The Evolution of Kitchen Design

A Yearning for a Modern Stone Age Cave

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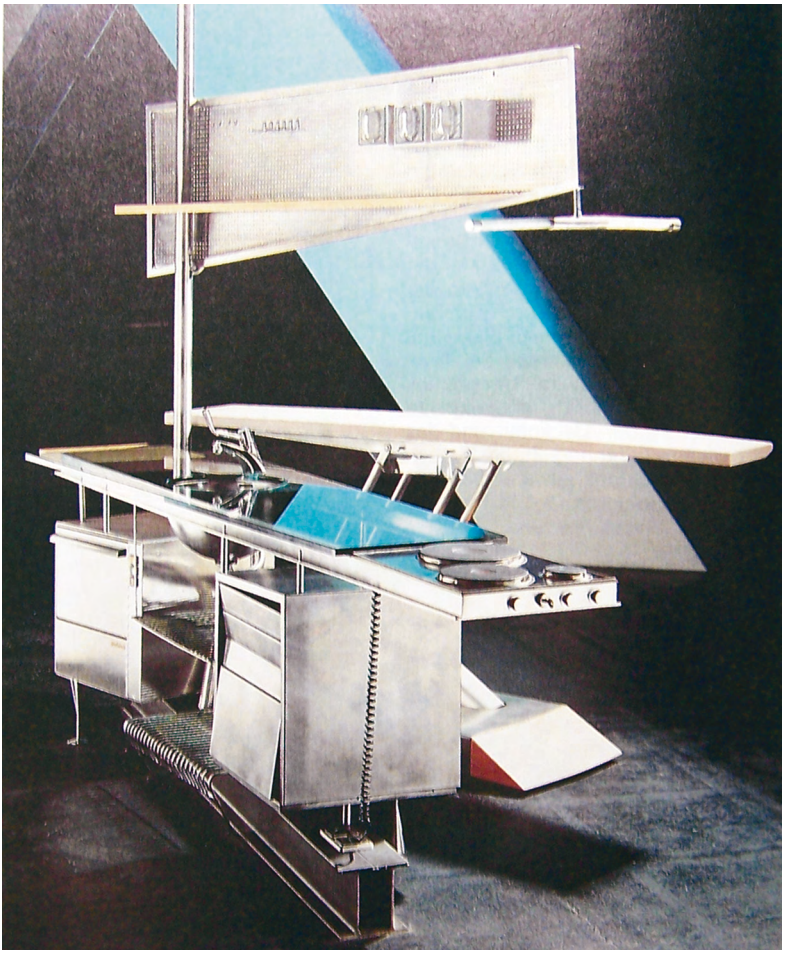

Fig. 13

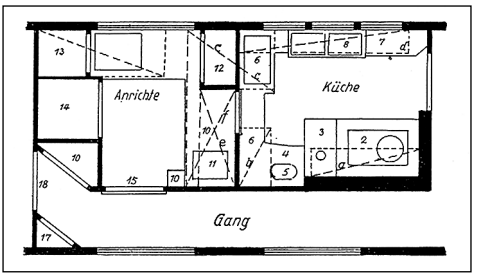

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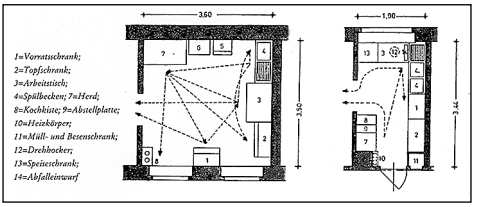
Fig. 1 a



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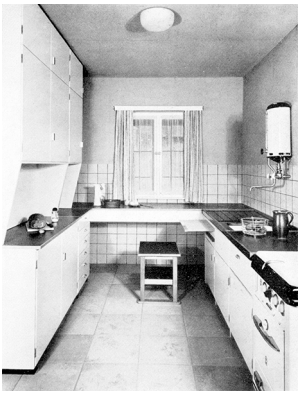

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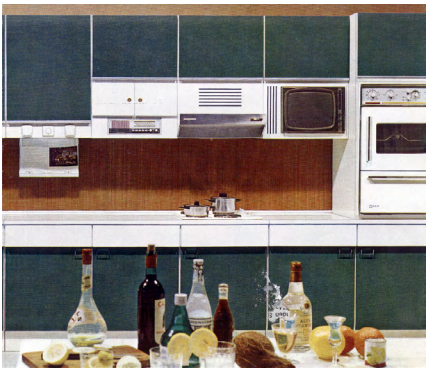

