

KING'S COLLEGE OF HOUSEHOLD & SOCIAL SCIENCE
AND THE HOUSEHOLD SCIENCE MOVEMENT
IN ENGLISH HIGHER EDUCATION c.1908-1939

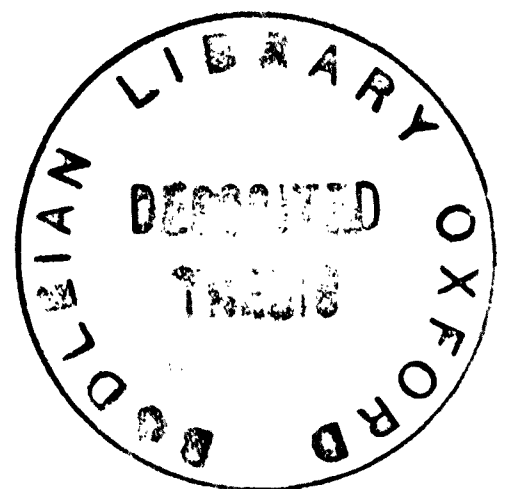
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NANCY L. BLAKESTAD

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Nancy L. Blakestad

Faculty of Modern History, University of Oxford, D.Phil., Trinity Term 1994

This thesis is an account of the 'household and social science' course opened at King's College for Women in 1908 and its evolution up to 1939. The course was a significant departure for women's higher education in England as it was the first attempt to define a special university discipline based upon women's 'domestic' roles. However, historical accounts of women's higher education have either ignored or dismissed it, largely because of the predominance of 'separate spheres' analyses in the historiography of women's higher education of the 1970s and early 1980s. Such accounts have presented the household science course in a negative light because of its 'domestic' image. This thesis thus offers a reassessment of the household science movement and those who supported it.

The 'household science' concept owed its origin to the American 'home economics' movement which originated in the mid-nineteenth century. Chapter 1 provides a history of the home economics movement in America, tracing its evolution in the context of women's higher education until 1914. Initially home economics was seen as a 'vocational homemaking' course aiming to train women for home life. At the turn of the century, however, a 'scientific' model was developed by women scientists in order to promote research into social problems connected with the domestic sphere. These two models--the vocation and the scientific, have developed in tandem in American home economics.

Chapters 2 and 3 consider the origins and early evolution of the 'household science' course in England, which was largely influenced by the American 'scientific' model. Chapter 2 first considers the concept of domestic education in the history of women's education and factors that precluded the development of a 'vocational homemaking' course in English higher education. The rest of the chapter analyses the origins of the household science movement in its social and intellectual context, in particular its connection with Edwardian preoccupations with 'physical deterioration' and infant mortality. Like their American counterparts, the founders of the course saw household science as a reform movement which aimed to promote research into domestic problems such as hygiene and nutrition, as well as to create a more useful and relevant university discipline for women's domestic roles, whether as housewife/mother or in 'municipal housekeeping' roles. Chapter 3 discusses the household science course from a disciplinary standpoint, looking at how the syllabus was constructed, the contemporary educational controversies it engendered, and its evolution up to 1920 when the B.Sc. degree was granted.

Chapters 4, 5, and 6 examine the main factors which ultimately undermined the success of household science as a discipline. Chapter 4 evaluates career trends amongst KCHSS students from 1910-49, analysing to what extent the KCHSS administration was able to create a professional career structure for the household science discipline. The interplay between administrative policy, career trends, and professionalization is analyzed in relation to three career fields--social welfare, laboratory research, and dietetics. Chapter 5 considers the professional conflicts between KCHSS and the domestic subjects teaching profession. Chapter 6 analyses KCHSS's failure to carve out a unique academic 'territory' or expertise and the various factors that affected this. The final chapter assesses how successful KCHSS was as an institution, looking at how students themselves experienced the course, their motivations for taking it, and its impact on their lives. Although household science was unsuccessful as a discipline, the course did give students a wide choice of career options, creating openings in less conventional spheres for women who did not want to teach and providing opportunities for the less-able student to follow a scientific career. The conclusion considers how the social climate of the interwar period affected the working out of the original household science ideals.

· **EXTENDED ABSTRACT** ·

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This thesis offers an account of the 'household and social science' course opened at King's College for Women (KCW) in 1908 and its evolution up to 1939. The course was a significant departure for women's higher education in England, as it was the first attempt to define a university discipline based upon women's special domestic roles. The success of the course eventually led to the granting of a B.Sc. degree and the creation of a new women's college, King's College of Household and Social Science (KCHSS), in 1928. Nevertheless, no adequate historical account of the household science movement exists. This historiographical neglect owes much to the influence of the concept of 'separate spheres' on feminist historians writing about the history of women's education, especially in the 1970s and early 1980s. Such accounts, coloured by the post-1960 feminist critique of housework and the sexual division of labour, tend to represent the household science course in a wholly negative light because of its association with the oppressive and subordinated 'domestic' sphere. This assessment has been reinforced by historians who have treated the movement for women's higher education as essentially a whiggish struggle for educational 'equality' with men. Those who supported concepts such as household science which did not conform to existing

(male) academic paradigms have thus been ignored or dismissed because they do not fit within the historiographical canon.

This thesis sets out to reassess the household science course and those who supported it. One of the main objects is to trace, through primary sources, the origins of the 'household science' concept and to locate it firmly in the social and intellectual contexts within which it was conceived, in particular the Edwardian discourses about social reform, education, and the roles of women in society. The second object is to consider the household science course from a disciplinary standpoint, to show how the course was constructed and its evolution over the period, and to analyse the various factors that militated against its ultimate success as a discipline. The third object of the thesis is to examine KCHSS as an institution, evaluating the extent to which it was able to create a positive collegiate experience for its students and empower them in later life.

Given the institutional focus, the thesis is based primarily on the KCHSS archives; however, it also draws extensively upon contemporary periodicals, memoirs, and oral and written evidence of former KCHSS students.

The English 'household science' movement originated in the American concept of 'home economics' which developed in the mid-nineteenth century. Chapter 1 explores the origins and evolution of American home economics up to 1914 in the context of women's higher education. Historians have often characterized the campaign for women's higher education as based upon notions of 'equal rights'; however, the idea that women had domestic responsibilities and should be educated for their traditional

domestic roles was central to the campaign and shaped the curriculum of the early women's colleges. Reformers were divided, however, as to whether women should be *directly* educated for those domestic roles (through the teaching of cookery and other domestic skills) or whether it was better to give women a well-rounded, 'liberal' education as a means of elevating her moral and reasoning powers. Some of the early women's colleges abjured the need for direct domestic education and modelled their curriculum on that of the men's Ivy League colleges; others included elements of domestic education in their curriculum and/or required students to help with the domestic work. By 1900, however, the paradigm of a 'disinterested', liberal education was challenged by, on the one hand, ambitious university women who wanted a more relevant professional training for modern occupations such as social work, and on the other by the increasing numbers of less-ambitious students who, destined to marriage and motherhood, wanted a curriculum more relevant to their domestic vocations.

The idea of creating a special university 'home economics' discipline centred upon women's traditional domestic roles was given great impetus in the mid-nineteenth century by the federal government's Land Grant initiative, which set up agricultural and technical universities in response to the social and economic pressures created by immigration and westward expansion. It was in these 'Land Grant' universities, dedicated to the applied sciences, that the patchwork of different domestic courses developed into a complete 'home economics' degree programme. Initially 'home economics' was characterized as a vocational homemaking course, aiming to create an applied science course for women which would parallel the men's courses in

engineering and agriculture. At the turn of the century, however, home economics became imbued with a social reform ethos, paralleling other reform movements of the Progressive Era (1900-1917). Reform-minded women scientists coopted the home economics concept as a means of promoting scientific research into problems of the domestic sphere, for example hygiene and nutrition, which they believed to underlie many of the problems besetting American society. Some home economics departments thus developed degree-level courses based on sciences and social sciences, aiming to give women a thorough understanding of the scientific bases of domestic life and to enable them to take an informed role in social reform issues. These two models--the 'vocational homemaking' model, which emphasized the importance of craft skills, and the 'scientific' model, aiming to give women an applied science training--have developed in tandem in American home economics throughout the twentieth century.

The English 'household science' movement was greatly influenced by the 'scientific' home economics model. Chapter 2 examines the social and intellectual origins of the 'household science' concept and the aims and ideals of those who supported it. The first section traces the concept of 'domestic education' in the history of English education and analyzes the reasons why the 'vocational homemaking' model failed to find a purchase within the women's higher education movement in England. Unlike in America, there were no calls for domestic education to be included in the formal curriculum of women's higher education. This was largely due to the nature and structure of the English education system. The campaign for women's higher education was heavily influenced by the goal of achieving women's admission to Oxford and

Cambridge, both of which were committed to a concept of 'liberal education' which was wholly non-vocational; consequently, women campaigners tended to oppose developments like household science that departed from traditional academic paradigms and threatened to derail the campaign for educational equality. Moreover, in England domestic work was regarded as the province of the working classes and thus inappropriate as an element in higher education.

The rest of Chapter 2 analyzes the origins of the household science movement in the context of Edwardian preoccupations with social reform, especially the concern with the physical (or material) aspects of reform engendered by the 'physical deterioration' scare and high infant mortality. In part the household science movement was a product of a the 'domestic science' movement, which aimed to imbue the domestic subjects with scientific content and method as a means of justifying their place in the secondary school curriculum. 'Domestic science' stimulated demand for a science-based training course for domestic subject teachers which would enable them to cope with the new methods. However, the idea of creating an English home economics course, based on American models, had already been unfolding within progressive University of London circles since the turn of the century and was the product of wider public discourses about education and social reform in the period. As in America, those involved in the household science movement believed that 'the home' was not fulfilling its social function and that reform could only be engendered through an understanding of the scientific and social-scientific principles upon which it was based. Inherent in this was a critique of higher education and the hegemony of the humanities and pure sciences

within the 'liberal' education model. Members of the household science movement believed that higher education must be reconstructed in order to make it more relevant to the needs of modern society. Women involved in the movement argued that academia's neglect of the domestic sphere was largely due to men's domination of the universities. Believing that women had already proved themselves to be the intellectual equals of men, they argued that educated women now had a duty to contribute to the solution of social problems and that the household science course would provide them with a more useful and relevant university course than the traditional 'liberal' disciplines. The belief that educated women had a special responsibility in social reform was rooted in the discourse of the Edwardian women's movement, underpinned by the notion of 'municipal housekeeping', which conceptualized women's 'domestic' roles and responsibilities as extending beyond the household to the community and even the nation. The new course was thus conceived of as a professional training for the *spectrum* of women's domestic roles--from housekeeping, to charity work, local government, and professional work in various social welfare occupations which were opening up in the period.

Chapter 3 examines the household science course in the context of higher education in the period 1908-1920. The first section considers the construction of the household science syllabus and how it reflected the founders' ideals. Although both contemporary and historical accounts of the course characterized it as a housewifery training course, only one quarter of the syllabus was devoted to the domestic arts; the rest was constructed around the core 'pure' sciences together with economics and ethics.

The second and third sections address early educational debates prompted by the household science movement regarding the legitimacy of household science as a discipline and the possible effects of the movement on women's education. These debates, which were between Ida Freund, a chemistry lecturer at Newnham, and members of the household science group, reveal underlying conflicts over the nature and purpose of higher education. Those supporting the household science concept were not averse to challenging existing academic paradigms in creating new disciplines, arguing that the applied sciences were no less vigorous or stimulating than the 'pure' science disciplines. Freund's critique of the course stemmed from a fear that it would injure women's education by eroding standards in 'pure' sciences in girls' schools and that the creation of a special 'feminine' discipline would jeopardize the cause of equality for women in higher education. The final section of Chapter 3 examines the evolution of the discipline to 1920 when the B.Sc. was granted. The restructuring of the syllabus in 1915-16 to allow for specialization in three career fields--teaching, social welfare work, and institutional management--is analyzed in order to determine how far this shift to a more clearly-defined professionalism was precipitated by Freund's critique.

Chapters 4, 5 and 6 examine the institutional and academic factors that ultimately undermined household science's success as a university discipline. Chapter 4 analyses KCHSS's efforts to create a definite career structure for its graduates. A database of students' career details, created to analyze career trends over the period 1910-1949, reveals that KCHSS students worked in a surprising variety of occupations throughout the period beyond the three specializations delineated by the syllabus.

Despite the founders' expectations that household science would provide a useful training for social welfare occupations, relatively few students took up work in this field; by contrast, the period saw an increasing proportion of students taking up work in the new applied science fields of applied laboratory work and dietetics. The failure of KCHSS to establish links with social welfare occupations is analyzed, as well as its relative success in laboratory work and dietetics, exploring the relative significance of factors such as administrative policy, career trends, professionalization, and financial considerations which affected its ability to forge those links. The college's failure in social welfare was affected by fundamental differences between KCHSS and other institutions such as the London School of Economics in their approach to social welfare training. Whilst the majority of institutions focused on the social sciences, KCHSS concentrated on the material aspects of welfare such as physiology, hygiene, and nutrition. The administration's refusal to adapt to changes within the social welfare field, which stemmed from its desire to maintain the integrity of the core sciences, limited the college's influences in this area. Paradoxically, however, the scientific nature of the KCHSS course enabled students to take up employment in science-related fields such as commercial laboratory research in the food processing industry and in dietetics. KCHSS's established expertise in matters of physiology, food preparation, and nutrition enabled it to play a central role in the development of the dietetics profession in Britain.

Chapter 5 considers the relationship between KCHSS and the domestic subjects teaching profession between 1908-1939. Whereas in America the school, university,

and commercial arms of home economics was embodied in the American Home Economics Association, the English domestic subjects teachers (represented by the Association of Teachers of Domestic Subjects) were estranged from the household science movement. This chapter analyses the causes of this rift. The first section looks at the demise of 'domestic science' methods in the schools and the anomalies this created in domestic subjects teacher training. Whilst craft-based skills once again became the priority in schools after 1910, science nevertheless remained an important element in domestic subjects teacher training. Although the training colleges struggled to improve training standards, their efforts were thwarted by the Board of Education's refusal to allow grants for more than a two-year course. The advent of the household science course thus caused alarm amongst domestic subjects teachers, who feared that the status of the domestic subjects teaching diploma would be undermined by competition from graduates. Furthermore, claims that the household science methods were 'new' and the amount of money lavished upon the KCW course caused resentment amongst ATDS members. Relations were also undermined by KCHSS's desire to distance itself from the image of the domestic subjects training colleges in its pursuit of academic recognition. In response to the granting of the household science degree in 1920, the ATDS sought to create a rival degree course which was more housecraft-oriented. Although this initiative failed, the practical orientation of domestic subjects in the schools in the interwar period served to reinforce the ascendancy of the domestic subjects training diploma. By the end of the period these professional conflicts had largely dissipated with the gradual merging of views between the two groups as to the necessity for domestic subjects teachers to have both a scientific and a practical training.

Chapter 6 examines KCHSS's failure to create a unique academic 'territory' or identity for the household science discipline, and considers the various institutional, academic, and policy issues which affected this. The first section assesses the research record of students and staff. KCHSS's failure to establish a research-oriented post-graduate programme was a serious barrier to the demarcation of academic territory. This was largely due to the lack of financial resources to fund research scholarships and fellowships. As a result, much of the research conducted at KCHSS was undertaken by faculty members and commissioned by outside bodies. KCHSS's physiology department was relatively successful in attracting funding from the Medical Research Council and government ministries for projects relating to food and nutrition--subjects which were both medically and politically topical in the inter-war period; however, the lack of any systematic government initiatives in fostering interdisciplinary research into 'household science' in its own right meant that research work for which KCHSS was well-suited was often undertaken by other institutions. The second section considers the factors contributing to KCHSS's failure to develop 'conjunctive' research (i.e. to synthesize 'pure' scientific knowledge with its practical applications) as a means of creating an academic 'expertise' for household science. On the one hand this failure was related to the increasing specialization within the 'pure' science disciplines. The administration's desire to maintain academic standards within these individual disciplines precluded the development and integration of the 'social' elements within the course. Other factors, such as the college's failure to take advantage of interwar preoccupations with domestic issues or possibilities of commercial sponsorship,

together with the continuing awkward relationship with the ATDS (which served as an informal advisory body on many domestic issues), also undermined KCHSS's ability to establish an institutional expertise in domestic questions. The final section explores issues of ethos and image as they affected KCHSS's ability to establish a unique academic identity. KCHSS continued to suffer from a negative public image, largely because of the 'homely' images evoked by the name of the discipline and its association, in the public mind at least, with domestic science teaching. The college's failure to impart a strong social consciousness amongst its students also undermined attempts to project a more dynamic public image. In part this was due to the lack of continuity in college leadership in the first two decades, but the relatively low calibre of its student intake was also a contributing factor.

Chapter 7 goes on to consider KCHSS as a women's college. Drawing upon oral and written evidence from former students, the chapter considers how far KCHSS provided a positive experience for students and empowered them in their future lives. The first section offers a statistical profile of the student population over the period 1910-1949, and explores students' motivations for taking the course. Some students without definite career objectives regarded the course as a type of modern 'finishing school' that offered them both a useful all-round training. Others, however, saw the course as a professional training which offered a more interesting curriculum and more diverse career opportunities than a 'pure' science course, which often led only to teaching. The second section examines student life at KCHSS, relating it to other London women's colleges in the period. KCHSS's purpose-built facilities, especially

the science laboratories, rivalled those of other women's colleges, and its collegiate life, highly typical for its time, was characterized by a confident and positive corporate spirit.

The final section considers how students themselves experienced the course and its effects on their lives. KCHSS staff had a considerable influence on students, both in generating an ethos of hard work and achievement and through their positive attitude towards women scientists. However, students were aware of the college's 'homely' image and the supposed 'superficiality' of its curriculum. Some were critical of the overcrowded nature of the syllabus and the disadvantages caused in the employment market as students--particularly the more ambitious--were often forced to take further training after graduation in order to fit particular occupational requirements. Nevertheless, other students found that the diversity of subjects studied in the course gave them a versatility which was extremely valuable. The training enabled students to turn their hands to many different jobs throughout their working lives and had the double benefit of being relevant to their lives as housewives and mothers.

The conclusion considers how the social climate of the interwar period affected the working out of the original household science ideals, in particular the demise of the 'municipal housekeeping' concept upon which the movement had been based. The notion of an all-embracing approach to social welfare based upon women's traditional functions was largely an Edwardian phenomenon which had little resonance in the interwar years. The gradual transformation of women's domestic roles through the growth of consumerism, which also fragmented and removed from the home many of the housewife's former functions, made it increasingly difficult for the movement to

promote 'the home' as the unifying principle of the discipline. Medicalization of many aspects of social reform, in particular those relating to health, also undermined the household science movement's attempt to create an expertise which combined scientific knowledge with its practical applications. Interwar retrenchment and depression, which focused attention on practical initiatives in combatting domestic problems, left little scope for the indirect, scientific approach to social reform embodied in the household science movement.

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• PREFACE •

My interest in King's College of Household & Social Science originated in my work on the history of domestic education in girls' secondary schools, which was the subject of my M.Phil. thesis. I had originally intended to expand upon this work for my doctoral thesis, but quickly abandoned it once I realized the wealth of interesting--and largely untapped--material in the KCHSS archives. My interest in household science is also rooted, however, in my own contact with American home economics in my native Iowa, which has made me aware of the positive aspects of home economics and which has subsequently informed my own research on the English household science movement.

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· ABBREVIATIONS AND CONVENTIONS ·

ABM	Academic Board/Minutes (KCHSS)
ACA	Association of Collegiate Alumnae (USA)
ACN	Advisory Committee on Nutrition (Ministry of Health)
AHEA	American Home Economics Association
ATDS	Association of Teachers of Domestic Subjects
BC	Bedford College Archives
BDA	British Dietetics Association
BHE	Bureau of Home Economics (USA)
COS	Charity Organisation Society
ECM	Executive Committee/Minutes (KCHSS)
FRS	Fellow of the Royal Society
GSYB	Girls' School Year Book
GTCDS	Gloucestershire Training College of Domestic Science
IHE	Institute of Home Economics
JUCSS	Joint University Council for Social Studies
H&SS	Household & Social Science
HCM	House Committee Minutes (KCHSS)
KCHSS	King's College of Household & Social Science
KCW	King's College for Women
LP	<i>Lake Placid Proceedings</i>
LSE	London School of Economics
MRC	Medical Research Council
NATHE	National Association of Teachers of Home Economics (UK)
NCDS	National Council of Domestic Studies (UK)
NIIP	National Institute of Industrial Psychology (UK)
NLB	(Author's Collected Material)
NLCSG	North London Collegiate School for Girls
NHEA	National Home Economics Association (USA)
NUWW	National Union of Women Workers
PP	Parliamentary Papers
PRO	Public Record Office
PJF	Patty Jarvis Fisher Papers
QEC	Queen Elizabeth College
RCP	Royal College of Physicians
RSI	Royal Sanitary Institute
UB	University of Bristol
UGC	University Grants Committee
UKHEF	United Kingdom Home Economics Federation
USDA	U.S. Department of Agriculture
WEF	Women's Employment Federation
WI	Women's Institutes

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For my family:

W.F. and M.D. Blakestad

J.E. Blakestad

and

S.G. and V.E. Blakestad

• INTRODUCTION •

Over the past thirty years feminist historians have sought to challenge mainstream historical interpretations which have either overlooked or marginalized women; paradoxically, this new historiography has itself created canons of scholarship which have proved as difficult to displace as those they set out to challenge.¹ In particular, historians have recently come to realize the limitations of using 'separate spheres' as an analytical framework in writing about the experiences of women.² The 'separate spheres' concept, which structures society in terms of the 'public' (masculine) and the 'private' (feminine), originated in the rhetoric of the mid-Victorian period which sought to explain and/or justify the growing social isolation of middle-class women within the home.³ Taken up by post-1960 historians as a metaphor to describe and explain social life in the nineteenth and twentieth centuries, the 'separate

¹ For a summary of recent trends in the historiography about women, see Karen Offen, Ruth Roach Pierson and Jane Rendall, *Writing Women's History: International Perspectives* (Basingstoke: Macmillan, 1991), especially Gisela Bock, 'Challenging Dichotomies: Perspectives on Women's History', pp. 1-23, and Jane Rendall, '"Uneven Developments": Women's History, Feminist History and Gender History in Great Britain,' pp. 45-57. My thoughts on household science and current historiography were greatly stimulated by Carol Berkin, 'Dangerous Courtesies: How Scholars Put Gender into the Text But Keep it Out of the Interpretation', paper presented to the Oxford University Women's Studies Committee and the Centre for the Cross-Cultural Study of Women, Oxford, 22 Apr. 1991.

² For an overview of the inherent problems of 'separate spheres' analyses see Linda K. Kerber, 'Separate Spheres, Female Worlds, Woman's Place: The Rhetoric of Women's History', *Journal of American History* 75:1, June 1988, pp. 9-39, and Amanda Vickery, 'Golden Age to Separate Spheres? A Review of the Categories and Chronology of English Women's History', *Historical Journal* 36:2 (1993), pp. 383-414.

³ Vickery, pp. 384-385.

spheres' framework has, as Amanda Vickery has recently commented, 'come to constitute one of the fundamental organizing categories, if not *the* organizing category, of modern British women's history.'⁴ Although the concept proved invaluable in moving the historiography of women beyond the purely narrative, historians have recently come to recognize the infelicity inherent in conflating the 'public/private' dichotomy with the 'masculine/feminine' (which suggests that division of the spheres was based on natural sexual differences), as well as the anomalies created by a paradigm which involves mutually exclusive categories.⁵ Bock points out the difficulty in determining exactly what is considered 'private' and what is considered 'public'--for example, the bearing of children, whilst generally regarded as a 'private' matter, could be seen as a 'public' duty, as it was in the Nazi regime.⁶ Moreover, the public/private dichotomy has been shown to 'misrepresent entirely the interdependence and interconnectedness of the public and private domains'.⁷ Recent studies of women's involvement in philanthropy, voluntary societies, and in local government, which have documented women's participation in the 'public' sphere, have drawn attention to the inadequacies of the public/private dichotomy in analysing women's social roles.⁸

⁴ Vickery, p. 389.

⁵ Bock, pp. 4-5; Vickery, p. 386.

⁶ Bock, p. 5; Claudia Koonz, *Mothers in the Fatherland: Women, the Family and Nazi Politics* (Methuen, 1986).

⁷ Offen, Pierson, and Rendall, p. xxxiii.

⁸ Seth Koven and Sonya Michel, eds., *Mothers of a New World: Maternalist Politics and the Origins of Welfare States* (New York: Routledge, 1993), and Gisela Bock and Pat Thane, eds., *Maternity and Gender Policies: Women and the Rise of European Welfare States 1880s-1950s* (Routledge, 1991); Patricia Hollis, *Ladies Elect: Women in English Local Government 1865-1914* (Oxford: Clarendon Press, 1987); Jane Lewis, *Women and Social Action in Victorian and*

One particular problem inherent in 'separate spheres' analyses has been the underlying assumption that the 'domestic' sphere was intrinsically oppressive and stultifying for women. Although this perspective was partly shaped by the experience of historical figures such as Florence Nightingale, for whom family life and domestic duties *did* prove frustrating, it was also influenced by the post-1960 feminist critique of housework and the sexual division of labour which followed in the wake of Betty Friedan's *The Feminine Mystique* (1963).⁹ Vickery argues that although historians subsequently modified early negative assessments of the domestic sphere by showing it to be 'an ambivalent arena of both constraint and opportunity' or even a 'safe haven of a loving female subculture', the notion of a constraining women's sphere nevertheless remained. She notes, 'Rather than conclude from positive female testimony that women were not necessarily imprisoned in a rigidly defined private sphere, the dominant interpretation simply sees the private sphere in a better light.'¹⁰ Historians have only recently come to recognize that the vast majority of women activists before the 1960s, whilst actively pushing for equal rights in other areas, did not question the notion that

Edwardian England (Aldershot: Edward Elgar, 1991), pp. 7-9, (Hereafter: Lewis, *Social Action*).

⁹ See Carol Dyhouse, Chapter 1, 'Women's Experiences of Family Life: Towards a Feminist Critique', *Feminism and the Family in England 1880-1939* (Oxford: Basil Blackwell, 1989), pp. 7-53; Betty Friedan, *The Feminine Mystique*, reprint ed. (Harmondsworth: Penguin, 1986); Ann Oakley, *Housewife* (Allen Lane, 1974) and *The Sociology of Housework* (Robertson, 1974); Eva Kaluzynska, 'Wiping the Floor With Theory--A Survey of Writings on Housework', *Feminist Review* 6 (1980), pp. 27-54.

¹⁰ Barbara Welter's 'The Cult of True Womanhood: 1820-1860', *American Quarterly* 18 (Summer 1966) was highly influential in historical circles in its emphasis on the negative aspects of the domestic sphere. This perspective was later challenged by C. Smith-Rosenberg's landmark article, 'The Female World of Love and Ritual: Relations Between Women in Nineteenth-Century America', *Signs* I (1975), pp. 1-29; Vickery, p. 386.

women had a primary responsibility for the domestic sphere, although they may have disagreed as to where the actual boundaries of the 'domestic sphere' lay.¹¹

The historiography of women's education in Britain, most of which was produced in the 1970s and early 1980s, has been heavily influenced by these negative assessments of the domestic sphere. These 'separate spheres' analyses have focused attention on the ways in which girls' education differed from that of boys, in terms of both educational provision and curricula. Particular significance is attached to the teaching of domestic subjects in girls' schools in the nineteenth and early twentieth centuries.¹² The domestic subjects, which have tended to be characterized as the means by which 'domestic ideology' (societal assumptions about women's domestic responsibilities) was transmitted to girls via the education system, have consequently come to be regarded in a wholly negative light because of their association with the repressive and subordinating 'domestic sphere'.¹³ Felicity Hunt concludes her study of

¹¹ Barbara Caine, introduction to *Victorian Feminists* (Oxford: Oxford University Press, 1992), pp. 4-5, p. 37; Lewis, *Social Action*, pp. 7-9.

¹² Sara Delamont, 'The Contradictions in Ladies' Education', in *The Nineteenth-Century Woman: Her Cultural and Physical World*, ed. Sara Delamont and Lorna Duffin, (Croom Helm, 1978), pp. 134-163; Joan Burstyn, *Victorian Education and the Ideal of Womanhood* (Croom Helm, 1980); Carol Dyhouse, *Girls Growing Up in Late Victorian and Edwardian England* (Routledge & Kegan Paul, 1981).

¹³ Carol Dyhouse, 'Towards a "Feminine" Curriculum for English Schoolgirls: The Demands of Ideology 1870-1963', *Women's Studies International Quarterly* 1 (1978), pp. 291-311, and *Girls Growing Up*; Felicity Hunt, 'Divided Aims: The Educational Implications of Opposing Ideologies in Girls' Secondary Schooling, 1850-1940', pp. 3-21, and Annemarie Turnbull, 'Learning Her Womanly Work: The Elementary School Curriculum, 1870-1914', pp. 83-100, both in *Lessons for Life: The Schooling of Girls and Women 1850-1950*, ed. F. Hunt (Oxford: Basil Blackwell, 1987); Felicity Hunt, *Gender and Policy in English Education: Schooling for Girls 1902-44* (New York: Harvester Wheatsheaf, 1991); Sara Delamont, 'The Domestic Ideology and Women's Education', in Delamont and Duffin, pp. 164-187. See also Anna Davin, 'Imperialism and Motherhood', *History Workshop* 5 (Spring 1978), pp. 9-65, and Dena

‘domestic ideology’ and girls’ schools by arguing that the inclusion of domestic subjects in girls’ school curricula meant a ‘sacrifice of the principle of a general education upon the altar of practical training for life at home’.¹⁴

These pioneering works have been invaluable in tracing the influence of ‘domestic ideology’ in the cultural reproduction of gender roles, especially in the context of elementary education, where the intersection of ‘domestic ideology’ and notions of class did have a serious impact on the content and scope of working-class girls’ education.¹⁵ Nevertheless, such accounts do not fully explore the complex factors shaping education in the period, especially with regard to the middle-class secondary sector, where there was not the same utilitarian incentive to train girls in household duties.¹⁶ They do not question, for example, why a number of well-educated women--including influential headmistresses--supported the teaching of domestic subjects in schools. They also fail to give adequate consideration to how government policy was actually implemented at the school level, and to assess the relative significance of the domestic subjects in the context of the curriculum as a whole.¹⁷

Attar, *Wasting Girl's Time: The History and Politics of Home Economics*, The Education Series (Virago, 1990).

¹⁴ Hunt, ‘Divided Aims’, p. 20.

¹⁵ Turnbull; Davin; Dyhouse, *Girls Growing Up*, pp. 79-114.

¹⁶ N.L. Blakestad, ‘The Place of Domestic Subjects in the Curriculum of Girls’ Secondary Schools in Late Victorian and Edwardian England’ (M.Phil. thesis, University of Oxford, 1988).

¹⁷ An exception to this is Penny Summerfield, ‘Cultural Reproduction in the Education of Girls: A Study of Girls’ Secondary Schooling in Two Lancashire Towns 1900-1950’, in *Lessons for Life*, ed. Hunt. See also June Purvis, ‘Domestic Subjects Since 1870’, in *Social*

Moreover, as Joanna Bourke points out, it is necessary to consider domestic education in the context of wider trends in domestic life such as consumption patterns, domestic technology, and changing concepts of cleanliness. Bourke notes that many working-class women welcomed domestic education because it enabled them to 'redefine their status within the home by reducing the "menial" elements of housework and emphasizing the more specialized and skilled forms of domestic labour.'¹⁸

'Separate spheres' analyses have had a similar impact on the historiography of women's higher education, in particular with regard to the 'household science' movement in the early twentieth century. The opening of a three-year course in 'home science' in 1908 at one of the pioneering London women's colleges, King's College for Women (KCW), was a significant departure for women's higher education in England, being the first (and only) experiment in creating a university curriculum based upon women's 'domestic' roles and responsibilities.¹⁹ The success of the course eventually led to the granting of the B.Sc. in 'Household & Social Science' in 1920 and the

Histories of the Secondary Curriculum: Subjects for Study, ed. Ivor F. Goodson (Falmer Press, 1985), p. 159; and Blakestad. Felicity Hunt's, *Gender and Policy in English Education*, whilst mainly focusing on policy-making in the Board of Education, does point out the discrepancies between policy and its implementation at the school level, especially in Chapter 6, 'The Curriculum', pp. 116-137.

¹⁸ Joanna Bourke, *Working-Class Cultures in Britain 1890-1960: Gender, Class & Ethnicity* (Routledge, 1994), pp. 68-69; see also Bourke, *Husbandry to Housewifery: Women, Economic Change, and Housework in Ireland 1890-1914* (Oxford, Clarendon Press, 1993), especially 'The Comparative Dimension: Housework in Britain', pp. 275-280.

¹⁹ Initially termed 'Home Science' or 'Home Science and Economics', the course was renamed 'Household & Social Science' c.1914 at the suggestion of the Royal Commission on the University of London ('Haldane Commission'). The term 'household science' is used throughout the thesis as a convenient shorthand for the full title.

creation of King's College of Household & Social Science (KCHSS), which took its place alongside Westfield, Bedford, and Royal Holloway as one of the constituent women's colleges of the University of London in 1928.²⁰

Nevertheless, few of the historians of women's higher education in England mention the 'household science' course or the college.²¹ In part this reflects the fact that much of the historical literature on women's higher education has concentrated on the founding of the women's colleges and the ensuing struggle to open Oxford and Cambridge degrees to women.²² There is, for example, no recent study of the campaign for women's higher education apart from those which include it as part of a wider study of feminism.²³ Moreover, although the various college histories give an overview of

²⁰ The Household and Social Science Department became an independent department of the University in 1914 following the recommendation of the Haldane Commission. KCHSS was renamed 'Queen Elizabeth College' in 1953.

²¹ Dyhouse is the only historian who has dealt with KCHSS at any length; it is mentioned briefly in Gillian Sutherland, 'The Plainest Principles of Justice: The University of London and the Higher Education of Women', in *The University of London and the World of Learning 1836-1986*, ed. F.M.L. Thompson (Hambleton Press, 1990), pp. 35-56.

²² For example, Rita McWilliams-Tullberg, 'Women and Degrees at Cambridge University 1862-1897', in *A Widening Sphere: Changing Roles of Victorian Women*, ed. Martha Vicinus (Bloomington, Indiana: Indiana University Press, 1977), pp. 117-145, and *Women at Cambridge: A Men's University--Though of a Mixed Type* (Victor Gollancz, 1975); A.M.A.H. Rogers, *Degrees by Degrees: The Story of the Admission of Oxford Women Students to Membership of the University of Oxford* (Oxford University Press, 1938); Margaret Bryant, *The Unexpected Revolution: A Study of the Education of Women and Girls in the Nineteenth Century* (University of London Institute of Education, 1979); Joyce Senders Pederson, *The Reform of Girls' Secondary and Higher Education in Victorian England: A Study of Elites and Educational Change* (New York: Garland, 1987).

²³ Jane Rendall, *The Origins of Modern Feminism: Women in Britain, France and the United States, 1780-1860*, Themes in Comparative History (Basingstoke: Macmillan, 1986); David Rubinstein, *Before the Suffragettes: Women's Emancipation in the 1890s* (Brighton: Harvester Press, 1986); Philippa Levine, *Victorian Feminism* (Hutchinson, 1987). Ray Strachey's classic, *The Cause: A Short History of the Women's Movement in Great Britain* (G. Bell & Sons, 1928,

twentieth-century developments, there is as yet no comprehensive analysis of women's higher education for the post-1900 period.²⁴ In part, however, the absence of KCHSS in this literature can be ascribed to 'separate spheres' analyses. Although Gillian Sutherland mentions KCW's household science course briefly in her essay on London University, the only historian of women's education to discuss its curriculum is Carol Dyhouse. Here the influence of 'separate spheres' perspectives is reflected in the negative assumptions which she makes about the course, which is regarded as yet another manifestation of the ubiquitous 'domestic ideology' and dismissed as a housewifery training course. Dyhouse merely notes that students 'did' cookery, laundrywork, and economics (overlooking the fact that most of the syllabus was taken up by science subjects) and suggests that the course was mainly supported by 'conservative sections of the general public'.²⁵

Historiographical neglect of the household science movement has been compounded by the preoccupations of post-1960 feminist historians with a definition of 'feminism' based upon the notion of 'equal rights'--a paradigm that, like 'separate spheres', has proved difficult to displace. In the historiography of the Victorian and

reprint ed., Virago, 1988), also contains an account of the women's higher education movement.

²⁴ Janet Howarth, 'Women', in *The History of the University of Oxford*, Vol. VIII: *The Twentieth Century*, ed. Brian Harrison (Oxford: Oxford University Press, 1994), pp. 345-375, gives an overview of twentieth-century developments in the Oxford women's colleges. June Purvis's *A History of Women's Education in England* (Milton Keynes: Open University Press, 1991), whilst providing a good general survey of women's education, primarily focuses on the Victorian and Edwardian period.

²⁵ Dyhouse, *Girls Growing Up*, pp. 168-169.

Edwardian women's movement the term 'feminist' has tended to be used exclusively in reference to those women who campaigned for equal rights with men. As Naomi Black points out, 'suffragism became--and unfortunately remained--the prime example of feminism'.²⁶ In chronicling the interwar period, however, where in the aftermath of winning the vote feminist preoccupations shifted from suffrage to broader issues of humanism and social welfare, historians have now come to qualify the term 'feminism' with an additional designation (e.g. 'egalitarian', 'social' or 'new') in order to differentiate the coalitions within the broader women's movement.²⁷ As Antoinette Burton notes, historians have come to appreciate that 'feminism' must not be 'essentialized' by making it appear 'singular, static and unmediated either by its various historical contexts or by the historians who produce it'.²⁸

Nevertheless this recognition of a plurality of 'feminisms' (i.e. that women activists held diverse views about what would improve or enhance women's interests) has had relatively little impact in the historiography of women's education. Early feminist historians characterized the movement for women's education in terms of a

²⁶ Naomi Black, *Social Feminism* (Ithaca, NY: Cornell University Press, 1989), p. 20; Karen Offen, 'Defining Feminism: A Comparative Historical Approach', in *Beyond Equality & Difference: Citizenship, Feminist Politics, Female Subjectivity*, ed. Gisela Bock and Susan James (Routledge, 1992), p. 70.

²⁷ Brian Harrison, *Prudent Revolutionaries: Portraits of British Feminists Between the Wars* (Oxford: Clarendon Press, 1987); Martin Pugh, *Women and the Women's Movement in Britain 1914-1959* (Basingstoke: Macmillan, 1992); Nancy F. Cott, 'What's In a Name? The Limits of "Social Feminism"; or Expanding the Vocabulary of Women's History', *Journal of American History* 76:3 (Dec. 1989), pp. 808-829; Johanna Alberti, *Beyond Suffrage: Feminists in War and Peace, 1914-28* (Basingstoke: Macmillan, 1989).

²⁸ Antoinette Burton, '"History" is Now: Feminist Theory and the Production of Historical Feminisms', *Women's History Review* 1:1 (1992), p. 33.

whiggish egalitarian crusade for the right to study the same subjects and compete on the same terms as men. As Gillian Sutherland pointed out in the early 1980s, the historiography of women's education had been one of the 'last bastions of heroic fairy-tale, a story of great women battling against all obstacles, Jill the Giant-killer.'²⁹ In these early accounts, the pioneers of women's education such as Emily Davies, Frances Mary Buss, and Dorothea Beale were held up as paragons of the 'feminist' reformers, the 'Giant Killers' who struggled against conservatives (or 'anti-feminists') who believed women incapable of study or liable to compromise their femininity if they did.³⁰ Recent historical studies of women's higher education have since highlighted the more 'conservative' nature of many of the early pioneers of women's education as well as the fact that many of those who supported the women's higher education movement were not 'uncompromising' egalitarians.³¹ However, there is nevertheless an underlying assumption amongst feminist historians that the 'uncompromising' strategy was 'correct'.³² Sara Delamont maintains that those like Emily Davies who rigidly maintained a commitment to equality had 'recognized a simple truth--that separate never

²⁹ Gillian Sutherland, 'The Movement for the Higher Education of Women: Its Social and Intellectual Context in England, c.1840-80' in *Politics and Social Change in modern Britain: Essays Presented to A.F. Thompson*, ed. P.J. Waller (Brighton: Harvester Press, 1987), pp. 91-116.

³⁰ Sutherland cites Josephine Kamm, *Hope Deferred: Girls' Education in English History* (Methuen, 1965), *How Different From Us: A Biography of Miss Buss and Miss Beale* (Bodley Head, 1958), *Rapiers and Battleaxes: The Women's Movement and Its Aftermath* (Allen & Unwin, 1966); *Indicative Past: A Hundred Years of the Girls' Public Day School Trust* (George Allen & Unwin, 1971); and Bryant, *The Unexpected Revolution*. See also Strachey, *The Cause*.

³¹ Dyhouse, *Girls Growing Up*; Purvis, *Women's Education*; Delamont, 'Domestic Ideology'; Pedersen.

³² Levine, p. 47; Burstyn, p. 145.

means equal.’³³ Historians have thus found it difficult to dispense with the ‘feminist’/‘non-feminist’ categories (based on individuals’ commitments to issues of equality) in discussions of women’s higher education. Such black and white categories have created historical anomalies which historians have consequently found difficult to explain--those men and women who do not fit neatly into the ‘feminist’ or ‘non-feminist’ camps. Dyhouse, for example, concedes the problem of categorizing the Newnham College ‘separatists’ who, unlike the ‘uncompromising’ Girton, allowed their students to adopt their own pace and to study subjects such as English which were not part of the traditional university curriculum:

There is something highly unsatisfactory about any interpretation which would present the Newnham College ‘separatists’ as ‘non-feminist’ because they did not challenge the notion of separate spheres.³⁴

The effect of this perspective has been that those who supported concepts such as the household science movement have been studiously overlooked or dismissed because they did not fit the ‘equal rights’ analytical framework. Dyhouse states that the household science course provoked ‘howls of rage and derision from feminists’ and discusses only the most negative reaction voiced in the radical feminist journal *The Freewoman*. Although she notes in her later book that the concept of a university ‘domestic science’ course ‘provoked a good deal of dissension amongst feminists’, she nonetheless puts forward only one side of the ‘feminist’ discourse.³⁵

³³ Sara Delamont, *Knowledgeable Women: Structuralism and the Reproduction of Elites* (Routledge, 1989), p. 114.

³⁴ Dyhouse, *Girls Growing Up*, p. 142.

³⁵ Dyhouse, *Feminism and the Family*, pp. 139-140; *Girls Growing Up*, pp. 168-169.

This thesis proffers a revisionist account of the household science movement by extricating it from these historiological discourses about ‘separate spheres’ and notions of ‘feminism’ which have thus far precluded a critical analysis of household science on its own terms. Drawing upon a rich variety of material from the KCHSS archives (hitherto largely untouched by educational historians), contemporary periodicals, memoirs, and other primary material, it analyses the three principal aspects of the movement which have been disregarded in other literature. First, the origins of the ‘household science’ concept are explored, especially its connections with the American home economics movement, which originated in the mid-nineteenth century. The American movement, which was highly successful in terms of the widespread acceptance of home economics as a discipline within colleges and universities, has been relatively well-documented by historians and provides an important comparative basis for analysing its English counterpart. Several important works on the history of women’s higher education in America include analyses of the home economics movement, while Margaret Rossiter has examined home economics in the context of academic science.³⁶ Marjorie East’s *Home Economics: Past, Present, and Future*,

³⁶ Barbara Miller Solomon, *In the Company of Educated Women: A History of Women’s Higher Education in America* (New Haven: Yale University Press, 1986); Nancy Woloch, *Women and the American Experience* (New York: Alfred A. Knopf, 1984); Margaret Rossiter, *Women Scientists in America: Struggles and Strategies to 1940* (Baltimore, MD: Johns Hopkins University Press, 1982). See also John Mack Faragher and Florence Howe, *Women and Higher Education in American History* (New York: W.W. Norton, 1988), and Geraldine Joncich Clifford, ed., *Lone Voyagers: Academic Women in Coeducational Universities 1870-1937* (New York: The Feminist Press at the City University of New York, 1989). Ellen Fitzpatrick’s *Women Social Scientists and Progressive Reform* (New York: Oxford University Press, 1990), draws attention to the connections between home economics and social reform movements.

provides a good overview of the disciplinary evolution of home economics and explores many of the academic and professional issues which have arisen in the twentieth century.³⁷ Use is also made of the published reports of the ten 'Lake Placid Conferences' on home economics (1898-1908), which culminated in the foundation of the American Home Economics Association (AHEA) in 1908, and the early volumes of the *Journal of Home Economics*, the official AHEA organ. These publications are the main primary sources documenting the American home economics profession at a national level.

Some explanation is needed here of the terminology used in the thesis. Although the household science concept was an offshoot of American home economics, England did not have a 'home economics' profession as such until 1954 when the United Kingdom Home Economics Federation and the Institute of Home Economics were founded, nor was the term widely used.³⁸ The term 'home economics' is thus used exclusively to refer to the American movement. Within the British context, a distinction is made between 'household science', which was university based, and 'domestic subjects', which is used to refer to domestic courses at the school level. The term 'domestic science' (in inverted commas) is used only in reference to the Edwardian period when there was a movement to imbue the domestic subjects with scientific

³⁷ See also Glenna Matthews, *"Just a Housewife": The Rise and Fall of Domesticity in America* (New York: Oxford University Press, 1987). Matthews considers the impact of home economics on domestic life in the twentieth century. Marjorie East, *Home Economics: Past, Present, and Future* (Boston: Allyn and Bacon, 1980).

³⁸ See Chapter 5, pp. 245-284.

content and method (the ‘domestic science movement’); its use has been avoided in other contexts because ‘domestic science’ is still commonly used to refer to what are basically craft-oriented domestic courses.³⁹ The term ‘domestic education’ is used generically to refer to the concept of teaching domestic skills and/or knowledge to women through the formal education system at any level.

In exploring the origins and aims of the English household science movement, the thesis seeks to locate it firmly within the broader social and intellectual contexts of the late-Victorian and Edwardian period, in relation particularly to contemporary discourses about education, social reform, and women’s roles in society--issues which were highly salient when the household science course was founded in 1908. These issues are analysed through primary sources from the household science movement in relation to both primary and secondary works in each area, given that there are virtually no secondary sources which discuss these themes conjointly. Where connections are made between household science and social reform in historical accounts of the period, the link is usually seen as the Edwardian concern about ‘physical deterioration’ and the consequent public interest in domestic education for working-class women.⁴⁰ An exception to this is Eileen Janes Yeo, who gives a brief discussion of the household science course within the context of women’s social reform roles and the development of British social science.⁴¹ There are, however, only a few secondary sources which

³⁹ The term ‘housecraft’ was a synonym for domestic subjects in the interwar period.

⁴⁰ Dyhouse, *Girls Growing Up*, p. 168.

⁴¹ Eileen Janes Yeo, ‘Social Motherhood and the Sexual Communion of Labour in British Social Science’, *Women’s History Review* 1:1 (1992), pp. 63-87.

address the broader theme of domestic 'reform', for example Carol Dyhouse's *Feminism and the Family*, which includes an original study of domestic organization and the various middle-class attempts to reform it in the Edwardian and interwar period.

Dyhouse does not, however, regard the household science movement as part of that trend.⁴² Lynn F. Pearson gives a more extensive account of domestic reform initiatives such as the 'Garden City' and 'cooperative housekeeping' movements but does not include a discussion of education.⁴³ Household science is also mentioned briefly by Michael Sanderson and Robert A. Bayliss in the context of changes in university curriculum, but an attempt is made here to locate the household science movement within the broader debates about the purpose of women's higher education and the 'liberal education' ideal.⁴⁴

In exploring the connections between the household science movement and the Edwardian women's movement, the thesis draws upon, and makes a contribution to, the growing body of historical literature which explores how the concept of 'difference'--the

⁴² Dyhouse, 'Domestic Organization', *Feminism and the Family*, pp. 107-144.

⁴³ Lynn F. Pearson, *The Architectural and Social History of Cooperative Living* (Macmillan, 1988). See also Jose Harris, *Private Lives, Public Spirit: A Social History of Britain* (Oxford: Oxford University Press, 1993), pp. 23-32, pp. 61-95.

⁴⁴ T.W. Heyck, *The Transformation of Intellectual Life in Victorian England* (Croom Helm, 1982); Peter R.H. Slee, *Learning and a Liberal Education: The Study of Modern History in the Universities of Oxford, Cambridge and Manchester 1800-1914* (Manchester: Manchester University Press, 1986); Konrad H. Jarausch, *The Transformation of Higher Learning 1860-1930* (Chicago: Chicago University Press, 1983). The KCW course is mentioned in passing in Robert A. Bayliss, 'Flexner, Smithells and Home Economics', *Journal of Educational Administration and History* 8:2 (July 1975) pp. 9-18, and 'Home Economics and the Special Reports', *Journal of Educational Administration and History* VII:1 (Jan. 1975), pp. 18-27, and in Michael Sanderson, *The Universities and British Industry 1850-1970*, (Routledge & Kegan Paul, 1972), pp. 327-328.

idea that women have different experiences and needs from men--has informed and shaped women's activism in the nineteenth and twentieth centuries. Whilst early studies of women's activism focused on those campaigns relating to issues of equality (such as the repeal of the Contagious Diseases Acts, the opening of the universities to women, and suffrage), historians have recently shown that the women's movement has always included wider goals than those of equality. As summarized by Bock and James, 'women's liberation has been seen sometimes as the right to be equal, sometimes as the right to be different'.⁴⁵ Black, in her study of 'social feminism' (which is defined by the notion of 'difference'), argues that the traditions of 'social' and 'equality' feminism have always co-existed within the women's movement, pointing out that the Edwardian suffragists--often characterized as egalitarian feminists--had also campaigned for other reforms which they believed to be especially important to the position of women in society, such as the abolition of white slave trafficking and sweated labour, or for laws concerning the welfare of children; the historical notion of 'new' feminism in the interwar period, she argues, was only a return to the pre-suffrage interests of the various women's interest groups which had made up the suffrage phalanx.⁴⁶ As Jane Lewis notes in her recent study of women activists, suffragists often campaigned for the vote because of the tacit assumption that women, by virtue of their domestic experience and/or their innate 'feminine' qualities such as compassion and pacifism, had a special, complementary role to play in national life.⁴⁷ Patricia Hollis has also documented the

⁴⁵ Gisela Bock and Susan James, 'Introduction: Contextualizing Equality and Difference', in Bock & James, pp. 1-13.

⁴⁶ Black, pp. 35, 40-43.

⁴⁷ Lewis, introduction, *Social Action*, pp. 1-23.

ways in which such gendered notions of citizenship were used as a justification for women's participation in 'municipal housekeeping' roles within local government. Hollis points out that these women consciously strove not merely to participate in 'male' politics but 'to reshape the priorities of local government ... [by] refusing to accept male definitions of what was central and what was marginal'.⁴⁸ Similarly, recent studies of the role of women in the creation of welfare states also illustrate how notions of 'difference'--in this case women's special maternal roles--could be used by women in positive ways. Seth Koven and Sonja Michel note that women activists regarded the home and their domestic roles as their 'locus of power within the community' and demonstrated that 'a strong commitment to motherhood did not necessarily limit or weaken their political participation but instead transformed the nature of politics itself.'⁴⁹ The thesis thus considers the household science movement as one manifestation of this tradition within women's activism.

The second purpose of the thesis is to analyse 'household science' from a disciplinary standpoint. Here it draws upon the work of historians of education and of science who insist that academic disciplines must be understood as social constructs.⁵⁰

⁴⁸ Hollis, p. 472.

⁴⁹ Seth Koven and Sonja Michel, 'Womanly Duties: Maternalist Politics and the Origins of Welfare States in France, Germany, Great Britain, and The United States, 1880-1920', *American Historical Review* 95 (1990), p. 1107. See also Koven and Michel, *Mothers of a New World*; Bock & Thane, *Maternity and Gender Policies*; Bock & James.

⁵⁰ See, for example, Ivor F. Goodson, *School Subjects and Curriculum Change: Studies in Curriculum History*, revised and extended ed. (Falmer Press, 1987), *The Making of Curriculum: Collected Essays* (Falmer Press, 1988), and "'Chariots of Fire': Etymologies, Epistemologies and the Emergence of Curriculum', in *Re-Interpreting Curriculum Research: Images and Arguments*, ed. Geoffrey Milburn, Ivor F. Goodson and Robert J. Clark (Falmer Press, 1989),

In a series of influential studies of school curricula, Ivor Goodson has challenged the philosophical tradition which views disciplines as deriving from ‘forms of knowledge’ as defined *a priori* by a disinterested community of academics--a ‘fait accompli’ explanation which does not question how disciplines or ‘forms of knowledge’ are in practice created or constructed:

[F]ar from being timeless statements of intrinsically worthwhile content, subjects and disciplines are in constant flux. Hence, the study of knowledge in our society should move beyond the ahistorical process of philosophical analysis towards a detailed historical investigation of the motives and actions behind the presentation and promotion of subjects and disciplines.⁵¹

Goodson shows, for example, that the drive towards professionalization is a potent factor in discipline construction. In some cases disciplines are created by individuals or groups and ‘forced’ upon universities in order to secure training and credentials; in others disciplines are products of increasing specialization within existing university disciplines, a process often propelled by academics seeking new professional opportunities and status.⁵² R.E. Kohler’s study of biochemistry takes as its starting point the view that disciplines are ‘creatures of history and reflect human habits and preferences, not a fixed order of nature’.⁵³ Kohler notes that an essential part of the process of discipline construction is the creation of institutional structures that make

pp. 13-25; Robert E. Kohler, *From Medical Chemistry to Biochemistry: The Making of a Biomedical Discipline* (Cambridge: Cambridge University Press, 1982). See also David F. Smith, ‘Nutrition in Britain in the Twentieth Century’, (Ph.D. thesis, University of Edinburgh, 1986), who takes a similar approach.

⁵¹ Ivor Goodson, ‘Becoming a School Subject’, in *The Making of Curriculum: Collected Essays* (Falmer Press, 1988), p. 165.

⁵² *Ibid.*, pp. 172-177.

⁵³ Kohler, p. 1.

possible the scientific research and the collating and systematizing of facts that define disciplinary boundaries. He argues that although some 'minimal level of intellectual achievement' is a prerequisite in discipline building, other determinants--the 'political economy' of professional, political, institutional, and economic factors--are of critical importance. He also points out that the 'crucial resources' involved in discipline construction are often 'less intellectual than economic and institutional'.⁵⁴

Adopting a similar approach, the thesis examines how the KCHSS course was constructed, how the 'household science' concept evolved over time, and the factors--both internal and external--that contributed to its ultimate 'failure' as a university discipline. Three main themes are explored. First, trends in household science graduates' careers are examined in order to establish to what extent KCHSS was able to create a professional career structure for the new discipline. The interplay between administrative policy, career trends, and professionalization is analyzed in relation to three fields--social welfare, applied laboratory research, and dietetics. The field of social welfare work and the development of training at the universities--the 'social studies movement'--has been relatively well-documented by historians; accounts include Marjorie Smith's *Professional Education for Social Work in Britain: An Historical Account* and Madeline Roofff's history of the Charity Organization Society (COS).⁵⁵ This thesis thus examines the rise of household science in the context of this

⁵⁴ Kohler, pp. 1, 4-5.

⁵⁵ Marjorie J. Smith, *Professional Education for Social Work in Britain: An Historical Account* (George Allen & Unwin, 1953; second ed., National Institute for Social Work Training, 1965); Madeline Roofff, *A Hundred Years of Family Welfare: A Study of the Family Welfare Association (Formerly C.O.S.) 1869-1969* (Michael Joseph, 1972).

broader social studies movement and considers the differences between the household science approach to social welfare education and those of other institutions. In this connection the archives of the Ratan Tata Department of Social Administration at the London School of Economics (LSE) have been consulted in relation to the joint KCHSS/LSE social welfare courses developed in 1918-20.⁵⁶ There are, however, comparatively few secondary sources relating to the development of laboratory work and dietetics as careers for women. Michael Sanderson's chapter on women graduates in industry in the interwar period gives an excellent discussion of applied science careers, including household science and the food processing industry, whilst Miriam Glucksmann's study of the new industries of the interwar period provides additional contextual information about food processing.⁵⁷ Oral and written evidence are also used to illuminate the nature of commercial laboratory work for women. With regard to dietetics, Enid Hutchinson's history of the British Dietetic Association chronicles events in the development of dietetics as a profession, and there are several articles which discuss the creation of dietetics courses at domestic subjects training colleges.⁵⁸

⁵⁶ See Jose Harris, 'The Webbs, the Charity Organization Society and the Ratan Tata Foundation: Social Policy from the Perspective of 1912', in *The Goals of Social Policy*, ed. Martin Bulmer, Jane Lewis and David Piachaud (Unwin Hyman, 1989), pp. 27-63. (Hereafter: Harris, 'Social Policy')

⁵⁷ Sanderson, 'The University Women in Business and Industry Before 1939', pp. 314-338; Miriam Glucksmann, *Women Assemble: Women Workers and the new Industries in Inter-War Britain* (Routledge, 1990).

⁵⁸ Enid Hutchinson, *A History of the British Dietetic Association* (Newman Books, 1961); Ellice Miller, *Century of Change: The Queen's College, Glasgow* (Glasgow: [n.p.], c.1975); Anna Buchan, 'The Growth and Development of the Dietetic Department: 4--The Royal Infirmary, Edinburgh', *Nutrition* VII:2 (Summer 1954), pp. 72-77; Mary Andross, 'The Growth and Development of the Dietetic Department: 2--Glasgow & West of Scotland College of Domestic Science', *Nutrition* VII:4 (Winter, 1953), pp. 177-181.

Although Hutchinson does discuss KCHSS's role in dietetics education, the thesis analyzes the development of dietetics as an arm of the household science movement and the contributions of KCHSS's faculty and students to its professionalization. Use was also made of the archives of the Royal College of Physicians, which contains documents relating to the professional conflicts between KCHSS and the nursing profession over dietetics training.

The second main factor affecting the failure of household science as a discipline which is explored in the thesis is the relationship between the household science movement and the domestic science teaching profession. As Goodson points out, the connections between a university discipline and its school-level equivalent can be an important factor in institution-building within the educational community. Yet unlike in America, where the home economics movement embraced both university professors and school teachers, the English household science movement, embodied solely in KCHSS, remained relatively aloof from the domestic subjects teaching profession. Indeed, the development of a B.Sc. degree in 'domestic science' at Bristol University in 1927 reflected the professional disputes between the domestic subjects teaching profession (which had its own separate training colleges) and KCHSS over teacher training in the period. The thesis thus provides an analysis of professional issues in domestic subjects teaching in order to account for this breach. In this context the thesis utilizes the archives of the Association of Teachers of Domestic Subjects (ATDS). First

formed in 1897 as a sub-committee of the National Union of Women Workers,⁵⁹ the ATDS became the official professional body for domestic subjects teachers in 1902.⁶⁰ Its archives, which contain a wealth of printed reports and other ephemera, are supplemented by the journal *Education* (the official organ of the ATDS until 1928), which published reports and papers from ATDS conferences as well as numerous articles about professional issues. This journal, together with the ATDS's own publication, *Housecraft* (founded in 1928), and *The Journal of Education*, are valuable barometers of change and opinion about domestic education within educational circles over the period.⁶¹ Helen Sillitoe's excellent *A History of the Teaching of Domestic Subjects* (1933) gives a thorough general coverage of the history of domestic education at all levels (elementary, secondary, training college) from the Victorian period onwards, but she does not discuss the fractious relationship between the ATDS and KCHSS or the direct impact of the household science movement on the domestic subjects teaching profession. The archives of Bristol University and the Gloucestershire Training College of Domestic Subjects (GTCDS) were also consulted in relation to the Bristol 'domestic science' B.Sc. course.

⁵⁹ The NUWW was a middle-class organization devoted to social and philanthropic work. It was renamed the National Council of Women in 1918. Harrison, p. 6.

⁶⁰ Beatrice Webb, 'Special Supplement of Teachers' Organisations: (G) The Association of Teachers of Domestic Subjects', *The New Statesman* V:130 (2 Oct. 1915), pp. 7-8; Harrison, p. 6.

⁶¹ *Housecraft* was first launched in 1921-24 but publication was suspended for lack of funds; it was re-launched in 1928. In the interim the journal *Practical Education and School Crafts* was the official ATDS organ. See Helen Sillitoe, *A History of the Teaching of Domestic Subjects* (Methuen, 1933), pp. 243.

The third aspect of household science's disciplinary 'failure' addressed in the thesis is the institutional and academic factors which undermined KCHSS's success in constructing what Kohler describes as 'territory' and 'expertise'. An analysis of KCHSS's research output and problems of funding is made using details published in the college's annual reports and textbooks produced by members of the KCHSS faculty, together with the statistical reports of the University Grants Committee (which allocated parliamentary grants to university colleges).⁶² Several unpublished histories of the main scientific departments at the college also provide valuable insights into the research interests of faculty members and illustrate the institutional constraints which frustrated the development of a successful research programme.⁶³ KCHSS's involvement in nutritional research in the interwar period is also examined through the published reports of the Medical Research Council (MRC), which was the main funding body for nutritional research in Britain.⁶⁴ Several recent articles have examined the MRC's role in shaping nutritional research in the interwar period.⁶⁵ David F. Smith's valuable study of nutrition in Britain in the twentieth century, which analyses professional conflicts in nutritional research and policy, also discusses KCHSS's

⁶² University Grants Committee, 'Returns from Universities and University Colleges in Receipt of Treasury Grants', 1919-1939. (Hereafter: UGC, 'Returns')

⁶³ Brian Gardiner, 'A History of the Biology Department, Queen Elizabeth College, 1912-1985' [n.d., c.1979]; T.J. Dillon, 'Notes on the Physics Department of Queen Elizabeth College ...' (April 1979); Percy Praill, 'History of Chemistry at QEC', [n.d., c.1979].

⁶⁴ See Alison A. Paul, ed., *The First 60 Years: History and Publications of the MRC Dunn Nutrition Unit 1927-1987* (Cambridge: MRC Dunn Nutrition Unit, 1987).

⁶⁵ Celia Petty, 'Primary Research and Public Health: The Prioritization of Nutrition Research in Inter-War Britain', pp. 83-108, and Joan Austoker, 'Walter Morley Fletcher and the Origins of a Basic Biomedical Research Policy', pp. 23-33, both in *Historical Perspectives on the Role of the MRC: Essays in the History of the Medical Research Council of the United Kingdom and*

contributions to the development of nutrition as a discipline.⁶⁶ The thesis also considers KCHSS's failure to construct an applied science of the household, drawing parallels with American home economics in order to illuminate the difficulties KCHSS faced in demarcating disciplinary territory within the academy.

The third and final object of the thesis is to consider KCHSS as an institution in its own right. Colleges, like other institutions, often influence their constituent members in ways apart from, or beyond, their main objective. It is generally recognized that although women's colleges were often conservative in their outlook on women's social roles, they nevertheless played a critical role in the women's movement, not only by educating future activists, but also by giving women the time and space to develop their own sense of self and by creating a context in which new friendship and collegial networks could develop.⁶⁷ The thesis explores the nature of KCHSS's collegiate life relative to that of other London women's colleges--all of which have been the subject of

its Predecessor, the Medical Research Committee, 1913-1953, ed. Joan Austoker & Linda Bryder (Oxford: Oxford University Press, 1989).

⁶⁶ David F. Smith, 'Nutrition in Britain'.

⁶⁷ Dyhouse, *Girls Growing Up*, p. 60; Martha Vicinus, *Independent Women: Work and Community for Single Women 1850-1920* (Virago, 1985), especially Chapter 4, 'Women's Colleges: An Independent Intellectual Life', pp. 121-162; Elizabeth Edwards, 'Educational Institutions or Extended Families? The Reconstruction of Gender in Women's Colleges in the Late Nineteenth and Early Twentieth Centuries', *Gender and Education* 2:1 (1990), pp. 17-35. See also Gillian Pascall and Roger Cox, *Women Returning to Higher Education* (Buckingham: The Society for Research into Higher Education & Open University Press, 1993), which considers both the professional as well as the personal impact of higher education on students, and Perry Williams, 'Pioneer Women Students at Cambridge, 1869-81', in *Lessons for Life*, ed. Hunt, who considers the personal experiences of women students.

institutional histories.⁶⁸ It asks how far KCHSS succeeded in giving its students a good experience of collegiate life, how the household science course was regarded by students, and what impact it made on their lives. Although Neville Marsh's excellent institutional history, *The History of Queen Elizabeth College: One Hundred Years of University Education in Kensington* (1986), gives a broad overview of KCHSS's growth and development, it nevertheless does not consider KCHSS in relation to the other London women's colleges nor how the household science course was received by its students. In exploring these issues the thesis thus draws heavily upon college records, student magazines and oral and written evidence of former KCHSS students. Information about student life in the 1920s has been taken from a collection of personal reminiscences and college ephemera amassed by the late Patty Fisher (née Jarvis), a student at KCHSS from 1924-27, whilst material about student life in the 1930s has been acquired through written questionnaires and interviews with former KCHSS students.⁶⁹

In exploring these three aspects of the household science movement (disciplinary, professional, and institutional) the thesis thus seeks not only to provide an

⁶⁸ Margaret J. Tuke, *A History of Bedford College for Women 1849-1937* (Oxford University Press, 1939); Linna Bentley, *Educating Women: A Pictorial History of Bedford College, University of London 1849-1985* (Surrey: Alma Publishers in conjunction with Royal Holloway and Bedford New College, 1991); Caroline Bingham, *The History of Royal Holloway College 1886-1986* (Constable, 1987), and Janet Sondheimer, *Castle Adamant in Hampstead: A history of Westfield College 1882-1982* (Westfield College, 1983).

⁶⁹ Unfortunately the Fisher material, consulted prior to her death in 1991, has subsequently been disposed of by her family. Copies of material used in the thesis will be deposited with the KCHSS archives. For a complete list of student letters, manuscripts and interviews, see APPENDIX E, pp. 407-408.

analysis of the household science movement and the working out of its ideals, but to restore KCHSS to its rightful place in the history of women's higher education in England.

· CHAPTER 1 ·

THE ORIGINS OF THE HOME ECONOMICS MOVEMENT IN AMERICA

The concept of 'household science' as a discipline owes its origins to American home economics, yet there were nevertheless some fundamental differences between the American discipline and the version which was inaugurated at King's College for Women. In America, two competing models for home economics evolved in the nineteenth century--a 'vocational homemaking' model, which aimed to train women for their traditional roles as housewives and mothers, and a 'scientific' model which, like other disciplines, was research-oriented and sought to train women to work in a variety of different occupations, but especially those related to community health and social service. In England, however, only one of these models--the 'scientific' model--actually took root at the level of higher education, a difference which is largely explained by differences in the two respective systems of higher education. The American home economics movement thus provides a crucial context for the understanding of the evolution of household science as a discipline in England. This chapter seeks to explain the development of the two competing models of home economics in the United States over the nineteenth and early twentieth century, setting it into the context of wider trends in American higher education. The first section explores the changing purposes of women's education in America and the seeds of domestic education in the early women's colleges, while the second section charts the early development of home

economics as a distinct university discipline in the agricultural colleges of the Midwest in the mid-nineteenth century. The third section examines the development of the scientific model in the early twentieth century, relating it to America's concern about the impact of immigration, western expansion, and urbanization on its fledgling society. The fourth section goes on to examine the evolution of home economics as a discipline up to 1914, looking in particular at the ways in which the newly-organized American Home Economics Association reconciled the two competing models within the discipline.

The Purpose of Women's Higher Education

In the historiography of the movement for women's education in the nineteenth century, historians have sometimes stressed the movement's desire to emancipate women from the fetters of the domestic sphere by providing them with access to universities and 'male' professions. As Philippa Levine puts it:

Women saw education as the key to a broad range of other freedoms; as a means of training for paid employment, as a means of alleviating the vacuity and boredom of everyday idleness and, of course, as the means to improving their ability to fight for the extension of female opportunities in a host of other areas.¹

And yet most women activists of the nineteenth and twentieth century, in the words of Nancy Cott, held 'firm convictions about women's own ground of expected domesticity while aiming towards goals of equality between the sexes'.² Arguments for the

¹ Levine, p. 26.

² Nancy Cott, *The Grounding of Modern Feminism* (New Haven: Yale University Press, 1987), p. 7.

improvement of female education were commonly based on the belief that women's performance of domestic roles would be enhanced if they were given a more liberal education.

The movement for the improvement of women's education in the early nineteenth century was underscored by evangelical ideals of women's moral superiority and their influence in the socialization of children.³ The 'Second Great Awakening' in America (c. 1790-1826), which did much to foster women's leadership in religious teaching and practice, also provoked a demand for educational reform to equip mothers to undertake the religious training of their children.⁴ This reform movement was inspired by the conservative moralistic writings of the English evangelical Hannah More rather than the 'natural rights' arguments advanced by Wollstonecraft, although both agreed that women had duties in the domestic sphere and should be educated for them.⁵

Evangelical emphasis on religious training also coexisted with a secular strand of thought which stressed the importance of mothers in training the future citizens of the new American state--what Jane Rendall terms 'Republican Motherhood'.⁶ As Abigail Adams urged her statesman husband, John Adams, in 1776 with regard to the drafting of the new constitution, 'if we mean to have Heroes, Statesmen and Philosophers, we

³ Olive Banks, *Faces of Feminism: A Study of Feminism as a Social Movement* (Oxford: Basil Blackwell, 1981, reprinted 1986), pp. 39-40; Rendall, *Modern Feminism*, pp. 118-120.

⁴ Solomon, p. 16.

⁵ *Ibid.*, p. 16; Rendall, *Modern Feminism*, p. 89; Mary Wollstonecraft, *Vindication of the Rights of Woman* (1792; reprint ed., Harmondsworth: Penguin, 1986), p. 288.

⁶ Rendall, *Modern Feminism*, p. 34.

should have learned women.’⁷ Nevertheless, the concept of ‘natural rights’ which had so inspired the birth of the new republic was not extended to women; instead, ‘republican’ arguments for the reform of women’s education were couched in terms of creating a better domestic environment for the nurture of children, especially that of sons.⁸

Accordingly the founders of the first women’s academies and colleges in the American republic argued for improved education for women not so much in terms of their right to the same education as men, but in terms of the moral and social benefits women’s education would have on future generations. Emma Hart Willard, the founder of one of the earliest female academies, Troy Female Seminary (1821), warned the New York state legislature about the dangers of neglecting women’s education:

Would we rear the human plant to its perfection, we must fertilize the soil which produces it. If it acquires its bent and texture upon a barren plain, it will avail comparatively little should it be afterwards transported to a garden.⁹

The founder of Hartford Female Seminary (1823), Catharine Beecher, was a firm believer in the moral authority of women and sought to replace the often frivolous and ornamental education that girls of her day usually received with a more serious moral and educational training. Beecher stressed the privileges and responsibilities that young American women had in their traditional feminine role as housewives and mothers,

⁷ Quoted in Solomon, p. 8.

⁸ Rendall, *Modern Feminism*, pp. 39-40.

⁹ Quoted in Rendall, *Modern Feminism*, p. 120.

arguing in her best-known work, *A Treatise on Domestic Economy* (1841), 'The proper education of a man decides the welfare of an individual; but educate a woman, and the interest of a whole family are secured.'¹⁰ Women's reforming powers did not rest entirely within the home, however, as Beecher's educational campaign encompassed a missionary-like quest to 'civilize' the new American nation through the training of women teachers.¹¹

Yet despite the prevailing emphasis on education for traditional feminine roles, these early reformers differed in their approach to the provision of practical training in the material aspects of homemaking. Most female seminaries (which were generally at a secondary-school level) built their curriculum on the usual subjects such as mathematics, sciences, and languages (ancient and modern), as well as art and music--a regime which was intended to give women a well-rounded, liberal education in the Humboldtian sense of a 'disinterested pursuit of knowledge'.¹² The inclusion of some training in housekeeping matters--formal or informal--was seen as consistent with this liberal tradition because it emphasized the place of feminine duty in the ethos of women's higher education. Emma Willard, who declared that her seminary would be 'as different from [men's colleges] ... as the female character and duties are from the

¹⁰ Catharine E. Beecher, *A Treatise on Domestic Economy*, revised ed. (New York: Harper & Brothers, 1848), p. 37.

¹¹ Rendall, *Modern Feminism*, pp. 127-128.

¹² Solomon, pp. 22-23; Sheldon Rothblatt and Björn Wittrock, eds. *The European and American University Since 1800: Historical and Sociological Essays* (Cambridge: Cambridge University Press, 1993), p. 11.

male', included housewifery in the curriculum of Troy Seminary, and allowed students to spend time each week observing the pastry cook.¹³ In other institutions, however--Mount Holyoke, for example--students and faculty were required to help with domestic chores for reasons which appear to have been largely practical, such as economy and the shortage of domestic servants.¹⁴ Likewise, women students at the co-educational Oberlin College in Ohio (1833) were required to darn male students' socks and undertake other household chores, although this was also in keeping with Oberlin's character as a Christian community where men and women observed their respective traditional roles.¹⁵ Catharine Beecher was the most adamant about the place of the household arts in the curriculum and believed that women should not only be given adequate education in household matters but also an understanding of the wider social significance of the home.¹⁶ Beecher advocated the teaching of domestic economy as one element of a curriculum which included mathematics, English, philosophy, chemistry, astronomy, geology and mineralogy, botany, political economy, and Christianity.¹⁷

¹³ Quoted in Solomon, p. 14.

¹⁴ Hazel T. Craig, *The History of Home Economics* (New York: Practical Home Economics, 1945), p. 3.

¹⁵ The male students at Oberlin were required to work in the fields. Solomon, p. 24.

¹⁶ Rendall, *Modern Feminism*, pp. 121-122.

¹⁷ Beecher, pp. 55-58; Craig, p. 4.

The four-year academic women's colleges of the post-Civil War period such as Vassar (1865), Wellesley and Smith (both 1875) and Bryn Mawr (1884) adapted a less self-consciously domestic culture than the early academies and seminaries.¹⁸ Modelled on the men's Ivy League colleges, the new colleges generally offered a more classical education and to a higher standard. Although these colleges also aimed to give women a 'disinterested', liberal education, the place of domestic education as part of the college curriculum came under question.¹⁹ For some women educators of this generation, most notably the second president of Bryn Mawr, Martha Carey Thomas, the chief purpose of a college was to prepare women for an active working life. Thomas refused to deviate from the Ivy League model to include elements of housewifery in the curriculum, urging her women students to 'become as well known and universally admired a type as the Oxford and Cambridge man', and suffused the college with academic values and trappings.²⁰ Bryn Mawr was an exception in this, however, as most of the other women's colleges of this period did include some type of domestic training as an appropriate component of the liberal culture for women. The trustees of Vassar, who had originally decided against including housekeeping courses at the time of its founding, later compromised by providing lectures and practical instruction upon request and by setting aside a specific time for sewing.²¹ The president of Wellesley

¹⁸ See Helen Lefkowitz-Horowitz, *Alma Mater: Design and Experience in the Women's Colleges from their Nineteenth-Century Beginnings to the 1930s* (New York: Alfred A. Knopf, 1984).

¹⁹ Solomon, p. 49.

²⁰ Quoted in Roberta Wein, 'Women's Colleges and Domesticity, 1875-1918', *History of Education Quarterly* (Spring 1974), pp. 35-36.

²¹ Craig, p. 3.

from 1881-1887, Alice Freeman Palmer, maintained that, although women were as capable as men in the academic sphere, the 'duties of motherhood and the making of a home are the most sacred work of women.'²² Believing that women of her day sought 'intellectual resources and the enrichment of their private lives', Palmer sought to balance academic rigour in traditional subjects with courses in art, music, hygiene, and practical housekeeping experience in her design for producing the well-rounded woman.²³

By the end of the nineteenth century the paradigm of 'disinterested' or non-vocational liberal higher education for women was being challenged as a result of two developments which combined to pave the way for a more systematic approach to the study of home economics. The first was a drive towards professionalization, encouraged by the frustration of the new generation of women students such as Jane Addams of Hull House, who found that their college education had sharpened their social conscience and their desire for a purposeful life without equipping them with the professional qualifications to become effective social reformers.²⁴ By contrast, for men a liberal education had always been regarded as a pre-professional training.²⁵ Yet although the elite women's colleges sustained their anti-vocational rhetoric, new

²² Quoted in Wein, p. 39.

²³ *Ibid.*, p. 40, also pp. 39-41; Woloch, p. 278.

²⁴ William O'Neill, *Feminism in America: A History*, 2nd revised ed. (1969; New Brunswick, NJ: Transaction Publishers, 1989) p. 79; Woloch, pp. 256-257.

²⁵ Solomon, p. 83.

professional courses such as librarianship, journalism, social work, and pedagogy were gradually introduced in the early twentieth century to cater for those women who sought a professional career.²⁶ At the same time, as college education for women (at least amongst the upper middle-classes) became more common, a growing proportion of the student population consisted of what Barbara Miller Solomon describes as ‘women adrift’--those women who, without any definite ambitions, were destined for marriage rather than a professional career.²⁷ At Bryn Mawr, for example, 67% of students graduating in the decade before the First World War married, as compared with 45% of graduates of the 1890s; comparable figures for Wellesley were 71% (1909-1918) and 57% (1889-1908).²⁸

Solomon has argued plausibly that the spread of home economics courses in the early twentieth century was the response of college authorities to the emergence of this new type of college women, often from a prosperous background, for whom the newer professional courses were inappropriate.²⁹ In effect, home economics offered her a training for her chosen ‘profession’ of homemaker. Linda M. Fritschner, on the other hand, interprets the rise of home economics as a college discipline as an attempt to

²⁶ Solomon, pp. 83-84.

²⁷ The numbers of women taking up higher education grew from just 11,000 in 1870 to 85,000 by 1900. Solomon, pp. 63, 84-85.

²⁸ Wein, p. 44.

²⁹ Solomon, pp. 84-85.

discourage the movement of women into non-agricultural employment.³⁰ Neither interpretation does full justice, however, to the more positive objectives and appeal of home economics education as it developed in the United States.

Midwestern Roots: The Origins of Home Economics

Home economics, a hybrid of domestic subjects and other related disciplines treated as an academic field, was born in the agricultural Midwest in the 1860s with the development of the 'Land Grant' Universities. It was largely in these universities that the hodge-podge of domestic courses offered by some of the Eastern women's colleges developed into the full university degree course. The maturation of home economics as a discipline was heavily influenced by government efforts to improve agriculture in this period, embodied in the Morrill ('Land Grant') Act of 1862, and its supplement in 1890, which provided federal funding for each state and territory to maintain or develop a college of agriculture and mechanical arts.³¹ Although the acts themselves did not specify home economics, the promotion of applied science courses such as agricultural science and mechanical engineering facilitated the development of a parallel applied science course for women given that the universities were to be co-educational.³²

³⁰ Linda M. Fritschner, 'Women's Work and Women's Education: The Case of Home Economics, 1870-1920', *Sociology of Work and Occupations* 4:2 (1977), pp. 209-234.

