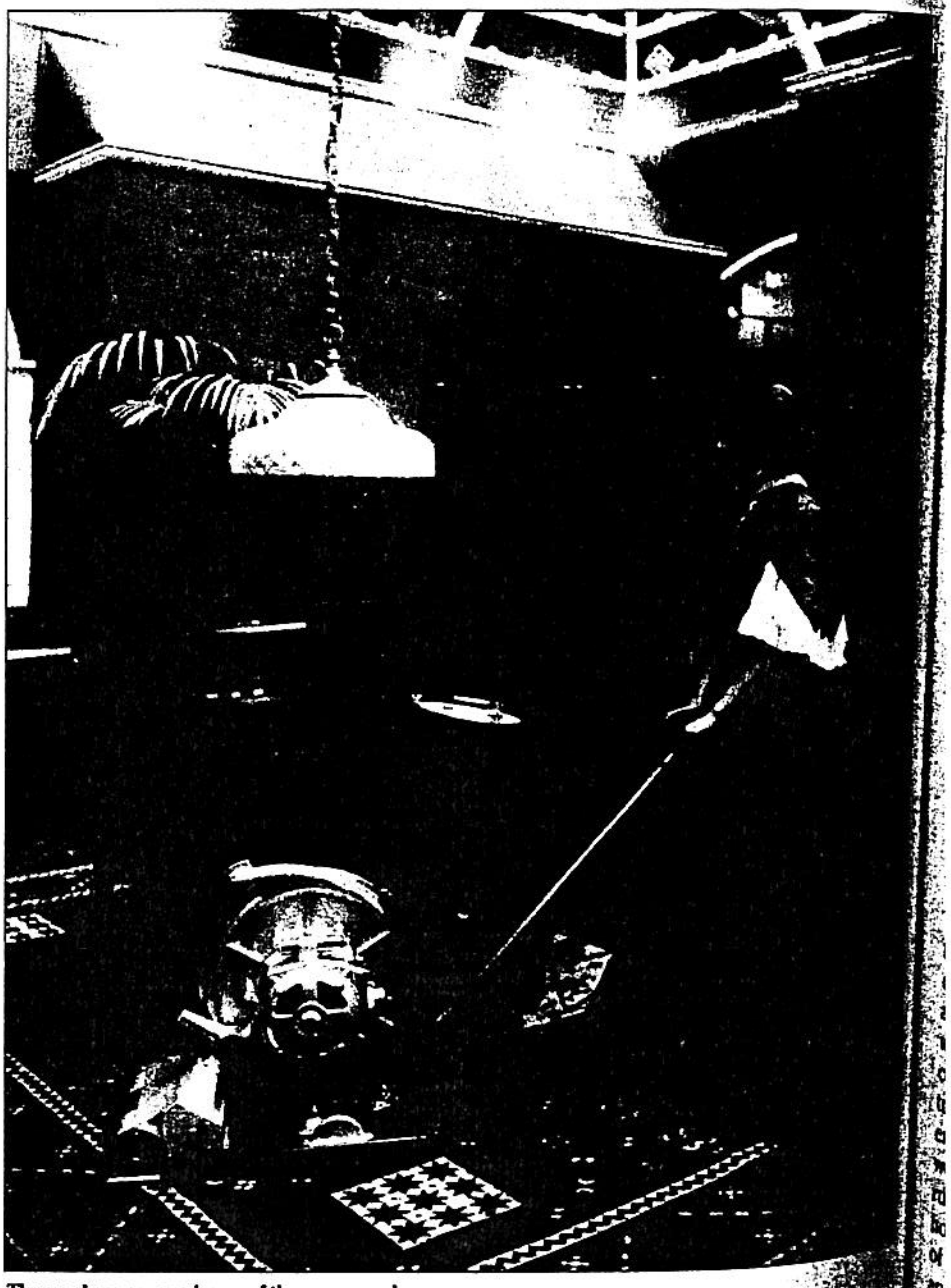
Women IN Their Time

LESS WORK FOR MOTHER?

Modern technology enables the housewife to do much more in the house than ever before. That's good—and not so good.

by Ruth Schwartz Cowan



The modern convenience of the vacuum cleaner is serenely demonstrated in about 1910.

Things are seldom what they seem. Skim milk masquerades as cream. And laborsaving household appliances often do not save labor. This is the surprising conclusion reached by a small army of historians, sociologists, and home economists who have undertaken, in recent years, to study the one form of work that has turned out to be most resistant to inquiry and analysis—namely, housework.

