty moving figures, together with cats, hens, birds and a cow. The house had an open front, like a doll's house, allowing visitors to see four main rooms, as well as an entrance hall, bathroom, study and attics. All the rooms were fitted with a variety of moving labour-saving devices, as were the gardens.

This was Heath Robinson's first foray into the labour-saving home. Two years later his seminal book *How to Live in a Flat* appeared. The joke of his work depended upon the existence of the homemaking culture that he lampooned. Heath Robinson relished the opportunity to see visitors' reactions to 'The Gadgets' at the Ideal Home Exhibition. However, he recalled that his ideas did not appear entirely too far fetched to some visitors and not everyone got the joke: one 'earnest visitor' condemned it as 'impracticable'.⁵¹ Visitors to the Ideal home exhibition who gathered round Heath Robinson's Ideal Home participated in a collective, knowing and joyful experience of consumer culture and modernity (similar examples could be found in the cinema). This was vastly different from the individualised and angst ridden experience of the Modernism of the art exhibition.

Conclusion

In the inter-war period the kitchen was a major site of experimentation and modernisation, ruled over by the idealised figure of the modern housewife. A specifically suburban and feminine form of modernity emerged that did not radically alter the exterior of the home but instead entered through the back door, via the kitchen. Labour-saving appliances were potent symbols of modernity in the home. valued as much for their symbolic status, which evoked their accompanying consumer discourse of the modern housewife, as for their actual functionalism and efficiency.

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- ⁴⁶ D. Riley, *Am I That Name?: Feminism and the Category of 'Women' in History*, Macmillan, London, 1988
- ⁴⁷ P. Oliver, 'A Lighthouse on the Mantelpiece: Symbolism in the Home' in P. Oliver, I. Davis & I. Bentley, *Dunroamin The Suburban Semi and Its Enemies*, Pimlico, London, 1994, pp.179-81.
- ⁴⁸ Ibid., p181.
- ⁴⁹ A Vickery, 'Women and the world of goods: A Lancaster consumer and her possessions, 1751-81' in J. Brewer and R. Porter (eds.), *Consumption and the World of Goods*, Routledge, London, 1993, pp.274-304.
- ⁵⁰ J. Hoskins, *Biographical objects :how things tell the stories of people's lives,* Routledge, London, 1998.
- ⁵¹ W. Heath Robinson, *My Line of Life*, Blackie, London, 1938, p.179.