³¹ Charles F. Langworthy, 'Department of Agriculture and Home Economics', *Proceedings of the Seventh Lake Placid Conference (1905)* p. 150. (Hereafter all references to the Lake Placid Conferences will be abbreviated as *LP* together with date.)

³² Alice Chown, 'Courses in Home Economics for Colleges and Universities', *LP III (1901)*, pp. 107-109.

The federal government's interest in supporting agriculture and home economics was a reaction to the influx of immigrants from Europe in the second half of the century, which had provoked a collective angst about the decline of white American culture. The cooking schools of the East Coast, which had preceded college-level courses in home economics, were also established as a reaction to the impact of immigration and its subsequent effects on the urban character of many eastern cities. The New York Cooking School, opened by Juliet Corson in 1876, taught a class in plain cooking for housekeepers, domestic servants, and working-class women, along with other classes in 'high class cookery' and a teacher training course.³³ In Massachusetts, the Boston Cooking School, most often associated with its fourth principal Fannie M. Farmer, was established to teach practical skills by the Women's Educational Association of Boston.³⁴ In part the cooking courses were humanitarian ventures, seeking to improve living standards and to introduce American food culture.³⁵ The cooking schools, however, had little impact on the social problems created by immigration, the scale of which led the federal and state authorities to consider other means by which immigrants could be assimilated to American culture.³⁶ Indeed, the federal government's heavy subsidies for the Land Grant universities were in response to the opening of the vast prairie territories east of the Mississippi and the concurrent arrival of settlers from Germany, Scandinavia, and other northern European countries in the mid-nineteenth

³³ Craig, p. 6.

³⁴ *Ibid.*

³⁵ Fritschner, p. 217.

³⁶ Lucy Maynard Salmon, *Progress in the Household* (Boston: Houghton, Mifflin & Company, 1906), p. 69.

century.³⁷ Home economics thus evolved as a ‘partner’ in the efficient development of industry and agriculture in the west. Iowa State University’s Board of Trustees set out the significance of supporting home economics as a parallel applied science for women in the Land Grant blueprint for agriculture and industry:

[C]an we ever hope to make industrial pursuits attractive to our sons if our daughters are educated to despise or pity those who engage in them? If we would elevate the laboring classes by affording them ... an education equal to that of the professional man, we must not confine it to our boys alone, but must teach the girls as well, the practical, and enable them though the means of our Agricultural College to acquire by practice a thorough knowledge of the art of conducting their department.³⁸

The evolution of the home economics course at Iowa State University, which today has one of the most influential Colleges of Home Economics in the United States, is representative of that at its sister Land Grant universities. Iowa State College, which opened at Ames in 1869, was the first to include formal coursework in domestic subjects. Its first president, Adonijah Welch, and his wife Mary Beaumont Welch (who later became director of home economics) were the prime motivators behind the establishment of home economics. Welch’s inaugural address of 1869, in which it was announced that women would be admitted to Iowa State on equal terms with men,

³⁷ Immigration to the U.S. in the 1840s reached 1,713,000 and, in the 1850s, 2,598,000, including 1,000,000 Germans, and 300,000 Scandinavians, most of whom settled in the Midwest. See John M. Blum, et. al., *The National Experience: A History of the United States* (San Diego: Harcourt Brace Jovanovich, 1989), pp. 282-284. For a discussion of land settlement in the Midwest, see ‘The Immense Land’, in Odd S. Lovoll, *The Promise of America: A History of the Norwegian American People*. Translation of *Det Løfterike Landet* (Minneapolis, MN: University of Minnesota Press, 1984), pp. 73-95.

³⁸ Quoted in Ercel Sherman Eppright and Elizabeth Storm Ferguson, *A Century of Home Economics at Iowa State University: A Proud Past, a Lively Present, a Future Promise* (Ames, IA: Iowa State University Alumni Association and Iowa State University Press, 1971), p. 4.

shows that, like its East-Coast counterparts, Iowa State was committed to giving Iowa women a broad general culture that combined both 'book learning' and training for their traditional feminine roles and duties:

We offer ... to the young women ... a scope for scientific progress and research as unlimited and free as that which we offer to the other sex:

1st--Because all the faculties of the human mind have, without respect to gender, a natural, unquestionable right to discipline and development.

2nd--Because the duties of motherhood, to which God has appointed her, require ... a wide and cultivated intelligence.

3rd--Because general intellectual and moral culture will sanctify, elevate and purify the influences of the home, and render it a genuine school for the training of the future citizen.

4th--Because we would enable her to make provision for her own self-support... to engage in many suitable employments on a footing equal with man, both as to the skill and the remuneration of the worker.

5th--Because we would supply ... one great necessity to woman, namely, a means for the culture, and a field for the action of peculiar talents, thus giving relief to the aimlessness of many lives, and adding many noble workers to the world.

6th--Because we would call all learning and culture to the aid of woman in accomplishing her natural mission, the advancement of general morality and virtue.³⁹

The 'Ladies' Course', first established in 1871, was a patchwork of various courses designed to meet all of Welch's objectives for a balanced education, including the study of chemistry (organic and inorganic), physics, botany, English language, history, psychology, anatomy, mineralogy, political economy, 'domestic economy', and landscape gardening, with optional courses in Latin, French, various arts, music, and

³⁹ Eppright & Ferguson, pp. 7-9.

literature.⁴⁰ At first the college only required women students to follow the 'Mount Holyoke plan' of assisting for two hours per day in the dining room, bakery, laundry or kitchen, which was designed to inculcate a healthy regard for manual labour and teach manual skills as well as to save money for the college.⁴¹ According to Iowa State's Board of Trustees:

Everything pertaining to a well-regulated household conducted in an intelligent and systematic manner will necessarily be practiced in our Farm House, Boarding Hall, garden, dairy, and kitchen and where can a young lady find better facilities, for becoming familiar with the various household duties, than here while procuring her book education?⁴²

Gradually, however, formal lectures and practical coursework were added to the curriculum as electives. Not all women were required to follow the Ladies' Course (there being a separate 'Science Course') but all women were required to take some courses in 'domestic economy' during the first two years, and could elect to continue it in their third and fourth years.⁴³ Eventually the various elective courses were merged into a separate 'Department of Domestic Economy' in 1885 and, in 1896, a full professorship and chair of domestic economy was created.⁴⁴ By 1913 a separate 'Home Economics Division' (a prototype of the modern College of Home Economics) was created as an acknowledgement of the discipline's growing popularity--in 1914-15,

⁴⁰ Eppright & Ferguson, p. 3.

⁴¹ *Ibid.*, p. 17.

⁴² Quoted in Eppright & Ferguson, p. 4.

⁴³ The American suffragist Carrie Lane Chapman Catt, one of the leaders of the National American Woman Suffrage Association and founder of the League of Women Voters, was one of the Ladies' Course graduates at Iowa State (1880). Eppright & Ferguson, p. 45, p. 54; O'Neill, pp. 123-124.

⁴⁴ Craig, p. 5; Eppright & Ferguson, p. 48.

there were over 520 students enrolled in the home economics department, a figure which almost doubled in the next seven years.⁴⁵ By 1900 over thirty colleges and universities had home economics departments, and by 1914-15 approximately 54 institutions had four-year degree programmes in home economics.⁴⁶

Another factor which contributed to the flowering of home economics at Land-Grant agricultural colleges and universities was their innovative commitment to the study of the applied sciences as university subjects. Patronized by the farming and business communities, the Land Grant universities were less influenced by the classical curriculum of the Ivy League colleges; indeed, educational reformers had long lobbied for more 'relevant' subjects to be added to the classical curriculum, and Land Grant authorities thus perceived their applied sciences as 'progressive'.⁴⁷ By this time, too, the Ivy League colleges were beginning to question the value of the classical tradition for the ambitious modern university man. The 'elective' system, whereby students were allowed to choose from a smorgasbord of different courses to create their own liberal degree programme, originated in the 1870s in response to the growth of interest in science. Taken up by many of the elite colleges such as Harvard, Stanford, and Columbia, the system encouraged professors to explore new academic territory and teach new subjects, while also allowing colleges and universities the means of

⁴⁵ Eppright & Ferguson, pp. 93-94.

⁴⁶ Craig, p. 6; East, p. 48.

⁴⁷ Mary Roberts Smith, 'Report of Committee on Courses of Study in Home Economics in Colleges and Universities', *LP IV* (1902), p. 19.

accommodating both the variety of students' entrance standards and educational objectives.⁴⁸ Freed from the constraints of following traditional academic curricula, American women's colleges and Land Grant co-educational universities developed a wide variety of courses and programmes for training women for duties in the home, all under the rubric of 'home economics'. In many private women's colleges and in universities, home economics programmes evolved from a patchwork of different elective courses into specialized degree courses, like that established at Iowa State University at the turn of the century.

Misogyny and traditionalist thinking did play a part, however, in the policies of some co-educational institutions. Home economics was sometimes promoted as a means of attracting women to the universities in order to fill a vacuum created by the lack of interest amongst young men, who did not necessarily need a liberal arts education to take advantage of opportunities in business.⁴⁹ In later years, as the demand from men picked up, pressure to hive home economics students and faculty off into a separate department might reflect fear of 'feminization'. As Maresi Nerad has shown, it was the steadily increasing numbers of women students at the University of California (Berkeley) in the early twentieth century that induced the creation of a home economics department there in 1915 (despite an attempt in 1905 which failed due to a lack of interest amongst women undergraduates). Traditionalist attitudes of President Benjamin Wheeler (1899-1919) were instrumental in shaping the agenda:

⁴⁸ Solomon, pp. 79-80.

⁴⁹ Woloch, p. 276; Fritschner, pp. 221-221.

Women need different organizations from the men, and they ought to have them. Their standards are different. You are not here with the ambition to be school teachers or old maids, but you are here for the preparation of marriage and motherhood. This education should tend to make you more serviceable as wives and mothers ⁵⁰

Although a committee of faculty members had recommended the creation of a science-based interdisciplinary curriculum drawn from courses in other departments (including the departments of architecture, chemistry, economics, engineering, and physiology), the scheme imposed autocratically by Wheeler not only pared home economics down to design and applied nutrition but established a separate institution for women within the co-educational university.⁵¹

In co-educational institutions the home economics concept was sometimes embraced as a convenient ghetto for women academics who were threatening to compete with men for top jobs, or for women students as their numbers on campuses grew. The appointment of a woman full professor at Cornell University, for example, provoked a heated battle in 1911 about the status of women faculty, who were eventually reorganized into a new department of home economics.⁵² Likewise, the historian Florence Robinson was only allowed to teach in home economics at Beloit College (Wisconsin) despite her Ph.D. in American history, a policy which she bitterly

⁵⁰ Quoted in Maresi Nerad, 'Coping with Women Students--Women Coping with the University of California's Department of Home Economics 1905-1916', *History of Education Society Occasional Publications* 8 (1987), p. 24.

⁵¹ *Ibid.*, pp. 29-30.

⁵² Rossiter, pp. 64-66.

resented.⁵³ Indeed, a survey in 1911 showed that approximately 60% of women faculty members in co-educational institutions were in home economics departments.⁵⁴ Margaret Rossiter has pointed out that women scientists were often channelled into home economics departments where they could undertake research considered 'appropriate' for women, such as in nutrition or hygiene.⁵⁵ She notes that 'in a flash a woman chemist could become a home economist, a physiologist an instructor in hygiene'.⁵⁶ Women themselves sometimes chose to work in home economics departments as a strategy for gaining some academic independence and an assured chance of promotion, however. Jessica Peixotto, lecturer in sociology (and later Assistant Professor in Social Economics) at Berkeley had supported the creation of a home economics department there (albeit not in the form imposed by Wheeler) in order to escape the male prejudice and to gain more institutional support for her work.⁵⁷ Federal support for home economics in terms of facilities and funding meant that the field offered better career opportunities for women, at least in terms of pay and promotion, if not in terms of status. The women nutritionists working in home economics at the University of Wisconsin, for example, earned more than women in other fields (although less than the men), and women nutritionists were some of the few

⁵³ Robinson's will established a professorship at Wisconsin in history reserved for a woman, with the added proviso that the professor was not to serve tea at faculty meetings. Solomon, p. 86; p. 231, n. 18.

⁵⁴ Solomon, pp. 86-87.

⁵⁵ Rossiter, p. 64.

⁵⁶ *Ibid.*, p. 65.

⁵⁷ Nerad, pp. 28-29.

women who were able to achieve positions as chairmen or deans.⁵⁸ As Rossiter notes, home economics 'was the only field where a woman scientist could hope to be a full professor, department chairman, or even a dean in the 1920s and 1930s'.⁵⁹

A Constructive Age: The Ideals of Home Economics

Old traditions are being torn up by the roots. The past has been an iconoclastic age, but we are entering a constructive one.⁶⁰

In order to understand the women who chose to work in home economics departments in this period it is important to look beyond institutional politics to the personal motivations of early women scientists. As Penina Migdal Glazer and Miriam Slater observe:

An ideology of service to the underprivileged, the young, or the sick provided the rationale for the female professions of social work, teaching, and nursing. Scholars tend to think of scientific research as the antithesis of these "softer," more sentimental and feminine occupations. Yet there were also women whose scientific careers were informed by many of the values predominant among social workers, teachers, and socially conscious reformers.⁶¹

By the 1890s the emerging field of home economics had become infused with the ethos of social reform--one facet of the wider network of social reform movements in which

⁵⁸ Rossiter, pp. 200-203.

⁵⁹ *Ibid.*, p. 70.

⁶⁰ Richards, 'The Outlook in Home Economics', *Journal of Home Economics* 2 (Feb. 1910), pp. 18-19.

⁶¹ Penina Migdal Glazer and Miriam Slater, *Unequal Colleagues: The Entrance of Women into the Professions, 1890-1940*, The Douglass Series on Women's Lives and the Meaning of Gender (New Brunswick: Rutgers University Press, 1987), p. 145.

women were the principal participants, such as temperance, consumer affairs, settlement houses, and local issues as championed by the Women's Club movement.⁶² Home economics was indeed a child of the times, for it grew to maturity in the 'Progressive Era' (1900-1917), which Carl Degler has described as 'men and women ... trying to breathe life into the American dream.'⁶³ 'Progressivism' was a pressure-valve for the economic and social forces threatening to fracture society which, unlike its rival socialism, sought to heal class divisions and maintain the integrity of private property and individualism.⁶⁴ The period was characterized as one imbued with a deep sense of social justice and morality, with educational reform as one of its main focuses.⁶⁵

For the home economics movement, reform of the domestic environment in its physical and moral aspects was its foremost aim. Interest in reform of the American home had grown to a head at the World's Columbia Exposition at Chicago in 1893.⁶⁶ A special Woman's Congress there resulted in the founding of the National Household Economics Association (NHEA), which had as its purpose the establishment of labour bureaux, the promotion of scientific knowledge of fuels, domestic architecture and

⁶² For a discussion of these various movements and organizations see O'Neill, 'Chapter 3: The Structure of Social Feminism', pp. 77-106.

⁶³ Carl N. Degler, *Out of Our Past: The Forces That Shaped Modern America*, revised ed. (New York: Harper & Row, 1970), p. 363.

⁶⁴ *Ibid.*, pp. 364-366, 368, 375.

⁶⁵ *Ibid.*, pp. 369-370. See also Sari Knopp Biklen, 'The Progressive Education Movement and the Question of Women', *Teachers' College Record* 80:2 (Dec. 1978), pp. 316-335.

⁶⁶ Fitzpatrick, *Endless Crusade*, pp. 36-38.

sanitation, and the organization of schools for domestic service.⁶⁷ The NHEA worked through women's clubs, merging in 1903 with the Committee of Household Economics of the General Federation of Women's Clubs.⁶⁸ The Chicago Exposition also included a special Woman's Building for the celebration of women's achievements. The State of Massachusetts' exhibit, the 'Rumford Kitchen', contained a kitchen where a working-class couple could live on the income of \$500.⁶⁹ It was presided over by Ellen Swallow Richards, the first woman to receive a B.Sc. degree from the Massachusetts Institute of Technology (MIT) and one of the leaders of the American Home Economics Association (AHEA). The third important development to stem from the World Exposition was the impetus it gave to the United States Department of Agriculture (USDA) to promote the analysis of foodstuffs. In 1884 the USDA's 'Experiment Stations' received an appropriation from Congress to study nutrition, a field of federal research which was to expand and eventually be developed by the women home economists working at the USDA's Bureau of Home Economics, established in 1923.

The emergence of a social reform ethos within home economics was influenced by several prominent women scientists working in the field. The most influential was Ellen Swallow Richards, who remained at MIT after her graduation to do research in

⁶⁷ Emma Seifrit Weigley, 'It Might Have Been Euthenics: The Lake Placid Conferences and the Home Economics Movement', *American Quarterly* 26 (1974), p. 82; Woloch, p. 336; Craig, p. 8.

⁶⁸ Linda Hull Larned, 'National Home Economics Association 1893-1903', *Journal of Home Economics* 1:2 (Apr. 1909), pp. 185-186.

⁶⁹ Craig, p. 8.

mineralogy, later moving to a new laboratory devoted to sanitation (established at MIT in 1884).⁷⁰ Margaret Rossiter suggests that Richards' interest in chemistry as applied to the home was in part due to the narrow opportunities available to her as a woman scientist, yet her parallel involvement in community projects such as soup kitchens awakened her to the opportunities that scientific investigation into domestic problems presented both for social betterment and for women academics.⁷¹ Her initial interest in water analysis spurred her interest in food chemistry and in diets for the poor, and led to the creation of the 'Rumford Kitchen' at the World Exhibition which attempted to show how, via the application of food science and nutrition, a blue-collar family could live more healthily on an economic budget.⁷² Rossiter notes that Richard's concern for social betterment influenced her interest in promoting home economics as a career field for women graduates because it would enable them to participate in the solution of social problems.⁷³

Another pioneering scientist in the field of home economics was Marion Talbot, a graduate of coeducational Boston University and a graduate student under Richards at MIT. Talbot began her career by teaching domestic science at Wellesley College in 1890, where she came in contact with its president, Alice Freeman Palmer. When Palmer was offered a position as Dean of Women at the newly-established University of

⁷⁰ Rossiter, pp. 68-69.

⁷¹ *Ibid.*, p. 68; Craig, p. 1.

⁷² Fitzpatrick, *Endless Crusade*, pp. 15-16.

⁷³ Rossiter, p. 68.

Chicago in 1892, she insisted that Talbot was appointed as Assistant Dean and Professor of Sanitary Science. Talbot later replaced Palmer as Dean of Women and served in this capacity until 1925.⁷⁴ Talbot was a forceful personality and the standard-bearer for women's equal employment and opportunity at Chicago. For example, in 1924 she and the two other women professors campaigned for the appointment of more women faculty members and a woman trustee, more financial support for women scholars, and better social facilities.⁷⁵ Talbot maintained that both men and women needed the same broad, general college education and that the curriculum should not be sex-differentiated. According to an article she wrote in 1897 about women's curriculum choice 'for their best development as women':

It is not as easy to lay down the law for all on this point as some would assert. Any attempt to do this rests on the assumption ... that all women have need of the same kind of information. [The] fact must be acknowledged that the kind of acquisition to be chosen is a matter for the individual rather than for the sex.⁷⁶

Scientific training was, however, to be the basis of a woman's professional studies, a foundation which should be the same 'whether she is to be a physician, housewife, philanthropist, or mother.'⁷⁷

⁷⁴ Ellen Fitzpatrick, 'For the "Women of the University": Marion Talbot 1858-1948', in Clifford, ed., pp. 90-91.

⁷⁵ Quoted in Fitzpatrick, 'Marion Talbot', pp. 119-121.

⁷⁶ Marion Talbot, 'Present Day Problems in the Education of Women', from *Educational Review* 14 (Oct. 1897), excerpt in Fitzpatrick, 'Marion Talbot', pp. 107-108.

⁷⁷ *Ibid.*, p. 109.

Yet Talbot was also concerned that higher education should bring women in touch with the everyday world, a problem for an educated woman who often felt trapped between conventional social expectations and her 'newly awakened soul ready and eager for its task.'⁷⁸ Talbot argued women graduates should use their education as a basis for continued study and interest:

[The] one conception that a woman should certainly gain from collegiate study is that these few years of effort can after all merely open her mental vision to the vast stores which are beyond her reach, and train her to use them as time and opportunity come hand in hand.⁷⁹

Talbot served as secretary and president of the ACA where a sympathetic milieu of educated women affirmed her commitment to social concerns. Like Ellen Richards, Talbot sensed the unique opportunities that 'sanitary science' offered for applying her academic training and for fulfilling her assumed responsibilities towards social reform. '[I]t must be said that the work which women are now more and more called on to do in the world demands, first of all, the best intellectual discipline', she wrote.⁸⁰

Richards and Talbot are just two examples of a number of well-educated women who helped establish home economics as a reform-oriented field at a series of ten annual conferences convened in Lake Placid, New York, in 1899-1908 by educationists interested in promoting home economics at all levels of education. The first Lake Placid conference was the brainchild of Richards and Melvil Dewey, director of the New York

⁷⁸ Marion Talbot, 'Present Day Problems in the Education of Women', pp. 107-108.

⁷⁹ *Ibid.*, pp. 108-109.

⁸⁰ *Ibid.*, pp. 105-106.

State Library and inventor of the Dewey library classification system. Dewey and his wife, a Vassar graduate, invited eleven guests to discuss national domestic problems at their summer hotel at Lake Placid.⁸¹ By the third conference the number attending had expanded to include fifty-six invit  es, and by the fifth conference (1903) the meetings were open to all interested in the work. The Lake Placid Conferences led to the foundation of the American Home Economics Association in 1908, when members at the tenth conference voted to establish a national organization to advance the cause of home economics education at all levels, from women's clubs and housewives' meetings up to the universities.

The first Lake Placid conference was chaired by Ellen Richards, who helped to crystallize the group's commitment to social betterment through the study of home economics. That the term 'home economics' was chosen by the first conference as its standard term is indicative that 'the home' was to be foremost of the pioneers' ideals. From the Lake Placid proceedings and early issues of the *Journal of Home Economics* one is struck by the frequency with which its members mentioned the 'disintegration' of the home. Alice Peloubet Norton, a prot  g  e of Marion Talbot at the University of Chicago, wrote in 1904:

Many of us are afraid for the future of the home. So many centrifugal forces are working against it, life outside the home is becoming so attractive, that there is danger of the centre of social interest losing its normal position in the home.⁸²

⁸¹ Alice Ravenhill, *Memoirs of an Educational Pioneer* (Toronto: J.M. Dent and Sons (Canada), 1951), pp. 121-122.

⁸² Alice Peloubet Norton, 'Domestic Science as a Social Factor', *LP VI* (1904), p. 16.

In part this perception was the result of social investigation into slum conditions and immigration problems like those carried out at Jane Addams' Hull House. Industrialization, immigration, the movement of women into paid employment, rising divorce rates and the decline in average family size (particularly amongst native white Americans) were all seen to have disastrous effects on the family and the stability of the home as a social institution.⁸³ The ideal of the home as a unit of production, the place of children's education and the arbiter of public morality had, moreover, disintegrated with the emergence of an industrial economy. Ellen Richards wrote in 1911:

[The] ideal American homestead, that place of busy industry, with occupation for the dozen children, no longer exists. Gone out of it are the industries, gone out of it are ten of the children, gone out of in large measure is that sense of moral and religious responsibility which was the keystone of the whole.⁸⁴

For Richards and others at the Lake Placid Conferences, the home was regarded as the fundamental social unit, and the threat of its ultimate demise was of grave concern, affecting every aspect of American social life. 'The home stands supreme as the pivot around which whirls every circle of activity and is the gauge of any given time ...; there is not a single institution which can make up for the incomplete home', wrote Eva W. White in a paper for the AHEA annual meeting in 1912.⁸⁵

⁸³ J.E. Cutler, 'Community Housekeeping', *Journal of Home Economics* 7 (Jan. 1915), p. 2.

⁸⁴ Ellen H. Richards, 'The Social Significance of the Home Economics Movement', *Journal of Home Economics* 3 (Apr. 1911), p. 124.

⁸⁵ Eva W. White, 'The Home and Social Efficiency', *Journal of Home Economics* 5 (Apr. 1913), p. 123.

The operative definition of 'home' in home economics went beyond its physical basis (the house) to consider its economic, spiritual and cultural aspects. 'Home' and 'family' were inseparable concepts in that the 'home' was not only where the family procured food and shelter, but where individuals learned the social skills necessary to be effective and productive citizens. Dr. Willystine Goodsell of Columbia University noted:

[T]he family is a social institution not alone furnishing to society the raw material of its future citizens, but training these unformed natures in harmony with usages and ideas sanctioned by social experience.⁸⁶

According to Caroline Hunt, director of home economics at the University of Wisconsin from 1903-1907, although the home had lost many of its functions through industrialization it was still responsible for 'bringing the child to maturity', for the education of a 'beauty sense', for the 'moral education of the child', and for 'rational sociability' or interest in serious things.⁸⁷ With women undertaking even larger roles in local government as members of school boards and town councils, the division between domestic and public spheres had become an anachronism. Women's responsibilities in the community were discussed in terms of 'civic housekeeping'.⁸⁸ The early home economists' concern with home conditions therefore transcended the physical structure of the house to a consideration of the relationship of the home *to* society.

⁸⁶ Willystine Goodsell, 'A Plea for the Introduction of Historical Courses on the Home into Higher Schools and Colleges for Young Women', *Journal of Home Economics* 4 (Apr. 1912), p. 115.

⁸⁷ Caroline W. Hunt, 'Home Economics at the University of Wisconsin', reprinted in Marjorie East, *Caroline Hunt: Philosopher for Home Economics* (University Park, Pennsylvania: Division of Occupational and Vocational Studies, College of Education, Pennsylvania State University, [1982]), pp. 71-72.

⁸⁸ 'Report of Special Committee', *LP III (1901)*, p. 15.

Criticism of the home did focus on its inefficiency, particularly in its waste of material resources and physical energy in providing basic human needs; yet proponents of home economics maintained that social and economic efficiency of the individual was directly related to the physical surroundings of his or her home. 'Morality, one comes to realise, rests frequently on a sanitary and nutritive basis', wrote White in a paper on the home and social efficiency.⁸⁹ Ellen Richards, with her valuable research on household sanitation and hygiene, understood the social implications of a poor home environment: 'We cannot have homes without ideals and very few of us can maintain ideals on bread and water with bare boards and worn-out clothes.'⁹⁰ Reform of the home environment was not an end in itself, but the means by which social efficiency could be realized. Sociology and modern science had uncovered the causes of poverty and disease, and the early home economists maintained that social reform must address itself on the level of the home.

One of the most idealistic of the advocates of home economics was Caroline Hunt, who stressed the importance of the home environment for individual growth and efficiency in an eloquent (and oft-reprinted) paper read at the 1901 Lake Placid Conference. According to Hunt, the value of a person was in his or her expression of 'inner life' which depended on perfect health, freedom from unnecessary impediments,

⁸⁹ White, p. 130.

⁹⁰ Ellen H. Richards, in 'Organization and First Meeting of American Home Economics Association', *Journal of Home Economics* 1:1 (Feb. 1909), p. 24.

and freedom from the constraints of social convention.⁹¹ Hunt regarded the home as the source of a multitude of unnecessary impediments:

We cannot take good, strong free strides because our clothing interferes or because we are afraid of slipping on our polished floors, and so we adopt a slavish gait. We cannot throw up our arms to express the joy of living because on them are the shackles of tight sleeves and around them in our rooms are articles of bric-a-brac that might be knocked down and broken. We can not enjoy the sun because we are afraid it will fade our carpets and so we acquire curtains to assist the carpets in limiting our freedom.⁹²

She called for 'revaluations'--new domestic values--which would allow both men and women to develop and express their inner lives:

The woman who today makes her own soap instead of taking advantage of machinery for its production enslaves herself to ignorance by limiting her time for study. The woman who shall insist upon carrying the home-making methods of today into the tomorrow will fail to lay hold of the possible quota of freedom which the future has in store for her.⁹³

Such new domestic values would come through knowledge as revealed by science and sociology; however, she argued that home economics (especially the teacher) had power to change values in order to release individuals' inner lives for expression. 'If we have unnecessarily complicated a single life by perpetuating useless conventions or by carrying the values of one age over into the next, so far have we failed.'⁹⁴

⁹¹ Caroline L. Hunt, 'Revaluations', reprinted in East, *Caroline Hunt*, pp. 52-54.

⁹² *Ibid.*, 'Revaluations', p. 58.

⁹³ *Ibid.*, p. 56.

⁹⁴ Hunt, 'Revaluations', p. 62.

Hunt's 'Revaluations' indicates the general assumption of the early home economists that the home needed restructuring if it was to be preserved; they did not wish to return to the old idealized concept of home in which the woman devoted all her time and mental energy to maintaining its physical aspects. In emphasizing the broadest definition of 'home' as the bedrock of society, they argued that all aspects of home life should be scrutinized, understood, and made efficient. Using the catchwords of the scientific management movement begun by Frederick Winslow Taylor, author of *Principles of Scientific Management* (1911), which was revolutionizing industry at the time, home economists sought to rationalize and simplify housework. Even Ellen Richards, who often emphasized the moral significance of the home environment, was not afraid of subjecting the home to modern scientific investigation:

The work of home making in this engineering age must be worked out on engineering principles, and with the coöperation of both trained men and women. The mechanical setting of life has become an important factor, and this new impulse which is showing itself so clearly today for the modified construction and operation of the family home is the final crown or seal of the conquest of the last stronghold of conservatism, the home keeper.⁹⁵

Richards and her colleagues had a fundamental belief in the powers of science to find solutions; knowledge was the key to effecting change. Hunt even suggested that social values 'are dependent upon scientific knowledge, upon knowledge of chemistry, of physics, of biology, as it may have a bearing on hygiene.'⁹⁶ Science, together with the new social sciences, was to add knowledge of social conditions and direct appropriate reforms.

⁹⁵ Richards, 'Social Significance of the Home Economics Movement', p. 122.

⁹⁶ East, *Caroline Hunt*, p. 60.

Home economists believed that reform of the home would happen only with close cooperation between the individual, the family and the community, and between the school and university. Education was the means by which reform of the domestic environment could be realized, with the university providing the research and the school providing the moral education which hitherto had been taught in the home. As Ellen Richards remarked, 'This sense of what is worth while in living is to be insensibly cultivated in school for the great majority who have not the right kind of homes ...'.⁹⁷ Just as the home had to be adjusted to the needs of the industrial family, the individual needed to be adjusted to modern conditions through formal education. The problem for the home economics was how to bring its ideals into practice through education, from the public school through to the graduate level.

For the scientifically trained pioneers such as Ellen Richards and Marion Talbot, thorough training in the sciences, with scope for research in such fields as sanitary chemistry or nutrition, was the real purpose of the home economics undergraduate course. For these women students, expected to be community leaders, the ideals of scientific research and scholarship on matters affecting the home were paramount. In addition, although government research stations and some university science laboratories were doing research projects in nutrition and bacteriology, home economics would synthesize research directly affecting the home. According to an editorial in the

⁹⁷ Richards, in 'Organization of American Home Economics Association', p. 25.

Journal of Home Economics, the traditional scientific faculties could not provide the leadership in orienting research specifically towards domestic problems:

The responsibility for real progress in research, however, must rest largely with the Home Economics departments. Whatever the assistance rendered by other agencies, the upbuilding of a distinctive body of Home Economics knowledge must come mainly from investigations by the Home Economics workers themselves, rather than through the mere adaptations of either traditional methods or "borrowed science."⁹⁸

Scientific training for undergraduates would provide skilled students able to undertake specialized post-graduate research. Ellen Richards maintained that 'the great field in home economics is in the line of original research and belongs in a graduate course and in such universities as are well equipped for it'.⁹⁹

Scientific Research vs. Vocational Homemaking: Evolution to 1914

Periodic debate at Lake Placid over the nomenclature of home economics revealed disagreement as to the methods and purpose of home economics education, particularly at different educational levels. In the words of Ellen Richards, the problem 'would not keep coming up every year if we were quite satisfied with it.'¹⁰⁰ Despite the conference decision in 1898 to adopt the term 'home economics' the issue came up for discussion again in 1904. Some suggested 'household administration' which would indicate a vocational homemaking approach; others suggested 'ecology' which

⁹⁸ 'Research and Home Economics', *Journal of Home Economics* 4 (Oct. 1912), p. 395.

⁹⁹ [Ellen Richards], 'Home Economics in Higher Education', *LP V* (1903), Appendix, p. 70.

¹⁰⁰ 'Nomenclature', *LP VI* (1904), p. 63.

emphasized the relation between the home and its environment, but as it had been taken by botanists, it was also rejected. According to Ellen Richards, it was really 'education for right living' and she suggested 'euthenics' (better living) should represent work in higher education.¹⁰¹ In the end such discussions proved fruitless, and 'home economics' continued to embrace the full spectrum of approaches.

Opinion at the Lake Placid Conferences (and later at the AHEA) was divided generally between two camps of home economists who disagreed as to the purpose and method of home economics. Although it is difficult to divide opinions neatly into two groups, they are identified for the purpose of discussion as the 'vocational group' and the 'scientific group'. The vocational group saw the value of home economics in its direct application in the home and therefore the teaching of technical skill was of paramount importance. For the scientific group, technical skill was of minor importance, or indeed even irrelevant. Research into pressing social problems would reveal the principles underlying the physical and social aspects of the home; the purpose of home economics as an academic discipline was to train specialists in the problems of 'the home' in its widest definition. The most fundamental problem for the leaders of the new field of home economics was the vast array of subjects, methods and aims of so-called 'home economics' classes in existence by the time of the foundation of the AHEA in 1908. The difference between home economics at the University of Chicago,

¹⁰¹ 'Nomenclature', *LP VI (1904)*, p. 63

Ohio State University and Nevada State University illustrate what a formidable task it was to define and unify the field around one concept of 'home economics'.

The University of Chicago's home economics department, as directed by Marion Talbot, embodied the ideal of a scientific and research-based home economics programme. Before the household administration department was established, home economics classes were taught by other faculties. Marion Talbot had taught courses in sanitary science and food and dietetics under the Department of Sociology, and the School of Education offered courses on food preparation and the chemistry of food. Talbot's initial plans for teaching at the University of Chicago had been to establish a department of public health which would include courses in house sanitation, food analysis, municipal sanitation, 'sanitary jurisprudence' and domestic economy (scientific principles of the application of heat to food and the chemistry of cleaning).¹⁰² However, the new 'Department of Household Administration' eventually organized in 1904, was distinctively oriented to the social ideals of home economics, including courses on the social origins of the family, an introduction to the study of society, the organization of the retail market, the state in relation to the household, chemistry, bacteriology, physiology, house decoration, textiles and design.¹⁰³ Significantly, the department also offered a course on the legal and economic position of women, taught

¹⁰² Quoted in Fitzpatrick, 'Marion Talbot', pp. 102-103; For a full discussion of the circumstances surrounding the creation of Talbot's department, see Fitzpatrick, *Endless Crusade*, pp. 81-87.

¹⁰³ Alice P. Norton in 'Reports from Colleges which have Introduced Home Economics', *LP VI* (1904), p. 40.

by Sophonisba Breckenridge, a former student of Talbot's and the first woman to receive a doctorate in law at Chicago.¹⁰⁴ Home economics students at Chicago could actually continue in the field through the master's level to the doctorate, an indicator of Talbot's commitment to furthering home economics research.

The scientific and sociological basis of Chicago's department contrasts with that of Ohio State University, an example of the home economics education provided in many colleges and universities across the country. The Ohio State home economics department offered courses for those taking a B.Sc. in the college of agriculture and domestic science; a two-years course for women who could only attend college for a short time; and elective courses for other university women. According to Minnie A. Stoner, who reported on the work at Ohio State at Lake Placid in 1905, the lecture and laboratory work for the degree course took one third of the four years' work, with the rest of the time being devoted to liberal arts courses (language, literature, sociology, sciences, etc.). The special home economics courses, however, differed fundamentally from the type envisioned by Marion Talbot and Ellen Richards:

¹⁰⁴ Solomon, p. 87; Fitzpatrick, p. 94.

Food problems: practical and scientific
 Household economics and sanitation
 Therapeutic diet and emergency work
 Theory and practice of teaching domestic science
 Handicraft
 Textiles
 History of costume
 Household art and decoration¹⁰⁵

Although Stoner reported that the department planned to do ‘special abstract research work’ when new laboratories and adequate equipment were provided, the Ohio State course was concerned with teaching techniques and skills of household management as part of a general cultural course for women.¹⁰⁶

A third example of the type of programmes developed under the rubric ‘home economics’ is that of Nevada State University. Nevada State had a four-year course for students graduating from the school of agriculture and domestic science; but as no student had actually enrolled in it, the home economics department taught elective courses for students in liberal arts. Out of the eight courses offered, there were four sewing classes, three cookery classes, and one class on household economics.¹⁰⁷ Several of the cookery classes covered elementary dietetics and food values, but generally the work was of a practical nature. For example, one cookery course covered the following:

¹⁰⁵ Minnie A. Stoner in ‘Euthenics in College and University Education’, pp. 74-75.

¹⁰⁶ *Ibid.*

¹⁰⁷ Kate Bardenwerper in ‘Euthenics in College and University Education’, pp. 78-79.

Jelly making, preserving, canning and pickling. Practice in candy making, including French candies (these having fondant as their base), the so called homemade candies and glacé fruits. Practice work also includes most advanced cookery. A chafing dish course finishes the year.¹⁰⁸

The course in household economics was mainly concerned with the sanitation and construction of houses, laundrywork, and budgeting.

The obvious dilemma for home economics was whether the course should lead directly towards the making of homemakers, or whether it offered the mental culture, sufficient unto itself, to be included in the liberal arts. For the scientific group, who conceived of home economics' as an academic discipline for the study of particular problems of the home (economic, physical, social), its purpose was to maintain the highest university standards and promote academic research rather than attempt to train every woman student in her home duties. For the vocational group, home economics' value lay in its direct application to home and communities as a more direct solution to the social problems of immigration and industrialization. The technically-skilled woman would be able to effect immediate reforms in her own individual home. Many who promoted this idea of home economics hoped that technical courses would form part of the education of all college women; hence many institutions developed elective courses, for example at Kansas State Agricultural College, where there was a six-month short course for women not pursuing degrees.¹⁰⁹

¹⁰⁸ Kate Bardenwerper in 'Euthenics in College and University Education', p. 79.

¹⁰⁹ Henrietta W. Calvin in 'Euthenics in College and University Education', p. 77.

Others, again, argued that home economics had a dual purpose in higher education; as an academic field it was as worthy as any other, but it offered the additional benefit of having direct application to the problems that students (most of whom were women) would encounter every day, particularly in their homemaking roles.

Mary B. Welch, director of home economics at Iowa State, stated in her first lecture on domestic economy:

If from the store of my experience you can gather that which will aid you in your future duties as true domestic and useful women I shall be fully repaid for any care or trouble I may take. I hope the future has in store for each one of you a happy home, wherein you may find your highest enjoyments and most sacred duties. If, however, providence has marked out for you some other course, the knowledge you may gain of the wisest methods of house administration will no be lost. Like every investment of this kind, it will easily repay a large percentage, if not in actual practice, then in general culture.¹¹⁰

The prevailing assumption was that women's vocational role was that of wife and mother; even those women who pursued a career or profession would sooner or later assume those roles, and therefore should have specific training for them. The majority favouring the vocational ideal believed home economics should be taught in terms of women's special roles as wives and mothers. Even a pure science like chemistry, for example, could be taught in a way that would be directly applicable to women's roles; as one Lake Placid delegate put it, 'Girls might be taught the chemistry of bread rather than the chemistry of a stone.'¹¹¹

¹¹⁰ Quoted in Eppright & Ferguson, p. 28.

¹¹¹ Chown, 'Courses in Home Economics', p. 109.

The predominance of vocational homemaking as an aim in home economics was influenced by the course of more general debates in late nineteenth-century America, as educationists struggled to reform the school curriculum to meet the needs of an urbanized and industrialized people and to embrace new developments in psychology. At the heart of the home economics dispute were 'progressive' educational theories which stressed the modernizing of education by bringing it in touch with everyday life experience, most often realized through vocational courses which sought to socialize children for their roles in life. At elementary and secondary schools, this often meant direct *occupational* education, and did not differ much from the earlier manual training movement of the 1870s and 1880s when school children learned trade skills and crafts. The ideal behind manual training was mental development through the training of hand and eye; yet the practical benefits derived from occupational skills had the greatest appeal for educationists and employers.¹¹² In the 1880s America, like Britain, was struggling to develop and upgrade its technology in the face of the growing competition from Germany. This, combined with immigrants who needed training for new jobs, led many employers and workers to campaign for the introduction of 'industrial' courses in expanding network of public schools.

The manual training movement was influential on both sides of the Atlantic; but the vocational education movement gained its widest acceptance in America and influenced all levels of education. John Dewey, a philosopher and educational theorist

¹¹² Herbert M. Kliebard, *The Struggle for the American Curriculum 1893-1958* (New York: Routledge & Kegan Paul, 1987), p. 135.

at Columbia University, sought to link the curriculum with changes in society brought about by the factory system by creating within the school a miniature society.¹¹³ His emphasis on manual learning at school was not in terms of teaching hand/eye coordination but the opportunity it provided for teaching children a 'social spirit' and the motives for participating in social life.¹¹⁴

After 1900 vocational education received new input from the influence of 'efficiency' and its catalyst, Frederick Winslow Taylor, although his influence predated the publication of his book on scientific management. The 'social efficiency' school adopted many Taylorian metaphors (the school was often referred to as a 'plant') and sought to use the schools to instil social order and create an efficient labour force, the school fulfilling the gap left by the family in the socialization of children.¹¹⁵ This was related both to the development of psychological theory and mental measurement as the means of predicting of future achievement developed by Frances Galton in England.¹¹⁶ In contrast with Dewey, the 'social efficiency' theorists believed that education should be given according to 'predicted social and vocational roles'.¹¹⁷ As Herbert Kliebard concludes:

¹¹³ Kliebard, p. 79.

¹¹⁴ *Ibid.*, p. 72; p. 80.

¹¹⁵ Kliebard., pp. 94-95; p. 98; pp. 109-110.

¹¹⁶ *Ibid.*, p. 105.

¹¹⁷ *Ibid.*, p. 99.

The significance of the success of vocational education was not simply that a new subject had been added, nor that a major new curriculum option had been created, but that the existing subjects, particularly at the secondary level, were becoming infused with criteria drawn from vocational education. ... In very visible ways, the whole curriculum for all but the college-bound was becoming vocationalized.¹¹⁸

Traditional subjects became imbued with efficiency ideals: in the teaching of history, for example, civics and citizenship courses were incorporated especially to teach American ideals to immigrant children.¹¹⁹ Vocationalism in the public school system, especially in regard to home economics classes, helped to solidify in the public mind the notion that home economics was specifically aimed at training women directly for their feminine roles.

The increasing professionalism associated with a college education in the 1880s and 1890s meant that there was pressure for home economists to design a systematic curriculum of home economics classes, leading to a bachelor's degree and to specific career opportunities for which home economics was a preparation. Marion Talbot, Ellen Richards, and Alice Peloubet Norton, representing the scientific group, believed that departments like Nevada State which taught predominantly technical skills were diminishing the academic respectability of home economics. In a paper written to open the discussion of the 1902 report, Talbot maintained her position that the purpose of a university education was to give both men and women a general culture and that technique for its own sake should not be the aim of home economics:

¹¹⁸ Kliebard, p. 129.

¹¹⁹ *Ibid.*, p. 125.

[The] technic [sic] of yeast fermentation would no more find a place in the college curriculum for women than the technic of making screws and nails would be included in the college curriculum for men.¹²⁰

Instead she reiterated the cardinal point that home economics was concerned with *relation* between household techniques and scientific principles, and between domestic activities and wider society:

The demand for home economics which will be met in time is of a different kind [than that of training women for domestic life]. It is the demand which shows that the making of bread is not an essential part of the making of a home, that the problems connected with the stupid or slovenly housemaid are a part of a larger problem not to be solved by any cut-and-dried formula learned in a single classroom, that the activities of the home are far wider than physical well-being, that the obligations of home life are not by any means limited to its own four walls, than home economics must be regarded in the light of its relation to the general social system ¹²¹

Nevertheless, the problem for the scientific group was that some training in practical skills was necessary in home economics in order that students had actual experience of materials and substances; but the tendency was that these skill-oriented courses assumed a level of importance above that of the sciences. Talbot and the scientific group attempted to guide home economics toward the idea of pure research addressing home problems, yet because home economics was overwhelmingly viewed as a 'female' course it continued to be seen as a vocational homemaking course. For many women students home economics was an attractive choice because it was seen as preparation for the possibilities of both professional career and homemaking. According to Solomon, 'Female collegians (unlike male) were caught between the attraction of using their

¹²⁰ Marion Talbot, paper presented to the Fourth Lake Placid Conference, *LP IV (1902)*, pp. 21-22.

¹²¹ *Ibid.*, p. 22.

education in professional ways and keeping in mind that a woman's usefulness was not equated with professionalism.¹²²

A further impetus towards the 'vocation homemaking' idea of home economics came from the federal government's programmes for agricultural development. By 1900 there had been a heightened perception of the problems of farm life--anxiety, isolation, and with them alcohol abuse and rural de-population.¹²³ At a time when 35% of the U.S. population were classified as farmers (1910), the U.S. government was anxious to develop and promote this important section of the economy.¹²⁴ In 1908 Theodore Roosevelt called for a Country Life Commission to study the problems and find a remedy.¹²⁵ The subsequent Smith-Lever Act of 1914 established a national network of 'extension agents'--the Cooperative Extension Service--to disseminate research findings and to educate both adults and children in practical knowledge relating to agriculture and home economics.¹²⁶ In part this programme was intended to aid those not able to attend the land-grant agricultural and mechanical universities. According to William D. Hurd, director of extension courses at Massachusetts

¹²² Solomon, p. 83.

¹²³ Degler, pp. 325-327, 330, 333.

¹²⁴ Paul D. Warner and James A. Christensen, *The Cooperative Extension Service: A National Assessment* (Boulder, Colorado: Westview Press, 1984), p. 7.

¹²⁵ Degler, p. 327.

¹²⁶ Warner & Christensen, p. 6.

Agricultural College, 'the college owed something to the 99% of the population who could not come for instruction'.¹²⁷

The creation of the Cooperative Extension Service with federal funding had a great impact on the spread of practical home economics education. According to Congressman Lever, 'the committee believes there is no more important work in the community than [home economics].'¹²⁸ The particular aim was to help the farm wife who, due to isolation, had few chances to obtain instruction. As William D. Hurd explained:

If farm life for women is drudgery, and if there is not at present opportunity for social privileges, then here is a chance for the Home Economics departments in colleges and universities to correct conditions which need changing badly.¹²⁹

Prior to the Smith-Lever Act, many states had established their own programmes of extension education. The University of Wisconsin offered a five-day home course; and the University of Illinois had drawn up a domestic science syllabus for high schools, had held a school for housekeepers, and provided speakers for Farmers Institutes.¹³⁰ The Smith-Lever Act expanded these programmes to cover every county in each state by providing itinerant teaching for adults, boys and girls, in both the rural and urban

¹²⁷ William D. Hurd, 'Relations Between Colleges and the Department of Home Economics and the Outside Community', *Journal of Home Economics* 2:3 (June 1910), p. 260.

¹²⁸ Warner & Christensen, p. 8.

¹²⁹ Hurd, p. 263.

¹³⁰ Martha Van Renssalaer, 'Extension Work in Home Economics', *Journal of Home Economics* 1:2 (Apr. 1909), pp. 156-7.

environment.¹³¹ Each county was to have a home-demonstration agent to whom the housewife could direct queries, and each state would also have a staff of specialists in a central office (usually at the Land Grant university) to advise the local county agent.¹³² The Smith-Hughes Act (or Vocational Education Act) of 1917 gave further impetus to home economics by providing federal funds to support (amongst other industrial subjects) home economics teacher training and for teachers' salaries.¹³³ According to Earl J. McGrath and Jack T. Johnson, the act 'not only tied home economics in college to teacher training but provided a major source of financial support for home economics education.'¹³⁴ This is reflected in the number of institutions offering four-year degree home economics programmes in the inter-war period, which grew from 54 in 1914-15 to 322 in 1928-29.¹³⁵ The need for teachers for both extension services and in the public schools following the Smith-Hughes Act thus proved to be the strongest force in moving home economics towards providing professional courses which were predominantly craft-oriented.

Other factors inhibited the coherent development of the scientific ideal in home economics. First of all, the location and social climate of a college had affected the

¹³¹ Van Renssalaer, pp. 156-157.

¹³² Laura V. Clark, *A Study of Occupations, Other than Homemaking, Open to Women Trained in Home Economics*, Homemaking Educational Series No. 1, Leaflet No. 5 (Berkeley, CA: University of California and the State Board of Education: Division of Vocational Education, Apr. 1927), pp. 13-14.

¹³³ McGrath & Johnson, pp. 12-13.

¹³⁴ *Ibid.*, p. 12.

¹³⁵ East, p. 48.

nature of early home economics classes in higher education. Rural areas in particular suffered from lack of funds for the building of laboratories and kitchens (or even separate women's institutions). Home economics was received with less enthusiasm in the South, where the issue was further complicated by issues of race. Whites viewed home economics with contempt; it was seen fit for the black Land Grant institutions (which functioned mainly as black secondary schools), and was an extremely popular course with black women through the first half of the twentieth century.¹³⁶ The South was also less threatened by immigrants and the erosion of agrarian values.¹³⁷ If introduced into white colleges, the course was usually one of 'high class cookery' or one which concentrated on fancy cakes and salads favoured by the well-to-do palate.¹³⁸ More generally, exponents of scientific home economics education were brought up against the fact that many women students had little or no elementary training in biology or chemistry.

It was scarcely realistic to attempt to impose a scientific model on the wide variety of courses and specialties developed across the spectrum of institutions of higher education. The problems of unifying practice in the field were formidable, as even Marion Talbot conceded in 1902:

¹³⁶ Jeanne Noble, 'The Higher Education of Black Women in the Twentieth Century', in Faragher & Howe, p. 90.

¹³⁷ Fritschner, pp. 227-229.

¹³⁸ Craig, p. 15.

Extremes of technicality and of theory, exclusive treatment of the physical or material side or almost equal emphasis on the esthetic [sic] or economic phases of the subject, separate and independent departments or separate courses offered under many departments, these and many other factors ... must be carefully considered before we can make definite recommendations as to a uniform method to be followed by institutions of learning.¹³⁹

Yet the influence of Talbot and others of the scientific group dominated the Lake Placid Conferences, which remained critical of home economics departments organized on purely vocational lines. In the statement prepared by the sixth Lake Placid Conference concerning the nature of home economics in higher education, the Conference came down firmly against the inclusion of technical subjects (cooking, sewing, laundrywork), noting that 'when courses which defeat the cultural purpose are introduced their value as collegiate studies are seriously injured.'¹⁴⁰

With the founding of the AHEA in 1908, a body which represented home economics at all levels of education, the 'vocational homemaking' ideal gained the ascendancy at the national level, however.¹⁴¹ The declining influence of those advocating scientific research as the basis of home economics is reflected in an AHEA syllabus published in 1913 which aimed to consolidate home economics teaching in all types of schools, from primary through to university. Significantly, the main emphasis of the syllabus centred upon the functions rather than the scientific aspects of materials:

¹³⁹ Talbot, discussion following 'Report of Committee of Courses', p. 21.

¹⁴⁰ 'Practical Suggestions from the Lake Placid Conference' (Appendix), *LP VI (1904)*, p. 78.

¹⁴¹ 'Announcement', *Journal of Home Economics* 1:1 (Feb. 1909), p. 1.

In [home economics] the contributing subjects are grouped around the ideas of food, clothing and shelter. Among contributing subjects are art, history, anthropology, sociology, æsthetics, economics, physiology, hygiene, mathematics, chemistry, physics and biology.¹⁴²

According to Isabel Bevier (Director of Home Economics, University of Illinois, 1900-1921), the syllabus committee had aimed to redress the imbalance within home economics by developing its social and economic elements.¹⁴³

Although the central purpose of home economics was ultimately social betterment through a reformed home environment, American home economists had differed over the means of achieving this objective. The goal of a predominantly science-based field had been unrealistic owing to the progress of technically-oriented home economics classes prior to 1900. Local requirements and prejudices, as well as the low educational standards of many freshmen college women had also hindered the progress of the scientific approach to home economics. The scientific approach had been most affected, however, by the assumption that home economics was essentially a woman's field and therefore by its inherent associations with a woman's traditional vocation of homemaking. The 'scientific' and 'vocational homemaking' models continue to co-exist within the American discipline to the present.¹⁴⁴

¹⁴² Quoted in Isabel Bevier, *Home Economics in Education* (Philadelphia: J.B. Lippincott, n.d., c.1928), pp. 166-168.

¹⁴³ *Ibid.*, p. 168.

¹⁴⁴ East, *Home Economics*, pp. 24-25.

• CHAPTER 2 •

THE ENGLISH HOUSEHOLD SCIENCE MOVEMENT AND THE ERA OF SOCIAL REFORM

The 'home science' course established at KCW in 1908 was overwhelmingly influenced by the 'scientific' home economics model. However, the English household science movement was not a direct transposition of the American home economics concept into an English setting. Just as American home economics developed within the unique social conditions of the Midwest and the urban problems created by mass immigration, so too was the English movement shaped by its social context. Whilst the third chapter will consider household science as an academic discipline, this chapter analyzes the origins of the household science movement, placing it in the context of late Victorian and Edwardian educational trends and preoccupations with social reform, especially with the physical (as opposed to the moral) aspects of social conditions--'physical deterioration', infant mortality, and the reform of 'the home'. The first section examines how the concept of 'domestic education' for girls and women developed in England in the nineteenth century and the reasons why such training was not considered an essential part of women's higher education. The second section discusses the early twentieth-century movement to teach domestic subjects more scientifically (the 'domestic science' movement) which led to the founding of KCW's household science course. The third section traces the early evolution of the household

science concept and provides profiles of the central personalities involved in the movement (the 'inner circle' at London University), whilst the fourth section analyses their objectives and ideals.

English Variations: The Concept of 'Domestic Education' in the Education of Women and Girls, c.1850-1908

Like their American counterparts, nineteenth-century reformers of women's education in England did not seek to challenge women's traditional domestic obligations. They campaigned for the expansion and improvement of women's education in terms of the benefits it would bestow not merely on the individual woman but on her family and society as whole. Even Mary Wollstonecraft, who had framed her arguments in terms of 'natural rights', nevertheless asserted that a woman's right to an education was intimately bound up with her domestic responsibilities:

[If] women were led to respect themselves, if political and moral subjects were opened to them ... I will venture to affirm, that this is the only way to make them properly attentive to their domestic duties.¹

Emily Shirreff and her sister Maria Grey, founders of the National Union for the Improvement of the Education of Women in 1871 (later known as the Women's Education Union), regarded the enhancement of women's effectiveness as moral guardians as the aim of their proposed educational reforms.² Grey and Shirreff suggested that a syllabus of traditional academic subjects (maths, science, philosophy,

¹ Wollstonecraft, p. 288.

² Mary G. Grey and Emily Shireff, *Thoughts on Self-Culture, Addressed to Women*, Vol. I (Edward Moxon, 1850), pp. 16-17.

history, English, political economy, language, and scripture) would give women a positive new perspective on their domestic work and responsibilities:

[When] they study and appreciate their own position as affecting, and affected by, wide social relations, and perceive the magnitude and importance of the duties it imposes, they will feel that the trammels which seemed hopelessly to fetter them are in great measure removed, and that the narrowness of the outer existence cannot, in active minds, confine the free life of thought and feeling.³

Indeed, founders of the first women's colleges were anxious that giving women the opportunity for self-development through higher education should not be at the expense of femininity. As Dyhouse points out, most of the educational institutions founded for women in the nineteenth century were not inherently radical on issues of women's emancipation, although they did come to play a critical role in the history of the British feminist movement.⁴ Early women principals, such as Elizabeth Wordsworth at Lady Margaret Hall, sought to create a family atmosphere and inculcate standards of decorum at their colleges, not merely as a ploy to deflect public criticism of women's higher education, but as a strategy to counter whatever pernicious effects higher education might have on their students' behaviour.⁵

Even the 'uncompromising' Emily Davies, who is usually portrayed as an egalitarian reformer in the Wollstonecraft vein, was no radical on issues relating to

³ Grey & Shireff, pp. 16-17.

⁴ Dyhouse, *Girls Growing Up*, pp. 60, 68-69; Delamont, 'Contradictions', pp. 144f; Purvis, *Women's Education*, pp. 114-116.

⁵ Dyhouse, *Girls Growing Up*, pp. 68-69, p. 73; Vicinus, *Independent Women*, pp. 128-129; Georgina Battiscombe, *Reluctant Pioneer: A life of Elizabeth Wordsworth* (Constable, 1978), pp. 14, 17.

women's duties to home and family. Her ideals, as Barbara Caine has argued, were necessarily influenced by Victorian domestic ideology; indeed, it was Davies' orthodoxy on other issues relating to women's social position which enabled her to gain support for her educational reforms.⁶ Davies's Anglican upbringing was just as important for her beliefs as the notion of 'equal rights' or justice for women, and whilst Anglican teaching scorned the idle woman, it upheld the woman's traditional role in educating children, preserving moral standards, and in maintaining a Christian home.⁷ Davies abjured any essentialist notions of femininity which claimed that women were 'naturally' carers or suited to domesticity, yet she nevertheless believed that the roles conventionally assigned to women were, in the words of Caine, 'unavoidable and on the whole desirable'.⁸ Davies maintained that higher education or career opportunities would not predispose women to neglect the domestic sphere:

The paramount importance of home duties is enforced by all the sanctions of an overwhelming public opinion. Any neglect is liable to be punished, not only by the immediate discomfort arising from it, but by universal disapproval. An offence against which the warnings are so trumpet-tongued, and of which the consequences are so thoroughly disagreeable, can scarcely be very dangerously attractive.⁹

⁶ Caine, *Victorian Feminists*, pp. 99-101.

⁷ Janet Howarth, Introduction to *The Higher Education of Women* (1866), by Emily Davies (1866; reprint ed., Hambledon Press, 1988), pp. xvi-xvii, xlvi.

⁸ Caine, p. 99; Davies, p. 159.

⁹ Caine, *Victorian Feminism*, p. 99; Davies, pp. 107-108, 159.

She argued that higher education would provide women with an ‘ideal to work up to’ with regard to domestic life and help them to appreciate the significance of their domestic responsibilities.¹⁰

Yet although American and English educationists endorsed women’s obligations in the domestic sphere, in England there were no calls for domestic education to be included in the formal curriculum in higher education. This was largely due to the nature and structure of the English university system as it evolved in the later nineteenth century. In America, where the ‘system’ of higher education for women was basically a patchwork of different colleges and universities all working towards different standards and objectives, there had been greater scope for including an element of domestic education in college curricula, particularly with the development of the elective system which allowed for *ad hoc* curricular innovations.¹¹ In England, however, the university sector was overshadowed by the ancient universities of Oxford and Cambridge--elite institutions and bastions of male exclusiveness--where the academic ethos was characterized by a more rigid and prescriptive definition of the ‘liberal education’ ideal. Indeed, the concept had been adopted at Oxford and Cambridge in defence of their traditional curricula--classics and mathematics--in response to nineteenth-century reformers who sought to create a new curriculum which would be relevant for modern professions.¹² Although the notion of a ‘liberal education’ did expand to include new

¹⁰ Davies, pp. 96-97, 159.

¹¹ Solomon, p. 79.

¹² Heyck, pp. 156-157; Slee, p. 11.

disciplines such as modern languages and English literature in the later nineteenth-century, Oxford and Cambridge remained firmly committed to the non-vocational ideal.¹³

The English campaign for women's higher education was thus largely shaped by the ethos and values of the Oxford and Cambridge 'liberal education' model. The campaign was largely focused on achieving admission for women to the universities of Oxford, Cambridge and London, and aimed to secure recognition of women's right to share in the education and intellectual life of these universities and to obtain professional qualifications equal in status to those of men. Initially opinion was divided as to whether women should follow the same curriculum and take the same examinations as men. Emily Davies, founder of Girton College, was in a minority in making this a matter of principle, although the curriculum at London was the same for both sexes after 1878 when women were admitted to degrees; other women's colleges generally followed the lead of Newnham, which took a more flexible approach.¹⁴ Nevertheless, pragmatists and curriculum reformers who favoured adapting the curriculum for women did not consider introducing vocational courses for women, but operated instead within the traditional paradigms of the liberal education ethos as defined at Oxford and Cambridge. Women educationists also resisted attempts to create a separate women's university--modelled on American women's colleges and awarding its own

¹³ Slee, p. 11.

¹⁴ Purvis, *Women's Education*, pp. 112-114; Sutherland, 'Higher Education of Women', p. 108.

degrees--which they feared would exclude women from the elite universities and create different standards for men and women, a matter of serious professional concern for women schoolteachers and academics.¹⁵ Proposals for a separate university for women were made at various stages (and as late as 1920) by conservatives who wanted to deny women degrees at Oxford and Cambridge, and it had been the intention of Thomas Holloway, founder of Royal Holloway, that his women's college should develop as an English Vassar.¹⁶ A conference convened in 1897 to debate the future of Royal Holloway, which decided in favour of affiliating it to London University rather than making it a nucleus of a new women's university, revealed the commitment of women educationists to the values of established scholarship, in full awareness that these would require women to conform to traditions shaped by men. In the words of Sophie Bryant (headmistress of North London Collegiate School for Girls and the first woman to receive a doctorate from London University) women desired to be admitted to the existing 'community of knowledge' as defined by men:

Most persons' ideal of learning is largely made up of a desire to be one of the learned, and to fulfil the accepted definition of learning, whatever that may be. The definition of learning must always be, in the main, what men make it ¹⁷

¹⁵ J. Howarth and M. Curthoys, 'The Political Economy of Women's Higher Education in Late Nineteenth and Early Twentieth Century Britain', *Historical Research* 60:142 (June 1987), pp. 214,230; Sheldon Rothblatt, 'The Diversification of Higher Education in England', in Jarausch (ed.), p. 138.

¹⁶ Lilian M. Faithfull, *In the House of My Pilgrimage* (Chatto & Windus, 1924), p. 85.

¹⁷ Quoted in Sutherland, 'The Plainest Principles of Justice', p. 41. See also Sophie Bryant, 'The Curriculum of a Girls' School', in *Special Reports on Educational Subjects* 2 (HMSO, 1898), p. 106.

The academic ethos of established English universities thus seems to have been incompatible with the introduction of a vocational home economics element coexisting, in the American style, with academic courses of study.

In principle the vocational home economics model could have emerged in the provincial universities of the late nineteenth-century--the closest equivalent to America's Land Grant universities--where the development of vocational courses in such fields as mining technology, engineering, and dyeing were openly embraced. Leeds and Bristol did develop prototype home economics courses, yet neither was designed as a vocational course for homemakers.¹⁸ In general, the absence of vocational home economics courses at the provincial universities was probably due to financial stringencies.¹⁹ Most civic universities were unable to finance the development of new disciplines, except where these attracted support from local industrialists. A three-year course in home economics was also unlikely to attract students from urbanized communities where the housewife, unlike her counterpart on the American frontier, had access to ready-prepared and mass-produced food. Given that many of the provincial universities found it difficult to convince local people of the value of a university technical education, it was extremely unlikely that families would be willing

¹⁸ See below, pp. 275-284. Evidence of Arthur Smithells, *Report of the Consultative Committee on Practical Work in Secondary Schools* (PP XX 1913), p. 289. (Hereafter: *Report on Practical Work*)

¹⁹ This is suggested in 'Domestic Science Teachers and Infant Mortality, Deputation to the Prime Minister', *Education* XIII (5 Mar. 1909), p. 143.

to send their daughters to university to learn what most considered was easily acquired at home or could be learnt more cheaply in a local cookery or sewing class.²⁰

The vocational arm of American home economics has its closest parallel in the various cookery schools established in the second half of the nineteenth century. Many of these early schools began as humanitarian ventures aiming to improve living conditions in poverty-stricken urban areas, but gradually expanded to include courses in 'high class cookery' when it was discovered that much-needed revenue could be gleaned by teaching courses to middle-class ladies or their servants. The first organized school of cookery was founded in 1874 by a committee of men led by Henry Cole, a member of the Royal Commission appointed to organize the Great Exhibition in 1851.²¹ The National School of Cookery eventually focused on the training of teachers following the expansion of domestic subjects education after 1870, and some of the National's early students went on to found cookery schools in South Kensington, Liverpool, Leeds, Oxford, Leamington, Shrewsbury, Birmingham, Edinburgh, and Glasgow.²² The Liverpool Training School of Cookery, founded in 1875 by Fanny L. Calder, had first aimed to teach 'slum visitors' to advise and teach cookery to working-class women in their homes, but teacher training soon took over as the main aim of the school.²³

²⁰ Rothblatt, 'Diversification', p. 137.

²¹ Dorothy Stone, *The National: The Story of a Pioneer College*, 2nd ed. (Robert Hale & Company, 1976), pp. 5-7.

²² *Ibid.*, p. 26.

²³ Margaret E. Scott, *The History of the F.L. Calder College of Domestic Science 1875-1965* (Liverpool: F.L. Calder College of Education for Domestic Science, 1967), pp. 17-18.

However, it continued to give extra-mural demonstrations in 'artisan cookery', sometimes as far afield as Bath and Cambridge, to groups of mill-girls or nurses, mothers' meetings and Girls' Friendly Societies, and established technical classes in cookery, home nursing, 'clear starching', dressmaking and millinery.²⁴ Although most of these early cookery schools eventually became teacher training colleges, they continued to offer short practical courses in various domestic subjects well into the twentieth century.²⁵

One important factor affecting the development of vocational homemaking courses at English universities was the class connotations of domestic work. Housework was generally seen as the purview of the working classes and, as higher education was essentially a middle-class undertaking, the concept of a vocational university course explicitly designed to train women in practical housework was virtually unthinkable (except, perhaps, for the conservative sections of the population who resented women's entry into higher education on principle).²⁶ Domestic education was regarded as more appropriate for the elementary schools, which were intended for the working classes and designed to 'civilize' children by providing them with a basic education in the 'three Rs' together with some occupational skills applicable for manual trades. For girls, this meant a rudimentary training in domestic subjects such as sewing, cookery, laundrywork and housewifery--subjects designed to cultivate femininity,

²⁴ M. Scott, pp. 20-21, 22-23.

²⁵ Stone, pp. 101-102, 121-122; Sillitoe, p. 133.

²⁶ See below, pp. 161-163.

improve working-class domestic conditions, and train efficient domestic servants, milliners, and seamstresses.²⁷ The teaching of the domestic subjects as a vocational training for working-class girls was encouraged by the movement for technical education which followed the Royal Commission on Technical Instruction (1881-1884) and the subsequent passage of the Technical Instruction Act (1889) and the Local Taxation Act (1890), both of which generated funds for the development of technical schools and colleges.²⁸ Although originally intended to provide technical training for local industries, in the case of girls' schools the funds went to provide further vocational education in domestic-related occupations. From the 1870s, then, the domestic subjects were a core element of the working-class girl's curriculum from the elementary school through to the higher grade schools, central schools, and junior technical colleges which developed in the 1880s and 1890s.

For the middle-class girl, however, the issue of including domestic education in the secondary school curriculum proved to be problematic. Although virtually all involved in girls' education in this period believed that girls should be fluent in domestic skills, headmistresses were divided on the issue of including domestic subjects

²⁷ For a survey of the history of the domestic subjects in both elementary and secondary schools see June Purvis, 'Domestic Subjects Since 1870', in Ivor F. Goodson (ed.) *Social Histories of the Secondary Curriculum: Subjects for Study*, Studies in Curriculum History 1 (Falmer Press, 1985), pp. 145-176; Brian Simon, *Education and the Labour Movement 1870-1920* (Lawrence & Wishart, 1965), p. 119; Carol Dyhouse, 'Towards a "Feminine" Curriculum', p. 298. See also June Purvis, *Hard Lessons: The Lives and Education of Working-Class Women in Nineteenth-Century England* (Cambridge: Polity Press, 1989).

²⁸ *Second Report of the Royal Commission on Technical Instruction* (PP 1884 XXIX); Blakestad, pp. 21-24.

in the secondary timetable.²⁹ In the private schools of the first half of the nineteenth century, where the emphasis was on accomplishments, embroidery and other decorative needlework were the only 'domestic' subject taught. Many of the new academic girls' schools created after 1850 excluded domestic subjects from the curriculum on the grounds that girls would learn domestic skills at home and that precious school hours should not be wasted on such subjects. Indeed, many of the academic girls' high schools originally arranged their timetables so that afternoons were left for this purpose (the so-called 'morning system').³⁰ Yet Frances M. Buss, headmistress of North London Collegiate School for Girls (NLCSG), did include needlework and cookery in the syllabus of her school, and domestic subjects were gradually introduced into these schools when afternoon lessons were introduced as a means of supplementing the domestic training that girls ostensibly received at home.³¹ Most girls' secondary schools included some type of domestic training within the school curriculum by the turn of the century.³²

Whereas in the elementary schools domestic subjects were justified mainly in terms of utility, in the secondary schools the justifications varied according to

²⁹ Blakestad, Chapters 3 & 4; Hunt, 'Divided Aims', p. 7.

³⁰ Gillian Avery, *The Best Type of Girl: A History of Girls' Independent Schools* (André Deutsch, 1991), pp. 60, 68; Evidence of Emily Davies, *Report of the Schools' Inquiry Commission*, (PP 1867-68 XXVIII), p. 251.

³¹ Evidence, Frances Mary Buss, *Schools' Inquiry Commission*, p. 262.

³² Table 41, *Statistics of Public Education in England and Wales, Part I: Educational Statistics 1907-08* (PP 1909 LXVIII), pp. 376-377.

educational fashion. In some early girls' high schools needlework was seen as affording opportunities for instilling traditional feminine virtues such as patience and philanthropic service. According to Molly Hughes, an early student at NLCSG, sewing afternoons were devoted to making garments for charity and were 'more of a good deed than a lesson'.³³ Domestic subjects might be justified in terms of a specific middle-class utility--NLCSG's cookery lessons were initially only theoretical, it being understood that most middle-class girls only needed to understand enough to be able to supervise and direct their domestic servants.³⁴ In response to the technical education movement of the 1880s, the domestic subjects came to be justified in terms of the training in manual dexterity and hand-eye coordination they afforded, again a departure from the justifications utilized in working-class schools where 'technical' meant 'occupational'. The technical education movement led many secondary schools to abandon purely theoretical lessons in favour of a hands-on approach in the domestic subjects, although some schools devised different 'technical' courses such as bookbinding, gardening, upholstery, or basketweaving.³⁵

In general, however, secondary headmistresses regarded domestic education as inappropriate--or at the very least, impossible to timetable--for the academic girl and for

³³ M.V. Hughes, *A London Girl of the Eighties* (1946; reprint ed., Oxford: Oxford University Press, 1978), p. 55.

³⁴ Katherine B. Sharman, 'Housewifery: A Neglected Branch of Education', *Journal of Education* XVIII (Mar. 1896), p. 118; Hughes, p. 53.

³⁵ Evidence, Margaret Gilliland, *Report on Practical Work*, pp. 623-624.

those needing examination qualifications in order to earn their own living.³⁶ Although the Board of Education attempted to force grant-assisted schools to teach domestic subjects to all secondary school girls in the Edwardian period, there was always a wide variation between schools as to its treatment and the amount of space given to it in the timetable, depending upon the personal view of the headmistresses.³⁷ The headmistress of Haberdashers' Aske's School (Acton), Margaret Gilliland, was one who felt that housecraft should be an 'integral part' of secondary education and it was taught throughout her school to all girls, even to those preparing for examinations.³⁸ Conversely, Frances Dove, founder and headmistress of the public boarding school Wycombe Abbey, regarded it as a waste of time; in her view manipulative skills were better acquired through activities such as carpentry, gardening, and violin playing and that domestic skills could be learnt at home.³⁹ Some headmistresses welcomed the domestic subjects as an appropriate training for girls who were returning to a leisured life at home, and often the subjects were taught in a type of post-school finishing course. As it became more common for girls of ability to go on to college, however, domestic

³⁶ Burstyn, p. 38; C.I. Dodd, 'Needlework as Manual Training', *Journal of Education* 17 (August 1895), pp. 460-62; Sharman, pp. 117-118; Margaret E. Pillow, 'Domestic Economy Teaching in England', in Education Department, *Special Reports on Educational Subjects I* (HMSO, 1897), pp. 180-184.

³⁷ Pillow, pp. 180-184.

³⁸ Evidence, Margaret Gilliland, *Report on Practical Work*, pp. 623-624.

³⁹ Evidence, Frances Dove, *Report on Practical Work*, pp. 611-612.

subjects came to be seen as appropriate for the academically less-able students, especially for the ‘duffers’.⁴⁰

‘Domestic Science’ and Reform

In the late 1890s there was a significant shift in the approach and methods used in domestic subjects teaching, particularly at the secondary school level. An Education Department report written in 1896 by Miss A.J. Cooper, former Headmistress of the Girls’ High School, Edgbaston, signalled the growing conviction that an intelligent study of domestic subjects was possible only if combined with scientific principles--the correlation of science and domestic arts within what came to be known as ‘domestic science’.⁴¹ In arguing that the academic and technical sides of the school curriculum should be ‘organically connected’--by, for example, the correlation of arithmetic with home accounts, measurement with record-keeping in science, and history with learning the duties of citizenship--Cooper maintained that the ‘scientific habit of mind in cookery work and the artistic and historical outlook in needlework’ would make the domestic subjects more educationally sound.⁴²

⁴⁰ Bryant, ‘The Curriculum of a Girls’ School’, pp. 116, 123; *Report of a Conference on Secondary Education in England, Convened by the Vice-Chancellor of the University of Oxford* (Oxford: Clarendon Press, 1893), pp. 58-59.

⁴¹ According to Mary Waring, the proposal to teach ‘the science of domestic economy’ was made as early as 1883 by a school inspector, and the London School Board arranged for some experimental lecturers in its elementary schools in the 1890s. Mary Waring, “To Make the Mind Strong, Rather than to Make it Full”: Elementary School Science Teaching in London 1870-1904’, in Goodson, ed., *Social Histories of the Secondary Curriculum*, pp. 131-36.

⁴² A.J. Cooper, ‘Technical Education for Girls’, in Education Department, *Special Reports on Educational Subjects I* (1896-97), pp. 188, 192.

Seen in a wider perspective, the trend towards the scientific treatment of the domestic subjects was part of the cult of science which pervaded many areas of British life at this time.⁴³ Within secondary schools, however, interest in 'domestic science' owed much to the need to justify the place of domestic subjects in the secondary curriculum. A report commissioned by the Education Department on 'Domestic Economy Teaching in England' in 1897 and written by Margaret E. Pillow, an examiner in domestic science for the London Technical Education Board and the National Training School of Cookery, had pointed out that domestic subjects had made little headway in the secondary schools owing to their low status and the belief that they were of questionable educational value.⁴⁴ An article published in 1907 by a hygiene lecturer, Alice Ravenhill (who was to play a key role in the development of household science), charged that the prevailing methods used in domestic courses resulted in 'purposeless' work and were characterized by 'an almost military uniformity in the execution of its practical applications' which left no room for individual initiative or experimentation.⁴⁵

The adaptation of scientific methods was intended, therefore, to eliminate various aspects of traditional domestic subjects teaching which educationists now deemed to be unsound and ineffective--'rule of thumb' reasoning, illogical presentation of subject material, and the obsession with craft technique and results. The editors of the *Journal of Education* demanded in an editorial in June, 1906, that 'the thermometer and the

⁴³ G.R. Searle, *The Quest for National Efficiency* (1971; Ashfield Press, 1990) pp. 72-86; Sanderson, pp. 11-13.

⁴⁴ Pillow, pp. 180-184.

⁴⁵ Alice Ravenhill, 'Domestic Science and the Domestic Arts', *Journal of Education* XXIX (Nov. 1907), p. 776.

scales must become kitchen utensils: the chemical changes involved in the cooking of food must be understood'.⁴⁶

'Domestic science' was readily adopted by most secondary schools around the country in the period 1900-1914, although the degree of correlation and the quality of the science content varied widely.⁴⁷ The concept of 'correlating' science and crafts generally meant one of two things: (1) the total integration of domestic arts and science into one complete domestic/science course; or (2) the concurrent teaching of separate courses in science and domestic arts, with each course drawing upon examples and methods from the other. Leeds Girls' High School had one of the most thoroughly integrated science and cookery courses. An excerpt from the fifth form syllabus from 1909, described by the science mistress, illustrates the approach:

Later came Heat, in connection with which a practical demonstration on hot-water appliances was given by means of a visit to a house in the process of construction Chemistry started with air, which brought in respiration, and so introduced Physiology, including First Aid. Next came the study of flames, illustrated by gas-cooking stoves. A study of chalk, marble, limestone, and washing soda was followed by fats and oils, which in turn brought in frying--the first occasion for the use of the kitchen laboratory. Emulsions led to the digestion of fats and washing of greasy vessels, in connection with which (fats) the class made and used soap.⁴⁸

⁴⁶ 'Cookery', *Journal of Education* XXVIII (June 1906), p. 385.

⁴⁷ Examples of various 'domestic science' syllabuses can be found in the *Interim Memorandum on the Teaching of Housecraft in Girls' Secondary Schools* (HMSO, 1911), pp. 45-66.

⁴⁸ Evidence of Mrs. Stephen Priestman (1909), *Report on Practical Work* pp. 647-649.

Textbooks of the period encouraged the use of scientific apparatus, the experimental method, chemical formulae and scientific jargon. A laundrywork textbook from 1905 discussed the 'science of cleanliness'--in one experiment the laundry mistress was instructed to prepare oxalic acid (salts of lemon) and demonstrate the removal of iron mould stains.⁴⁹ Sometimes the scientific element was largely rhetorical: one school syllabus showed needlework lessons on 'Dressmaking and Cutting on Scientific Principles'.⁵⁰ Nevertheless, the new methodology did promote an appreciation of the scientific bases of many household processes, especially in cookery and hygiene, and improved the teaching and organization of course material.

Behind this concern to improve the educational value of domestic subjects lay various anxieties about the direction that the education of middle-class girls was taking.

