FOOD AND SOCIETY

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'Waste Not, Want Not'

Food preservation from early times to the present day

EDITED BY C. ANNE WILSON

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6.

Nineteenth- and Twentieth-Century Trends in Food Preserving: Frugality, Nutrition or Luxury

LYNETTE HUNTER

To set the story in a context: before the easy-to-purchase and relatively cheap food supplies of the second half of the nineteenth century, skills in the preservation of food were essential to survival. Such skills were, arguably, the most important part of the domestic economy: conserving and preserving and storing the fruits, vegetables and meats from a period of harvest or slaughter through a period of scarcity. The pattern of feast or famine was after all dependent upon unavoidable seasonal constraint on the supply of food and on the economic ability to obtain it. Underlying all the evidence from surviving printed books, the basic necessities of sustenance depended upon a good knowledge of how to store foods and how to dry them, neither method involving any additional expenditure, and then upon salting, and to a smaller extent potting. Preserving with sugar and alcohol was, for centuries, too costly for general domestic use, and the use of vinegar, particularly in pickles and relishes, was largely for making condiments rather than preserving foods.

Knowledge of preserving techniques was so important that it must have been part of the basic training of most people up until the early nineteenth century at least, and was probably orally transmitted. In choosing to look at preserving and changing attitudes toward it from the evidence of printed books, I am taking a particular perspective that works under a number of constraints

which can be touched upon by trying to respond to the question: why did people see a need to write down these accounts rather than simply transmit them orally? One reason may have been the need to respond to entirely new social events, such as the shift from a largely rural to a concentrated urban population, or to the adulteration of foodstuffs, or the effect of changes in architecture. Another reason was the need to inform people about contemporary discoveries of new techniques and preserving agents. A third and highly problematic reason must have been the need to adapt these essential skills to the changing activities of men and women in the household, adapt them from the more integrated domestic scene of pre-1600 to the separate and relatively isolated work of the housewife, the housekeeper and the servant.[1]

Until the early nineteenth century each of these reasons, and they are only a selected few, uses the print medium to tell a specifically middle-class audience about something new, and in this sense looking at evidence from printed books yields an atypical picture of what was happening even for the middle classes. At the same time these books do indicate a considerable amount about the construction of domestic social activity in the middle classes from the Renaissance to the coming of industrialisation. Where the picture becomes far more complicated is during the nineteenth and twentieth centuries when the print medium reaches out to a vastly enlarged audience, and we begin to see preserving skills presented in radically different ways. The main part of this discussion will explore the reasons behind the dearth of preserving information in most domestic cookery books from the 1830s, and its re-introduction into some groups of books from the 1880s. The chapter suggests that skills which had been necessary to survival because they ensured a supply of food, whether to the agrarian or the new family domestic economy, were, for a number of reasons, simply made redundant in the early nineteenth century. What becomes of interest is why

people then chose to reintroduce these skills and what reasons they had for doing so.

The books that survive from the sixteenth to early nineteenth centuries are, for the most part, substantial cared-for products that represent a relatively affluent readership. Simply due to the way books were produced during this period,[2] much ephemeral writing aimed at labouring people has not survived, and we have few examples to indicate what might have been the concerns of such an audience. Of the extant books concerning food from the sixteenth to mid-seventeenth centuries, most address the courtly lady or the gentlewoman emerging from the newly landed gentry;[3] and most present preserving skills as an important domestic responsibility with one or two writers treating the field, superficially at least, as a lady-like hobby.[4] The earliest cookery books were concerned with sugar cookery, much of it directed to the preserving and conserving qualities of this relatively new foodstuff which was suddenly coming into Europe in large quantities.[5] Other aspects of preserving were primarily to do with vinegars, and these sections were often combined into books with sections on medicine or cosmetics and brewing. By the 1630s, sections on preserving were increasingly often included in books about cookery, although the two sections were kept quite separate. Indeed one of the reasons preserving was considered a suitable activity for an aristocratic lady may well have been its separation from mundane cookery, as well as the prestige it carried with it of a knowledge essential to housekeeping. Partly, one suspects, in an attempt to imitate what was thought to be the life-style of aristocratic women, several late seventeenth and early eighteenth century books like *The Accomplish'd Female Instructor* (1704) aim to teach conduct, preserving, conserving, household receipts and medicines but not cookery.

After the Commonwealth period and particularly after 1695,[6] books on food were aimed more and more at

burgeoning middle-classes. The books that survive indicate that an understanding of preserving skills was still considered essential to the activity of the household.[7] It was the fundamental knowledge upon which planning ahead, budgeting and responsible household management were founded. But the kind of household in question, and particularly the work of women within it, was becoming quite different from that of the late Renaissance. An example of how the household was changing can be gained from a comparison of Gervase Markham's *Country Contentments* (1615) with Eliza Smith's *The Complete Housewife* (1727). Markham delineates the duties that fall to the woman of a household but also outlines their interconnection with the whole range of domestic responsibilities. Furthermore, it is clear that Markham's woman of the household would not have been working alone. In contrast, Eliza Smith concentrated on preserving, cookery and brewing as specifically the housewife's or gentlewoman's province, and includes seasonal bills of fare, table-settings and medical recipes. It is not totally clear, but the impression is given that Smith's housewife is not working with a group of people although she may have had servants. Markham's woman of the house is working within a rural economy, firmly seasonal, and she survives into the eighteenth century, mainly in the form of the housekeeper to large landed houses (H. Glasse) and partly in the new profession of innkeeper (E. Raffald). Smith's housewife, still aware of the seasons, is an urban creature dependent upon street markets, whose successors become less and less gentlewomen and more plain housewives to whom preserving skills are, as in Penelope Bradshaw's *Family Companion* (1750) or Susannah Carter's *The Frugal Housewife* (1765) or E. Spencer's *The Modern Cook; and Frugal Housewife's Complete Guide* (1782), a matter of domestic management and frugal housekeeping.