Fig. 6

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Fig. 11

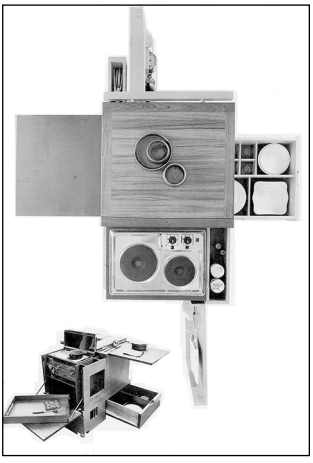

Fig. 8

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Fig. 12

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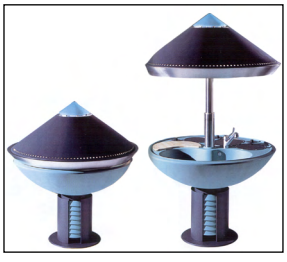

Fig. 14

Fig. 10

Fig. 15

> "Inappropriate kitchen arrangements, often based on the furnishing of other rooms, are the cause of countless difficulties that lead to an excessive loss of time. The kitchen should be the workspace, the laboratory for the housewife, in which every superfluous bit of space and every inconvenient arrangement of the fixtures creates additional work in the long run. It must be a mechanism, an instrument. To the woman of the house, time should be too precious to put up with the inconveniences of old-fashioned kitchen management day in, day out."[1]

As early as 1926 a 1.90×3.40 m 'work kitchen' was developed that went by the name of *Frankfurter Küche* ['Frankfurt Kitchen'] which became the prototype for a prefabricated, standardized type of kitchen. But the streamlining of the work environment and the spatial dimensions of kitchens actually began in America. Catherine E. Beecher was the first to address the subject of kitchen design in relation to the issue of domestic servants in 1841. In an analogy to the rationally-structured organization of work in the industrial sector, Christine Frederick and Lillian M. Gilbreth attempted to transfer this logic to housework. They broke down the work processes here into the three fundamental steps involved, *preparation*, *cooking* and *cleaning*, and allocated these to the appropriate workstations of *store cupboards*, *stove* and *sink* in a purpose-designed arrangement aimed at making the work easier and more efficient. In addition to this, Catherine E. Beecher and Lillian M. Gilbreth championed the recognition of housework as a profession and the kitchen as housewife's workplace. This article examines the changes in kitchen design in the period from 1926 through to the end of the 1980s and demonstrates that residential building programs and social interests, along with wide-spread notions of society and roles, are reflected in the very design and use of the private working and living space that is the kitchen.

In Germany it was the changed image of women resulting from women's increasing employment that prompted the re-examination of housekeeping.[2] The recognition of housework as a professional role represented a trigger for a thorough review of the subject of the kitchen. Alongside the book published by Bruno Taut in 1924, *Die neue Wohnung, Die Frau als Schöpferin*[3] ['The new home. Woman as creator'], probably the most important work in the rationalisation movement in Germany was *Der neue Haushalt. Ein Wegweiser zur wissenschaftlichen Haushalts-*

1 | Muche: 1925, pp. 15.

2 | Schlegel-Matthies: 1995, pp. 149.

3 | Taut: 1924.

führung[4] ['The new household. A guide to economical housekeeping'] by Erna Meyer. The rationally structured household revolved around three premises: the ergonomically founded principles of saving time, energy and materials, the implementation of a functional and ergonomic aesthetic, and the demand for using technology in the household. Whilst initially it was primarily housewives' associations that picked up on the rationalization of the household, in 1924 architects began to follow suit. The new type of kitchen – a purpose-designed, functionally arranged workspace – was not however positively received by everyone in Germany. In the 1920s a widespread debate was sparked regarding which form of kitchen was better, the kitchen-diner or the separate 'work kitchen'. Efficient work kitchens were further developed and introduced on a grand scale as part of the residential building programs carried out by cities. Each city had its own 'kitchen planner' within its building department, so kitchens varied from city to city. There were kitchens with designs specific to Munich, Hamburg and Stuttgart. Whilst all these kitchen types have since been forgotten and no further concepts for work kitchens were put forward during the Nazi era, the successful model of the 'Frankfurt Kitchen' was developed further in the US, Sweden and Switzerland, with adaptions continually made according to the advance in technical developments. After World War II a modified version of the 'Frankfurt Kitchen' made its way back to Germany as a Swedish kitchen or American fitted kitchen. Even today, the 'Frankfurt Kitchen' has lost none of its significance in house construction.