By the turn of the century there were schoolmistresses and headmistresses who endorsed criticisms of the academic bias of the new girls' schools.⁵¹ One schoolmistress asked, 'I see now that this higher education of women too frequently tends to make them unpractical: it has a tendency to make them neglect home duties, and if this is done, what is to become of the home?'⁵² Sarah Burstall, former Girton student and headmistress of Manchester High School, blamed the school and its many

⁴⁹ Margaret C. Rankin, *The Art and Practice of Laundry Work* (Blackie and Son, 1905), p. 9.

⁵⁰ 'Syllabus of Belle Vue Secondary School for Girls', in *Interim Memorandum*, p. 57.

⁵¹ Blakestad, p. 73f.

⁵² 'Miss Ethel Forsyth: Founder of the Forsyth Technical College', *Education* 2 (July-Aug. 1891), p. 229.

activities for creating false values and distracting girls from their domestic responsibilities: 'So great is the influence of the school nowadays over a girl, that if a subject or ... activity is left out of school organization it is likely to be forgotten or even despised.'⁵³ There was also concern that the secondary curriculum, increasingly dictated by external examinations, was becoming irrelevant for the average girl who did not go on to university. One example given was a schoolgirl 'who knew mathematically that four ounces was equal to a quarter pound yet could not apply this fact during a cookery lesson when asked to weigh a quarter-pound of butter.'⁵⁴ Many teachers and academics thus began to press for a reform of the science curriculum so that it reflected the average girl's interests and likely vocation.

Arthur Smithells FRS, professor of chemistry and pro-Vice Chancellor of Leeds University (1904-1912), was a key catalyst in promoting the scientific study of domestic work. [PLATE 1] Trained in Heidelberg under R.B. von Bunsen and an expert on flame structure, Smithells had lectured in chemistry at Manchester High School for Girls, where he first came into contact with domestic subjects teaching.⁵⁵ Smithells had become convinced that the teaching method used in ordinary science courses--particularly in physics and chemistry--was not interesting for girls because it

⁵³ S.A. Burstall, *English High Schools for Girls: Their Aims, Organisation and Management* (Longman's Green and Co., 1907), p. 197.

⁵⁴ 'Miss Ethel Forsyth', p. 229.

⁵⁵ Evidence of Smithells, *Report on Practical Work*, p. 591; H.S. Raper, 'Arthur Smithells', *Obituary Notices of Fellows of the Royal Society* 3:8 (Jan. 1940), p. 98; John W. Cobb, 'Arthur Smithells', *Dictionary of National Biography 1931-40*, ed. L.G. Wickham Legg (Oxford University Press, 1949), pp. 821-822.

was not in touch with their daily lives, and he devised his own course in physics and chemistry applied to 'household operations'.⁵⁶ He also taught courses for teachers in subjects such as 'Experimental Domestic Science' and 'Science in Relation to Household Fuel, Heat, and Heating Appliances'.⁵⁷ Although some historians have questioned Smithells' motives, following contemporary critics who believed him to be advocating separate (and therefore inferior) standards for women, his main purpose was to stimulate girls' interest in science:

I have been brought into conflict with those who are alarmed for the "purity" of science teaching, and I have been suspected of a desire to introduce a sort of soft and effeminate subject which lacks all the elements of logic and discipline, so dear to the stern educationist. As a matter of fact, my aim has been nothing more or less than to imbue the science teaching in girls' schools with as much illustration from everyday topics, and especially topics of the household, as will give it a living interest and make it a more human, more useful, and more abiding possession.⁵⁸

Smithells advocated reforms of science education at all levels⁵⁹ but his ideas were not wholeheartedly welcomed by women academics who feared that scientific principles would be swamped by the domestic content of his proposed course. There were many teachers, however, who welcomed the new approach to science as a means of inspiring

⁵⁶ Evidence of Smithells, *Report on Practical Work*, p. 592.

⁵⁷ Smithells, 'Summer Course, Scarborough, 1908: Experimental Domestic Science Laboratory Course', (28 July 1908), Smithells Papers: MS416/493/1; and 'The University of Leeds: Science in Relation to Household Fuel, Heat, and Heating Appliances', (8 Oct. 1910), Smithells Papers: MS416/497/1.

⁵⁸ Arthur Smithells, 'Progress in Girls' Education', *Nature* 86:2171 (8 June, 1911), p. 477; Dyhouse, *Girls Growing Up*, pp. 165-169.

⁵⁹ See below, pp. 151-161.

the average girl to take an intelligent and informed interest in her everyday environment which, for the majority, would involve caring for their homes and children.⁶⁰

Interest in the new 'domestic science' methods and their adoption in girls' secondary schools was encouraged by public anxiety about the nation's health following the publication of the Inter-Departmental Committee on Physical Deterioration's report in 1904. Set up to examine the cause for the high rejection rate amongst army volunteers during the Boer War, the Committee drew attention to the nutritional standards of the working class, focusing in particular on the effectiveness of the domestic education given in elementary schools in the belief that the poor state of working-class health was largely due to a failure on the part of women to prepare healthy food for their families. In response to witnesses who claimed that cookery lessons were often given at an age when most girls could not understand or retain the information, the Committee recommended in its final report that the teaching of cookery, hygiene, and domestic economy should be made compulsory for the older girls in the last year of school life (roughly between the ages of twelve and fourteen) and that, if necessary, other subjects should be omitted.⁶¹

In response to these pressures the Board of Education upgraded its women inspectorate and also introduced compulsory housewifery in the secondary school grant

⁶⁰ Blakestad, pp. 74-76.

⁶¹ It also recommended compulsory continuation classes for working-class girls leaving school in their early teens. *Report of the Inter-Departmental Committee on Physical Deterioration* 1-2 (PP 1904 XXXII), pp. 49, 62, 96, 289.

regulations for 1904 under its new 'block grant' system (whereby a school earned its grant by providing a complete set of prescribed subjects for a minimum number of hours per week).⁶² Although the Inter-Departmental Committee had been more concerned with working-class girls, the desire to improve the quality and quantity of domestic education for older girls meant that middle-class grant-assisted girls' schools were also affected. Public pressure for improving domestic education for older girls was also intensified by the publication of George Newman's book, *Infant Mortality: A Social Problem*, in 1906.⁶³ The Board's regulations regarding domestic subjects in the secondary schools precipitated an intense debate about 'domestic science' methods which continued throughout the pre-war period.⁶⁴

One consequence of the 'scientific' approach to the domestic subjects--and one that prepared the ground for the household science movement--was to increase the demand for highly-trained teachers who could cope with the scientific as well as the craft side of 'domestic science'. Standards within the profession had not kept pace with educational fashion, although great strides had been made since the mid-nineteenth century when cookery was often taught by women with no formal training. The rapid

⁶² The Parliamentary Secretary of the Board of Education, Sir William Anson, was pressed on the issue in parliament in August, 1904. *Hansard*, 4 Aug. 1904, Fourth Series CXXXIX (29 July-9 Aug.), col. 985. *Regulations for Secondary Day Schools 1902* (PP 1902 LXXX), p. 15; *Regulations for Secondary Schools 1904-05* (PP 1904 LXXV), pp. 17-18.

⁶³ George Newman, *Infant Mortality: A Social Problem*, The New Library of Medicine (Methuen, 1906), p. 268; David F. Smith and Malcolm Nicolson, 'Health and Ignorance: Past & Present', in *Locating Health: Sociological & Historical Explorations*, Explorations in Sociology No. 44, ed. Stephen Platt, *et. al.*, (Aldershot: Avebury, 1933), pp. 228-230.

⁶⁴ The 'domestic science' debate is taken up again in Chapter 5. Blakestad, pp. 61-77.

expansion of domestic subjects in the schools following the Technical Instruction Act had created a demand for teachers and consequently improved the provision for teacher training. In the period 1890-1894 no less than nine domestic subjects training colleges were founded, and by 1896 there were twenty-seven recognized training colleges.⁶⁵ Despite these improvements, however, much remained to be done.

Standards in the profession came under attack from the Board of Education's Chief Woman Inspector, Maud Lawrence, in a report on cookery teaching in elementary schools published in 1907. Lawrence cited several instances of poor methods, including one teacher who had told her class that the temperature of water for breadmaking should be 'just as it tells us in the Bible--"neither hot nor cold"'--the type of remark which was unacceptable in the discourse of 'domestic science'. More shocking was the example of the teacher who had told her class that scarlet fever and cholera could be eradicated by putting onions under the bed.⁶⁶ Such low standards were partly due to a lack of inspection--for a time the colleges had awarded their own certificates without inspection from the Board of Education. In one school a 'Teacher's License' was granted after a course of twelve lectures; in another students attended twelve demonstration lessons and had only eight hours of practical cookery.⁶⁷ The Department of Education had tried to

⁶⁵ Sillitoe, pp. 78, 111; see also Mary Marsden, 'The Training of the Teacher of Domestic Science' in 'Association of Teachers of Domestic Science: Annual Conference, 1910', *Education* XV:388 (3 June 1910), pp. 338-339.

⁶⁶ [Maude A. Lawrence], *Special Report on the Teaching of Cookery to Public Elementary School Children in England and Wales* (HMSO: 1907), p. 2.

⁶⁷ Robert A. Morant, 'Prefatory Memorandum', *Special Report on the Teaching of Cookery*, p. vii.

raise the standards in teacher training schools in 1899 by holding Board exams for cookery diplomas, but these were discontinued in 1906, when it was decided that thorough and regular inspection could be substituted for Board examinations.⁶⁸ Nevertheless, the survey of training schools carried out for the 1907 report revealed ‘a vast amount of difference between the standards of efficiency of the various Training Schools’.⁶⁹ Moreover, the domestic subjects training schools suffered from a lack of high quality students--inevitably, since many headmistresses regarded domestic subjects as suitable only for the less-able or those without academic ambition.⁷⁰

The Association of Teachers of Domestic Subjects (ATDS), set up in 1897, made special efforts to respond to the criticism in Maude Lawrence’s report. Motions calling for entrance examinations at domestic science training colleges and the compulsory teaching of the domestic subjects in schools were passed unanimously at their annual conference in 1907.⁷¹ The president of the ATDS, Mary E. Playne (sister of Beatrice Webb and founder of the Gloucestershire Training College of Domestic Subjects), had argued at the annual meeting of 1905 that the compulsory teaching of domestic subjects in elementary schools would promote changes in teacher training methods; however, it was difficult for the ATDS to argue for compulsory domestic

⁶⁸ Morant, ‘Prefatory Memorandum’, p. x.

⁶⁹ Lawrence, *Special Report on the Teaching of Cookery*, pp. 17-19.

⁷⁰ *Ibid.*

⁷¹ ‘ATDS (4) Conference in London’, *Education IX* (31 May 1907), p. 422.

subjects if there was a dearth of well-trained teachers.⁷² Some education authorities undermined the profession by hiring inexperienced local women or providing elementary schoolmistresses with sketchy training to teach practical cookery, especially in rural areas where it was difficult to attract teachers owing to poor pay and isolation. In 1908, for example, the Derbyshire Education Committee decided to give elementary schoolmistresses a few cookery lessons rather than hire qualified specialist cookery teachers. Although the ATDS protested, the most they could do was to demand that cookery be made compulsory in schools over a certain size where properly-qualified teachers could be employed.⁷³

The problem of recruiting quality students to the profession (which was crucial if 'domestic science' methods were to succeed) meant that the domestic subjects' status within the secondary schools was the key issue for the ATDS. In an age when public examinations increasingly dictated the priorities of schoolgirls, the lack of secondary-level examinations in cookery, laundrywork, and housewifery exacerbated the low status of these subjects and prevented the brightest students from taking up domestic science teaching. The ATDS launched a campaign to have domestic science accepted as a subject in the various secondary school examinations, setting up a sub-committee in 1908 to draw up a syllabus for a 3-4 years' course, 'The Science of Home Affairs', based on science syllabuses from various high schools and organized

⁷² Mary Playne, Presidential Address, 'Annual Meeting of ATDS (I)', *Education* V (19 May 1905), pp. 378-381.

⁷³ *ATDS Executive Committee Minute Book*, ATDS: MSS177/1/1/1 (11 Dec. 1907), pp. 130-132; *ATDS Yearbook 1908*, ATDS: 177/4/4/1, pp. 11-12.

around chemistry, physics, and physiology.⁷⁴ The syllabus was designed to raise the subjects' educational status by emphasizing their 'scientific' aspects--which were inherently more examinable than the making of custards and the starching of collars.⁷⁵

By the time the special committee had been set up, however, some leading ATDS members had already come to the conclusion that the only way to ensure that the domestic subjects were taken seriously by the schools (and by examination boards) was to raise them to the status of a university discipline. In a letter to the *Pall Mall Gazette*, Thereza, Lady Rücker (President of the of the ATDS in 1908-09) wrote:

Until the hall-mark of university recognition is granted, domestic economy must necessarily remain a secondary subject in our girls' schools. Our daughters will continue to go forth into life ill equipped and ignorant of the laws of health, which are so requisite for the right conduct of motherhood, and of the economic management of a household, which at present is too often learnt in the costly school of mistakes.⁷⁶

Maud Taylor, ATDS chairman and examiner of training schools for the Board of Education, also highlighted the need for domestic science teachers to have a university training:

⁷⁴ 'Suggestions for a Syllabus for the Teaching of "Science of Home Affairs"', *ATDS Yearbook 1908*, pp. 22-24.

⁷⁵ There is no mention in ATDS records of the result of their efforts; in 1911 the only concessions appear to be in the Cambridge and Oxford Senior Locals; at Cambridge physiology and hygiene were accepted as alternative subjects in the science exam; at Oxford hygiene and needlework were allowed. The Northern Universities Joint Matriculation Board also offered a 'housecraft certificate'. *Interim Memorandum*, pp. 42-43.

⁷⁶ Lady Rücker, letter to *Pall Mall Gazette* LXXXIX (10 July 1910), p. 7.

What was really needed was a woman who, having graduated in science, took the cookery and other domestic courses in the school, and after applying her scientific knowledge to these subjects, taught the science in the school and so was able to bring the test-tubes and saucepans into relationship.⁷⁷

Lady Rücker's and Taylor's belief that a university household science course would have positive repercussions for the teaching of domestic subjects in the schools was to provide a catalyst for the household science movement in England in the Edwardian period.

Genesis of the Household Science Movement

KCW's household science course, which was eventually able to fill this gap in the domestic subjects training market, was a product of both the Edwardian interest in 'domestic science' and a contemporary initiative, influenced by American models, to establish an English home economics course which had already been unfolding within University of London circles since the turn of the century. The course was initially the brainchild of Alice Ravenhill, a hygiene lecturer who had researched and written a lengthy report for the Board of Education's Department of Special Reports on American home economics in 1901-1905. [PLATE 2] Virtually unknown in the historiography of the Edwardian era, Ravenhill was involved in many social welfare initiatives in the period. A closer look at her career helps to trace the early evolution of the household

⁷⁷ Maud Taylor, "'Test-Tubes vs. Saucepans," Yorkshire ATDS', *Education* IX (15 Feb. 1907), p. 135.

science concept in England as well as the links between the American home economics movement and the KCW course.

Ravenhill, like many public-spirited and socially-involved women of the late nineteenth century, had been thwarted in her own intellectual ambitions by middle-class conventions which stressed the importance of ‘accomplishments’ and deportment rather than academic training, and by her parents’ disapproval.⁷⁸ Born in Snaresbrook, Essex, to a prosperous family (her father was a well-known Royal Navy architect and marine engineer), Ravenhill was educated by governesses and at several London residential schools. Her father having vetoed her requests to attend both a Kensington public day school and the National Training School of Cookery, she taught herself geology, biology and physiology, surreptitiously dissecting snails, worms, and even an ox’s eye in her bedroom.⁷⁹ It was only after her father’s financial collapse whilst Ravenhill was in her late twenties that she was able to pursue her scientific interests. She enrolled in the newly-established National Health Society’s training course for County Council hygiene lecturers--at the time the only such course open to women.⁸⁰ Two fellow students, Lucy Deane and Rose Squire, later became the first women Sanitary Inspectors

⁷⁸ Alice Ravenhill, *Memoirs of an Educational Pioneer* (Toronto: J.M. Dent & Sons, 1951), pp. 1, 34.

⁷⁹ *Ibid.*, pp. 50-53.

⁸⁰ The course included lectures in anatomy, physiology, personal and domestic hygiene, domestic and public sanitation, first aid, dietetics, and a practical internship at Chelsea Poor Law Infirmary. Ravenhill finished the year-long course in 1892. *Ibid.*, pp. 64-66, 70-71; ‘Alice Ravenhill’, MS in Ravenhill Papers: Box 1, Folder 1, [n.d.], p. 1. See also David F. Smith, ‘Health and Ignorance’, pp. 223-224.

and were subsequently appointed as two of the first women Factory Inspectors.⁸¹

Ravenhill had also been invited to interview for a sanitary inspection post but, because the work involved prosecuting cases in court, she declined the offer. Nevertheless, she continued to work peripatetically in the public health field. She researched and wrote an unofficial report about women in the fish-curing industry at Grimsby in conjunction with the Royal Commission on Labour, having been encouraged by her friend and confidante, Edith Temple Orme, the first woman to receive an LL.B. from London.⁸²

Ravenhill's career in social reform was also aided by her friendship with Prince Leopold (later Duke of Albany, whose estate in Wiltshire bordered that of her father) and Princess Christian, through whom she met many leading figures of late-Victorian and Edwardian society. Ravenhill also served as secretary to the Royal British Nurses's Association (1894-97), one of Princess Christian's pet interests.⁸³

Ravenhill resigned this position to take up work as a lecturer in public health for the Cooperative Society and the Women's Cooperative Guild, beginning a career in hygiene education which was to be her life-long interest. In her first year (1897-98) she gave a series of over forty lectures in various manufacturing areas, after which she took a post as lecturer for the West Riding County Council, teaching a self-devised course for

⁸¹ Mary Drake McFeely, *Lady Inspectors: The Campaign for a Better Workplace 1893-1921* (Oxford: Basil Blackwell, 1988), pp. 20, 39.

⁸² Ravenhill, *Memoirs*, pp. 78-79. Eliza Orme, et.al., *Royal Commission on Labour: The Employment of Women* (PP 1893-94 XXXVII Pt. I).

⁸³ Princess Christian's association campaigned to improve the education and status of nurses. Ravenhill, *Memoirs*, pp. 54-56, 82.

teachers on the correlation of hygiene and health education with ordinary school subjects, and serving as an inspector of hygiene and domestic economy at various technical institutes and evening schools.⁸⁴ It was during this period in Yorkshire (1898-1904) that she met Arthur Smithells (then professor of chemistry at Yorkshire College, Leeds), who advised her on the scientific aspects of her course. In 1899 she served as secretary of the School Hygiene Section at the Royal Sanitary Institute (RSI) congress at Southampton, presenting a paper on hygiene teaching in elementary schools; she also represented the National Health Society at the International Congress of Women at Westminster that year.⁸⁵

It was whilst attending the annual congress of the Royal Sanitary Institute in Paris in 1900 that she first became interested in American home economics education, a topic which had been prominent in the Paris Exhibition of that year. According to Ravenhill, home economics received a mixed reaction there:

⁸⁴ Ravenhill, *Memoirs*, pp. 90, 105, 107.

⁸⁵ Ravenhill turned down a post as governess to the King of Siam's daughters in 1899. Ravenhill was especially interested in the health of children and wrote numerous articles on the subject (especially on sleep requirements) and a book, *Some Characteristics and Requirements of Childhood* (1908). She also wrote several school textbooks, including *Lessons in Practical Hygiene for Use in Schools* (1907); *Eugenic Education for Women and Girls* (1908), and *Household Foes: A Book for Boys and Girls* (1910). Ravenhill was a member of the Eugenics Education Society, the Child Study Society, and the Society for Physical Education and Improvement. Ravenhill, *Memoirs*, pp. 99-100, 162; Ravenhill, 'Practical Hygiene Teaching in Elementary Schools', *Transactions of the Sanitary Institute* XX (1899), pp. 238-264.

The assertion that intelligent care of human life in the home demanded the resources of universities to discover and that the application of underlying principles needed trained women of all social grades, called for courage in its first exponents. The suggestion aroused ridicule in some of those to whom it was presented; was dismissed by others as a fad; and was received with suspicion by many faculty members of those universities to which application was made for permission to introduce experimental courses.⁸⁶

Ravenhill, however, was enthusiastic about the new discipline, and approached her personal friend, Michael Sadler, at the Board of Education's Department of Special Reports about the need for a report on American home economics.⁸⁷ Much to her surprise (though no doubt due to Sadler's influence) the President of the Board, Robert Morant, gave her the commission. Ravenhill approached the Royal Sanitary Institute and the Education Committee of the West Riding County Council to help fund her trip, agreeing to submit separate reports to them on school ventilation, heating, sanitation, and on home economics and other 'social' courses taught in American schools.⁸⁸

Ravenhill's trip to America in the summer of 1901 was to ignite her enthusiasm for bringing home economics to England. Arranged by Ellen Richards, Ravenhill's tour covered many schools and universities across the Northeast and Midwest and into Canada, bringing her into contact with progressives such as Jane Addams of Hull House, John Dewey (the 'learn by doing' educational theorist) in Chicago, and Adelaide Hoodless, the founder of Canada's Women's Institutes and the first Canadian training

⁸⁶ Ravenhill, *Memoirs*, pp. 111-112.

⁸⁷ Sadler had apparently offered Ravenhill a post as the second woman inspector of schools. *Ibid.*, p. 163.

⁸⁸ Ravenhill, *Memoirs*, pp. 112-113.

college of domestic arts.⁸⁹ Ravenhill also attended the Third Lake Placid Conference (1901), where she delivered an address on 'Practical Hygienic Teaching in England'.⁹⁰ She was so impressed with the American movement that she considered returning to train there herself:

I was strongly disposed to resign my appointment and to enter myself as a student in one of the American university courses, thinking I might sooner attract the attention of those in England upon whom it depended to secure university recognition of household economics if I could present its claims from inside personal experience as well as outside observation. But [Michael Sadler] strongly dissuaded me from taking this step, confident that I should accomplish more by remaining in England.⁹¹

Ravenhill's comprehensive reports for the Board of Education and the RSI received much press attention, and the RSI elected her as their first woman fellow.⁹²

Ravenhill lectured in hygiene at KCW from 1907 to 1910, when she was forced to resign after a University Senate ruling that faculty members must hold formal qualifications. Emigrating with her brother and sister to Canada in 1910, Ravenhill eventually found greater scope for her reforming ambitions in North America.⁹³ She

⁸⁹ Ravenhill, *Memoirs*, pp. 120-121; Cheryl MacDonald, *Adelaide Hoodless: Domestic Crusader* (Toronto: Dundurn Press, 1986), pp. 74f, 108f.

⁹⁰ A. Ravenhill, 'Practical Hygienic Teaching in England', *LP III (1901)*, pp. 59-62.

⁹¹ Ravenhill, *Memoirs*, p. 123.

⁹² Alice Ravenhill, 'School Training for the Home Duties of Women. Part I: The Teaching of "Domestic Science" in the United States of America,' *Special Reports on Educational Subjects* (PP XXVI 1905); Alice Ravenhill, 'Report on the Teaching of Hygiene in the Schools and Colleges of the U.S.A.', *Journal of the Sanitary Institute XXIII* (1902), pp. 27-132. Ravenhill, *Memoirs*, pp. 124-125.

⁹³ Ravenhill, *Memoirs*, pp. 123, 171-172; 'Biographical Sketch' (9 Mar. 1951) and 'Alice Ravenhill', [n.d], both in Ravenhill Papers: Box 1, Folder 1.

undertook nation-wide lecture tours on home economics in the United States and held posts in home economics departments at several universities, including Oregon State College at Corvallis, and Utah State Agricultural College at Logan. Her early research on American home economics earned her great appreciation amongst the American pioneers. Ellen Richards remarked at the Lake Placid Conference of 1904 that Ravenhill's report on American home economics had put the Americans 'to shame' and that she had done 'more for America than for England'.⁹⁴ During the AHEA's Jubilee in 1950 Ravenhill was cited as one of the AHEA's founding members and made a honorary Doctor of Home Economics.⁹⁵

Although Ravenhill provided the initial inspiration for the foundation of a household science course in the U.K., it was Thereza, Lady Rücker (wife of Sir Arthur Rücker FRS, Principal of the University of London 1901-08) who provided the public leverage needed for its eventual realization at KCW in 1908.⁹⁶ [PLATES 3 & 4] Ravenhill does not indicate in her memoirs how she came to meet Lady Rücker, although it was likely that they had been introduced by either Michael Sadler or Arthur Smithells (Smithells and Sir Arthur Rücker had both been at Yorkshire College, Leeds,

⁹⁴ Ellen H. Richards, 'Report of Miss Alice Ravenhill's Work in England', in *LP VI (1904)*, pp. 22-25.

⁹⁵ Ravenhill was also given an honorary D.Sc. from the University of British Colombia in 1948 for her later research on the arts and culture of native British Colombian indian tribes. Ravenhill, *Memoirs*, p. 223.

⁹⁶ Richard J. Howarth, 'Sir Arthur Rücker', *Dictionary of National Biography Missing Persons*, ed. C.H. Nicholls, (Oxford: Oxford University Press, 1993), pp. 572-573; 'Sir Arthur Rücker', *Proceedings of the Royal Society XCIIA* (1916), pp. xxi-xlv.

in 1885-86). Lady Rücker had heard Arthur Smithells present a paper, 'School Training for Home Duties of Women', at the annual meeting of the British Association for the Advancement of Science in York in 1906, where domestic education had been the focus of the education section.⁹⁷ According to Ravenhill, Lady Rücker, who had studied at Bedford College, was chiefly interested in the potential household science afforded for women's employment:

Lady Rücker ... realized the importance of providing a university course that would attract young women who wished to train as administrators of large establishments, as supervisors of great estates, or as teachers and leaders in social reforms. In my ideal she saw the possibility of realizing her own, and she could bring an influence that I did not possess.⁹⁸

Lady Rücker's interest in household science no doubt also stemmed from the scientific traditions of her family. She was the wife of an eminent physicist, and the daughter of Nevil Story Maskelyne FRS (1823-1911), Professor of Mineralogy at Oxford from 1856-1895. Nevil Maskelyne (1732-1811), the Astronomer Royal, was her great grandfather and her maternal grandfather, John Dillwyn Llewelyn, had also been a Fellow of the Royal Society. Her mother, Thereza Llewelyn, had been an avid amateur botanist and astronomer.⁹⁹ A woman with a sharp intellect, Lady Rücker was also a

⁹⁷ Papers were also given by Maud Taylor, Margaret Pillow, and Mary E. Marsden, superintendent of Battersea Polytechnic's Domestic Science Department and an influential spokesperson for the ATDS. Smithells, 'School Training for Home Duties of Women', *Report of the Seventy-Sixth Meeting of the British Association for the Advancement of Science, York, Aug. 1906* (John Murray, 1907), pp. 781-784.

⁹⁸ Ravenhill mistakenly notes that Lady Rücker was Girton graduate. Ravenhill, *Memoirs*, p. 141; Tuke, p. 283.

⁹⁹ Thereza Rücker (née Story Maskelyne) belonged to Annan's 'intellectual aristocracy'. N.G. Annan, 'The Intellectual Aristocracy', *Studies in Social History: A Tribute to G.M. Trevelyan* (Longman's Green & Co, 1955), p. 269; Vanda Morton, *Oxford Rebels: The Life and Friends of Nevil Story Maskelyne 1823-1911, Pioneer Oxford Scientist, Photographer and Politician* (Gloucester: Alan Sutton, 1987), pp. 122, 126-127.

skilled needlewoman and gardener, and she later took an active part in the Women's Institute movement.¹⁰⁰

Despite Lady Rücker's links with Bedford, KCW provided a more fertile ground for the launching of the household science 'experiment'. Begun in 1871 to provide non-degree lecture courses for the 'ladies' of Richmond and Twickenham (and eventually Kensington, where the college moved in 1878), KCW had not only continued to provide these non-degree courses much longer than the other London women's colleges, but had already instituted a popular 'household management' class in 1897 at the request of its students.¹⁰¹ The Vice-Principal of KCW from 1894-1907, Lilian M. Faithfull (a Somervillian who had taken a first in English in 1887) was receptive to the idea of extending these lectures into a full three-year course, and she and Lady Rücker, together with Dr. Frank Heath (Professor of English, 1890-95 and lecturer in English language and literature at King's College, 1891-95) began meeting in 1906 to discuss the possibility of establishing a systematic three-year course in science as related to 'the organisation of home life, the conduct of institutions, and other spheres of civil and social work in which these principles are to be applied'.¹⁰² [PLATE 5] Faithfull explained her interest in household science in her autobiography:

¹⁰⁰ Interview with Ann Rücker and Elizabeth Nixon (granddaughters of Thereza Rücker), Oxford, 2 Feb. 1994.

¹⁰¹ Sutherland, 'Plainest Principles of Justice', p. 43.

¹⁰² Sir Henry Frank Heath (1863-1946), Heath also served as academic registrar, librarian, and treasurer of the University of London prior to his appointment at the Board of Education's Department of Special Reports (succeeding Michael Sadler). It appears from various accounts of the early movement that Dr. Heath's involvement in the movement was marginal. Faithful, *My Pilgrimage*, pp. 121-122.

There seemed no reason why men should be able to take a degree in the special study which they required for their future work in life, such as agriculture or engineering, and women be debarred from obtaining the same recognition after pursuing an ordered course of study of a university standard, specially designed to fit them for the work in life which most often falls to their share. Furthermore, a more rational treatment of the problems of the home was urgently demanded, and it was hoped that encouragement would be given to research in Chemistry, Bacteriology and other sciences which would prove to be of very real value.¹⁰³

Faithfull, who resigned in 1907 to become headmistress of Cheltenham Ladies' College, was replaced by another Somervillian, Hilda D. Oakeley, who had taken a first in Literae Humaniores in 1898 and who held a master's degree from McGill University in Montréal. [PLATE 6] Like Ravenhill, Oakeley had been influenced by the American home economics movement. She had visited all the Eastern women's colleges--Wellesley, Radcliffe, Vassar, Smith, Bryn Mawr, and Barnard--staying as the guest of Alice Freeman Palmer, President of Wellesley, who had introduced practical housekeeping into the college curriculum.¹⁰⁴ Oakeley had also spent nine weeks studying psychology at the University of Chicago, where she met Marion Talbot and Sophonisba Breckenridge, both proponents of the 'scientific' home economics model.¹⁰⁵ The involvement of academically-minded women such as Oakeley, Faithfull, and Rücker in the household science movement proved to be crucial for the movement's initial success.

¹⁰³ Faithful, *My Pilgrimage*, p. 122.

¹⁰⁴ Hilda Oakeley, *My Adventures in Education* (Williams & Norgate, 1939), pp. 111-112.

¹⁰⁵ Oakeley, *My Adventures*, pp. 116-117.

It was not easy at first to convince the various faculty heads of the case for an applied science of the home. According to Ravenhill, she and Lady Rücker presented a report to members of a faculty committee of King's College, pointing out that many of the recent discoveries in human nutrition, such as the work of Sir Frederick Gowland Hopkins on vitamins, was generally unknown to the public, and that further research relating to all aspects of domestic life was vitally needed as the foundation for social reform.¹⁰⁶ It took over three years of 'tactful effort' to achieve sanction for the course, in part because of its 'practical' elements:

The mere suggestion was also startling, that provision must be made in the course for practical tests on foods and cleansing agents; on household furnishings; or on clothing materials. The group of men to be convinced had never given a thought to these details of daily life.¹⁰⁷

Several professors had been sceptical of the idea at first--Ravenhill wrote of the 'dour' Arthur Dendy FRS, Professor of Biology, that it had 'taxed all our resources to win over to a point of view which offered him no attraction'. Herbert Jackson FRS, Professor of Organic Chemistry at King's College, was only 'moderately sympathetic' at first but was converted by his good friend Arthur Smithells and became one of the movement's most ardent supporters.¹⁰⁸

The movement's success in attracting support from influential scientists facilitated its acceptance by university officials and other faculty members. The 'Board

¹⁰⁶ Ravenhill, *Memoirs*, pp. 137-138.

¹⁰⁷ *Ibid.*, p. 141.

¹⁰⁸ *Ibid.*, pp. 139-140; Oakeley, *My Adventures*, p. 144.

of Studies in Home Science and Economics', which was eventually set up to draft a syllabus in 1907, was advised by Smithells, Jackson, and Halford Mackinder, Principal of the LSE (1903-1908).¹⁰⁹ All three men were keenly interested in modernizing higher education through the inclusion of applied sciences, bringing the universities into closer relations with the 'real' world of business and industry. Mackinder, Reader and then Professor of Geography at the University of London (1900-1925) had played a leading part in establishing his own subject as a university discipline.¹¹⁰ He was also involved with university extension and had aided the foundation of Reading University. Herbert Jackson's main work in organic chemistry had anticipated the discovery of X-rays (1895), but he also studied the actions of soaps and solvents in the laundry, gave lectures to launderers, and advised manufacturers on chemical matters, including glass and glaze colours for ceramics. Smithells' main interest in household science was to establish a scientific training course of university standard for domestic science teachers. He had become involved in the London movement after an unsuccessful attempt to establish a similar course in Leeds.¹¹¹ Smithells served as the chief scientific advisor to the Board of Studies from 1907.¹¹²

¹⁰⁹ The Board of Studies included all the heads of departments at King's College, representatives from the Committee of Management (Lady Rücker, Heath, and Oakeley) and the Association of Head Mistresses.

¹¹⁰ Goodson, 'Becoming a School Subject', pp. 166-172.

¹¹¹ Evidence of Smithells, *Report on Practical Work*, p. 595.

¹¹² Smithells to Lady Rücker (27 June 1907), KCHSS: QA/CC/70.

KCW launched a three-year 'home science' course and a one-year post-graduate course as an 'experiment' in 1908, financed for a period of eighteen months by Adèle, Lady Meyer (wife of Sir Carl Meyer, the director of the National Bank of Egypt and Chairman of the London Committee of De Beers), who offered to underwrite the cost of faculty salaries so that they could concentrate on research in the domestic applications of chemistry, biology, and other relevant disciplines.¹¹³ Meanwhile, Lady Rücker, Ravenhill, and Maud Taylor joined together with a number of society women to form a Ladies' Committee in 1907 in order to generate money and enthusiasm for the new movement.¹¹⁴ A series of drawing-room meetings from 1905-1911 succeeded in raising enough funds to underwrite the course until 1911, when it was decided to seek permanent endowment for the department and to raise money for a building.¹¹⁵

More importantly, however, the Ladies' Committee succeeded in attracting the support of a number of influential and progressive public figures from science, medicine and education, including Michael Sadler, Sir Henry Roscoe, FRS (Vice-Chancellor of the University of London in 1896), and Sir William Osler, FRS (Regius Professor of

¹¹³ According to Maud Taylor the opening was originally set for 1907 but it was postponed because King's College (Strand) could not spare Herbert Jackson to act as director. M[aud] R[owson] T[aylor], 'The Day of Small Things', *The Magazine of the Household and Social Science Department*, KCHSS: Q/SER5/1 (May 1920), p. 33 (Hereafter: Taylor, 'Small Things'); Ravenhill, *Memoirs*, pp. 140-141.

¹¹⁴ Marsh, p. 37.

¹¹⁵ The London County Council also gave an interim grant of £1,000 for three years in 1912 to support the department. Marsh, p. 48; 'Memorandum on the History of the Home Science Department', KCHSS: QAP/GPF1/1, p. 38.

Medicine, Oxford).¹¹⁶ One publicity meeting held at Grosvenor House in May, 1909, received extensive press coverage and was attended by Princess Louise and the Duke of Argyll (both of whom had been involved with the inauguration of KCW in 1878).¹¹⁷ The programme included speeches by Lord Lytton, a renowned proponent of women's suffrage and brother of suffragette Lady Constance Lytton, and Edith Lyttelton, who was prominent in the international women's movement and wife of Alfred Lyttelton MP.¹¹⁸ A noted public speaker, Edith Lyttelton had no doubt been drafted to the cause by Alice Ravenhill, whose brother Frank had been an old Etonian friend of Alfred's.¹¹⁹

Although the household science 'experiment' attracted much public attention, most of the funds raised for its permanent endowment came from a handful of influential business and society families. Most of the money collected for the Trust Fund--in total over £100,000--was generated through the efforts of Dr. (later Sir) John Atkins and the Marquess of Anglesey.¹²⁰ [PLATE 7] Atkins, a physician at Guy's

¹¹⁶ Sir Henry Enfield Roscoe (1833-1915). Smithells had been a student of Roscoe's at Owen's College, Manchester. 'Sir Henry Enfield Roscoe', *Dictionary of National Biography 1912-21*, ed. H.W.C. Davis and J.R.H. Weaver (Oxford University Press, 1927), pp. 478-479; Raper, p. 7; Faithfull, et. al., letter to *The Morning Post* No. 42330 (24 Jan. 1908), p. 9b-c.

¹¹⁷ See, for example, 'Science of the Home: Mrs. Lyttelton's Amusing Plea for Training', in *Daily News* (5 May 1909), p. 6g; Marsh, p. 9.

¹¹⁸ Alfred Lyttelton was a supporter of housing and town planning reforms and of minimum wages in sweated industries. Carol Miller, 'Lobbying the League: Women's International Organizations and the League of Nations', unpublished D.Phil. thesis, University of Oxford 1992, p. 135.

¹¹⁹ Edith Lyttelton's public speaking skills brought her great acclaim at the League of Nations, where she served as a substitute delegate in the 1920s. Miller, p. 135; Ravenhill, *Memoirs*, p. 147.

¹²⁰ Marsh estimates this to be equivalent to £2,700,000 at 1986 prices. Marsh, p. 46.

Hospital, was concerned about the problem of maternal ignorance. He later described an experience in the women's ward at Guy's which had affected him profoundly:

In one of [the] cots, 3 children died in one day. A poor, wasted, ill-nourished child was put into the cot and soon died; the bed-clothes were changed and another such infant taken in. This happened three times in the course of a few hours, and I felt acutely that something was very wrong here. I had talks with the mothers of these children and was appalled at their ignorance. Each had little or no idea what to do for her child when well, much less when ill.¹²¹

Believing that domestic education should be compulsory in all schools, Atkins soon realized that the problem was the shortage of well-trained teachers.¹²² By coincidence he met Lady Meyer at a weekend party at Warwick Castle, and she had told him of the Ladies' Committee's plans to build a hostel for the 'home science' students, funded by a donation of over £20,000 from Sir Richard Garton.¹²³ In his enthusiasm, Atkins convinced the Ladies' Committee that an entire college should be founded, and helped to launch a nation-wide appeal for capital.

In the end, however, it was Atkins's private lobbying of some of his wealthy Kensington patients which proved most successful. Atkins received a donation of £20,000 from the Marquis of Anglesey for scientific equipment and buildings, and

¹²¹ Sir John Atkins, 'Notes on the Origin and Development of Queen Elizabeth College for a Talk to the Old Student's Association, at Their Annual Meeting, October 27th, 1956', PJJ: unpublished MS, p. 1. (Hereafter: 'Notes on QEC')

¹²² Atkins, 'Notes on QEC', p. 2.

¹²³ Sir Richard Garton, Chairman of Garton, Sons and Company, Ltd, brewing sugars magnate and founder of the British Empire Cancer Campaign. Marsh, p. 88.

Anglesey's circle of friends and family contributed almost £10,000.¹²⁴ Anglesey's aunt and uncle, Lord & Lady Queenborough, gave £2,000; the Duke of Devonshire, the Duke of Westminster, the Earl of Plymouth, and Lady Wantage each gave £500.¹²⁵ A Trust Fund was set up to replace the Ladies' Committee, with committee members including Sir William Anson MP, Emma (Margot) Asquith (wife of Prime Minister Herbert Asquith) and Arthur Balfour.¹²⁶ The largest benefactions came, however, from the donations of Sir Thomas Charles Dewey and Mary Wharrie, daughter of Sir Henry Harben, first President of the Prudential Assurance Company. Dewey, then the Chairman of the Prudential, had acted as the executor of Harben's estate, and had interested Mary Wharrie in the project. She agreed to donate a total of £20,000 for the development of chemistry laboratories, as her father had been interested in chemistry and had given large sums for technical education and other philanthropic causes.¹²⁷ Dewey, one of Atkins' patients, himself gave the £30,000 remaining of the £100,000 target.¹²⁸

¹²⁴ The Marquess of Anglesey to John Atkins, 28 March 1911 and 31 Mar. 1911, KCHSS: Q/PP1/Pt.1.

¹²⁵ Other contributors included the Marchioness of Salisbury, Messrs. Rothschild & Sons and the Earl of Scarborough. List of Chief Subscribers to the General College Building Fund, KCHSS: Q/PP1/Pt. 1 (8 Oct. 1913).

¹²⁶ Balfour and Asquith were relatives of Edith Lyttelton. Marsh, p. 44.

¹²⁷ Mary W. Wharrie to Sir John Atkins, KCHSS: Q/PP1/Pt.1 (8 Dec. 1911), (13 Dec. 1911), (14 Dec. 1912).

¹²⁸ Atkins, 'Notes on QEC', p. 9.

The household science fundraising campaign was extraordinarily successful given the difficulties experienced by other women's colleges in attracting funding.¹²⁹ In 1905 Bedford College, for example, launched a public appeal for £150,000 for buildings and endowment, but by 1912 only £129,000 had been received.¹³⁰ Likewise, Westfield College launched an appeal for an endowment fund in 1908 but were short of their £25,000 target by 1914.¹³¹ KCW also received £10,000 from the Goldsmith's Company in 1912, which was double the sum given by the Company to Bedford.¹³² Although the household science movement was fortunate in attracting the interest of several very wealthy benefactors, it was also able to exploit imperialist concern about physical deterioration and infant mortality by stressing the impact household science would have in eroding popular ignorance about hygiene and nutrition. According to one appeal brochure:

The root of these evils [infant mortality] lies beyond the realm of mere legislation. It is necessary to establish a public opinion based on sound knowledge of the laws which govern health, sanitation, and household economy if we are to arrest decay and enable our nation to hold its own.¹³³

Attention was drawn to the German tradition of domestic education in the elementary and secondary schools and the contribution it was believed to have made to Germany's

¹²⁹ Howarth & Curthoys, 'Political Economy', pp. 212-213; F.J.C. Hearnshaw, *The Centenary History of King's College, London 1828-1928* (George G. Harrap, 1929), p. 440.

¹³⁰ Bentley, pp. 28-31.

¹³¹ Sondheimer, p. 78.

¹³² Marsh, p. 48.

¹³³ 'National Fund for the Endowment of Home Science', KCHSS: Q/PP1/Pt.1 [n.d., c.1911-1916]

declining infant mortality rates.¹³⁴ Yet as few German women had access to higher education at the time and there was no university home economics movement there, it was chiefly to America that the movement looked for inspiration.¹³⁵

The American home economics movement, successful in promoting the teaching of hygiene and home economics at all educational levels, was widely admired for its pro-active approach to the problems of modern living.¹³⁶ In outlining the 'home science' course to members of the Bedford College Old Students' Association in 1906, Lady Rücker exhorted her fellow graduates to follow America's lead:

Why are we women of England leaving it to our sisters across the Atlantic to do all the pioneer work in this direction? Surely the time has come when we too should be summoning conferences of our Educated Women, similar to those held in Lake Placid Club for the past seven years. We might then hope to see beginnings here such as are to be found not only in the American smaller colleges and universities, but in some of those that are unquestionably at the top, such as Chicago University ¹³⁷

Nonetheless, the American home economics movement, with its two different disciplinary models--vocational and scientific--encouraged confusion about the nature of 'home science' as conceived by its English sponsors. Combined with government

¹³⁴ 'The Evolution of Motherhood', *Pall Mall Gazette* LXXXIX (7 July 1910), p. 5; Lady Rücker, letter to *Pall Mall Gazette* LXXXIX (10 July 1910), p. 7.

¹³⁵ Ute Frevert, *Women in German History* (New York: Berg, 1989), pp. 179, 316-317; 'Schools and Scholars: Domestic Science and Higher Education', *Morning Post* (1 May 1908), p. 5a.

¹³⁶ 'Homemakers of the Future: What Domestic Science is Doing for Women--English and American Methods', *Daily Mail* No. 4104 (5 June 1909), p. 9b; J. Wilson, 'How Science Can Be Connected With Domestic Training', *Education* XII (6 Nov. 1908), p. 291.

¹³⁷ 'Lady Rücker's Address', *Bedford College Magazine London* No. 61 (Dec. 1906), pp. 11-12.

rhetoric about the need to improve women's homemaking skills, references to the American movement encouraged the impression that KCW's household science course intended to follow the 'vocational' American model and train women to be practical and efficient homemakers. Understandably, this aroused alarm among women academics. As Faithfull noted, household science 'appealed to many who had some doubt about the wisdom of university education for women in classics and mathematics'.¹³⁸ Closer examination is therefore needed of the aims and ideals of those involved in the household science movement.

The Language of Our Own Age: Aims and Ideals of Household Science

[T]he time has come to extend the original conception of the pioneers of women's education, and establish university standards and the best scientific method in spheres of work into which these principles have not yet sufficiently entered. This is both part of the natural and inevitable progress of scientific education and also a reaffirmation in the language of our own age of the importance to the nation of the principles that underlie home life. The main object of these courses is to provide a thoroughly scientific education in the principles underlying the whole organisation of Home life, the conduct of institutions, and other spheres of civic and social work in which the same principles are applicable.¹³⁹

-- '*Home Science*' Syllabus, 1908

The objectives of the household science movement were similar to those of the 'scientific' group in American home economics: to foster scientific research in matters related to the home environment and to provide a suitable degree-level training for those

¹³⁸ Faithfull, *My Pilgrimage*, p. 122.

¹³⁹ *Syllabus of Lectures, King's College for Women*, KCHSS: KW/SYL16 (1908-1909), p. 78.

involved in the care of human life, whether in the private home, in institutions, or in social welfare occupations.¹⁴⁰ The English household science movement originated in the confluence of three interrelated discourses of the Edwardian period: the place of the ‘home’ in a modern industrial society and the means of reforming it; the desire to make higher education more ‘relevant’ to the needs of twentieth-century society; and the Edwardian debate about women’s roles and responsibilities in both the public and private spheres. This section thus seeks to ground the household science movement in the context of these discourses in order to establish the essence of these aims.

The founders’ belief in the urgent necessity of an applied science of the household reflected widespread uneasiness in Edwardian England about a perceived decline in ‘home life’, not only amongst the workers but across all classes of society. The theme occurred frequently in the Edwardian press and elicited much public discussion. At the Grosvenor House meeting in 1909 convened to generate public support for the KCW course the Bishop of Kensington declared that English home life was ‘disappearing’, a trend which he blamed on unemployment and the subsequent increase in the number of women taking up paid work in order to support their families.

He also indicted London society for turning ‘the home’ into a ‘dormitory’ or ‘restaurant’ through their infatuation with hotel and club life.¹⁴¹ Other contemporary factors, such as suffragette militancy and the increasing numbers of well-educated

¹⁴⁰ The term ‘social welfare’ is used to avoid using the term ‘social work’, which has a more specialized meaning in the post-1950 period.

¹⁴¹ ‘Mrs. Lyttelton’s Amusing Plea’, p. 6.

women pursuing professional careers, heightened fears that the modern woman was neglecting her domestic responsibilities. An editorial in *The Ladies' Pictorial* noted with exasperation:

Again and again, until its reiteration has made us a-weary, we have been told that the educational movement of the last 30 years has brought about domestic chaos, and that the art of domesticity is decaying in the land.¹⁴²

The implications of industrialization for domestic and social life were also beginning to be discussed in a more reflective vein. A *Times* article in 1909, for example, considered how many of the home's traditional functions were being taken over by commercial firms--in catering, cleaning, laundering, and food processing--and how this had affected domestic economics and household organization.¹⁴³ Elizabeth Macadam, Warden of the Victoria Women's Settlement in Liverpool and a supporter of the household science movement, pointed out in an address to the ATDS in 1909 that such changes meant that England could 'never return to the days when each family was a separate unit, providing its individual needs' and that the 'modern spirit' was towards 'association and cooperation'.¹⁴⁴

Although this 'decline' in home life was largely an illusion created, as Jose Harris points out, by the rising 'moral and practical standards by which families were judged', the anxiety nevertheless prompted a new realization of the importance of 'the

¹⁴² 'Women for the Hearth', *Lady's Pictorial* LV (1 Feb. 1908), p. 148.

¹⁴³ 'Home Economics as a Career for Women', *The Times* (4 May 1909), p. 14c.

¹⁴⁴ Elizabeth Macadam, 'Social Aspect of Domestic Science Teaching' in 'Association of Teachers of Domestic Science--(1). Liverpool Conference.', *Education* XIII:335 (28 May 1909), p. 333.

home' and family to society.¹⁴⁵ Liberals and conservatives alike agreed that home and family were the warp of society's moral fabric and the locus of national and even imperial stability, especially in an age of declining religious belief. In Jane Lewis's words, the household was regarded as the 'fundamental unit of the polis and as such the agent of social progress as well as the object of social reform'.¹⁴⁶

The point of dispute amongst those calling for reform, however, was the means by which home and family life could best be preserved.¹⁴⁷ In the mid-nineteenth century social theorists such as Herbert Spencer and Frederic Harrison had argued that the only way to ensure the constancy of family life was to confine women to the domestic sphere. By the early twentieth century interventionist or 'collectivist' solutions to domestic problems began to be sanctioned, as formerly private domestic concerns were addressed in the public or political arena.¹⁴⁸ As Jose Harris notes, 'traditionally private and microscopic issues as child care, nutrition, physical exercise and personal hygiene were increasingly perceived as part of the public and macroscopic concerns of society, nation, Empire and race.'¹⁴⁹ Michael Freeden has suggested that this shift was due to a new understanding of the relationship between 'physical

¹⁴⁵ Harris, *Private Lives, Public Spirit*, p. 95; 'Home Economics as a Career for Women', *The Times* (4 May 1909), p. 14c.

¹⁴⁶ 'Home Economics as a Career for Women'; Lewis, *Social Action*, pp. 7, 11-12.

¹⁴⁷ Lewis, *Social Action*, pp. 11-12; Alice Ravenhill, 'Eugenic Ideals for Womanhood', *Eugenics Review* I (1909-1910), p. 226.

¹⁴⁸ 'Home Economics as a Career for Women'; Lewis, *Social Action*, p. 7; Dyhouse, *Feminism and the Family*, pp. 71-72.

¹⁴⁹ Harris, *Private Lives, Public Spirit*, p. 231.

normalcy and intellectual and moral progress' brought about by advances in biology in the last quarter of the nineteenth century. Although Darwin's theories on speciation had led some to conclude that human characteristics (both physical and mental) were heritable and therefore immune to environmental influences, most Edwardian social reformers subscribed to 'environmentalist' theories which maintained that positive changes in the environment could ameliorate or even correct physical and mental deficiencies, and that social policy should be framed accordingly.¹⁵⁰ Edwardian welfare reforms such as the provision of school meals and the medical inspection of schoolchildren were attempts--albeit limited ones--to enhance the physical 'efficiency' of the most vulnerable members of society by improving their material or physical circumstances.¹⁵¹

Surprisingly, however, anxiety about the quality of home life did not necessarily result in a back-to-the-home traditionalist crusade against the modern woman. Although there were some (largely male anti-suffragists) who believed this to be the best solution, others were supportive of the changes in women's social position and prepared to consider potentially radical solutions to the problems of domestic life. For example, the *Times' Woman's Supplement* commented that although the English home was 'not what it used to be' it was wrong to blame the 'advanced woman':

¹⁵⁰ Michael Freeden, *The New Liberalism: An Ideology of Social Reform* (Oxford: Clarendon Press, 1978), p. 170; Harris, *Private Lives, Public Spirit*, pp. 242-243; G.R. Searle, *Eugenics and Politics in Britain 1900-1914* (Leyden: Noordhoff International Publishing, 1976), p. 64; Harry Hendrick, *Child Welfare in England 1872-1989* (Routledge, 1994), pp. 84-85.

¹⁵¹ Freeden, pp. 170-174; Anne Digby, *British Welfare Policy: Workhouse to Workfare* (Faber & Faber, 1989), p. 42.

It must be remembered that, when conditions change, it is not always through neglected duties or increased self-seeking. ... The conditions have changed--that is the fact; and the duty of each generation is not to render stubborn resistance to inevitable change, but to make the best use of its own conditions.¹⁵²

There was much discussion about 'cooperative' living, whereby families dined in communal kitchens and shared cleaning, laundry and child-care arrangements. The concept was not new in England, but was revived in the early 1900s through the work of the American feminist Charlotte Perkins Gilman.¹⁵³ Gilman's books provided a radical critique of 'the home' and the social position of women.¹⁵⁴ Although Gilman was actually opposed to families 'cooperating' in housekeeping duties (advocating instead that housework should be done by paid professionals), her campaign for 'kitchenless' houses was taken up by those promoting communal housing developments and inspired other schemes of household reorganization. A 'Society for the Promotion of Co-operative Housekeeping and House-Service' was created in 1911 by Alice Melvin, an enthusiast for the 'garden city' movement who had founded her own cooperative

¹⁵² 'The Disintegration of Family Life', *The Times Woman's Supplement* 14 (31 Dec. 1910), p. 109.

¹⁵³ Experiments in cooperative living had first been made in England by the utopian socialist Robert Owen in the early nineteenth century, and had been resurrected again in the 1880s. See Dyhouse, *Feminism and the Family*, p. 111-114.

¹⁵⁴ Charlotte Perkins Gilman, *Women and Economics: A Study of the Economic Relation Between Men and Women as a Factor in Social Evolution*, edited by Carl N. Degler (1898; New York: Harper Torchbooks, Harper & Row, 1966); *The Home, Its Work and Influences* (McClure, Phillips & Co, 1903). Gilman had been urged to write *Women and Economics* by Sidney and Beatrice Webb, whom she had met at the International Socialist and Labour Congress in England in 1896. Gilman toured Britain again in 1905. Polly Wynn Allen, *Building Domestic Liberty: Charlotte Perkins Gilman's Architectural Feminism* (Amherst: The University of Massachusetts Press, 1988), pp. 45-47; Dyhouse, *Feminism and the Family*, p. 117; Pearson, p. 69.

house at Brent Garden Village.¹⁵⁵ The Fabian Society was also interested in Gilman's proposals and appointed a 'Committee to Reorganize Domestic Work' in 1914.¹⁵⁶ H.G. Wells enshrined the 'kitchenless' concept in his book *A Modern Utopia* (1905), and encouraged the building of some kitchenless dwellings at the garden city developments at Letchworth, Welwyn, and Hampstead.¹⁵⁷

Members of the household science 'inner circle' likewise subscribed to the Gilmanesque view that 'the home' was 'not fulfilling its function' as a social institution and that reforms were necessary. Ravenhill argued in 1903 that the household had somehow been bypassed by the technology and scientific discoveries which had so transformed industry, and that habit and custom in housekeeping were thwarting the 'legitimate changes consequent upon social development'.¹⁵⁸ Nevertheless, the household science movement embodied a more theoretical approach to the problems of domestic life than that of Gilman. Ravenhill and others of the 'inner circle' believed that it was society's failure to discover and apply the underlying scientific principles involved in domestic life that was at the root of domestic inefficiency, ill health and, ultimately, social disharmony. Ravenhill wrote in 1910:

¹⁵⁵ Pearson, pp. 119-122.

¹⁵⁶ Dyhouse, *Feminism and the Family*, p. 123.

¹⁵⁷ *Ibid.*, pp. 117-118; H.G. Wells, *A Modern Utopia* (Chapman & Hall, 1905), pp. 216-217.

¹⁵⁸ Alice Ravenhill, 'Hygiene and Household Economics', in *The Nation's Need: Chapters on Education*, ed. Spenser Wilkinson (Archibald Constable, [1903]), pp. 91-92. See also Mabel Atkinson, 'Science in the Home: The Complete Housewife in the Making', *The Daily News* (1 June 1909), p. 4e.

To waste time, energy and money merely on the palliation of symptoms is now recognised as false economics and misplaced philanthropy; therefore, the duty of tracing symptoms to causes must become paramount, and the knowledge must be acquired how to remove these causes with courage, tact, and resource; otherwise the balance wheel of human efficiency, instead of being redressed by the regulators of our social machinery, will be but further, though perhaps less obviously, disturbed.¹⁵⁹

Those supporting the household science movement believed that any reform of the home must thus be based on firm scientific and social-scientific principles; reforms which merely focused on improving women's housewifery skills or 'reorganizing' household functions, they argued, treated the *symptoms* rather than the *causes* of domestic ills and might even reinforce harmful methods and unscientific 'rule-of-thumb' practices.¹⁶⁰ This view found support in the press. *The Times* proclaimed in 1907, 'The time has gone by for instructing merely in details, ... the hour has come for studying broad underlying principles.'¹⁶¹ An editorial in *Education* observed:

[S]o long have these subjects been relegated to the realm of empiricism that little encouragement or facility has been afforded to diverge from accepted practice, or to trace the principles upon which the familiar processes of cooking and cleaning are based; and few efforts have been made to delve into the scientific foundations of arts strongly tinged with the flavour of drudgery, or to raise their study to a plane which would permit a truer estimate to be formed of their intimate connexion [sic] with national efficiency or which would allow their wide scope to be seen in true perspective.¹⁶²

¹⁵⁹ Alice Ravenhill, 'The Claims of Home Life on Professional Women', *Education* XVI:398 (12 Aug. 1910), p. 98.

¹⁶⁰ Ravenhill, 'Hygiene and Household Economics', p. 91.

¹⁶¹ 'Home Economics as a Career for Women', p. 14c.

¹⁶² 'Women and Household Economics', *Education* XI:266 (31 Jan. 1908), p. 82.

An 'applied science of the household' thus involved bringing together the relevant scientific disciplines such as biology, physiology, chemistry, physics, ethics, and economics, and teaching them with special regard to their bearing on various aspects of domestic life: food and nutrition, personal and domestic hygiene, housing, and social and civic life.

The desire to establish an applied science of the household reflected more than optimistic faith in the capacity of 'science' to identify and remedy social ills; it also reflected a realization that the problems of the household had been entirely neglected by the universities and the existing academic disciplines. Advocates of household science believed that progress in social issues depended upon remedying this neglect. Halford Mackinder suggested in 1909 that the savings which would accrue through the scientific study of domestic problems might 'prove to be such a sum as would ... put a stop in the preparation of the national budget'.¹⁶³ Although hyperbolic, Mackinder's point was argued in more cautious terms by another ardent supporter of the household science cause, Mabel Atkinson. A graduate of Glasgow University and a former research student at the LSE, Atkinson was a prominent feminist writer and suffrage campaigner who taught economics at KCW from 1908-1914. She pointed out that housekeeping--'the largest single industry in England'--had been 'entirely neglected' by neo-classical economics.¹⁶⁴ In an essay for a book edited by Ravenhill and Catherine

¹⁶³ 'Mrs. Lyttelton's Amusing Plea', p. 6g.

¹⁶⁴ 'Home Science and Household Economics', *Education* XII (17 July 1908), p. 42.

Schiff,¹⁶⁵ *Household Administration: Its Place in the Higher Education of Women*, in which she surveyed the social and economic position of the household in past epochs, Atkinson argued that the study of household economics and consumption patterns would necessitate a revision of both economic history and economic models of production and consumption.¹⁶⁶ She predicted, too, that the study of household economics might lead to ‘certain modifications’ being made in household organization or in the socio-economic position of the home.¹⁶⁷

Inherent in the household science movement was a critique of the traditional academic model of ‘liberal education’. Academics who supported the household science movement argued for the modernization of higher education and the provision of training relevant to modern professions and occupations. Oakeley--despite her classical education--believed passionately that the development of new fields of knowledge such as household science was inevitable in the evolution of higher education and part of the progressive, reform-minded *Zeitgeist* of the Edwardian era:

¹⁶⁵ One of the early household science post-graduate students; little is known about her work or contribution to the movement.

¹⁶⁶ Mabel Atkinson, ‘The Economic Relations of the Household’, in *Household Administration: Its Place in the Higher Education of Women*, ed. Alice Ravenhill and Catherine Schiff (New York: Henry Holt, 1911), pp. 123, 205-206.

¹⁶⁷ Both arguments have been reiterated by late twentieth-century feminists. See Bourke, *Husbandry to Housewifery*, pp. 4-6; ‘Home Science and Economics’, p. 42.

There are moments when a fresh breath is blown over the well-tended and carefully ordered fields of our systems from the ever-changing struggle of the world beyond. ...[W]ith inevitable logic there follows another wave of the movement for Higher Education, borne forward on the principle that knowledge is no respecter of subjects. ... [I]t seems to be of the first importance to prove that Higher Education is not an instrument too fine to smooth, or reconstruct and even make more beautiful and interesting the roads which a considerable number of people will continue to take.¹⁶⁸

Smithells urged that higher education needed to be reformed so as to 'better subserve the life interests of the average man or woman'.¹⁶⁹ He believed that 'literary erudition' had become a 'positive fetish' in England and questioned the legitimacy of existing disciplinary paradigms:

[T]here is such a thing as educational snobbery; there are conventions and proprieties, there are subjects which are *the thing* and there are subjects which are *not the thing* [W]hen we are seeking to introduce new elements and to enfranchise new people alongside the old, we find a kind of resistance that may drive us almost to the recklessness of revolutionaries and make us seek to dethrone the old in order to make a place for the new.¹⁷⁰

A proponent of the applied sciences, Smithells had campaigned for the reform of his own subject, chemistry, arguing that the subject matter of 'pure' chemistry as taught in universities was completely arbitrary and thus could be reconstructed to correspond more closely with the needs of industry.¹⁷¹

¹⁶⁸ Hilda Oakeley, speech in 'Hostel and Laboratories for Home Science', *Education* XXIV:601 (3 July 1914), p. 14.

¹⁶⁹ Arthur Smithells, 'The University and Women's Work', in *From a Modern University: Some Aims and Aspirations of Science* (Oxford University Press, 1921), pp. 68-69; Arthur Smithells, 'The Scientific Aspect of Domestic Subjects', *ATDS Yearbook 1907* ATDS: 177/4/4/1, p. 28.

¹⁷⁰ Arthur Smithells, 'The Educational Aspect of Domestic Subjects', in 'Northern Union of Domestic Economy Association', *Education* XII:293 (7 Aug. 1908), p. 85.

¹⁷¹ Smithells, untitled manuscript, [n.d., pre-1914?], Smithells Papers: MS416/500/1, pp. 8-9.

This desire to make education--especially the universities--more 'relevant' to modern society may be seen as a continuation of the reform process begun in the mid-Victorian period which led to the acceptance of natural science and other modern disciplines at Oxford and Cambridge. It also reflects a later reaction to the 'alienation' of academics from ordinary life which had occurred in the last quarter of the nineteenth century. Professionalization and the rise of the research ethic encouraged the pursuit of knowledge for its own sake or for the sake of professional advancement.¹⁷² By the turn of the century, however, both inside and outside the universities, there were demands that academics should direct their research towards the solution of social problems. An editorial in *The Times* of 1908 is representative of many in the period:

[Higher education was] designed in conformity with the ideals of an age which divorced philosophical studies from their practical applications in the struggle for existence. In recent years, however, certain social factors have assumed importance unsuspected half a century ago. This change bids fair to affect the question of curriculum and of educational method for women as well as for men.¹⁷³

The desire to create an applied science of the household was one facet of this larger movement, a result of what Oakeley termed the 'new ethics, or the new strength of the ethics of knowledge' which had deepened the consciousness of those 'who command knowledge ... of their responsibilities in bringing it to bear on the amelioration of life'.¹⁷⁴

¹⁷² Heyck, pp. 222-225; Robert Fox and Anna Guagnini, 'Classical Values and Useful Knowledge: The Problem of Access to Technical Careers in Modern Europe', *Dædalus* 116:4 (Fall, 1987), p. 158.

¹⁷³ 'Household Economics', *The Times* (24 Jan. 1908), p. 9.

¹⁷⁴ 'Miss Oakeley at the Gloucestershire School of Domestic Science', *Education* XVIII:461 (27 Oct. 1911), p. 262.

The university-trained women involved in the household science movement were particularly critical of the masculine values enshrined in academia which distanced it from the problems of the household, and questioned women's continued acceptance of those values. Lady Rücker argued in 1910:

The need for efficiency in technical affairs had forced the educational authorities to give degrees for the professions of Law, Medicine, Engineering, Veterinary Surgery, and Agriculture. Was it therefore too much to hope that the University would go a step further and recognize that inefficiency in women was as great a danger to the State as quackery in medicine?¹⁷⁵

The women's higher education movement had, as Mabel Atkinson conceded, conformed to a 'system of education framed for men and not for women' which consequently led to an 'undervaluation of domestic pursuits'.¹⁷⁶ Although unwilling to criticize the early pioneers, who had no option but to prove that women could compete with men in academia, they argued that women had already 'won' their point and that the women's higher education movement needed to reassess its goals in light of the social problems faced by modern British society. As Atkinson argued, the first generation had followed the only acceptable path at the time but 'the problems which call for solution by their successors ... have assumed a new form.'¹⁷⁷ Lady Rücker maintained, for example, that the high rate of infant mortality and the persistence of maternal ignorance were a 'blot' upon the women's higher education movement:

¹⁷⁵ 'University Standard in Home Science', *Education* XVI:392 (1 July 1910), p. 9.

¹⁷⁶ Atkinson, 'The Economic Relations of the Household', pp. 174-175.

¹⁷⁷ *Ibid.*

[Women] have had to prove that they were capable of working on exactly the same lines as men; but thanks to the splendid band of university trained women, we have proved this up to the hilt, and we have now ... to go further, and to carry the highest research into that field of activities which must ever occupy women.¹⁷⁸

Implicit in this critique of women's higher education was a belief that educated women had a special *duty* to undertake, and act upon, the research and the applied studies which were fundamental to any domestic reforms. Yet although they agreed that educated women, as a whole, must take this responsibility, Oakeley and her colleagues stressed repeatedly that the household science movement did not imply an attempt to prescribe women's choices in higher education; it merely aimed to provide the opportunity for *some* women to specialize in the subject under university auspices. For Oakeley, the household science movement constituted a new *dimension* in women's higher education: it implied no 'backward-looking, no break in continuity or change' from the original ideals of the movement but merely a 'spreading or extension of their illumination'.¹⁷⁹ She and her colleagues believed that educated women should challenge masculine prejudices against women's domestic work by taking 'the home'--and the associated problems of women's traditional sphere--into the academy.¹⁸⁰ Despite these high ideals, however, the implications of the household

¹⁷⁸ Lady Rücker, President's Address, 'ATDS Annual Meeting: May 8, 1908', *Education* XI:282 (22 May 1908), p. 379.

¹⁷⁹ Oakeley in 'Hostel Speech', p. 14.

¹⁸⁰ For a modern feminist critique of academia and the continued hegemony of masculine power within it see Gill Kirkup and Laurie Smith Keller, eds., *Inventing Women: Science, Technology and Gender* (Cambridge: Polity Press in association with The Open University, 1992), p. 7.

science movement for women's higher education provoked a heated contemporary debate amongst women academics which is addressed in the following chapter.

The belief that educated women had a special responsibility in social reform was rooted in the discourse of the Edwardian women's movement. The suffrage campaign was, as Mabel Atkinson pointed out in her essay, 'Women and the Revival of Interest in Domestic Politics', a manifestation of women's collective desire to participate more fully in national life and to have a voice in the formulation of social policy, especially where it involved 'domestic' issues:

Therefore many women feel--sometimes clearly and with comprehension, but more often half-unconsciously--that now, not after some indefinite time of waiting, must political rights be granted to them, a feeling expressed in that cry of the Women's Social and Political Union: "Rise up, women, *now*."¹⁸¹

It was recognized that the granting of the suffrage also implied new civic responsibilities for women, a view that was underpinned by the notion of 'municipal housekeeping', which conceptualized women's 'domestic' roles and responsibilities as extending beyond the private sphere of the household to encompass that of the wider community and even the nation. The concept was used generally in the period to explain women's participation in philanthropic and other community work.¹⁸² For example, an editorial in *The Morning Post* stated:

¹⁸¹ Mabel Atkinson, 'Women and the Revival of Interest in Domestic Politics', in *The Case for Women's Suffrage*, ed. Brougham Villiers (T. Fisher Unwin, 1908), p. 130.

¹⁸² Lewis, *Social Action*, p. 1.

The narrow circle of domestic duties has, under the new Qualification of Women Act, enlarged its borders to include the wide sphere of municipal housekeeping. The care of children of the State in some relations has long been women's high privilege. To this many responsible additions are now made. She is called upon to take part in the control of many forces and conditions under the tyranny of which she has long groaned in private, but has made little effort to attack.¹⁸³

For the women of the household science movement, the educated woman's duty to reconstruct 'the home' through the application of science was thus a natural extension of these 'domestic' responsibilities. Atkinson wrote:

Englishmen are learning--some of them with bitter disillusionment--that mere political freedom is in itself a mockery; that liberty must be used for some end. ... The forms of society must be gradually changed and fresh institutions brought into existence to take the place of those which are no longer suitable to our altered circumstances. We stand, in short, on the threshold of an age of reconstruction, of an organic era. ... [There] must inevitably be great modification of the most personal and domestic concerns of women.¹⁸⁴

Ravenhill pointed out in a fund-raising speech in 1908 that 'it behoved the modern woman to bring her home activities into line with the progressive methods adopted by men in their industrial and commercial undertakings, and to equip herself to utilise wisely the liberties she now enjoys.'¹⁸⁵

For advocates of household science the educated women's duty in 'municipal housekeeping' existed on two distinct (albeit not unrelated) levels. On the one hand they argued that it was a particular duty of educated women to undertake the necessary

¹⁸³ 'Household Economics: A New University Course for Women', *The Morning Post* (24 Jan. 1908), p. 9b.

¹⁸⁴ Atkinson, 'Domestic Politics', pp. 129-130.

¹⁸⁵ 'Home Science and Household Economics', *Education* XII:290 (17 July 1908), p. 42.

research and apply it to problems specific to domestic life. According to Ravenhill and Schiff, the creation of these new scientific household experts would revolutionize the lives of ordinary women by creating new standards of practice in domestic management:

It is by their skilled labour in the almost untrodden field of [household] science that the millions of homes will benefit ... [those] which are committed to the charge of women who possess neither the time, opportunity, nor ability to carry out these indispensable investigations, but who can yet effectively fulfil their responsibilities, if they be supported by systematic training and organized common sense, based on sound knowledge.¹⁸⁶

On a broader level, however, supporters of household science believed it to be a duty of middle-class women to equip themselves with the intellectual skills necessary in order to become effective social reformers--a reaction against the amateurism and ignorance which had characterized Victorian female philanthropy.¹⁸⁷ As *The Morning Post* pointed out in announcing the KCW course:

It is anticipated that many women of the leisured classes will gradually be attracted to a course of study ... which cannot fail to enhance their interest in processes hitherto accorded scanty appreciation, and to awaken more fully their sometimes dormant sense of the necessity for suitable equipment before assuming any responsibility in the affairs of households, large or small, private or public. Such women do not always need to acquire extensive skill with saucepan or washtub, but the necessity that they should be versed in the chief underlying principles of their daily duty is urgent.¹⁸⁸

¹⁸⁶ Ravenhill & Schiff, pp. vi-vii.

¹⁸⁷ Anne Summers, 'A Home from Home--Women's Philanthropic Work in the Nineteenth Century', in *Fit Work for Women*, ed. Sandra Burman (Croom Helm and Oxford University Women's Studies Committee: 1979), pp. 52, 57-58.

¹⁸⁸ 'The Higher Education of Women', *The Morning Post* (1 Aug. 1908), p. 5c.

Members of the movement were especially concerned to attract the 'leisured' woman, to whom the usual degree courses--and the prospect of university teaching--did not appeal.¹⁸⁹ According to Lady Rücker:

[T]his course will, we hope, prove attractive, not only to teachers to whom the University standing is important, but also to the wives and daughters of our leisured classes, who wish to train themselves for the best fulfilment of duties in their homes, or, if they are destined to play a part in the wider field of philanthropy or State Service, or county or other county councils. For these women we hope that we may open up careers of increased usefulness.¹⁹⁰

The new course was thus conceived of as a professional training for the *spectrum* of women's 'municipal housekeeping' roles--from the individual wife/mother working in her own home, to the 'leisured woman' involved in voluntary philanthropic work or local government, to the 'career' woman taking up work in domestic science teaching or in one of the various social welfare occupations opening up for women in the period (e.g. health visiting, sanitary or factory inspection, or child welfare work).¹⁹¹

The 'municipal housekeeping' view of women's domestic roles also informed the public call for housekeeping to be raised to the status of a 'profession'. For example, *The Times* noted in an editorial in 1909 that it was in the interests of 'national efficiency' that housekeeping be elevated to the rank of a 'skilled profession'.¹⁹² In part

¹⁸⁹ Oakeley, 'Appendix A', p. 503; 'From Week to Week: London University and Household Economics', *Education* XI:275 (3 Apr. 1908), p. 253.

¹⁹⁰ Lady Rücker, President's Address, pp. 378-379.

¹⁹¹ Letter by Faithfull, *et.al.*, *The Morning Post* No. 42330 (24 Jan. 1908), p. 9b-c.

¹⁹² 'Home Economics as a Career for Women', p. 14c.

this was related to the pursuit of professionalism endemic in other occupations at the turn of the century and the use of the term was largely rhetorical. Housekeeping was ambiguously referred to as a 'vocation', 'profession', 'career', 'job', 'craft', 'art' or 'science' in the discourse of the period--for example the *Journal of Education* pronounced in 1913 that 'housekeeping has too long been a job; it must become a craft and a science'.¹⁹³ The shortage of domestic servants in this period had also provoked a public debate about the status and working conditions of servants and the need to create a 'professional' standard for them; thus for many 'professionalizing' housekeeping meant creating special training schools where domestic servants and/or individual women could learn housewifery skills.¹⁹⁴ Generally, however, the idea of 'professionalizing' housekeeping merely reflected a new recognition that women did not instinctively know how to housekeep and raise children. As Jose Harris explains, by 1900 motherhood was 'increasingly seen as an activity of much greater moral, intellectual, and technical complexity, that needed to be learned artificially like any other professional skill.'¹⁹⁵ For advocates of household science, professionalizing domestic work involved effecting a revolution in the public's attitude of 'indifference and ridicule and contempt' of the domestic sphere by creating a niche for it in the academy, rather than to give the ordinary housewife a four-year course in science and economics.¹⁹⁶ 'The object in view', as summarized by *The Morning Post*, 'is to enlarge

¹⁹³ 'Higher Domestic Economy', *Journal of Education* XXXV (July 1913), p. 463.

¹⁹⁴ Pugh, p. 83.

¹⁹⁵ Harris, *Private Lives, Public Spirit*, p. 80.

¹⁹⁶ 'Domestic Science', *The Spectator* No. 4219 (8 May 1909), pp. 731-732.

the whole conception of housecraft, and to enhance, by the provision of opportunities for the highest and most scientific type of study, women's value in social service'.¹⁹⁷

¹⁹⁷ 'Household Economics: A New University Course for Women', p. 9b.



PLATE 1. Arthur Smithells, Pro-Vice Chancellor of
Leeds University 1904-1912



PLATE 2. Alice Ravenhill, Lecturer in
Hygiene, King's College for Women,
1907-1910



PLATE 3. Thereza, Lady Rucker



PLATE 4. Sir Arthur Rucker, Principal of the University of London, 1901-1908



PLATE 5. Lilian M. Faithfull, Vice-Principal,
King's College for Women, 1894-1907



PLATE 6. Hilda D. Oakeley, Vice-Principal,
King's College for Women 1907-1915



PLATE 7. Sir John Atkins, Chairman of the
KCHSS Executive Committee, 1922-1958

• CHAPTER 3 •

HOUSEHOLD SCIENCE AND HIGHER EDUCATION 1908-1920

The years 1908 to 1918--when the first university diploma examination took place--were years of experimentation and consolidation for the household science movement. The period saw KCW's 'Home Science and Economics' department become an independent department of London University in 1914 and its relocation to a newly-constructed building in Campden Hill Road, Kensington, in 1915. Originally the building erected in Campden Hill had been intended to accommodate the whole of KCW, with the Home Science Department leasing 21,050 feet of space to house the department and a student hostel.¹ However, following the report of the Royal Commission on the University of London of 1909-13 ('Haldane'), which supported the idea of establishing a separate university 'Household and Social Science Department', KCW's relatively impoverished art and science departments merged with King's College (Strand) and the Household & Social Science Department occupied the Campden Hill site alone.²

¹ Marsh, p. 49.

² This recommendation was partially due to the fact that the household science department had its own trust fund. For the events leading to the separation of household science from KCW see Marsh, pp. 46-57; 'Hostel and Laboratories for Home Science', p. 13; *Royal Commission on University Education in London*, (PP 1913 XL), pp. 398-400.

The independence afforded by the breach with KCW and the move to its own purpose-built facilities, combined with London University's decision to award a diploma for the three year course in 1916, opened a new phase in the history of the household science movement. Yet despite the optimistic buoyancy of these years, the period was paradoxically also the movement's most testing one. The household science movement had met with little criticism when first inaugurated in 1908; however, the fundraising campaign launched by Atkins in 1911, aimed at endowing the course, sparked off a public debate between its supporters and Ida Freund, lecturer in chemistry at Newnham College (1891-1913), about the course's academic integrity and its potential impact on women's higher education.³ According to Oakeley, the household science movement provoked 'one of the keenest conflicts of principles and methods which have occurred in the movement for the higher education of women.'⁴ This chapter explores the construction of household science as a new academic discipline in the period up until the granting of the B.Sc. degree in 1920. The first section analyzes the early household science syllabuses, showing how the early ideals of the movement were reflected in the curriculum. The second and third sections examine the educational controversies the movement engendered in the pre-war period. The fourth section traces developments in the discipline to 1920 and examines the impact of these controversies and other factors that tempered the original ideals of the movement.

³ See 'Queen Mary Hostel--Endowment of Home Science', *The Times* (26 May 1911), p. 8e; C.S. Bremner, 'King's College for Women: The Department of Home Science and Economics', *Journal of Education* XXXV (Jan. 1913), pp. 72-74.

⁴ Hilda Oakeley, 'Appendix A: King's College for Women', in Hearnshaw, p. 490.

Constructing a Discipline

Don't send your daughter up to King's,
 Mrs. Worthington.
 Don't send your daughter up to King's.
 They cut up poor frogs and rabbits and dogs,
 Don't ask me WHAT they do.
 They grill and they fry, I can't think why,
 The Course combines the two.⁵

The above verse, sung tongue-in-cheek by household science students in the interwar period, characterizes the general public misunderstanding of the nature of the household science course and its purposes. Although most of the contemporary educational periodicals and broadsheet newspapers gave accurate accounts of the movement and its aims, many of the more popular newspapers and journals, under headlines such as 'Educated Charwomen Wanted' and 'New Degree--Making Girls into Doctors of Domesticity', commended it for purportedly creating more efficient housekeepers and domestic servants.⁶ Maud Taylor recalled that these reports might have ruined the cause because the reporters seemed to have 'discarded the grain and presented the chaff'.⁷ A mocking poem by *Punch* surmised that household science syllabus would mainly involve cookery and other practical housewifely subjects:

⁵ T.J. Dillon, 'A Social History of Q.E.C. in Song', *Queen Elizabeth College Magazine*, No. 1 (1970), pp. 2-3.