Until the early nineteenth century nearly all women would have had to know something about preserving food.

Apart from alerting women to the professions of housekeeper and innkeeper and popularising individual writers, the main reason for printed books on the topic must lie partly in the changing social structure of the middle-class domestic household, which gradually placed all the responsibility for these skills onto the single housewife – although she may have directed servants to help her – and partly in the market-based economy which the housewife had to learn to use frugally.[8] Later in the eighteenth century a better understanding about the principles of preserving food, with a new technology applying the understanding and with commercial outlets exploiting the product, fundamentally undermined the need for such skills in a domestic setting aimed at frugality and in doing so fundamentally altered the activity of the housewife: she no longer preserves but buys, she no longer produces for herself but consumes products made for her. More than this, activities that would have occupied a large part of domestic budgeting and household management no longer needed to be carried out. In order to grasp the far-reaching effects of changes in the technology of preserving I would like to summarise some background dealt with in greater detail elsewhere in this book.

Preserving techniques in Britain until the early nineteenth century, in descending importance to the majority and in ascending cost, included drying, salting, potting, vinegar-pickling, sugar-bottling or candying, and conserving in alcohol. As with all preserving techniques, they depend either on the addition of a preservative or upon the deprivation of the rotting agent which is usually either moisture, air or heat. Sometimes the former affects the latter. The main aim of each technique was to keep the foodstuff edible until such time as it was to be eaten, although the process would have produced flavours and textures which came to be appreciated for themselves. The most widely written-about techniques in these early books for the middle-classes discuss the use of salt and sugar.

The story of nineteenth century preserving technology is mainly about how the use of sugar in bottling came to be superseded by canning, and the use of salt in dry-salting, brining and pickling came to be superseded also by canning but more importantly by refrigeration.

In the late medieval period sugar was a very expensive product. It was soon recognised that it could be made to go further by diluting it with water into a syrup. Although this lessened its preserving qualities, the bottles that held the syrup served another function by excluding air. The exclusion of air was an important principle that interested many early scientists such as Robert Boyle,[9] and people who wrote books with sections on preserving often implied and sometimes explained that bottling was the main technique allowing for economising on sugar.[10] Yet even in the eighteenth century there was an awareness of further complexities, and writers advise on the preference for narrow-necked jars and warn their readers not to put their fingers, or utensils that have been used for other foods on the table, into jars of preserves.[11] Until the late eighteenth century, most recipes concentrate on excluding air from coming in: there are elaborate combinations of lids, paper, brandy-paper, leather, bladder, cork, cork and resin – and excluding materials – fat (preferably mutton because of its low setting point), oil, or juice (for example lemon). But it was gradually recognised, particularly following Priestley's work with oxygen in the 1760s, that another problem was the 'air' already in the jar, in the very mixture to be preserved. This problem was referred to as 'oxidation' and was the main concern of the next advance in technology.

Due to a sugar shortage during the Napoleonic Wars, the post-revolutionary government established a prize to encourage new work on the preservation of food in bottles. In 1808 Saddington proposed, to the English Society for Arts, the boiling and scalding of bottles as a solution; and in 1810 Nicolas Appert finally won the large money prize from the French government for his careful organisation

of heated bottles with a champagne-type seal. The results of Appert's work were studied by the chemist Guy-Lussac, who concluded that it was the oxygen being driven out of the bottle during heating, and then prevented from re-entering, which resulted in success and the prevention of oxidation. At precisely this time, again with the practicalities of army provender in mind, Peter Durand in England took out a patent on sealing food in cans. Canned food was taken on Parry's arctic explorations in 1814–16, and came into its own during the Crimean War.[12]

By the 1830s the principles were better understood and the technology more precisely applied so that there was a reliable method for producing bottled goods, and the same could be said for canned goods by the 1850s.[13] But the products had to reach the buying household. This they did through the explosion in retail trade outlets or shops occurring in most urban centres[14] from the 1840s, and eventually all but supplanting the street markets. The products needed the shops and the shops needed the products. Markets were increasingly less central to the dominant urban economy and the housewife was urged instead into shop-bought bottled and canned goods by a growing advertising industry based on the packaging of the goods.[15] Evidence that the housewife responded does seem to be provided by the cookery books of the early nineteenth century. Elizabeth Raffald's *The Experienced English House-keeper* which was published several times between 1769 and 1796, has a large and consistent section on preserving. In contrast, an equally popular nineteenth-century book, *A New System of Domestic Cookery* (second edition, 1807) by Maria Eliza Rundell, includes a large number of preserving recipes in the early edition of 1807, but by 1819 there are far fewer. Some recipes were shifted to a section specifically on sweetmeats. Also of possible significance, whereas the writer/editor of the 1807 edition explicitly stated at the start of the sweetmeat section that these recipes were less important for private families since

such things could be bought at far less expense than they could be made, the identical statement is transposed to the preserving section in the edition of 1819.[16]