Due to the ever increasing need for housing, a ten-year residential building programme was set up in Frankfurt in 1925 under the aegis of Ernst May as head of the Municipal Building Dept. One of Ernst May's core principles for the planning of mass housing projects lay in making housework more efficient. Thus, with a logical floor plan, rooms would be laid out in such a way that housework could be carried out with the least effort required. The architect Margarete Schütte-Lihotzky (1897–2000) was instructed to take efficiency in the carrying out of housework into account when planning and constructing these homes. In the Frankfurt residential building program, the kitchen-diner was considered not 'contemporary' enough and was replaced by a 'two-cell built-in kitchen and living room'.[5] Margarete Schütte-Lihotzky used the *Mitropa* catering company's kitchen design for the railway dining car of the time as a model. This kitchen made the preparation of five-course menus in a space measuring 1.97×1.83 m together with a pantry of the same dimensions possible (fig. 1: Floor plan of the *Mitropa* dining car kitchen; 1a: View of the *Mitropa* dining car kitchen). These spaces would see two people preparing food for up to 80 passengers in a relatively short time. What's more, these two spaces totaling 7.12 square meters also contained drinks, crockery, cutlery and glasses. In the *Mitropa* kitchen, Margarete Schütte-Lihotzky saw a purpose-designed workspace that implemented the savings in terms of the ground a user needed to

4 | Meyer: 1926.

5 | May: 1928, p. 118.

cover and the movements necessary for completing their tasks with the utmost logic and consistency. She attempted to transfer this approach to the private household.[6] However, this did not mean that Schütte-Lihotzky wanted to change the way housewives cooked. First and foremost, she wanted to create a logical arrangement of workstations in order to achieve efficiency in the cooking process and the ground covered during the work.

During the 1920s, proponents of the work kitchen came to see the kitchen as the center for housework as a laboratory[7], factory[8] or workshop[9]. As a consequence, investigations were carried out for the work processes in the kitchen in line with business management considerations in a process similar to that of the Taylor system, with various jobs in the kitchen timed using a stopwatch. The aim was for the size and the shape of the kitchen to maximise savings in terms of the steps necessary and the distances to be covered. The evaluation of the results revealed a long, narrow space 1.90 m wide and 3.40 m long to be ideal (fig. 2: Steps saved in the 'Frankfurt Kitchen' [right] relative to a conventional kitchen [left]). The kitchen structure was adapted to suit essential work steps. The outwardly ventilated food cupboard was located on the left, next to the worktop positioned in front of the window. To the right of the work station was the sink unit and the crockery cupboards with glass doors along the longer wall. The sink adjoined a worktop under which there was a food cupboard with drawer-containers. This was followed by a cupboard for pots and pans and the broom cupboard in the corner. The three-flame gas cooker with oven and the stove were arranged on the opposite side (fig. 3: 'Frankfurt Kitchen' by Margarete Schütte-Lihotzky). The aisle of the kitchen was 0.90 m wide. The narrow aisle meant there was less ground to cover between one side and the other. A wide sliding door led into the living and dining area. In order to remain true to the principle of short distances outside of the kitchen too, the distance between kitchen and dining table was set at three meters. The 'Frankfurt Kitchen' was the first fully-equipped work kitchen to be implemented on a large scale for Frankfurt's housing development programme. It was to provide the housewife with a workplace comparable to that of her husband in terms of its function and quality. The kitchen thus became a mono-functional room, a workspace for an individual person. What was however forgotten in all of this, was that previously the woman had carried out her cooking and kitchen duties in the presence of her family and/or her children, from whom she was now separated. In the 'Frankfurt Kitchen', supervision of the children and communication with other family members was no longer possible. At the same time, the streamlining of the household was linked to the desire to expand the woman's individual scope for freedom. But where was her individual scope for freedom here? Not really in private pleasures or in supervising children

6 | Lihotzky: 1927a, p. 157.

7 | Lihotzky: 1927b, p. 121.

8 | Anonymous: 1925, p. 19.

9 | Ibid.

after working in the kitchen, but rather in other productive activities like working outside or inside the home. Housework was part of a functionalization process that aimed to effectively exploit women's productive abilities. The design of the 'Frankfurt Kitchen' was indeed based on an emancipatory approach, but ultimately this demand could not be implemented as the crucial characteristic of professional occupation – remuneration – was not part of it. Without this, there was still pressure on women to work and thus to carry a double burden. The work kitchen as a specialized workspace for the housewife was not simply something marginal and interior-design-related, but rather it related to the general social trend towards the functionalization of people (at the workspace and in the home) to the benefit of social systems. Furthermore, it became a paradigm for the interpenetration of the capitalist world of work and the private home environment. The efficiency euphoria evident in the period of the Weimar Republic is however no true indication of the reality of housework at that time, as the poor financial situation meant most working-class households could not afford to install the 'new kitchen'.