⁶ For example, 'The Science of Housekeeping', *Black & White* (17 Oct. 1908) XXXVI:924, p. 504; see clippings in KCHSS: Q/PC1-2.

⁷ Taylor, 'Small Things', p. 33.

New Academics

There are those who desiderate Girton
 And a first in a tripos there are
 Who painfully seek
 To assimilate Greek
 On the classical banks of the Cher;
 There are, or there is (to be certain)
 Who thinks that these haunts
 should be shunned,
 And who wish that she
 May be styled B.Sc.
 (Domestic Economy) (Lond.).

It is not such unpractical knowledge
 That the twentieth century needs;
 But little it boots
 To be learned in roots
 If you cannot tell turnips from swedes.
 Then why should a girl go to college
 To study some fusty old art?
 For instance, why try
 To evaluate p
 When she might be concocting a tart?

Then away with classics and grammar!
 Away with old algebra too!
 For matric, let me take
 Apple-dumpling, seed-cake
 Boiled beef and a simple *ragout*.
 When I come to my "Inter." I'll hammer
 At household and Viennese bread,
 And I'll toil like a horse
 At a practical course
 In airing and making a bed.

At the Final I mean to go through it
 In style, and my luck will be rough
 If before I have done
 I am not in Class I
 In sweets--special subject, plum-duff.
 Then I hope to research in beef-suet,
 And though it may cripple my fund,
 Still I shan't grudge the fee
 When I'm once B.Sc.
 (Domestic Economy) (Lond.)⁸

⁸ 'New Academics', *Punch* CXXXV (14 Oct. 1908), p. 277.

Contrary to such popular assumptions, only one quarter of the household science syllabus was given over to practical household work. The first syllabus was constructed around a solid core of sciences relevant to the domestic sphere (chemistry, biology, physiology, bacteriology, and hygiene) together with economic history, practical domestic arts and business methods, and an elective element, which allowed students to choose from divinity, psychology, logic, English literature, ethics, or another course approved by the Vice-Principal.⁹ [TABLE 3.1]

What does the syllabus reveal about the construction of household science as a discipline and the motives of its founders? There is little surviving evidence directly relating to how the first syllabus was derived, but as there were no British precedents it may be assumed that Ravenhill's and Oakeley's acquaintance with American home economics had some impact on the shape of the KCW course. The first course was, like Marion Talbot's course at the Chicago, heavily weighted towards the biological sciences, reflecting the founders' belief that domestic ills largely stemmed from a failure to understand and apply basic scientific principles to domestic life, especially those relating to hygiene and nutrition. Nevertheless, the inclusion of non-scientific elements such as economic history as an elective course in either social science or the arts reflected the broader aims of the movement--the desire to create a course which would train women for all aspects of 'domestic' work in the home and in the community, which implied not only a knowledge of science but also an understanding of the

⁹ *Syllabus of Lectures, King's College for Women*, KCHSS: KW/SYL16 (1908-1909), pp. 74-75, 84-85.

complex material, ethical and spiritual factors involved in the care of human life. Oakeley was especially keen that the course should include a 'humane' element as a counterpoise to the sciences and maintained that this aspect of the curriculum was crucial. In her speech before the Japan-British Exhibition in 1910, she warned:

This movement seems destined to succeed, perhaps rapidly, and I fear the dangers which may come with a rapid success, to a scientific movement, in a scientific age. ... If on account of the inevitably large demands of Science, Pure & Applied, in this kind of education, the grouping with Science of other subjects on the side of culture should be neglected, then I fear the training would tend to become more technical and professional, and would lose what the early promoters regarded as part of its mission. ... We want to establish for Home Science a humane tradition ... [and] in doing so we may find that the movement is part of a Reform movement beyond the bounds of 'Home Science'.¹⁰

The inclusion of an element of economic history was probably influenced by Ravenhill and Atkinson, both of whom were interested in wider issues of 'the home' as a social institution and believed that the study the household in a historic context would give students a broader view of the political and social factors impinging on its activities.

The purpose of the 'household arts' in the curriculum was not, however, to make its students efficient in practical housewifery. The 1912-13 syllabus shows that students were taught practical skills such as cookery, laundrywork, food preservation, dietetics, catering, and accounting.¹¹ However, the point of these of these courses was to give students a *basic knowledge* of domestic techniques in order to further their

¹⁰ Oakeley, 'Home Science and Higher Culture', KCHSS: QAP/GPF7/3, pp. 17-18; 'University Standard in Home Science', pp. 9-10.

¹¹ *University of London, King's College for Women: Home Science Course*, KCHSS: KAS/AC11/F1 [n.d., c.1912], pp. 7, 14.

understanding of the relationship between scientific principles learnt in the laboratories and their practical applications. The course included work in the 'Kitchen Laboratory', which involved the practical applications of the pure chemistry work, such as tests on different forms of fats, milk products, soaps, fabrics, etc.¹² As Maud Taylor explained in 1910:

[T]he whole conception of Housecraft has so far ended with the acquirement of *manipulative* skill--classes all over the country--from training schools to Elementary sch[ools] have treated the subject as a *matter for the hands*. We are trying to produce women who will *housekeep* (I use the term broadly) in the individual home--in municipal affairs--in institutions--& in teaching--by means of a fully trained intelligence in the matter. Our practical Dom[estic] Arts are arranged as part of our Lab work--the kitchen application of what is being done in test tubes. The hours assigned in our time table plainly show that we only attempt this.¹³

Since the vast majority of the students taking the course would, given the fees involved, be drawn from the middle classes, it was assumed that many would be unfamiliar with the practical domestic arts and thus it was necessary to include them in the curriculum. Most students would not, however, need to acquire great technical proficiency in cookery and laundrywork--the middle-class housewife would have some type of domestic help, whilst the 'career' woman would not be working in occupations demanding more than a general acquaintance with techniques.¹⁴

¹² *Home Science Course* [c.1912], p. 7.

¹³ Maud Taylor to Miss Parkin, 27 Nov. 1910, KCHSS: QA/CC/77, pp. 3-4.

¹⁴ See remarks by M. Michaelis in 'Domestic Economy Teaching in Girls' Secondary Schools: Conference at Gloucester--(2)', *Education* XVII:430 (24 Mar. 1911), p. 178.

Despite the effort to create a balanced curriculum, however, the syllabus devoted relatively little time to non-science subjects, in part owing to the need to timetable laboratory practicals for each of the science subjects. Oakeley's fears about the encroachment of science upon the 'humane' elements of the course proved to be well-founded, as the syllabus from 1912-13 shows an increase in the amount of science hours at the expense of the arts and social sciences. [TABLE 3.2] General chemistry and biology were, by this point, taught not for one but for two years, and bacteriology and 'economic biology' (which dealt with household pests and other organisms) were also added to the third year. The optional element was eliminated entirely, although students could elect to take extra courses in psychology and ethics, and economic history was merged with economics.¹⁵ These changes largely reflect the experimental nature of the first syllabus, which was modified as the department gained experience of the abilities and needs of its students.¹⁶ However, the augmentation of the science content of the course in 1912-13 must also be seen in the context of the pre-war educational controversies about the academic legitimacy of the course.

¹⁵ *Three Years Home Science Course*, KCHSS: KAS/AC11/F1 [n.d., c.1912], pp. 1-2; 'Addendum: Three-Year's Course--Distribution of Hours', in *Report on Practical Work*, p. 641.

¹⁶ See Hilda Oakeley's note in 'Addendum', *Report on Practical Work*, p. 641.

Science in Danger?: Applied Sciences and Household Science

We on our part felt convinced that unless we broke free from academic convention to a considerable extent, we should make no headway. We made out our own courses in our own way.¹⁷ --Arthur Smithells

Ida Freund's critique of the household science movement was launched at a conference convened in 1911 by the Gloucestershire Education Committee to discuss the use of 'domestic science' methods, which were seen by some as a threat to the teaching of 'pure' sciences in girls' secondary schools. Freund, who was deeply concerned about raising the standards of science in girls' schools, submitted a detailed paper criticizing the new 'domestic science' methods and KCW's household science course.¹⁸ Its subsequent publication in *The Englishwoman* and in *Education* in May/June 1911 provoked a public correspondence between Freund and members of the household science group, carried out in the pages of *Education* and the suffragist journal *Common Cause*, which was to span more than a year.¹⁹

¹⁷ Smithells to Helene Reynard, 5 Dec. 1928, KCHSS: QA/CC/50, pp. 1-2.

¹⁸ 'Domestic Economy Teaching in Girls' Secondary Schools: Conference at Gloucester, 18 February 1911', *Education* XVII (3 Mar. 1911), pp. 135-140. The issue was also discussed at a conference in Bradford. See Arthur Smithells' discussion in 'Secondary Schools Association: Conference at Bradford' *Education* XVII:428 (10 Mar. 1911), pp. 143-144. See also Ida Freund's earlier letter (written conjointly with several Cambridge colleagues) criticizing 'domestic science' methods, 'Science Teaching in Girls' Schools, by Four Girton and Newnham Tutors', *Journal of Education* XXXII (Jan. 1910), pp. 36-38.

¹⁹ Ida Freund, 'Domestic Science--A Protest (1)', *Education* XVII (2 June 1911), pp. 335-337, and 'Domestic Science--A Protest (2)' *Education* XVII:441 (9 June 1911), pp. 350-352. Subsequent references are to the full versions of these two papers, 'Domestic Science--A Protest', *The Englishwoman* X:29 (May 1911), pp. 147-163 (Hereafter 'Protest--1'), and 'Domestic Science--A Protest', *The Englishwoman* X:30 (June 1911), pp. 279-296 (Hereafter 'Protest--2'), unless otherwise indicated.

Freund did not object in principle to the concept of an applied science of the household, which she described as a 'comprehensive, well-proportioned application of physics, chemistry, and physiology to the production of certain definite effects required in the daily life of a household'.²⁰ Nevertheless, she argued that KCW's household science course was academically unsound and that members of the household science movement, by their 'undue haste', were thwarting the 'legitimate growth and development of a real science of housecraft'.²¹ Attempts to elevate the subject to the status of a university discipline were, in her view, premature:

At our bidding, like Athena out of the head of Jupiter, from between the covers of Mrs. Beeton there is to emerge the embodiment of a newer and better way, the glorious goddess called [Household] Science; under her sway all that has been obscure, difficult, and slow of accomplishment is to be made clear, easy, and rapid; she is to be at birth already so strong and well-developed that as a right she can demand a place in those temples of learning called the Universities, there to be honoured as the equal of such deities as Physics, Physiology, Agriculture, and Genetics, who, whether old or young, had first to make good their claim to admission by mighty achievements, by saying, "This I have done," and not merely, "This I can do, or will do, or ought to do."²²

She contended that disciplines such as agriculture or engineering, with which the household science course was often compared, had only been admitted to the pantheon of university disciplines following the development of a body of scientific literature.

Whereas agriculture had well-established periodicals such as the *Annals of Agriculture*

²⁰ Freund, 'Protest--2', p. 281.

²¹ *Ibid.*, pp. 279-280.

²² Freund generally used the term 'domestic science' to refer to both the new methods used in secondary schools and to KCW's household science course: 'household' has therefore been substituted for 'domestic' where necessary. Ida Freund, 'A Degree Standard in Home Science', *Common Cause* III (14 Mar. 1912), p. 834; Freund, 'Protest--1', pp. 150-151.

(first published in 1784), and the scientific *Jahresberichte der Agriculturchemie* (1858), household science had yet to develop a body of published knowledge relating to the scientific principles underlying the domestic arts. Comparisons between household science and engineering were ‘superfluous’, she claimed, as engineering had been recognized as an applied science for ‘thousands of years’.²³

Freund contended that there was a ‘definite course’ along which a ‘craft’ was transformed into a ‘science’ which the household science movement had attempted to bypass. Borrowing an analogy from Oliver Wendell Holmes, Freund argued that there were three stages in this process corresponding to Holmes’ three types of intellect, namely ‘one-story intellects, two-story intellects, three-story intellects with skylights’:

All fact-collectors who have no aim beyond their facts are one-story men. Two-story men [compare], reason, generalise, using the labours of the fact-collectors as well as their own. Three-story men idealise, imagine, predict; their best illumination comes from above, through the skylight.²⁴

She maintained that household science was still in the pre-disciplinary stage of ‘collecting, sifting, and co-ordinating the facts which empiricism has brought to light’ which were the building blocks out of which a ‘science of the future’ could be built.²⁵

‘However much we may desire to hasten a process of development, we cannot do so by trying to reason, generalise, and predict before we have collected and arranged our

²³ Freund, ‘Protest--2’, p. 280.

²⁴ *Ibid.*, pp. 281-282.

²⁵ *Ibid.*, p. 282.

facts', she wrote.²⁶ Freund insisted that this factor, combined with the lack of teachers competent to deal with both the 'pure' sciences and the domestic arts, demonstrated the 'futility of talking ... of the *necessity* of a university standard' in household science when '*impossibility* overrules *necessity*'.²⁷ She concluded that advances in the subject could only be made by first concentrating on the study of household crafts which, although of value, could not be considered 'academic'.²⁸

Freund maintained that the household science course was also academically suspect because students were not able to take any one science subject up to 'university standard'. In enumerating the different subjects encompassed in the syllabus, Freund argued:

It is a common experience of all college lecturers in science, that in the case of the majority of the women students three years are barely sufficient for attaining in *three* pure sciences to a standard satisfactory as regards knowledge and grasp of method; it is not likely that the students proceeding to the study of [Household] Science will start better prepared than those who come to Cambridge, in fact the reverse is more probable. The inference is obvious.²⁹

The household science course would produce students who were incapable of undertaking proper research. '[T]o set young women who know comparatively little chemistry and less physics to dabble in research entails grievous waste of time, besides that bad effect on character which follows inevitably from attempting serious work in

²⁶ Freund, 'Protest--2', pp. 281-282.

²⁷ *Ibid.*, pp. 282-284.

²⁸ Freund, 'Domestic Science--A Protest (2)', *Education*, p. 350.

²⁹ Freund, 'Protest--2', p. 284.

the spirit of the amateur,' she wrote.³⁰ 'Research' undertaken in the name of household science by students with no grasp of the complex scientific processes involved in cookery would necessarily be of a completely different nature than that conducted in the 'pure' sciences.³¹ It could only attempt a crude application of scientific *methods* rather than 'pure' research into scientific *principles*. As an example, she explained how she had adapted a madeira cake recipe into one for chocolate cake, making adjustments in proportions of flour and sugar to allow for the chocolate. 'Only think,' she wrote, 'all these years I have been doing research work in [Household] Science without knowing it!'³² Although admittedly an exaggerated example, she maintained that it was closer to the type of 'research' which would be conducted in household science than that which would be recognized as qualifying for a research degree.

Freund's critique did misrepresent the household science movement in several respects. Firstly, the founders of the household science movement had not claimed that a 'degree' standard had been realized, although they openly stated that was their goal. Nor had the founders of the three-year KCW course envisaged that it would enable students to engage in 'pure' research--although they had hoped that research would take off (albeit not at the undergraduate level) once the course had been properly established.³³ Freund tended, moreover, to confuse 'domestic science' in the schools

³⁰ Freund, 'Protest--2', p. 285.

³¹ *Ibid.*, pp. 283-285.

³² *Ibid.*, p. 286.

³³ The weakness of the 'post-graduate' course and other problems in establishing a research tradition are discussed in Chapter 6.

with the university-based household science movement, using the term 'domestic science' to refer to both. Her criticisms of the methods and aims of the former--which were highly problematic--were sometimes applied indiscriminately to the latter.³⁴

Both Smithells and Rücker regarded Freund's arguments about the 'prematurity' of household science as a discipline and the impossibility of achieving a 'university standard' in the various science subjects as essentially irrelevant. For Smithells and Rücker, both of whom had experience developing applied science courses at Leeds University, household science was simply another applied science discipline. As Rücker pointed out, Freund's arguments had '*mutatis mutandis*, all been heard before' when other applied sciences were first established at university level:

Does Miss Freund think that ... [we] ... are to be turned back by the old cries of "smattering," over-full curricula and the like[?] These difficulties are in many instances real, but they have been overcome in the cases of other subjects.³⁵

Experience had shown that the emergence of a new university discipline was not contingent upon its having reached some abstract level of maturity.³⁶ Rücker cited the

³⁴ 'Professor Smithells Replies to Miss Freund', *Education* XVII:441 (9 June 1911), p. 352. (Hereafter 'Smithells Replies')

³⁵ Rücker had studied natural science and mathematics at Oxford, and had served as professor of mathematics and physics at Leeds (1874-1886) and as professor of physics at the Royal College of Science, London (1886-1901). He was also involved in incorporating the Greater London Colleges into the University of London, for which he was made its first principal in 1901. R.J. Howarth, pp. 572-573; Sir Arthur Rücker, 'A Reply to Miss Freund's Paper', *Education* XVII:440 (2 June 1911), pp. 336-337.

³⁶ For material relating to the development of engineering see R. A. Buchanan, *The Engineers: A History of the Engineering Profession in Britain, 1750-1914* (Jessica Kingsley, 1989); H. Billet, 'Engineering' in Thompson, pp. 161-182; George S. Emmerson, *Engineering Education: A Social History* (Newton Abbott: David & Charles, 1973); T.J. Hilken, *Engineering at Cambridge University 1783-1965* (Cambridge: Cambridge University Press, 1967). For material relating to agriculture see J.D. Sykes, 'Agriculture and Science', in *The*

case of engineering, pointing out that the subject had not reached any particular state of maturation when first introduced as a university discipline in the nineteenth century and that its modern form--a synthesis of theory, laboratory work and practical training--had only resulted after nearly a century of compromise and experimentation.³⁷ The whole point of bringing a subject into the university fold was to *create* the intellectual and institutional milieu in which the discipline could develop; as Smithells, Rücker, and the other members of the household science 'inner circle' argued, it was necessary to create household science precisely because the 'pure' science disciplines were not addressing those urgent domestic questions which were fundamental to the Edwardian social agenda. As Rücker put it, 'Turn the attention of a number of able people in the same direction and, though it may be impossible to foresee the details of what will happen it is safe to predict that science will advance and that ... "the crooked shall be made straight and the rough places plain."' ³⁸

Smithells countered Freund's claims about the 'prematurity' of the household science course by enumerating the topics connected with domestic life into which science had already entered (e.g. fuel, steam, lighting, food preservation, fermentation, textiles, dyeing, metals, water and water supply, refrigeration, food adulteration, moulds), asking:

Victorian Countryside I, ed. G.E. Mingay (Routledge & Kegan Paul, 1981), pp. 260-272; Sir E. John Russell, *A History of Agricultural Science in Great Britain* (George Allen & Unwin, 1966).

³⁷ A. Rücker, pp. 336-337.

³⁸ *Ibid.*, p. 337.

Where are these things taught? How are they to be taught unless some University enters on the task? How much do your tripos students know about these things or how much do they learn about them afterwards? Nay, one might ask, how much do University professors deal with these things? ... I assure you that I can provide you with plenty of research literature relating to household science, and I can provide plenty of topics for research. ... I really do not understand your contention that we must wait for a household science to be developed.³⁹

As Smithells pointed out, the specialist academic knowledge upon which household science could base itself was not, as Freund insisted, non-existent, but rather dispersed arbitrarily amongst other disciplines; there was no reason why that knowledge could not be grouped in a new way.

Smithells took particular exception to Freund's claim that the science curriculum of the household science course was not of 'university' standard, arguing that her criticisms were 'utterly unjust'. He maintained that she misunderstood the nature of applied science, pointing out that in all applied disciplines the science component was a 'composite thing' based upon a combination of different pure science subjects, the subject matter of each being tailored according to the aims of the discipline.⁴⁰ Using the example of leathermaking, a degree course at Leeds, Smithells wrote:

³⁹ 'Smithells Replies', p. 353.

⁴⁰ *Ibid.*, pp. 352-353.

What should a man know who wishes to conduct the manufacture of leather scientifically? Consider the tremendous scientific complexity of his problem--the minute anatomy of the hide, the bacteriology of putrefactive changes, the organic chemistry of the tannins and proteins, the minute chemistry of chromium, the theory of colloids and a host of other things. It is easy to understand that anyone living in an atmosphere where sciences are conceived mainly from the academic standpoint might lay it down that nothing could be done in the problems just named without a very protracted, thorough and unspecialised study of fundamental sciences. As a matter of experience, however, it is found that though students cannot have too much of this preliminary science, and often have less than they need, it is possible within three years, with capable students, to bring them to such a point ... that they have a good understanding of the science of leather manufacture, can direct it rationally, and can enter upon the investigation of new problems connected with it.⁴¹

Smithells emphasized that the purpose of household science, like other applied sciences, was not to give students an exhaustive training in each individual science subject but rather the 'mental discipline' and relevant knowledge which would enable them to carry out practical applications of science and to solve problems in an intelligent manner.⁴²

Smithells and Rücker suggested that Freund's criticisms were influenced by her own 'pure' science sensibilities. Rücker maintained that they reflected an anti-commercial, anti-practical attitude which was rife in English higher education. 'It is this spirit to which Miss Freund, in spite of all her courteous disclaimers, is really appealing when she waves the red flag of science in danger,' he wrote.⁴³ Rücker also contended that Freund made too much of the difference between a 'science' and a 'craft'. He

⁴¹ 'Smithells Replies', p. 353.

⁴² *Ibid.*, p. 352.

⁴³ A. Rücker, p. 337.

insisted that the boundary between the two was not clear-cut and should be treated rather as a 'political limit which an army can overpass, than as a "great gulf fixed" like the interspace between planet and planet, which for ever bars the way.'⁴⁴

It is possible that there was something in these charges. Freund was known by her colleagues for her 'fidelity to principles' and her dislike of 'anything slovenly and superficial'; one recalled that Freund had regarded 'domestic science' as an 'insult to Science in the nature of *lèse majesté*'.⁴⁵ Freund, who had begun her student life at Cambridge in the 1880s, belonged to the early generation of women graduates who approached scholarship as a 'given'--those who had desired to be admitted on equal terms to the 'community of knowledge' as it existed for men.⁴⁶ However, as Smithells conceded, many of Freund's objections to household science stemmed not so much from an antipathy to the concept itself or to the applied sciences in general as from a fear that household science would injure the interests of women's education.⁴⁷ Smithells and Rücker were, by contrast, active discipline builders with progressive agendas for the reform of university education and part of a long line of university reformers who questioned, like Henry Sidgwick before them, the assumption that "training the mind"

⁴⁴ A. Rücker, p. 337.

⁴⁵ 'Ida Freund', *Girton Review* New Ser. 41 (May Term 1914), p. 12; Alice Gardner, 'Miss Ida Freund', *The Cambridge Review* XXXV:883 (27 May 1914), p. 470.

⁴⁶ See above, p. 80ff.

⁴⁷ 'Smithells Replies', pp. 353-354.

is a process essentially incompatible with "imparting useful knowledge."⁴⁸ Smithells was an iconoclast where academic traditions were concerned; he once remarked that he 'hated' examinations, certificates, and even degrees because they were 'so vastly overrated and because they were so apt to bring any educational system into a form of cast-iron rigidity'.⁴⁹ Rücker was less radical, but his arguments were equally suffused with an irreverence for disciplinary paradigms and the desire to make British universities more relevant to modern conditions. Rücker pointed out, for example, that although 'no praise was too high for work that has been and is being done by those who have travelled along the ordinary academic highway' it was a 'serious mistake to think that only one road leads to Rome'.⁵⁰

Household Science and Women's Higher Education

Enthusiastic press reports about the success of Atkins' appeal were greeted with outrage in the radical feminist journal *The Freewoman*. The article, 'A University Degree for Housewives?', berated the household science movement for promoting a scheme which would 'perpetuate women's inferiority by perfecting her in the rôle which puts the greatest difficulties in the way of her development':

⁴⁸ Henry Sidgwick, 'The Theory of Classical Education', in *Essays on A Liberal Education*, ed. F.W. Farrar (Macmillan, 1867), p. 88.

⁴⁹ Smithells, 'Secondary Schools Association', p. 144.

⁵⁰ A. Rücker, p. 337.

That is the tragedy of it! Women make a "special contribution" towards educational facilities for women, and it turns out to be this. The Course has secured royal patronage, receiving lavish endowments--rapidly amounting to £100,000. And in every town and village there are gifted girls crushing their rage in the folds of dish-cloths, to whom such money expended in ordinary educational scholarships would have opened a new world.⁵¹

It also castigated London University for 'pandering to the most sentimental sections of the community' and for attempting to imbue housework--'the mere removing of the mess of living'--with pseudo-intellectual content:

There are no reasonable grounds for raising the estimation in which housework is held socially. This estimation is far too high already, and housework absorbs the energies of many intelligent women who, but for the social status which it is unfairly accorded, would be honestly ashamed of not attempting something better, and the new University venture commits the offence of using the prestige acquired by wholly alien subjects, through hard work and strenuous intellectual effort, to bolster up the artificial dignity of this mere craft. To use academic slang, this is intellectual immorality.⁵²

It is not surprising that, at the height of suffrage agitation, household science attracted opposition from a section of the women's movement who saw it as a wholly subversive project. It did, after all, have its conservative appeal, as noted in one retrospective account of the early years of the KCW course:

"Here," said the friends from whom one would wish to be preserved, "here at last is the true Women's University. Here are the studies that truly become women, women who now repent of their futile efforts to copy the education of men and who will devote themselves to work within their proper sphere."⁵³

⁵¹ 'A University Degree for Housewives?', *The Freewoman* I:1 (23 Nov. 1911), p. 16.

⁵² *Ibid.*, p. 17.

⁵³ 'King's College of Household and Social Science', *King's College of Household & Social Science: Fresher's Magazine*, KCHSS: [uncatalogued], (Oct. 1939), p. 6.

The writer of the *Freewoman* editorial noted that the household science idea 'falls like a balm upon the irritated susceptibilities of the ... "Woman, Queen-of-the-Home" wing, ... a section which has been a little badgered of late'.⁵⁴

Yet the debate amongst academic women on the merits of household science reveals much common ground. Although Hilda Oakeley and Ida Freund's debate in *Common Cause* in February and March 1912 essentially revolved around the same academic points as those covered in the *Education* correspondence, there was nevertheless a tacit agreement that women had responsibilities in the domestic sphere. Freund, for example, sympathized with the aims of the movement insofar as it sought public recognition for women's unpaid work in the home:

The great desire for the academic recognition of Domestic Science, the demand for a degree examination in this subject, and the present active propaganda for realising these aims can be understood and can be justified by reasons of immediate expediency, viz., to attract to the advanced study of the subject women with intellectual ability above the average, to demonstrate to women as a class the importance and dignity of the work.⁵⁵

She even went so far as to claim that domestic education should be a part of every woman's education--'the one element required to round it off harmoniously'.⁵⁶

Nevertheless, Freund did believe that the household science course would have a pernicious effect on women's higher education. Implicit in her critique was an anxiety

⁵⁴ 'A University Degree for Housewives?', p. 17.

⁵⁵ Freund, 'Protest--2', *Education*, p. 350.

⁵⁶ Freund, 'Protest--2', p. 287.

that the creation of a 'feminine' discipline--the first such special provision for women since the abandonment of separate women's examinations in the late nineteenth century--threatened to undermine the principal of equality on which the campaign for women's higher education had always been based. The household science course might introduce lower academic standards for women, promising women scientists might be enticed--or coerced--away from the 'pure' science disciplines, and household science, by virtue of the legitimacy it would give to 'domestic science' in the schools, would further reduce the number of girls able to read 'pure' sciences at university. Smithells, among others, repeatedly sought to allay such fears by pointing out that the movement 'did not seek to divert any women from any form of higher education or professional studies' and that components of the course were 'harder, even if they are more interesting, than those of an ordinary degree course'. But there remained the possibility that the household science project might lead to renewed calls for differentiation between men and women in higher education.⁵⁷

For women like Freund who had been amongst the early generation of women college students, the concept of a 'liberal' education was an important ideal for women, not only on grounds of equality, but because the 'mental gymnastics' it taught enabled a woman to turn her mind to any future vocation. An editorial published in *Common Cause*, in criticizing the idea of a creating a 'degree in housekeeping', argued:

⁵⁷ 'Smithells Replies', p. 354; 'Secondary Schools Association', pp. 143-144.

The mental discipline of taking a degree course often results in producing a woman who can turn her mind readily to many things, including domesticities of various sorts, but that is because if she has a naturally agile mind, training in the use of it makes it available for many purposes, not because she has added a lot of scrappy recipes to her mental furniture.⁵⁸

The issue was not whether university women had a responsibility to make a special contribution to the understanding of the woman's sphere; rather, it was the merits of vocational versus liberal education--and in Freund's case, above all, the superiority of 'pure' science over an applied science course as a mental training:

[I]t seems to me that success in any ... pure science ... will make a woman best able to stimulate a younger generation; to spread amongst women the understanding and appreciation of scientific method; to sow seed, the harvest of which will be seen in its beneficent effects on the various activities of women in the modern State, and not least so on ... her occupation as worker, organizer, administrator in the home.⁵⁹

Freund maintained that the household science course (together with 'domestic science' in the schools) would, by lowering women's ability to achieve in the pure sciences, paradoxically check the very advances in scientific knowledge which the household science movement aimed to promote.⁶⁰

A product herself of the early years of women's higher education at Oxford, Hilda Oakeley was also sensitive to the problems that a 'feminine' discipline might create for the women's higher education movement. For Oakeley, described by

⁵⁸ 'Queen Mary's Hostel', *Common Cause* III:149 (15 Feb. 1912), pp. 761-762.

⁵⁹ Freund, 'Protest--2', p. 293.

⁶⁰ *Ibid.*, p. 295.

Ravenhill as 'highly gifted' but with a 'retiring and gentle personality', the public debate with Freund was the source of much personal anguish, as she revealed in her memoirs:

In part the contest was painful, because it brought me into opposition to women with whose general standpoint I was in essentials in agreement, and in whose camp I should have wished if possible to be. It is quite possible that, if unconnected with the College, I might have myself inclined to [their] point of view.⁶¹

Yet although sympathetic to Freund's position, Oakeley's belief in the potential reforming power of the household science movement led her to question academic orthodoxies. An article she wrote for *Common Cause* brought out her conviction that university women now had the opportunity to set a new agenda:

[I]t is possible to make education a power that affects the whole attitude of the student to life and purpose, and this it is at which all educational idealists at the present time must aim. To accept the older established as the only valuable methods, because the movement for the Higher Education of women found them already in the field, would surely be incompatible with the spirit of that movement. It is showing not weakness, but strength, by its tolerant and even friendly consent to shed the illumination on yet another sphere of activity, and that, at first sight, the sphere farthest removed from the kind of study with which the Higher Education of Women began in this country.⁶²

Oakeley and Lady Rücker both believed that since women had proven themselves to be the intellectual equals of men, the creation of a special discipline which addressed the issues and problems of the domestic sphere was a positive step for women and women's education.

⁶¹ Oakeley, *My Adventures*, p. 146, p. 145.

⁶² Oakeley, 'Home Science and Economics', *Common Cause* (13 Oct. 1910), p. 428.

Proponents of household science did not consider that creating a discipline which was more 'relevant' or 'useful' was necessarily antithetical to the 'liberal education' ideal. Like Smithells and Rücker, Oakeley maintained passionately that the household science course was 'truly educational', i.e. that it offered as rigorous a mental training as any of the traditional science disciplines and was an 'excellent way of developing, at least in some minds, a really awakened and operative interest in life and its opportunities'.⁶³ Lady Rücker was equally convinced that it was possible to create a course which would be devised 'on as high an intellectual plane as that of present degrees' but which aimed to produce 'an education which shall attract all our best women by reason of its training for life'.⁶⁴ Ravenhill summed up the idea in her speech before the Japan-British Exhibition in 1910:

[If] there be one lesson more than another which is now being brought home to the community by the extension of scientific method to social problems, it is that of the intimate interdependence of every unit in our social fabric and the impossibility of effecting reforms if the system of "water tight compartments" be adopted in training or in life work. The broad outlook associated with a liberal education is now an indispensable item in the equipment of women, whether for domestic or professional life.⁶⁵

A further point for critics of the household science movement was the part played by men scientists in the construction of the household science course. Freund stated the point frankly:

⁶³ Oakeley, letter to *Common Cause* (22 Feb. 1912), p. 789.

⁶⁴ 'Lady Rücker's Address', *Bedford College Magazine London*, No. 61 (Dec. 1906), p. 146.

⁶⁵ Ravenhill, 'The Claims of Home Life', p. 98.

When it comes to work in a field exclusively their own, women must by their own united effort keep up the standard; they cannot expect any help from men. Some men, prompted by a survival of the old type of chivalry, are apt--probably quite unconsciously--to judge women's work by a lower standard, to make allowance for a supposed sex-disqualification; others, in favour of separating the sexes in their studies, are likely to welcome a movement creating a field of work for women exclusively, and would not in such a case attach great importance to the description of the standard. Extreme caution is therefore needed in accepting the estimate of men, however trustworthy their judgment may be in other matters, when it is a question [of standards to be adopted], which is to be women's special province and the potentialities and limitations of which are after all still unexplored.⁶⁶

Another woman scientist, Dr. Ida Smedley Maclean, agreed with Freund on this point.

A graduate of Newnham with a D.Sc. from London, Maclean was Beit Research Fellow at the Lister Institute in London (1910-1914). Unlike Freund, she held a 'firm belief in the future possibilities of Household Science' and wrote several articles supporting the course in the pre-war period, including one volunteered for the *Girl's Own Paper* in hopes of interesting girls in the course.⁶⁷ Nevertheless, Maclean declined an invitation to be visitor to the Household Science Department in 1913:

⁶⁶ Freund, 'Protest--2', pp. 287-288.

⁶⁷ Ida Smedley Maclean, 'Careers for Girls: III.--Household Science', *The Educational Times* LXVII: New Ser. 639 (1 July 1914), pp. 338-339; Maclean to Miss Oakeley, 8 Feb. 1914, KCHSS: QA/CC/46, p. 2; Ida Smedley Maclean, 'Household Science and the Universities', *The Girl's Own Paper and Woman's Magazine* 35:7 (July 1914), pp. 424-427.

I feel that it is essential for its success that the main part of the teaching should be under the direction of women. I do not feel that as long as men are responsible for the direction of *all* the departments of science ... that there will be that close association with household interests, which seems to be not only desirable but essential. ... My position is rather delicate in this matter, but it is so strongly my conviction that the basis of the movement should be the direct interest in household matters of women with knowledge of scientific research that until the university realizes this, as it inevitably must do some day, I am convinced that no progress will be made.⁶⁸

The H&SS Department did make some effort in the early years to appoint women candidates, but it was by no means a priority--as Maclean acknowledged in her letter, suitably qualified women candidates were sometimes difficult to find. Yet in 1915, the Executive Committee appointed Charles Kenneth Tinkler as Reader in Chemistry despite suggestions that Maclean should be appointed.⁶⁹ Lady Meyer wrote to Smithells criticizing the appointment and suggested that Maclean's appointment would have been advantageous for the household science movement:

The science teachers [Freund] trained are now holding posts in the schools, and do not believe in our work or recommend their students to come here. In the opinion of many, Dr. Ida Maclean was one of the few people capable of turning the attitude of the women's Colleges in our favour.⁷⁰

She noted that in a women's college 'it is the women who build up that indefinable atmosphere which means so much' and hoped that Tinkler's scientific ability would 'compensate for all that I cannot help feeling we have missed'.⁷¹ Maud Taylor also

⁶⁸ Ida Smedley Maclean to Miss Julius, 29 July 1913, KCHSS: QA/CC/46, pp. 1-3.

⁶⁹ Marsh, p. 125.

⁷⁰ Adèle Lady Meyer to Smithells, 2 Feb. 1915, KCHSS: QA/CC/50, p. 2.

⁷¹ Lady Meyer to Smithells, p. 2.

lobbied to have Marjorie Stephenson appointed to the Household Arts Department in 1910. A former Newnham student (Natural Science Tripos, Pt. I., Cl. II, 1906), Stephenson was a teacher of cookery and science at Gloucestershire Training College of Domestic Science at the time.⁷² Taylor wrote to a member of the Ladies' Committee, 'If we seek to get University women into our courses, it seems most essential that we have the same class of woman on our staff.'⁷³ All the first department heads appointed at the H&SS Department were men (with the exception of Household Arts), although the H&SS Department did eventually achieve a high proportion of female faculty members and a number of women heads of departments.⁷⁴

The involvement of eminent male scientists such as Rücker, Smithells, and Jackson in the movement actually served to give household science a legitimacy that it might not have had if it had been entirely a 'women's' movement, however. Members of the household science 'inner circle' often cited this authority as a guarantee of appropriately high standards. Lady Rücker invoked it in a speech to the ATDS in 1908:

Ladies, when our critics say that these are not subjects for a university, I should like to refer them to the Professors, who have been thinking out our syllabus on these lines, and, who have found that, far from proving elementary, our subjects require original work of a high order, and open up fields for most interesting research.⁷⁵

⁷² Muriel Robertson, 'Marjory Stephenson', *Dictionary of National Biography 1941-1950*, ed. L.G. Wickham Legg & E.T. Williams (Oxford University Press, 1959), pp. 835-386; Maud Taylor to Miss Parkin, 4 Feb. 1910, KCHSS: QA/CC/77.

⁷³ Taylor to Parkin.

⁷⁴ See below, p. 383.

⁷⁵ Lady Rücker, 'President's Address', p. 379.

The authority of Smithells and Rücker also carried weight with the educational press. In response to a highly censorious article by a post-graduate student at KCW, Rona Robinson, the *Journal of Education* noted that the names of the Committee of Management and the professors involved in the movement were 'sufficient guarantee of the high standard of the teaching given' and declined to continue the controversy.⁷⁶

Surprisingly, Freund's campaign elicited virtually no public response from other women academics in the period, even though several colleagues had supported her over the question of 'domestic science' in girls' schools.⁷⁷ The lack of response from women academics may suggest that they were, if not in complete agreement with its methods or its syllabus, supportive of its aims, just as secondary schoolteachers were receptive to demands for more domestic science teaching in the schools. Marion Bidder, former Girton student (Nat. Sci. Tripos 1882, 1883) and head of the Balfour Laboratory at Newnham, co-authored a two-volume text on domestic science methods with Florence Baddeley, headmistress of the Gloucestershire Training College of Domestic Science. The Association of Headmistresses had also, moreover, appointed a representative to sit on the household science Board of Studies.⁷⁸ There is some indication that women academics were unwilling to be drawn into print over the issue, however, although the reasons for this are far from clear. The *Common Cause*, for

⁷⁶ 'Department of Science, King's College for Women', *Journal of Education* 526:45 (May 1913), p. 313.

⁷⁷ 'Domestic Economy Teaching', p. 136.

⁷⁸ Marion G. Bidder and Florence Baddeley, *Domestic Economy in Theory and Practice* (Cambridge: Cambridge University Press, 1901).

example, attempted to find another scientist to respond to Freund's scientific points but was unsuccessful and the debate in that journal was discontinued.⁷⁹

Freund's concern about the threat to the standards in science did, however, generate some response from science teachers.⁸⁰ Mary E. Epps, a former Newnham scholar in Natural Science (1897-1900), wrote in a letter to *Education* that the syllabus left one 'breathless with surprise at the enormous amount of ground to be covered' and expressed anxiety that students would not be given an adequate appreciation of scientific skills and method.⁸¹ Another Newnham-trained scientist, Ethel G. Skeat Woods (who held a Sc.D. from Trinity College, Dublin) also argued that a 'university standard in that syllabus could not be obtained by *one* student in a life-time'.⁸² Rona Robinson was scathing about the standards of science in the three-year course, asserting (incorrectly) that whereas an ordinary B.Sc. degree demanded that four sciences be taken up to intermediate standard and three up to final level, KCW's household science course

⁷⁹ See note accompanying 'Practical Work in the Domestic Science Cause', *Common Cause* III:153 (14 Mar. 1912), p. 834. Dr. Janet Lane-Claypon (Dean 1916-23), had written a reply to Freund's article in *Common Cause* but did not submit it because she had become a candidate for a hygiene lectureship at the H&SS Department at the time. Maud Taylor to Lady Rücker, 7 April 1912, KCHSS: Q/PP1/Pt.1, p. 2.

⁸⁰ According to Maud Taylor, the Association of Science Mistresses had also waged a 'spirited and impersonal warfare' against the course because it aimed to train 'domestic science' teachers. Taylor, 'Small Things', p. 34.

⁸¹ Mary E. de R. Epps, 'Domestic Science: A Protest', *Education* XVII:442 (16 June 1911), pp. 380-381.

⁸² Skeat Woods studied natural sciences at Newnham from 1891-94 and presumably knew Freund. E.G. Woods, 'Domestic Science and a University Standard', *Education* XIX:487 (26 Apr. 1912), p. 271.

‘modestly puts up twelve’.⁸³ Robinson supported Freund’s point that the applied science aspects of the course involved pure science ‘of such an advanced nature that none but specialists are capable of understanding and dealing with them.’ She denounced the course as ‘nothing short of charlatanry and deception’.⁸⁴

Critics of this kind misunderstood the nature and aims of the household science course. They tended to assume that the course aimed to turn out students who were skilled in the traditional household crafts; the scientific side of the course was therefore regarded as irrelevant to efficiency in those practical skills. As Skeat Woods suggested:

We do not, before learning to ride a bicycle, study the process of steel-making or of nickelling, nor the mathematics involved in the calculations of gears, neither do we estimate the relative values of the different kinds of rubber. We cannot by studying *science* perfect ourselves in a *craft*.⁸⁵

Epps observed that lectures on ‘sugars’ did not help the housewife make jam and questioned the omission of needlework from the syllabus of a course which was ‘intended mainly for future homemakers’.⁸⁶ Like Freund, Robinson believed that the advancement in household science could only be achieved through research in the traditional science disciplines and that housekeeping could only benefit through the improvement of technical skills:

⁸³ Rona Robinson, ‘The Department of Home Science and Economics, King’s College for Women’, *Journal of Education* XXXV New Ser. (April 1913), p. 285.

⁸⁴ *Ibid.*

⁸⁵ E.J. Woods, ‘Domestic Economics’, *Education* XIX:485 (12 April 1912), p. 235.

⁸⁶ Epps, p. 380.

The present inefficiency in all matters connected with the house is due to the lack of specialisation. No advancement is therefore possible through a scheme which seeks to increase the complexity by mixing up the training in house-craft with the study of subjects such as chemistry, economics, biology, which have nothing whatever to do with the house. History has shown that specialisation becomes possible only when the various crafts are taken from the home, but then they can no longer be termed "domestic".⁸⁷

She did concede, however, that the scientific study of cookery, laundrywork, and housewifery might eventually lead to the establishment of separate science degree courses in those subjects.⁸⁸

In retrospect it can be seen that the fears of Ida Freund and others who supported her about the impact of household science on women's education were largely unrealized. Home economics did tend to become a ghetto for American women scientists in the early twentieth century, at least in co-educational universities and colleges.⁸⁹ In England, however, the implications of a specifically 'feminine' course such as household science were less threatening. Women scientists at Oxford, Cambridge, and London were often employed in all-women's colleges operating within federal universities, where they had relative autonomy over their career and research interests, even though restricted access to equipment and resources might limit their choices and achievements. There was also a strong tradition of women reading the 'hard' sciences at Cambridge and London despite the limited career prospects for

⁸⁷ Rona Robinson, 'The Need of Specialisation', *Common Cause* III:151 (29 Feb. 1912), p. 797.

⁸⁸ *Ibid.*

⁸⁹ Rossiter, pp. 72, 164.

women scientists in industry.⁹⁰ Moreover, Freund was not to foresee the positive impact that the course would have in creating new niches for the woman scientist in industry.⁹¹

Towards a Degree: Evolution of the Discipline to 1920

At the time supporters of the household science movement were concerned about the effect of controversy on recruitment. Smithells regretted the fact that Freund had sought fit to publish her remarks rather than discuss the issues directly with himself because he realized her remarks would be ‘hailed as authoritative’ by a large number of teachers.⁹² Freund’s criticisms of standards of science in the household science course probably had some effect on policy, as in 1915 the three-year syllabus underwent a fundamental restructuring which augmented its science content and introduced an element of specialization in the third year according to students’ career aspirations.⁹³

[TABLES 3.3 & 3.4] The first two years in the revised syllabus were not changed significantly, although ethics was reinstated as a compulsory subject and physiology was taught separately from hygiene. In the third year all students had compulsory

⁹⁰ Janet Howarth and Mark Curthoys, ‘Gender, Curriculum and Career: A Case Study of Women University Students in England Before 1914’, *History of Education Society*, Occasional Publication No. 8 (1987), pp. 6-8, 10; Fox & Guagnini, pp. 160-162.

⁹¹ See below, pp. 214-224.

⁹² ‘Smithells Replies’, p. 354.

⁹³ *Syllabus of Classes: Three Years Household and Social Science Course, Session 1915-1916*, KCHSS: QEPH/SYL/1, pp. 14-17.

instruction in hygiene, bacteriology, economics, business affairs, household work, and 'kitchen laboratory', but were thereafter divided according to three career specializations: (I) teachers, further subdivided into 'teachers of housecraft' (elementary) and 'teachers of household science' (secondary and training college); (II) household and institutional administrators; and (III) social workers, subdivided into 'social organization' and 'public health'.

As a result of this specialization there was an increase in the amount of time given to science subjects and a corresponding reduction in the hours spent on the practical domestic arts. Intending teachers of 'housecraft' spent the most time on practical household work, amounting to five hours per week, with the rest of the time devoted to applied chemistry or physics; those intending to teach 'household science', however, took no extra practical work and spent sixteen hours in applied chemistry and physics or twelve hours in biology. Students opting for institutional administration could elect to leave out domestic arts altogether; they were required to choose three or four subjects from the following: household work, bacteriology, biology, applied chemistry or physics, child clinics, administration, sociology, or bookkeeping. For those electing to follow Group III (social work) there was no choice of taking further practical work; students opting for 'social organization' took economics, social philosophy, psychology, hygiene and child clinics (practical), biology, and business affairs, while those specializing in public health took biology, economics, bacteriology, and hygiene and health visiting.

It is difficult to ascribe these changes solely to Freund's influence, however. Members of the household science group had insisted from the beginning that the syllabus was 'experimental'; Smithells pointed out in his reply to Robinson's invective in the *Journal of Education* that 'We have had many difficulties to face and still have problems to solve; we shall, no doubt, continually mend our ways.'⁹⁴ There was some evidence of dissatisfaction with the syllabus. Oakeley hinted in 1912 that the possibility of creating a more specialized fourth year was being discussed, and Arthur Smithells stated in his evidence before the Consultative Committee on Practical Work in Secondary Schools (1913) that he was 'in despair' because the three year course left no time for 'specialised work' and suggested that students needed a further year.⁹⁵

The shift towards a more clearly-defined professionalism in the outlook of the H&SS Executive Committee may have been due to the fact that most of the women members of the original 'inner circle' were no longer involved in the H&SS Department. Faithfull, Oakeley, Ravenhill and Atkinson had all left the college by 1914, and Lady Rücker resigned from the Executive Committee in 1916. Only Maud Taylor, who continued to serve on the Executive Committee until her death in 1941, had any long-lasting ties with the college. Hilda Oakeley was replaced by Frances Rosamond Shields, Warden from 1914-16; little is known about Shield's convictions with regard to the household science course, although she was, like Oakeley, a

⁹⁴ Smithells, letter to *Journal of Education* 526:45 (May 1913, p. 313).

⁹⁵ Oakeley, 'Home Science and Economics: A Note on Miss Freund's Article', *Common Cause* III (7 Mar. 1912), pp. 817-818; Evidence of Smithells, *Report on Practical Work* (PP 1913 XX), p. 595.

philosopher, and had lectured previously at Bedford College.⁹⁶ Shield's replacement, Dr. Janet Lane-Claypon, had trained as a medical doctor at the London School of Medicine for Women and University College. Unlike her predecessors, Lane-Claypon was active in establishing links between the discipline and the new professions developing for women in this period and the changes in the syllabus undoubtedly reflected this.⁹⁷

Nonetheless, it is evident that the overhaul of the syllabus in 1915-16 was largely driven by the desire to achieve degree status for the three-year course. The department's sudden independence from KCW in 1914 had created a new sense of corporate identity and heightened the importance of securing university recognition for its flagship course. The drive to upgrade its status also reflected the increasingly professional outlook of household science students, for whom a degree was highly desirable.

In 1916 the H&SS Department made a formal application to the UL Senate for a degree to be granted for the three-year course. This application was initially rejected and a university diploma awarded instead; however, a further application was made and the degree eventually granted in 1920 without any alteration of the syllabus.⁹⁸ In the

⁹⁶ Marsh, p. 61.

⁹⁷ See below, p. 325.

⁹⁸ The diploma syllabus was provisionally recognized in 1916; the first university diploma examinations took place in 1918. *Annual Report 1916-17*, KCHSS: QEPH/RPT1, p. 1; EC, 'Application from the Executive Committee ... Requesting the Senate to Grant a B.Sc. Degree

course of deliberations over the first application the H&SS Department came under pressure to reduce the scientific content of the syllabus from the Faculty of Arts and the Board of Philosophical Studies, both of which voiced concern about the amount of science included in a course supposedly offering a 'liberal' education. The assumption was that household science students would follow careers which would require traditional 'feminine' characteristics--such as sympathy, caring, and understanding--rather than scientific competence:

[The Faculty of Arts] understand that it is intended to be not simply a course of technical instruction but is offered as a liberal education to students ... who will afterwards themselves take part in educating others, in social and administrative work, and in the management of their own homes and children. Now the qualities and aptitudes required for such kinds of work are not those that are the most likely to be developed in an atmosphere of science alone, whether pure or applied; experience shows that it is often the University woman with a more literary education who is most successful in understanding and in dealing with her fellow creatures.⁹⁹

It was also suggested that more time should be allowed within the syllabus and in leisure hours 'for the satisfaction of literary and artistic instincts, and for the training of taste and judgment', recommending a reduction in the hours allotted to physics and chemistry and the addition of a course in the 'History of Civilization'.¹⁰⁰

...', KCHSS: QA/GPF1/1 (n.d., c.1918), pp. 1-3, (Hereafter, EC, 'Application Requesting the B.Sc. Degree'); ABM, KCHSS: QA/AB/M1 (18 Oct. 1918), p. 138; (10 Jan. 1919), p. 150.

⁹⁹ T. Percy Nunn, 'University of London Faculty of Arts: Report on the Scheme for a Diploma in Household & Social Science', KCHSS: QAP/GPF1/1 (17 Nov. 1916), p. 1.

¹⁰⁰ Nunn, 'Scheme for a Diploma', KCHSS: QAP/GPF1/1 (17 Nov. 1916), p. 2.

The Executive Committee agreed to add lectures on the 'history of civilization' to the first-year economics course, but adamantly refused to reduce the amount of science in the syllabus, arguing that this would seriously disadvantage students in their careers.¹⁰¹ One problem was the relative weakness of science education in girls' schools.¹⁰² Although many pre-war students had come from girls' schools with a good academic reputation (e.g. Cheltenham Ladies' College, NLCSG, Godolphin), and had taken higher certificates, or had reached the London matriculation level or its equivalent, the majority were very poorly prepared in science, especially in chemistry and physics, and most students had to start one or more science subjects from scratch.¹⁰³ As Freund had pointed out, even the women students going up to Girton and Newnham to read science found themselves inadequately prepared, and this was equally true of the household science intake.¹⁰⁴

Furthermore, maintenance of the science component was crucial to achieving degree status for the course.¹⁰⁵ The Senate's initial refusal to grant it was based on the grounds that the inclusion of 'technical' courses (i.e. household arts) rendered the course

¹⁰¹ Report of the Executive Committee, 'Notes on the Suggestions of the Faculty of Arts and of the Board of Philosophical Studies', KCHSS: QAP/GPF1/1 [n.d., c.1916], p. 1. (Hereafter, 'Suggestions of the Faculty of Arts')

¹⁰² *Ibid.*, pp. 1-2.

¹⁰³ See below, pp. 338-349.

¹⁰⁴ Freund, 'Domestic Science--A Protest--(1)', *Education*, p. 336.

¹⁰⁵ Oakeley points this out in Hearnshaw, p. 505.

unsuitable for degree status and that the demand for a degree course was uncertain.¹⁰⁶

The Executive Committee's second application pointed out that other 'technical' subjects such as agriculture and estate management had been recently accepted as degree courses by the university, but they also took pains to submit evidence from independent assessors that the academic standards of the household science course were 'up to, and in some cases beyond, the standard attained in examinations for the B.Sc. and M.B. degrees'.¹⁰⁷

It does seem, finally, that the Executive Committee was right in thinking that student demand for household science--and the college's survival--would in future depend on their ability to offer a degree course with a scientific basis. Demand for the course increased significantly following the granting of the university diploma--the number of students enrolled in the course jumped from 14 in 1914-15 to 57 in 1917-18.¹⁰⁸ Some diploma students, moreover, often took extra courses in order to obtain a London B.Sc:

¹⁰⁶ The application for the B.Sc. was made only for Groups I and II because Group III had been deemed unsuitable for social welfare training. See below, pp. 196ff. ABM, KCHSS: QA/AB/M1 (23 Nov. 1917), p. 100; 'Suggestions of the Faculty of Arts', p. 1; EC, 'Application Requesting the B.Sc.', pp. 1-2.

¹⁰⁷ EC, 'Application Requesting the B.Sc.', p. 2.

¹⁰⁸ *Ibid.*

In the eyes of the students the value of a degree is great. ... The extra work they do is of little or no value from an educational aspect, in view of the intellectual training already undertaken by them as a part of the Diploma course, but it is impossible not to sympathise with such students when, as they think, their future prospects will be improved by the acquirement of a University degree.¹⁰⁹

A university degree was increasingly regarded as a ticket to the better paid careers and student records show that the majority of household science students from this period were taking jobs which required a solid basic knowledge of science. [TABLE 3.5] Approximately 45% took their first jobs in teaching, a field which, with the exception of the elementary sector, required an ability to teach the new 'domestic science' methods. Out of a total of 46 one finds that 8 students were teaching domestic science, mostly in secondary or technical schools. Of the other 13 engaged in teaching, 2 were teaching science in secondary schools, 4 were teaching science in training colleges (including a Montessori training college), and 2 were demonstrators in science at KCHSS, with 5 working as mistresses in unidentified schools. Of students taking up non-teaching posts, a majority chose occupations in which a science qualification was necessary or desirable. [TABLE 3.6] Several students were working in public laboratories or hospitals, one worked in the chemical department of a gas company, and several others were in health-related careers such as health visiting, child care work, or in dietetics and food science.

¹⁰⁹ EC, 'Application Requesting the B.Sc.', p. 2

TABLE 3.1	
Syllabus of 'Home Science' Course 1908-1909 ¹¹⁰	
FIRST YEAR:	General biology (60/90)* Chemistry (60/120) Physics (30/60) Industrial & commercial history (60) Practical domestic arts (incl. business methods)** Elective: 30 lectures in divinity, psychology, logic, English literature, foreign languages, or other approved course
SECOND YEAR:**	Physiology Bacteriology Hygiene Economics Household management Domestic arts
THIRD YEAR:§	Applied chemistry Sanitary science and hygiene Economics Practical domestic arts + Bacteriology, biology, physics, or psychology and ethics
* <i>hours of lectures/practical work</i> ** <i>hours not specified</i> § <i>subjects not specified (see footnote)</i>	

¹¹⁰ The third year was to continue with the 'greater specialisation' introduced in the third year and was to approximate the post-graduate course. *Syllabus of Lectures, King's College for Women*, KCHSS: KW/SYL16 (1908-1909), pp. 74-75, 84-85.

TABLE 3.2							
Distribution of Hours							
Household & Social Science Syllabus							
1912-13 ¹¹¹							
SUBJECT	Hours per:		Yr 1	Yr 2	Yr 3	TOTAL	%
	Week	Term					
Chemistry							
<i>Lectures</i>	2	20	60	60	60	180}	30
<i>Practical</i>	4	40	120	150	180	450}	
Physics							
<i>Lectures</i>	2	20	60	---	---	60}	6
<i>Practical</i>	2	20	60	---	---	60}	
Biology*							
<i>Lectures</i>	2	20	60	30	60	150}	19
<i>Practical</i>	4	40	120	---	120	240}	
Physiology & Hygiene							
<i>Lectures</i>	2	---	---	60	60	120}	11
<i>Practical</i>	2	---	---	60	60	120}	
Economics							
<i>Term 1 & 2</i>	2	20	50	60	70	180}	9
<i>Term 3</i>	1	10	---	---	---	---	
Practical Work**							
<i>Year 1 & 3</i>	5	50	150	240	150	540}	25
<i>Year 2</i>	8	88	---	---	---	---	
*including Economic Biology							
**practical work in hostel							
Note: ethics and psychology were optional subjects							

¹¹¹ Adapted from ‘Addendum: Three-Year’s Course--Distribution of Hours’ in *Report on Practical Work*, p. 641. See also *Three Years Home Science Course*, pp. 1-2.

TABLE 3.3		
Syllabus of First Two Years of Three-Year Course Household and Social Science, 1915-16 ¹¹²		
FIRST YEAR	LECTURES HOURS/WK	PRACTICAL HOURS/WK
Physics	3	4
Chemistry	3	4
Biology	3	4
Household Work	--	6
Ethics	1	--
SECOND YEAR		
Chemistry	2	5
Biology	1	--
Physiology	3	4
Economics	2	--
Household Work	--	8

¹¹² ‘Syllabus of Classes’, Household & Social Science Department, Session 1915-16, KCHSS: QEPH/SYL/3, pp. 14-17.

TABLE 3.4			
Syllabus of Third Year of Three-Year Course Household and Social Science, 1915-16 ¹¹³			
COMPULSORY SUBJECTS	LECTURES HOURS/WK	PRACTICAL HOURS/WK	NO. OF TERMS
Hygiene	2	3	2
Bacteriology	2	4	1
Economics	2	--	3
Business Affairs	1	--	2
Household Work	--	3	3
Kitchen Laboratory	--	3	2
GROUP I: TEACHERS OF HOUSECRAFT & HOUSEHOLD SCIENCE			
		LECTURES/ PRACTICAL HOURS/WK	NO. OF TERMS
<i>(a) Housecraft Teachers</i>			
Household Work		5	3
Applied Chemistry or Applied Physics		8	3
<i>(b) Household Science Teachers:</i>			
(i) Applied Chemistry		8	3
Applied Physics		8	3
<i>or</i>			
(ii) Biology		12	3

¹¹³ ‘Syllabus of Classes’, Household & Social Science Department, Session 1915-16, pp. 14-17.

TABLE 3.4 (CONT.)			
GROUP II: HOUSEHOLD & INSTITUTIONAL ADMINISTRATORS			
<i>Three or four of the following:</i>	LECTURES/ PRACTICAL HOURS/WK		NO. OF TERMS
Household Work (incl. catering & nutrition)	6		3
Bacteriology	3		2
Biology (related to health)	4		2
Applied Chemistry	8		3
Applied Physics	8		3
Child Clinics	3		2
Administration	2		1
Sociological Subjects	2		3
Book Keeping	3		1
GROUP III: SOCIAL WORKERS			
	LECTURES HOURS/WK	PRACTICAL HOURS/WK	NO. OF TERMS
<i>(a) Social Organisation</i>			
Economics	3	--	3
Social Philosophy	1	--	3
Psychology	1	2	3
Hygiene & Child Clinics	--	3	2
Biology related to health	1	--	3
Business Affairs	--	3	1
<i>(b) Public Health:</i>			
Economics	3	--	3
Biology related to health	1	2	2
Hygiene & Health Visiting	*3	--	1
Bacteriology	1	2	2
* combined lectures/practical			

TABLE 3.5	
Percentages of First Jobs by Job Groups KCHSS Graduates 1910-1919 (Database Sample) ¹¹⁴	
JOB GROUP	%
DOMESTIC MANAGEMENT	13.0
SOCIAL/WELFARE WORK	-
GOVERNMENT	6.5
ADMINISTRATION	4.3
TEACHING	45.6
DIETITIAN	-
LABORATORY WORK	15.2
BUSINESS & INDUSTRY	2.2
WAR	2.2
OTHER	11.0
TOTAL	100.0%

¹¹⁴ For details of individual job types and job groups see APPENDIX B, p. 404. References for this and all subsequent tables based on the database are found in APPENDIX D, p. 406.

TABLE 3.6
First Jobs of Household Science Graduates
(Excluding Teachers), KCHSS Graduates 1910-1919
(Database Sample)¹¹⁵

DOMESTIC MANAGEMENT	Housekeeper, Avery Hill Train. College Asst. Cook, KCHSS Hostel (2) Asst. Cook, Lady Margaret Hall, Oxford Housekeeper, Grosvenor School of Art Housekeeper, St. George's School, Edinburgh
GOVERNMENT	Labour Exchange Officer Chemistry Asst., Ministry of Munitions (2)
ADMINISTRATION	Asst. Bursar, Bedford College Secretary, Edinburgh School of Social Studies
LABORATORY WORK	Bacteriological Asst., Royal Society of Medicine Chemistry Asst., Govt. Labs (2) Physiol. Research Asst., London Hospital (2) Asst. to Public Analyst, Chelsea Chemistry Asst., Southern Metropolitan Gas
BUSINESS & INDUSTRY	Supervisor of Factory Output, Selfridges
WAR	VAD, France
MISCELLANEOUS	Peace Negotiation Committee Rent Collector, Walworth Asst. to Home Sisters, King's Coll Hospital Asst. Health Visitor, Poplar Asst. to Stockbroker

¹¹⁵ Figures in brackets indicate number of students where there is more than one.

• CHAPTER 4 •

**RIDING SEVERAL HORSES AT ONCE: HOUSEHOLD SCIENCE
GRADUATES AND CAREERS 1908-1939**

To many people the ideas were anomalous, as if we were trying to ride several horses at once. 'Pure AND applied Science--Science AND craft, theoretical AND practical, chemistry AND laundry? physiology AND cookery? Having only just got used to the idea of learned ladies who couldn't boil an egg and were hopelessly impractical in a house, it was too difficult for many people to *imagine* women so balanced that they were at home in laboratories and kitchens.¹ --*Patty Jarvis Fisher*

The decision to differentiate the syllabus according to the three career sectors, and the campaign to achieve degree status for the household science course, had been based on the assumption that most students had career aspirations, if only until the time of marriage. Yet whereas in most vocational disciplines the emergence of university courses has been triggered by demand within an existing trade or occupation, in the case of household science there was no ready-made occupational niche for its graduates. It was thus urgent for KCHSS to establish links between the discipline and existing occupations--or to create new ones--if the movement was to survive. A search for professional identity characterizes the household science movement in the interwar period. This chapter examines the career options of household science graduates in the first half of the twentieth century, focusing particularly on KCHSS's efforts to establish

¹ Patty Fisher, 'Toast to the College', [n.d.], PJJF.

household science as a professional training for social welfare occupations, and the development of links between household science and the new fields of applied laboratory work and dietetics.

Trends in Careers 1910-1949: An Overview

A high proportion of KCHSS graduates did enter the workforce, despite the expectation of its Edwardian founders that household science would appeal to women who had the independent means and leisure to pursue voluntary social work. Of a total of approximately 793 students taking the three-year course in 1910-1949, approximately 77% are known to have taken up paid employment following graduation.² Nor was the range of occupations they procured, even in the early days, confined to those specified in the 1915-16 syllabus--teaching, institutional management, and social work.³

[TABLE 4.1]

Table 4.2 shows the percentage of students taking posts in various occupations upon graduation ('first jobs'), categorized into broad job groups, according to decade of graduation.⁴ One of the most significant trends revealed by these figures is the

² See APPENDIX C, p. 405, for the number of graduates each year and the number included in the database sample.

³ For the purpose of simplicity, the term 'graduate' will refer to both the 3-year diploma and degree students; both followed the same course but only those who had passed the London Matriculation were eligible to take the degree.

⁴ See APPENDIX B, p. 404, for figures relating to individual job types.

relatively small take up of posts in 'domestic management'--e.g. caterers, cooks, and institutional housekeepers--the occupations for which many contemporaries assumed the course had been created. The proportion of students working in this field grew from 13% in the 1910-19 period to 22.5% in the 1920s (mostly owing to an increase in those working as housekeepers or matrons in schools or colleges), but declined to just 8.1% in the 1940s. Most domestic management positions entailed a degree of responsibility: of the 31 graduates classified as housekeepers in the period 1910-49, 14 were housekeepers (and 7 were housemistresses or matrons) in educational establishments, 5 were working in hotels, with 5 in miscellaneous institutions. Those working as cooks were all employed in institutional kitchens--20 out of 28 were in schools and colleges, including 9 who worked for KCHSS itself. Of the 16 caterers, 9 were employed in industrial or business canteens; 2 worked in restaurants, and 5 in miscellaneous institutions. These caterers were not mere kitchen hands: 8 were described as managers or supervisors and 5 as assistant supervisors or managers.

Students who had taken the 'institutional management' option in the third year were equally qualified for administrative posts in schools and colleges or in clubs, residential homes, or charitable agencies. The percentage of students in such administrative jobs rose from 4.3% in 1910-1919 to 8.8% in the 1920s, declining again to 4.5% in the 1940s. In the first decade all the jobs in this sector were in educational administration (e.g. wardens, bursars, stewards). The proportion of students who became educational administrators rose to 5.9% in the 1920s, but by the end of the

1940s it had slipped to just 1.8%, when it was overtaken by the proportion working in administrative posts in other types of institutions (2.7%).

Teaching, and in particular domestic science teaching, was the most obvious career for a household science graduate when the course first opened, and it was to be expected that many would take up work in this field. Arthur Smithells, who had held high hopes for the positive influence of household science graduates in science and domestic subjects teaching, would have been pleased to see that approximately 45.6% of the first decade's graduates were taking up work in this sector. Teaching was the most popular (and publicly accepted) occupation for women graduates at the turn of the century, but as new fields of employment opened up, particularly in the interwar years, graduates were provided with an ever-widening choice. This is reflected in the gradual decline in the proportion taking up teaching to just 18.6% by the end of the 1940s. Most teachers worked as science or domestic subjects mistresses in secondary and technical schools; a handful taught both science and domestic subjects. The household science course did provide a number of science mistresses for domestic subjects training colleges: 10 of the 12 mistresses working in these colleges were teaching science subjects.

Given the way in which household science had been promoted as a training for social welfare work, it is of particular significance that the percentage of students taking first jobs in this sector never reached above 6.9%. This job group was largely made up of those working as hospital almoners, settlement workers, factory welfare supervisors,

or child care committee organizers; there were virtually none in other social welfare careers which opened up in this period such as health visiting, factory or other types of inspection. This may reflect the fact that the third-year option for social workers was in abeyance between 1920 and 1931, although this did not prevent some graduates of the 1920s from finding opportunities within the social welfare sector.⁵ Closely allied to these 'public housekeeping' occupations were posts in local or national government. In the interwar years this sector accounted for less than 3% of graduate jobs but it absorbed significantly larger numbers during the First and Second World Wars. Details of posts taken by the first decade of graduates in local and national government, reveal no specific occupational niche--two students were employed by the Mines Department, and one each by the Medical Research Council, the Foreign Office, the National Council for Social Service (South Wales), a 'Chinese Government Commission', and a labour exchange. In the Second World War, however, the Ministry of Supply recruited a number of graduates as technical assistants.

The occupational field which saw the most expansion was 'laboratory work'. This group included graduates working in commercial laboratories for food-processing or pharmaceutical companies, for analytical chemists, hospitals, or bodies such as the Medical Research Council. Here again, there were more openings in wartime, but although the early interwar period saw a drop in the proportion of students taking laboratory posts (from 15.2% in 1910-1919 to just 2.0% in 1920-29), the percentage

⁵ See below, pp. 196ff.

grew to 8.3% in the 1930s before peaking at 27.6% in the 1940s. The other significant growth field was dietetics, which expanded from 8.8% in the 1920s to 15.3% in the 1930s and levelled off at 14.0% in the last decade. Most dietitians⁶ were employed by hospitals (the terms 'hospital cook' and 'dietitian' were often used interchangeably), but others were employed by institutions such as nursing homes or by county councils to direct school meals services.

The overall picture revealed by graduates' careers is the increasing imbalance over the period between the proportion taking posts in the three 'specialization' sectors and that of graduates employed in the new applied science careers. Although war evidently distorted the job market, even between the wars there was a drift away from teaching and domestic management. [TABLE 4.3] The proportion of students going into laboratory work and dietetics increased over the period, from 15.2% in the first decade to 41.6% in the 1940s (albeit with a dip in the 1920s). By the 1940s a KCHSS graduate was more likely to find her first job in a laboratory than in a school. The following sections examine these trends in graduate employment, looking first at KCHSS's apparent failure to place its students in social welfare occupations, and then at its relative success in the applied science fields of laboratory work and dietetics.

⁶ 'Dietitian' rather than 'dietician' is the preferred spelling of the British Dietetics Association.

Household Science as Training for Social Welfare Work

In 1908 social welfare work was emerging as a promising career field for women. Women had played a central role in voluntary philanthropic societies since the 1870s and served as members of school boards, as Poor Law guardians, and on county/borough councils; by the turn of the century there were opportunities for paid social welfare work and there seemed to be an ever-increasing demand for well-educated women to take up responsible positions. The first women factory inspectors had been appointed by the Home Office in 1893, and at the same time local authorities began to employ women as sanitary inspectors.⁷ Health visiting became a paid occupation for women after 1890, when the first health visitors became salaried employees of the Manchester Corporation, and their numbers increased dramatically in the Edwardian period in response to the physical deterioration and infant mortality scares. By 1920 an estimated 3,200 health visitors were employed in England and Wales.⁸

Qualifications for social welfare occupations had not been standardized in 1908.

A few of the pioneering women in the field belonged to the cadre of new women graduates, such as the factory inspector Adelaide Anderson, who was a Girton graduate

⁷ The first women sanitary inspectors appointed in England were in Nottingham (1892) and Kensington (1893). In 1901 there were eleven women sanitary inspectors in metropolitan London; this had increased to a total of 41 by 1914. Mrs. F.J. Greenwood, 'Women as Sanitary Inspectors and Health Visitors', in *Women Workers in Seven Professions: A Survey of their Economic Conditions and Prospects*, ed. E.J. Morley, (Routledge, 1914), pp. 221-223.

⁸ Janet E. Lane-Claypon, *The Child Welfare Movement* (G. Bell & Sons, 1920), p. 107.

(and a niece of Elizabeth Garrett Anderson), yet most women seeking jobs in factory or sanitary inspection, health visiting, or other social welfare occupations only held qualifications such as the certificates of the Sanitary Institute, the National Society of Health, or the Central Midwives Board.⁹ Sanitary inspectors in London were required to possess the certificate of the Sanitary Inspector's Examination Board, and most local authorities demanded a sanitary certificate of some kind.¹⁰ Health visitors were only required to have some type of basic training in hygiene, midwifery, or nursing: the Local Government Board's regulations of 1909 treated practical experience in the service of the local authority as an acceptable alternative to paper qualifications. Volunteers working for the Charity Organisation Society (COS) did not need any formal qualifications as they were given practical training in local COS offices.¹¹

The founders of the household science movement had envisaged that the new discipline could provide a basic training for the whole spectrum of women's work in social and civic life, and that a university course in household science would revolutionize standards in social welfare training. This vision continued at KCHSS under the leadership of Janet Lane-Claypon (Dean, 1916-23), who had served as a Medical Inspector for Child Welfare under the Local Government Board prior to her appointment at KCHSS. Lane-Claypon was keen to promote the household science

⁹ McFeely, p. 20.

¹⁰ Greenwood, p. 224.

¹¹ E. Eve, ed., *Manual for Health Visitors and Infant Welfare Workers* (John Bale, Sons & Danielsson, 1921), p. 19; Lane-Claypon, pp. 101-102.

course as training for health visiting and other social welfare positions, believing that household science's emphasis on the *physical* aspects of welfare (e.g. biology, chemistry, bacteriology, hygiene, household subjects), together with a study of economics, ethics, and business affairs, offered a much more thorough and systematic foundation course than either a traditional degree or the hodgepodge of hygiene and midwifery certificates.¹² Yet KCHSS was just one of several institutions with an interest in upgrading social welfare training and it was to encounter formidable rivals.

Concern with infant mortality and physical deterioration at the turn of the century galvanized public interest in developing a theoretical basis for the professional training of the practical social welfare worker. Moves had already been made in this direction in the late nineteenth-century--Octavia Hill and the warden of the Women's University Settlement, Margaret Sewell, had organized joint lecture courses for their women rent collectors and settlement workers in the 1890s; and in 1896 a Joint Lectures Committee had been formed in London by the National Union of Women Workers, the COS and the Women's University Settlement.¹³ In the Edwardian period it was the COS that took the lead in developing professional training for social welfare workers, founding the London School of Sociology in 1903 to provide lectures in social theory, sociology, and public administration.¹⁴ The COS, and in particular C.S. Loch, actively

¹² Maud Taylor to M. Julius, 24 Oct. 1915, KCHSS: QA/CC/77; Lane-Claypon, p. 101f.

¹³ M.J. Smith, p. 15; Roof, p. 236.

¹⁴ See Margaret Sewell and C.F. Rogers, 'Method and Education in Charitable Work', *Charity Organisation Review*, New Series VIII:48 (Dec. 1900), pp. 384f; 'Conference of Members of the Committee on Social Education, October 24, 1902' including Alfred Marshall's paper, 'Economic Teaching at the Universities in Relation to Public Well-Being',

encouraged the development of theoretical study in connection with the universities in the period before the First World War.¹⁵ Loch initiated the founding of the 'School of Social Science and of Training for Social Work' in connection with Liverpool University in 1904, and other universities soon followed suit: the University of Birmingham was the first to register internal social science students (1908) and similar courses were opened at Bristol (1912), Leeds (1912-13), and Manchester (1913).¹⁶

This 'Social Study Movement' was given renewed impetus in the First World War when the Ministry of Munitions, concerned for industrial productivity, gave grants to students to train as factory welfare officers at university social study departments.¹⁷ Official interest in social training led to the creation of other social welfare courses during the war, including the KCHSS Group III specialization in household science. In an attempt to coordinate these different training schemes a group of academics and others involved in social welfare training formed an unofficial Joint Social Studies Committee for London.¹⁸ The committee organized two conferences in 1917 in

Charity Organisation Review, New Series XIII:73 (Jan. 1903), p. 33f; Rooff, pp. 237-238; M.J. Smith, p. 52.

¹⁵ See Loch's speech at the Third Annual Conference, 'The Work of the School of Sociology', *Charity Organization Review*, New Series XXII:127 (July 1907), pp. 41-52; for a discussion of the COS attitude towards the LSE see Harris, 'Ratan Tata', pp. 33-40.

¹⁶ J. St. G. Heath, Appendix A, 'University Social Training Courses', in *Conference on the Training of University Women for Social and Administrative Posts, June 2 and 3, 1916* (Oxford: Association for the Education of Women in Oxford, 1916), pp. 12-13.

¹⁷ Rooff, p. 240.

¹⁸ A 'Commission on Voluntary Social Service for London', chaired by Edith Lyttleton, was appointed in 1915. This led to the creation of the Joint Social Studies Committee to organize theoretical and practical training for voluntary social workers. Members included Violet Markham, Margaret J. Tuke, L.T. Hobhouse, E.J. Urwick, Sidney Webb, Sir Edwin Cooper

conjunction with the Home Office which led to the formation of an official Joint University Council for Social Studies (JUCSS) in 1918, chaired by Sir William Ashley of Birmingham University and with the warden of Toynbee Hall, J. St. George Heath, as secretary. The JUCSS included representatives from most universities and others involved in social welfare training, including Sidney Webb, Professor E.J. Urwick of the LSE, as well as Janet Lane-Claypon and Sir Edwin Cooper Perry (Chairman of KCHSS's Executive Committee, 1916-22).¹⁹ The advocates of household science were outnumbered on the Council and it was clear that the influence of the 'Social Study Movement' on the development of theoretical training had an adverse effect on KCHSS's plans to establish the college as a major centre for social welfare education.

The JUCSS's report, *Social Study and Training at the Universities* (1918), revealed basic disagreements over the content of theoretical social welfare training.²⁰ Subjects as diverse as biology, jurisprudence, political science, philosophy, sanitation, industrial history, economics, ethics and statistics were considered relevant to the field at different institutions. The problem of curriculum was compounded by the need to cater for students with widely different educational and social backgrounds. Students with no previous university education were seen to be most in need of a broadly-based syllabus, whilst graduates, who had already benefited from the mental training given at

Perry, Janet Lane-Claypon, and Hilda Oakeley. *Provisional Committee on Social Service*, BC: AR/300/2 [n.d., c.1916].

¹⁹ *Social Study and Training at the Universities: A Report Drawn Up by the Joint University Council for Social Studies* (P.S. King & Son, 1918).

²⁰ Macadam, p. 37; *Social Study and Training*.

universities, needed a more specialized course. Although the JUCSS had originally set out to 'coordinate' various social training programmes, its report effectively left university departments free to devise their own combination of theoretical subjects.

Indeed, it was suggested that this diversity of approach was beneficial:

There is no accepted definition of social economics or of social philosophy: perhaps there never will be. All that can be asked is that each teacher include those matters which he himself has found to be vital to a full appreciation of the difficulties and the possibilities of social progress, and should teach his subjects with the aim of helping students to be thoughtful, intelligent, and hopeful in their dealings with social difficulties. Any standardization of syllabuses, any strict definition of the scope of the course, would be a disaster and would destroy the vitality of the teaching.²¹

Yet the JUCSS did indicate what subjects were generally regarded by most institutions to be central to the theoretical element of any social welfare course. These included the history of social conditions and the study of social and economic life, 'economic facts' and methods of investigation, principles and methods of social administration, and a 'philosophical statement and examination of social principles, aims, and ideals'.²²

In comparing the KCHSS syllabus for social welfare workers with the JUCSS model, it is apparent that there were major differences between the household science approach and that offered by most other social work training institutions. The Group III syllabus for social welfare workers was divided for those intending to take up work in 'social organization' or in 'public health' as follows:

²¹ *Social Study and Training*, p. 9.

²² *Ibid.*, p. 8.