By the middle of the nineteenth century, so few cookery books contain a substantial section on preserving that the exceptions to this rule are particularly informative. In Eliza Acton's *Modern Cookery* of 1845 there are detailed instructions for preserving fruit, but we have to remember that this is the same Acton who was a working journalist, concerned with issue of public welfare, and who was to write *The English Bread Book* (1857), specifically to address the problem of the adulteration of shop-bought bread by encouraging people to make their own. By the 1868 edition of *Modern Cookery*, Acton feels the need to make the same intentions clear for her section on preserving and scathingly criticises the 'unwholesome [preserved] fruit vended and consumed in very large quantities' by the shop-buying public.[17] Acton's stress on the 'wholesome' is a significant precursor of the direction that preserving recipes will take when they re-enter cookery books at the end of the nineteenth century. No longer can the housewife claim to be frugal when she uses preserving skills, but she can claim to produce more nutritious and healthy food. The same argument, however, did not apply to salting.

Techniques of preserving that used salt were far more widespread than those using the more expensive sugar, and much older in cultural practice.[18] Although eggs and some vegetables, particularly green beans,[19] were salted, the main foodstuff preserved in this way was meat.[20] Beef cattle in particular were slaughtered wholesale in the autumn because there was rarely enough hay to keep them through the winter, so the meat had to be preserved. Brining and dry-salting must have been such a central part of general life that it is not surprising that there are few recipes in the early cookery books, despite the fact that with the imposition of taxes on salt from 1785 to 1825, frugality with salt must have been important.[21] By the end

of the eighteenth century, most books included some recipes, for example there is almost always one for Westphalia ham and salt beef, and from the early nineteenth century there is an increasing number of recipes for foreign salted foods like polonis and salamis, presumably in response to wider continental travel of private families. But these recipes, too, disappear from most domestic cookery books after the mid-century, only surfacing in a few trade receipt books for professional shop-keepers like James Robinson's *The Whole Art of Curing, Pickling and Preserving* (1847). This work is addressed to the trades, particularly the fishmongers, but includes (unacknowledged) many of Rundell's recipes: the line between commercial and domestic preserving was not yet clearly drawn.[22]

It appears that the main reason that salting recipes fade from cookery books, apart of course from the advent of the can, is the introduction both of ice-cooled and of refrigerated boxes during the 1830s. The use of cold to preserve food had fascinated the English from Bacon's experiments in 1626,[23] to Pepys' amazed discussion in the 1670s on the frozen Baltic chickens, to the later 1799 discovery of the frozen mammoths in Russia. Since the Renaissance, several great country houses in Britain had had ice-houses,[24] but until Rundell's advice in 1807 on unfreezing food slowly, there were few remarks in general domestic books.[25] From the early 1800s the trade in ice grew from the first imports from Norway in 1822, to the artificial production of ice in the 1860s. At the same time Jacob Perkins, an American engineer working in Britain, developed the ice-cooled refrigerator and produced it for sale between 1835 and 1870.[26] From the 1860s meat was available in cans, and from the 1880s cheap imports from Australia and New Zealand were being imported in cans and by refrigerated ships.

A secondary reason for the loss of salting recipes was a growing concern with the nutritional value of preserved foods. Michael Donovan, that centre of sense, comments

that 'The object is . . . to preserve, as much as possible, the nutritiousness of food and its salubrity, and to prevent its doing actual injury to health . . .' (p. 243). Just as the French army was concerned with dependable food supply during the Napoleonic Wars, so the British army launched intensive study into methods of food preserving during the 1840s and 1850s leading up to the Crimean War. *Food and its Adulterations* compiled by A. Hill Halsall in 1855 lists a series of tests conducted by and for the army in ways of keeping meat without salting it: not only canning and drying but also smoking, packing in tin foil, vacuum-packing and producing extracts of vegetables and meat.[27] In 1859 Beeton states that the action of salt on meat decreases its nutritive value, and by 1870 William Tegetmeier is advising against the consumption of much if any salted meat.[28] There is some evidence that American trends in health foods also began to have some influence on British attitudes toward eating at the end of the nineteenth century. Russell Trall's *The New Hydropathic Cookbook*, published in England from 1883, cites salt meat as the prime example of bad food. Also during this period there was the vigorous commercial marketing of Liebig's 'Extract of Meat' for domestic use, by the LEMCO organisation whose advertising suggested that salting meat was deleterious to health. Indeed, apart from one or two recipes apparently included to satisfy those who craved the taste of salted meat, and a brief resurgence from 1918 to the year 1925 (when the Public Health Preservation in Food Act actively promoted domestic refrigeration), only a few recipes for salting meat occur in British cookery books until Jane Grigson's *Charcuterie* of 1967.[29]