During the first half of the twentieth century, the average American household was transformed by the introduction of a group of machines that profoundly altered the daily lives of housewives; the forty years between 1920 and 1960 witnessed what might be aptly called the "industrial revolution in the home." Where once there had been a wood- or coal-burning stove there now was a gas or electric range. Clothes that had once been scrubbed on a metal washboard were now tossed into a tub and cleansed by an electrically driven agitator. The dryer replaced the clothesline; the vacuum cleaner replaced the broom; the refrigerator replaced the icebox and the root cellar; an automatic pump, some piping, and a tap replaced the hand pump, the bucket, and the well. No one had to chop and haul wood any more. No one had to shovel out ashes or beat rugs or carry water; no one even had to toss egg whites with a fork for an hour to make an angel food cake.

And yet American housewives in 1960, 1970, and even 1980 continued to log about the same number of hours at their work as their grandmothers and mothers had in 1910, 1920, and 1930. The earliest time studies of housewives date from the very same period in which time studies of other workers were becoming popular—the first three decades of the twentieth century. The sample sizes of these studies were usually quite small, and they did not always define housework in precisely the same way (some counted an hour spent taking children to the playground as "work," while others called it "leisure"), but their results were more or less consistent: whether rural or urban, the average American housewife performed fifty to sixty hours of unpaid work in her home every week, and the only variable that significantly altered this was the number of small children.

A half-century later not much had changed. Survey research had become much more sophisticated, and sample sizes had grown considerably, but the results of the time studies remained surprisingly consistent. The average American housewife, now armed with dozens of motors and thousands of electronic chips, still spends fifty to sixty hours a week doing housework. The only variable that significantly altered the size of that number was full-time employment in the labor force; "working" housewives cut down the average number of hours that they spend cooking and cleaning, shopping and chauffeuring, to a not insignificant thirty-five—virtually the equivalent of another full-time job.

How can this be true? Surely even the most sophisticated advertising copywriter of all times could not fool almost the entire American population over the course of at least three generations. Laborsaving devices must be saving something, or Americans would not continue, year after year, to plunk down their hard-earned dollars for them.

And if laborsaving devices have not saved labor in the home, then what is it that has suddenly made it possible for more than 70 percent of the wives and mothers in the American population to enter the work force and stay there? A brief glance at the histories of some of the technologies that have transformed housework during the twentieth century will help us answer some of these questions.

The portable vacuum cleaner was one of the earliest electric appliances to make its appearance in American homes, and reasonably priced models appeared on the retail market as early as 1910. For decades prior to the turn of the century, inventors had been trying to create a carpet-cleaning system that would improve on the carpet sweeper with adjustable rotary brushes (patented by Melville Bissell in 1876), or the semiannual ritual of hauling rugs outside and beating them, or the practice of regularly sweeping the dirt out of a rug that had been covered with dampened, torn newspapers. Early efforts to solve the problem had focused on the use of large steam, gasoline, or electric motors attached to piston-type pumps and lots of hoses. Many of these "stationary" vacuum-cleaning systems were installed in apartment houses or hotels, but some were hauled around the streets in horse-drawn carriages by entrepreneurs hoping to establish themselves as "professional housecleaners."

In the first decade of the twentieth century, when fractional-horsepower electric motors became widely—and inexpensively—available, the portable vacuum cleaner intended for use in an individual household was born. One early model—invented by a woman, Corrine Dufour—consisted of a rotary brush, an electrically driven fan, and a wet sponge for absorbing the dust and dirt. Another, patented by David E. Kenney in 1907, had a twelve-inch nozzle attached to a metal tube attached to a flexible hose that led to a vacuum pump and separating devices. The Hoover, which was based on a brush, a fan, and a collecting bag, was on the market by 1908. The Electrolux, the first of the canister types of cleaner, which could vacuum something above the level of the floor, was brought over from Sweden in 1924 and met with immediate success.

These early vacuum cleaners were hardly a breeze to operate. All were heavy, and most were extremely cumbersome to boot. One early home economist mounted a basal metabolism machine on the back of one of her hapless students and proceeded to determine that more energy was expended in the effort to clean a sample carpet with a vacuum cleaner than when the same carpet was attacked with a hard broom. The difference, of course, was that the vacuum cleaner did a better job, at least on carpets, because a good deal of what the broom stirred up simply resettled a foot or two away from where it had first been lodged.

Whatever the liabilities of early vacuum cleaners may have been, Americans nonetheless appreciated their virtues; according to a market survey taken in Zanesville, Ohio, in 1926, slightly more than half the households owned one. Later improvements in design made these devices easier to operate. By 1960 vacuum cleaners were found

A vacuum cleaner, said a 1918 ad, is better than a maid.

in 70 percent of the nation's homes.