Social Organization:

Economics	Lectures 3 hrs per week
Social Philosophy	Lectures 1 hr " "
Psychology	Lectures 1 hr " "
"	Practical 2 hrs per week
Hygiene/Child Clinics	Practical 3 hrs " " (2 terms)
Biology/Health	Lectures 1 hr " "
Business Affairs	Practical 3 hrs per week (1 term)

Public Health:

Economics	Lectures 3 hrs per week (2 terms)
Biology/Health	Lectures 1 hr " " " "
" "	Practical 2 hrs " " " "
Hygiene/Health Visit.	Practical 3 hrs per week (1 term)
Bacteriology	Lectures 1 hr " " " "
"	Practical 2 hrs " " (2 terms)

The ‘social organization’ option within Group III did include social philosophy, economics and psychology, yet KCHSS’s social welfare option (including the first two years’ work in chemistry, physics, biology, etc.) involved subjects which were excluded, or reduced to the level of a single course in hygiene or basic physiology, in other social training courses.²³ According to a report by J. St. G. Heath published in 1916, of the six main universities offering social welfare training courses, only three included the study of sanitation and/or hygiene.²⁴

²³ *Social Study and Training*, p. 10; Macadam, p. 60.

²⁴ Heath, Appendix II, p. 14.

The JUCSS acknowledged that the scientific (i.e. 'physical') element had been marginalized in favour of the social sciences and economics in social welfare training:

The social worker, it is urged, is being taught to consider the facts of social life without first grasping the facts of physical life; and is being encouraged to deal with social reform without adequate reference to the physical health of the community.²⁵

There was some support for the household science approach outside of KCHSS circles.

The secretary of the COS, Rev. J.C. Pringle, criticized the predominance of the social sciences within social welfare education and called for the 'cool clear rays of science' to be applied to domestic life and for social workers to be trained in 'domestic economy'.²⁶ Continuing tension between the 'pure' science and sociological elements in social welfare education was noted in 1925 by Elizabeth Macadam, a member of the JUCSS and a one-time warden of the Victoria Settlement in Liverpool:

The tendency in this country is to regard subjects dealing with exact sciences as too highly specialized and too onerous in their requirements for study and experimental work to form part of a group including economics, history and kindred subjects.²⁷

She noted that the Americans had been more willing to embrace the sciences in social welfare education whilst in Britain a separation had developed between 'the physical and the social and economic health of the community', with 'social study' confining itself primarily to the latter.²⁸ The difficulty of integrating them lay in providing

²⁵ *Social Study and Training*, p. 10.

²⁶ Rev. J.C. Pringle, 'The Need of Training for the Social Worker', *Education* XXVII:682 (21 Jan. 1916), pp. 36, vi; 683 (28 Jan. 1916), pp. 48, vi; 684 (4 Feb. 1916), pp. 60, vi; see also editorial, *Education* XXVII:681 (14 Jan. 1916), pp. 18-19.

²⁷ Macadam, pp. 60-61.

²⁸ *Ibid.*, p. 61.

adequate coverage of all the requisite subjects in one course--as Macadam pointed out, the American approach to training (i.e. an interdisciplinary combination of sciences, economics, and sociology) would have been criticized in Britain for its 'superficiality'.²⁹ This had, of course, been the principal criticism of the household science course.

The charge of superficiality was not the only problem besetting KCHSS in its effort to establish the college's unique blend of science and social sciences as a legitimate approach to social welfare education. To have altered the three-year course to accommodate the various social science subjects included in other vocational courses would, by undermining the quality of the science teaching, have thrown into question the concept of household science as it had developed at KCHSS. This dilemma was particularly acute in the period 1916-1920 because of the campaign to secure degree status for household science--the college's insistence on maintaining standards in its core sciences (chemistry, biology, physics, and physiology) underpinned household science's academic integrity. Indeed, the Executive Committee dropped Group III (which had been deemed 'unsatisfactory' by others training agencies) from its application for the B.Sc. degree rather than contemplate a restructuring of the syllabus. Ironically, this inflexibility circumscribed its ability to tailor the three-year syllabus to reflect the growing consensus amongst academics as to the content of theoretical social welfare training.

²⁹ Macadam, p. 62.

KCHSS's tenuous position in social welfare training was exacerbated by the various short vocational social welfare courses which continued to provide a cheaper alternative to its degree course. Many of these courses had been created to meet the war-time demand for trained social welfare workers, but they continued to thrive in the interwar period by providing basic tuition for the various hygiene certificates which remained the minimum qualifications for most social welfare occupations. Two of KCHSS's chief rivals in social welfare training, Bedford College and Battersea Polytechnic, had taken the lead in establishing short vocational courses. Immediately after the London School of Sociology's merger with the LSE in 1912, the COS also began to experiment with shorter training schemes for its own workers because of its dissatisfaction with the academic nature of the LSE course. It started its own twelve-month certificate course in 1915, and a year later organized a cooperative scheme with Bedford College which proved to be very popular.³⁰ The Bedford scheme involved a one-year course of lectures in civic administration, modern economic history, industrial economics, social ethics, and practical work in COS offices.³¹ By 1919 Bedford College had established a Department of Social Studies and engaged a permanent director.³² Battersea Polytechnic, which also had a domestic science teacher training

³⁰ Hilda Oakeley was a member of the COS training committee. See 'Training Sub-Committee', *Charity Organisation Review* New Series XL:236 (August 1916), pp. 82-83. 'Course of Training for COS Certificate', *Charity Organisation Review*, New Series XLIII:253 (Jan. 1918), pp. 29-30; M.J. Smith, pp. 62-63; 'Course of Training in Social Work', BC: AR/300/2 [n.d., c.1916-17].

³¹ *Bedford College Calendar 1916-17*, p. 63.

³² Rooff, p. 239.

programme, offered courses for health visitors, sanitary inspectors, infant welfare workers, and teachers of hygiene in their 'College of Hygiene and Public Health'.³³

There was some interest in various quarters in the possibility of linking social welfare courses with KCHSS. Proposals for short vocational courses often came from outside the college and on the whole were given serious consideration. The Executive Committee discussed a suggestion in 1916 for a three-year training course for health visitors and superintendents of infant welfare/maternity centres in connection with the Royal College of St. Katherine's (Poplar), with the purpose of establishing a standard university training for these occupations.³⁴ The COS also approached the college with a proposed new course for social welfare workers in 1917.³⁵ Neither scheme was implemented, however. Yet the demand for shorter vocational courses was such that KCHSS felt forced to enter the field in order to maintain its influence in social welfare training. Although unwilling to compromise the three-year syllabus, KCHSS did experiment briefly with two courses run jointly with the Ratan Tata Department of Social Science and Administration at the LSE.³⁶ The failure of this experiment illustrates both the college's commitment to the centrality of the sciences in social

³³ *Girls' School Year Book 1919*, (H.F.W. Deane & Sons The Year Book Press), p. xi. (Hereafter: *GSYB*)

³⁴ ECM, KCHSS: QA/C/M1 (17 Feb. 1916), p. 166.

³⁵ ECM, KCHSS: QAP/GPF4/1 (16 Oct. 1917), p. 3.

³⁶ The Ratan Tata Foundation, which had set up a research institute at the LSE in 1912, took over the financing of the Department of Social Administration and consequently renamed it. Harris, 'Ratan Tata', pp. 44-46.

welfare education and the obstacles the household science movement encountered in face of encroaching professionalization.

The first joint KCHSS/LSE course was a two-year scheme for 'social and public health workers', organized in 1918. The course was one of the first to combine 'sanitary science' with social study:

At [the] present time there are a number of courses of training in either social or sanitary science, but none which sufficiently comprise instruction in both The present course is intended to provide a good groundwork of instruction in both branches, together with specialized training in the various branches of social and public health work.³⁷

There was a short introductory course of thirty lectures covering the 'laws of nature' to enable students to 'understand ... the functions of life'; instruction in the structure and function of the cell and how cells form groups or systems (50 lectures), and lectures in personal and domestic hygiene, including first aid, infant and child hygiene, and municipal hygiene. All of the sanitary work was taught at KCHSS, whilst the social work was split between the two institutions.³⁸

The social science course was abandoned in 1920 when the Ratan Tata Department decided to extend their own one-year scheme for social welfare workers into a two-year course, effectively creating two competing types of social welfare

³⁷ 'Scheme of Study and Training Proposed: ... H&SS Department and the Ratan Tata Department of Social Science and Administration', Minutes of the Ratan Tata Benefactions Committee, LSE: 17/3, (18 Jan. 1918), p. 26. (Hereafter: 'Scheme of Study') Lane-Claypon was a member of the Ratan Tata Benefactions Committee from Nov. 1919.

³⁸ *Ibid.*, pp. 26-30.

training. This move stemmed from a fundamental dispute with KCHSS over the amount of 'sanitary science' included in the syllabus.³⁹ The LSE courses contained no teaching in hygiene or physiology--subjects that Lane-Claypon and others at KCHSS deemed essential.⁴⁰ Efforts were made to persuade the Ratan Tata Department to arrange courses in sanitary subjects at KCHSS for its two-year social welfare students; although the latter were agreeable in principle, they insisted that no more than forty hours should be spent on elementary hygiene and physiology in the whole of the two year programme. The scheme was unacceptable to Lane-Claypon:

[W]e should not regard such a course as being adequate, and [...] it would not be possible in it, to attain anything approaching a University standard. If this College does not undertake such a course, the Ratan Tata Department proposes to slightly extend the present course of 20 lectures, given by a medical woman ... on specific matters referring to factory welfare. They do not propose to have any general training in health matters but only a rudimentary effort on certain specialized points.⁴¹

Lane-Claypon recommended to the Executive Committee that if the joint KCHSS/LSE course was abandoned, KCHSS should provide its own social science instruction rather than to continue sending students to the LSE. She complained that the public health workers at KCHSS were spending more time on social studies at the LSE than the LSE

³⁹ Ratan Tata Benefactions Committee, LSE: 7/3 (26 Mar. 1920), p. 168; see correction by Lane-Claypon, p. 170.

⁴⁰ ECM, 'Memorandum on the Training of Health Visitors', KCHSS: QA/C/M2 (10 Feb. 1920), append. p. 9.

⁴¹ *Ibid.*, p. 1.

students were spending on hygiene and physiology.⁴² The course was abandoned in 1920 and the college ceased to accept students from the LSE for public health work.⁴³

A similar joint KCHSS/LSE venture was launched for health visitors in 1919 following the Board of Education's new regulations for the training of health visitors of that year. This course was also withdrawn after only one year, in this case because of the encroaching professionalization of health visiting rather than disputes between the two colleges over principle.⁴⁴ The Board's regulations established a minimum standard curriculum for training courses based upon elementary physiology, artisan cookery, hygiene, infectious diseases, maternity and child welfare, and elementary economics and social problems.⁴⁵ Shorter vocational courses which focused on these subjects thus continued to attract large numbers of students. Recruitment to the relatively expensive one-year KCHSS/LSE course was unlikely to be sustained, especially given that many who could afford the KCHSS course were former VADs with special training grants from the Board of Education and therefore in limited supply.⁴⁶ Salaries for occupations such as health visiting were decreasing, moreover, and the number of health visiting posts declining.⁴⁷ More importantly, medical practitioners, nurses, and local authorities

⁴² ECM, 'Memorandum on Health Visitors', p. 3.

⁴³ ECM, KCHSS: QA/C/M2 (10 Feb. 1920).

⁴⁴ *Dean's Report 1918-19*, KCHSS: [uncatalogued], p. 1.

⁴⁵ *Regulations for the Training of Health Visitors* (PP 1919 XXXIX), pp. 161-163.

⁴⁶ *Dean's Report 1920-21*, p. 2.

⁴⁷ Eve, p. 5.

increasingly opposed the appointment of health visitors who were not trained nurses, and it was becoming difficult to find openings for practical training for KCHSS students.⁴⁸ The medicalization of the health visiting profession led eventually to new regulations in 1926 which made nursing education a requirement. KCHSS, anxious to maintain its connections with the profession, instituted a health visiting course in conjunction with the sister tutors' course which had been organized at the college in 1918.⁴⁹

After these abortive attempts to establish professional courses for social welfare workers, KCHSS's administration decided in 1920 to 'drop some of the non-University courses and to concentrate more closely on the degree'.⁵⁰ They did not completely abandon efforts to establish the college as a centre for social welfare education, however. In 1924-25, for example, the Institute of Industrial Welfare Workers was asked to recognize the B.Sc. course as a professional qualification; it was refused because the degree did not include the requisite courses in psychology and social philosophy.⁵¹ The eventual reinstatement of the Group III option for social workers

⁴⁸ ECM, 'Memorandum on Health Visitors', pp. 1-2.

⁴⁹ Although KCHSS was recognized for health visitor's training throughout the period, no entries were received until after 1945. ECM, 'Memorandum on the Sister Tutors' Course', KCHSS: QA/C/M3 (6 July 1926), p. 519; QA/C/M4 (8 Mar. 1927), p. 110; QA/C/M4 (11 Oct. 1927), p. 188; QA/C/M4 (8 Nov. 1927), p. 202; ABM, KCHSS: QA/AB/M5 (10 Dec. 1935), p. 28; Marsh, p. 320, n13.

⁵⁰ This was in part due to financial constraints. See 'Special Investigations Committee', KCHSS: QA/CS M1 (22 Nov. 1922); *Dean's Report 1920-21*, KCHSS: [uncatalogued], p. 2.

⁵¹ M. Walker to Lydia Henry, 9 Dec. 1924, KCHSS: QAP/GPF7/20; ECM, KCHSS: QA/C/M3 (13 Jan. 1925), p. 180.

was initiated by Constance Smith (former Chief Woman Inspector of Factories at the Home Office), who suggested that KCHSS should develop a training course for industrial welfare workers and for factory and other government inspectorships--posts which required a higher degree of scientific knowledge and/or responsibility and were therefore more suitable for university graduates.⁵² Keen to develop post-graduate studies at the College, the Academic Board considered introducing a 'Social and Industrial Administration' course for graduates.⁵³ The post-graduate scheme was abandoned, however, because the syllabus--which was to include industrial law, industrial hygiene, general and industrial psychology, industrial organisation, local government, tutorial classes on welfare work, and practical visits to factories--would have overlapped with that of the B.Sc.⁵⁴ It seemed unlikely, moreover, given past experience, that intending social welfare workers would be willing to opt for a four-year training when shorter options were available at other institutions. A new Group III option for social workers was therefore reintroduced into the B.Sc. course in 1931.⁵⁵

⁵² ABM, KCHSS: QA/AB/M2 (10 July 1925), p. 153, (25 Sept. 1925), pp. 154-6; 'Notes on Sub-Committee Meeting ... Oct. 16, 1925', KCHSS: QAP/GPF2/3 (16 Oct. 1925); ABM, KCHSS: QA/AB/M2 (27 Nov. 1925), p. 210; (16 Feb. 1926), append. p. 266; Constance Smith to Lydia Henry, 10 July 1925, KCHSS: QAP/GPF2/3.

⁵³ 'Notes on Sub-Committee Meeting', KCHSS: QAP/GPF2/3; 'Report of the Academic Board on Proposed Special Course for Government Inspectors, Welfare Workers, &c.', ECM, KCHSS: QA/C/M3 (9 Mar. 1926), append. p. 447.

⁵⁴ 'Report on Proposed Special Course for Government Inspectors'; ABM, KCHSS: QA/AB/M2 (16 Feb. 1926), append. p. 266; ECM, KCHSS: QA/C/M4 (12 Oct. 1926), p. 12.

⁵⁵ ABM, KCHSS: QA/AB/M3 (12 Oct. 1931), p. 516; ECM, KCHSS: QA/C/M5 (6 Oct. 1931), p. 378.

By this time the administration were prepared, albeit reluctantly, to concede part of the science curriculum in favour of social sciences. The first Group III syllabus submitted by the college to the Board of Studies in Sociology was rejected because it was 'overloaded on the side of the natural sciences', and because provision for social economics, public administration, and practical training was deemed to be inadequate.⁵⁶

The Academic Board pointed out that these elements were covered in 'Social & Economic History', 'Economic Theory' and 'Hygiene' in the first two years of the household science course, but they nevertheless acquiesced and submitted a new syllabus.⁵⁷ The new scheme substituted elementary psychology for bookkeeping in the second year; in the third year, applied chemistry and 'kitchen laboratory' were cut back to make way for additional lectures in psychology, hygiene, social philosophy, and industrial organization. Practical work was arranged to take place in the summer so as to reduce timetable pressures.⁵⁸

The college's acquiescence on the Group III syllabus reflected a recognition that economics and social sciences had become the foundation for social welfare training, although the household science approach to social welfare did retain a strong natural

⁵⁶ 'Draft Letter from the Warden to the University of London' (7 May 1929), append. p. 464; 'University of London, Report of Standing Sub-Committee in Science 4 Nov. 1929', ECM, KCHSS: QA/C/M5 (3 Dec. 1929), append. p. 63; ECM, pp. 62-64.

⁵⁷ ECM, KCHSS: QA/C/M5 (3 Dec. 1929), pp. 62-64, (11 Mar. 1930), pp. 108-110; ABM, KCHSS: QA/AB/M3 (20 May 1930), p. 374.

⁵⁸ 'Report From Sub-Committee ... Alternative Degree Course for Social Workers', ECM, KCHSS: QA/C/M5 (3 June 1930), p. 162; *Course for Social Workers (B.Sc. Household & Social Science) Third Alternative*, KCHSS: QEPH/SYL15 (1932), p. 3; *Annual Report 1930-31*, KCHSS: QEPH/RPT8, p. 7.

science component. By this point many of the occupations for which the household science course had been created had already passed through the initial stages of professionalization and had more or less established paradigms for professional training.

The JUCSS had published a second report on industrial welfare work in 1921 which reiterated earlier recommendations that training should be based upon a core of social sciences and economics.⁵⁹ In announcing the new B.Sc. option KCHSS's administration acknowledged that they had been concerned for some time about the lack of social science and psychology in the three-year syllabus; many household science graduates intent on careers in social welfare were forced to take additional social science training before they were considered qualified, sometimes even for the less responsible posts.⁶⁰ It seems that financial constraints may have delayed the decision to hire specialist lecturers in the social sciences to cater for the relatively small number of students involved.⁶¹

Household science graduates were able to find employment in the social welfare sector throughout the period, yet the administration's insistence on maintaining the sciences as the cornerstone of the discipline limited its value in the field as professional training. Moreover, the original ideal of the household science pioneers, who had envisaged an all-embracing, well-rounded course for women's roles in social and civil

⁵⁹ *University Training for Welfare Work in Industry and Commerce: A Report Issued by the Joint University Council for Social Studies* (P.S. King, 1921), p. 8.

⁶⁰ *Annual Report 1930-31*, KCHSS: QEPH/RPT 8, p. 7.

⁶¹ Financial difficulties are discussed below, pp. 273-274. 'Needs of the College', (Oct. 1929), ECM, KCHSS: QA/C/M5 (5 Nov. 1929), p. 29.

life, became obsolescent as social welfare work was professionalized. The college was thus unable to make more than a marginal contribution to the field.

Applied Science Careers

[T]here is always scope both at home and overseas for the adventurous who leave all beaten tracks and find new uses for the knowledge they have gained in one or other part of a varied and comprehensive course.⁶²

The H&SS Department had set out, albeit with limited success, to forge links with social welfare occupations, but in the case of laboratory work and dietetics it was its graduates who played a major role in pioneering new openings. Although the proportion of household science graduates taking up laboratory work grew from just 2.0% in the 1920s to 8.3% in the 1930s, the field received virtually no attention from the KCHSS's administration in their effort to create a professional identity for the household science discipline. In dietetics, on the other hand, the interplay of graduate employment trends, external demand, and administrative initiative led to the foundation of the first university dietetics diploma in England. A closer look at the evolution of these two applied science fields in the inter-war period helps to account for these inconsistencies in administrative policy.

⁶² *Professions Open to Graduates in Household & Social Science*, KCHSS: QEPH/PBN [n.d.; c.1935-53], p. 2.

I. Laboratory Work

Applied scientific work was an expanding career field for women in the interwar period as a result of the shift away from heavy manufacturing to industries such as the production of electrical appliances, food processing, and chemicals.⁶³ As Vera Brittain pointed out in her book on careers for women in 1928, applied scientific work in such industries offered good prospects for women because there was no long-established tradition that made it a masculine preserve.⁶⁴ The proportion of students taking first jobs in commercial laboratories grew from just 2.0% in the 1920s to 6.6% in the 1930s, with a surge to 21.7% in the 1940s. [TABLE 4.4] Audrey Ayers, a KCHSS graduate (1939-1941)⁶⁵ recalled that commercial laboratory work was considered to be an expanding career option for women and that it had a ‘sense of urgency and possibly excitement about it’.⁶⁶ In looking at the actual jobs taken in institutional laboratories in 1910-1949, one finds that a household science degree enabled graduates to take up posts in a variety of establishments, mostly at the level of research assistant or laboratory technician. [TABLE 4.5] The majority of these positions were connected in some way with health, either directly (e.g. hospital or pharmaceutical laboratories) or indirectly,

⁶³ Sanderson, p. 337; Glucksmann, pp. 72-73.

⁶⁴ Vera Brittain, *Women's Work in Modern Britain* (Noel Douglas, 1928), pp. 40, 100.

⁶⁵ Hereafter the use of dates following an individual name will indicate their years of attendance at KCHSS.

⁶⁶ Ayers MS (NLB), 8 Apr. 1991, p. 1. All references to oral evidence from KCHSS graduates will be listed by name and collection (NLB or PJF), plus date where necessary. For complete references see APPENDIX E, pp. 407-408.

such as in water testing or food-related work--exactly the type of applied science work for which household science had originally been created.

Yet the emergence of laboratory work as a career for the household science graduate does not appear to have been discussed by the Executive Committee or Academic Board, although the one surviving careers brochure published by KCHSS does give it a passing mention.⁶⁷ Laboratory work is only briefly mentioned by Helene Reynard (Warden, 1925-45) in her book on domestic science careers (which included household science), published at a time when over a quarter of household science graduates were taking up posts in some kind of laboratory.⁶⁸ Likewise, no mention is made in KCHSS's advertisements in the *Girls' School Year Book* of the fact that the college prepared women for careers in laboratory work.⁶⁹

The promotion of laboratory work as a household science career was problematic for several reasons. Many of the laboratory posts taken by KCHSS graduates involved only one aspect of the household science discipline (e.g. bacteriology, biology, biochemistry) and graduates with specialist degrees in these sciences were equally--if not better--qualified to take up the same positions. Moreover, despite Vera Brittain's optimism, laboratory work was still regarded as an unusual--or

⁶⁷ *Professions Open to Graduates*, p. 2.

⁶⁸ Helene Reynard, 'University Courses', *Domestic Science as a Career* (Southern Editorial Syndicate, 1947), p. 37.

⁶⁹ See *GSYB 1920-1939*.

indeed inappropriate--occupation for women. The *Girls' School Year Book's* regular section on careers did not discuss laboratory work as a career for *any* woman graduate.

Audrey Ayers, who worked in the Customer Service Department of the Metal Box Company in the 1940s, recalled:

[Commercial laboratory work] was a good career in many ways but one was aware of being in a minority (i.e. men outnumbered women by about 100 to 1 at scientific meetings). I would say that promotion was undoubtably more difficult for women. Perhaps the greatest difficulty was a lack of any training in report writing and preparing work for publication.⁷⁰

Michael Sanderson points out that in some industries that recruited science graduates a laboratory post usually led on to production management, which was either regarded as off-limits to women (as it could entail supervising male workers) or was considered unappealing by the women themselves.⁷¹

There was, of course, an element of discrimination against women scientists. Mamie Olliver (1923-26), who also took an honours degree in chemistry, was told by a careers advisor in the midst of the depression that 'men chemists were walking the streets trying to find a job' and that she, as a woman, would best take a secretarial course.⁷² One chemist had pointed out to her that he would not employ a woman chemist because of the 'susceptibility of men'.⁷³ Although Olliver eventually had a

⁷⁰ Ayers MS (NLB), 8 Apr. 1991, p. 1.

⁷¹ Sanderson, p. 336.

⁷² David F. Smith, interview with Mamie Olliver, Histon, 19th Nov. 1979, p. 4.

⁷³ *Ibid.*

highly successful career as a food scientist working at Chivers, she began humbly as an assistant analyst in a small meat factory, where conditions and pay were poor.⁷⁴ Women scientists who ventured out of the traditional field of university teaching could face, in the words of Michael Sanderson, 'insecurity, poverty, a fly-by-night quality of life'.⁷⁵ Olliver felt fortunate to get the job at Chivers in 1930, where her starting salary was £220 (which was 'absolutely marvellous') and where the management supported her research interests--she notes that Chivers were almost unique amongst industrial firms in supporting staff development.⁷⁶ Another graduate, Margaret Macfarlane (1920-23), found commercial laboratory work to be a good career for a woman scientist compared with some 'women's' positions. She began her working life as a caterer and housekeeper at an hotel, which paid only £80 a year, but then moved to a laboratory post at MacFisheries in 1924 which paid £300 per year. In the eyes of her contemporaries, she was 'rich beyond the dream of avarice'.⁷⁷ Such positions seem to have been the exception rather than the rule, however.

The promotion of household science as a training for laboratory work was also greatly handicapped by the absence of research institutions devoted to 'household science' in its own right. KCHSS itself provided few opportunities for post-graduate

⁷⁴ Olliver notes that she worked 8:30-6:00 weekdays, 8:30-12:30 on Saturdays for £175 per year. Smith, interview with Olliver, pp. 5-6.

⁷⁵ Sanderson, p. 325.

⁷⁶ Smith, interview with Olliver, p. 8.

⁷⁷ Macfarlane to PJF, 12 Sept. 1976, PJF, p. 6.

research, and there were virtually no other institutions offering research positions which adopted the broad interdisciplinary approach enshrined in the household science syllabus--there was, for example, no British equivalent of the American Bureau of Home Economics (est. 1921).⁷⁸ The one exception was perhaps the Good Housekeeping Institute, founded in 1924 in connection with *Good Housekeeping* magazine, but the institute's 'research' mainly involved the testing of consumer products such as small appliances, food products and recipes and was not necessarily of a scientific nature.⁷⁹

The emphasis on chemistry, physiology, and food analysis in the household science syllabus did, however, enable the discipline to develop strong links with the food-processing industry. The great majority of laboratory posts (81%) taken by graduates in the commercial sector were in food-related firms. [TABLE 4.6] Food-related research had been given a significant boost as a result of problems of food storage, preservation and transport encountered in the First World War, as well as the advances in biochemistry made at the turn of the century. Not only had several 'accessory food factors' (i.e. vitamins) been discovered, but the links between diet and disease were also coming to be better understood.⁸⁰ This interest in food research had a

⁷⁸ KCHSS's failure to establish a research programme is discussed below, pp. 270-283. Rossiter, pp. 228-229.

⁷⁹ Two KCHSS graduates were employed by the Good Housekeeping Institute in the period 1910-1949. For a brief background to the Good Housekeeping Institute, see 'Celebrate the Way We Live: 65 Years of the Good Housekeeping Institute', *Good Housekeeping*, supplement (May 1989), pp. 6-7.

⁸⁰ Berridge, pp. 232-233.

follow-on effect in the catering and food processing industries in the interwar years.

According to the chief chemist at J. Lyons & Co., Dr. L.H. Lampitt:

The exigencies of war and the havoc it played with normal food supplies brought home to some the advisability either of developing their small chemical laboratories, or of embarking on the experiment of employing chemists.⁸¹

The demand for scientifically-trained graduates who had some experience of applied food chemistry meant that household science graduates were quickly absorbed into these new positions.

The number of household science graduates employed by food processing firms was no doubt enhanced by the nature of the industry itself. In industries associated with women's traditional work such as food preparation, women were sometimes viewed as more appropriate, or more natural, employees. This sexual division of labour was certainly evident on the production side, and may have had some effect in boosting the number of women in the laboratories. Many of the new industries of the interwar period also took on women because they were less-expensive than their male counterparts and, because these industries were newer, it was less likely that the women would be regarded as displacing men.⁸²

The J. Lyons Company--better known for its tearooms than for its food laboratories--employed a great number of KCHSS graduates. Out of the 85 jobs taken

⁸¹ L.H. Lampitt, 'Chemists and the Food Industry: An Expanding Field of Development', *Journal of Careers* XII:47 (Dec. 1934), p. 666.

⁸² Sanderson, p. 333; Glucksmann, pp. 197-203.

in commercial laboratories by KCHSS graduates before 1949, 44 were with Lyons. Betty N. Aldridge (1941-44), who worked at Lyons from 1948-51, estimated that KCHSS graduates made up approximately 20% of the chemists employed at the company.⁸³ A closer look at the history of Lyons indicates the importance of the laboratory in the food industry and the nature of the work involved.

Lyons began as a catering firm in the late 1880s, opening its first teashop in 1894.⁸⁴ In the Edwardian years the business expanded rapidly, with one teashop opening on average every six weeks; by 1919 the firm had 250 teashops and several restaurants and was the country's largest caterer.⁸⁵ In the mid-1920s the firm expanded into wholesaling and food manufacturing, and by the 1930s this side of the business had overtaken the tearooms in profitability.⁸⁶ From 1924, the mass production of single products such as ice cream or Swiss roll were organized into separate departments.⁸⁷ The quantities produced in the Cadby Hall buildings (which supplied food for all of the company's teashops and restaurants) were enormous: twenty-six miles of Swiss roll

⁸³ Betty M. Aldridge MS (NLB), p. 3.

⁸⁴ D.J. Richardson, 'J. Lyons and Co. Ltd: Caterers and Food Manufacturers, 1894-1939', in *The Making of the Modern British Diet*, ed. Derek Oddy and Derek Miller (Croom Helm, 1976), pp. 162-65.

⁸⁵ *Ibid.*, pp. 167-168.

⁸⁶ *Ibid.*, p. 169.

⁸⁷ Glucksmann, p. 126.

were produced daily, and during the Christmas season over a quarter of a million mince pies could be produced per day.⁸⁸

Mass production techniques led to the evolution of highly-developed quality control systems and to the opening of a chemical laboratory after the war--according to Lampitt mass-production made the employment of chemists an 'absolute necessity'.⁸⁹ Lyons' Chemical Department controlled the purity of food supplies, monitored the efficiency of production systems, and researched new processes, materials, and machinery.⁹⁰ The original Chemical Department occupied an area of about 3,000 square feet in the main Cadby Hall plant but, when it moved to its own building in 1928, the area devoted to food research expanded to over 35,000 square feet.⁹¹

Sheila Clark (1938-41) took up a laboratory position at Lyons following her graduation from KCHSS in 1941. Clark had studied household science because she was interested in food and diet and because the training offered in the traditional domestic science colleges--'with its overtones of needlework and brides' courses'--did not appeal to her. She had intended to become a hospital dietitian but, having discovered that this required a year's practical training in a hospital kitchen, she offered her services to

⁸⁸ Glucksmann, p. 127.

⁸⁹ Richardson, p. 168; 'How the "Lab." Has Grown', in *The Lyons Mail* XIII:5 (September 1928), p. 110. I am grateful to Y.A. Walker of Lyons for supplying this reference; Lampitt, p. 666.

⁹⁰ 'How the "Lab." has Grown', p. 110.

⁹¹ *Ibid.*

Lyons and was taken on in 1941. At the time she started there were five or six other KCHSS graduates (and one Girton graduate) working in the laboratories out of an estimated twenty chemists. Clark recalls:

Lyons' Food laboratories were in a separate building across the road from the Cadby Hall Factory in Hammersmith. I was placed in one known as Laboratory Formula Inspection. Its function was to compare the factory product with its formula as recorded in the relevant lab. Probably in the course of time the various ingredients and weight of the final product after it had cooked in the 'moving' ovens could diverge from the official formula. For example my work once involved ... watching the Choc Roll line and taking test weights at various stages. This was all interesting and entertaining.

Another assignment I had was to carry out inspections of bakeries for cleanliness and general condition. ... Investigating complaints of foreign bodies in food from ... customers was also my duty. These could be such things as stones and strange seeds from dried fruits, cooper's clouts from jam barrels and glass and grain beetles. The procedure was to talk to the relevant bakery manager and consider whether the foreign object could have originated in his department. In the case of glass fragments the specific gravity and colour in ultra violet light were compared with a list of all glass used in the Factory and Tea Shops. If there was no match one could conclude that the complaint was false. From this account it can be seen that my time at Lyons was a wonderful opportunity to get behind the scenes in a factory but not strictly chemist's work.⁹²

Clark's account indicates that the laboratory work was of an applied nature and demanded the ability to cope with a variety of analytical methods, but the nature of the laboratory work in food processing could vary markedly within or between companies. Betty Aldridge's duties at Lyons mainly involved product development. Initially she worked in quality control at Cadby Hall but then moved into the 'Kitchen Products Section', developing concentrated soups, testing recipes, and analysing and copying

⁹² Clark MS (NLB), 25 Sept. 1991, pp. 3-4.

competitors' products.⁹³ This contrasted with the work undertaken by Audrey Green (1939-43) at the Metal Box Company in Acton in the 1940s. Her duties involved working out the nutritive value of tinned foods, including the development of analytical methods such as the electrometric determination of vitamin C. She then worked for the H.C. Carter Company, where she analysed fruit and fruit enzymes and developed estimation methods, work which was later published in the first edition of Hulme's *The Biochemistry of Fruit and Vegetables*.⁹⁴

The woman trained in applied science held advantages over those with a traditional science degree or a domestic science diploma in the competition for food-related research posts. In an article for the *Journal of Careers* in 1934, Lampitt warned potential food chemists that a 'pure' science training would put them at a disadvantage:

A year of post-graduate work spent in a study of analytical methods is far better than two years in so-called "Research." It is a delusion to think that a study of "somebody's reaction" with the consequent paper in one of the scientific journals is an aid in the search for a position in a food factory. I will put it no stronger than that.⁹⁵

Yet despite KCHSS's unique advantages in food-related research, virtually no administrative attention was given to developing links with the food-processing industry.

⁹³ Aldridge MS (NLB), pp. 3-4.

⁹⁴ Green MS (NLB), OQ, p. 2.

⁹⁵ Lampitt, p. 667.

Applied Science Careers: II--Dietetics

There's a course that is steadily thriving
 On equipment that's always arriving
 They are called Dietitians and study nutritions
 Of food in their surveys of modern conditions.
 Oh! What a beautiful Calling
 Oh! What a wonderful way
 Of nationalising our feeding
 Everything's going that way.⁹⁶

In contrast with its attitude towards laboratory work, KCHSS's administration actively fostered the development of dietetics within the household science discipline; indeed, the development of dietetics as an applied science in Britain was by far the most significant legacy of the household science movement. This was reflected not so much in the percentage of household science graduates employed in dietetics-related occupations--just under 15% in the 1930s and 1940s--but rather in terms of the influence which KCHSS wielded in the professionalization of dietetics in the UK. KCHSS pioneered the first university-based dietetics training course in Britain--a one-term introductory course in 1930 which was developed into an academic post-graduate diploma course in 1936--and it was also to establish the first B.Sc. degree course in nutrition, which opened at Queen Elizabeth College (as KCHSS was subsequently named) in 1953.

⁹⁶ Dillon, 'QEC in Song', p. 3.

KCHSS's pre-eminence in dietetics and nutrition had its roots in the metabolic research of Sir Edward Mellanby FRS, professor of physiology at KCHSS (1913-1920).

Mellanby had worked at Cambridge under Frederick Gowland Hopkins, a biochemist whose contributions to the field of vitamin research led to a joint Nobel Prize in 1929.

Mellanby's own research at KCHSS on the cause of rickets led to the discovery of vitamin D, for which he was awarded a KCB in 1937.⁹⁷ His prominence gave an enormous boost to KCHSS's academic status in its early days and established an international reputation for the physiology department, which hosted researchers from the Commonwealth and North America and pioneered research techniques that were copied by other laboratories.⁹⁸

It was Mellanby's successor, Vernon H. Mottram (1882-1976), however, who was to have the leading role in the development of dietetics education at KCHSS.

[PLATE 8] Mottram was also a Cambridge graduate and a former demonstrator for Hopkins, but his interests were in the practical side of nutrition rather than the metabolic research favoured by Mellanby: the correct preparation of food to ensure retention of nutrients, the construction of special diets, and low-cost alternative foods for working-class budgets. These interests reflected Mottram's long-standing socialist sympathies, as characterized in a KCHSS student poem:

⁹⁷ B.S. Platt, 'Sir Edward Mellanby', *Dictionary of National Biography 1951-1960*, ed. E.J. Williams and H.M. Palmer (Oxford University Press, 1971), pp. 731-732.

⁹⁸ 'Memorandum on the Provision of a Nutrition Laboratory', ECM, KCHSS: QA/C/M3 (9 June 1925), append. p. 277.

There lived a Prof as I've been told,
 In the physiological days of old,
 His heart was twice as good as gold,
 His hair was white and yellow.

Good temper triumphed in his face,
 And in his heart he found a place,
 For all the ailing human race--
 And every wretched fellow.

It made him very sad to think,
 That some get fat while others shrink,
 Now what to eat or what to drink,
 It's *food* that builds the body.⁹⁹

Mottram's publications included several physiology and histology texts, and he was widely known for his popular lectures and BBC radio broadcasts and for popularized versions of his research such as *Food and the Family* (1925); *Sound Catering for Hard Times* (1932), written with his wife; and *A Manual of Modern Cookery* (1927), co-written with Jessie Lindsay of the Household Arts Department.¹⁰⁰

Mottram's interest in practical nutrition had been kindled across the Atlantic in 1915 at a meeting of a biological sciences society in St. Louis, where he heard the nutritionist Graham Lusk give an account of the caloric value of food served in a popular restaurant chain. Mottram later recalled:

⁹⁹ 'There lived a Prof.', *K.C.W. Magazine*, KCHSS: Q/SER5/2, (Mar. 1928), p. 14; Interview with Martin Mottram, Salisbury, 7 Dec. 1993; Patty Fisher, 'Vernon Henry Mottram' *Dictionary of National Biography 1971-1980*, ed. Lord Blake and G.S. Nicholls (Oxford: Oxford University Press, 1986), pp. 604-605.

¹⁰⁰ V.H. Mottram, *Food and the Family* (Nisbet, 1925); V.H. and E.C. Mottram, *Sound Catering for Hard Times* (Nisbet, 1932); V.H. Mottram and J. Lindsay, *Manual of Modern Cookery*, 3rd and rev. ed. (University of London, 1936).

It was the first, and rather electric, time that I'd seen any practical application of the study of nutrition to practical affairs of life. I was enormously impressed. ... I was still full of the idea when I came back to England & when I saw the advertisement of the Chair in Physiology (Univ. of London) tenable at KCW ... I leapt at the idea of putting in for it with a view to plugging nutrition.¹⁰¹

He made several attempts to persuade the Academic Board to develop a dietetics training course at KCHSS in the late 1920s.¹⁰² Mottram recalled that there had been great difficulty in persuading the governing body, 'always scared of expense (? and new ideas)' to establish a course:

There were difficulties all round. Money was tight. People in the College and in the department even were agin the idea. I know that it was difficult going and I wish I'd kept a letter from Graham Lusk in which he characterized my attitude about dietetics in Great Britain as one of 'humorous despair'.¹⁰³

The academic reasoning of those 'agin the idea' is not recorded, but it may have resembled arguments used against the creation of a chair and B.Sc. in nutrition in the 1940s. These have been summarized by Sir John Yudkin (Professor of Physiology 1945-54 and Professor of Nutrition 1954-71), and were based on the following points: nutrition was 'hardly a science'; nutrition was already part of biochemistry or part of physiology; the large number of subjects in both experimental and behavioural science meant that students would not achieve a university-level of scholarship in any one subject; the course was vocational and not academic; and 'cookery' could not be part of

¹⁰¹ Mottram had been working as a lecturer at Toronto and McGill University, Montréal in 1914-15. Mottram to Patty Jarvis Fisher, 24 Mar. 1954, PJF; Fisher, 'Mottram', pp. 604-605.

¹⁰² ECM, KCHSS: QA/C/M4 (15 May 1928), pp. 298-300; 'Needs of the College', (Oct. 1929), ECM: QA/C/M5 (5 Nov. 1929), append. p. 29.

¹⁰³ Mottram to Patty Fisher, 24 Mar. 1954, PJF.

a university degree.¹⁰⁴ Mottram prevailed in 1930, however, when pressure from outside the college showed that there was a demand for dietetics education. Helene Reynard (Warden 1925-45) reported to the Academic Board that 'requests were continually being received from various sources for the establishment of a course in dietetics', and asked Mottram to draw up a syllabus.¹⁰⁵ The first scheme was a modest venture, consisting of a term-long evening course providing twenty hours of lectures and forty hours of practicals as an introduction for nurses, domestic science students, social welfare workers and caterers.¹⁰⁶ It opened in the autumn of 1930 with twenty-five students, and similar courses continued throughout the decade.¹⁰⁷

Mottram's success in 1930 owed much, however, to the prominence of early KCHSS graduates in hospital dietetics. Dietetics began as a specialization within the nursing profession, as the feeding of patients fell within a nurse's responsibility. The first hospital dietetics departments in Britain were established by sister-dietitians--Edinburgh's Royal Infirmary created the first in 1924 (headed by Ruth Pybus), followed in 1925 by London Hospital (Rose Simmonds) and St. Thomas's

¹⁰⁴ For a complete account of this episode see Sir John Yudkin, 'Degrees in Nutrition at London University', B[ritish] N[utrition] F[ederation] *Nutrition Bulletin* 15 (Sept. 1990), pp. 191-195.

¹⁰⁵ ABM, KCHSS: QA/AB/M3 (24 Mar. 1930), append. pp. 354-356; ECM, KCHSS: QA/C/M5 (11 Mar. 1930), p. 106.

¹⁰⁶ ECM, KCHSS: QA/C/M5 (6 May 1930), p. 134; ABM, KCHSS: QA/AB/M3 (24 Mar. 1930), p. 356, (20 May 1930), p. 371; 'Proposed Course in Dietetics', ECM, KCHSS: QA/C/M5 (3 June 1930), p. 163.

¹⁰⁷ ECM, KCHSS: QA/C/M5, (7 Oct. 1930), p. 206; (3 Feb. 1931), p. 288; (2 Feb. 1932), pp. 436-438; (7 June 1932), pp. 484-486; QA/AB/M5 (10 Dec. 1935), p. 26; (13 Dec. 1938), pp. 414-416.

Hospital (W. Tancred).¹⁰⁸ As the work became more technical and the number of special therapeutic diets increased, hospitals began to recruit science graduates to organize dietetics departments. University College Hospital appointed the first graduate, Elspeth M. Marshall (a KCHSS graduate, 1922-25), in 1928, followed shortly afterwards by St. Bartholomew's Hospital, where an Oxford graduate, Margery Abrahams, was appointed at Mottram's suggestion.¹⁰⁹ Household science graduates, with their combined training in physiology, biochemistry, and cookery, rapidly built up a professional reputation and were much sought after by hospital administrators. In the early 1930s, no less than six prominent hospitals opened dietetic departments with household science graduates at their heads: the Royal Northern, Holloway (O. Clendinnen, 1923-28); David Lewis Northern Hospital, Liverpool (F.J. Keay, 1925-28); Radcliffe Infirmary, Oxford (A.M. Waterhouse, 1928-32); Addenbrooke's Hospital, Cambridge (J.I. Mills, 1927-30); Royal Masonic Hospital, London (B.J. Jamieson, 1928-32); and Middlesex Hospital (established by Marshall and developed by M.V. Scott Carmichael, 1929-32).¹¹⁰

KCHSS's failure to develop dietetics education had been noted as early as 1913, when Janet Lane-Claypon drew attention to the 'very high standards in nutrition'

¹⁰⁸ E. Miller, p. 48; Buchan, p. 73; 'Rose Simmonds 1886-1951', *Nutrition* (Winter 1951), p. 274.

¹⁰⁹ Mottram and Hutchinson both note that Abrahams had also studied at KCHSS but she does not appear in college records; it is likely she took the one-year Applied Science course. Hutchinson, p. 8; Mottram to Fisher, 24 Mar. 1954, PJF.

¹¹⁰ Hutchinson, p. 10.

education in North America--KCW was 'deficient and very markedly deficient, in the teaching of nutrition in its widest sense'.¹¹¹ The lack of a suitable professional course forced many of these early dietitians to study in the United States, where dietetics and nutrition were much more firmly established--most American home economics departments had dietetics courses by the early 1920s.¹¹² Abrahams was sent abroad by Mottram to study at Columbia University, where she received a master's degree in nutrition and institutional management.¹¹³ Pybus, Simmonds, Tancred, Abrahams, Marshall, and Tancred's successor at St. Thomas', M.C. Broatch, (1919-21), were all awarded travelling fellowships by the Rockefeller Foundation, enabling them to study for a year or more in North America.¹¹⁴ Marshall's fellowship enabled her to observe dietetics teaching and practice in various centres throughout the Northeast and Midwest, and she studied briefly at Teacher's College, Columbia University, under the eminent nutritionist Mary Swartz Rose.¹¹⁵

By 1932 the Executive Committee were coming at last to recognize the necessity of consolidating KCHSS's unique position in dietetics education in the UK. Despite the trend towards graduate recruitment in hospital dietetics departments, a number of

¹¹¹ 'Dr. Janet Lane-Claypon's Report on the Teaching of Home Science in the U.S. and Canada', KCHSS: Q/PP1/Pt.1 14 Feb. 1913, p. 4.

¹¹² Craig, p. 30.

¹¹³ Mottram to PJF, 24 Mar. 1954, p. 2.

¹¹⁴ Hutchinson, p. 9.

¹¹⁵ Interview with E.M. Marshall, Oxford, 2 June 1994.

training schemes had been organized independently by hospitals and domestic science colleges in the 1920s and threatened to undermine KCHSS's pre-eminence in the field. The Royal Infirmary, Edinburgh, accepted both domestic science teachers and science graduates for a six-month training, and both St. Thomas's Hospital and the London Hospital offered dietetics training for nurses in 1928.¹¹⁶ Short courses were also being set up at domestic science colleges to train women for newly developed positions in school meals services and institutional catering.¹¹⁷ The Glasgow & West of Scotland College of Domestic Science was the first to inaugurate a systematic course in 1927, and the Gloucestershire Training College of Domestic Subjects instituted a diploma in dietetic therapy in collaboration with a London hospital (c.1930).¹¹⁸ The type of training offered in these courses varied considerably, especially with regard to the amount of emphasis given to physiology and kindred sciences. Glasgow's course only required one term's study of chemistry and physiology, for example, whereas the KCHSS course required three.¹¹⁹ A report in October 1932 that a 'London School of Dietetics' had opened on KCHSS's doorstep caused great consternation amongst the graduate-dietitians and spurred the college into action. A one-year college dietetics diploma was swiftly inaugurated in 1933.¹²⁰

¹¹⁶ Hutchinson, p. 35.

¹¹⁷ *Ibid.*, p. 11.

¹¹⁸ Andross, p. 177; Hutchinson, p. 35; Mrs. D.M. Northcroft, 'Openings Other than Teaching for Holders of Domestic Subjects Diploma', *Housecraft* III:3 (Mar. 1930), p. 61.

¹¹⁹ S. Henning Belfrage, 'What is a Dietitian? Scientific Study of Nutrition Develops a New Profession', *The Journal of Careers* XIV:158 (Dec. 1935), p. 672.

¹²⁰ The London School of Dietetics aimed specifically at providing short practical courses in dietetics. See 'Dietetics as a Career', *New Health* XIII (Feb. 1938), p. 11; Interview with E.M.

Reconsideration of KCHSS's position had been hastened by the stirring of professionalization amongst both graduate and nurse dietitians, who were concerned about the growing tendency for the title 'dietitian' to be used by persons with what they considered sub-standard qualifications. Some 'dietitians' held a three-year degree as well as dietetics and catering certificates; at the other extreme, some had only a domestic science certificate with six-weeks' worth of nutrition.¹²¹ The four leading dietitians in London (Marshall, Simmons, Abrahams, and Broatch) set up a working committee in 1932 to discuss the idea of a professional organization. This included members of the medical profession and was chaired by Dr. John McNee, a noted pathologist and Professor of Medicine at Glasgow University.¹²²

The immediate threat to KCHSS's pre-eminent position in dietetics education came not from amongst the dietitians themselves but from the medical profession. McNee (who championed the graduates' cause) was forced to relinquish the chair of the dietitians' committee by Lord Dawson of Penn, President of the Royal College of Physicians (RCP), who suddenly appeared at one of the meetings.¹²³ It is likely that Dawson had been informed about the committee's discussions by Rose Simmonds, the

Averill, Oxford, 25 Jan. 1993; ECM, KCHSS: QA/C/M5 (4 Oct. 1932), p. 520; QA/C/M6 (1 Nov. 1932), pp. 14-16; AB, 'Arrangements for Proposed Course in Dietetics', KCHSS: QA/C/M6, (10 Jan. 1933), append. p. 49.

¹²¹ Hutchinson, p. 10; Ray Strachey, 'Women's Employment Federation', KCHSS: QAP/GPF7/34, (May 1935).

¹²² Sir John McNee (1887-1984). Hutchinson, pp. 10-12.

¹²³ Bertrand Edward, Viscount Dawson of Penn (1864-1945). Dawson served as personal physician to Edward VII and George V. Hutchinson, p. 12.

head nurse-dietitian who worked with him at the London Hospital and who was anxious to secure influential support for the interests of nurses in the discussions.¹²⁴ Dawson set up a dietetics committee in October 1933 under the auspices of the RCP, inviting representatives from the nursing and medical professions, graduate dietitians, and academics in order to establish standards for training within the budding profession.¹²⁵ The involvement of the medical profession in negotiations was to 'secure its rightful practice by giving the subject recognition and guidance'; however, Dawson's preoccupation with establishing a 'portal of entry' for nurses in the profession may, however, have been motivated also by a desire to ensure that dietitians remained subordinate to doctors, as they would do if dietetics remained allied with nursing.¹²⁶

The point of dispute between the graduate- and nurse-dietitians was not the issue of a 'portal of entry' for nurses within the profession itself--relations between Simmonds (the leading London nurse-dietitian) and her three graduate colleagues were congenial, although there was a general difference of opinion between the two groups about the relative merits of the nurse's training in bed-side manner and the graduate's scientific knowledge.¹²⁷ The issue was rather the status of the graduate-dietitian within the hospital hierarchy. The latter were concerned to ensure the dietitian's professional

¹²⁴ Interview with E.M. Averill (25 Jan. 1993).

¹²⁵ 'Dietetics Annals', [n.d.], RCP: Box 'Dietetics Cttee 1933-35', p. 1. (Hereafter: RCP: Box 1933-35)

¹²⁶ *Ibid.*

¹²⁷ Interview with Marshall, (2 June 1994).

independence from the nurses. In some hospitals the dietitian worked under the charge of ward matrons, many of whom believed that the feeding of patients should remain a nurse's responsibility.¹²⁸ Marshall, for example, had encountered open hostility at University College Hospital from the ward nurses, who thought it 'terrible' that a young graduate be allowed to take over the feeding of certain patients completely (although they were soon convinced as to the merits of her work).¹²⁹ Graduates were also anxious lest their pay and status should be reduced to that of the nurse--a level that was not commensurate with their longer and more costly education. According to one unsigned memo, the London Hospital was making a 'gorgeous convenience' of Simmonds by failing to give her an appropriately high status, and there was a risk that the RCP committee would reinforce the ascendancy of the nurses.¹³⁰ KCHSS was initially represented on the RCP committee by Mottram, although the graduates succeeded in having Helene Reynard (Warden 1925-45) seconded to the committee to protect their interests.¹³¹

Discussions in Dawson's committee revolved around the length of the theoretical training which should be given to nurse-dietitians. This was a particular

¹²⁸ 'Memo. for Lord Dawson: Points discussed ... at the Langham Hotel, 27 March 1933', (28 Mar. 1933), RCP: Box 'Dietetics Cttee 1933-34, 35' (Hereafter: 'RCP: Box 1933-34, 35'); Helene Reynard to Lord Dawson, 22 Nov. 1933, RCP: Box 1933-34, 35; Interview with Marshall, 2 June 1994.

¹²⁹ Interview with Marshall (5 June 1994).

¹³⁰ 'Memo for Lord Dawson' (9 Oct. 1933), RCP: Box 1933-34, 35.

¹³¹ Helene Reynard to Sir John Atkins, 15 July 1934, KCHSS: Q/PP1/Pt.1, p. 1.

concern for both KCHSS and the graduates, as Dawson was pushing to create a dietetics diploma for non-graduates, which would have undermined the status of the KCHSS college diploma.¹³² The graduates maintained that nurses should undergo at least a two-year scientific training if not a three-year degree course, but Rose Simmonds pointed out that most nurses could not afford this and suggested that a one-year science course would be sufficient.¹³³ There was considerable pressure to make some allowance for the nursing profession: the London County Council, anxious to train some of their nurses, threatened to establish their own course if nothing could be agreed.¹³⁴ A sub-committee on curriculum eventually established the compromise of an 18-month theoretical course (plus one year of practical training) for nurse-dietitians.¹³⁵ Mottram and Reynard succeeded in bringing this course under the auspices of KCHSS, however, by arranging a one-year preliminary course in science for nurses and domestic science diplômées, which would enable them to receive the college diploma in two years. KCHSS was therefore able to ensure that science standards were appropriately high and to maintain its pre-eminence in dietetics training.¹³⁶

¹³² 'Meeting of the Sub-Committee on Curriculum ... April 24th. 1934', RCP: Box 1933-34, 35, p. 2; See also Helene Reynard to Charles E. Newman, 31 May 1934, RCP: Box 1933-34, 35.

¹³³ 'Memo for Lord Dawson ... Langham Hotel', pp. 1-2.

¹³⁴ Dawson to Reynard, 10 Feb. 1934, and 'Note Made By Lord Dawson, 3 Feb. 1934', RCP: Box 1933-34, 35.

¹³⁵ 'Note made by Lord Dawson Feb. 3rd 1934'; 'Meeting of the Sub-Committee ... University College Hospital ... (30 Jan. 1934)', RCP: Box 1933-35, p. 1.

¹³⁶ This course was dropped in 1936, largely because nurses could not afford it. ABM, KCHSS: QA/AB/M5 (13 Oct. 1936), pp. 94-96; See also unsigned letter to Reynard, 10 Feb. 1934, RCP: Box 1933-34, 35; ABM, KCHSS: QA/AB/M5 (13 Oct. 1936), pp. 94-96, (10 Nov. 1936), p. 108; Reynard, 'Notes Regarding Dawson's Committee', KCHSS: Q/PP1/Pt.3 (n.d., c. 1936), p. 1.

Despite the concessions made to the nursing profession, KCHSS was unwilling to sacrifice its autonomy in pursuing its own objectives in dietetics education. Quite independently of these negotiations the Executive Committee applied to the University Senate for the institution of a university post-graduate diploma based on the existing college diploma and open only to approved university graduates, medical practitioners or others who had the requisite science education and experience.¹³⁷ This infuriated Lord Dawson, who had assumed that his committee's deliberations would result in the creation of a new joint dietetics diploma under the auspices of KCHSS and the Royal Colleges.¹³⁸ He charged Reynard and Mottram with duplicity; but Reynard explained that they had been sitting on his committee in a private capacity and that KCHSS's administration had never been approached officially about any joint proposal.¹³⁹ Dawson continued to press for a joint KCHSS/RCP non-graduate diploma but this was never instituted, in part because the Royal College of Surgeons balked at the idea of the Colleges awarding non-medical diplomas.¹⁴⁰

¹³⁷ ABM, KCHSS: QA/AB/M4 (13 Mar. 1934), p. 306; Minutes of Council Meeting, KCHSS: QAP/GPF2/9; Hutchinson, p. 13; *Course for the University of London Academic Post-Graduate Diploma*, KCHSS: QEPH/SYL17a, [n.d., c.1936], p. 2.

¹³⁸ [Dawson] to Atkins, 10 Aug. 1934, and Atkins to Dawson, 30 Aug. 1934, both in RCP: Box 1933-34, 35.

¹³⁹ Reynard had raised the point at several meetings. Atkins to Dawson, 30 Aug. 1934; 'Interview with Miss Raynard December 8th 1934', RCP: Box 1933-35; Dawson to Newman, 28 May 1934, RCP: Box 1933-34, 35.

¹⁴⁰ 'Report from Joint Committee on Dietetics' (11 Apr. 1935), RCP: Box 1933-35, p. 1; Hutchinson, p. 13; Dawson to Reynard, 10 May 1936, KCHSS: QA/C/M6 (9 June 1936), append. p. 471.

The university post-graduate diploma, inaugurated at KCHSS in 1936, involved two terms of theoretical work and six months of practical work in diet and general hospital kitchens.¹⁴¹ Examinations were held in chemistry and the physiology of nutrition, the principles of dietetics, diet and disease, and large-scale catering, together with a six-hour practical exam in cookery and the construction of special diets.¹⁴² Nurses and domestic science students were not altogether excluded from the profession, however, as they were still eligible for the diploma if they held the requisite science credentials, and training continued to be given at the various hospitals--for example at the Royal Infirmary, Edinburgh, where Miss Pybus had opened a School of Dietetics in 1934 (which also admitted non-nursing students), and at the Glasgow & West of Scotland.¹⁴³ Despite the continuation of non-degree students in the profession in this period, the influence of KCHSS's dietetics training and its graduates in the early years of the profession was considerable. The British Dietetics Foundation, finally organized in 1935, had no less than six KCHSS graduates (out of eight members) on the first Executive Committee, enabling the cause for university training to be firmly upheld.¹⁴⁴

¹⁴¹ 'University of London: Regulations for Academic Post-graduate Diploma in Dietetics', KCHSS: QA/GPF2/9 (June 1936).

¹⁴² Candidates were required to have taken at least a three-month cookery course prior to starting the course. The first university diploma students included eight household science graduates, four Cambridge graduates and one medical practitioner. *Annual Report 1935-36*, KCHSS: QEPH/RPT13, p. 8; *Course for the University of London Academic Post-graduate Diploma in Dietetics*, KCHSS: QEPH/SYL11 [c.1936-53], p. 2.; 'University of London: Regulations for Diploma in Dietetics', QAP/GPF2/9; Hutchinson, p. 13.

¹⁴³ Buchan, pp. 75-76; 'The British Dietetics Association: Dietetics as a Career', *Nutrition* VII:4 (Winter 1953), pp. 182-183.

¹⁴⁴ Hutchinson, p. 14.

KCHSS's proactive policy with regards to dietetics could be ascribed to the expertise and drive of Mottram and the influence of pioneering graduates; yet the discrepancies in KCHSS's policies with regard to the two applied science fields were also related to fundamental differences in the nature of work involved. Dietetics was not only more directly connected with the type of work undertaken at KCHSS, where the emphasis was on applied food chemistry, it was also a narrower and more clearly-defined niche. Laboratory work, by contrast, varied considerably by institution and, with the exception of the food processing industry, often bore no direct relation to the household science discipline. This was compounded by KCHSS's desire to distance itself from the taint of commercialism, a policy which doubtless stemmed from its pursuit of academic respectability.¹⁴⁵

Despite the success of KCHSS students in creating opportunities in various applied science disciplines, and KCHSS's distinction in dietetics, the college cannot be said to have established a clear professional identity for the household science discipline. Students continued to take positions in a broad spectrum of occupations throughout the period and continued to face competition from other science graduates--or cheaper non-university substitutes--in the job market. What professional identity the college did create in the period was constantly being eroded by processes of professionalization over which it had no control and/or by academic specialization.

¹⁴⁵ See below, pp. 297-280.

TABLE 4.1 List of Job Groups and Job Types (Database)	
JOB GROUP	JOB TYPE
DOMESTIC MANAGEMENT	Catering Cook Housekeeping Housemistress/Matron (Education)
SOCIAL WELFARE	Almoner Child Care Committee Settlement Worker Industrial Welfare Supervisor
GOVERNMENT	Government (General) Local Government Ministry of Food Ministry of Labour Ministry of Munitions Ministry of Supply
ADMINI- STRATION	Administration (General) Educational Administration
TEACHING	Domestic Science Mistress Ordinary Mistress Higher Education (Univer., Polytech.)
DIETITIAN	Dietitian - Hospital Dietitian - Other Hospital Cook School Meals Organizer
LABORATORY WORK	Labs (Institutional) Commercial Labs
BUSINESS & INDUSTRY	Business/Industry (General) Electricity Gas
WAR WORK	War Work (excluding war ministries)
OTHER	Miscellaneous

TABLE 4.2				
Percentages of First Jobs by Job Groups KCHSS Graduates 1910-1949 (Database Sample) ¹⁴⁶				
JOB GROUP	1910-19	1920-29	1930-39	1940-49
DOMESTIC MANAGEMENT	13.0	22.5	11.6	8.1
SOCIAL/WELFARE	-	6.9	5.4	6.8
GOVERNMENT	6.5	2.0	2.9	9.5
ADMINISTRATION	4.3	8.8	7.0	4.5
TEACHING	45.6	39.2	34.7	18.6
DIETITIAN	-	8.8	15.3	14.0
LABORATORY WORK	15.2	2.0	8.3	27.6
BUSINESS/INDUSTRY	2.2	8.8	9.5	3.2
WAR	2.2	-	2.1	5.0
OTHER	11.0	1.0	3.3	2.7
TOTAL	100.0	100.0	100.1	100.0

¹⁴⁶ See APPENDIX B, p. 404, for details of individual job groups.

TABLE 4.3				
Comparison of Percentages of First Jobs in Seven Job Groups KCHSS Graduates 1910-1949 (Database Sample)				
JOB GROUP	1910-19	1920-29	1930-39	1940-49
SOCIAL WELFARE	-	6.9	5.4	6.8
GOVERNMENT	6.5	2.0	2.9	9.5
ADMINISTRATION	4.3	8.8	7.0	4.5
DOMESTIC MANAGEMENT	13.0	22.5	11.6	8.1
TOTAL	23.8	40.2	26.9	28.9
+ TEACHING	45.6	39.2	34.7	18.6
TOTAL OF 5 GROUPS	69.4	79.4	61.6	47.5
DIETITIAN	-	8.8	15.3	14.0
LABORATORY WORK	15.2	2.0	8.3	27.6
TOTAL OF 2 GROUPS	15.2%	10.8%	23.6%	41.6%

TABLE 4.4				
Percentages of First Jobs in Laboratory Work KCHSS Graduates 1910-1949 (Database Sample)				
TYPE OF LAB	1910-19	1920-29	1930-39	1940-49
COMMERCIAL LABS	2.2	2.0	6.6	21.7
INSTITUTIONAL LABS	13.0	-	1.7	5.9
TOTAL	15.2	2.0	8.3	27.6

TABLE 4.5

Institutions Employing KCHSS Graduates in Laboratory Work
All Jobs, 1910-1949
(Database Sample)¹⁴⁷

GENERAL:

Admiralty Victualling Dept. (Chemistry)
'Asst. to Dr. Mellanby'
Cancer Research Institute
Chemical Inspection Department
Cooperative Research Dept., MIC
(Bacteriology)
Defense Research Lab, Salisbury (2)
Department of Scientific & Industrial
Research
Department of Scientific Research
Forensic Science Labs, Cardiff
'Government Labs' (2)
Institute of Chemistry, Leeds
Institute of Research, Cambridge (Food
Research)
Kent County Council (Public Analyst)
London County Council (Pathology)
Low Temperature Research Station
Medical Research Council
Medical Research Institute, Hampstead
Metropolitan Water Board Labs
Ministry of Economic Welfare
Pharmaceutical Society
Public Analyst, Chelsea
Royal Society of Medicine (Bacteriology)
Serum Research Institute, Carshalton
University of Bristol, Domestic
Preservation Labs
University College, Physics Dept.
Water Pollution Res. Lab, Watford (2)

HOSPITALS:

Cumberland Infirmary, Leeds
London County Council (Hospital Lab)
London Hospital (Physiology) (2)
Middlesex Hospital, Barnato Joel Labs
Middlesex Hospital, Cortauld Institute of
Biochemistry
Royal Cornwall Infirmary (Pathology)
Royal Free Hospital (Pathology)

¹⁴⁷ Based on all jobs recorded for the period. Figures in brackets indicate number of KCHSS graduates employed where there is more than one.

TABLE 4.6

Firms Employing KCHSS Graduates in Commercial Laboratories
All Jobs, 1910-1949¹⁴⁸

FOOD COMPANIES:

- Barnett & Fosters
- Bovril (5)
- Brighton Equit. Co-Op Dairy
- British Sugar Co.
- Excell Food Co.
- Express Dairy Co. (2)
- Freans
- H.J. Heinz (2)
- Horlicks
- Lever Bros.
- Lyons (44)
- MacFisheries
- Marshall's Food Products
- Rowntree & Co.
- Smethhurst & Co.
- Spillers
- United Dairies
- T. Wall & Sons

ANALYTIC CHEMISTS:

- Crooks Labs
- Holbrook Labs
- Kent, Jones & Amos
- Newball & Masons

¹⁴⁸ Based on all jobs recorded for the period. Figures in brackets indicate number of KCHSS graduates employed where there is more than one.

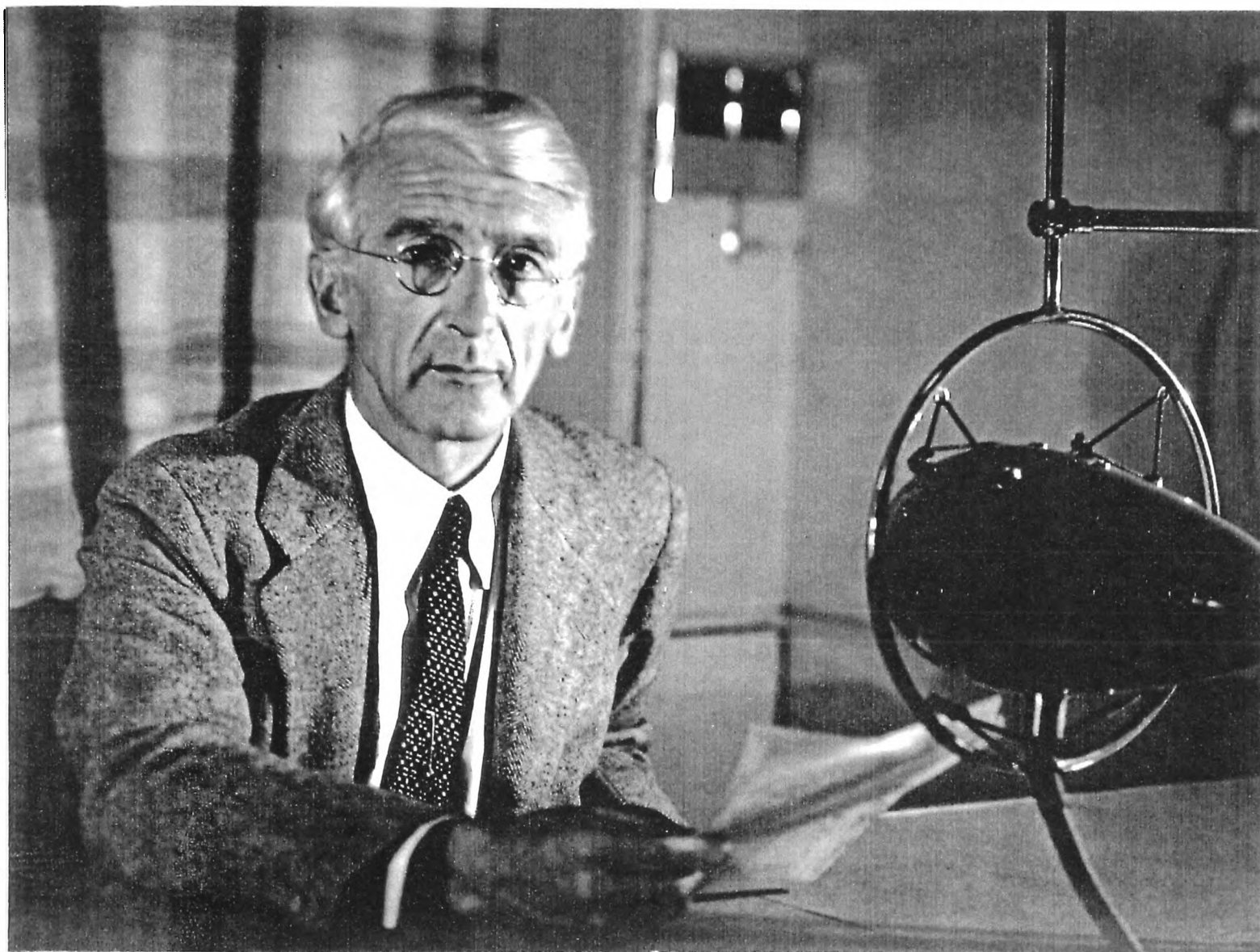


PLATE 8. Vernon Henry Mottram, Professor of Physiology,
KCHSS, 1920-1944, in BBC Studio, 1935

• CHAPTER 5 •

**THE ASSOCIATION OF TEACHERS OF DOMESTIC SCIENCE
AND THE HOUSEHOLD SCIENCE MOVEMENT 1908-1939**

From its inception in 1908 the American Home Economics Association had embraced all those working in home economics--teachers in cookery schools, professors in Land Grant universities, as well as those working in business and industry as 'home economists'. In Britain a prototype home economics organization, the National Council of Domestic Studies (NCDS), was founded in 1917 in an unsuccessful attempt to create a similar broad-based organization for all those interested in domestic education. The NCDS, which included representatives from universities, domestic subjects training colleges, and the Association of Head Mistresses, originated in National Union for the Technical Education of Women in Domestic Science (formerly the Northern Union of Schools of Cookery, 1876), which functioned as an examining body for member domestic subjects training colleges and other technical institutions.¹ Despite its name, the NCDS never established any significant influence on the development of the domestic subjects teaching profession in the UK.²

¹ The NCDS met only once a year and was largely involved in formulating syllabuses for different technical courses and in awarding various technical certificates. For a summary of its history and functions see Sillitoe, pp. 231-233, and 'National Council of Domestic Studies: First Annual Report', *Education* XXXIV:878 (31 Oct. 1919), p. 320.

² The examination of teachers was taken over by the Board of Education in 1916, but the NCDS continued to award a number of housewifery and cookery certificates. Arthur Smithells served as chairman from 1917-1921. Sillitoe, p. 231.

The first professional body for 'home economists' comparable to the AHEA was created only in 1954 when the Institute of Home Economics (IHE) and the United Kingdom Home Economics Federation (UKHEF) were founded. The teaching arm of home economics, known today as the National Association of Teachers of Home Economics (NATHE), has, however, never been completely assimilated into either of these bodies. The IHE initially catered for home economists working in industry, business, and journalism and has retained a predominantly business and industrial focus, although teachers of home economics have been admitted since 1984.³ The UKHEF was the product of the VIIIth Congress of the *Fédération Internationale de l'Enseignement Ménager* held in Edinburgh in 1953, where the need to elect a British representative to the International Council made the creation of a national organization imperative.⁴ The UKHEF is the current umbrella organization for the home economics profession and represents bodies concerned with 'advancing public education in the science and practice of Home Economics'.⁵ Whilst the teaching profession is represented in the UKHEF, NATHE still maintains a strong sense of identity separate from the commercial side of 'home economics' in Britain.

³ The IHE was originally known as the 'Association of Home Economists of Great Britain'. Wendy Matthews, 'Home Economics, Directions and Diversity: A Need for Change', *The Home Economist* 5 (1985), p. 36; Institute of Home Economics, 'Information Booklet', [n.d., c.1989], p. 1.

⁴ The UKHEF was formerly known as the 'United Kingdom Federation for Education in Home Management'. *The United Kingdom Home Economics Federation: A Short Account of the First Twenty-Five Years 1954-1979*, UKHEF [n.d., c.1979], p. 1; Odette Goncet, '75 Ans D'Économie Familiale Internationale', *l'Économie Familiale* 56:1-2, Revue Trimestrielle No. 243 (Mars-Juin 1984), pp. 18-22.

⁵ UKHEF: *Founded 1954*, UKHEF [n.d., c.1989], p. 1.

The relatively late development of a national organization for home economists in the UK reflects the estrangement of the domestic subjects teaching profession from the university-based household science movement in the first half of the century. Whereas in America the university, school, and commercial arms of home economics developed symbiotically, the household science movement evolved independently from the domestic subjects teaching profession (embodied in the ATDS) and remained relatively detached from it due to controversies over the place of science in domestic subjects teaching and teacher training. This chapter considers how this schism transpired and the relations between the household science movement and the ATDS in the interwar period. The first section traces the evolution of the 'domestic science' movement and its influence in domestic subjects teacher training in the period to 1920, whilst the second section discusses the initial alienation of the domestic subjects teachers from the household science movement. The third section examines professional strains between the ATDS and KCHSS over the issue of degrees in domestic subjects training in the interwar period.

High Falutin' Science: Failure of 'Domestic Science'

'Domestic science' enjoyed a brief vogue in secondary schools in the early twentieth century. Its decline owed much to the Great War which, on the one hand, saw increasing numbers of schoolgirls aiming for examination qualifications as a passport to employment and, on the other, encouraged a strictly utilitarian approach to domestic subjects teaching. In wartime conditions, as Helen Sillitoe puts it, 'There was a gradual

weakening in the urge to persevere with an intellectual treatment of housecraft.’⁶ Yet disillusion had already set in before the war, as teachers came to recognize the inherent limitations of teaching cookery, laundrywork, and housewifery as ‘sciences’. Even the ATDS voted to change its name from ‘Teachers of Domestic Science’ back to its original ‘Teachers of Domestic Subjects’ in 1909.⁷

‘Domestic science’ had proven controversial from the start and the question of method in the domestic subjects came to be the subject of widespread debate in educational circles. The Board of Education’s regulations for secondary schools in 1907 allowed schools to substitute a course of ‘housewifery’ for science instruction for girls over the age of fifteen, a provision which in 1909 was extended to allow maths to be replaced in the same manner.⁸ The use of the term ‘housewifery’ in these regulations was somewhat misleading, however, as it implied that science and maths instruction would be completely neglected in favour of cookery and needlework lessons.⁹ Prompted by headmistresses interested in the new ‘domestic science’ methods, these regulations were to allow them the freedom to replace traditional science courses with a form of ‘domestic science’ for the less able as a means of making science more relevant

⁶ Sillitoe, p. 182.

⁷ ATDS, *Executive Committee Book*, ATDS: 177/1/1/1 (30 Oct. 1909), p. 182.

⁸ The Board of Education had required the teaching of ‘housewifery’ in girls’ secondary schools since 1904. Board of Education, *Regulations for Secondary Schools 1904-05* (PP 1904 LXXV), pp. 17-18; *Regulations for Secondary Schools 1907-08* (PP 1907 LXII), p. 616; *Regulations for Secondary Schools 1909-1910* (PP 1909 LXVII), p. 495.

⁹ F. Hunt, ‘Divided Aims’, p. 16.

to everyday life.¹⁰ Nonetheless, 'domestic science' was still in an experimental stage and its adoption in secondary schools was patchy. Ida Freund was not alone in warning that dubious forms of 'domestic science' might come to replace the 'pure' sciences in girls schools, causing irreparable damage to standards in women's education.

The Board of Education referred the whole question of 'practical work' in secondary schools to their Consultative Committee in 1909. Although its final report was not issued until 1913, the confusion created by the new regulations and the interest in 'domestic science' methods led the Consultative Committee to issue an *Interim Memorandum* in 1911 to provide headmistresses and teachers with guidelines.¹¹ The memorandum documented the extent to which 'domestic science' methods had been adopted in schools and the diversity with which they had been interpreted, noting that 'The use of the term "Domestic Science" in connection with any given Syllabus is no guarantee of the character of the work.'¹² Schemes generally proved to be one of two types. The most radical form of 'domestic science'--the 'correlated' course of science/domestic subjects--aimed at teaching science *through the medium* of the domestic subjects. In other courses, the aim was to teach the domestic subjects in a more intellectual manner by infusing the subjects with 'scientific method' in order to

¹⁰ This is alluded to in a memorandum from A.D. Crosby to J.W. Mackail, PRO: ED/12/41 (Apr. 1907), p. 4.

¹¹ *Interim Memorandum*, p. 3.

¹² *Ibid.*, p. 26.

increase students' skill and judgement in practical work and to impart an understanding of 'cause and effect'.¹³

The Committee recognized the experimental state of 'domestic science' and was loath to set out any definite regulations, but the *Interim Memorandum* did signal the demise of the 'correlated' domestic science course as a method of teaching scientific principles. The Committee noted that such courses 'easily degenerate into simple observation work coupled with "useful information"' and that there was 'grave reason' to doubt whether a suitable method of correlating the two subjects had been worked out.¹⁴ With regard to courses which aimed to teach the domestic subjects scientifically the Committee was more positive, as there was widespread agreement that domestic subjects should be taught intelligently in order to enhance their educational value. Both in the *Interim Memorandum* and its final report in 1913 the Committee acknowledged that, where science and housecraft were taught concurrently over a period of years, the latter could be developed into a course that 'trained the reasoning faculties.'¹⁵ But although the Committee acknowledged the value of the new 'scientific' methods both reports stressed that the ultimate objective of domestic subjects education should be utilitarian (to impart technical skill) and that 'housecraft' could be taught 'for its own purposes' without attempting to connect it to the mainstream science coursework.¹⁶

¹³ *Interim Memorandum*, pp. 25-26.

¹⁴ *Ibid.*, p. 29.

¹⁵ *Ibid.*, p. 34; *Report on Practical Work*, pp. 291-371.

¹⁶ *Interim Memorandum*, p. 39.

The Committee warned of the possible adverse effects of emphasizing the requirements of 'science' over traditional 'craft' or manipulative skills:

It is urged...that there is much unintelligent teaching of Housecraft as a craft, but to this it is replied that bad work is not improved by making the subject more difficult. ... With the limited time available in school for Housecraft instruction, and in the face of the many difficulties which occur in the treatment of Domestic Science, there is a very considerable risk that to advocate the teaching of Housecraft on wider lines may only result in the loss of the manipulative skill which the purely technical instruction can impart, without gaining any advantages in return.¹⁷

The Consultative Committee's reports, which curbed enthusiasm for the more ambitious forms of 'domestic science' (especially as a replacement for ordinary science courses) reflected the views of many schoolmistresses who recognized the limitations of teaching 'pure' science through the media of cookery and laundrywork. A complete study of chemical changes taking place in cookery, for example, entailed both advanced organic and inorganic chemistry that was wholly unsuitable at the secondary school level, especially as the domestic subjects remained the province of the less capable girl.¹⁸ According to the science mistress at Blackheath High School, only simple experiments were possible in connection with cookery (e.g. changing starch into sugar) to illustrate the composition of foods and to teach the reasons for the proportions of materials in recipes; expecting students to learn the exact chemical composition of materials or the real nature of changes involved in heating was hardly practical or

¹⁷ *Interim Memorandum*, p. 33.