Some of this account may help us partly to understand the dearth of preserving recipes in domestic cookery books from the 1830s to the 1880s. What is more difficult to assess is why any such recipes should have reappeared at all. From the 1850s onward, the audience for printed cookery books expanded considerably,[30] and exploded

during the 1870s and 80s on the back of a proliferating periodical publishing industry, which was creating markets and responding to the demands for a wide range of general topics accessible to the reading publics that were defined in the aftermath of the Education Acts of 1867 and 1870. At the same time cookery books continued their progress into specialised genres, and focused not only on narrower topics but also on class divisions. Alexis Soyer's *The Gastronomic Regenerator* (upper-class, recherche dishes), *The Modern Housewife* (middle-class) and *Shilling Cookery* (artisan) is but one example of a specifically class-orientated approach common to many writers of the mid-century.[31] But for high or low, rich or poor, few of these books contained advice on preserving although several contained advice on how to use canned goods, for instance Emily de Vere Matthew on *Tinned Meats* (1887), and Jane Panton's *From Kitchen to Garret* (1888) which advised on the use of cheap canned and frozen New Zealand meat. One exception which *may* indicate a group of 'lost' books is the publication from the Labourer's Friend Society *A Second Series of Useful Hints for Labourers* (London, 1840) aimed at the artisan with an allottment[32] and containing advice on how to salt your pig.[33]

However, in the explosion of the 1870s and 1880s a distinct pattern emerges: books for working-class women do not contain recipes for preserving while those for middle-class women, and slightly later also for wives of artisans, do. *The Official Handbook for the Training School for Cookery*, published from 1888 for many years, contains recipes for using canned meat, one recipe for pickling meat and one for pickling cabbage. The foremost reason for the lack of preserving recipes is economic. The wider ranging household management and planning requirements of preserving of any kind imply having the time to do it, the money to buy ingredients in bulk as well as preserving agents and equipment, as well as, usually, a

source of heat and always space for storage. Most of the urban working-class population would not have had easy access to all, or indeed any of these requirements. The very concept of there being periods of plenty during which people save up against periods of famine is not part of an industrial working pattern. Neither the school text-books written for this audience nor the more general books of advice to these housewives, consider preserving as an important skill. Indeed W. Tegetmeier's *A Manual of Domestic Economy* (1870) account of working-class diet assumes that any fruit and vegetables are a luxury to this class, let alone being available in quantities enough to preserve. And fifty years later C. H. Senn's *Popular Cookery* of 1920 assumes that its readers buy in any preserved foods they need from shops – although his *Practical Gastronomy* (1892) for the middle-class housewife contains a range of recipes for conserves and pickles. Contrary to some current speculations, there is growing evidence not only from the cookery books but also from recent research in social history, that cans and can-openers were accessible to and used by the working-class population of the late nineteenth century.[34]

Unlike schools for working-class girls, middle-class schools did not teach cookery, so the text-books on general food preparation and management for these readers were usually written for specific Cookery Schools. Apart from these books this audience was also addressed by practical household management books which assumed that the housewife had at least one servant, by textbooks written for women attending the National Training Schools of Cookery in order to teach domestic economy in schools, and by conduct or etiquette books whose purpose was to provide information about what needed to be done in your household but did not expect you to do it yourself. There are several strands offered by these books when they include recipes for preserving, but the most important is that of

nutrition. To understand the influence of this strand, it is useful to look again at changes in the understanding of the principles of food preservation.

Until the early 1800s, the scientific and technological attention to preserving had focused on preventing the foods from rotting for immediate reasons of economy and frugality. Nineteenth-century scientific advances document a shift in focus away from frugality to nutrition: a move that closely parallels and must be interconnected with the same shift in the cookery books of the period, for preceding the resurgence of preserving recipes in books for a middle-class audience are the few books on vegetarianism or 'health' foods, usually beginning in the United States, directed with prophetic fervour to a more wholesome diet. These isolated books from the 1840s to the 1880s are being produced at the same time that Pasteur and Tyndall are doing their separate but related work on the effects of yeasts, moulds and bacteria on the deterioration of food.[35] Evidence that air carried not only 'oxidising' agents but also unseen organisms that rotted food, led to even more efficient systems for bottling and canning. However Britain, possibly because of its concentrated urban, industralised and shop-centred domestic economy, was slow to respond. Despite the success of George Fowler's patented bottling system during the 1890s,[36] even in 1916 the Royal Horticultural Society is complaining about the need to import good bottles from the Continent,[37] and canning was never a serious proposition for domestic preservation even in National Training School text-books,[38] although some books from the United States containing substantial instructions on canning were published here from 1890 to 1920[39] and there was certainly a domestic canning machine on the market.[40]

At the turn of the century scientific attention began to focus on the newly-discovered presence of enzymes, along with an extended understanding of fermentation processes and an appreciation of the role of vitamins in body

chemistry. For food preservation, the end result of this attention was a proliferation of suggestions for preserving food with as little heat as possible. Concern for the role that enzymes played in determining the taste of food as well as concern for the delicate biochemical balance maintained at body temperatures, meant the recognition that heating foods to preserve them in bottles was destroying their nutritional and gastronomic value. One solution was a short-lived attempt to promote the pressure cooking of cans for brief time periods,[41] and another was the extensive and helpful experiment by the Royal Horticultural Society on the shortest effective heating times and lowest effective temperature for bottling which led to a classic book on bottling which has been adapted and revised for nearly a century: *Fruit Bottling*.[42] But, ironically, the primary response to the deleterious effects of heat was to consider what could be 'added' to the environment of the food to stop rotting agents getting to it while preserving its natural processes. In the balance were two processes. The first concentrated on providing a surrounding unfriendly to bacteria and moulds, and here chemical additives came into their own. In 1859 Isabella Beeton, among a few others, had advocated using alum in bottling fruit in order to increase the dependability of preserving, but from the late 1800s more and more chemicals were added for this purpose, the most common being sodium sulphite.[43] The second process to which people at that time paid increasing attention, was that these additives might not only prevent the entry of external rotting agents but might also slow down, possibly by altering it, the natural maturation of the foods themselves. It is difficult to differentiate between the two processes and the second clearly changes the nutritional value and probably also the taste of the foodstuff. Worry about exactly what these additives were doing became so widespread, as use of them became more and more ubiquitous,[43] that the government had to control them, and in 1925 published

the Public Health Preservation in Food Act, which is in effect an early listing of allowable and prohibited E-numbers.[45]