When the vacuum cleaner is viewed in a historical context, however, it is easy to see why it did not save housewifely labor. Its introduction coincided almost precisely with the disappearance of the domestic servant. The number of persons engaged in household service dropped from 1,851,000 in 1910 to 1,411,000 in 1920, while the number of households enumerated in the census rose from 20.3 million to 24.4 million. Moreover, between 1900 and 1920 the number of household servants per thousand persons dropped from 98.9 to 58.0, while during the 1920s the decline was even more precipitous as the restrictive immigration acts dried up what had once been the single most abundant source of domestic labor.

For the most economically comfortable segment of the population, this meant just one thing: the adult female head of the household was doing more housework than she had ever done before. What Maggie had once done with a broom, Mrs. Smith was now doing with a vacuum cleaner. Knowing that this was happening, several early copywriters for vacuum cleaner advertisements focused on its implications. The vacuum cleaner, General Electric announced in 1918, is better than a maid: it doesn't quit, get drunk, or demand higher wages. The switch from Maggie to Mrs. Smith shows up, in time-study statistics, as an increase in the time that Mrs. Smith is spending at her work.

For those—and they were the vast majority of the population—who were not economically comfortable, the vacuum cleaner implied something else again: not an increase in the time spent in housework but an increase in the standard of living. In many households across the country, acquisition of a vacuum cleaner was connected to an expansion of living space, the move from a small apartment to a small house, the purchase of wall-to-wall carpeting. If this did not happen during the difficult 1930s, it became more possible during the expansive 1950s. As living quarters grew larger, standards for their upkeep increased; rugs had to be vacuumed every week, in some households every day, rather than semiannually, as had been customary. The net result, of course, was that when armed with a vacuum cleaner, housewives whose parents had been poor could keep more space cleaner than their mothers and grandmothers would have ever believed possible. We might put this everyday phenomenon in language that economists can understand: The introduction of the vacuum cleaner led to improvements in productivity but not to any significant decrease in the amount of time expended by each worker.

The history of the washing machine illustrates a similar phenomenon. "Blue Monday" had traditionally been, as its name implies, the bane of a housewife's existence—especially when Monday turned out to be "Monday . . . and Tuesday to do the ironing." Thousands of patents for "new and improved" washers were issued during the nineteenth century in an effort to cash in on the housewife's despair. Most of these early washing machines were wooden or metal tubs combined with some kind of hand-cranked mechanism that would rub or push or twirl laundry when the tub was filled with water and soap. At the end of the century, the Sears catalog offered four such washing machines, ranging in price from $2.50 to $4.25, all sold in combination with hand-cranked wringers.

These early machines may have saved time in the laundering process (four shirts could be washed at once instead of each having to be rubbed separately against a washboard), but they probably didn't save much energy. Lacking taps and drains, the tubs still had to be filled and emptied by hand, and each piece still had to be run through a wringer and hung up to dry.

Not long after the appearance of fractional-horsepower motors, several enterprising manufacturers had the idea of hooking them up to the crank mechanisms of washers and wringers—and the electric washer was born. By the 1920s, when mass production of such machines began, both the general structure of the machine (a central-shaft agitator rotating within a cylindrical tub, hooked up to the household water supply) and the general structure of the industry (oligopolistic—with a very few firms holding most of the patents and controlling most of the market) had achieved their final form. By 1926 just over a quarter of the families in Zanesville had an electric washer, but by 1941 fully 52 percent of all American households either owned or had interior access (which means that they could use coin-operated models installed in the basements of apartment houses) to such a machine. The automatic washer, which consisted of a vertically rotating washer cylinder that could also act as a centrifugal extractor, was introduced by the Bendix Home Appliance Corporation in 1938, but it remained expensive, and therefore inaccessible, until after World War II. This machine contained timing devices that allowed it to proceed through its various cycles automatically; by spinning the clothes around in the extractor phase of its cycle, it also eliminated the wringer. Although the Bendix subsequently disappeared from the retail market (versions of this sturdy machine may still be found in Laundromats), its design principles are replicated in the agitator washers that currently chug away in millions of American homes.

Both the early wringer washers and their more recent automatic cousins have released American women from the burden of drudgery. No one who has ever tried to launder a sheet by hand, and without the benefits of hot running water, would want to return to the days of the scrub board and tub. But "labor" is composed of both "energy expenditure" and "time expenditure," and the history of laundry work demonstrates that the one may be conserved while the other is not.