¹⁸ M. Anderson, Memo to the Board of Education, PRO: ED/12/41, [n.d.], p. 2.

necessary.¹⁹ Moreover, as Ida Freund pointed out, ill-considered ‘domestic science’ methods could have positively dangerous consequences:

[It] was not altogether to be wondered at that a class of pupils who were asked to select the most valuable foods from a list giving the percentage composition of a number of nitrogenous substances, chose strychnia for breakfast and some other equally deadly poison for lunch in the belief that what contained most nitrogen must necessarily be most nutritious.²⁰

The effect of ‘domestic science’ on the status of the domestic subjects in secondary schools proved in practice to be marginal. Practical constraints limited the teaching hours available for the new methods. Even headmistresses who welcome the new ‘intellectual’ approach to the domestic subjects found it hard to timetable them, except in post-school courses for girls not going up to university or preparing for local examinations.²¹ Even Sarah Burstall, who was one of the most prominent supporters of the claims of domestic education in girls schools, found it difficult to include more than sewing in the ordinary curriculum at Manchester High School for Girls.²² A table prepared by the Board of Education in 1909 showing the provision of the domestic subjects in grant-aided girls’ secondary schools shows that whilst 99% of the schools included needlework in the curriculum (a subject which did not lend itself to ‘scientific’ treatment), the proportion of schools including laundrywork, cooking, or housewifery

¹⁹ M. Anderson, Memo to the Board of Education.

²⁰ Evidence, Ida Freund, *Report on Practical Work*, p. 619.

²¹ See evidence of Lilian Faithfull, p. 615, and Mrs. Stephen Priestman, p. 649, *Report on Practical Work*.

²² Burstall, p. 118.

amounted to a third or less.²³ The Board of Education noted, too, that the inclusion of a domestic subject in a school's curriculum implied only 'regular' provision for pupils 'for whom it is suitable'--i.e. that only a certain proportion of girls attended the 'required' courses.²⁴ A survey carried out in 1922 by E.B. Cook, principal of the Municipal College of Domestic Economy, Manchester, revealed that little had changed in the period since 1909. Cook estimated that roughly 3/8 of the total number of girls between the ages of 12 and 14 received no formal instruction in domestic subjects and pointed out that of 650 secondary schools on the grant list only half provided either a one- or two-year course in cookery and/or laundrywork.²⁵

The system of local examinations was one of the chief barriers to the progress of 'domestic science' in the schools. Approximately half of all girls who left school at the age of 12 and over went on to some type of further education or training by 1912 and examination successes were a priority.²⁶ Girls who left school to enter the labour market required examination passes as proof of a general education, especially for the type of careers opening up for women in the Edwardian period, such as secretarial work, business clerking, nursing, and teaching.²⁷ The examination system offered little

²³ *Statistics of Public Education in England 1907-08*, pp. 376-377.

²⁴ *Ibid.*, p. 216.

²⁵ E.B. Cook, 'The Existing Facilities for the Teaching of Domestic Subjects in England', *Practical Education and School Crafts* XXII:238 (Jan.-Feb. 1925), p. 58.

²⁶ See Table 44, *Statistics of Public Education in England and Wales, Part I: Educational Statistics, 1911-12* (PP 1913 XLIX), pp. 556-557.

²⁷ Blakestad, 'Examinations and Careers', pp. 88-102.

inducement for schools to devote much time to domestic subjects. In general the only domestic subjects included in the local examinations were needlework and hygiene (sometimes hygiene combined with physiology). Domestic subjects such as cookery, needlework, and laundrywork were not conducive to written examination and required expensive inspection visits in order to assess students' work.²⁸

Those who had promoted 'domestic science' as a means of raising the status of the domestic subjects were motivated in part by a desire to increase their examinable content. Examinable subjects were given priority in the timetable and, as a function of this, increased the professional status and salary of the teacher.²⁹ Science papers with a domestic bias were promoted by various groups interested in domestic subjects education, but with little success. The ATDS passed a resolution in 1908 calling for domestic science to be considered as one of the optional subjects in the various secondary school examinations and set up a special sub-committee to devise a suitable course.³⁰ A syllabus for 'Science of Home Affairs' covering general elementary physics, chemistry, and 'laws of health' was produced the following year and forwarded to all the appropriate examination boards.³¹ Although they received the support from

²⁸ Table VII, *Interim Memorandum*, pp. 42-43.

²⁹ Ivor Goodson, 'Investigating State Schooling: The Search for Sources', in Goodson, *The Making of Curriculum*, p. 8.

³⁰ E.g. Matriculation of London and other universities; school-leaving certificate; Board of Education Certificate Examination; LCC Intermediate Scholarship; Oxford and Cambridge Senior Locals; Oxford and Cambridge Joint Board; College of Preceptors; and the Welsh and Irish Intermediate Scholarship Board. 'Report of the Special Sub-Committee...', *ATDS Yearbook 1908*, ATDS: 177/4/4/1, pp. 13, 18-24.

³¹ 'Report of the Special Sub-Committee...', *ATDS Yearbook 1908*, pp. 18-24.

the Head Mistresses' Association and the National Council of Women, nothing came of the scheme.³²

The creation of the School Certificate in 1917, however, ensured that the practical objectives of the domestic subjects remained predominant. Devised as a replacement for university 'Local Examinations', the School Certificate was intended to be a school-leaving qualification, but its overtly academic bias meant that it was used as a matriculation standard as well.³³ Under the new system students were required to achieve a pass in five subjects, which were divided into four groups: I (English, scripture, history and geography); II (Latin, Greek, and modern languages); III (mathematics and science). Group IV included art, music, and practical subjects such as the domestic subjects, but these did not count towards the certificate, much to the annoyance of both the Association of Headmistresses and the ATDS. The campaign for 'parity' for Group IV subjects preoccupied the ATDS throughout the interwar period but it was never achieved.³⁴

³² A number of resolutions were also submitted to the Board of Education by various Education Committees in October 1910. See PRO: ED/12/41; *ATDS Yearbook 1909*, ATDS: 177/4/4/1, p. 31.

³³ Keith Evans, *The Development and Structure of the English School System*, Studies in Teaching and Learning (Hodder and Stoughton, 1985), p. 149; Goodson, 'Etymologies, Epistemologies and The Emergence of Curriculum: A Speculative Essay', *The Making of Curriculum*, pp. 29-30.

³⁴ See ATDS, *Minutes of Executive Committee*, ATDS: 177/1/1/4i 1922-29 (7 July 1923) p. 43; (9 Oct. 1926), p. 223; 177/1/1/6 1933-40 (9 Dec. 1933), agenda; (27 Jan. 1934), p. 30; (3 Oct. 1936), p.40; Hunt, 'Divided Aims', p. 19;

Despite the failure to secure the 'scientific' treatment of the domestic subjects in the secondary schools, science nevertheless came to be an important element in the training of domestic subjects teachers in the prewar period. If domestic subjects were to be taught 'intelligently', the teacher needed a thorough understanding of the nature of the materials used and of cause and effect in the complicated chemical processes of cookery and laundrywork. Many of the training colleges developed extended science-based courses to cater for the secondary sector in the pre-war years. The Domestic Science Training Department at Battersea Polytechnic was one of the first to develop science and laboratory work as part of a coordinated training course (including chemistry, physics, and physiology) and the first to develop a third-year optional course in science as applied to housecraft.³⁵ Nevertheless the influence of the Board of Education tended to handicap teacher training institutions in the development of the scientific side of the curriculum, a problem which became critical after the inauguration of KCW's household science course in 1908.

The general uncertainty over the position of 'science' in the domestic subjects, both in the school and in the training college, led the ATDS to invite representatives of the Association of Head Mistresses to a joint conference in 1913 to discuss 'exactly what was desired by Head Mistresses in teachers of domestic subjects in secondary schools'.³⁶ The publication of the Board's report on practical work in secondary

³⁵ *Interim Memorandum*, pp. 39-40; 'The Battersea Polytechnic: Department of Domestic Economy', *Education* III:65 (24 Mar. 1904), p. 298.

³⁶ 'Round Table Conference with the Association of Head Mistresses', *ATDS Yearbook 1913*, ATDS: 177/4/4/1, pp. 58-59.

schools that year and the imminent foundation of the independent Household and Social Science Department at London University had no doubt created a climate of urgency about the training college curriculum. The AHM delegates, with one exception, stated that they did not want science to be taught by the domestic subjects teachers (which had been tried in 'correlated' classes) and that efficiency in practical techniques was more important than an advanced scientific training: 'The teachers must be able to cook well.'

But they also desired that the domestic subjects teachers have a good knowledge of science 'underlying their art'. Only one headmistress went so far as to argue that they should have a B.Sc. degree as well as a diploma.³⁷ Conflicting demands for craftwork and science in domestic subjects training, however, became the crux of a dilemma for the domestic subjects profession and were at the root of friction between the ATDS and the household science movement.

In practice the initiative in shaping the curriculum passed into the hands of the Board of Education who, through their control of grants and examinations for teachers, limited the freedom of the training colleges to devise their own curriculum. The Education Department (precursor of the Board) had usurped control of the training curriculum in 1893, when it imposed strict regulations as to the subjects and hours of teaching.³⁸ At first grants were paid for students taking separate certificated courses in laundrywork, cookery and housewifery, but these were phased out by the Board in

³⁷ This was probably Lilian Faithfull, headmistress of Cheltenham Ladies' College, who was present. 'Round Table Conference with the Association of Head Mistresses', *ATDS Yearbook 1913*, p. 58.

³⁸ Sillitoe, pp. 120-121.

favour of a two year course, which usually consisted of a year of cookery, two terms of laundrywork and one term of housewifery.³⁹ In 1907 the Board arranged for maximum grants to be paid for students taking the full two-year course in order to encourage students to train in all three subjects.⁴⁰ The strict compartmentalization of subjects gradually gave way to a coordinated 'combined' course in which techniques and principles were systematically developed, and after 1915 the two-year 'combined' course became the required training for domestic subjects teachers.⁴¹ The Board also regulated examinations for the training courses. Initially it experimented with conducting its own examination in cookery (first begun in 1897), but this practice was dropped in 1906 and schools were allowed to conduct their own examinations, albeit with the Board's approval; this changed again in 1914, when written exams were conducted by the Board or by a body approved by them.⁴² The Board's regulations not only circumscribed the training colleges' control of the curriculum but also caused severe financial hardships for the domestic subjects training colleges, which further restricted their ability to develop new teaching methods. As Helen Sillitoe noted, the training colleges 'patiently played the tune called by the State, and as patiently paid the piper.'⁴³

³⁹ Needlework was not a recognized course in the domestic subjects training colleges as it was taught in the ordinary training colleges. Sillitoe, p. 125.

⁴⁰ *Regulations for the Training of Teachers of Domestic Subjects 1907*, (PP 1907 LXIV), pp. 7-8, 16.

⁴¹ The Board increased grants by 50% in 1914 for those taking a full-two year course and eliminated grants for teachers taking only individual diplomas. *Regulations for the Training of Teachers of Domestic Subjects 1914* (PP 1914-16 L), p. 274.

⁴² Sillitoe, pp. 122-125; 203-205.

⁴³ *Ibid.*, p. 122.

The Board's strict control of the training college curriculum was directed towards securing a steady supply of domestic subjects teachers for the elementary schools and the curriculum was thus heavily influenced by the needs of the elementary sector where practical subjects received priority. The situation was exacerbated by the lack of specific regulations governing the training of domestic subjects teachers for the secondary sector--training requirements devised for elementary domestic subjects teachers also served as the standard for those training for work in secondary schools.⁴⁴ This tailoring of the training curriculum towards the needs of the elementary schools presented problems for the training colleges as the demand for specialized 'domestic science' teachers grew.

The Board did promote the teaching of science as part of the training curriculum, however. From 1907 it required all students to have passed an examination in science and stipulated that by 1908 the domestic subjects training colleges must provide a course of science instruction.⁴⁵ Regulations the following year compelled training colleges to provide science instruction for a minimum of 80 hours.⁴⁶ At first science was usually taught and examined without any direct links being made with the

⁴⁴ Prior to 1914 the Board's regulations for the training of domestic subjects teachers included a proviso stating that the diplomas earned under these regulations would be *prima facie* qualifications for those teaching in secondary schools. This was withdrawn in 1914 but did not affect the status of those diploma holders intending to work in the secondary sector. *Regulations for Teachers of Domestic Subjects 1914*, p. 274.

⁴⁵ *Regulations for Teachers of Domestic Subjects 1907*, p. 8; *Regulations for the Training of Teachers of Domestic Subjects 1908* (PP 1908 LXXXIII), p. 728.

⁴⁶ Board of Education, *Regulations for Teachers of Domestic Subjects 1908*, p. 728-730.

‘practical’ instruction but in 1914 the Board decided to eliminate the final science examination in favour of adding science questions to the final examinations in laundrywork, cookery and housewifery.⁴⁷ According to a Board official:

[F]ar from being an indication of any intention to lay less stress upon Science, [the regulation] is a definite result of their desire that the subject should receive more adequate treatment as an integral part of the course and that the students’ progress in it should be more carefully tested.⁴⁸

The impact of these regulations was tempered, however, by the Board’s insistence that the purpose of the science teaching was to give instruction in ‘scientific method’ and encourage its use in the teaching of practical subjects. Lessons included in the pedagogical part of the training course--such as ‘the value of "doing" in acquiring knowledge’ and ‘The Domestic Subjects Class, a place above all of practical activity’--ensured the subordination of science to practical training.⁴⁹ Such regulations were devised specifically for the elementary sector. Not only was the ‘scientific’ treatment of the domestic subjects an impossibility at this level, but the elementary schools were also subject to the Board’s political agenda of improving the practical housekeeping skills of the working classes with the object of curbing infant mortality and other social ills.

The inauguration of KCW’s household science course did induce the domestic subjects training colleges to upgrade the scientific content of their courses--according to

⁴⁷ *Regulations for the Training of Teachers of Domestic Subjects 1914*, p. 284.

⁴⁸ R.G. Mayor to K.M. Buck, 26 Aug. 1915, ATDS: *Minutes of Executive Committee*, ATDS: 177/1/1/1, pp. 19-20.

⁴⁹ See Sillitoe, p. 131; *Regulations for Teachers of Domestic Subjects 1914*, p. 293.

Maud Taylor's reminiscences, training colleges were 'soon paying the flattery of attempted imitation'.⁵⁰ The quality of science education provided in these colleges continued to attract criticism, however. As one inspector of domestic subjects commented in 1911:

She [the inspector] feared there was much bad so-called science taught by domestic teachers as a class. She had heard some astounding statements ... and the only thing that consoled her was the knowledge that children quickly forget. ... [N]ot long ago a science teacher was giving a lesson on food values, and proved by simultaneous equations that 8ozs. of butter per day was necessary in a diet. She afterwards admitted that there was some confusion as to quantities, but added that the principles were right!⁵¹

Nor did the appearance of 'science' in a training school timetable indicate its position relative to the technical training in cookery and laundrywork. A report of inspection of the Gloucestershire Training College of Domestic Subjects, one of the more progressive colleges, revealed that science comprised only 7% of the total training course, compared with 71% for practical and theoretical instruction in the usual domestic subjects and 16% for pedagogy and class teaching.⁵²

Efforts to improve the quality of the science included in the training course was only part of a general campaign to improve the status and qualifications of the domestic science teacher. If the science element was to be made more rigorous, the calibre of the training students needed to be improved by raising the entrance standards; however, it

⁵⁰ Taylor, 'Small Things', p. 34.

⁵¹ 'Domestic Economy Teaching ...: Conference At Gloucester (1)', p. 137.

⁵² Board of Education, 'Report of Inspection of the Training School of Domestic Science, Gloucester', GTCDS: J15.16, (Feb. 1913), pp. 6, 8-9.

was difficult to attract able candidates to the domestic subjects teaching profession owing to its low status, poor pay and limited opportunities for advancement. Raising the standards of admission and training would in turn augment the status of the profession and eventually help the domestic subjects to compete with the ordinary training colleges and universities in attracting the capable student. The training colleges did, with the support of the Board and the ATDS, encourage their students to achieve matriculation standards in one or more sciences before embarking on the training course, but they were not able to enforce this as a requirement.⁵³

One option advocated by the ATDS was to extend the domestic subjects teacher training course to three years; however, the Board only sanctioned a two-year course and refused to make funds available for a compulsory third year. On this point the Board proved immovable. It considered the issue when the levels of grants for teacher training came under review in 1915, but while admitting that training students could profit from a third year it was not prepared to make the domestic subjects training course more 'severe' than that for ordinary elementary teachers.⁵⁴ Nonetheless the ATDS remained resolute about extending the training course and campaigned for it to be increased throughout the period. An ATDS sub-committee appointed in 1915 to consider the position of science in the training curriculum recommended a three year

⁵³ *Interim Memorandum*, pp. 40-41; *Regulations for Teachers of Domestic Subjects 1914*, pp. 276-277.

⁵⁴ R.G. Major to K.M. Buck, p. 18.

course with at least five hours each week devoted to science each year.⁵⁵ Although the report seems to have had little influence in Whitehall, many training colleges continued to offer optional three year courses.

Alienation of the ATDS from the Household Science Movement

The immediate cause of ATDS disaffection was the household science group's failure to consider the position of the domestic subjects teachers and training colleges in the new movement. The ATDS was unofficially represented on KCW's 'home science' committee by Maud Taylor and Lady Rücker (both of whom served on the ATDS executive), but it had no direct input into the development of the new course. The publicity and fundraising campaigns of 1908-1913 in support of household science thus aroused great resentment and misunderstanding amongst ATDS members. Lady Rücker's Presidential Address at the ATDS Annual Conference of 1908, extolling the household science movement, elicited what Maud Taylor later described as a 'storm in a teacup':

One can now look back with amusement, but at the time it was very disconcerting to find her remarks greeted with a storm of abuse, as unexpected as uncalled for. Explanations seemed useless, and it soon transpired that the opposition was led by a few who fancied their vested interests at stake.⁵⁶

⁵⁵ 'The Teaching of Science in Training Schools of Domestic Subjects', *Minutes of Executive Committee*, ATDS: 177/1/1/1, pp. 26-30.

⁵⁶ Taylor, 'Small Things', p. 34.

Lady Rücker graciously acknowledged the ATDS's 'ostentatious, valuable pioneering', but her speech nevertheless implied that much of the work undertaken in the existing domestic subjects colleges was sub-standard, especially in comparison with American home economics courses, and that it was only through the creation of a university-level course that standards in the profession would be raised.⁵⁷

Members of the household science committee believed fervently that the foundation of the household science course would have only positive effects on the status of the domestic subjects profession through the creation of an 'academic' standard, and assumed that it would be warmly welcomed by the ATDS profession. Instead, the critique of domestic subjects training colleges implicit in the early household science campaign prompted anxiety about the future of the domestic subjects training diploma as a professional qualification. A supporter of the KCW course who had spoken at the ATDS conference felt obliged to soothe the wounded sensibilities of teacher-training institutions when her speech was published:

I have since been told that the students at Battersea and the Northern Polytechnics have opportunities of studying their subjects under teachers of University Standing, recognized by the London University as Teachers of Chemistry for Internal Students of that University, and I know that other Schools of Domestic Science have been organizing courses of a similar nature.⁵⁸

⁵⁷ Lady Rücker, 'President's Address', pp. 378-379.

⁵⁸ Lucy A. Lowe, 'The Future of Domestic Science in Girls' Secondary Schools from the Point of View of a Head Mistress', in 'Association of Teachers of Domestic Science--(5)', *Education* XI:286 (19 June 1908), p. 436.

Lady Rücker's speech elicited a round of correspondence in the educational press. One participant, an anonymous domestic science chemistry lecturer, was concerned to protect the interests of the training colleges. Whilst accepting that household science would be a great benefit in terms of promoting research into domestic life, she suggested that future domestic subjects teachers might be required to possess both training college and household science qualifications.⁵⁹ Suggestions that the household science course was a threat to the colleges prompted an impassioned response from Maud Taylor:

Such remarks are doing the greatest harm among those who jump at conclusions without taking time to think out facts. I believe that about nine-tenths of the teachers turned out by the training schools find employment in Elementary and Council Schools where the work is regulated by Board of Education Grants, and if there is *one scrap of evidence* to prove that the position and prospects of these teachers can in the least suffer by the proposed University course I, and others, would like to have it. So far from injuring the future of the Diploma holder I foresee a greatly increased demand for such teachers when, by the help of University trained teachers, domestic science is removed from its place amongst the "extras" and given a proper position among the regular "school subjects" of the secondary school.⁶⁰

She insisted that the course would not compete with the institutions training ordinary domestic subjects teachers, but was ideal for training *science* mistresses in both secondary schools and training colleges:

⁵⁹ 'Interested', letter to *Education* XI:293 (29 May 1908), pp. 399-400; XI:286 (19 June 1908), pp. 448-449; see also Lady Rücker's letter, *Education* XI:282 (22 May 1908), pp. 284-285; and Maud Taylor's letter, *Education* XI:281 (15 May 1908), pp. 368-369.

⁶⁰ Maud Taylor, letter to *Education* XI:285 (12 June 1908), pp. 432-433.

The teachers that are today competent to teach domestic science in the laboratory are very few, and have so far prepared themselves. The course offered at King's College exactly meets this need--the course in our training schools has never attempted to do so--they are doing excellent work, but in a different direction, and for a different demand.⁶¹

Such subtle distinctions failed to reassure the domestic subjects teaching profession, however. The variety of different forms of 'domestic science' which existed in this period had served to blur the distinction between *domestic* science and *household* science in the eyes of many ATDS members and led to much apprehension about the new movement.

The success of Atkins' campaign to endow the household science course touched a raw nerve with the domestic subjects teachers, many of whom were indignant about the media attention it attracted, especially given the low morale in the domestic subjects teaching profession at the time. Political rhetoric about the need for more effective domestic subjects instruction had not procured adequate funding for the purpose nor enhanced the status of the teachers.⁶² An anonymous letter to *The Observer* in June 1911 commented:

⁶¹ Not surprisingly, these remarks elicited an onslaught of criticism from the Association of Science Mistresses in concert with Ida Freund. Taylor, 'Small Things', p. 34; Taylor, letter to *Education* XI:281 (15 May 1908), p. 369.

⁶² Marjory Stephenson, 'Domestic Economy Teachers' Salaries', *Education* XIII:332 (7 May 1909), pp. 296-297; 'The Claims of Domestic Science', *Education* III:55 (14 Jan. 1904), pp. 40-41.

Many a puzzled finance committee has had to find money for the now essential laboratories and many other necessary and desirable improvements, without any sensational Coronation appeal, for which "there is no greater or more urgent cause." To the mind economical it would seem a wiser proceeding for the universities to co-operate with and lend their support to the present eighteen or so training establishments and thus save an enormous sum in erecting fresh bricks and mortar.⁶³

The Physical Deterioration Report and the 1907 report on the teaching of cookery in elementary schools, both of which had been critical of the quality of domestic subjects teaching, had put the profession on the defensive.⁶⁴

Even more vexing, however, to domestic subjects teachers than the amounts of money being lavished upon household science were insinuations in the press that KCW's course was the first to treat the subject 'scientifically' or 'experimentally'. The ATDS President in 1911, G.F. Hobhouse, noted in her presidential address:

I was somewhat astonished as I opened my paper yesterday morning to read of what was called a new scheme of national endowment for the benefit of home science. It is nearly twenty years since I first became a member of the Executive Committee of a training school and I have no recollection, even at that distant date, that the question of home science was anything particularly new. ... The movement is sufficiently successful to make it at the present time fashionable--sufficiently fashionable to be called new.... It is interesting to those of us who have come to middle life to realise how the trend of public opinion alters from time to time.⁶⁵

⁶³ 'A Bystander', *The Observer* (4 June 1911), p. 13c.

⁶⁴ See above, pp. 90-94. The ATDS Annual Report for 1907 noted that the report on cookery was 'misleading to the general public and distinctly unfair to the teachers of the subject'. 'Annual Report 1907', *ATDS Yearbook 1907*, ATDS: 177/4/4/1, p. 13; Sillitoe, pp. 84-86.

⁶⁵ 'Association of Teachers of Domestic Subjects--(I). Annual Conference at Bristol', *Education* XVII:440 (2 June 1911), pp. 338-339.

A month later the ATDS executive called an extraordinary council meeting to consider the 'extreme urgency' of writing a history of domestic subjects education in order to publicize the fact that the scientific treatment of the domestic subjects was 'not a new movement but [had] been carried on for many years'.⁶⁶ A special sub-committee of domestic subjects training college principals also composed an open letter to various newspapers with the object of educating public opinion.⁶⁷

ATDS opinion appears to have been divided about the prudence of publishing the letter, as several former presidents declined to sign due to 'reasons of policy' or because of their connections with the household science course.⁶⁸ The letter reveals, in fact, that many of the ATDS members misunderstood the nature of the KCW course. Given the introduction of basic science courses in the training college curriculum since the turn of the century, there may perhaps have seemed little to differentiate the household science curriculum from that of the training colleges:

⁶⁶ This resulted in Ailsa Yoxall's, *The History of the Teaching of Domestic Economy* (Bath: Cedric Chivers, 1913).

⁶⁷ Members included Edith Clarke (NTCDS), C.R. Gordon, (Organizer of Domestic Subjects, London County Council), Mary Marsden (Battersea Polytechnic), and Ella Pycroft (GTCDS). ATDS, *Minutes of Council* (1 July 1911), ATDS: 177/1/1/1/ 1911-1912, p. 238.

⁶⁸ 'Letter to the Press Correcting Certain Statements Recently Made', *ATDS Yearbook 1911*, ATDS: 177/4/4/1 1907-1913, pp. 29-30. Lady Rücker appears to be the only former president directly connected with KCW. Other former presidents not signing were Mary Playne (sister of Beatrice Webb and president of GTCDS); Fanny L. Calder (head of Liverpool School of Domestic Economy); and the Countess of Aberdeen (President of the International Council of Women). Former presidents who did sign were Lydia A. Booth (President of the NUWW 1898-99); Louise Creighton, (widow of the Bishop of London); Almyra Grey, (President of the NUWW in 1908-1909); G.F. Hobhouse, (wife of Charles Hobhouse, MP); Ruth Homan (Chair of the Housewifery Sub-Committee of the School Board for London); and Annie E. Sanders, (Chair of the Leicester Training School Committee). See 'Past Presidents of the ATDS', *ATDS Yearbook 1916*, ATDS: 177/4/4/2 1914-20, p. 10.

We as Presidents, past and present, of the [ATDS], feel that it is only just that the excellent work done in the training schools on lines to a great extent identical with those upon which King's College proposes to work should be fully realised. We desire to point out that this work has been in existence throughout the kingdom for the last 36 years; anything new is of the nature of an experiment and an extension of existing schemes.⁶⁹

The bulk of the letter was, however, given over to a lengthy history of domestic subjects education with no mention of the development of scientific methods, and terms such as 'domestic science', 'practical subjects', and 'domestic economy' were used interchangeably. Their claim that the scientific approach to the domestic subjects had existed in the training colleges for 36 years was highly misleading: the first cookery training schools--the National Training School of Cookery (1874) and the Liverpool, Leeds, and Edinburgh training schools (1875)--had no pretensions about the use of 'scientific' methods when first created.⁷⁰

Despite these perturbations, the status-enhancing implications of a university 'domestic science' course did encourage the ATDS to lay claim to it as an outgrowth of the domestic subjects training colleges. The ATDS Annual Report of 1911 credited the success of Atkins' fundraising campaign to the work of domestic subjects teachers:

⁶⁹ 'Letter to the Press', pp. 29-30.

⁷⁰ *Ibid.*

It is a magnificent testimony to the awakening of public opinion to the claim of domestic science and in practical work in domestic subjects to become recognised parts of every girl's education. We who have preached this in season and out of season can but rejoice at so evident a result of our words and deeds. Even those who have criticized our work will agree with us that but for the foundations laid by that work ... this gigantic development could not have taken place. We wish our fellow-workers in King's College all success.⁷¹

Members of the household science movement encouraged this view, however, in order to placate ATDS members. The Organising Secretary of the household science department, Muriel Julius, felt obliged to publish a letter on behalf of KCW to explain that the household science committee did not claim any originality at all, but that the KCW course was merely an effort to 'crown' the work of the training colleges by 'taking the scientific training further'.⁷²

The inevitable association between household science and 'domestic science' which had caused so much misunderstanding amongst ATDS members had a complex effect on relations between the two groups. Whilst needing to attract the support of the domestic subjects teaching profession in pursuit of its goal of reforming domestic life, KCHSS was nevertheless forced to disassociate household science from the craft-oriented traditions of the training college in its pursuit of academic credibility. Ironically it was Maud Taylor (former chairman of the ATDS) who appears to have been the most vociferous within household science circles on this point, in particular the need for the department to develop its domestic arts along strict applied science lines:

⁷¹ *ATDS Yearbook 1911*, p. 13.

⁷² M.A. Julius, letter to *Education* XVIII:447 (21 July 1911), p. v.

[I]f in the time at our disposal we are to attack [practical work] in the method followed for the last 20 years in the Training Sch[ool]s of Cookery I think failure is inevitable--the time allowed in such schools & the result of the method as seen in the teachers, however successful they may be in their own line, make it an urgent necessity that we have some means of producing a different type of work & result.⁷³

Taylor insisted on establishing a 'kitchen laboratory' at KCHSS where the scientific principles learnt in the theoretical courses could be applied as opposed to the model of the training schools, where the practical work was meant to impart technical and manipulative skills in cookery, laundrywork and cleaning.⁷⁴ To this end she proposed that KCW should cease using the teaching kitchens at Clapham High School, which had been utilized to relieve overcrowding at Kensington Square:

I personally consider that the prestige and full usefulness of the work is hindered by the present conditions.... I dislike the inevitable association of ideas consequent upon using rooms primarily intended for a different class of work.⁷⁵

She also was concerned that KCW appoint a science-trained woman to head the household arts department.⁷⁶

It is possible to exaggerate the sense of alienation felt by members of the ATDS, given that some members did welcome the creation of a university course and the positive influences which household science had upon methods in use in the training colleges.⁷⁷ KCHSS ran a one-year Applied Science course for domestic subjects

⁷³ Taylor to Muriel Julius, 22 Feb. 1911, KCHSS: QA/CC/77, pp. 2-3.

⁷⁴ Taylor to Muriel Julius, 26 Nov. 1910, KCHSS: QA/CC/77, pp. 3-4.

⁷⁵ Marsh, p. 38; Taylor to Miss Parkin, 4 Feb. 1910, KCHSS: QA/CC/77.

⁷⁶ See above, p. 158. Taylor to Miss Parkin, 4 Feb. 1910.

⁷⁷ 'Observer', letter to *Education* XXIV:603 (17 July 1914), p. 44.

teachers and conducted holiday courses for teachers on various scientific subjects such as the 'chemistry of fat', 'nutrition', 'electricity and plumbing in the home', and 'heredity & environment'.⁷⁸ KCHSS faculty were also often invited to speak at local ATDS meetings.⁷⁹ Nevertheless, the animosity engendered during the early publicity campaigns, combined with KCW's own preoccupation with its academic status, served to undermine any potential for a united--and thus more influential--household science movement. This was made evident in 1912 when the ATDS inaugurated its own standing 'Scientific Committee'. Proposed by the head of Battersea chemistry department, Mr. J. Wilson, the committee was to have a dual function:

[I]n addition to carrying out such scientific work as may be found practicable in accordance with the wishes of the council of ATDS, the Committee should also consider, and report to the Council upon, the general pedagogical aspects of the relationship to science to the teaching of domestic subjects throughout all stages of such teaching.⁸⁰

Arthur Smithells, always a patron of the domestic subjects teaching profession, was appointed chairman of the committee, which consisted of twenty-two men and women from technical institutes, education committees, training colleges and others connected with the domestic subjects profession, including Sarah Burstall, Margaret Pillow, Herbert Jackson and, surprisingly, Ida Freund.⁸¹ Although members of KCW were on the committee it is significant that the ATDS chose to establish its own 'research' body

⁷⁸ ABM, KCHSS: QA/AB/M1 (1 Mar. 1915), pp. 48-50. The Applied Science course appears to be an offshoot of the one-year post-graduate course. The course was approved by the Board as an optional third-year course for domestic subjects teachers in 1921. ABM, KCHSS: QA/AB/M1 (26 Apr. 1921), p. 274.

⁷⁹ *ATDS Yearbook 1909*, p. 36; *ATDS Yearbook 1924-25*, ATDS: 177/4/4/1, p. 35.

⁸⁰ 'ATDS Annual Report, 1912', *ATDS Yearbook 1912*, ATDS: 177/4/4/1, p. 22.

⁸¹ 'Scientific Committee', *ATDS Yearbook 1912*, p. 9.

rather than to inaugurate a cooperative venture with KCW's household science department, which had been specifically designed to foster this type of research.

The editors of *Education* claimed the ATDS Scientific Committee to be 'a very important step forward in the direction of solidarity of aim and breadth of outlook' for the domestic subjects teaching profession, lauding it in terms which surpassed the editors' earlier enthusiasm for KCW's university course:

It can certainly be said without any fear of contradiction that this strong committee of experts, unfettered by red-tape, unbiased by religious or other "isms", and with a genuine desire to keep an open mind on what is naturally a matter vitally affecting the welfare of everyone, man or woman, may be expected to wield an influence in the education of women, and in the relation between the sexes, second to none in the history of our century. The scientific enquiry on which they are engaged is not by any means a merely academic one; it concerns very intimately every individual home in civilised society.⁸²

Unfortunately the impact of the committee on the advancement of science as applied to the domestic sphere proved to be nil. The committee occasionally supplied answers to teachers' written questions concerning scientific problems encountered in teaching the domestic subjects; however, the fact that committee members were spread across the country and the lack of proper funding and facilities meant that no significant work was undertaken in the name of the ATDS.⁸³ The Science Committee suspended work during the Great War and dissolved in 1927, its secretary reporting that the committee

⁸² 'The Association of Teachers of Domestic Subjects and a Constructive Policy', *Education* XIX:493 (7 June 1912), pp. 360-361; 'Science and Domestic Subjects: Towards a Constructive Scheme', *Education* XX:519 (6 Dec. 1912), pp. 354-355.

⁸³ For examples of the Committee's answers, see *ATDS Yearbook 1913*, pp. 25f.

‘no longer serves a useful purpose’ and that most of its members were only willing to serve ‘if it meant no work was required’.⁸⁴

Resentments aroused amongst domestic subjects teachers by the early household science campaigns--in particular the implied criticism of traditional training college methods--also undermined the potential for cooperation in achieving better training standards in the domestic subjects teaching profession (a prime objective of household science) and thus the possibility of a more broadly-based ‘household science’ movement on a par with American home economics. Tensions between the two groups continued, particularly in the area of teacher training, in the period 1914-1939.

Professional Conflicts: ATDS, KCHSS and the Question of Teacher Training

The Household and Social Science Department’s bid in 1920 for degree status for the three-year household science course quickened ATDS anxiety about the competitiveness of the traditional domestic subjects diploma. The ATDS accepted that improvements in the training course were essential--particularly on the scientific side--but were not prepared to abandon the long tradition of excellence in craftwork which was the fort  of the training colleges. ATDS members not only felt threatened by the introduction of a degree course *per se* but also by the nature of the household science course:

⁸⁴ *ATDS Yearbook 1917*, ATDS: 177/4/4/2, p. 29; ATDS, *Minutes of Executive Committee*, ATDS: 177/1/1/4i (2 July 1927), p. 269 (agenda).

[A] degree based upon science only without a good foundation of the craft would be detrimental to the profession as headships and organizing posts would in time be filled by women with degrees but without the knowledge of craft which is essential to the maintenance of a good standard of work.⁸⁵

The London Branch of the ATDS encouraged the Executive Committee agreed to draft their own scheme for a degree course and to approach universities with it.⁸⁶ The proposed 'Degree of Bachelor of Housecraft' was based on a three year course, with half of the time devoted to craftwork and half to science, and an optional fourth year for those training to be teachers.⁸⁷ The course was to consist of:

- First Year: Housecraft
- Chemistry
- Biology
- Physics
- Applied Chemistry
- Second and Third Years: Housecraft
- One of the following groups:
- Chemistry (organic and applied)
- Biology, physiology and biochemistry
- Hygiene and bacteriology
- Economics or psychology⁸⁸

The increased practical element of the 'Bachelor of Housecraft' syllabus allowed for only a selected number of science courses to be taken in the second and third years.

⁸⁵ ATDS, *Minutes of Executive Committee*, ATDS: 177/1/1/3 (27 Mar. 1920), p. 172.

⁸⁶ *ATDS Yearbook 1920*, ATDS: 177/4/4/1, p. 15.

⁸⁷ ATDS, *Minutes of Executive Committee*, ATDS: 177/1/1/3 (3 July 1920), pp. 194-196.

⁸⁸ Chemistry and biology were to be take up to intermediate standard; physics was taken up to matriculation level. 'Domestic Science Degrees', *Education* XL:1037 (17 Nov. 1922), p. 296. See detailed syllabi in *Education* XL:1038 (24 Nov. 1922), pp. 310-312, and *Education* XL:1039 (1 Dec. 1922), p. 328.

This compared unfavourably with the household science which, whilst including much the same components, placed more emphasis on the sciences.

The 'Bachelor of Housecraft' degree proposal received a lukewarm reception in educational circles. The National Council of Domestic Studies (NCDS) held a debate on the 'possibility and desirability of combining a degree course in Domestic Science with the Diploma Training Course', at their meeting in November 1921.⁸⁹ A spirited defense of the ATDS degree syllabus by Dr. R.S. Clay of the Northern Polytechnic (Holloway) revealed that the KCHSS household science degree was regarded as having a detrimental--rather than a positive--effect on the status of the domestic subjects because of its overtly scientific character:

A degree for domestic science should be more for craft skill than for the more academic attainments. The domestic science teacher should be thoroughly skilled. It was no use having academic knowledge if she was unskilled in domestic science.⁹⁰

The ATDS interest in a housecraft-based degree was motivated in part by anxiety about the professional status of the diploma teacher vis-à-vis teachers with degrees. One NCDS member who had spoken against the ATDS syllabus, E.B. Cook (Principal of the Manchester Training College), denounced the 'clamour for degrees' as a 'mere fetish', and claimed that the campaign had been prompted by the inequalities of the Burnham Scale of Salaries (established in 1920) which allocated larger salaries to teachers holding

⁸⁹ 'National Council for Domestic Studies', *Education* XXXVIII:983 (4 Nov. 1921), pp. 258, 260.

⁹⁰ *Ibid.*, p. 258; *ATDS Yearbook 1921*, ATDS: 177/4/4/1, p. 10; *Minutes of Executive Committee*, ATDS: 177/1/1/4i (1 Dec. 1923), pp. 65-67.

degrees.⁹¹ The ATDS had discussed the issue of degree equivalents in 1921 and had lobbied for domestic science teachers who had a matriculation certificate and who had trained for three years at an approved institution to be considered as a 'degree equivalent' in the salary scales.⁹² The ATDS did not, however, succeed in persuading the NCDS of the merits of its degree scheme.

There was support for a combined degree and training course but university members had reservations about the proposed housecraft degree.⁹³ Given the problems encountered by the household science course over the inclusion of 'practical' subjects in a degree course, the 'Bachelor of Housecraft'--with even more time given over to technical work in cookery and laundrywork--was unlikely to be regarded favourably by university representatives. Moreover, the unfavourable economic climate of the post-war period meant that universities were unlikely to consider the creation of a new degree programme, especially one which involved the construction of laboratories and practical workrooms or the hiring of specialist staff.⁹⁴ The NCDS's rejection of the 'housecraft degree' forced the ATDS to lobby again for the three-year training course to be recognized as a degree equivalent. Although the Board had made some concessions in

⁹¹ 'National Council for Domestic Studies', (4 Nov. 1921), p. 258.

⁹² ATDS, *Minutes of Executive Committee*, ATDS: 177/1/1/3 (29 Jan. 1921), p. 228.

⁹³ ATDS, *Minutes of Executive Committee*, ATDS: 177/1/1/4i (1 Dec. 1923), pp. 64-65.

⁹⁴ *Ibid.*, pp. 65-67.

1915 by allowing grants for optional third-year schemes, it refused to consider a four-year course.⁹⁵

Despite the failure of the ATDS degree scheme, the degree programme established at the University of Bristol in 1927 did conform to their paradigm for a domestic subjects degree. Developed in conjunction with the Gloucestershire Training College of Domestic Subjects, the Bristol degree contained a substantial element of traditional practical housewifery. The principal of GTCDS, Ruth Whitaker, had visited America in the early 1920s and returned with the conviction that more scientifically-trained women were needed as dieticians, research workers, administrators, as well as for the higher posts in domestic science. She approached Bristol University with the idea of a four-year 'domestic science' degree.⁹⁶ According to Whitaker's account, 'much opposition had been anticipated' but Bristol University welcomed the scheme.⁹⁷

The Bristol degree, organized in the Faculty of Science, consisted of a three year course devoted to scientific courses together with a fourth year of practical work taught at

⁹⁵ Since 1914 the Board's regulations had allowed some special technical grants for students attending a third year course in order to provide for those students who needed to upgrade their qualifications from the old individual subject certificates, and many others two-year students took advantage of these 'technical' grants to attend specialized third year courses. The Board was prepared to consider a three-year course only if it included the pedagogic element; this would have meant that four-year housecraft degree students would have to finance the first year themselves. Sillitoe, pp. 157-158; ATDS, *Minutes of Executive Committee*, ATDS: 177/1/1/4i (29 Mar. 1924), pp. 87-89.

⁹⁶ Ruth Whitaker, 'A Short History of the G.T.C.D.S.', reprinted from the *Guild Chronicle* 7 (Dec. 1933), GTCDS: J15.36 (1), p. 15.

⁹⁷ *Ibid.*; University of Bristol, *Minutes of the Faculty Board I* (2 March 1926), p. 359.

GTCDS.⁹⁸ According to Whitaker the Bristol degree ‘the first and up to the present the only degree in Domestic Science in England, since the Three-Year Course offered at [KCHSS] is in Household Science’.⁹⁹ The distinction between the two was largely in the practical side of the course; the science curriculum was not markedly different from that of KCHSS except that the Bristol degree did not include any social science elements. The first three years were given over to science and laboratory work, plus a course in economics, and Bristol students took botany and zoology which were not part of the KCHSS degree, where bacteriology and hygiene were taught instead.¹⁰⁰ The treatment of the domestic arts was, however, more relevant to the needs of domestic subjects teachers. The fourth year at GTCDS was thoroughly practical, including traditional lessons in, among others, ‘artisan’ and ‘household’ cookery, menu construction, practical sewing and garment-making, upholstery, practice in household and institutional management, and a course in ‘the hygiene of childhood’.¹⁰¹

⁹⁸ Students were also expected to take further training at GTCDS for four weeks during the first three long vacations. *Prospectus (Domestic Science) 1928-29*, p. 9.

⁹⁹ Whitaker, p. 15.

¹⁰⁰ First year: chemistry, botany, zoology; second year: physics, chemistry (organic and inorganic), biology; third year: physiology, economics, chemistry, biology; fourth year: lectures and practical work at GTCDS. Students were taught in courses provided for the B.Sc. in Agriculture and this explains in part the teaching of botany. The syllabus was amended in 1931 to include hygiene and ‘sanitary science’ at the request of GTCDS. University of Bristol Faculty of Science, *Regulations and Courses of Study for the Degree of Bachelor of Science (Domestic Science): Supplement to Science Prospectus, University of Bristol (1926-1927)*, UB, pp. 10-11; University of Bristol, *Minutes of Science Board I* (28 April 1931), UB, p. 474.

¹⁰¹ The National Training College of Domestic Subjects was similarly associated with Bristol in 1931. University of Bristol Faculty of Science, *Regulations and Courses of Study for the Degree of Bachelor of Science (Domestic Science), Supplement to the Science Prospectus, 1929-30, 1931-32*; University of Bristol, ‘Regulations for the Ordinary Degree of B.Sc. Applying to Candidates Specializing in Domestic Science’, *Minutes of the Science Board I* (8 June 1926), pp. 106-107.

The cooperation between Bristol and GTCDS in creating a new degree course might have been a significant development in the household science movement; however, developments in Gloucestershire made little impression at KCHSS, where interest had turned to dietetics--a subject which was more in keeping with the academic concerns of the college than domestic subjects teaching. By the late 1920s, KCHSS's steadfast defense of its scientific curriculum was beginning to prove a liability in the field of domestic subjects teaching. In 1925 the KCHSS Old Student Association called for changes to be made in the B.Sc. course to allow for more practical work in sewing, home nursing, bookkeeping, and institutional management.¹⁰² The absence of needlework was a particular disadvantage for those wishing to take up teaching, as nearly all domestic subjects teachers needed a qualification in this subject. The Academic Board refused the request on the grounds that there was no time for more practical work during the course, it being assumed that students found time in the vacations for it.¹⁰³ A request from students for a course in needlework in 1926 also met with an outright refusal, although a special vacation course at the Royal College of Needlework was arranged as an option for intending teachers.¹⁰⁴

The ultimate failure of 'domestic science' methods in the schools, marked by the ATDS's choice of title *Housecraft* for their new publication in 1928, meant that the

¹⁰² ABM, KCHSS: QA/AB/M2 (12 May 1925), p. 93.

¹⁰³ ABM, KCHSS: QA/AB/M2 (23 June 1925), pp. 112-114.

¹⁰⁴ ABM, KCHSS: QA/AB/M2 (15 June 1926), p. 336; (16 Nov. 1926), pp. 416-418; ECM, KCHSS: QA/C/M4, (9 Nov. 1926), p. 26.

KCHSS degree course became increasingly irrelevant for domestic subjects teachers, except for those wishing to take up appointments in the training colleges or domestic subjects inspection. KCHSS students' lack of proficiency in the practical domestic arts meant, however, that extra training was required for these posts. Efforts to create a special fourth-year course in 1926 came to nothing. The idea originated with the Chief Inspector of Domestic Subjects at the Board of Education, who approached Warden Helene Reynard with proposals for an extra year of craftwork and pedagogy designed to train suitable B.Sc. students for the Board's inspectorate.¹⁰⁵ The proposed course was to run in cooperation with the London Day Training College, where students would undertake teaching practice and extra laundry and cookery instruction.¹⁰⁶ The Board vetoed the scheme, however, on the grounds that it involved a shortening of the 'professional' (i.e. teacher training) element.¹⁰⁷ Smithells, sent on a mission to the Chief Inspector of Training Colleges and the Chief Woman Inspector to discuss the reasons for this setback, reported that the Board did not want to set a precedent. The Executive Committee sent Smithells to raise the issue with the Duchess of Atholl at the Board of Education and threatened to send a deputation if he were not given a satisfactory reply, but no further mention is made of the proposal.¹⁰⁸

¹⁰⁵ ECM, KCHSS: QA/C/M4 (9 Nov. 1926), p. 36.

¹⁰⁶ ECM, KCHSS: QA/C/M4 (5 July 1927), pp. 150-151; 'Report from the Academic Board with Regard to the Scheme for a 4th Year's Course Suggested by the Board of Education', KCHSS: QA/C/M4 (10 May 1927), append. p. 123.

¹⁰⁷ ECM, KCHSS: QA/C/M4 (13 Dec. 1927), p. 218.

¹⁰⁸ ECM, KCHSS: QA/C/M4 (17 Jan. 1928), p. 242.

Another initiative to arrange a special training course combining pedagogy and extra craft work for KCHSS graduates was made in 1936. A sub-committee appointed to look into the issue reported that the Manchester, Liverpool, Cardiff and Gloucestershire training colleges had all shown willingness to accept KCHSS students for a year's training. The headmistress of GTCDS, Ruth Whitaker, suggested that KCHSS students might be able to qualify for a teaching diploma at Gloucester, which already had a fifth-year scheme for Bristol domestic science graduates who wished to train as teachers.¹⁰⁹ The KCHSS sub-committee regarded the Gloucester proposal as 'very advantageous' for KCHSS students and encouraged them to apply; however, the Board did not sanction the scheme.¹¹⁰ Whitaker did propose a solution in 1937, however, by which KCHSS students applied for the Certificate Examination of the Bristol Southampton Joint Board; under this plan students would spend the full year at GTCDS and could spend extra time in practical work. The proposal received the Board's sanction in 1938.¹¹¹

By 1939 events had come full-circle: the domestic subjects diploma retained its integrity as the standard qualification for domestic subjects teachers, and KCHSS were soon paying the 'flattery of imitation' in its attempts to arrange the necessary craft work for intending teachers. The head of the KCHSS household arts department, Jessie

¹⁰⁹ ABM, KCHSS: QA/AB/M5 (12 May 1936), pp. 60-64.

¹¹⁰ ABM, KCHSS: QA/AB/M5 (10 Nov. 1936), pp. 126-128.

¹¹¹ ABM, KCHSS: QA/AB/M5 (14 Dec. 1937), p. 272; (18 Jan. 1938), pp. 282-284; (8 Feb. 1938), pp. 300-302.

Lindsay, for example, insisted in 1937 that her students work individually in practical cookery class because it was 'the method adopted in all the training colleges and LCC schools'.¹¹² By this time, too, professional conflicts between KCHSS and the ATDS over the nature of the training college curriculum had dissipated with the gradual merging of views on the necessity for teachers to have both a scientific and practical training. This had been facilitated by the Board's decision in 1926 to link the domestic subjects training colleges with the universities for the purposes of examination.¹¹³ From 1930 KCHSS thus served as the examining body for three London training colleges (The National Society's Training School of Domestic Subjects, the National Training School of Cookery, and Battersea Polytechnic), and five KCHSS faculty members sat on training college governing bodies.¹¹⁴ Although this created a common platform for dialogue between the two groups, the household science movement's failure to assimilate the domestic subjects teaching profession thwarted the formation of a more broadly-based--and hence more influential--domestic reform movement.

¹¹² ABM, KCHSS: QA/AB/M5 (9 Mar. 1937), pp. 206-208.

¹¹³ Sillitoe, pp. 198-201; ECM, KCHSS: QA/C/M4 (14 June 1927), append. p. 157.

¹¹⁴ Helene Reynard served as ATDS President in 1934. *Minutes of Executive Committee*, ATDS: 177/1/1/6 (27 Jan. 1934), p. 30; ECM, KCHSS: QA/C/M4 (6 Nov. 1928), p. 368; QA/C/M6 (7 Feb. 1933), p. 70; (7 Mar. 1933), append. p. 77.

• CHAPTER 6 •

HOUSEHOLD SCIENCE, ACADEMIC TERRITORY AND EXPERTISE

Household science reached its zenith of success in the interwar period. Student numbers were affected by evacuation and austerity in the Second World War, but the final blow was the creation of a B.Sc. degree in Nutrition in 1953, which soon came to eclipse the household science course in popularity.¹ The 'Household and Social Science' degree was renamed 'Household Science' and the remnants of social science eliminated from the curriculum.² After 1953 the course attracted only six students a year on average and it was discontinued in 1967.

The disintegration of household science in the post-war period might be interpreted as a fulfilment of Ida Freund's prophecies about the inherent inviability of the discipline. Household science and its older sibling home economics have been the subject of perennial debates amongst academics and professionals about issues of purpose and academic integrity. Questions posed in Marjorie East's analysis, *Home*

¹ Marsh, p. 245.

² In 1967-68 the Department of Household Science at QEC was renamed the 'Department of Food and Management Science' and, in the 1970s, merged with the Nutrition Department to become the 'Department of Food Science and Nutrition'. Marsh, pp. 232, 245-256. QEC re-amalgamated with King's College in 1985. The Food Science Department has recently been closed. Queen Elizabeth (Kensington) Branch, King's College Old Students' Association, 'The Demise of Food Science', *Envoy* (1991), pp. 3-6.

Economics: Past, Present, and Future, for example, are equally relevant for household science:

Is home economics a discipline? A subject matter area? A collection of subjects grouped together by historical accident, and for administrative convenience? An outmoded name for a problem area which interests scholars of several different disciplines? A strictly applied field in that it only applies selected theories borrowed from other disciplines?³

Yet the fate of household science in Britain owed much to historical accident. Disciplines, as social constructs, are subject to forces independent of purely epistemological considerations--Kohler's 'political economy' of professional, institutional and economic resources.⁴ The eventual disintegration of household science in the 1950s resulted not so much from its inherent inviability but rather from KCHSS's failure to demarcate what Kohler describes as 'academic territory' and an 'expertise'--a strategy necessary to ensure a discipline's ascendancy within the academy.⁵ Previous chapters have already shown the difficulties KCHSS faced in creating links with its school-level equivalent, domestic science, as well as the obstacles to professional development created by a lack of readily identifiable career opportunities associated with the discipline. This chapter explores other factors that affected the fortunes of household science as a discipline. The first section examines research at KCHSS and problems of funding. The second section looks at a related issue, namely problems associated with creating an 'expertise' in the type of interdisciplinary work that was the

³ East, p. 176.

⁴ Kohler, pp. 4-5.

⁵ *Ibid.*, p. 1.

essence of household science. The third section considers the issues of image and ethos as they relate to the defining of academic 'territory' and the factors which thwarted KCHSS's ability to develop the discipline according to its original ideals.

Household Science Research

LORD LUVADUCK: You certainly make yourselves very hard to get at. At least I suppose that is the idea of the moat round the College

DEAN: No doubt you refer to our muddy drive. We are rather ashamed of it, but our difficulties in the matter of finance are enormous.

DR. TELEMORPH: Colossal, in fact.

(Silence. All looking at Lord L.)

LORD LUVADUCK: Really, I suppose they are.

DEAN: Of course, if we felt reasonably certain that any one would give us a handsome sum before the end of the year, we should begin to build the new wing of the College at once.

MISS VINEGAR OIL: New wing. How delightful!⁶

The fostering of research in household science had been one of the original ideals of the founders of the new discipline, not only for the furthering of domestic reforms but as a function of discipline construction. But the research record at KCHSS was patchy, revealing a lack of direction and vigour in research policy on the part of the college. Household science failed to develop beyond the undergraduate level and thus was deprived of a post-graduate component which would have increased its academic status and provide faculty trained in the household science discipline. A post-graduate programme was instituted as a complement to the three-year course in 1908, but it was

⁶ 'Staff Entertainment', *The Magazine of the Household & Social Science Department* (May 1920), KCHSS: Q/SER5/1, pp. 39-40.

by no means a research degree: its purpose was to afford opportunities for further coursework in applied science for either college graduates or those with domestic science qualifications.⁷ This post-graduate course was dropped in 1917. No reasons for this decision are recorded, but the course was decidedly unsuccessful on several counts. Numbers of students taking it had dropped over the years--from 10 in 1908-09 to just 3 in 1913-14 and thereafter no students were enrolled.⁸ The Executive Committee attempted to attract applicants in 1915 by sending notices to domestic subjects training colleges and to students at Girton and the provincial universities (leaving aside Ida Freund's Newnham), but without success.⁹ It also proved difficult to recruit high-quality students to the course, which was intended to be of an 'advanced style' and to be taken by 'science graduates only'.¹⁰ Adverse publicity generated by Ida Freund was believed to have put off science students, although some Oxford and Cambridge graduates did take the course (three Natural Science graduates from Girton and one each from Lady Margaret Hall and Somerville, and one Newnham mathematics graduate).¹¹ Other 'post-graduates' held only school certificates and/or domestic science

⁷ 'Science Teachers and Home Science and Economics', *Education* XVII:438 (19 May 1911), p. 309. Post-graduate students with university qualifications received a diploma whilst those with domestic science qualifications received a certificate. See 'King's College for Women Home Science Department' KCHSS: QAP/GPF1/1, pp. 37-38; ABM, KCHSS: QA/AB/M1 (8 June 1916), p. 62.

⁸ *King's College and King's College for Women Calendar*, 1910-1917.

⁹ ECM, KCHSS: QA/C/M1 (16 Feb. 1915), p. 42.

¹⁰ ABM, KCHSS: QA/AB/M1 (15 June 1917), p. 86.

¹¹ Adèle Lady Meyer to Smithells, 2 Feb. 1915, KCHSS: QA/CC/50, pp. 1-2.

qualifications, however, a situation which undermined the academic status of the course and made graduate recruitment difficult.¹²

No attempt was made to reintroduce graduate degree programmes after 1917; instead, the Academic Board vaguely resolved 'to encourage advanced work in every laboratory'.¹³ In this KCHSS had some limited success--several departments did acquire research students, including the chemistry, biology, bacteriology, physiology and psychology departments. [TABLE 6.1] However, the work of these students resulted in only eight higher degrees in the twenty-year period.¹⁴ The first higher degrees at KCHSS were bestowed upon Gladys Annie Hartwell, a physiology demonstrator, whose research on the effects of diet on milk secretion led to an M.Sc. in 1921 and a D.Sc. in the following year.¹⁵ Other research, however, could not be considered as coming under the auspices of household science. The first research student in biology, Sushil Chandra Sarkar, undertook research on the teeth and salivary glands of Indian snakes.¹⁶ Two other biology post-graduates, Ethylwynn Trewaras and Daphne Auberton, undertook doctoral research on the hyoid apparatus of frogs and on

¹² *Student Record Books*, KCHSS: KWA/REC3 and KWA/REC4.

¹³ ABM, KCHSS: QA/AB/M1 (15 June 1917), p. 86.

¹⁴ Some details of research students are included in the University Grants Committee, 'Returns from Universities and University Colleges in Receipt of Treasury Grants', (HMSO: 1919-1939). (Hereafter: UGC, 'Returns'). The UGC's 'Returns' of 1919-20 and 1920-21 include a more detailed account of each institution. PRO: UGC 3/1 (1919-20) and UGC 3/2 (1920-21). Other details of research are given in KCHSS's return forms for 1919-20 to 1924-25 in KCHSS: QAP/GPF6/1 (1917-1925).

¹⁵ Marsh, p. 118.

¹⁶ *Ibid.*, p. 109.

the anatomy of *Cepaea* respectively, projects which had been proposed by the British Museum (Natural History); both Trewaras and Auberton were among the first women to join its staff.¹⁷ Doris Crofts, who joined KCHSS's Biology Department as assistant lecturer in 1926 with an M.Sc. from Reading, was awarded a D.Sc. for her work on the development of *Haliotis* in 1937.¹⁸ A part-time demonstrator in the Physics Department, a Miss Walters, produced an M.Sc. thesis on 'The Chemistries of Baume, Lemery, Friend and Watson 1697-1795'.¹⁹

KCHSS's failure to carve out 'academic territory' by sustaining a post-graduate research programme was largely due to financial constraints. The split from KCW in the aftermath of the Haldane Commission meant that the Household & Social Science Department was left as the sole developer of the new buildings in Campden Hill which had been planned for KCW in 1912. One justification for this separation had been the relative wealth of the household science department, but the money amassed by Sir John Atkins in 1911 was mostly given over to endowment. Of Atkins' £100,000 fund, £80,000 was invested to generate guaranteed income, leaving the department to scramble to raise loans and donations to pay for the buildings.²⁰ By 1912 it was operating with an annual deficit of £800, which grew to £2,000 in 1913-1915.²¹ Income

¹⁷ Gardiner, p. 4.

¹⁸ *Ibid.*, p. 5.

¹⁹ Marsh, p. 139.

²⁰ See Marsh, Chapter 5, 'Building the College', for an overview of financial difficulties during this period. Marsh, pp. 84-89.

²¹ *Ibid.*, p. 64.

picked up when the B.Sc. course was introduced, attracting more students and increased grants from the University Grants Committee (UGC) and the London County Council.²² However, the impact of post-war recession was felt by 1922-23, when the deficit again reached over £2,000, provoking a crisis about the viability of the course.²³ Student numbers declined owing to the forced closure of many domestic science classes in schools and to the gradual reduction in the numbers of students holding post-war training grants.²⁴ A motion was even passed in favour of merging the department with King's College (Strand) but the timely resignation of Janet Lane-Claypon in 1923 (due to personal differences within the Executive) put the decision on hold until a new Warden could be appointed.²⁵ The jealousy of the Trust Fund Committee about the use of moneys raised for household science also weighed against reunification. In the end Lane-Claypon's replacement as Warden, Lydia Henry, was able to reduce expenditure by cutting staff salaries and leaving some posts unfilled--economies which enabled the Department to regain its financial footing and continue its independent existence in Campden Hill.²⁶

²² The UGC's grants to KCHSS were second only to those received by Bedford College amongst the London women's colleges. UGC, 'Returns', 1922-23 (HMSO, 1924), p. 22; 1925-26 (HMSO, 1927), p. 24; 1933-34 (HMSO, 1935), p. 26.

²³ Marsh, pp. 64-65.

²⁴ 'Special Investigations Committee', KCHSS: QA/CS/M1 (22 Nov. 1922).

²⁵ ECM, KCHSS: QA/C/M2 (2 Nov. 1922), p. 274.

²⁶ Marsh, pp. 72-75.

These early financial pressures meant that KCHSS had virtually no funds available to finance post-graduate research. A 'Report of Inspectors of Research, Teaching and Equipment' in 1926 had commented that, given the 'exceptional opportunities for research' in household science, research fellowships should be established and teaching loads reduced.²⁷ The situation was little changed a decade later, however, when a similar inspection report bemoaned the college's failure to establish research fellowships.²⁸ Total annual expenditure on fellowships, scholarships and prizes at KCHSS was generally 2% or less of total income throughout the interwar period, most of which appears to have been given over to undergraduate scholarships and prizes. [TABLE 6.2]

The budgetary restrictions of the first two decades meant that many departments were short-staffed and had to make do with cramped facilities--despite the relative modernity of KCHSS's buildings. Two departments, Economics and Physics, never had more than two staff members each before 1936.²⁹ Theresa Joseph Dillon, who came to Campden Hill as a part-time physics lecturer and head of the 'department' in 1923 was forced to conduct her research on thermionic emission at King's College (Strand) because the physics laboratory at KCHSS was only equipped with one power plug.³⁰

²⁷ 'KCW--Household & Social Science Dept., Report of Inspectors of Research, Teaching and Equipment, 1926', ECM, KCHSS: QA/C/M3, (11 May 1926), append. p. 484, p. 3.

²⁸ 'KCW--Household and Social Science Dept., Report of Inspectors of Research, Teaching and Equipment, 1936', pp. 2-3, ECM, KCHSS: QA/C/M7 (2 Feb. 1937), append. p. 25.

²⁹ Marsh, p. 136.

³⁰ Dillon, 'Physics Department', p. 1.

Her department was obliged to use a landing for extra tables and, as it had no lecture room, demonstration apparatus had to be carried up and down from the nearest lecture room on the floor below; even the roof was pressed into service, according to Dillon, 'for purposes other than sun-bathing'.³¹ Although the shortage of space in physics had been anticipated and place left on the roof for the erection of a lecture room, this sorely-needed addition was only added in 1931 (at a cost of £3,000).³² Mellanby's experiments on rickets and alcohol absorption were also hampered by the lack of facilities: he was forced to remove some of his experimental dogs following complaints from local residents about barking.³³ The biology department's budget never exceeded £170 per annum until 1946. A note of desperation may be discerned in the department's decision to exchange five of its microscopes for two condensers in 1923, and to spend a £5 savings on assistant's wages on slides in 1924.³⁴

Heavy teaching loads were a further restraint on research. The number of courses working to different standards meant a diffusion of faculty energy. The inspection report of 1936 noted regretfully:

³¹ ECM, 'Needs of the College', KCHSS: QA/C/M5, (Oct. 1929), append. p. 29; Dillon, 'Physics Department', p. 1.

³² ECM, 'Needs of the College'; Marsh, p. 93.

³³ Marsh, p. 117.

³⁴ Gardiner, p. 4.

[T]eachers find it difficult to keep their extra activities within reasonable limits. This is partly due to the multiplicity of courses, to their specialized character, and to the consequent lack of text books. ...There is a general lack of time for research; even the vacations are encroached upon by routine work. The difficulties of adjustment in a small college must be recognized, but the subjects of research are so numerous in this particular field and their investigations so much to be desired, that the college has an opportunity too great to be neglected.³⁵

The smallness of the college also meant that junior teachers spent an inordinate amount of time preparing demonstrations and other work which in larger colleges would have been done by laboratory assistants.³⁶ Dillon recalls her early days as head of the physics 'department', which consisted of one technician and a part-time demonstrator:

I was appointed for two days a week when I found that there were lectures and classes for four different courses ... There were many problems of organization, and the three of us did what we could.³⁷

The Hygiene and Bacteriology departments were particularly overstretched. Before 1926 the two fields were combined in a single department and its head, Cuthbert E. Dukes, was left (in the crisis following Lane-Claypon's resignation) to cope with 110 lectures--a load which had been previously spread between three lecturers.³⁸ Professor Arthur Dendy, who was left as sole member of the biology department when Dr. Gertrude Dixon resigned in 1917, took a £50 cut in salary so that the college could employ a full time Biology lecturer with a salary of £300.³⁹ The inspectors had

³⁵ 'Report of Inspectors', (1936), p. 2.

³⁶ *Ibid.*

³⁷ Dillon, 'Physics Department', p. 1.

³⁸ Marsh, pp. 113-114.

³⁹ Dendy's sacrifice continued until 1923. Maud Taylor contributed £50 to the cause on the condition that the appointee conduct research. Gardiner, p. 3.

recommended the elimination of the two-year Institutional Management course as a means of reducing teaching loads; however, the one- and two-year courses such as Applied Science and Institutional Management provided the college with much needed revenue from student fees.

KCHSS's failure to establish solid post-graduate programmes supported by scholarships meant that most of the research work in its science departments was undertaken by members of staff in their spare time and funded by external sources. The physiology department was the most successful in attracting funding, owing to its association with Edward Mellanby and the department's interest in human nutrition which was, in the interwar period, both medically topical and politically sensitive.⁴⁰ Mellanby's research was funded by the Medical Research Council (MRC), which had been set up by the government in 1913 to promote biomedical research through the provision of fellowships and research grants to both individuals and university departments.⁴¹ Mellanby, Mottram, Gladys Hartwell, and Winifred Clifford (Mellanby's assistant and lecturer in physiology) all served on the MRC's Nutrition Committee in the inter-war years and received generous funding for their research projects.⁴² Hartwell's M.Sc. and D.Sc. research were MRC-funded and her work on

⁴⁰ One-sixth of MRC research grants were in human nutrition in the interwar period. Petty, pp. 83-108.

⁴¹ Austoker & Bryder, p. v; Austoker, 'Walter Morley Fletcher', p. 27.

⁴² The Nutrition Committee was created through the merging of two separate committees, namely the 'Vitamin' and the 'Quantitative' Committees. Petty, p. 92, n. 48; Austoker, 'Walter Morley Fletcher', p. 27; Marsh, p. 119.

synthetic diets and the effect of diet on lactation continued to be funded for a further ten years.⁴³ Mottram's research work for the MRC primarily involved the collection of data on diets of various social groups (with a view to establishing minimum dietary standards); he also worked on the standardization of cod-liver oil as part of a project for the League of Nations.⁴⁴ Winifred Clifford's research involved the study of halogen salts on saliva and gastric juice, the effects of different diets on muscles, as well as practical work on dried peas and the nutritional values of tinned food.⁴⁵

Apart from the nutritional work undertaken on behalf of the MRC, however, KCHSS attracted little external funding. Several early research projects were commissioned by the national government, mainly for war-related research.⁴⁶ The chemistry department, under Charles Kenneth Tinkler, conducted research on the manufacture of optical and laboratory glass for the Ministry of Munition's Glass Research Committee during the Great War, and his department received project grants from the Department of Scientific and Industrial Research for cookery experiments.⁴⁷

⁴³ *Report of the MRC for the Year 1926-27 (Committee of the Privy Council for Medical Research)*, (PP 1928 XI), p. 454; 1927-28, (PP 1929 VIII), p. 378; 1928-29 (PP 1929-30 XV), p. 1001; 1929-30, (PP 1930-31 XV), p. 693; 1930-31, (PP 1931-32 XII), p. 78; 1931-32, (PP 1932-33 XIV), p. 75; Baillie, pp. 3-5.

⁴⁴ Petty, p. 15.

⁴⁵ *Report of the MRC*, 1926-27 to 1931-32; 1933-34 (PP 1934-35 XX), p. 627; 1934-35 (PP 1935-36 XIII), p. 866; 1935-36 (PP 1936-37 XIII), p. 483; 1936-37 (PP 1937-38 XIII), p. 610; 1937-38 (PP 1938-39 XIII), p. 126; 1938-39 (PP 1939-40 IV), p. 703.

⁴⁶ The Executive Committee attempted to capitalize on this in 1915 by applying to the Board of Education for a research grant. See ECM, KCHSS: QA/C/M1 (11 May 1915); *Annual Report 1916-17*, KCHSS: QEPH/RPT1, p. 3; KCHSS: QAP/GPF4/1 (16 Oct. 1917).

⁴⁷ Marsh, p. 125.

Tinkler also carried out research at the request of the Ministry of Agriculture on the cause of potato blackening after cooking.⁴⁸ Such projects demonstrated KCHSS's potential for conducting research but there were too few of them to promote the long-term or systematic research programme necessary for the development of a new discipline.

Commercial funding for research in household science appears to have been virtually non-existent, perhaps due to the Executive Committee's reluctance for the college to be seen to endorse any particular product or industry. A minute book of 1930 records the Executive Committee's 'sincere regret' that the college name had been used in an advertisement following some research undertaken by Gladys Hartwell on a product's solubility; they also refused the Gas Association permission to conduct two public lectures at KCHSS on the use of gas for domestic purposes, and Warden Helene Reynard was requested to turn down an invitation to become a member of the Women's Gas Council in 1935.⁴⁹ The inspection report of 1926 had suggested the possibility of commercial funding for research fellowships, but apparently few commercial opportunities presented themselves and KCHSS did not seem to pursue them. Failure to take the initiative in seeking commercial funding was short-sighted in two respects. Firstly it meant that an opportunity was lost to promote the college as a centre of expertise in household research. Secondly, most of the research projects that might have

⁴⁸ *Annual Report 1930-31*, p. 13.

⁴⁹ ECM, KCHSS: QA/C/M5 (7 Oct. 1930), pp. 218-220; ECM, KCHSS: QAP/GPF4/1 (9 May 1916), p. 3; ECM, KCHSS: QA/C/M6 (2 July 1935), p. 390.

been undertaken in the name of household science were equally within the competence of scientists working within other disciplines or in other institutions; KCHSS needed to actively court commercial sponsors if it was to attract research commissions.

Taking a closer look at the type of research work undertaken by KCHSS's faculty members, one finds a curious mixture of 'pure' and 'applied' research projects. In biology, projects on particular species of animals--land snails, sheep parasites, sea anemones, for example--might have taken place in biology departments at any university and were only indirectly connected with household science.⁵⁰ Other research in biology, for example a project on the 'habits and life history of the clothes moth', were more directly relevant to the discipline.⁵¹ Kenneth Tinkler's specialization in colour chemistry led him to undertake research a project on wood grain coloration in French polishing.⁵² Other 'household' subjects investigated were the use of coke as a fuel in domestic fireplaces, the use of sulphur dioxide as a preservative, the effect of heat on cellulose and other textiles, the effect of detergents and bleaching agents on the strength of fabrics, a comparison of nickel and aluminium cooking vessels and an investigation of the prolonged action of tap water on zinc.⁵³ The household arts

⁵⁰ *Annual Report 1924-25*, KCHSS: QEPH/RPT2, pp. 11-13; *Annual Report 1925-26*, KCHSS: QEPH/RPT3, pp. 12-15.

⁵¹ Marsh, p. 109.

⁵² *Annual Report 1925-26*, p. 14.

⁵³ *Annual Report 1924-25*, p. 11-13; *Annual Report 1925-26*, KCHSS: QEPH/RPT3, p. 12-15; *Annual Report 1926-27*, KCHSS: QEPH/RPT4, p. 12; *Annual Report 1929-30*, KCHSS: QEPH/RPT7, pp. 10-11.

department was also involved in applied science research projects in addition to Lindsay's work with Mottram on creating dietaries and recipes. Examples include a study of the loss of weight in cooking meat by various methods, the testing of whale meat for human consumption, a study of imported and stored English eggs (under the auspices of the Ministry of Agriculture and the Empire Marketing Board), and the testing of saucepans (in conjunction with the chemistry department).⁵⁴

Because of the lack of appropriate literature for household science a number of KCHSS faculty were involved in writing textbooks for use in the course. Philippa Esdaile, head of the biology department (1921-51), wrote a two-volume textbook on 'economic biology', described by the author as a '*materia domestica*' of plants and animals closely associated with the household for students of social science.⁵⁵ Cuthbert Dukes, a pathologist and bacteriologist, wrote *The Bacteriology of Food* (1925) when no suitable textbook could be found.⁵⁶ The head of chemistry, Kenneth Tinkler, joined forces with colleague Helen Masters, a chemistry lecturer, to produce a two-volume applied chemistry text which became the standard work on analytical procedures related to the chemistry of the home.⁵⁷ Vernon Mottram produced (in addition to the popular

⁵⁴ *Annual Report 1933-34*, KCHSS: QEPH/RPT11, p. 9; *Annual Report 1927-28*, KCHSS: QEPH/RPT5, p. 11.

⁵⁵ Philippa Esdaile, *Economic Biology for Students of Social Science*, 2 vols. (University of London, 1927, 1931), Vol. I: *Harmful and Useful Animals*, Vol. II: *Animal & Vegetable Products*; quotation, Pt. I, p. vii.

⁵⁶ C.E. Dukes, *The Bacteriology of Food* (H.K. Lewis, 1925).

⁵⁷ Kenneth C. Tinkler and Helen Masters, *Applied Chemistry: A Practical Handbook for Students of Household Science and Public Health*, 2 vols. (Crosby Lockwood & Son, 1920), Vol. I: *Water, Detergents, Textiles, Fuels, Etc.*; Vol. II: *Foods*; Praill, p. 2.

books he wrote with Jessie Lindsay), a *Manual of Histology* (1923), complete with his own line drawings, and *Functions of the Body: Outline of Physiology* (1926), both of which were student textbooks.⁵⁸ He also produced (with E.M. Radloff) a book on food tables, and revised several editions of the classic *Food and the Principles of Dietetics*.⁵⁹ Several texts were targeted at the domestic science teacher or training colleges. Mottram and Winifred Clifford put together a textbook which demonstrated elementary chemical analyses of foodstuffs, and Agnes Browne Jackman, a chemistry lecturer (1921-56) collaborated with B. Rogers of the Yorkshire Training College of Housecraft (Leeds) on *The Principles of Domestic and Institutional Laundrywork* (1934) for domestic science colleges and the 'educated housewife'.⁶⁰ The Household Arts Department produced a number of practical cookery books for domestic science students and the general reader, including Jessie Lindsay's and Helen M. Tress's definitive book on the principles of cookery, *What Every Cook Should Know* (1932), and their textbook, *Modern Cookery for Schools* (1934).⁶¹ Mottram and Lindsay's

⁵⁸ Mottram, *A Manual of Histology* (Methuen, 1923), and *Functions of the Body: An Outline of Physiology* (Nisbet, 1926).

⁵⁹ V.H. Mottram and Ellen M. Radloff, *Food Tables* (E.Arnold, 1937); V.H. Mottram and Robert Hutchinson, *Food and the Principles of Dietetics*, 7th ed. (E.Arnold, 1933). Mottram also revised four other editions.

⁶⁰ Winifred M. Clifford and V.H. Mottram, *Properties of Food: A Practical Textbook for Teachers of Domestic Science* (University of London Press, 1929), p. 6; Agnes Jackman and B. Rogers, *The Principles of Domestic and Institutional Laundrywork* (Edward Arnold, 1934), p. iii.

⁶¹ Jessie Lindsay and Helen M. Tress, *What Every Cook Should Know* (Nisbet, 1932); *Modern Cookery for Schools* (University of London, 1934).

Manual of Modern Cookery (1927), which sought to explain the principles of diet in relation to cookery, proved to be very popular and went through several editions.⁶²

Despite this record of publications, KCHSS's inability to attract research money was partially due to its failure to establish an 'expertise' in scientific matters related to the household. The question of establishing an 'expertise' in household matters involved two related issues--creating and maintaining a claim for household science as a unique area of knowledge, and the creation of an authoritative public profile for the discipline.

Chemistry and the Christmas Pudding: Failure of Applied Science Ideals

Realizing that ... the future development of this important branch of applied science is largely in his hands, the chemist will no doubt be able to enjoy his Christmas pudding unperturbed by the thought that the "proof of the pudding" is still mainly "in the eating", not in the chemical laboratory.⁶³

'The Chemistry of the Christmas Pudding', written by one of KCHSS's chemists, Helen Masters, was a half-humorous essay applying scientific principles to the creation of a seasonal pudding with a view to showing what science can contribute to the culinary process. Masters quips that the scientist could consider the problem of "foreign bodies" such as silver coins and china dolls, but concludes in all earnestness

⁶² Mottram & Lindsay.

⁶³ Helen Masters, 'The Chemistry of the Christmas Pudding', *Discovery* V:60 (Dec. 1924), p. 342.

that the assistance the chemist can give is limited to 'supplying an explanation of and to some extent controlling the methods' used and the examination of raw materials for adulterants--chemical analyses did not, she conceded, 'afford any means of measuring such important culinary factors as texture and flavour.'⁶⁴ Though not intended as an academic piece, Master's article illustrates the problem inherent in constructing an applied science of the household--the need to synthesize specialist, scientific knowledge of the material aspects of the household with analysis of the 'human' (or sociological) factors which interact with them. Pure scientific understanding of the chemical structure of, for example, foodstuffs, was of limited use unless related to the household and its inhabitants as a whole. A true applied science of the household involved what Marjorie East terms 'conjunctive' research--that which utilizes research from different disciplines and synthesizes them to create new knowledge.⁶⁵ An example of this is an American home economics speciality, family economics, which combines elements of economics, sociology, and psychology to create theories of family economic behaviour.⁶⁶

The fostering of 'conjunctive research' at KCHSS was checked by the increasing specialization within the sciences in the twentieth century. For example, the study of one essential constituent of household science--food and nutrition--came to require an increasingly specialized knowledge of biochemistry; if household science was to have any authority in nutrition, the household science researcher would have to be fluent in

⁶⁴ Masters, pp. 341-342.

⁶⁵ East, p. 179.

⁶⁶ *Ibid.*

this field. Paradoxically, specialization within the various 'sub-disciplines' of household science acted as a centrifugal force pulling it apart and preventing the creation of a true applied science of the household, which required not only bodies of specialist knowledge but the ability to relate them to other constituent disciplines. East's critique of modern American home economics is applicable to the dilemma facing household science in the pre-1939 period:

Our scholars are specialists. Most scholars find themselves gradually knowing more and more about less and less. One is afraid to "get out of one's own field," to generalize. ... Neither have we many scholars who are trying to look at a whole household all at once as a system. How does one conduct this kind of research? We have many methodologies for looking analytically--at one piece or process. What methodologies are there for looking at a "global situation," an "undifferentiated puzzle," a "whole ball of wax," or a "bloomin' buzzin' confusion?"⁶⁷

Such questions were not addressed at KCHSS, however. Applied science research on particular aspects of the household was not accompanied by efforts to develop theory or to create a synthesis of the scientific and sociological disciplines. Yet this was a precondition for staking out intellectual 'territory' within the academy.