The focus on the wholesome and the nutritious by scientists and technologists, was filtered out into books for a middle-class audience primarily through the text-books for training domestic economy teachers. These text-books, initially appearing in the 1870s and 1880s, claim for those who study them a serious area of learning. In most the pedagogic tone is based on the rhetoric of modern science: fact, proof, method and explanation. It has been suggested elsewhere,[46] and I think it is underwritten by these books, that domestic economy teachers were trying to define a field of academically respectable study in order to justify the serious status of their work; and since there were more obviously scientific aspects in preserving than elsewhere in cookery, it was a clear field for emphasis in their training.

The kind of book produced for these training schools, such as Catherine Buckton's *Food and Home Cookery* (London, 1879) or E. G. Mann's *Domestic Science Manuals* (London, 1899) among very many others, drew on an earlier tradition of male writers who had worked in the technical schools of the 1850s to 1870s. John Buckmaster's lectures on cookery were brought together into *Buckmaster's Cookery* (London, 1874) and William Mattieu Williams produced *The Chemistry of Cookery* (London, 1885). Both writers were widely influential, particularly Buckmaster who lectured at the National Training School for Cookery in London, and both focused on science as the basis for domestic cookery, Williams stating that

> The kitchen is a chemical laboratory in which are conducted a number of chemical processes by which our food is converted from its crude state to a condition more suitable for digestion and nutrition, and made more agreeable to the palate (p. 4).

In turn, Buckton and her colleagues in their text-books for training teachers, are concerned to discuss oxidation, fermentation, fibres, yeasts, moulds, bacteria, pasteurisation, sterilisation and so on; and they do so largely in the context of the preservation of wholesome and nutritious food.

When the students of the training schools went on to write domestic cookery books of their own at the turn of the century, as many of them did, preserving once more found a place, again firmly in terms of nutrition and wholesomeness. For example there is M. Fairclough's *The Ideal Cookery Book*, written for her cookery school, and containing a large section on preserving. The domestic reader had books such as *The Housewife's Cookery Book* published in 1920 but in effect an update of *Warne's Model Cookery* from 1871, which begins with the claim that 'The science of cookery is a knowledge of the choice of food and food materials, for just as an engine requires food to enable it to work, so the body requires certain foodstuffs to keep it in working order' (p. 1), yet continues much as the 1871 edition, but with the addition of a substantial section on bottling.

Less pretentious were the many specialised books focusing on preserves such as Helen Souter's *Aunt Kate's Jams and Jellies Book* (1910) or Rose Brown's *Pastry and Preserves* (1906) or S. Beaty Pownall's *Queen Cookery: Pickles and Preserves* (1908). These writers also contributed to a small group of books aimed at teaching the newly-impoverished genteel lady how to make delicacies that one could no longer afford to buy: an interesting index to the fact that economy could be reintroduced as an element. Furthermore, they also produced a well-defined but still limited group of books aimed at the upper-middle class lady with time on her hands and searching for something to do. Just as this lady was usually expected to be able to produce at least one meal on her own, a star turn, for the delight of her husband, she could also turn to the making of preserves

as a delicate hobby. Like the newly-emerging monied woman of the early seventeenth century to whom she was occasionally compared,[47] the late nineteenth-century lady could not be involved in mundane cookery but could take on the role of producing elegant gifts, acting the Lady Bountiful.

These Lady Bountiful books formed a curious partnership with the other main promoter of new preserving skills: the Royal Horticultural Society. Possibly due to the Allotment Act of 1887 which made it legally necessary for all local authorities to provide allotments, large numbers of people were growing their own vegetables and fruits, and from 1910 the Royal Horticultural Society was awarding prizes and medals for preserved fruits and vegetables.[48] In 1916 the society published Wilks' *Fruit-Bottling*, its flagship guide to preserving. However, the response from individual members of the Horticultural Society began earlier with for example the series of articles by May Crooke in the 1905 *Farm and Garden* on the smallholdings commission, or the Stoney's *A Simple Method for Bottling Fruit at Home* (1910) or Edith Bradley's *The Book of Fruit Bottling* (1907). This last contains an introduction by Wilks in which he comments that fruit bottling had gone downhill from the 1840s when he was a boy to its nadir in 1885, when 'I doubt whether there were a dozen ladies in the land who did their own bottling and preserving' (p. x). These books arrived just in time to lay a basis for response to the demands of World War I. Ernest Oldmeadow straightforwardly entitles his contribution: *Home Cookery in War-Time* (1915), and resuscitates many eighteenth-century preserving methods such as the use of mutton fat to seal jars, in an attempt at economy. While the Great War did remind people that domestic preserving could save money, the stress was still on health. Louise Andrea's *Home Bottling Drying and Preserving* (1920) emphasises the conservation of 'nutritive value' and the 'wholesome', but in the light of war-time experience she proclaims 'Empty jars can be put to splendid use; if allowed

to remain empty they are voiceless but eloquent reproaches' (p. 10); indeed 'Empty jars are slackers' (p. 18). By the end of the war Bristol University had established a Fruit and Vegetable Preservation Research Station.[49]