The reason for this is, as with the vacuum cleaner, twofold. In the early decades of the century, many households employed laundresses to do their wash; this was true, surprisingly enough, even for some very poor households where wives and mothers were disabled or employed full-time in field or factory. Other households—rich and poor—used commercial laundry services. Large, mechanized "steam" laundries were first constructed in this country in the 1860s, and by the 1920s they could be found in

Early washers took some drudgery out of the laundress's job, but later machines have simply made the housewife a laundress.

virtually every urban neighborhood and many rural ones as well.

But the advent of the electric home washer spelled doom both for the laundress and for the commercial laundry; since the housewife's labor was unpaid, and since the washer took so much of the drudgery out of washday, the one-time expenditure for a machine seemed, in many families, a more sensible arrangement than continuous expenditure for domestic services. In the process, of course, the time spent on laundry work by the individual housewife, who had previously employed either a laundress or a service, was bound to increase.

For those who had not previously enjoyed the benefits of relief from wash-

something quite different but equally significant: an upgrading of household cleanliness. Men stopped wearing removable collars and cuffs, which meant that the whole of their shirts had to be washed and then ironed. Housewives began changing two sheets every week, instead of moving the top sheet to the bottom and adding only one that was fresh. Teen-agers began changing their underwear every day instead of every weekend. In the early 1960s, when synthetic no-iron fabrics were introduced, the size of the household laundry load increased again; shirts and skirts, sheets and blouses that had once been sent out to the dry cleaner or the corner laundry were now being tossed into the house-hold wash basket. By the 1980s the aver-

age American housewife, armed now with an automatic washing machine and an automatic dryer, was processing roughly ten times (by weight) the amount of laundry that her mother had been accustomed to. Drudgery had disappeared, but the laundry hadn't. The average time spent on this chore in 1925 had been 5.8 hours per week; in 1964 it was 6.2.

And then there is the automobile. We do not usually think of our cars as household appliances, but that is precisely what they are, since housework, as currently understood, could not possibly be performed without them. The average American housewife is today more likely to be found behind a steering wheel than in front of a stove. While

The housewife became a door-to-door delivery service.

The Saturday Evening Post, © 1952 CURTIS PUBLISHING COMPANY

Catching the 8:05 was the first chore of the suburban day in 1952. By 1974, women were spending eight hours a week running errands by car.

writing this article I interrupted myself five times: once to take a child to field-hockey practice, then a second time, to bring her back when practice was finished; once to pick up some groceries at the supermarket; once to retrieve my husband, who was stranded at the train station; once for a trip to a doctor's office. Each time I was doing housework, and each time I had to use my car.

Like the washing machine and the vacuum cleaner, the automobile started to transform the nature of housework in the 1920s. Until the introduction of the Model T in 1908, automobiles had been playthings for the idle rich, and although many wealthy women learned to drive early in the century (and several participated in well-publicized auto races), they were hardly the women who were likely to be using their cars to haul groceries.

But by 1920, and certainly by 1930, all this had changed. Helen and Robert Lynd, who conducted an intensive study of Muncie, Indiana, between 1923 and 1925 (reported in their famous book *Middletown*), estimated that in Muncie in the 1890s only 125 families, all members of the "elite," owned a horse and buggy, but by 1923 there were 6,222 passenger cars in the city, "roughly one for every 7.1 persons, or two for every three families." By 1930, according to national statistics, there were roughly 30 million households in the United States—and 26 million registered automobiles.

What did the automobile mean for the housewife? Unlike public transportation systems, it was convenient. Located right at her doorstep, it could deposit her at the doorstep that she wanted or needed to visit. And unlike the bicycle or her own two feet, the automobile could carry bulky packages as well as several additional people. Acquisition of an automobile therefore meant that a housewife, once she had learned how to drive, could become her own door-to-door delivery service. And as more housewives acquired automobiles, more businessmen discovered the joys of dispensing with delivery services—particularly during the Depression.

To make a long story short, the iceman does not cometh anymore. Neither does the milkman, the bakery truck, the

butcher, the grocer, the knife sharpener, the seamstress, or the doctor. Like many other businessmen, doctors discovered that their earnings increased when they stayed in their offices and transferred the responsibility for transportation to their ambulatory patients.

And so a new category was added to the housewife's traditional job description: chauffeur. The suburban station wagon is now "Mom's Taxi." Children who once walked to school now have to be transported by their mothers; husbands who once walked home from work now have to be picked up by their wives; groceries that once were dispensed from pushcarts or horse-drawn wagons now have to be packed into paper bags and hauled home in family cars. "Contemporary women," one time-study expert reported in 1974, "spend about one full working day per week on the road and in stores compared with less than two hours per week for women in the 1920s." If everything we needed to maintain our homes and sustain our families were delivered right to our doorsteps—and every member of the family had independent means for getting where she or he wanted to go—the hours spent in housework by American housewives would decrease dramatically.