As a result of a different view of womanhood in the National Socialist period based on a new image of 'motherliness' and family, the model of the independent, working woman was replaced by that of the housewife and mother. Construction of large-scale apartment blocks in cities was initially halted in favor of smaller settlements and apartments on the city outskirts or in villages. These new private homes boasted a living and kitchen area at least 14 square meters in size. In general, it can be said that kitchen planning for small-scale settlements and apartment buildings both in the Third Reich and the Weimar Republic was carried out inconsistently. Both kitchen-diners and separate work kitchens were planned according to the region.

Kitchen research in Germany came to a halt in the 1930s due to the ideological changes taking place. However, American and Swedish institutes picked up on the German kitchen research of the 1920s, and the 'Frankfurt Kitchen' in particular, and developed further. Thus the further advanced 'Frankfurt Kitchen', now known as the 'Swedish kitchen', became the ideal fitted kitchen during the post-war period.

The Cologne Furniture Fair of 1950 was the launch pad for the first German built-in kitchen for serial production. The kitchen dresser, until then a primary feature, was replaced by overhead cupboards and floor units that could be set up independently of one another. The fridge, oven and sink remained separate units up until 1956, when they were finally brought together under a seamless stainless steel surface. In the early 1950s worktops were made of linoleum, which towards 1955 was replaced by a plastic-coated surface known as Resopal, namely Formica. Whilst the design of kitchen furniture was initially limited in terms of shape and color, with angular shapes and grey, white and black tones dominating, from the mid-twentieth century onwards manufacturers began offering curved kitchen furniture and a wider spectrum of hues ranging from bright colors to pastels. It was with the new Formica worktops in particular that a har-

monious overall impression could be achieved that was in keeping with the general look of the kitchen. Kitchen spaces, devised as areas for work first and foremost, were thereby given a personal touch. Serving hatches and breakfast bars were soon also integrated into the kitchen, facilitating social interaction inside and outside of the room itself. This represented the onset of the disappearance of the work kitchen, without functional processes losing out however. The 1950s thus saw kitchen design change in technical, aesthetic and social terms over the course of the decade. The models sold in 1957 no longer exhibit any similarities to the kitchens manufactured in the beginning of the decade (fig. 4: Kitchen at the beginning of the 1950s, WKS kitchen by the architect Sep Ruf, fig. 5: Kitchen in pastel tones, about 1955). Within the decade the development of technology and electricity, as well as colors and materials, brought forth a new style that has been integral ever since. Although a new style was developing, the ergonomic set-up of workstations as developed by Margarete Schütte-Lihotzky did not change.

Through into the 1960s, the most important work and design criteria were effective use, ergonomic improvements and demands in terms of hygiene. It was only towards the end of the 1960s that design criteria based on psychological considerations and a more attentive view to social interaction were incorporated into kitchen planning. Warm colors and faux-wood decoration were combined with breakfast bars and table areas and shelves were incorporated, breaking up the closed kitchen units and heralding the tentative beginnings of a kitchen oriented towards greater "liveability" and communication (fig. 6: Model *Majestic 500* by Nieburg Küchen, 1966, fig. 6a: Kitchen units with pine decoration, 1974). The 1970s saw the continuation and culmination of this trend. Simple, rustic wooden kitchens were offered alongside colourful kitchen units. It was primarily alcove shelving that emphasised the overall look of kitchens with what, in the 1970s, was considered a homely character (fig. 7: Wooden kitchen in a rustic design, 1974).

The sterile fitted kitchen, once a workspace for one person, lost its supremacy and was gradually replaced by a 'cosily designed' kitchen-diner. Alongside the improvement of the warmer colours and decoration and the curved, more scattered wall units, this coziness was achieved primarily through the incorporation of an eating area, which once again made communication and shared work in the kitchen possible.