After the war there was another wave of books specifically on preserves and of general books containing substantial sections on preserves. Among the former are the Banks's *Fruit and Vegetable Bottling* (1928), the Royal Horticultural Society's update on Wilks' *Fruit-Bottling*, and the closely related *Domestic Preservation of Fruit and Vegetables* (1929), edited by M. L. Adams for the Ministry of Agriculture. Among the latter are found the Good Housekeeping Institute's newly influential guides. The Good Housekeeping Institute's director, D. Cottington Taylor, also published *Frigidaire Recipes* which is by and large cooking with refrigerated foods in 1930, and by 1938 the Canned Foods Advisory Bureau employed Janet Bond to write *Janet Bond's Book: A Practical Guide to the Use of Canned Foods*, in which she claims that canned goods not only preserve more vitamins than domestic preserving, but have also arrested the decline in fruit culture, freed women from the kitchen into careers and acted as the guardian of the Nation's Health. But 1939 and World War II shifted the emphasis firmly back on to preserving within the home and the 1940s saw a whole series of guides to effective methods, led by Crang and Mason's revision of Adams' book, for the Ministry of Agriculture, under the same title *Domestic Preservation of Fruit and Vegetables* (1942). The book begins resolutely on the first page saying that:

> the object of preservation is to take food at its point of maximum palatability and nutritive value and keep it at this stage . . . a study of these changes has shown that they are due partly to the action of enzymes in the food, partly to the growth of micro-organisms in contaminating them.

It proceeds with instructions for jams, jellies, marmalade, cheeses and butters, bottling, canning, deep-freezing, chemicals, syrups, candying, preserving vegetables, vinegars, pickles, chutneys, sauces, drying, salting beans and storing. Crang and Mason's work, apart from the sections on deep freezing, could have been written before World War I, but it includes a rather different audience, the working class, in its address.

Most of these books on preserving from the 1880s to the 1940s were resolutely directed towards a middle- and upper-middle class audience, and the class specificity raises a difficult problem. Ever since domestic preserving as an essential for survival was superseded by shops and their cheap goods, it had occupied a tenuous place in cookery books. Exactly because it moved out of the mundane, or those things essential for everyday survival, it had nothing to fall back on to prove its necessity or relevance. Preserving, while attempts were being made to reclaim it in terms of nutrition, became fundamentally superfluous to daily needs. In a curious way the situation focuses on the fact that during the nineteenth century preserving in any but the most basic sense was beyond the poor, and then the working-classes: they were too impoverished to practice frugality and thereafter too impoverished to practice nutrition. It is ironic that while the Napoleonic and Crimean Wars precipitated the processes of domestic preserving out of women's hands, World War I and particularly World War II, partially put it back. The events related to these two twentieth-century wars also broadened the constituency for preserving by changing food supply routes, by making preserving once again essential to survival; and, possibly most importantly, because there had been a radical break in the oral history of preserving techniques, from say 1830 or 1840 to 1910, the surge of printed book instructions at the turn of the century were not just addressed to a privileged audience but to a much wider range of reader. An introduction to the basics went

hand in hand with an introduction to condiments, relishes and conserves that were not strictly essential. General cookery books from the immediate post-1939 period invariably contain a section on preserving techniques, although these largely diminish to conserves and pickles by the end of the 50s.

Why do people continue to preserve on any scale? This is an extremely difficult question to answer. After all we do not technically need to do so for survival or nutrition, and there are many cheerful commercially-produced gift bottles around. For certain generations, in which I would include my own, there is a nostalgic remembrance of childhood post-war rationing days when it *was* necessary to bottle and jam, to harvest in plenty, to put up against want and to waste not: then as now it was often a communal and social activity. For some, there is the confidence of knowing exactly what has gone into the foodstuff: home preserving is the only sure way of evading major additives and of controlling sugar content, and so on. For many, there is the delight in the activity of cooking and in the beauty of the product, neither of which is strictly necessary. Possibly for most people preserving has become a kind of signature. Making our own preserves, conserves and pickles allows us to vary the flavour and taste of a recipe that is frequently traditional, and to recognise quite precisely how the network of food distribution and supply, quality and quantity, changes from year to year. The products are also often communally distributed, so that every year you wait with anticipation for one friend's pickle and with dread for another's jam; they are the staple of countless school sales and fund-raising fairs. Preserving brings the general domestic cook closer to the subtleties of cooking than our mundane cooking normally allows, and in our culture it is looked upon primarily as a leisure activity. How long it will remain so is unclear.