Ironically, it was KCHSS's desire to uphold scientific standards within each individual science discipline which prevented it from establishing such an expertise. As a consequence, more attention was paid to the material aspects of *the house* (nutrition, bacteriology, physiology, energy, shelter) than to the social functions of *the home* or to the relationship between them. This was reflected in the shifting of the name of the course from 'Home Science' to 'Household and Social Science' and the eventual

⁶⁷ East, pp. 179-180.

elimination of the 'social' element. Subjects which related to the social functions of the home, such as economics, sociology, and psychology (so-called 'soft sciences') offered less academic kudos than the natural sciences--biology, chemistry, and physics.

The American home economics profession was much more successful in fostering conjunctive research. Although it was equally subject to pressure to increase the scientific content of the discipline in order to enhance its academic status, the inclusion of 'soft' sciences and practical elements were not so problematic in American universities.⁶⁸ The home economics profession also benefited from institutional and governmental support for conjunctive research.⁶⁹ The US Department of Agriculture (which had its own Office of Home Economics since 1915) created a Bureau of Home Economics in 1923 in order to facilitate the expansion of practical nutritional research as a complement to food experiments conducted by the USDA's agricultural experiment stations.⁷⁰ The purpose of the new institute was to study 'practical home problems' and 'the relative utility and economy of agricultural products for food, clothing, and other uses in the home'.⁷¹ The BHE, employing just two scientists initially, grew throughout the interwar period to employ a total of fourteen women scientists and a staff of over two hundred working on research on nutrition, economics, and domestic technology.⁷²

⁶⁸ Rossiter, p. 201.

⁶⁹ East, p.181-182; Carver, pp. 23, 25-26.

⁷⁰ The Office of Education (under the Department of the Interior) also hired two home economics specialists in 1915. East, p. 73; Craig, pp. 26-27.

⁷¹ Matthews, p. 158.

⁷² Rossiter, p. 229; Craig, p. 23; Eppright & Ferguson, p. 221.

American home economics research also benefitted from the national system of home economics 'extension agents' following the Smith-Lever Act of 1914. The home economics extension agent, for which there was one per county, was responsible for organizing workshops and lectures on food preservation, nutrition, cookery, textile care, poultry and dairy production, gardening and the like. Agricultural and home economics extension agents were also responsible for organizing '4-H clubs'--youth organizations which aimed to provide boys and girls with vocational experience in agriculture and homemaking (respectively) as part of a wider aim of inculcating social values in citizenship and community service.⁷³ Both the BHE and the extension service provided channels for the dissemination of research findings which, in turn, further stimulated home economics research at the universities.⁷⁴

In Britain there was no state-sponsored research programmes for 'household science' research in its own right on a par with the American network of Land Grant institutions and extension agents. The government did sponsor research into subjects which were household-related, but these were pursued on an *ad hoc* basis. In nutrition, for example, the government supported research through the MRC, but there was no single government agency co-ordinating 'pure' research with practical initiatives. An

⁷³ These values are reflected in the four H's signified in the 4-H pledge, 'I pledge my *head* for clearer thinking, my *heart* for greater loyalty, my *hands* for larger service, and my *health* for better living for my club, my community, my country and my world.' The girls' 4-H clubs organize the year's work around a particular aspect of homemaking, (e.g. cookery); individually members set project goals, carry out their own work or research, and, at the county fair (similar to an English county show) present their finished project for judging.

⁷⁴ Van Rensselaer, 'Extension Work in Home Economics', p. 156; 'Research and Home Economics', pp. 392-396.

attempt to rectify this was made in 1930-31 when the Ministry of Health set up an Advisory Committee on Nutrition (ACN) to advise the minister on the policy implications of nutrition research.⁷⁵ Mottram and Jessie Lindsay (of the KCHSS household arts department) both served on the ACN. Its impact in developing a national nutrition policy or a systematic educational programme proved to be marginal, however, owing to professional disputes amongst committee members.⁷⁶ Ultimately, the ACN's inability to agree on a national food policy meant that most government-sponsored programmes related to diet (e.g. the 'Milk in Schools' scheme begun in 1934, the creation of infant welfare centres, and war-time classes to help women cope with rationing) were not part of any broad-based pure or applied research programme in diet and nutrition.⁷⁷

⁷⁵ D.F. Smith, 'Nutrition in Britain', p. 117.

⁷⁶ The rivalry was between Mellanby (then serving as the secretary of the MRC) and E.P. Cathcart of Glasgow University. Mellanby, a proponent of vitamins, believed that government should initiate food supplementation programmes; Cathcart, by contrast, disputed the importance of vitamins (contending that the quantity of food was more important) and believed that it was more important to teach women how to buy and prepare food more economically--a view which continued to be popular amongst government ministers. For a discussion of the ACN and its work see D.F. Smith, 'Nutrition in Britain', pp. 114ff.

⁷⁷ The Board of Agriculture established a Food Production Department (including a Women's Branch) in 1917 to mobilize women's support in local food production. Susan Foreman, *Loaves and Fishes: An Illustrated History of the Ministry of Agriculture, Fisheries & Food* (HMSO, Ministry of Agriculture, Fisheries & Food, 1989), pp. 13, 19-20, 23, 32, 41; John Burnett, *Plenty and Want: A Social History of Food in England from 1815 to the Present Day*, 3rd ed., (1966; Routledge, 1989), pp. 243-246; Virginia Berridge, 'Health and Medicine', in *The Cambridge Social History of Britain 1750-1950*, Vol. 3: *Social Agencies and Institutions*, ed. F.M.L. Thompson (Cambridge: Cambridge University Press, 1990), p. 224; Derek Oddy, 'Food, Drink and Nutrition', in *The Cambridge Social History of Britain 1750-1950*, Vol. 2: *People and Their Environment*, ed. F.M.L. Thompson (Cambridge: Cambridge University Press, 1990) pp. 273-274.

This lack of government support for interdisciplinary research into 'household science' meant that research work for which KCHSS was well suited was often undertaken by other, more specialized, institutions. For example, the Fruit and Vegetable Research Station (run in conjunction with the Horticultural Research Station at Long Ashton, Bristol) carried out research and educational work in connection with fruit and vegetables and the canning industry. Although part of its research brief was concerned specifically with the canning process (e.g. the study of vacuum machines), much of its food-related research could have been undertaken at KCHSS--the development of green food colouring for vegetables, or research on the uses of canning by-products such as syrups and stocks.⁷⁸ Nutritional research was already an established field of biochemistry, with specialist researchers working at several universities or institutes such as the Dunn Nutrition Laboratory at Cambridge.⁷⁹ Moreover, with the expansion of domestic-related industries in the interwar period, more research was undertaken directly by commercial firms--for example, the food processing and the domestic appliance industries--or by consumer-related establishments such as the Good Housekeeping Institute.⁸⁰ The Institute, for example, tested and awarded the 'Good Housekeeping Seal of Approval' for over 52 models of vacuum cleaners between 1924 and 1939.⁸¹

⁷⁸ Ironically its educational programme was directed by M.L. Adams, a member of the ATDS who had taken a course at KCHSS. 'A Summer Course at a Research Station', *Housecraft* II:9 (Sept. 1929), pp. 248-249.

⁷⁹ See Paul, *MRC Dunn Nutrition Unit*.

⁸⁰ Glucksmann, pp. 73-92.

⁸¹ *Celebrate the Way We Live*, p. 7.

Interwar preoccupation with domestic issues, such as family endowment, nutrition, housing and the development of 'labour-saving' appliances provided opportunities for KCHSS to promote itself as an authority in household matters.⁸² Indeed, the college was not aloof from public issues. It participated in war-time feeding by running a National Kitchen in conjunction with Kensington Borough Council, serving between 3,000-4,000 portions a day in 1918; it also organized short courses in 'trench cookery' and first aid for VADs (in conjunction with the Red Cross), as well as lectures on economical cookery for the Kensington War Savings Committee.⁸³ In the interwar period the Household Arts Department presented a series of radio broadcasts on dietetics.⁸⁴ KCHSS's wardens served on various executive committees and advisory groups and had links with interwar feminist campaigns. Janet Lane-Claypon (Dean 1916-23), was involved in a letter writing campaign on behalf of the London Society for Women's Service (LSWS) for equal treatment of women in the civil service, and KCHSS later became a member of the Women's Employment Federation, which was created in 1934 from remnants of the LSWS.⁸⁵ Helene Reynard (Warden 1925-45) served on the executive committee of the British Federation of University Women, and was asked to serve on the Six Point Group.⁸⁶

⁸² Pugh, pp. 209-234.

⁸³ ECM, KCHSS: QAP/GPF4/1 (12 Feb. 1918), (12 Mar. 1918); Marsh, p. 98; *Dean's Report 1917-18*, p. 6.

⁸⁴ Marsh, p. 134.

⁸⁵ Philippa Strachey to Janet Lane-Claypon, 12 Mar. 1920, and Lane-Claypon to Sir John Anderson and H.A.L. Fisher, 18 Mar. 1920, both in KCHSS: QAP/GPF7/17; ECM, KCHSS: QA/C/M6 (5 Mar. 1935), p. 338.

⁸⁶ The Six Point Group was an interwar feminist movement founded in 1921 which organized its campaign around six specific areas of reform of women's rights such as equal pay,

More importantly, a number of KCHSS's staff were recognized as experts in their respective fields, an authority which reflected back upon the college. Mottram's enthusiasm for public speaking and popularizing nutrition gave him a particularly high profile. Another staff member, Dr. Gertrude Dixon, was seconded for war work to the Royal Commission on Wheat Supplies in 1917, an appointment which eventually led her to resign her post at KCHSS.⁸⁷ Ruth Proctor, one-time head of the Hygiene & Bacteriology Department, served part-time as the Assistant Medical Officer in the LCC School Medical Service and as the Medical Director of the Albany Deptford Babies Hospital for Nutritional Disorders.⁸⁸ Philippa Esdaile served on the 'Nutrition in the Colonial Empire' Committee of the Economic Advisory Council, and, in 1936, was appointed to the Makerere Commission to Uganda. She was also invited to join the Royal Commission on economic and social conditions in the West Indies in 1938-39 but was refused leave by KCHSS's Executive Committee.⁸⁹

KCHSS nevertheless took no institutional initiatives to exploit contemporary political and social interest in domestic matters, nor did it attempt to encourage the development of an expertise in fields other than dietetics and nutrition. In the case of housing and domestic architecture, for example, there was evidently much call for

opportunity for women in the civil service, and the position of women with regard to guardianship. Pugh, p. 49; Helene Reynard to Miss Bond, 23 May 1927, KCHSS: QAP/GPF7/30.

⁸⁷ Gardiner, p. 3.

⁸⁸ Marsh, pp. 114-115.

⁸⁹ Marsh, p. 112.

domestic expertise in the interwar years. According to a report by the president of the Electrical Association for Women, Caroline Haslett, members of the National Housing and Town Planning Association had expressed in 1935 'the greatest astonishment' at her supposedly 'novel' suggestion that the interior of new houses be planned according to ergonomic principles.⁹⁰ Yet KCHSS had missed the opportunity to undertake pioneering research in domestic ergonomics in 1929 when the National Institute of Industrial Psychology (NIIP) suggested that the college take up a research project on fatigue in housework.⁹¹ The NIIP had already sent a Bedford College graduate to study labour-saving devices in the United States, with encouragement from domestic appliance manufacturers. Helene Reynard voiced her enthusiasm at the prospect of bringing the work to KCHSS:

We could of course take up the investigation only if we were prepared to appoint a research fellow who could devote herself entirely to the work. It seems a very attractive proposition No one is in a better position than ourselves to do the work; it would give us excellent publicity and have a stimulating effect on the students ⁹²

As with many schemes considered at KCHSS, however, nothing came of the idea. Reynard was personally involved with a number of related initiatives. She served on a committee of the National Council of Women which conducted research on household planning and equipment, household science, and sociological topics related to the

⁹⁰ 'Meeting of the Research Sub-Committee [of the National Council For Women's Household Service Sectional Committee]', KCHSS: QAP/GPF7/32 ([n.d., c.1935]), p. 3.

⁹¹ Helene Reynard served on the NIIP's committee conducting the research. ECM, KCHSS: QA/C/M4 (10 July 1928), p. 344.

⁹² Helene Reynard to Maud Taylor, 18 Nov. 1929, KCHSS: QA/CC/77.

home.⁹³ This committee (which later became the ‘Council of Scientific Management in the Home’) produced research papers for presentation at the Seventh International Management Congress at Washington, D.C., in September 1938.⁹⁴ Jessie Lindsay also was involved with domestic planning, giving advice on the kitchens and other domestic arrangements at several institutions, including the University of London Senate House in Bloomsbury.⁹⁵ Members of her department conducted a detailed experiment in time/motion study on the procedures involved in meal preparation for the Sixth International Congress for Scientific Management in 1934.⁹⁶ Involvement in such projects was nevertheless *ad hoc* and did not constitute a proactive policy of developing KCHSS’s authority in the field.

KCHSS’s ability to establish a national professional monopoly in domestic matters was severely impaired by the awkward relationship with the domestic science teaching profession. Moves to distance the college from the cookery and laundrywork image of the domestic science colleges had limited success, and the continuing public perception of KCHSS as a ‘domestic science’ institution undermined its status. At the same time, KCHSS’s established expertise in dietetics was challenged by other

⁹³ ‘Research Sub-Committee of the Household Service Sectional Committee (NCW)’, KCHSS: QAP/GPF7/32 (11 May 1932), p. 3; For a list of members see ‘Investigation on the Reduction of Fatigue by Kitchen Planning’, KCHSS: QAP/GPF7/32 [n.d., c.1935-36].

⁹⁴ Council of Scientific Management in the Home, ‘Planning of Kitchens and developments in Time and Motion Study’ and ‘The National Importance of Scientific Management in Domestic Affairs’, KCHSS: QAP/GPF7/32 (1938).

⁹⁵ Marsh, p. 134.

⁹⁶ *Ibid.*, pp. 134-135.

institutions. The Board of Education, for example, sponsored short courses in ‘cookery and dietetics’ at KCHSS but also at the National Society’s Training College of Domestic Science, and even at the London School of Medicine for Women.⁹⁷ In fields other than dietetics, it was often the ATDS that was asked to act in an advisory capacity.

The Garden Cities and Town Planning Association’s Labour Saving Committee solicited advice from ATDS members on new housing schemes in various parts of the country in the early 1920s, and the ATDS produced its own publication on the subject, ‘Architecture and Home Organization’.⁹⁸ The domestic science training colleges also competed with KCHSS in providing expert advice: the National Society’s Training College of Domestic Science and Battersea Polytechnic worked on a joint project for the British Standards Institution on the standardization of domestic brooms and brushes, and the British Standards Institution asked the ATDS for comments on specifications for linoleum and cork carpets and steel dustbins.⁹⁹

As a national organization mobilizing hundreds of domestic science teachers, the ATDS was able to demonstrate its authority in a way that KCHSS could not. ATDS members, with their knowledge of local customs and conditions, were better able to

⁹⁷ ‘The Board of Education Course on Practical and Scientific Problems of Diet’, *Practical Education and School Crafts* XXV:255 (Nov./Dec. 1927), pp. 35-36; ‘Summer School Courses, 1932’, *Housecraft* V:5 (May 1932), p. 105.

⁹⁸ ATDS: *Minutes of Executive Committee*, ATDS: 177/1/1/3 (10 Dec. 1921), p. 266; ATDS: 177/1/1/4i (24 Mar. 1923), p. 31 (agenda); Catherine R. Gordon, ‘My Reminiscences’, *Housecraft* I:1 (Jan. 1928), p. 9.

⁹⁹ ATDS: *Minutes of Executive Committee*, ATDS: 177/1/1/6 (13 June 1936; 3 Oct. 1936, 18 Sept. 1937).

provide information and advice to housewives.¹⁰⁰ In 1931, at the suggestion of Dr. Winifred Cullis (Professor of Physiology at the London School of Medicine for Women), the ATDS drew up a recipe and dietary guide for families on low incomes.¹⁰¹ 'Family Fare: Menus and Budgets for Small Incomes', intended for sale through Women's Institutes, gained much public recognition.¹⁰² The City of Gloucester reprinted parts of it in a manual distributed to tenants under their slum clearance housing scheme; it was also used by the British Medical Association's Committee on Nutrition and by the BBC in a series on 'Choosing the Right Food'.¹⁰³ Furthermore, the ATDS had close local connections with Women's Institutes and were thus able to link up with one of the most important 'pressure groups' on women's domestic issues in the interwar period.¹⁰⁴

¹⁰⁰ ATDS was represented on (amongst others): NCW Committees (education, household service, public health & child welfare, research), National Baby Week Council, Health & Cleanliness Council, National Institute of Industrial Psychology, Electrical Association for Women, Women's Gas Council, Women's Employment Federation, Women's Industrial Council, National Federation of Women's Institutes, Women's Advisory Housing Council. See *ATDS Yearbook 1938-39*, ATDS: 177/4/4/7, pp. 25-27.

¹⁰¹ ATDS: *Minutes of Executive Committee*, ATDS: 177/1/1/5 (5 July 1930), p. 140; (7 Feb. 1931), p. 168.

¹⁰² ATDS: *Minutes of Executive Committee*, ATDS: 177/1/1/5 (5 Dec. 1931), p. 201; *ATDS Yearbook 1932-33*, ATDS: 177/4/4/4, p. 19.

¹⁰³ ATDS: *Minutes of Executive Committee*, ATDS: 177/1/1/6 (14 Oct. 1933), (agenda); (9 Dec. 1933).

¹⁰⁴ According to Simon Goodenough, the WI movement was a 'practical sounding board' for ministerial and governmental decisions. Simon Goodenough, *Jam and Jerusalem* (Glasgow: William Collins & Sons, 1977), p. 22; *Minutes of Executive Committee*, ATDS: 177/1/1/5 (4 July 1931); 177/1/1/6 (2 Feb. 1935).

Ethos and Image

It gives me the greatest pleasure
 That you have asked me to speak tonight
 The Toast is 'To the College'
 So I thought perhaps I might
 Find out a little bit about it.
 Not being a London Graduate
 I am unable to understand
 Why this dinner is not in Gower Street
 Or that College in the Strand.¹⁰⁵

he failure of the household science movement to establish an academic 'territory' reflects also uncertainties about its ethos and image. As the above quotation illustrates, KCHSS lacked a positive public image or, in some quarters at least, *any* public image at all. KCHSS was highly sensitive about its image and sought incessantly to court favour with women educators and to publicize its work. The college sent specially-prepared copies of its prospectuses to headmistresses of top girls' schools, and cultivated members of the Head Mistresses' Association, inviting them to tea or offering to host their meetings.¹⁰⁶ Similar invitations were extended to the Girton and Somerville Old Students' Associations.¹⁰⁷ Apparently these efforts did have some effect--Arthur Smithells wrote to Reynard in 1928 that 'the current in headmistressdom is turning strongly our way ...'.¹⁰⁸ The college also invited headmistresses of London's

¹⁰⁵ Dillon, 'QEC in Song', p. 2.

¹⁰⁶ ECM, KCHSS: QA/C/M3 (3 July 1924), pp. 80-81; (6 Nov. 1924), p. 120; QA/C/M4 (9 Nov. 1926), p. 20.

¹⁰⁷ *Hostel Committee Minutes*, KCHSS: QA/HC/M3 (18 Nov. 1925), pp. 86-88.

¹⁰⁸ Smithells to Reynard, 7 Dec. 1928, KCHSS: QA/CC/50.

top girls' schools and the heads of women's university departments to the annual garden party in 1927, an event designed as a propaganda exercise: 'labs should be open and exhibits put out to show the work of the department.'¹⁰⁹ Attempts were also made to control publicity about the college. In 1928 a request from a film company to film in the teaching kitchen was granted with the proviso that the film should depict the 'scope of work done in the college'.¹¹⁰

The college was nevertheless unable to shake off the 'domestic science' tag--a problem which undermined its credibility throughout the period. Before her appointment as head of the physics department in the early 1920s, Theresa Dillon recalled only knowing of KCHSS as 'that place where they do Cooking'.¹¹¹ A small note in the *Sunday Times* in 1931 mused:

The annual report of [KCHSS] is just published. Herein the reader will not find as might be expected that the degree of B.S. in Household and Social Science comes as the successful climax to a training in the housewifely duties and the accomplishments required in society. In the biology department, on the contrary, it will be found ... that a student has published a paper ... entitled "Seed Dispersal from the Hygroscopic Fruits of *Mesembryanthemum Corpanthea* (*Mesembryanthemum pomeridiana* N.B. Br.". This student, justly it is felt, was awarded the M.Sc. ¹¹²

¹⁰⁹ *House Committee Minutes*, KCHSS: QA/HC/M3 (4 May 1927), pp. 20-22.

¹¹⁰ ECM, KCHSS: QA/C/M4 (13 Mar. 1928), p. 276; (15 May 1928), pp. 286-288.

¹¹¹ Dillon, 'Physics Department', p. 1.

¹¹² 'Science: Domestic and Otherwise', *The Sunday Times* No. 5623 (18 Jan. 1931), p. 19b.

The college demanded (and received) an apology.¹¹³ Even as late as 1942 Helene Reynard was obliged to write a strong letter of protest to the Women's Employment Federation about a WEF publication which referred to KCHSS as a training college:

We are not a Training College within the meaning of the act nor indeed in any respect, and the inclusion of our name under [the heading] Training College gives a totally misleading impression. This is a really serious matter for us, and unless this college can rely upon accurate information being given to your members about our work it might be better for us to resign our membership.¹¹⁴

The mistake was understandable, however, as KCHSS did advertise itself as preparing domestic science teachers--even if did not teach the required pedagogic element--and was listed in the *Girls' School Year Book* (which gave information about careers for girls) under 'Domestic Science Teaching' throughout the period.¹¹⁵

The existence of non-academic courses alongside the household science B.Sc. undoubtedly contributed to the college's 'domestic science' image. The One Year Special (OYS, nicknamed the 'Brides' or 'Debutantes' course) was particularly damaging. Begun in 1916, the purpose of the course was to give students the opportunity 'to obtain an understanding of domestic matters and to prepare themselves for the efficient management of their own homes'.¹¹⁶ Originally the OYS syllabus

¹¹³ ABM, KCHSS: QA/AB/M3 (20 Jan. 1931), pp. 460-462; (24 Feb. 1931), p. 466.

¹¹⁴ The error had been made in the literature since 1939. Helene Reynard to Mrs. D.L. Wise, 17 June 1942, KCHSS: QAP/GPF7/34.

¹¹⁵ See *GSYB 1916-1939*.

¹¹⁶ 'Memorandum on One Year Special Course', ECM: QA/C/M4 (14 Feb. 1928), p. 1; *Special One-Year Course in Household Science*, KCHSS: QEPH/SYL12 (1939-40), p. 2.

provided approximately ten hours per week in 'household management' and twelve hours in other subjects (social economics, business affairs, general elementary science, physiology, hygiene, elementary biology and bacteriology). Yet most of the OYS students found even the most elementary science difficult and failure rates were high.

One report on the course noted:

[T]he majority of students who joined [the OYS] Course were of poor mental calibre and quite lacking in concentration; ... they absented themselves from afternoon classes without leave whenever social engagements attracted them at home or elsewhere and ... only a very few each year took the examinations. This year, for instance, out of 27 who joined the Course, only 14 entered for the Final Examinations in all subjects and only 4 of these were successful in obtaining their Statements.¹¹⁷

In reconsidering the syllabus the administration decided to eliminate the courses in social economics, physics, chemistry, biology (one term) and household bacteriology, and replace them with new courses in first aid, needlework, 'household science' and additional cookery instruction.¹¹⁸

The revised OYS syllabus effectively produced a doubling of student intake within two years, but the erosion of science in the curriculum precipitated a strongly-worded private letter from Maud Taylor who believed the course was damaging the college's reputation:

¹¹⁷ 'Memorandum on One Year Special Course', ECM, KCHSS: QA/C/M4 (14 Feb. 1928), append. p. 257; 'Report From the Academic Board, *One Year Special Course*', KCHSS: QA/C/M4 (2 July 1929), append. p. 511.

¹¹⁸ 'One Year Special Course', ECM, KCHSS: QA/C/M4 (13 Dec. 1927), append. p. 225.

The course does not seem worthy of K.C.W. & obviously is tolerated only because it means money. ... It offers a less thorough instruction in practical arts than that given in the D[omestic Sc[ience] schools & nothing to make it more worthwhile. ... Perhaps the main weakness lies in the fact that the O.Y.S. student is expected to have the attitude of mind generally credited to a university student while really she is only a *senior* school girl domiciled in a university building. ... How I hate destructive criticism & given the opportunity I could be constructive!! but I venture to air these criticisms in the hope that something more worthy of K.C.W. may be evolved. I am well aware that the present resources of space & teachers are taxed to the full but these difficulties must be met rather than have a course which provokes an outside criticism that those of us who know & love K.C.W. have to own is more than justified.¹¹⁹

Short courses such as the OYS, Institutional Management, and Applied Science did, however, provide much-needed revenue and KCHSS could hardly hazard losing income for the sake of principle alone. At the end of the 1920s, these three courses catered on average for about 42% of KCHSS's student population each year, although this proportion decreased over the next decade to 29%. [TABLE 6.3] The Institutional Management course, which followed the first two years of the degree syllabus, came under fire from the Inspectors of Teaching and Equipment in 1926.¹²⁰ It was 'crowded and incomplete, with too little emphasis on the scientific basis of the [practical work]' and produced students who could be regarded as 'cheap substitutes' for the B.Sc. graduates in management posts.¹²¹ KCHSS's administration reviewed the course in response to the inspectors' suggestion that it be discontinued, but in the end no changes

¹¹⁹ Taylor to Reynard, 24 June 1929, KCHSS: QA/CC/77.

¹²⁰ 'Report of the Institutional Management Sub-Committee Meeting', ECM, KCHSS: QA/C/M3 (8 Dec. 1925), append. p. 369, p. 1.

¹²¹ 'Report of Inspectors' (1926), p. 3.

were made.¹²² Although the Applied Science course was abandoned in 1934, the OYS and Institutional Management courses remained popular throughout the period.¹²³

The name of the college itself also contributed to the 'domestic science' image. Other London colleges--the London School of Economics or the Imperial College of Science & Technology--found that their association with a specialized field helped to establish a positive college identity. Household science, by contrast, had pejorative connotations. KCHSS continued to be known colloquially as 'King's College for Women', subverting its efforts to establish an identity of its own within the University of London. Arthur Smithells told Warden Helene Reynard in 1930, 'I find myself telling taximen to drive to "King's College for Women" or "that College in Campden Hill Road"'.¹²⁴ The use of the discipline name for the institution came under fire from various quarters. A *Times* editorial suggested in 1913 that the name (then the H&SS Department) be changed to something less utilitarian:

¹²² 'Sub-Committee on Inspector's Recommendations', ECM, KCHSS: QA/C/M3 (8 June 1926), append. p. 497, p. 2.

¹²³ ABM, KCHSS: QA/AB/M4 (23 Oct. 1934), p. 346.

¹²⁴ Quoted in Marsh, p. 196.

Why then call it a department, and why, in addition, burden its name with the task of explaining that it exists for the purpose of giving instruction in household and social science? That, once the college was well under weigh, would be understood, just as everyone knows the subjects that are taught, for instance, at Caius College, though it is not described as a Classical, Mathematical, Divinity, Science, and Medical Department of the University of Cambridge. ... It is impossible for a "Department" to arouse in its *alumni* the personal and corporate pride and affection that is characteristic of members of a college at Oxford or Cambridge. ... We venture to suggest that it would be likely to serve the purpose for which it is intended more efficiently, and be more in keeping with the university spirit which the Royal Commissioners wished to see in London, if, with the gracious consent of HER MAJESTY, ... it could be called "Queen Mary's College."¹²⁵

Arthur Smithells fought a brief campaign to have the name changed to 'Queen Mary's College' in the late 1920s, and used this title in his correspondence until East London College became Queen Mary College in 1934.¹²⁶ However, it was only in 1953 that the decision to admit men prompted a renaming of the college to eliminate the 'domestic' image. Patty Fisher, an old student of KCHSS (1924-27) has pointed out the irony of exchanging a new 'feminine' name (Queen Elizabeth College) for the old 'masculine' one at precisely that moment.¹²⁷

KCHSS's institutional problems went beyond mere image and labels, however. The college does not seem to have imparted to its students much sense of the social purpose and potential of household science. Few students recorded memories of having

¹²⁵ 'Reprint from Leading Article published by *The Times*, 19th June, 1913', in Appeal Brochure, *Department of Household and Social Science, King's College for Women*, KCHSS: KAS/AC11/F1 [n.d., c.1913], p. 2.

¹²⁶ Marsh, p. 196.

¹²⁷ Marsh, p. 196; Patty Fisher, 'Toast to the College', PJF [n.d.], p. 2.

been encouraged to develop an interest in politics or current affairs. Some refer to the presence of Ishbell MacDonald as their only stimulus of a 'political' nature. Edna Allen (1922-25) wrote:

As far as I can remember ... we were not very interested in politics although we had Ramsay MacDonald's daughter Ishbell with us in our first year. I remember being invited to 10 Downing Street for coffee one evening as he was then Prime Minister.¹²⁸

For Anne Biss (1923-27), too, recollections of Ishbell MacDonald merged with discussions of the General Strike and a mock election.¹²⁹ Other students may, of course, have been more politically engaged. The household science B.Sc. did include economic history and the college had a sub-branch of the League of Nations Union. The 'social reform' implications of the discipline were familiar enough to be satirized in college 'entertainments':

MISS DESICCATED EDWARDS: I'm giving a demonstration on how to create a four-course dinner. You see in the bottom (pointing to the steamer) is the soup. On the next floor you put the meat to be steamed. Above that you have your vegetables. On the fourth storey you cook your fish. The fifth floor contains the pudding.

LORD LOVADUCK: I see, and the savory goes into the servant's bedroom in the attic.

DEAN: Such an instructive example of the evils of tenement housing.

MISS VINEGAR OIL: So terrible to have the savory in the servant's bedroom, poor thing.¹³⁰

Students who chose the social work option in the third year perhaps received a more thorough education in the 'social reform' ethos that had characterized the early years of the discipline. But Vera Mason (1917-1920) recalled:

¹²⁸ Strange (née Allen) to PJF, 14 Sept. 1976, p. 4.

¹²⁹ Biss MS (PJF), p. 1.

¹³⁰ 'Staff Entertainment', p. 41.

The only link with the community that I can think of was with a settlement at Rotherhithe to which we went during our third year to get insight into the practical side of social work. We attended clinics & in pairs went out visiting with the social workers attached to the Settlement.

I remember feeling myself very lucky that I and my partner (Norah Horobins) were on one occasion taken visiting in Chinatown, but I believe this was considered dangerous by the authorities (there had been various murders in the district) & no other students went there. Once a year we entertained the Settlement women to a party at the College & gave them all bunches of flowers to take home with them. A deputation of students used to visit Covent Garden Market in the early hours of the morning to get them.¹³¹

This lack of interest in political and social issues was apparently not confined to KCHSS--according to Caroline Bingham, Royal Holloway students had the reputation of being 'politically apathetic' in the interwar period, whereas before 1914 students debated in a college parliament and participated in the suffrage campaign.¹³²

Apart from arranged visits to sewage works and settlements, however, there were one or two faculty members who made efforts to awaken interest in the social implications of household science. Vernon Mottram had inspired several generations of students to undertake further work in dietetics and nutrition, both by direct encouragement and by his own involvement in popularizing nutritional research. Philippa Esdaile's own biology interests were directly related to problems encountered in a domestic setting (she was the author of a two volume work on household bacteria and other pests). Anne Biss (1923-27) recalled that Esdaile strove to make her work relevant to 'the outside world' and that she may have 'sown the seed of a social

¹³¹ KCHSS's links with the Rotherhithe settlement continued until 1939. Marsh, p. 162; Vera Mason to PJF, 17 Mar. 1977, p. 2.

¹³² Bingham, pp. 136-137.

conscience in some of us'. However, other members of staff, she noted, seemed concerned 'first and foremost' with their own individual disciplines.¹³³

Students themselves took the initiative in 1931 in attempting to give the college a more positive image when they suggested that it should adopt a coat of arms and motto.¹³⁴ But this request merely brought to light internal division of opinion about the purpose of the college and whether the motto should emphasize the 'household' or the 'social' or the 'science' theme. The following suggestions were put forward by students:

Pro aris et focis (For altars and hearths)
Vincit qui se vincit (He conquers who conquers himself)
Finis opus coronat (The end crowns the work)
Est quod est (What is, is)
Flammis adolere Penates (To fill the hearth with sacred fires)
Nil Desperandum auspice Deo (Never despair while God protects)
Nemo sibi vivat (Let no one live for himself alone)
Ex fumo Lucem (Out of smoke (to bring) the light)
Focus Ara Domestica (The hearth is the altar of the home)¹³⁵

The last three suggestions were chosen by the Executive Committee for balloting. Of these, one (*Focus Ara Domestica*) gave a strong domestic message, whilst *Nemo sibi vivat* was more in keeping with the social reform ideals of the early movement; the third, *Ex fumo Lucem*, was more ambiguous: it could be taken as a reference to science, as a reference to the hearth (which was the symbol chosen for the coat of arms) or as a

¹³³ Biss MS (PJF), p. 3.

¹³⁴ ECM, KCHSS: QA/C/M4 (8 Nov. 1927), p. 210.

¹³⁵ ECM, KCHSS: QA/C/M5 (9 June 1931), p. 349.

metaphor for social reform. In the first round, there was virtually a three-way split, with *Ex fumo Lucem* and *Focus Ara Domestica* receiving four points each and *Nemo sibi vivat* receiving three. The latter was dropped and a further ballot held between the remaining two mottos, but the committee was now split down the middle, with each receiving eleven votes. Impasse was reached and Arthur Smithells proposed that the motto decision be postponed. The issue was never resurrected.¹³⁶

Lack of a sustained leadership also affected the development of a clear college ethos, particularly in the early period. KCHSS did not have the benefit of the long-serving, devoted leaders that many other women's colleges enjoyed in their formative years, such as Constance Maynard at Westfield or Emily Davies at Girton, although its early wardens were all well-educated and progressive. Lilian Faithfull was responsible for transforming KCW into a modern women's college on a par with Westfield, Bedford, and Royal Holloway. One student wrote:

[...] Miss Faithfull appeared on the scene, and a revolution took place. Somehow she collected a body of students, she started clubs--she introduced us to Browning, made us take interest in politics, taught us hockey and in due time, tennis, sculling and bicycling and tennis; she started the Guild and took us down to act at the Girls' Club in Stratford; and best of all, she inspired us with her own zest for work and for play and her own belief in "the college." And thus [KCW] became indeed a college, imbued, I think from the first, with something of the true University Spirit.¹³⁷

¹³⁶ ECM, KCHSS: QA/C/M5 (7 July 1931), pp. 354-355; (6 Oct. 1931), p. 370; Marsh, pp. 77-78.

¹³⁷ E.J. Morley, 'Reminiscences by the First Editor of the Magazine', *King's College Magazine* LII, KCHSS: KW/EPH5 (Michaelmas 1914), p. 12; Marsh, p. 18.

Faithfull's torch passed on to her fellow Somervillian, Hilda Oakeley in 1907; yet the H&SS Department's split from KCW in 1914 (and its subsequent uprooting to Campden Hill) meant the loss of both Oakeley's committed involvement with household science and KCW's collegiate identity. Oakeley's successor, Frances Rosamond Shields, (also a philosopher), was a promising choice for shaping the new institution, according to a testimonial from Constance Maynard, Principal of Westfield:

I confess it struck me at first as 'inappropriate' that she should have anything to do with 'Household Science' as I always hoped she would end by being the Principal of one of our University Colleges--an aspiration I have had for no other student; but I now see the place (i.e. the Department) as a great one and worthy of the best.¹³⁸

In the end, however, Shields' influence on the college proved to be marginal, as she resigned after only two years.

Janet Lane-Claypon, appointed Dean in 1916, was the most forceful of the interwar leaders and understood the need to create links between the new discipline and various professions. Her experiences in the child welfare movement and health visiting had given her a vision of household science's potential in the study of social welfare issues, and the college's early efforts to develop in this field coincided with her administration, as did the achievement of degree status for the household science course.¹³⁹ [PLATE: 9] Lane-Claypon's leadership was frustrated, however, by personal differences with the chairman of the Executive Committee, Sir Edwin Cooper Perry, Dean of Guy's Hospital Medical School (1888-1893) and Principal of the University of

¹³⁸ Quoted in Marsh, p. 61.

¹³⁹ *Annual Report 1922-23*, KCHSS: QEPH/4PT1, p. 2.

London (1920-26). It was essentially a power struggle--Cooper Perry was notoriously difficult, and was described by Atkins as 'a despot' and a 'master of biting sarcasm'.¹⁴⁰

It is likely, too, that Cooper Perry and Lane-Claypon disagreed over the direction she was taking the college. According to his daughter, Cooper Perry's interest in the course was essentially conservative:

Daddy was so interested in his pet (KCW) and I believe in his heart of hearts really believed that most women should be good housekeepers ... I believe that is why he loved your College.¹⁴¹

Lane-Claypon's successor, Lydia Henry, was also a medical woman: she was the first woman to take the Bachelor of Surgery degree and had also worked in the field of maternity and child welfare as a local authority medical officer in Blackburn.¹⁴² Henry was also a promising dynamic leader, according to one testimonial:

[Henry] is mistress of her profession and full of energy. Almost more important for your purposes perhaps, she is full of human sympathy.... Personally she is a bright interesting woman, cheerful and enjoying life, Scotch, with a Scotch tradition of education and energy.¹⁴³

Unfortunately, her administration was wholly preoccupied with the financial crisis of 1923 and the threatened merger with King's College (Strand); she resigned in 1925 to join her husband in Canada.

¹⁴⁰ Atkins, 'Notes on QEC', p. 14.

¹⁴¹ Quoted in Marsh, p. 68.

¹⁴² Marsh, pp. 74-75.

¹⁴³ Quoted in Marsh, p. 74.

Helene Reynard's administration (1925-45) provided the continuity in leadership that was lacking in earlier years, and her wardenship did see several important developments, namely the reinstatement of the Group III option for 'social workers within the B.Sc. course and the inauguration of the dietetics diploma. [PLATE 10]

Although well-educated and experienced, Reynard was, nonetheless, perhaps stronger on the administrative side than on vision. A graduate of Girton (Moral Sciences, 1893-97, Cl. II), she served as Junior Bursar at Girton (1904-13), as director of her family's woollen mill in Bradford (1913-22), and as Treasurer, Secretary and Member of Council at Somerville (1922-25) prior to her appointment to KCHSS.¹⁴⁴ Reynard's publications--*Business Methods and Secretarial Work for Girls*, *Institutional Management and Accounts*, and *What is a Balance Sheet?*--reveal a rather practical bent which contrasts with the earlier philosophical outlook of Faithfull, Oakeley and Shields, and the public health interests of Lane-Claypon and Henry.¹⁴⁵ Reynard had, however, inherited a well-established degree course, and the administration as a whole were content to work within the status quo: student numbers had stabilized and were steadily growing, graduates had seemingly abundant employment opportunities, and college finances were again on a solid footing. The process of institutionalization--with the accompanying preoccupations with various phases of building and internal discussions over course details--had thus served to moderate the progressive zeal of the Edwardian years.

¹⁴⁴ *Girton College Register* (1946), p. 642.

¹⁴⁵ H. Reynard, *Business Methods and Secretarial Work for Girls* (Pitman, 1912); *Institutional Management and Accounts* (Longman, 1934); *What is a Balance Sheet?* (Faber, 1937).

Personalities aside, the college's ability to sustain the social reform ethos of the Edwardian period was largely circumscribed by problems of recruitment. KCHSS's 'domestic science' image made it difficult for it to compete with other women's colleges for high-calibre science students. A letter written by Helene Reynard to Arthur Smithells in 1928 about a proposal to institute remedial mathematics tutorials for weak students illustrates the administration's anxiety about recruitment and its effect on public opinion:

As regards "what people will think of us," I wish we could really afford to disregard it. In some respects I quite agree that we must disregard it. But there is one aspect of the question which worries me. That is the fact that Headmistresses will send their bright girls in for other subjects, while considering the "duds" good enough for us. I think this tendency is diminishing, but I am anxious for that reason not to do anything that looks like lowering our standards. Ever since I have been here we have been asked on all sides to produce good people. There are interesting and well paid posts going all the time and people are turning to us more and more for candidates. And then, if we have not the candidates, it is generally because the [students] who come to us have not the brains or personality. I naturally would not wish to noise this abroad, but I am convinced that there is a great future for us if we can only appeal to the really capable, enterprising and energetic girl.¹⁴⁶

The Academic Board refused to introduce a special course but offered individual coaching instead; approximately 40% of students availed themselves of the extra tuition.¹⁴⁷ The difficulties of competing with other women's colleges was compounded by the vagaries of standards in science education in girls' schools in the period. Students had to reach matriculation or its equivalent in order to be admitted to the course, but there was no requirement that students achieve passes in science subjects;

¹⁴⁶ Helene Reynard to Arthur Smithells, 6 Dec. 1928, KCHSS: QA/CC/50, p. 2.

¹⁴⁷ Minutes of Academic Meetings, KCHSS: QA/AM/M2 (27 Feb. 1934), (26 Feb. 1935); QA/AM/M3 (20 Dec. 1938).

consequently many students had to start four new science subjects from scratch in the first year. Failure rates were high, particularly in the first year when anywhere from 30-50% of the students failed. [TABLE 6.4] Prospective students were urged to prepare themselves in science and mathematics, but apparently to little effect: in 1939--despite its earlier refusal to do so--the Academic Board agreed to institute a remedial class in elementary mathematics for first years in conjunction with the physics course.¹⁴⁸ The possibility of offering more entrance scholarships as a means of increasing the quality of the students was also mooted several times, but this was never given priority in the college's finances.¹⁴⁹

Given the problem of recruitment it appears that in the interwar period the administration came to emphasize the importance of providing its students with a good general science education over training them for an active life in social reform. Indeed, discussions over the high failure rates amongst the first-year students in 1929 (32%) reveal that the administration believed that it was providing a valuable service for the less-able woman student. One report pointed out that KCHSS's lenient admissions policy did have a positive side:

¹⁴⁸ ECM, KCHSS: QA/C/M4 (4 Dec. 1928), p. 388; (5 Feb. 1929), pp. 418-420; ABM, QA/AB/M5 (17 Jan. 1939), p. 424; 'Statement by Miss Dillon on Mathematics Preparation', ABM, KCHSS QA/AB/M5 (14 Feb. 1939), p. 446.

¹⁴⁹ ECM, KCHSS: QA/C/M5 (14 Jan. 1930), p. 74-75.

[I]t should be borne in mind that many of the students who enter for the degree course have done no science at school; these are, as a rule, the candidates who fail, and although they may have to take two years over the Intermediate work, it is a great benefit to them to spend this time studying science in a university college. The committee understand that no student has failed in her second attempt. ... The sub-committee feel that some form of entrance exam should be aimed at, but, if this policy were adopted, it would mean the rejection of those who do well at a four-year course despite having had no science at school.¹⁵⁰

Comparisons of failure rates in the intermediate science exams at other University of London colleges showed that a 32% failure rate was not exceptionally high, except in relation to those of Bedford and Royal Holloway, where English and science were required subjects in their entrance examinations; of the nine who had failed at KCHSS, six had not studied any sciences at school--candidates who would have been rejected outright at Bedford and Royal Holloway.¹⁵¹ [TABLE 6.5] KCHSS was thus providing women who had less opportunity to develop their scientific interests with an entry point into university and a professional life which might otherwise have been closed to them.

¹⁵⁰ 'Questions Bearing on Examination Results' ABM, KCHSS: QA/AB/M3 (17 Dec. 1929), append. p. 313.

¹⁵¹ *Ibid.*

TABLE 6.1		
Research Students at KCHSS 1919-1939 ¹⁵²		
YEAR	FULL TIME	PART TIME
1919-20	3	-
1920-21	*2	5
1921-22	*2	6
1922-23	1	*5
1923-24	1	7
1924-25	1	*5
1925-26	2	*4
1926-27	2	*4
1927-28	-	*5
1928-29	-	*4
1929-30	-	3
1930-31	-	3
1931-32	-	*4
1932-33	-	*4
1933-34	-	*4
1934-35	-	*4
1935-36	-	*4
1936-37	-	*4
1937-38	-	*5
1938-39	-	*4
<i>*including one male research student</i>		

¹⁵² Includes students working for higher degrees (Ph.D., M.Sc., etc.) and for certain higher diplomas, and also those undertaking research work though not for a degree or diploma. Compiled from UGC, 'Returns', (1919-1939).

TABLE 6.2	
Expenditure on Fellowships, Scholarships & Prizes (Percentage of Total Expenditure) 1921-1939 ¹⁵³	
YEAR	%
1921-22	2.7
1922-23	2.1
1923-24	2.9
1924-25	2.6
1925-26	-
1926-27	0.4
1927-28	0.8
1928-29	0.8
1929-30	1.4
1930-31	1.9
1931-32	1.5
1932-33	1.7
1933-34	1.7
1934-35	1.5
1935-36	1.3
1936-37	1.5
1937-38	1.6
1938-39	1.5

¹⁵³ Complied from UGC, ‘Returns’, (1921-1939).

TABLE 6.3								
Percentages of Students Entered in Various Courses By Year KCHSS 1925-39 ¹⁵⁴								
	Bsc	IM	AS	OYS	PG	ST	DD	O
1924-25	45	14	4	19	2	10		6
1925-26	42	19	4	27	1	4		3
1926-27	39	27	5	16	1	8		3
1927-28	49	23	3	12	1	7		5
1928-29	50	22	2	16	-	10		1
1929-30	54	20	2	11	-	5		7
1930-31	53	22	2	17	-	4		2
1931-32	48	4	5	17	-	5		3
1932-33	53	22	4	15	-	4	—	3
1933-34	56	20	1	12	-	4	3	5
1934-35	60	20	—	11	-	6	2	1
1935-36	60	18		11	-	4	6	2
1936-37	63	20		7	-	4	4	1
1937-38	62	19		9	-	6	3	1
1938-39	63	19		9	-	6	3	1
IM Institutional Management (2 year) AS Applied Science (1 year) OYS One-Year Special (Brides' Course) PG Post-Graduate ST Sister Tutors DD Dietetic Diploma (not incl. preliminary course) O Occasional Students								

¹⁵⁴ *Annual Reports 1924-25 - 1939-40, KCHSS: QEPH/RPT2-RPT17.*

TABLE 6.4			
Examination Failures in B.Sc. Exams			
Special Intermediate, Finals Parts 1 & 2			
(Percentages)			
KCHSS 1925-1939 ¹⁵⁵			
YEAR	FIRST EXAM (Special Intermediate)	SECOND EXAM (Final Pt. 1)	FINAL (Final Pt. 2)
1925	24	14	13
1926	30	42	6
1927	20	7	13
1928	33	11	7
1929	32	22	6
1930	19	13	5
1931	34	25	5
1932	24	18	-
1933	29	6	4
1934	30	8	3
1935	40	14	3
1936	30	11	15
1937	37	14	14
1938	50	6	8
1939	30	8	2

¹⁵⁵ *Annual Reports 1924-25--1939-40*, KCHSS: QEPH/RPT2-RPT17.

TABLE 6.5					
Failure Rates in Intermediate Examinations in Selected University of London Colleges, 1929 ¹⁵⁶					
COLLEGE	TOTAL	PASSED	REFER	FAIL	% FAILED
King's (Strand)	41	23	1	17	41.4
Birkbeck	49	21	8	20	40.8
KCHSS	28	17	2	9	32.1
University	85	47	11	27	31.8
East London	19	13	-	6	31.5
Bedford	32	24	3	5	15.6
Royal Holloway	24	19	2	3	12.5

¹⁵⁶ 'Special Intermediate Examinations, 1929', ABM, KCHSS: QA/AB/M3 (17 Dec. 1929), append. p. 313.



PLATE 9. KCHSS Degree Students, 1920, in front of the Teaching Kitchen (Janet Lane-Claypon, centre front)



PLATE 10. Helene Reynard, Warden, King's College of Household & Social Science 1925-1945

• CHAPTER 7 •

FOCUS ARA DOMESTICA: COLLEGIATE LIFE

Once upon a time there was a College that stood on a hill and had a very muddy drive, and some very nice labs. ...[A]nd in the College there were many young ladies who were all very charming, and had to work very hard, though no one would ever believe them when they said so.¹

The preceding chapters have examined the various factors which thwarted the development of household science as a university discipline in the interwar period. Yet although household science had limited success as a discipline, KCHSS flourished as a collegiate institution. Historians of women's higher education have recognised the significance of collegiate life in a student's overall experience at university--after all, the value of higher education extends beyond mere academic work and the passing of examinations.² For women especially in these generations its function was often not to provide straightforward training for a career but rather preparation for a life that might take various directions. This chapter draws on the testimony (oral and written) of former KCHSS students in an attempt to evaluate the college's record in creating a positive experience for its students and empowering them in later life. The first section gives a profile of the student population and explores motivations for choosing the household science course. The second section examines institutional life at KCHSS,

¹ 'Simple Stories--The Professor', *The King's Minstrel*, KCHSS: [uncatalogued] (Mar. 1930), p. 20.

² See, for example, Vicinus, *Independent Women*, p. 124.

whilst the final section focuses on students' experiences of the household science course and its impact on their lives.

Portrait of the Student Population

They're our Hope and Glory
Those who take our degree
Others come here for one year,
They are with us for three ...³

The main thrust of analysis so far has been on the B.Sc. degree course, but any discussion of KCHSS's student population must take into account the large numbers of students enrolled in non-university courses. The B.Sc. students comprised on average approximately 53% of the student population in any one year, although by the second half of the 1930s this proportion increased to approximately 62%.⁴ Other students took one of the many one- or two-year courses offered at the college in the interwar period, including the health visitors' courses, the post-graduate diploma, the one-year applied science course for domestic science teachers, and the popular One Year Special, which made up on average approximately 14% of the student body per year. Other popular courses included the sister tutor's course (approximately 6%) and the two-year institutional management course, which provided a shorter household science-based course for those intending to work in occupations for which the B.Sc. was not a distinct

³ Dillon, 'QEC in Song', p. 1.

⁴ See TABLE 6.3 above, p. 333.

advantage, such as hotel management or catering.⁵ These students comprised approximately 20% of the total student intake.

Like Bedford College, KCW had originally provided lectures for a local clientele; however, with the erection of the new buildings in Campden Hill it became possible to accommodate 63 residential students and thus to recruit from further afield.⁶

In the inter-war period approximately 38-47% of full-time students came from within a thirty-mile radius of the college, a figure which may have been inflated by the number of local students taking the shorter courses. KCHSS also attracted a number of students from around the empire, a proportion which grew from 2.8% in 1920-24 to its peak of 7.7% in 1925-29; other foreign students constituted less than 1% of the total throughout the interwar period. [TABLE 7.1]

As the premier household science institution in Britain (indeed the only one until 1927), KCHSS drew students from across the country--a pattern of recruitment comparable with the Oxford and Cambridge women's colleges. Of the B.Sc. students in the database sample, approximately half came from London and the southeast in the inter-war period. [TABLE 7.2] The proportion coming from London itself, however, was only 10.9% in 1910-19 and 21.6% in 1920-29, thereafter declining to just 10% by the end of the 1940s. The northern counties (Yorkshire, Cumberland, Westmoreland,

⁵ The course generally followed the same syllabus as the B.Sc. course but was condensed into two years.

⁶ KCW, situated in Kensington Square, did have residential accommodation from 1897, and eventually purchased a house in nearby De Vere Gardens which accommodated 24 students. Marsh, pp. 6, 32.

Northumberland, Durham and Lancashire) provided the next largest group, increasing from 15.2% in 1910-1919 to 21.1% in 1930-39 (albeit with a dip in the 1920s). The proportion of students coming from the Bristol area (Gloucestershire, Somerset, and Wiltshire) which stood at 6.5% in the 1910-1919 period, dropped to just 1% in the 1920s, no doubt owing to the competition afforded by Bristol University's Domestic Science B.Sc. course.⁷ It is likely, too, that the presence of highly-regarded domestic science institutions in Scotland (the Glasgow & West of Scotland and the Edinburgh College of Domestic Science, also known as Atholl Crescent) siphoned off a number of Scottish students who might otherwise have chosen KCHSS. The proportion of Scottish students remained small (less than 2% over the forty-year period) compared with the proportion coming from Wales (between 4-5%), where there were no domestic science institutions of a comparable standard.

There was a gradual lowering of the average age of admission for B.Sc. students over the interwar period. In the 1920s approximately 46% of students were 19 or over, a proportion which declined to just 28.2% in the 1930s. [TABLE 7.3] The relatively high median age in the 1920s may have been due to the effects of the war. According to Vera Mason (1917-1920), many of her fellow students chose household science as a career training following wartime experiences:

⁷ See above, pp. 275ff.

I first entered [KCW] ... as a student in October 1917. I had only recently left school, but World War I had been in progress for about three years and I think because of this we had students of more varied ages and backgrounds than would otherwise have been the case. A good many girls who in the pre-1914 years would have left school just to become "the daughter at home" were now feeling that they wanted to have a career of their own. Some had been in the women's services and in my own year we had a war widow, rather older than most of us, who was setting out to make a new life.⁸

The proportion of students who were 18 at admission increased slightly from 41.3% to 48% over the interwar period, whilst the proportion of students entering college at the age of 17 increased from 11.5% to 22.4%. This latter group, many of whom may not have completed the sixth form at school, may account for the high failure rates amongst first years in the B.Sc. course.

College records relating to early household science students suggest that KCHSS students' backgrounds were very much like those attending other women's colleges of the period. Details of students' schools and father's occupations recorded for the period 1908-1913 (the only years for which such data exist) reveal that out of a total of 32 students, 12 came from academically-ambitious girls' secondary schools, such as the public boarding schools Cheltenham Ladies' College, Godolphin, Wycombe Abbey, St. Margaret's (Bushey) and Queen Anne's (Caversham), or the public day schools such as NLCSG, and the Worcester, South Hampstead, and Croydon High Schools.⁹ As might be expected given the cost of attending these schools, these students came from

⁸ Mason MS (PJF), (17 Feb. 1977).

⁹ See Janet Howarth, 'Public Schools, Safety-nets and Educational Ladders: The Classification of Girls' Secondary Schools, 1880-1914', *Oxford Review of Education* 11:1 (1985), pp. 65, 70-71. *Student Record Books*, KCHSS: KWA/REC3 & KWA/REC4.

the middle class, according to fathers' occupations. Of those 25 for whom fathers' details are recorded, 11 worked in various professions (accountancy, civil engineering, education, army, church, civil service, law, and a 'literary man'); the rest could be classified as working in industry or commerce (including timber, mineral, cotton, marble, and seed merchants, and a grocer, builder, and bank manager). It is difficult to be sure of the status of some of these fathers, but the social mix--extending from lower- to upper-middle classes--appears to be typical of other women's colleges of the period. KCHSS did attract a number of students from prominent families, notably L. Hilary Bonham-Carter (daughter of Col. Hugh Bonham-Carter), who was a student in 1919-22, and Ishbell MacDonald, who began the degree course shortly before her father, Ramsay MacDonald, became Prime Minister.¹⁰ There is no evidence to suggest that the social background of students changed significantly in the interwar period, although individuals viewed the social mix from different perspectives. Elsie Hedin, Pamela Harrison, and Hazel Broughton, all students from the late 1930s, recalled that students all seemed to have had similar educational and social backgrounds.¹¹ Barbara Glascock (1935-38) observed, however, that students came from widely different backgrounds and parts of the country, and Sheila McCloy (1938-41) commented that the students were 'unsophisticated young women mostly from provincial backgrounds'.¹²

¹⁰ Ishbell did not complete the course because of the demands of social events at Downing Street. Interview with E.M. Marshall, 7 May 1993.

¹¹ Harrison MS (NLB), p. 7; Hedin MS (NLB), p. 1; Broughton MS (NLB), 25 June 1993, p. 3.

¹² McCloy MS (NLB), p. 1; Glascock MS (NLB), 2 July 1993, p. 4.

What motivated students to opt for KCHSS and household science in the early twentieth century? According to Mamie Olliver (1923-26), students generally fell into two categories--those who had chosen the course because of its scientific nature and career prospects, and those who were undecided about pursuing a career:

[S]everal of those [on the degree course] ... were, I would say, probably were women who came to get a general scientific background for running a home; that was much more the case than taking it up as the background of a career. On the other hand there were several who were really like myself--wanting to make a career for themselves in something or another. [O]ne of the most outstanding was Hilda Bruce, who became ... [an outstanding physiologist] ... --well we were both more interested in the purely scientific aspect.¹³

Joyce Griffiths (1939-43) noted that there was a gradual shift in the numbers of women taking the course with definite career aspirations:

In its early days the College was started with the aim of training people to teach household science and to raise the status of the subject. It had, however, partly developed as a "finishing school" for well-to-do girls to go after the sixth form at school. ... In 1939 some of us, including myself came from less well-off families who wanted a scientific degree course, while others came because they had wealthy parents who were not sure what they wanted to do. However, the outbreak of war just before we started did thin out some of the latter.¹⁴

Hilary Bonham-Carter (1919-22) had been sent to KCHSS by her father (an acquaintance of Lady Rücker) who had wanted her 'to have some qualification to be able to earn [her] own living'. Her mother, however, was very unhappy about the decision--according to Hilary there was always a 'feeling' about it between them because her mother believed that Hilary would 'never have to earn her own living'.¹⁵

¹³ D.F. Smith, interview with Olliver, p. 2.

¹⁴ Griffiths MS (NLB), p. 1; Hilda Bassett (1939-43) also makes the same point. Bassett MS (NLB), 14 Mar. 1991, pp. 5-6.

¹⁵ Bonham-Carter MS (PJF), pp. 2-4.

As might be expected given its close association with domestic science (in the public mind at least), the household science course attracted many intending domestic subjects teachers. For one thing, a degree gave schoolmistresses a definite edge in terms of pay and promotion over those who held domestic science diplomas. Some, like Edna Allen (1922-25), were attracted to KCHSS's scientific approach to the domestic subjects.¹⁶ Hazel Broughton (1939-42) had a 'bent' towards household arts which had been influenced by her mother, who had trained as a 'Lady Cook' in the late 1890s; but she had been motivated to take a university degree by her older sisters (one had taken a first in geography at King's College Strand and one was a medical student at the Royal Free Hospital for Women), as she did not want to be the only one without a university education.¹⁷ Sheila McCloy (1938-41), a student from the exclusive Godolphin School in Salisbury who had studied chemistry and biology, had an interest in food and diet and had opted for household science after hearing about it from a retired schoolmistress in her Cornish village.¹⁸

For a number of students, including Sheila McCloy, the decision to enter KCHSS was influenced by the fact that it admitted students at the age of seventeen.

Janet Fison (1916-19) had intended to be a nurse but decided to enter KCHSS when she

¹⁶ Edna C. Allen to PJF, 14 Sept. 1976, p. 5.

¹⁷ Broughton MS (NLB), p. 1.

¹⁸ Godolphin wanted her to stay for the usual two years following the School Certificate but, having already attained an exemption from London Matriculation, she decided to leave school and enter KCHSS at the age of 17 (a decision influenced by her father, who wanted to send his two sons to medical school and who therefore did not want to pay the high fees at Godolphin for a further two years.) Sheila McCloy MS (NLB), p. 1.

was told she was too young for the nursing course.¹⁹ Barbara Glascock (1935-38), a student at the Royal School, Bath, had excelled in science and wanted to take an applied science course. Her headmistress had encouraged her to apply to both Girton and KCHSS in 1935. She was offered a place at Girton for 1936 but, as KCHSS had awarded her a scholarship for immediate entry, she chose to take it up, much to the delight of her headmistress.²⁰ Joan Jasper (1937-1940) had taken the entrance exam for Newnham and Girton Colleges, hoping to study Natural Science; however, as she was only 17½ years old, she was told that she would have to wait another year. As she had already spent two years in the sixth form (and had studied four sciences to Higher School Certificate level) her school suggested that she try the KCHSS entrance exam. She was awarded a scholarship and entered KCHSS in 1937, hoping to take up a career in either dietetics or in medical social work.²¹

Some women fell back on KCHSS after abandoning the idea of a career in medicine. Patty Jarvis (1924-27) had been fired by enthusiasm for the idea of becoming a doctor after reading a novel on the subject, but discovered that very few medical scholarships were available for women. She was encouraged to apply for a KCHSS scholarship by Eileen Monson (a KCHSS graduate of 1924), and was successful.²² Olive Clendinnen (1923-28) had wanted to study 'something to do with medicine' but

¹⁹ Janet Gilbert (née Fison) to PJF, 19 Sept. 1976, p. 2.

²⁰ Glascock MS (NLB), p. 1.

²¹ Jasper MS (NLB), p. 1.

²² Interview with Patty Fisher (née Jarvis), at Edenbridge, 7 Aug. 1989.

was advised by her headmistress at Cheltenham Ladies' College, Lilian Faithfull, to enter for the household science degree.²³ Dietetics was seen as a particularly acceptable alternative to medical training. Joyce Griffiths (1939-43) had wanted to study medicine but 'the course seemed too long and expensive and no one was very encouraging about a girl, from a non medical family getting a place and a scholarship to medical school'. Her parents encouraged her to train as a dietitian instead, an occupation which was regarded as more appropriate for women and one which conferred more status than nursing.²⁴ For some women, however, the prospect of *any* scholarship in the sciences was enough to prompt an application to KCHSS. Mamie Olliver (1923-26), who was later to become a prominent food scientist, had competed for the college scholarship for this reason:

It was partly economic necessity because in those days there were very few scholarships awarded, especially to women, and the chances of women going to the university ... [in 1923] ... were very slight compared with for instance today. ... I had an elder brother and my parents were absolutely unable to send me to college unless I got some sort of financial assistance, and the headmaster of my school said that if I went in for ... [the KCHSS] scholarship ... that I was likely to get it ... so it was partly financial aspects which determined it. As a matter of fact I loathed the domestic side of things--I really wanted to be a botanist because I was extremely interested in all aspects of plants ... but it was a case of just taking it and going there because of the chance of getting a university degree.²⁵

For other students, however, the science course offered at KCHSS had a positive appeal. By the late 1930s, when KCHSS had an established reputation in dietetics,

²³ Olive Clendinnen to PJF, 21 Apr. 1976, p. 5.

²⁴ Griffiths MS (NLB), 14 Mar. 1991, p. 1.

²⁵ D.F. Smith, interview with Olliver, p. 1.

many students went there with the definite objective of becoming dietitians. Audrey Hamilton (1939-44) had been attracted to the field after reading about KCHSS in a book on university courses.²⁶ The household science degree could be seen as a more attractive option for women who aspired to scientific careers than the traditional science disciplines. Some believed it offered a better prospect of avoiding the teaching ghetto which was often the only option for women scientists in the interwar period, although this was gradually changing during the 1930s with the growth of food processing and other commercial research opportunities. M. Veronica Scott Carmichael (1929-32), a student at Tottenham High School, had been warned by her chemistry mistress (a KCHSS graduate) against taking chemistry at university because a woman chemist would either sit in a lab all day or teach with little chance of getting promoted. She was urged to apply to KCHSS where 'the sky would be the limit'. Her headmistress, however, was not pleased with the decision: 'Not my best chemist going in for domestic science!' (The same headmistress later commented, however, on Scott Carmichael's 'interesting career' in dietetics.)²⁷ Pamela Harrison (1939-42) had enjoyed maths and science throughout her school but was by nature a 'practical type' who was interested in 'doing rather than just studying a subject'. The household science course appealed to her because of the number of science-based subjects and because she believed it would lead to a wider choice of employment and a better-paid and more interesting job.²⁸ Elsie Hedin (1936-40) had been sent to KCHSS by her father in part because he could not afford Oxford and Cambridge, but also because he regarded

²⁶ Hamilton MS (NLB), p. 1.

²⁷ Interview with M.V. Scott Carmichael, Cambridge (13 Feb. 1990).

²⁸ Harrison MS (NLB) pp. 1-2.

household science as ‘an up and coming subject’ and in line with her interest in science.²⁹

Collegiate Life

When a student isn't occupied in study,
Or in reading up her comprehensive notes,
At hockey she is getting hot and muddy,
Or on the latest theatre simply dotes.
When she's dancing with another student's brother
She's capable of having lots of fun.
Ah! Take one consideration with another
A student's lot's a very happy one.³⁰

Designated initially as a ‘department’, KCHSS was nevertheless conceived from the start as a ‘College ... of a University character’, seeking to stake an equal claim with the other women's colleges of London University.³¹ The departure of the main body of KCW for the Strand meant a chance--and a challenge--for its founders to develop a new corporate life in Campden Hill. The academic problems which beset the household science discipline did not, however, inhibit the development of a vigorous community life. Student songs and poems, characterized by a tongue-in-cheek and self-deprecatory tone, indicate a corporate spirit and confidence about their place in women's higher education.

²⁹ Hedin MS (NLB), 13 Apr. 1991, p. 1.

³⁰ ‘The Staff Entertainment’, *The Magazine of the Household & Social Science Department*, KCHSS: Q/SER5/1 (May 1920), p. 41.

³¹ ‘Appeal for £50,000’, flyer inserted in Appeal Brochure, KCHSS: KAS/AC11/F1, p. 2.

KCHSS was fortunate to have from the start its own modern, purpose-built premises--an edifice that reflected the idealism of the founders of the new discipline which was to flourish within its walls. Left with the financial burdens of the new buildings in Campden Hill following the Haldane Commission, KCHSS launched a second appeal for £50,000 in order to 'erect a College suitable in every way to the rank in the University to which the Home Science Department may now look forward'.³² According to Maud Taylor, the small fortune accumulated by Atkins meant that it would have been 'mean spirited to provide anything but the very best' in the way of facilities:

[T]he Teaching Kitchen was to excel all that had ever been built or thought of--to emphasize the importance of its mission and its linking up of the science of the Laboratories with the household--the Laboratories were to be the very best--nothing was too good, no trouble too great and no detail too small for those who spent laborious joyful days in the building of the Course and College.³³

Although the college was built of modern materials of dark red brick with stone accents, Percy Adam's choice of an Oxbridge-like quadrangle was a device often used by many new colleges as a means of appropriating the *gravitas* of more ancient institutions. Maud Taylor later recalled, however, that given the uniqueness of KCHSS the design was 'unhampered any preconceived ideas' and, although the architect had travelled to America to see college architecture there, 'the plans were not obviously altered by American ideas'.³⁴ [PLATE 11]

³² Appeal Brochure, KCHSS: KAS/AC11/F1, p. 4.

³³ Taylor, 'Small Things', pp. 35-36.

³⁴ *Ibid.*, pp. 35-36.

The new buildings received much acclaim from the architectural world, reinforcing the early optimism that greeted the birth of the household science course.

The Manchester Guardian described Queen Mary Hostel as ‘perhaps the most important building of a public character’ of 1915. The article lauded the fusion of form and function embodied in the design:

The treatment of the brickwork in windows and walls is true to the Kensington traditions, and the sheer wall of five storeys relieved only by two bays and the severely restrained use of Portland stone in cornice and carved keystones shows a breadth of handling, combined with good colour effect, which is altogether excellent. The long, unbroken stretch of laboratory windows is perhaps the severest test of an architect’s craft. Here it is most successful, because there has been no attempt to disguise the purpose of the building.³⁵

Of the original £100,000 collected by Atkins approximately £40,000 had been earmarked for scientific laboratories (the Anglesey and Henry Harben bequests).³⁶ The entire north wing consisted of laboratories, housing the Hygiene, Bacteriology, Physics, and Physiology departments on the ground floor and Biology and Chemistry on the first.

[PLATE 12] Laboratory facilities at KCHSS, described as ‘palatial’ by an early student, E.M. Marshall (1922-25), were equal if not superior to those at other women’s colleges.³⁷ [PLATES 13 & 14] Bedford College had its own purpose-built laboratories from 1890 (the Shaen Wing at York Place), but was only beginning to build new laboratories at Regent’s Park in the Edwardian period.³⁸ Westfield College did not have

³⁵ Quoted in Marsh, p. 81.

³⁶ Marsh, pp. 43-46.

³⁷ Interview E.M. Marshall, Oxford, 7 May 1993.

³⁸ Bentley, pp. 12-14, 28-32.

any purpose-built science laboratories until 1929 when a UGC grant enabled them to erect a temporary wooden hut.³⁹

The Household Arts Department dominated the west wing, with a large, arched 'Teaching Kitchen' sitting perpendicular to the main block and graced with a cupola at the eastern end, opening into the quad. On either side were smaller rooms, the 'Teaching Laundry' and the 'Teaching Pantry', which provided intending institutional administrators with experience of storeroom management. The teaching kitchen was doubled in size in 1930 and enlarged again in 1936-37, when a new housewifery room was built on the western end, the latter addition financed in part by an LCC grant.⁴⁰ Adjoining the Household Arts Department on the southern end were the institutional kitchens, scullery and pantry which led on to the Hostel. At the eastern end of the hostel was the refectory--a beautifully airy, formal dining hall with an arched ceiling supported by rows of doric columns, the site of all major college social events.⁴¹ [PLATE 15] These three sections were all completed in the initial building phase in 1913-15, but the unexpected financial burdens created by the split from KCW meant that the eastern wing, which faced Campden Hill Road, was completed only in 1923.⁴² This wing included administrative offices on the ground floor, a large public room, Courtauld Hall (donated by Mrs. Samuel Courtauld), on the second floor, and a library on the third,

³⁹ Sondheimer, p. 95.

⁴⁰ Marsh, pp. 93, 95.

⁴¹ The college did not have a chapel, although an organ was installed in the refectory in 1927. Marsh, p. 152.

⁴² Marsh, p. 87.

financed jointly by the Carnegie Trust and the UGC.⁴³ The quad was finally enclosed in 1930 with the completion of the southeast corner, which provided quarters for the warden, two new common rooms, and forty-one additional bed-sitting rooms.⁴⁴

Queen Mary Hostel rivalled the comfort of accommodation at Royal Holloway, if not the ornate grandeur of its buildings. 'The hostel was a place of great comfort and almost elegance', according to Margaret Macfarlane, a student at KCHSS in 1920-23.⁴⁵

Maud Taylor recalled:

To secure comfort for the individual--efficiency of service with a minimum of labour--to give it all a gracious setting--these were the ideals before those to whom the building of the Hostel was a dream come true. ... The dignity of simplicity has brought beauty to a building that might so easily have looked a barrack ⁴⁶

Hallways were wide with polished wooden floors, and although KCHSS students did not have the luxury of separate bedrooms and studies like their counterparts at Royal Holloway and had to provide their own soft furnishings, the bedsitting rooms at the hostel were well-appointed.⁴⁷ Rooms on the lower floor were fitted schematically with light oak furniture, whilst those on the floor above with dark oak.⁴⁸ Each room had a separate dressing room and a hot air towel-stand, and students had their own individual washing cubicles located in the hallway, all of which was described by Elspeth Marshall

⁴³ Lady Courtauld donated £7,000 in order to build and equip the hall. Atkins, 'Origins of QEC', p. 21.

⁴⁴ The fourth-floor physics laboratory was also added at this time. Marsh, pp. 89-93.

⁴⁵ Margaret Macfarlane to PJF, 12 Sept. 1976, p. 1.

⁴⁶ Taylor, 'Small Things', p. 35.

⁴⁷ Interview with Marshall (1993).

⁴⁸ *Ibid.*; Marsh, p. 80; Biss MS (PJF), p. 3.

(1923-27) as 'rather dashing and good'.⁴⁹ [PLATE 16] This compared most favourably with the accommodation at Bedford, where students had only a wash-stand hidden by a screen in their rooms.⁵⁰

In contrast with other women's residential colleges of the period, however, early KCHSS students were required to participate in some of the housekeeping. The self-contained nature of the buildings, combining both residential rooms and teaching facilities, offered opportunities for household science training. According to a leaflet about the hostel:

[F]or the complete training of students in Household and Social Science a Residence near to the Laboratories is essential, in order that there may be opportunities for the practical application of principles and processes.⁵¹

Students were required to make their own beds (a chore undertaken by maids at Bedford College), and the task of choosing soft furnishings gave them some incidental experience in home decorating.⁵² The housekeeping arrangements made a particular impression on Hilary Bonham-Carter, for whom such matters as bed-making were probably a novelty:

⁴⁹ KCHSS did provide cheaper accommodation on the top floor, which was not so well furnished. Interview with Marshall (1993).

⁵⁰ *House Committee Minutes*, KCHSS: QA/HC/M1 (19 Jan. 1917), p. 4; Interview with Marshall (1993); Bentley, pp. 42-43.

⁵¹ *House Committee Minutes*, KCHSS: QA/HC M1 (25 Oct. 1922), p. 316.

⁵² Bentley, p. 21; Marshall recalls the pleasure of choosing her own furnishings. Interview with Marshall (1993).

We had to make our beds--I think--then they were settees during the day with pillows outside in cases like cushions. Our great joke always was where is the jerry? We use to have little square or octagonal tables with four legs and under the table was a compartment that took your jerry, decently shut in when not needed. I don't *think* we had to empty them, but certain rooms or a floor were left to be 'done' by housewifery students in their 'practical'--perhaps we did them as 'practical!' ... [There was also] a flat arranged in Observatory Gardens and three of us had to live there and housekeep for ourselves for--how long--three weeks I think and share the work--being cook one week--housekeeper another, buying the food and skivvy the third--perhaps there were four weeks or perhaps we did our own laundry.⁵³

Yet the teaching of practical housekeeping skills in the hostel was far from being a central feature of the household science curriculum. No mention of it is made in syllabuses or prospectuses, although students who specialized in Institutional Administration did receive some practical experience in the college kitchens or Hostel, and those taking the 'Brides' Course' helped to prepare the college meals.⁵⁴ According to Joan Jasper and Jean Bates, students in the late 1930s, the domestic staff by that stage did all of the housekeeping, including making the beds.⁵⁵

In other respects day-to-day life in college was highly conventional for a women's college of the period, with daily routines regulated around common mealtimes and work. A typical day involved an early breakfast (there was no daily chapel service)

⁵³ It is unclear, however, how long this practice continued. The flat at 10 Observatory Gardens was opened in 1921 in the ground floor (rest of the house being used for student rooms), but the lease on this property was given up the following year when demand for accommodation dropped off. *House Committee Minutes*, KCHSS: QA/HC/M1 (25 Sept. 1921), pp. 222-224; (26 Oct. 1921), p. 232; (25 Oct. 1922), p. 316; (29 Nov. 1922), pp. 324-326; Bonham-Carter MS, (PJF), p. 5.

⁵⁴ Dillon, 'Physics Department', p. 1.

⁵⁵ Jasper & Bates MS (NLB), p. 1.

followed by lectures and lab work beginning at 9:00 a.m. and ending at 6:00 p.m., after which students in lab coats or gowns could be seen hurrying across the quad to have a bath and change for dinner.⁵⁶ Theresa Dillon, head of the physics department in the interwar years, recalled:

[L]ife in those days was gracious; the students were delightful, each course wearing differently coloured overalls and gaily crowding up to the lab, or clattering down the stairs.⁵⁷

Lunch was generally a buffet, but dinner was a formal affair, with maids waiting at table.⁵⁸ Vera Mason, (1917-20), describes the evening ritual:

[O]n hearing the gong, all students assembled in the refectory until the procession, led by the Dean or senior member of staff, had descended from the Common Room, & had solemnly passed through the room and up to the High Table. Each night two students were detailed to dine "on High" and it was the duty of the Senior Student to post these names each morning on the notice board.⁵⁹

The ceremonious dinner routine provided a focal point for the usual student antics. Vera Mason recalled, 'On one occasion, for a bet, I went "on High" in pyjamas--of course discreetly covered by a long dress! I suppose today that would cause no raising of eye brows--then it was quite a daring escapade!'⁶⁰ A prank pulled by Anne Biss on her fellow students illustrates the formality of the evening meal and the school-like emphasis on punctuality:

⁵⁶ Fisher, 'Toast to the College', PJF.

⁵⁷ Dillon, 'Physics Department', p. 1.

⁵⁸ Biss MS (PJF), p. 2; Margaret Macfarlane to PJF, 12 Sept. 1976, pp. 1-2.

⁵⁹ Mason MS (PJF), p. 2; Bingham, p. 79; Bentley, p. 40.

⁶⁰ Mason MS (PJF), 17 Feb. 1977, p. 2.

[W]e had washing cubicles in sets of six whose partitions did not go right up to the ceiling and on one occasion, egged on by an admiring group, I locked one then climbed from one to the other, locking each so that the owners, rushing to change for dinner, and less athletic, were delayed and humiliated at being made late. Those who were not in their places by grace had to ... stand below the High Table till the Warden noticed and nodded to them.⁶¹

Biss (1923-27) remembered a cheeky fellow student who interpreted the prospectus's dictum that 'a simple change' was to be made for dinner literally by 'simply' changing her necklace.⁶² Formal dinners continued throughout the period.⁶³

The refinement of hall in the early years was not, however, always matched by the quality of its food. War-time shortages made creative catering difficult, and women's colleges were rarely noted for their cuisine, but it was a particularly sensitive issue for a college which purported to represent health and efficiency in domestic affairs.⁶⁴ Vera Mason remembered vividly the disagreeable college meals during the first world war:

Meat was almost unobtainable and most of the normal meat dishes were made of meat substitute - usually lentils! I remember particularly "mock duck" which bore no resemblance to the feathered variety. ... Bread was rationed, but though of poor quality, was fairly plentiful. We were allowed to draw three loaves a week which we had to keep in our rooms and bring down to meals with us. Butter, of course, was unknown but margarine was available in reasonable quantities. I cannot recall having any jam or marmalade in those early years, but there was a horrible

⁶¹ Members of the House Committee (which included the remnants of the former Ladies' Committee) were the arbiters of manners and college regulations and 'attached considerable importance' to the issue of punctuality at dinner. See *House Committee Minutes*, KCHSS: QA/HC/M1 (25 May 1921), p. 212; Biss MS (PJF), p. 2.

⁶² Biss MS (PJF), p. 2.

⁶³ Jasper & Bates MS (NLB), p. 1.

⁶⁴ Faithfull, *My Pilgrimage*, p. 91.

concoction called "honey sugar" which appeared at breakfast and tea and which I personally found revolting.