In parallel to conventional kitchen planning, however, innovative and visionary planning was also underway. During the period between 1968 and 1973, this was known as 'kitchen ideas for the future', with research initiated by chemical companies and kitchen manufacturers independently of one another. These 'innovative kitchen designs' consisted of concepts not designed for mass application and use, yet nevertheless kitchen companies picked up on individual elements and put these into practice. Specific ideas from this time that can be considered innovative are kitchen trolleys and, most significantly, kitchen islands. Whilst the kitchen trolley *cucina minima*, designed in 1964 by the Italian designer *Joe Colombo*, will already be familiar to many, having earned its place in certain museums, the kitchen

islands designed by British designer *John Heritage* and by the Swiss firm *Novelectric* around the same time have largely fallen into obscurity (fig. 8: Mobile kitchen trolley *Cucina minima*, Joe Colombo, 1964, fig. 9: English kitchen island *Masterplan*, John Heritage, 1963, fig. 10: *Novellipsenküche*, by Novelectric, 1965). This may be due to the fact that the kitchen island was precisely the one idea that was immediately picked up on by manufacturers and further developed as part of their kitchen ranges.

The 'visionary research work' for the 'kitchen of the future', specially commissioned by kitchen companies, made clear that kitchen manufacturers were also addressing the prevailing themes of the time, such as space travel and the momentous event that was the moon landing. The innovations in space travel, the small dimensions of a space ship and the limited, yet efficient living conditions associated with this were transferred to kitchen technology. Thus the main function of the kitchen was focused, for example, on heating up ready-made meals and not on actual cooking. The technological advancement that was microwave oven was introduced in 1967, after a ten-year period of development. By that point it had already become foreseeable that frozen foods and ready-made dishes would become ever more important due to women's employment outside the home (fig. 11: Model *Experiment 70* by the designer Luigi Colani, Poggenpohl, 1970, fig.11a: Model *Typ 1*, by Bulthaup. 1970). Whilst the ideas about future kitchens were oriented on the one hand towards technological developments, on the other hand there was also a focus on the design of the spatial relations and dimensions. In parallel to the dissolution of the status of homemaking and thus the work in the kitchen, at the beginning of the 1970s designers simply got rid of the kitchen as a space. Instead, the kitchen became a mobile module, which could be opened up when in use, and slotted away and stored in a corner when not needed (fig. 12: Model by Haas + Sohn KG, 1972). During this time kitchen design focused more strongly on time-saving than on the culinary arts.

Due to the new lifestyles emerging in the 1980s, which were characterized by a changed image of the family, alternative living and partnership arrangements among unmarried couples and single-person households, the types of use of living and kitchen areas and ultimately the pleasure in eating also changed.[10] From now on, more value was placed on fresh and seasonal produce. There was also a greater desire to prepare European and non-European dishes, as well as to cook together in the family or with friends. In order to meet this demand, kitchen planners began shifting the kitchen back towards the heart of the home. This also now included a particular focus on conceiving kitchens as decorative objects of prestige rather than pieces of 'equipment' in the home (fig. 13: Model *Mal-Zeit*, Coop Himmelb[l]au, 1987–1989, fig. 14: Model *Eroica*, Alberto Rizzi, Rossano Didaglio, 1990). With the dissolution of the traditional image of the family in the late 1980s, streamlined kitchen planning faded further into the background. Kitchen manufacturers now took new lifestyles that placed

10 | Flaig/Meyer/Ueltzhöffer: 1993, p. 75.

different demands on the kitchen into account. The kitchen as a spatial unit all but disappeared. Where possible, it was integrated into the living space: an island worktop made it possible for people to prepare meals together, and many kitchen cupboards and drawers were replaced by stands with shelves and panel systems made of stainless steel. Furthermore, the combination of electrical appliances made of stainless steel with matching kitchen units in metallic hues gave kitchens a professional look (fig. 15: Kitchen model from 1989). The kitchen and the work and smells within it were now a subject for presentation and not something to be hidden as had been the case from the 1920s right up to the 1960s.

While in the 1920s the focus had been on freeing women from unnecessary and monotonous work, combined with the recognition and acknowledgement of their work as a profession through providing women with their own workspace within the home, ultimately what remained of the idea of modern, efficient housekeeping was merely the functional and clean work processes. The concept of the kitchen as an anonymous workspace for an individual has not prevailed. In fact the opposite has been the case: the kitchen has once again become the heart of the home, it has become the social hub and central point in which cooking can either be equally important or, due to work commitments, subordinate to the social togetherness and the shared mealtimes and work that go on there. The kitchen has once more become a meeting point for family and friends. Just as in ancient times people would sit around the fire as the source of food preparation, today all people, be they families, married couples or simply housemates, likewise come together around this source. And what is more: the kitchen is not merely a hub for the fostering of social togetherness, rather the shared activity and experiences in the kitchen facilitate and shape this social communion.