Notes and References

1. This shift is attested to by the surge of domestic books directed at the private housewife from the late seventeenth into the eighteenth centuries, many of which are concerned with the way that the household needs to be organised in a private dwelling and overseen by just one person: the wife. The shift is looked at briefly by A. Oakley *Housewife* (London, 1974) pp. 1–59, and the margin that it shares with conduct books is glanced at by N. Armstrong *Desire and Domestic Fiction: a Political History of the Novel* (Oxford, 1987).
2. For an account of provincial printing of cookery books see L. Hunter 'Printing in the Pennines' in *Traditional Food East and West of the Pennines*, ed. C. A. Wilson (Edinburgh, 1991).
3. I am omitting reference to books on the topic addressed to male readers, mainly because those that do exist are not primarily addressed to necessary household skills but to science, horticulture and later on to commercial production.
4. See H. Platt (London, 1605) discussed in L. Hunter 'Sweet Secrets' in *Banquetting Stuffe* ed. C. Wilson (Edinburgh, 1991).
5. See 'Sweet Secrets' as above.
6. In 1695 the Licensing Act was allowed to lapse and printing presses began to spring up all over England. Possibly because they had to serve the immediate interests of their local community many printers and booksellers moved swiftly into the field of domestic and conduct books.
7. See V. MacLean *A Catalogue of Household and Cookery Books 1701–1800* (London, 1979).
8. N. Armstrong in *Desire and Domestic Fiction* cited above argues that the ideology constructed for women during the late seventeenth and the eighteenth centuries defined the middle-class for England in terms of women decades before the male middle class began to organise itself on a private property-owning economy.

   An important aspect of the construction of middle-class ideology was the responsibility that devolved onto women of both the labouring and more especially the newly-monied classes of working out how to cope with the new economic structures of household management brought by the isolated families that resulted from aping the aristocratic 'houses'. 'Frugality' was necessary because a family had to live discreetly within one private income. The men who earned that income had little idea of how it could be used to maintain their discreet family, but household management was the largest if not the only necessary expenditure from it and women were left with the task of working out how to employ it. Knowledge of preserving was fundamental to this frugality.
9. M. Donovan *The Cabinet of Useful Arts, Domestic Economy* Vol. II (London, 1837), p. 222.
10. R. Bradley *The Country Housewife and Lady's Director, I*, 6th ed. (London, 1736, reprinted 1980), p. 104; Or Vol. II (London, 1732), p. 74 where he suggests using apple jelly instead of sugar.
11. For example C. Millington *The Housekeeper's Domestic Library* (London, 1810 [originally 1805]), advises on keeping a separate spoon specifically for taking preserves from jars; Mrs Rundell advises putting small quantities into separate jars for daily use. See also J. Evelyn *Acetaria* (London, 1982/1691), O 8v.
12. This short history has been told many times. An account of its effect on commercial food preserving may be found in H. G. Muller's '*Industrial Food Preservation . . .*', chapter 5. Charles (Nicolas) Appert's book, translated into English under the auspices of the East India Company is an accessible and interesting source book: *The Art of Preserving* (London, 1811).
13. By the 1850s there are large canning factories of Aberdeen and Leith with a substantial export trade according to I. Beeton *The Book of Household Management* (London, 1861), p. 299.
14. For example, A. Soyer in *The Modern Housewife* (1849) assumes that you buy beef ready-salted, and the book as a whole is partly a promotion for Crosse & Blackwell's sauces.
15. The Opie collection, now housed at The Museum of Advertising and Packaging in Gloucester, is a substantial collection of this material. The area is under-researched and needs study.
16. E. Rundell, *A New System of Domestic Cookery* (London, 1819), p. 225.
17. E. Acton, *Modern Cookery* (London, 1868), p. 494.
18. See for example M. Visser's compilation of information about salt in *Much Depends on Dinner* (Toronto, 1986); at one point he notes that the term 'corned' beef derives from the practice of covering the meat with grain-sized lumps of salt, and the 'Old Norse word *korn* which meant a grain-sized lump of anything'.
19. From John Evelyn's *Acetaria* (1699) to the Ministry of Agriculture's *Domestic Preservation* (1962), the salting of green beans is the one consistent thread in salted vegetables.
20. W. Tegetmeier asserts in *A Manual of Domestic Economy* (London, 1870), that the English have never been as enthusiastic as the Continental Europeans about salting vegetables.
21. M. Visser reports the Earl of Dundonald saying in 1785 that the taxes on salt and tobacco had led to '10,000 people . . . seized for salt smuggling, and 300 sent to the gallows for contraband trade in salt and tobacco', *Much Depends on Dinner*, p. 73.
22. J. Robinson, *The Whole Art of Curing, Pickling and Smoking* (London, 1847).
23. In 1837 M. Donovan is suggesting that Bacon even died from eating chickens that he had frozen but unfrozen too quickly. F. Blandford in *About Food Preservation* (London, 1963) says it was death from pneumonia brought on by freezing them in the first place.
24. E. David, 'Fromages, Glacés and Iced Creams', in *Petits Propos Culinaires* 2 (1979), p. 24.