... Because of war conditions our College kitchens had been taken over and used as National Kitchens where local residents could come and buy cooked food. Food for the Refectory was sent up from the National Kitchen and in our opinion often consisted of what could not be sold to anyone else. On one occasion when herrings had appeared on the hot plate for several days in succession and which we felt were getting decidedly too savory, there was a minor revolt. One intrepid first year student picked up the dish from the service hatch, all the other students in the refectory fell in behind her and we paraded all round the room under the nose of the staff lunching at the High Table. We then went out through the French windows and buried the offending herrings in the quad And was there a row about it?! The Dean had the whole college up before her and simply wiped the floor with us. We were told that we should have followed the recognised channels of complaint--whatever they were! Anyhow we didn't see the herrings again!⁶⁵

The herring incident provoked Colonel Hugh Bonham-Carter to write to Lady Rücker (who served on the Hostel Committee) about the catering:

Hilary is very happy there but the feeding is so bad that I have severe qualms as to recommending it as we find that she has to spend quite a good deal of her allowance in getting extra food. Hilary has one or two fancies but generally she takes after me and doesn't mind what she eats. You will probably hear what occurred at lunch yesterday There was some soup described as nasty, some herrings that were so high that a procession was formed and a dish of them was buried with much solemnity in the garden (where you can see the grave if not obliterated) and a badly cooked tapioca pudding.⁶⁶

Rumours about the catering at KCHSS evidently did start to have some effect on the college's reputation, and not only amongst the more demanding of its student clientele.

Marion Vaughan, one of the part-time lecturers in Hygiene (1913-16), wrote to Lane-Claypon:

⁶⁵ Mason MS (PJF), pp. 1-2.

⁶⁶ Quoted in Marsh, p. 143.

I think it may be a great help to you to know what is common gossip about the catering at the College. It is so serious as to mitigate [sic] against success for years to come. The food is said to be extremely dull, badly served: not always enough & far too many rechauffées. The constant talk of economy impresses students and parents very adversely as they feel the fees ought to cover a good & attractive table I know of parents who would not send their girls into residence on this account The lack of fresh vegetables & fruit is keenly felt & a great distaste for done-up meat etc.--"messes" as they call them. Bad margarine is complained of too. Miss Alder [Bursar] seems to hector the students as if they were greedy children in the nursery. The true Collegiate attitude seems absent in regard to the students' perfectly obvious right to have reasonable complaints attended to. ... I should be content to let the list go on but I am not--King's ought to be a model in this respect & at present is apparently a very long way from being so.⁶⁷

It seems, however, that the herring episode was merely the result of war-time exigencies that soon gave way to a rather exceptional table. Theresa Dillon (head of physics 1923-1963), described the food as 'Lucullan'; Margaret Macfarlane, a student in the immediate post-war years, reported that the food was 'excellent', as does Elspeth Marshall (1923-27), who remembers that there was 'plenty of good food'.⁶⁸ Barbara Glascock (1935-38), points out that 'it was considered part of the training to know and appreciate good meals'.⁶⁹

Rules of behaviour in Queen Mary Hostel paralleled those of other women's colleges and were by no means unduly strict for the period. In 1917 students who wished to be out of college past midnight on weekdays (10:00 p.m. on Sundays) had to obtain permission from the hostel Resident or the Bursar, who might refuse the

⁶⁷ Quoted in Marsh, p. 144.

⁶⁸ Dillon, 'Physics Department', p. 1; Margaret Macfarlane to PJF, pp. 1-2; Interview with Marshall (1993).

⁶⁹ Glascock MS (NLB) 2 July 1993, p. 1.

application if she felt that the student's work was not up to scratch.⁷⁰ Students had to sign a book upon leaving, stating their destination, and sign it again upon return, and all those staying out past 10:00 were charged a fine of 3d.⁷¹ Rules about lights out, a hang-over from Victorian days when it was seen as necessary to prevent women students from overworking, were also more lenient than those at sister institutions--at both Bedford and Royal Holloway students who did not extinguish lights at the appropriate hour were reprimanded.⁷² KCHSS student were required to be in their rooms by eleven o'clock when lights were turned out; however, as the long hours of laboratory work seriously impinged on reading time, students were allowed to carry on working if they provided their own candles.⁷³ Anne Biss, in another of her pranks, recalled that students easily sidestepped attempts to curtail their evening activities:

The Bursar used to walk about the corridors listening for talking in rooms [after 11:00] but the doors had glass panels so that her candle could be seen outside and talking stopped. Once one of us put a candle in a saucer outside a room where a party was going on, making rather a long interruption.⁷⁴

According to Barbara Glascock, rules about lights out seem to have been abandoned by the late 1930s.⁷⁵

⁷⁰ *House Committee Minutes*, KCHSS: QA/HC/M1 (24 Oct. 1917), p. 36.

⁷¹ 'Regulations for Students in Residence', *House Committee Minutes*, KCHSS: QA/HC/M1 (11 Apr. 1918), append. p. 57.

⁷² Bingham, p. 81; Bentley, p. 43.

⁷³ The hostel rules did not state this explicitly, but according to Anne Biss it was not strictly enforced. Biss MS (PJF), p. 2; *House Committee Minutes*, KCHSS: QA/HC/M1 (11 Apr. 1918), append. p. 57.

⁷⁴ Biss MS (PJF), p. 2.

⁷⁵ Glascock MS (NLB), 2 July 1993, p. 4.

Restrictions on visiting by men were also reasonably relaxed given the conventions of the period. Male visitors, other than close relatives, could be received in the early years only in the presence of another woman student or in public rooms.⁷⁶ The edict does not appear to have been strictly policed, however, as according to Margo Boas (1917-20), students could easily skirt the issue by acquiring a large number of 'cousins'.⁷⁷ Margaret Macfarlane (1920-23), on the other hand, thought that students accepted such rules 'without demur'.⁷⁸ Vera Mason (1917-20) recalled her reaction to her first year at college:

As I had attended a day school this was my first experience of communal life and although it seemed strange at first I thoroughly enjoyed it. Coming from the stricter disciplines of school and home it seemed wonderful to be treated as an adult, though I expect students of today would feel that we were still very much disciplined.⁷⁹

In retrospect Vera Mason felt that the rules were 'pretty strict'; by contrast, Elspeth Marshall thought that the atmosphere was 'quite free'.⁸⁰ At all events rules and restrictions did not become a subject of conflict between students and authorities to the extent that they did at Oxford in the 1920s.⁸¹

⁷⁶ *House Committee Minutes*, KCHSS: QA/HC/M1 (24 Oct. 1917), p. 38; (11 Apr. 1918), append. p. 57.

⁷⁷ Margo A.C. Fixen (née Boas) to PJF 27 Sept. 1976, p. 2.

⁷⁸ Margaret Macfarlane to PJF, 12 Sept. 1976, p. 2.

⁷⁹ Mason MS (PJF), 17 Feb. 1977, p. 1.

⁸⁰ Fixen to PJF, p. 2.

⁸¹ Howarth, 'Women', pp. 361f.

Student life outside the laboratory revolved around the usual undergraduate societies and sporting clubs. Sports were popular and provided a welcome release from the long hours of laboratory practicals, although whereas at other women's colleges most afternoons were free for sports, KCHSS students had only one afternoon off a week.⁸² Enthusiasm for hockey, one of the most popular sports, was a legacy of Lilian Faithfull's term of office.⁸³ [PLATE 17] Faithfull had played for England and served as president of the All England Women's Hockey Association, and three members of KCW had played for the All England team in 1898.⁸⁴ Other sporting societies included a Boating Club, which was formed in 1927-28 with 44 members. The oarswomen travelled by tube to Baker Street for early morning outings on Regent's Park Lake, and reached a sufficient standard to participate in bumps races and other events, although the sport never achieved the same popularity as at Bedford College.⁸⁵ A Cricket Club was established in 1928, and there was also swimming, fencing, tennis and lacrosse.⁸⁶ KCHSS students also learned the unusual sport of Caterham Fives, which was brought to the college by Mottram, an old student of Caterham School.⁸⁷

⁸² Bingham, p. 30; Glascock MS (NLB) 2 July 1993, p. 1.

⁸³ Faithfull, who taught English at Royal Holloway College before moving to KCHSS, was also responsible for introducing hockey there in 1889. Bingham, p. 80.

⁸⁴ Marsh, pp. 32, 155.

⁸⁵ *Ibid.*, p. 157; Bentley, p. 20.

⁸⁶ Hedin MS (NLB) 2 June 1993, p. 1; Marsh, p. 158.

⁸⁷ Marsh, p. 158.

KCHSS students were keen sportswomen and it was they who actually took the initiative in purchasing a proper sports ground for the college. Before this it had only one tennis court, making it necessary to play tennis matches elsewhere, and the grounds used at Greenford for hockey and lacrosse were very rough.⁸⁸ Anne Biss (1923-27) recalled:

Tennis, netball and squash ... were played in the college grounds but we had to go out to Greenford on Thursday and Saturday afternoons for hockey and lacrosse. The latter was started by our year, several of whom came from lacrosses [sic] playing schools but the barrel had to be scraped to get enough of us to make two sides. This sort of initiative was typical of our year of 1923 and we were full of energy in pursuing our ideas. H.M. Bruce and B. Snell went all over the place looking for accessible playing fields and we worked madly for a bazaar to raise money to acquire them, receiving some things from Queen Mary which were difficult to sell as they had to be very highly priced.⁸⁹

The students started a fund to purchase a ground in 1924-25, organizing a grand bazaar and tea dance in November which was opened by Princess Helena Victoria. The event raised £515, but the majority of the fund eventually came via the college's great benefactor, Atkins, who again persuaded one of his patients (this time Lady Poltimore) to subscribe £5,500 over a three year period. A ground was finally secured in Petersham, with room for both a hockey and a lacrosse pitch and crowned with a £1,000 pavilion, a further donation by Lady Poltimore, who had been shocked to hear that students could not bathe before returning to college.⁹⁰

⁸⁸ Edna C. Allen to PJF, pp. 1-2.

⁸⁹ Biss MS (PJF), p. 3.

⁹⁰ Atkins, 'Origins of QEC', p. 22.

Sport provided virtually the only means of contact with the rest of the university or with other women's colleges, one of the few points of frustration for KCHSS students. Many of the students recalled having felt 'out on a limb' in Kensington, although they had less to complain of than their counterparts at Royal Holloway, which was some distance away from London.⁹¹ According to Janet L. Laxton (1920-23), KCHSS students were suspicious of joining the National Union of Students (NUS) because it was naively equated with 'communism'. Students did join the University Union--Anne Biss (1923-27) recalled selling Boat Race programmes on Hammersmith Bridge in aid of the new Union building.⁹² Yet according to Sheila McCloy (1938-41), contacts with the University Union were 'minimal and very disappointing' in contrast with the taste of university life she received when the college was evacuated to Cardiff University in 1939: 'Mixing with the Welsh undergraduates was an exhilarating experience.... Suddenly we had a social life with dances, clubs and an active debating society.'⁹³ Elsie Hedin (1936-40) also remembers the invigorating effect of the evacuation: 'We were a women's college so we did not get the social life that we experienced when we were evacuated to Cardiff which was a mixed college.'⁹⁴ A college song written during the Welsh period sums up the contrast:

⁹¹ Faithfull, *My Pilgrimage*, p. 94.

⁹² Janet Ellicott (née Laxton) to PJF, 16 Sept. 1976, p. 2; Interview with Marshall, (1993); Biss MS (PJF), p. 1.

⁹³ McCloy MS (NLB), p. 2.

⁹⁴ Hedin MS (NLB), 13 Apr. 1991, p. 1.

We remember at 'The Un-i-on', we all began to thaw,
 The Welsh sang songs of Ancient Celtic Lore.
 If segregation of the sexes had existed there before,
 What fun WE had in Cardiff when we went there for
 the War.⁹⁵

Like other women's colleges, interwar KCHSS had its own student societies, although the smallness of the college and the number of students taking one-year courses could make club and society life difficult. Anne Biss (1923-27) recalls:

[There were] only 50 in the three years together of the degree course who could give continuity to plans and college clubs so that we had to work very hard to maintain them and in our third year considered the new first year very slack! Debating, Literary, and Music Societies flourished and, in spite of a lot of non-church goers, the Christian Union also. I doubt if they joined the group of us who spent a happy Sunday afternoon unpicking the texts embroidered on a beautiful linen and lace tablecloth that I had been given by an aunt on coming up.⁹⁶

The high proportion of non-resident students also contributed to the problem of sustaining college clubs and societies. In the early 1920s approximately 73% of students could be accommodated at college, but this proportion declined to just 52% at the end of the 1930s. [TABLE 7.4] Most activities took place in the evenings and N.M. Hutchings (1925-28) remembers feeling 'rather sorry' for those who had to live out.⁹⁷

The college's location in Kensington meant easy access to West End theatres and almost all the students commenting on social life at KCHSS mention the theatre as one of their chief distractions. Barbara Glascock (1935-38), recalling that the course left

⁹⁵ Dillon, 'QEC in Song', p. 3.

⁹⁶ Biss MS (PJF), p. 3.

⁹⁷ Hutchings MS (PJF), p. 1.

little time for outside interests, illustrates how a busy science student could combine work with play:

[W]e were regular theatre goers at the time when one could sit in the upper circle of the Old Vic for I think 1/6--1/- was the theatre ticket and 6 pence went to an enterprising man who would put down a folding stool with one's name on it in the queue outside the theatre!⁹⁸

Olive Clendinnen (1923-28) had 'vivid memories of scrambling eggs in our well appointed bed-sitters before rushing off to queue for a theatre gallery.'⁹⁹ Informal socializing generally took place over cups of cocoa in the evening, a ritual which many students remembered with great fondness. Vera Mason wrote:

I suppose coffee was not obtainable for the concoction we drank was strong cocoa powder mixed with sweetened condensed milk and hot water. It sounds horrible but we enjoyed it, especially if someone had a parcel from home with perhaps a cake or other delicacy.¹⁰⁰

At weekends students often entertained themselves by dancing in the Refectory or by organizing informal music concerts.¹⁰¹ Hilary Bonham-Carter (1919-22) commented:

There was very little entertainment but we usually danced on Saturdays after dinner. Often I used to play the piano and another student the violin. Sometimes a student would have a man friend to dance, he was usually the only one.¹⁰²

KCHSS students were particularly fond of dancing, and organized a series of dances in aid of various building funds.¹⁰³ Ordinary dancing on weekends, however,

⁹⁸ Glascock MS (NLB), 30 Aug. 1992, p. 3.

⁹⁹ Olive Clendinnen to PJF, (21 Apr. 1976), pp. 5-6.

¹⁰⁰ Mason MS (PJF), 17 Feb. 1977, p. 3.

¹⁰¹ Fixen to PJF, p. 2.

¹⁰² Bonham-Carter MS (PJF), pp. 6-7.

¹⁰³ *House Committee Minutes*, KCHSS: QA/HC/M1 (30 June 1920), p. 168.

was sternly monitored by the House Committee, which sought several times to restrict it.¹⁰⁴ In 1921 it attempted to stop students inviting men to dance, reiterating that Saturday dancing should be 'confined to the students and their women friends', but eventually gave way to student pressure and allowed men to be invited to Saturday dances in certain weeks.¹⁰⁵ The semi-cloistered existence was relieved by the occasional formal college dance. One held during the first world war was marred by an air raid which cut off public transport and forced the men to stay overnight in the Common Room, giving rise to the 'unprecedented sight' of 'males, mostly in uniform, walking along the corridors of this female preserve'.¹⁰⁶ According to N.M. Hutchings, a student in the mid-1920s, the annual college dance came to be the main social event:

[The college dance] was held in November, and in those days of the "pea-souper" London fogs, it often fell on a night when visitors found it almost impossible to reach Campden Hill. Male partners were a necessity for those students hoping to attend, and on these occasions the non-resident students were more than popular if they could produce brothers or friends for the residents. "Tails" were worn by the men - dinner jackets were frowned upon as too "informal." In my first year I got up at 4 am to join a party going to Covent Garden Market on the morning of the dance, to buy flowers cheaply and fresh for the ball room. We then danced until 2 am the next morning--How lovely to be young!¹⁰⁷

The boarding-school atmosphere gradually changed over the period as social conventions eased. Elsie Hedin (1936-40) remembers joining with fellow students and

¹⁰⁴ *House Committee Minutes*, KCHSS: QA/HC/M1 (24 Oct. 1917), p. 40.

¹⁰⁵ *Ibid.*, (23 Feb. 1921), pp. 198-200; (25 May 1921), p. 208; (25 Oct. 1922), pp. 312-314.

¹⁰⁶ Mason MS (PJF), 17 Feb. 1977, p. 3.

¹⁰⁷ Hutchings MS (PJF).

men from Imperial College in youth hostelling and attending 'hops' at the University Union.¹⁰⁸

Social relationships amongst students were relatively informal and largely unstructured by college authorities. No attempt was made to replicate the family-like atmosphere that characterized some women's institutions, where students were organized into 'families' with older students serving as 'mothers' for fresher 'daughters'.¹⁰⁹ As at other women's colleges, students called each other by their surnames ('Miss X') unless the relationship was more intimate, when first names were used.¹¹⁰ KCHSS students generally socialized within years, partly because of the nature of the timetable, but year groups tended to mix well. KCHSS's small size encouraged a 'togetherness'.¹¹¹ Elspeth Marshall (1922-25) remembered that students from all years mixed both in the labs and in student societies.¹¹² But Hilary Bonham-Carter (1919-22), who had started in the middle of a year and then began again with the next group of freshers, recalls having to limit contact with the former year to avoid being seen as giving herself 'airs'.¹¹³ Anne Biss (1923-27) recalled that students sat in year groups at lunchtime, with the second- and third-year students at tables between the pillars on each side of the Refectory, but at the evening meal students sat in mixed groups at the long

¹⁰⁸ Hedin MS (NLB), p. 1.

¹⁰⁹ Edwards, p. 17; Bingham, pp. 101-102.

¹¹⁰ Bonham-Carter MS (PJF), p. 7.

¹¹¹ Hedin MS (NLB), 2 June 1993, p. 1.

¹¹² Jasper & Bates MS (NLB), p. 1; Interview with Marshall (1993).

¹¹³ Bonham-Carter MS (PJF), p. 4.

tables in the middle.¹¹⁴ The college took no measures to impose any formal social structure beyond assigning different coloured lab coats to students in different years of the course--no doubt to enable faculty to distinguish between different levels of ability in the laboratories.¹¹⁵ At Bedford College, by contrast, college regulations actually advised making friends within one's own year, and at Westfield, student social life was characterized by distinct year groups.¹¹⁶

Unlike most other women's university colleges at the time, KCHSS did not as a rule have members of its teaching staff residing at the college, although there was a head resident at the Hostel (sometimes a member of the faculty) and the Warden, with the exception of Janet Lane-Claypon, who resided on site.¹¹⁷ Moreover it had a mixed faculty, which helped to alleviate the otherwise cloistered environment. As N.M. Hutchings (1925-28) recalled:

[T]he Economics lectures were supplemented by tutorials taken by a young man named ... Mr. Stanners, who was considered quite "exciting" in the very feminine atmosphere of the college in those days.¹¹⁸

Elsie Hedin recalls the staff were 'friendly and helpful' although one unnamed woman 'terrorized us with impending doom'.¹¹⁹ Many of the men staff, especially Mottram,

¹¹⁴ Biss MS (PJF), p. 2.

¹¹⁵ Dillon, 'Physics Department', p. 1.

¹¹⁶ Bentley, p. 41; Sondheimer, p. 65.

¹¹⁷ *House Committee Minutes*, KCHSS: QA/HC/M1 (6 Oct. 1921), pp. 239-240; Marsh, p. 65.

¹¹⁸ Hutchings MS (PJF).

¹¹⁹ Hedin MS (NLB), 13 Apr. 1991, p. 1.

Kenneth Tinkler, and Cuthbert Dukes were particularly remembered as amiable and approachable. Anne Biss provides one illustration of this:

On [one] occasion we deeply offended the professor of Chemistry, Professor Tinkler, by all remaining round the commonroom fire and cutting his lecture. This was sheer inertia on a very cold day and we quickly realised how hurtful we had been and made our apologies for we held 'Tinkles' in affection and had meant no insult.¹²⁰

Students and staff often participated in joint athletic competitions and music events. A farcical account of a ping-pong match illustrates the good humoured tone of relations between students and staff:

An exciting tussle took place here yesterday, though the visitors were obviously hampered by the smoke screen. Play was uneven, and betting ran high. Miss Hartford opened the batting for the Staff on a plumb easy wicket The Students' play was that of undifferentiated females, while the Staff showed good combinations. Half-time scores were Staff 1 up and 4 to play. ... The display of the visiting team suggest that a period of intensive training, with less cocoa in the diet, would prove advantageous. The final score was 6 goals to 3 tries.¹²¹

Students and staff also participated in a series of 'entertainments'--an evening of skits and songs, usually of the Gilbert & Sullivan variety--based on life at college. It was customary, at least in the early years, for the first-year students to entertain the rest of the College, and in the 1930s a staff-student 'entertainment' was produced every Christmas.¹²² One such entertainment was put on to celebrate the granting of degree status for the household science course. Vera Mason (1917-20) relates:

¹²⁰ Biss MS (PJF), p. 2.

¹²¹ 'Student v. Staff Ping-Pong Match', *K.C.W. Magazine*, p. 17.

¹²² Jasper & Bates MS (NLB), p. 3.

This show consisted of a Gilbert and Sullivan medley, full of topical skits on the building, staff and students. I remember particularly the Dean's song sung to the tune of "The Policeman's Lot is not a Happy One" ... The junior member of Staff who played the part of the Dean had borrowed the austere navy blue suit and high-necked blouse which she commonly wore. On the night (though I suspect not at rehearsals, which the Dean directed) she produced all her mannerism and slight eccentricities. Fortunately on this occasion the Dean *was* amused.¹²³

Another excerpt from a college magazine evokes the riotous atmosphere of these events:

QUEEN'S COLLEGE FOR MEN, 1977

For producing non-stop laughter the Staff play was absolutely unequalled. The spectacle of the male staff dressed as females, and vice-versa was quite irresistible, and where, may we ask, did they get those lurid garters? We were much impressed by the male Warden and his Secretary--the latter's voice and manners were not, we hope, modelled on those of any of the students. ... The lecture by Miss Minkler [Tinkler] (a perfect blonde) would certainly not have been complete without the lantern slides, especially that of the pancake guarding its young. ... Miss Tress made a great hit, first as a manly mother and later as a bookie. The departmental ditties received much applause, and we could not have enough of the songs so well rendered by the Chorus who, to use their own words, were most "attractive and active" ¹²⁴

Such occasions were loved by students and staff alike. Elsie Hedin recalls that Professor Tinkler laughed so much at a students' play on life at college (they were 'dissecting' an outsize rag worm) that his wife had to 'shush' him.¹²⁵ This rapport between faculty and students helped to give KCHSS a strong sense of corporate spirit which undoubtedly reflected back onto students' experience of the household science course.

¹²³ Mason MS (PJF), 17 Feb. 1977, p. 3.

¹²⁴ O[live] C[lendinnen], 'Queen's College for Men, 1977', *K.C.W. Magazine*, p. 14.

¹²⁵ Hedin MS (NLB), 2 June 1993, p. 1.

In retrospect, KCHSS did not achieve an equality of status, at least in terms of public recognition, with the older women's colleges at the University of London. Yet the college did succeed in giving its students an experience of higher education equal to that of other women's university colleges--one which justified the founders' early hopes of transforming 'the department' into a college with true 'university character.'

The Mis-named 'Dismal Science': Self-Assessment

When I returned to my family, my mother was heard to say, "I wish we had never allowed you to go to Kings--it gave you ideas."¹²⁶ --*Janet Laxton, KCHSS 1920-1923*

Like most undergraduates, KCHSS students recalled their college days with fondness--as Margaret Macfarlane (1920-23) summed up, 'Those were the days! I enjoyed every moment'¹²⁷ But leaving aside the memories of friends and the freedom of student life, opinions of the course were tempered by problems arising from the discipline's 'homely' image and the college's lack of a high public profile. According to Sheila McCloy (1938-41), the degree was 'hardly known', a view echoed by Betty Aldridge (1941-44), who noted that 'the public at large ... did not know of the existence of the course or what it entailed'.¹²⁸ Knowledge of the course could not be taken for granted even in the domestic science world according to Hilda Bassett, a KCHSS student who took up domestic science teaching in the 1940s:

¹²⁶ Ellicott (née Laxton) to PJF, p. 1.

¹²⁷ Margaret Macfarlane to PJF, p. 1.; Ayers MS (NLB) 8 Apr. 1991, p. 1; Allen to PJF, p. 1.

¹²⁸ McCloy MS (NLB), p. 2; Aldridge MS (NLB), p. 2.

I was viewed with some bewilderment as I did not offer needlework as an additional subject to cookery. I was [also] qualified to teach senior science--all a little puzzling to the people who had never heard of the course.¹²⁹

The name of the household science course was never popular and it appears that the course was nicknamed, at least in its early days at KCW, as the 'dismal science' (although this might have been due to the cramped and makeshift facilities in which household science students worked in Kensington Square).¹³⁰ Joan Jasper's (1937-40) comments reverberate with many household science students:

[I] seem to remember that other undergraduates at the university seemed to think we were all aspiring to be teachers of domestic science. Perhaps the title '*Household and Social Science*' was responsible for this. I represented my college at tennis and remember very vividly a trip to Cambridge to play against Girton College and their air of complete astonishment when we won!¹³¹

Dilys Rawson, a member of staff from 1941-1977, also commented on this problem:

There is now and there was then a widespread misunderstanding concerning the courses at KCHSS over the [interwar period]. Both the name of the college and the degree title ... gave a misleading impression of content. A more accurate but longer title might have been "A general degree in applied science with chemistry and human physiology as main subjects supported by household science, biology, bacteriology, psychology as well as general economics (including the study of industrial structure) taken in the final 2 years of a 3-year degree."¹³²

¹²⁹ Bassett MS (NLB), 14 Mar. 1991, pp. 2-3.

¹³⁰ 'E.M.C.', 'A Home Science Student', *King's College Magazine* (Michaelmas 1914), p. 26.

¹³¹ Jasper MS (NLB), pp. 1-2.

¹³² Rawson MS (NLB), p. 3.

Although the college name was not changed until 1953, Audrey Green recalled that debate on the issue was ‘raging’ during the late 1930s. Indeed, students’ dissatisfaction came to be enshrined in what was known as the ‘signature tune’ for KCHSS, sung to ‘English Country Garden’:

We come from the Kings where they learn about the things
That are House-se-hold and So-ci-al,
All of us try our science to apply
To the House-se-hold and So-ci-al
Don’t you think we oughter
Call it something shorter
Seeing that we’re so ed-du-ca-tion-al?
We’re quite alright in spite of our Title of
House-se-hold and So-ci-al.¹³³

Elsie Hedin points out that students were concerned that the degree title would prejudice prospective employers against them.¹³⁴

Several students felt in retrospect that the status of the course suffered more from the charge of ‘superficiality’ than because of its connotations as a ‘homely’ or ‘women’s’ subject.¹³⁵ Sheila McCloy (1938-41) recalled that the course did not impress a contemporary who was studying at Somerville because of the wide range of subjects covered.¹³⁶ Barbara Glascock (1935-38), who started out as a dietician and later became a bursar at Lady Margaret Hall, Oxford, noted that she only became aware that the course was regarded as inferior when she started working in academic circles.¹³⁷

¹³³ Dillon, ‘QEC in Song’, p. 2; Ayers MS (NLB), 21 June 1993, p. 3.

¹³⁴ Hedin MS (NLB) 13 Apr. 1991, p. 2.

¹³⁵ Glascock MS (NLB) 30 Aug. 1992, p. 2; Ayers MS (NLB), 8 Apr. 1991, p. 2.

¹³⁶ McCloy MS (NLB), p. 2.

¹³⁷ Glascock MS (NLB), p. 2.

Other students, however, had no experience of this reaction. Hazel Broughton (1939-42) remarked that there was ‘certainly no belittling of the course from anyone in my experience, rather to the contrary, *proper recognition* being given to these subjects’.¹³⁸

Betty Aldridge (1941-44), who worked as a domestic science teacher, was not conscious of a feeling that the course was below standard as, in the domestic science teaching profession at least, the KCHSS degree seemed to have a ‘better cachet’ than a domestic science diploma.¹³⁹

The charge of ‘superficiality’ levelled at the course by scientists and educationists does seem to have had some resonance with KCHSS students, however. Although one student, Janet Fison (1916-19) described the course as a ‘wonderfully planned scheme’, it seems that many found the syllabus overcrowded, especially with the long hours of practicals, and that it did not allow enough time for reflection and assimilation of material or for extracurricular activities.¹⁴⁰ In Hilary Bonham-Carter’s words, ‘I think the course was too full or something--so many subjects to think about & work at.’¹⁴¹ Anne Biss, a student in 1923 when the household science course was made an honours degree, wrote:

¹³⁸ Broughton MS (NLB), p. 2.

¹³⁹ Aldridge MS (NLB), 20 Mar. 1991, p. 2.

¹⁴⁰ Harrison MS, p. 8; Interview with Scott-Carmichael, 13 Feb. 1990; ‘E.C.M.’, ‘A Home Science Student’, *King’s College Magazine*, p. 26.

¹⁴¹ Bonham-Carter MS (PJF), p. 4.

It seemed to us it was still in the experimental stage and [we] did a lot of thinking and discussion about it. We felt it was too diverse so that we could not go deeply enough into any of the subjects and that it rather fell between the two stools of the scientific and household subjects ¹⁴²

Since many had been unprepared for the scientific part of the course, most of the students remember working very hard and that the college had a distinctly 'studious' atmosphere.¹⁴³ Barbara Miller (1916-23) wrote:

When I went to K.C.W. the only qualification was London Matric or equivalent, regardless of the subjects taken. This I felt was wrong--I had done *no* chemistry or physics at school & only the very quick and clever could pass the 1st year exam whilst also attending a crammer in the missing subjects. I felt they were getting fees under false pretences, as they knew you [would] have to do the 1st [year] twice.¹⁴⁴

Hilda Bassett (1939-43) recalls the disparity between students' abilities during the early 1940s:

Because some of the students already had A-levels in physics, biology and chemistry and I had only high marks in O-levels (giving me the matriculation ...) I found that I had to work twice as hard as the other students.¹⁴⁵

Barbara Glascock (1935-38) recalled that students were expected to attend all lectures, adding that they 'soon found it essential to do so or else fall badly behind'¹⁴⁶ As the college magazine noted, 'It is easier for a camel to go through the eye of a needle than for a second year to cut half-an-hour's chemi-prac.'¹⁴⁷ The sheer number and variety of

¹⁴² Biss MS, p. 3.

¹⁴³ McCloy MS (NLB), p. 1; Bassett MS (NLB), 14 Mar. 1991, p. 4.; Macfarlane to PJF, pp. 5-6; Biss MS (PJF), p. 3; Glascock MS (NLB), 30 Aug. 1992, p. 3; Jasper & Bates MS (NLB), p. 2.

¹⁴⁴ Milner to PJF, 16 June 1976, p. 1.

¹⁴⁵ Basset MS (NLB), 14 Mar. 1991, pp. 1-2.

¹⁴⁶ Glascock MS (NLB) 2 July 1993, p. 4.

¹⁴⁷ *The Magazine of King's College for Women*, KCHSS: [uncatalogued], (Mar. 1926), p. 12.

scientific subjects only compounded students' difficulties. Glascock noted, 'We all found the final exams (two solid weeks as I recall) very challenging and required considerable mental & physical stamina.'¹⁴⁸ According to Pamela Harrison (1939-42), none of the students talked about getting even second-class honours, although on average 30% eventually achieved this class in the period from 1923-1939; only three first class degrees were awarded in the same period, however.¹⁴⁹ Yet although critical of the number of subjects included in the timetable, most students believed that charges of 'superficiality' were unjustified. Audrey Hamilton (1939-44) noted that their contemporaries at other colleges 'did not realize that more often than not we had to work harder than them and be good at a wide range of subjects', while Elsie Hedin (1936-40) noted that an outsider would not consider it below standard 'if they saw the work we did'.¹⁵⁰

KCHSS students did find that the diverse nature of the household science course meant that they had to take further, more specialized training upon graduation in order to qualify for many posts, especially in the 1930s and 1940s when many fields had professionalized. This is reflected in proportion of students taking some type of further training immediately following graduation from KCHSS, which grew from 0% in 1910-19 to 15.7% in the 1920s and to 45% in the 1930s.¹⁵¹ Several students remarked that

¹⁴⁸ Glascock MS (NLB), 30 Aug. 1992, p. 1.

¹⁴⁹ Harrison, p. 8.

¹⁵⁰ Hamilton MS (NLB), p. 1.

¹⁵¹ Based on database sample. Most students took further training in dietetics, teaching, or a further degree.

they ended up as 'Jack of all trades'--as Elsie Hedin recalled, students were very concerned about finding jobs because they had been taught 'a little bit of everything' and ended up 'not fully qualified for anything'.¹⁵² This problem affected especially those wishing to pursue a scientific career. Freda Redfearn (1938-41) studied for the B.Sc. Special in Physiology because she felt that she had not studied any one subject to degree standard:

We had been told at KCHSS that the Physiology course was equivalent to 2nd M.B. Physiology and that with a year's further study we could sit for the B.Sc. [Special in Physiology]. When I applied for admission to Bedford College I was told that the B.Sc. (H&SS) was inadequate preparation for the B.Sc. Special final year and I had to study for two years in the Physiology department at the college.¹⁵³

The course also proved disappointing for those who wished to follow a career related to domestic science or institutional management because of the insufficient time given to the household arts in the syllabus. Margaret Macfarlane (1920-23) remarked:

I think as an education the degree course was excellent. As a training for either teaching or admin[istration] it was deplorable. I went straight to the job of the year as bursar at Swanley Horticultural College. I realise now how clueless I must have been.¹⁵⁴

Barbara Glascock (1935-38), who worked as a dietitian at the Radcliffe Infirmary, Oxford, following a course at Johns Hopkins University (USA), recalled that she needed 'more practical training & stimulus in good cooking', which she eventually picked up from the chefs at Oxford.¹⁵⁵ Those taking up domestic science teaching also found that

¹⁵² Hedin MS (NLB), 13 Apr. 1991, p. 2; Milner MS (NLB), p. 2; Aldridge MS (NLB), p. 4.

¹⁵³ Redfearn MS (NLB), p. 1.

¹⁵⁴ Macfarlane to PJF, pp. 2-3.

¹⁵⁵ Glascock MS (NLB), 30 Aug. 1992, p. 2.

the status conferred by the household science degree was offset by their own lack of domestic skills. Anne Biss, who taught domestic subjects in Kenya following graduation, found herself 'very lacking' in cookery skills compared with those from domestic science colleges.¹⁵⁶ Harriet Warraik (1921-24) found herself in a double bind - wanting at first to work as a domestic science teacher, she found that the lack of needlework and dressmaking skills narrowed the range of teaching posts open to her, and when later moving into a scientific career as a poultry pathologist for a Wellcome research laboratory she found the lack of specialization in the 'pure' sciences a drawback. 'At first I had an uphill battle to show that my degree was equal to other B.Sc.s,' she wrote.¹⁵⁷

The sheer variety of different careers taken up by KCHSS graduates meant that students inevitably found certain subjects to have been completely irrelevant. Hilary Bonham-Carter questioned the necessity of all the 'pure' science work: '[Why] the microscopic structure of the eye was necessary for an H&SS degree I never fathomed.'¹⁵⁸ Joan Jasper and Jean Bates (both 1937-40) found economics 'boring' and irrelevant'; Jasper, who would have preferred to have taken some psychology, wondered whether she should have taken the social work option.¹⁵⁹ Audrey Ayers (1939-41) thought laundrywork the least relevant part of the course and recalled that the college

¹⁵⁶ Biss to PJF, 20 Sept. [1976], p. 2.

¹⁵⁷ Harriet Warraik to PJF, 21 Sept. 1976, pp. 1-2.

¹⁵⁸ Bonham-Carter MS (PJF), p. 3.

¹⁵⁹ Jasper MS (NLB), p. 4-5; Jasper & Bates MS (NLB), p. 2.

had used obsolete equipment, but added that retrospectively none of the subjects were wholly irrelevant and that she had been 'glad of all of them at some stage of my career.'¹⁶⁰

Paradoxically, some KCHSS graduates found the diverse nature of the household science syllabus gave them a versatility which proved to be extremely valuable in the job market. Vera Mason (1917-20) wrote: 'It was perhaps too varied a course but I myself have found it a very useful background to the various posts I have held during my working life.'¹⁶¹ Marjorie Lee (1942-45) noted that household science was an 'excellent broad-based course' and regretted its demise in the post-war period; likewise, Margaret Montgomery (c.1920) commented that the course was 'the best general education one could have had, and gave one a good idea of what one wanted to specialise in!!'¹⁶² Joan Jasper (1937-40), who worked as a dietitian, as an experimental assistant in a defense research establishment during the war, and later as a physiotherapist, noted that the broad science training at KCHSS was a 'great help' and enabled her to pick up any of these careers 'without undue effort'.¹⁶³ Even Mamie Olliver, who eventually had a notable career in food science, conceded that although she needed to take a further degree in chemistry the KCHSS course offered many advantages:

¹⁶⁰ Ayers MS (NLB), 21 June 1993, p. 1.

¹⁶¹ Mason MS (PJF), 17 Feb. 1977, p. 4.

¹⁶² Lee MS (NLB), [n.d., c.1990]; Margaret Montgomery to PJF, 24 Sept. 1976, pp. 2-3.

¹⁶³ Jasper MS (NLB), p. 2.

[W]hat was extremely valuable was the practical cooking side, the food side--that was running alongside--we were getting all this information about the basic preservation of foods and so forth, and probably from my angle one of the most valuable aspects of it was that there was also a course in microbiology ... so we were able to get all of this whole idea of Food Science, rather than specifically nutrition as such.¹⁶⁴

Audrey Ayers (who worked as a scientist in the food-processing industry) pointed out that the mixture of different courses in the household science syllabus was advantageous because she was able to approach problems from an interdisciplinary perspective.¹⁶⁵

Pamela Harrison, who worked for a time as a caterer, also appreciated the mixture of science and practical skills:

If you had been taught at KCHSS you could usually give a reason for your way of doing any job ... usually the most practical and shortest way; with a reasonably good result at the end. Later when working, I could show how to do a particular job, and work along staff when it was needed.¹⁶⁶

Utilitarian concerns apart, however, there were students who found the course of study--in the words of Irene Arnold (1917-20)--'very fascinating and widely interesting'.¹⁶⁷ Pamela Harrison (1939-1942) noted that she 'enjoyed the work' and felt that the way in which subjects were tailored specifically for the course made them 'more relevant and interesting to study': the 'pure' science elements had made household science 'far more interesting' than a purely practical training would have been.¹⁶⁸

¹⁶⁴ D.F. Smith, interview with Olliver, p. 3.

¹⁶⁵ Ayers MS (NLB), 8 Apr. 1991, p. 1.

¹⁶⁶ Harrison MS (NLB), p. 5.

¹⁶⁷ Irene Lady Squire (née Arnold) to PJF, 12 July [1976].

¹⁶⁸ Harrison MS (NLB), p. 8.

High morale among students was in part a reflection of the attitude of the staff. The faculty were extremely encouraging about women working in science and succeeded in establishing an ethos of hard work and achievement. KCHSS's faculty assumed its students would take up paid employment and continue until the time of marriage, even if some of the students were not so sure. According to Hilary Bonham-Carter's evidence, the 'work ethos' was established even in the early days of the course:

During our third year one of us bobbed her hair and was solemnly told that she was spoiling her chances of getting a job as it made her look so young--we were only 21 then!¹⁶⁹

Faculty members also were wholly positive about women's capabilities in science and encouraged them in their scientific aspirations. Betty Aldridge (1941-44) commented:

The female heads of the Biology, Physics (Esdaile), and Household Arts Departments were, I feel, convinced of the value of the course and convinced us of the advantages of an unusually wide approach to a degree course. ... Most of the staff--teaching & administrative--were helpful and plainly enthusiastic about the college course--including the male heads of the chemistry and physiology departments who seem[ed] to have no prejudice against women scientists.¹⁷⁰

Even Edward Mellanby, whose own brilliant career in vitamin research might have excused him from giving full attention to his students' development, made a strong impression on them. Anne Biss (1923-27) noted that students considered it a 'joy and privilege' to be taught by Mellanby.¹⁷¹ Margo Boas (1917-20) recalled that Mellanby had inspired her to get a physiology honours degree, which she did by staying on a fourth year and working semi-independently.¹⁷²

¹⁶⁹ Bonham-Carter MS (PJF), p. 7.

¹⁷⁰ Aldridge MS (NLB), pp. 2, 4.

¹⁷¹ Biss MS (PJF), p. 3.

¹⁷² Fixen (née Boas) to PJF, p. 3.

The prominence of men like Mellanby, Mottram, and Tinkler in the faculty may give the impression that most of the top positions were held by men at KCHSS; but while it is true that none of the women ever achieved professorships, women headed most of the departments, including the physics, biology, bacteriology, physiology, as well as the household arts departments, and women department heads achieved in total almost double the number of years as male department heads.¹⁷³ The presence of so many women scientists at the college provided positive role models for household science students. Mamie Olliver (a food scientist) recalls the encouragement she was given to take a further degree in chemistry:

[The faculty] were extremely sympathetic and the head of the Chemistry Department--Professor Tinkler--he was very keen and anxious for me to go on, but probably the most helpful and who really had the drive to see the practical aspects whereby I could get it was [Kathleen] Jackson, who was senior lecturer in the department.¹⁷⁴

Philippa Esdaile seems to have made a particular impression on students. Anne Biss recalled that Esdaile had inspired students to wear academic gowns to lectures:

We had our very first lecture with her and she began it by telling us we were no longer school girls but women of the University and henceforth to be addressed by surnames only. ... She was brisk, downright and forthright and though we might laugh at her description of the spread of head lice 'by the playful exchange of hats' we held her in great respect.¹⁷⁵

¹⁷³ Male department heads achieved approximately 81 total years, while female heads achieved approximately 145 total years. Figures derived from faculty listed in Marsh, Appendix 3, pp. 299-308.

¹⁷⁴ D.F. Smith, interview with Olliver, pp. 2-3.

¹⁷⁵ Biss MS, p. 3; Jasper & Bates MS, p. 3.

According to Hilda Bassett (1939-43), physicists Theresa Dillon and her colleague, Ursula Andrewes, were 'excellent and helpful to a very struggling physicist'.¹⁷⁶ Dillon, who headed the Physics Department for forty years (1923-63) made an especially strong impression on students as a woman physicist (an unusual position for women in the interwar period), and given the fact that KCHSS did employ male faculty members it was significant that this most 'masculine' of the sciences was headed by a woman.

Although household science failed to develop as an independent professional field, it did succeed in giving its students a mental training and skill which was applicable not only to their professional careers but in their more traditional roles as wives, mothers, and 'municipal housekeepers'.¹⁷⁷ Margaret Macfarlane (1920-23) noted that the general knowledge of hygiene, business affairs, etc. had proved useful in her work on local committees.¹⁷⁸ Betty Aldridge (1941-44), who worked as a teacher, remarked that she had derived 'great benefit' from the course and might have been motivated to take on a more challenging career had she not married; however, she 'found great pleasure in a career as housewife & mother and [found] the KCHSS training useful'.¹⁷⁹ Phyllis R. Jeffs (1936-40), who worked as a dietitian, commented:

¹⁷⁶ Bassett MS (NLB) 3 June 1993, p. 5.

¹⁷⁷ Hedin MS (NLB), 13 Apr. 1991, pp. 2-3.

¹⁷⁸ Macfarlane to PJF, pp. 2-3.

¹⁷⁹ Aldridge MS (NLB), 20 Mar. 1991, p. 5.

My courses proved very beneficial when bringing up my two children, healthily instilling good food values into them. I was gratified when the dietitian asked my pregnant daughter about her food habits and she was told that she didn't need any help from the dietitian.¹⁸⁰

Elsie Hedin (1936-40), who campaigned as an independent advocate for home safety after working for her father's electrical manufacturing company and raising two children, summed up:

I must tell you how VERY, VERY GRATEFUL I am for EVERY BIT of learning that I acquired (physiology, biochemistry, chemistry, physics) during my years at college. ... They have been INVALUABLE to me in my 16 year campaign for more safety in the home. And I have never stopped saying thank you.¹⁸¹

It is difficult to claim that the opinions of the students represented here are representative of KCHSS students as a whole given the small numbers involved; yet despite the diversity of opinion, it is clear that the household science course did open doors for students in a number of different ways. Although many students did find that they needed to take further, more specialized training afterwards, especially the more ambitious ones, the household science course left them with a wide choice of career options and created openings in less conventional spheres (e.g. hygiene and dietetics) for women who did not want to teach. The course also provided opportunities for the less-able student who would have been unable to pursue a conventional science degree. Household science did provide, as Lady Rücker had hoped, an alternative university course for women which gave them both the experience of university life and an education which was relevant for a number of different career and life paths.

¹⁸⁰ Jeffs MS (NLB), p. 2.

¹⁸¹ Hedin to NLB, 20 Sept. 1990.

TABLE 7.1				
Home Residence of Full-Time KCHSS Students (Percentages) 1919-1939 ¹⁸²				
DISTANCE	1920-24	1925-29	1930-34	1935-39
30 miles	43.8	38.7	47.4	40.3
U.K.	52.8	53.0	50.6	55.9
Empire	2.8	7.7	1.2	3.1
Foreign	0.5	0.5	0.7	0.6
TOTAL	99.9%	99.9%	99.9%	99.9%

TABLE 7.2				
KCHSS B.Sc. Student Origins by Region (Database Sample) 1910-1949				
AREA	1910-19	1920-29	1930-39	1940-49
Southeast	52.2	48.0	48.8	47.5
North	15.2	13.7	21.1	20.4
Midlands	8.7	10.8	9.5	13.6
Southwest	8.7	9.8	10.7	6.3
Wales/Scotland/ Ireland/C. Isles	2.2	10.8	8.3	8.6
Foreign	-	1.0	0.4	0.5
Unknown	13.0	5.9	1.2	3.2
TOTAL	100.0	100.0	100.0	100.1

¹⁸² Compiled from UGC, 'Returns', 1919-1939.

TABLE 7.3				
Age at Admission of Household & Social Science 3-Year Diploma and Degree Students (Percentages) 1920-1939 ¹⁸³				
	Under 17	17	18	19/+
1920-1929	0.3	11.5	41.3	46.0
1930-1939	0.8	22.4	48.0	28.2

TABLE 7.4				
University Residence of Full-Time Students (Percentages) KCHSS 1920-1939 ¹⁸⁴				
TYPE	1920-1924	1925-1929	1930-1934	1935-39
Hostels	73	61	54	52
Lodgings	3	13	10	16
At Home	23	25	35	31
Totals	99%	99%	99%	99%

¹⁸³ Compiled from UGC, ‘Returns’, 1919-1939.

¹⁸⁴ *Ibid.*

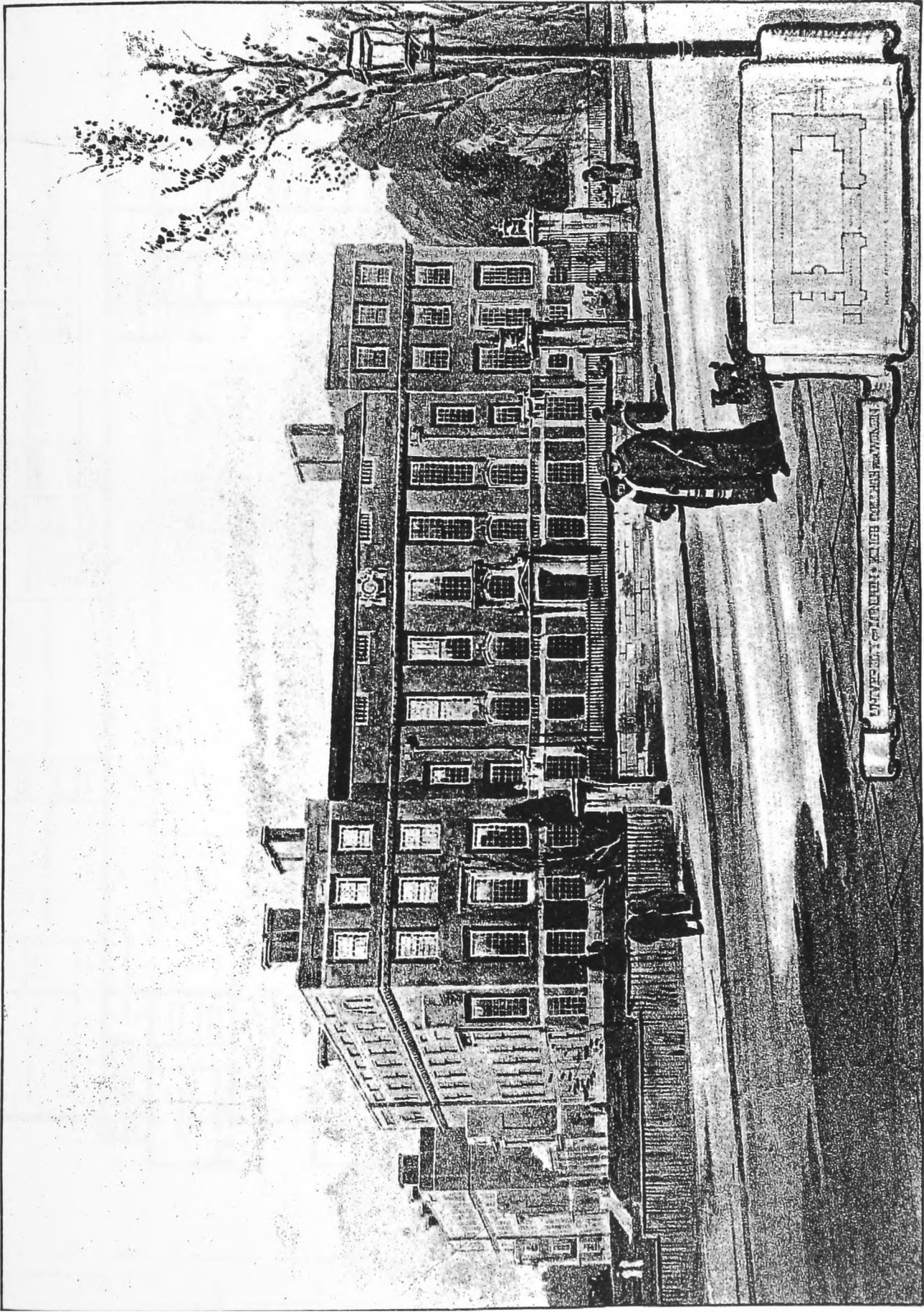


PLATE 11. Department of Household & Social Science, King's College for Women, [c. 1916]

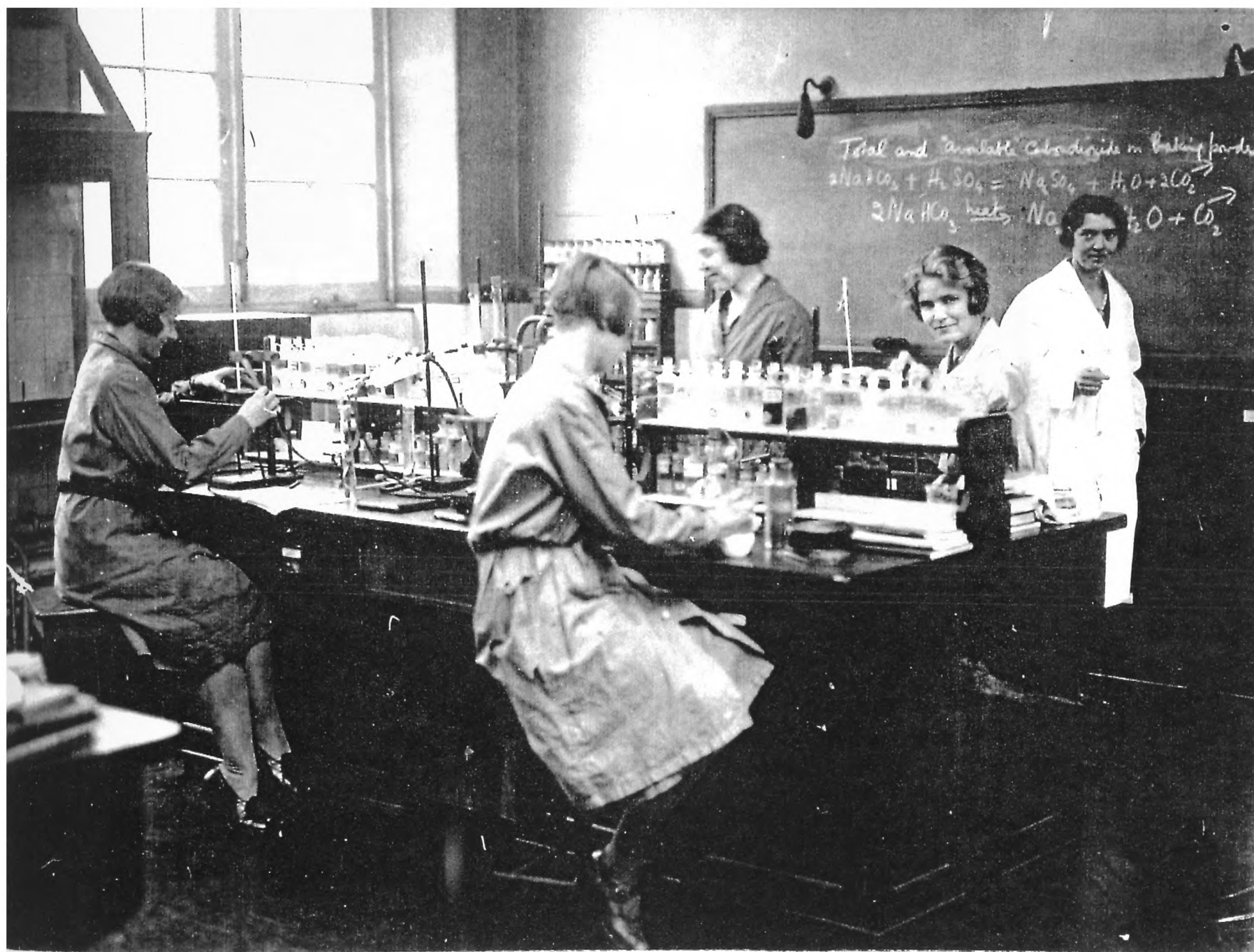


PLATE 13. Students in laboratory [n.d., c.1920-1939]



PLATE 14. First year undergraduates in histology practical, c.1930



PLATE 15. The Refectory



PLATE 16. Student bed sitting room, KCHSS, c. 1924



PLATE 17. First Hockey Team, KCHSS 1921-22, Hilary M. Bonham-Carter, Captain

• CONCLUSIONS •

In retrospect it is obvious that the household science movement failed to realize its original ideals: KCHSS remained the only institution to take up the new discipline, and the movement failed to develop an applied science of the household, to promote scientific research into domestic issues, or to create the new 'domestic expert'. At an institutional level, the waning of the household science movement in the interwar period can largely be ascribed to factors of 'political economy' at KCHSS--lack of financial resources and a failure to demarcate intellectual territory within academia--which were mutually reinforcing. The failure of the movement to take root in other universities was due to both the poor economic climate of the interwar period and KCHSS's failure to make a convincing intellectual case or market niche for the new discipline. Its inability to establish a viable research base for the discipline was also due to shortage of funds which, in turn, forced it to retain the various lucrative short courses in domestic management. These courses reinforced negative public perceptions of the college and further undermined its claims to expertise and its ability to recruit students capable of enhancing its academic reputation and contributing to research. For all its successes as a collegiate community, offering a general science training for women, KCHSS was not able to create the conditions needed to establish a new discipline.

At a more general level, however, the demise of household science as a movement between the wars reflected the disintegration of the 'municipal

housekeeping' concept upon which it had been based. The notion of an all-embracing, holistic approach to social welfare based upon women's traditional domestic functions was an Edwardian phenomenon which had little resonance in the interwar years. The household science movement had been the product of a unique juxtaposition of social trends in the Edwardian period which had blurred the distinction between women's roles within and outside of the home; in the interwar period, however, those roles became once again more clearly defined as many of women's 'municipal housekeeping' roles were professionalized and removed from the home. By the end of the period most social welfare positions such as sanitary inspection, health visiting and even social work had largely become the province of specially-trained experts. Some, such as social work, became the province of the social scientist, whilst those dealing with health, such as health visiting and inspection, were brought increasingly under the auspices of the medical or nursing professions. Perry Williams' analysis of nineteenth-century women sanitary reformers highlights the advancing medicalization of health care the early twentieth century, a process that undermined their authority:

[T]he knowledge-base of women's sanitary reform depended on the principle that good health was a product of good housekeeping; but from the 1870s onwards the rich theories of disease causation, which had roles for air, diet, clothing and emotional state, were steadily displaced by a reductionist germ theory. ... Disease became identified with the presence of a microbe which could only be detected in a laboratory by a highly-skilled experimenter.¹

Although the household science movement had sought to work within the modern scientific paradigm, its interdisciplinary approach to social problems was essentially a

¹ Perry Williams, 'The Laws of Health: Women, Medicine and Sanitary Reform 1850-1890' in *Science and Sensibility: Gender and Scientific Enquiry 1780-1945*, ed. Marina Benjamin (Blackwell, 1991), pp. 60-88.

reinterpretation of the earlier holistic approach and thus equally subject to displacement by medical experts as the twentieth century progressed.

Women's domestic roles, at least for the middle-classes, were also being transformed between the wars by the decline in family size, the rise in real incomes, and the growth of consumer industries. Processed, mass-produced food and the growing availability of domestic appliances such as vacuum cleaners and electric irons fragmented, automated or removed from the home many of the housewife's former functions, beginning a process of deskilling the housewife and changing the nature of her domestic role. Although the interwar housewife retained her importance as household manager, the notion of 'the home' as a centre of production or the sole source of social welfare nevertheless began to be eroded between the wars. It was thus increasingly difficult for the household science movement to promote 'the home' as the unifying principle of the discipline. New women's magazines such as *Good Housekeeping* (1922) and *Women's Own* (1932), which gave housekeeping tips and advice, also came to usurp the educative functions which the household science expert had been intended to provide.²

The household science movement's scientific and academic approach to the problem of social reform also failed to appeal to women in the interwar period. University women had from the start been wary of Lady Rücker's and Hilda Oakeley's

² Pugh, pp. 209-218.

clarion call for the women's higher education movement to commit itself to the cause of domestic reform. The interwar period was, in any case, hardly one of experimentation in women's higher education; most women's colleges were intent on assimilation to, rather than differentiation from, male academic models, and progress for women was measured by their achievements within traditional academic disciplines.³ Moreover, with the granting of the vote in 1918 to women aged 30 and over, a new generation of women graduates looked to politics rather than to domestic education and science as the best means of effecting reform in domestic conditions. Middle-class women joined with their working-class sisters in the period to campaign for better conditions for working-class wives and mothers, such as the provision of maternity and child welfare clinics, birth control, and family allowances.⁴ Many middle-class women, taking an even broader view of domestic life and the means of reforming it, turned to the international women's movement and the League of Nations, where social issues such as nutrition were also part of the international agenda.⁵

At the same time, middle-class women became involved in practical initiatives designed to alleviate the housewife's domestic burdens and/or enhance her performance of domestic roles and raise her social status. The National Council of Women's 'Household Service Committee' (1929) and its Research Sub-Committee (1932), did

³ Howarth, 'Women', pp. 350f; Vera Brittain, *The Women at Oxford: A Fragment of History* (George G. Harap, 1960), p. 238.

⁴ Pugh, pp. 229-232.

⁵ Miller, pp. 14, 25.

encourage a more theoretical approach to domestic reform through the application of scientific management to household organization, but on the whole most initiatives addressing the problem of domestic life did not share the household science movement's preoccupation with understanding scientific principles.⁶ The Electrical Association for Women (1924), for example, made some attempt to familiarize women with the basics of electrical engineering as a means of demystifying the new energy source, but its purpose was to promote the use of new electrical appliances--ostensibly with a view to improving domestic hygiene and liberating women from heavy household chores.⁷ The Women's Institutes and their partners the Townswomen's Guilds (founded in the late 1920s) aimed to raise the status of the housewife through the promotion of both domestic crafts and citizenship values, an agenda aimed at cultivating her self-confidence and political awareness.⁸ Indeed, it is telling that several of the women members of the household science 'inner circle' became involved in such practical initiatives or voluntary work in the interwar period: Hilda Oakeley became warden of the Passmore Edwards Settlement (at the behest of Mary Ward) upon her resignation from KCW; Maud Taylor was active in the Girl Guide Movement; and Lady Rücker was a stalwart supporter of the Women's Institutes.⁹

⁶ H. Pearl Adam, *Women in Council* (pp. 49-50).

⁷ See Caroline Haslett, ed., *The Electrical Handbook for Women* (Hodder & Stoughton, 1934); Rosalind Messenger, *The Doors of Opportunity: A Biography of Dame Caroline Haslett* (Femina Books, 1967), p. 67.

⁸ Pugh, pp. 226-230; Harrison, pp. 8, 197-198.

⁹ Oakeley, *My Adventures*, p. 156; Maud Taylor, KCHSS: QA/CC/77; interview with Ann Rücker and Elizabeth Nixon.

Interwar financial retrenchment and depression also served to undermine the household science movement's scientific approach to social reform. Continued concern about the rate of infant mortality (at least amongst the working class) and the problem of poverty heightened the need for more expedient and direct measures to improve domestic conditions. As in the Edwardian period, opinion was divided between those who attributed domestic problems chiefly to poverty and those who blamed the ignorance of the working-class housewife.¹⁰ For both paths in the interwar years, however, the remedies seemed to be essentially practical--family allowances or free milk and school meals for children, or child care classes and clinics. Science still had a part to play in social reform, but it was a specialist and ancillary role, typified by advances in medicine and nutrition. The interwar focus on poverty, on the one hand, and on domestic education, on the other, thus left little scope for household science's indirect, academic solutions.

¹⁰ Smith & Nicolson, pp. 228-232; Berridge, pp. 232-233.

• APPENDIX A •

SELECT BIOGRAPHICAL APPENDIX

ATKINSON, Mabel. Lecturer in economics and ethics, KCW, 1908-1914. Glasgow University: Hons. Classics, 1898, Hons. Philosophy, 1900 (1st); research student, London School of Economics, 1900; Research Fellow, Bryn Mawr, 1902. Lecturer in philosophy and assistant to Professor of Classics, Armstrong College, Durham University 1904-1908.

FAITHFULL, Lilian M. (1865-1952) Vice-Principal, KCW 1894-1907. Somerville College 1883-1887, Hons. English (Cl. I); M.A. Dublin 1905, Hon. M.A. (Oxon), 1925; Secretary to Principal of Somerville, 1887-1888; Assistant Mistress, Oxford High School for Girls 1888-1889; Lecturer, Royal Holloway College 1889-1894; Principal, Cheltenham Ladies' College 1907-1922.

FREUND, Ida. (1863-1914) Lecturer in chemistry, Newnham College, 1893-1913. Girton College, 1882-86, Nat. Sci. Trip. Pt. I, Cl. I; 1886, Pt. II, Cl. I (Chem. & Phys), 1886. Supporter of suffrage movement and Southwark Settlement. Campaigned against 'domestic science' movement.

JACKSON, Sir Herbert. (1863-1936) Professor of Organic Chemistry, King's College, 1905; early scientific advisor to the household science movement; KBE & FRS 1917; work anticipated discovery of x-rays; also interested in actions of soap and solvents, glass and glaze colours, optical research.

LANE-CLAYPON, Janet. Warden, Dept. H&SS, KCW, 1916-23. M.D., D.Sc., London School of Medicine for Women and University College London; House physician at Royal Free Hosp. and Belgrave Hosp. for Children. Involved in child welfare movement.

LYTTLETON, Dame Edith. (- 1948) Supporter of household science movement. Playwright and biographer. Daughter of Archibald Balfour; War Refugees Committee (1914-18); Director of Women's Branch of Ministry of Agriculture (1917-19); Substitute Delegate to League of Nations, 1923, 1926, 1926-28, 1931. DBE 1917, GBE 1929. Married to Alfred Lyttleton (1857-1913) M.P., Head of Colonial Office 1903-06.

McKILLOP, Margaret Seward. Lecturer in Chemistry, KCW 1897-1915. Somerville College (Maths 1884 Cl. II; Natural Science 1885 Cl. I); M.A. Dublin; Tutor, Somerville 1885-1887; Lecturer, Royal Holloway 1887-1891.

MACLEAN, Ida Smedley. (1877-1944) Newnham 1896-99 (Nat Sci. Trip. Pt. I Cl. I 1898, Pt. II Chem., Physiol, Cl. II, 1899). Demonstrator for Newnham 1903-06, Associate 1906-21, D.Sc. (Lond.) Assist. Lect. Manchester Univ. 1906-10, Beit Research Fellow Lister Inst. London 1910-1914, research worker at Admiralty, later in Gas Warfare Dept. 1914-18, Lister Institute, 1918-32. Awarded Ellen Richards Prize (Amer. Fed. Univ. Women) for most outstanding contribution to science during 1913. One of the founders of the BFUW (1907), Pres. 1929-35. Married to Hugh MacLean, Prof. of Medicine, St. Thomas's Hosp. London.

MELLANBY, Edward Sir. (1884-1955). Professor of Physiology, KCW, 1913-1920. Emmanuel College, Cambridge (1905). Work on rickets led to discovery of vitamin D. Secretary to Medical Research Council of Great Britain, 1934; primary role in the health and nutrition of British public during Second World War.

MEYER, Adèle, Lady. Wife of Sir Carl Meyer, 1st Bt. (1851-1922), director of the National Bank of Egypt and Chair of London Committee of De Beers. Financed first experimental years of the household science course at KCW.

MOTTRAM, Vernon Henry. (1882-1976) Professor of Physiology, KCHSS 1921-1944. Educated at Trinity College, Cambridge, Nat. Sci. Trip. 1903 & 1905. Trained with Gowland Hopkins at Cambridge and was physiology demonstrator there 1907-09. Instrumental in foundation of first academic post-graduate dietetics diploma course at KCHSS in 1936.

OAKELEY, Hilda Diana. (1867-1950) Vice Principal, KCW 1908-1915; Somerville College, 1895-1898 (Lit. Hum., Cl. I); M.A. McGill University, Montréal. Warden, Royal Victoria College for Women and lecturer in philosophy, McGill, 1899-1905; Tutor to women students, warden of hall of residence, and lecturer in philosophy, Manchester University 1905-1907; Warden, Passmore Edwards Settlement, 1915-20.

RAVENHILL, Alice. (1859-1954) Lecturer in Hygiene KCW, 1908-1910; Author of Board of Education Special Report on American Home Economics (1903). Hygiene lecturer for the Women's Cooperative Guild and author of numerous works on hygiene and child health. First woman fellow of the Royal Sanitary Institute. Later emigrated to Canada, lecturing in home economics in the United States. Given an honorary doctorate by the American Home Economics Association.

REYNARD, Helene. (1875-1947) Warden, KCHSS 1925-1945. Girton College, 1893-97 (Moral Sciences Tripos Pt. I. Cl. II, div. 2, 1895; Pt. II, Cl. II, 1897); M.A. (TCD), 1905; M.A. (Oxon.) by decree, 1924. Junior Bursar, Girton, 1904-13; Joint Director, Bradford Wool Extracting Co., 1913-22. Treasurer, Secretary and member of Council, Somerville College, 1922-25. Chairman, Women's Employment Federation 1936-37; Vice-President of Kensington & Paddington Society for Equal Citizenship; President, ATDS, 1934; served on executive of British Federation of University Women.

RICHARDS, Ellen Henrietta Swallow. (1842-1911) B.A., Vassar 1870. First woman to receive B.S. degree from MIT, 1873, where she later worked in sanitary science and home economics. Organized first Lake Placid Conference on Home Economics (1899) and served as the first president of the American Home Economics Association.

RÜCKER, Sir Arthur. (1848-1915) FRS, Physicist and Principal of the University of London 1901-1908. Brasenose College, Oxford, first class honours in mathematics (1870) and natural science (1871). Professor of mathematics and physics, Yorkshire College of Science (Leeds) 1874-1886.

RÜCKER, Thereza, Lady. (1863-1940) Educated Bedford College (occasional student). Member of KCHSS Executive Committee. Daughter of the geologist Mervyn H. Nevil Story-Maskelyne, FRS; wife of Sir Arthur Rücker.

SMITHELLS, Arthur. (1860-1939) FRS, Chemist and Pro-Vice Chancellor of Leeds University 1904-1912; Advisor to Household Science Department from 1907. Trained at Glasgow and Owens College, Manchester, and at Munich and Heidelberg. Professor of chemistry, Yorkshire College, Leeds (later Leeds University), 1885-1923; President of the Institute of Chemistry 1927-1930.

TAYLOR, Maud Rowson. (1870-1941) Served as Chair of the ATDS and as examiner in domestic subjects to the Board of Education; Head Teacher of Dublin Training School; examiner to training colleges for the National Union for the Education of Women in Domestic Science (which examined until the Board of Education insisted that training schools conduct their own examinations). Held ordinary diplomas for domestic science teaching and taught in elementary schools and county council classes. Commandant of three military hospitals during First World War, for which she received the MBE.

HEADS of KCW, H&SS Dept., and KCHSS 1894-1945¹

Lilian Mary Faithfull	Vice-Principal, KCW 1894-1907
Hilda Diana Oakeley	Vice-Principal, KCW 1907-1908 Warden, KCW 1908-1915
Frances Rosamond Shields	Warden, H&SS Dept., 1914-1916
Janet Lane-Claypon	Dean, H&SS Dept., 1916-1923
Lydia M. Henry	Warden, H&SS Dept., 1923-1925
Helene Reynard	Warden, H&SS Dept. and KCHSS 1925-1945

¹ Once KCW's Art Department merged with King's (Strand) in 1914, the H&SS Department had a separate Warden.

• APPENDIX B •

Numbers and Percentages of Students' First Jobs by Job Type, 1910-1949 (Database Sample)								
JOB TYPE	1910-19		1920-29		1930-39		1940-49	
	NO	%	NO	%	NO	%	NO	%
CATERING	-	-	-	-	6	2.5	10	4.5
COOK	3	6.5	8	7.8	12	5.0	5	2.3
HOUSEKEEPING	3	6.5	10	9.8	8	3.3	3	1.4
HOUSEMISTRESS	-	-	5	4.9	2	0.8	-	-
ALMONER	-	-	1	1.0	4	1.7	3	1.4
CHILD CARE CTTEE	-	-	2	2.0	1	0.4	4	1.8
SETTLEMENT	-	-	1	1.0	1	0.4	1	0.4
WELFARE SUPERVISOR	-	-	3	2.9	7	2.9	7	3.2
GOVERNMENT	-	-	1	1.0	3	1.2	2	0.9
LOCAL GOVERNMENT	1	2.2	-	-	3	1.2	1	0.4
MINISTRY OF FOOD	-	-	-	-	1	0.4	7	3.2
MINISTRY OF LABOUR	-	-	1	1.0	-	-	1	0.4
MINISTRY OF MUNITIONS	2	4.3	-	-	-	-	-	-
MINISTRY OF SUPPLY	-	-	-	-	-	-	10	4.5
ADMINISTRATION	-	-	3	2.9	7	2.9	6	2.7
EDUCATIONAL ADMINISTRATION	2	4.3	6	5.9	10	4.1	4	1.8
DOMESTIC SCIENCE MISTRESS	8	17.4	19	18.6	63	26.0	29	13.1
MISTRESS (OTHER)	11	23.9	13	12.7	13	5.4	10	4.5
HIGHER EDUCATION	2	4.3	8	7.8	8	3.3	2	0.9
DIETITIAN (HOSPITAL)	-	-	4	3.9	15	6.2	16	7.2
DIETITIAN (OTHER)	-	-	3	2.9	2	0.8	4	1.8
HOSPITAL COOK	-	-	2	2.0	18	7.4	7	3.2
SCHOOL MEALS ORGANIZER	-	-	-	-	2	0.8	4	1.8
LABS (INSTITUTIONAL)	6	13.0	-	-	4	1.7	13	5.9
LABS (COMMERCIAL)	1	2.2	2	2.0	16	6.6	48	21.7
BUSINESS/INDUSTRY	1	2.2	4	3.9	14	5.8	7	3.2
ELECTRICITY	-	-	2	2.0	1	0.4	-	-
GAS	-	-	3	2.9	8	3.3	-	-
WAR	1	2.2	-	-	5	2.0	11	5.0
OTHER	5	10.9	1	1.0	8	3.3	6	2.7
TOTALS	46	99.9	102	99.9	242	99.8	221	99.9

• APPENDIX C •

Total KCHSS Degree and Diploma Students
and Number Included in Database

	NO. of GRADS	NO. in DBASE	MISS- ING		NO. of DIPL.	NO. in DBASE	MISS- ING
1911					2	2	--
1912					2	2	--
1913					8	7	1
1914					9	7	2
1915					1	1	
1916					NA*	(7)	--
1917					NA*	(5)	--
1918					4	4	--
1919	-	-	-		12	11	1
1920	6	5	1		9	7	2
1921	4	1	3		12	10	2
1922	7	5	2		3	3	--
1923	12	9	3		6	5	1
1924	12	7	5		1	1	--
1925	13	10	3	(TOTALS)	(69)	(60)	(9)
1926	18	15	3				
1927	7	7	-				
1928	13	12	1				
1929	17	13	4				
1930	18	17	1				
1931	21	20	1				
1932	18	17	1				
1933	23	22	1				
1934	29	27	2				
1935	34	30	4				
1936	35	31	4				
1937	36	33	3				
1938	44	39	5				
1939	45	40	5				
1940	32	26	6				
1941	37	36	1				
1942	27	26	1				
1943	27	26	1				
1944	27	14	13				
1945	18	16	2				
1946	19	16	3				
1947	36	32	4				
1948	30	25	5				
1949	37	28	9				
1950	23	20	3				
TOTALS	(725)	(625)	(100)				

**Not Available

NOTE: Of approximately 793 graduates in the period 1908-1949, approximately 685 (86.4%) are represented in the database. The number of diploma graduates in 1916 and 1917 are not available. There were a handful of diploma students in the years after 1925 but, as no pass lists are available after this date, they have been excluded. See APPENDIX D, p. 406, for sources.

• APPENDIX D •

DATABASE REFERENCES

Information about KCHSS graduate's careers was taken from the following:

KCHSS Annual Reports 1916-17, 1922-23--1949-50 (QEPH/RPT1-26)
Student Address Book (Q/RAD/1)
Oral/Written Evidence from Graduates

NUMBER OF GRADUATES

Information relating to the number of KCHSS graduates was found in the following:

KCHSS Annual Reports 1916-17, 1922-23--1949-50 (QEPH/RPT1-26)
London University Gazette: 1918-1939
University of London Archives: Miscellaneous Pass Lists 1940-1949
King's College and King's College for Women Calendar 1913-14, 1914-15

• APPENDIX E •

MANUSCRIPT SOURCES FROM KCHSS GRADUATES

*From Patty Jarvis Fisher Papers:*²

NAME	NÉE	KCHSS	DATE
Edna Strange	Allen	1922-25	14 Sept. 1976 (L)
Irene Lady Squire	Arnold		12 July 1976 (L)
Hilary Baker	Bonham-Carter	1919-22	[n.d., c. 1976] MS)
Anne A. MacDonald	Biss	1923-27	20 Sept. [1976] (MS/L)
Olive Clendinnen**	Clendinnen	1923-28	21 Apr. 1976 (L)
Patty Fisher	Jarvis	1924-27	[n.d., 1953] ³
Margo Fixen	Boas	1917-20	27 Sept. 1976 (L)
Janet M. Gilbert	Fison	1916-19	19 Sept. 1976 (L)
N.M. Hazelgrove	Hutchings	1925-28	[n.d., 1976] (MS)
Janet Ellicott	Laxton	c.1920-23	16 Sept. 1976 (L)
Margaret Macfarlane	NA	1920-23	12 Sept. 1976 (L)
Vera Mason	NA	1917-20	17 Feb. 1977 (MS)
" "	"	" "	17 Mar. 1977 (MS)
Barbara Milner	***	1916-23	16 June 1976 (L)
Margaret Montgomery	***	c.1920	24 Sept. 1976 (L)
Mamie Olliver	NA	1923-26	21 Apr. 1976 (L)
G. Harriet Warraik	NA	1921-24	21 Sept. 1976 (L)

MS=Manuscript
L=Letter
NA=Not Applicable

**married name not known
***maiden name not known

² All letters from this collection are addressed to PJF unless otherwise noted. All manuscript material is in the author's possession.

³ Patty Fisher, 'The College - Past and Present,' unpublished MS (PJF).

Collected by the Author:

NAME	NÉE	KCHSS	DATE
Betty Marion Nash	Aldridge	1941-44	20 Mar. 1991 (MS)
Audrey Green	Ayers	1939-41	8 Apr. 1991 (MS)
" "	"	" "	21 June 1993 (MS)
Hilda Greene	Bassett	1939-43	14 Mar. 1991 (MS)
" "	"	" "	3 June 1993 (MS)
Hazel M. Plowman	Broughton	1939-42	13 June 1991 (MS)
Barbara A. Wilson	Glascok	1935-38	30 Aug. 1992 (MS/L)
" " "	"	" "	2 July 1993 (MS)
Joyce Doughty	Griffiths	1939-43	16 Mar. 1991 (MS)
" "	"	" "	3 June 1993 (MS)7
Audrey M. Dudson	Hamilton	1939-44	[n.d., c. 1991] (MS)
Pamela M. Coleman	Harrison	1939-42	5 Apr. 1991 (MS)
Elsie Mansbridge	Hedin	1936-40	20 Sept. 1990 (L)
" "	"	" "	13 April 1991 (MS/L)
" "	"	" "	2 June 1993 (MS)
Joan Stooke	Jasper	1937-40	28 May 1991 (MS)
Phyllis R. Annesley	Jeffs	1936-40	[n.d., c.1991] (MS)
Marjorie M. Lee	NA	1942-46	[n.d., c.1991] (MS)
Sheila Clark	McCloy	1938-41	25 Sept. 1991 (MS)
Dilys Rawson	NA	1941-77§	[n.d., c.1991] (MS)
Freda Redfearn	NA	1938-41	21 Nov. 1990 (MS)
Joan Stooke }	Jasper }	1937-40	16 June 1993 (MS)
Jean West }	Bates }	" "	" " " "

INTERVIEWS:

NAME	NÉE	KCHSS	DATE
Patty Fisher	Jarvis	1924-27	7 Aug. 1989 Edenbridge
V.M. Scott Carmichael	NA	1929-32	13 Feb. 1990 Cambridge
Elsbeth M. Averill	Marshall	1922-25	7 May 1993 Oxford
" " "	"	" "	2 June 1994 Oxford

MS=Manuscript
L=Letter
NA=Not Applicable

**married name not known
***maiden name not known

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B. Archival Sources

1. Institutions & Organizations
2. Private Papers

C. Published Primary Sources (to 1939)

1. Newspapers
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