25. E. Rundell, *A New System of Domestic Cookery*, 2nd ed. (London, 1807), p. 34.
26. See F. Blandford *About Food Preservation*, cited above, for a concise background to this history.
27. A. Hill Halsall, *Food and its Adulterations* (London, 1855), pp. 436–47.
28. The reference from I. Beeton is in *The Book of Household Management* (London, 1861, reprinted 1968, first published in twenty-four parts 1859–61), p. 283.
29. H. Sarson's *Home Pickling* (London, 1940) which might have been expected to promote the use of Sarson's 'virgin vinegar' for the purpose, states that 'pickled meats are of small interest to the modern housewife' (p. 119).
30. From the 1850s the 'taxes on knowledge', which were the taxes on advertising, postage of periodicals, paper, and rag supplies for paper, were lifted, in 1853, 1855, 1860 and 1861 respectively; this substantially lowered the cost of printing and publishing.
31. See A. Soyer, *A Shilling Cookery for the People* (London, 1855), p. vii; and C. Francatelli, *The Modern Cook* (London, 1846) for 'private families' and his 'more economical' *Cook's Guide* . . . (London, 1861).
32. *The Oxford Companion to Gardens* outlines a brief and helpful history of allotment-owning which grew up slowly during the nineteenth century in response to the Enclosure Acts of the late 1700s. By the 1870s Members of Parliament were standing on the 'allotment' ticket.
33. It is difficult to ascertain from a brief survey of *The English Catalogue of Printed Books* how many of such works may have been published. They are exactly the kind of book that does not survive because it is well-used, and is not catalogued because it is not considered prestigious enough.
34. Discoveries by Pasteur and Tyndall began to be popularised during the 1870s, *Encyclopedia Britannica* (London, 1974).
35. A useful summary of this background can be found in O. Powell's *Successful Canning and Preserving* (London and Philadelphia, 1918).
36. Fowler's *How to Bottle* (Maidstone, 1898) was probably instrumental to the wide range of preserving books which emerged over the next fifteen years, since it offered an early application of Appert's technology for producing bottled preserves in the home.
36. W. Wilks, *Fruit Bottling* (London, 1916), p. 3.
37. For example the Battersea Polytechnic textbook published from 1914 to at least 1942 contains nothing at all on canning.
39. For example there are S. W. Dodds *Health in the Household* (New York, 1883) which had some currency in the UK during the 1890s, as did E. Witherspoon's *The Perfect Art of Canning and Preserving* (London and New York, 1891), Marion Neil's *Canning, Preserving and Pickling* (London, 1914), (Neil was a

graduate of the West End School of Cookery but wrote this book from Philadelphia), and Ola Powell's *Successful Canning and Preserving* (London and Philadelphia, 1918).

40. See for example those illustrated in O. Powell, *Successful Canning and Preserving*, pp. 10 and 51.
41. While the Banks's *Fruit and Vegetable Bottling* (1928) (see following footnote) advocates long boiling for vegetables in the preserving process, the *Radiation Cookery Book* (London, 1927) suggests the use of pressure cookers to save on heating costs.
42. W. Wilks *Fruit-Bottling* (London, 1916) was updated by V. and G. Banks in 1917, 1918, 1920 and republished as *Fruit and Vegetable Bottling, Pulping, Drying, and Canning* . . . (London, 1928). This is close to the first Ministry of Agriculture bulletin, edited by Miss M. L. Adams, *Domestic Preservation of Fruit and Vegetables*, Bulletin No. 21 (London, 1929), revised by B. A. Crang and M. Mason as *Domestic Preservation of Fruit and Vegetables* in 1942, following their *Preserves from the Garden*, also for the Ministry of Agriculture (London, 1940). The 1942 edition went through several editions to 1962.
43. The addition seems to have been reasonably common as is attested to by its presence in several recipes: for example those in *What to do with the Cold Mutton* (London, 1863); but other agents were used. A commonly used chemical was borax, for example see W. M. Williams description of the injection of boric acid into a stunned animal before it is slaughtered, in *Chemistry of Cookery* (London, 1885), pp. 170–1; and boric acid, along with benzoate of sodium and salicylic acid, were among the 'harmless preservatives' listed by O. Powell in *Canning and Preserving*.
44. Despite recognition that many chemicals are prohibited commercially after 1925, as evidenced by the comments in V. and G. Banks, *Fruit and Vegetable Bottling* (London, 1928), p. 30; but additions to domestic preserves seem to have continued. No warning against the use of campden tablets by M. Brady in *Health for All* (London, 1943), p. 98 would indicate their acceptance, substantiated by instructions for their use by the *Radiation Cookery Book* (London, 1927), by C. Grange; *The Complete Book of Home Preservation* (London, 1947) which also advocates the use of boric acid, and many other books from the 1920s to 1950s.
45. The Public Health Preservation in Food Act of August 1925 led to the January 1927 Regulation from the Ministry of Health whose list of prohibited additives resembles an early guide to E-numbers from antinomy and arsenic to zinc.
46. See D. Attar, *A Bibliography of Household Books published in England 1800–1914* (London, 1987), p. 25.
47. See for example B. F. Collier, in 'Of Ancient Recipes and old-World Cures', *The Woman's Agricultural Times*, Jan 1905, who notes that in the twentieth century there is 'the ubiquitous doctor at hand', 'every village has its store', while in the seventeenth century 'the Lady Bountiful of the country seat was also

practically the doctor for the countryside' (p. 85). Collier also explicitly compares the older family traditions of the gentlewomen, with the present need for women to combat gross manufacture with 'distinctive' taste. Also relevant are R. M. Bradley's remarks in *The English Housewife in the Seventeenth and Eighteenth Centuries* (London, 1912), where she relates the definitely 'distinctive touch' of the 'competent and intelligent housewives of the early Stuarts' to antiscientific, traditional and folkloric knowledge (p. vi).

48. V. and G. Banks, *Fruit and Vegetable Bottling*, introduction.
49. J. Bond, *A Practical Guide to the Use of Canned Foods* (London, 1938).

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