The histories of the vacuum cleaner, the washing machine, and the automobile illustrate the varied reasons why the time spent in housework has not markedly decreased in the United States during the last half-century despite the introduction of so many ostensibly labor-saving appliances. But these histories do not help us understand what has made it possible for so many American wives and mothers to enter the labor force full-time during those same years. Until recently, one of the explanations most often offered for the startling increase in the participation of married women in the work force (up from 24.8 percent in 1950 to 50.1 percent in 1980) was household technology. What with microwave ovens and frozen foods, washer and dryer combinations and paper diapers, the reasoning goes, housework can now be done in no time at all, and women have so much time on their hands that they find they must go out and look for a job for fear of going stark, raving mad.

As every "working" housewife knows, this pattern of reasoning is itself stark, raving mad. Most adult women are in the work force today quite simply because they need the money. Indeed, most "working" housewives today hold down not one but two jobs; they put in what has come to be called a "double day." Secretaries, lab technicians, janitors, sewing machine operators, teachers, nurses, or physicians for eight (or nine or ten) hours, they race home to become chief cook and bottle washer for another five, leaving the cleaning and the marketing for Saturday and Sunday. Housework, as we have seen, still takes a lot of time, modern technology notwithstanding.

Yet household technologies have played a major role in facilitating (as opposed to causing) what some observers believe to be the most significant social revolution of our time. They do it in two ways, the first of which we have already noted. By relieving housework of the drudgery that it once entailed, washing machines, vacuum cleaners, dishwashers, and water pumps have made it feasible for a woman to put in a double day without destroying her health, to work full-time and still sustain herself and her family at a reasonably comfortable level.

The second relationship between household technology and the participation of married women in the work force is considerably more subtle. It involves the history of some technologies that we rarely think of as technologies at all—and certainly not as household appliances. Instead of being sheathed in stainless steel or porcelain, these devices appear in our kitchens in little brown bottles and bags of flour; instead of using switches and buttons to turn them on, we use hypodermic needles and sugar cubes. They are various forms of medication, the products not only of modern medicine but also of modern industrial chemistry: polio vaccines and vitamin pills; tetanus toxins and ampicillin; enriched breads and tuberculin tests.

Before any of these technologies had made their appearance, nursing may well have been the most time-consuming and most essential aspect of housework. During the eighteenth and nineteenth centuries and even during the first five decades of the twentieth century, it was the woman of the house who was expected (and who had been trained, usually by *her* mother) to sit up all night cooling and calming a feverish child, to change bandages on suppurating wounds, to clean bed linens stained with excrement, to prepare easily digestible broths, to cradle colicky infants on her lap for hours on end, to prepare bodies for burial. An attack of the measles might mean the care of a bedridden child for a month. Pneumonia might require six months of bed rest. A small knife cut

Modern medicines altered the routines of housework.

The Saturday Evening Post, © 1955 CURTIS PUBLISHING COMPANY. COLLECTION OF LUCILLE AND WALTER RUBIN

House-call days are over in this scene from 1955, the year the polio vaccine was developed.

could become infected and produce a fever that would rage for days. Every summer brought the fear of polio epidemics, and every polio epidemic left some group of mothers with the perpetual problem of tending to the needs of a handicapped child.

Cholera, diphtheria, typhoid fever—if they weren't fatal—could mean weeks of sleepless nights and hard-pressed days. "Just as soon as the person is attacked," one experienced mother wrote to her worried daughter during a cholera epidemic in Oklahoma in 1885, "be it ever so slightly, he or she ought to go to bed immediately and stay there; put a mustard [plaster] over the bowels and if vomiting over the stomach. See that the feet are kept warm, either by warm iron or brick, or bottles of hot water. If the disease progresses the limbs will begin to cramp, which must be prevented by applying cloths wrung out of hot water and wrapping round them. When one is vomiting so terribly, of course, it is next to impossible to keep medicine down, but in cholera it must be done."

These were the routines to which American women were once accustomed, routines regarded as matters of life and death. To gain some sense of the way in which modern medicines have altered not only the routines of housework but also the emotional commitment that often accompanies such work, we need only read out a list of the diseases for which most American children are unlikely to succumb today, remembering how many of them once were fatal or terribly disabling: diphtheria, whooping cough, tetanus, pellagra, rickets, measles, mumps, tuberculosis, smallpox, cholera, malaria, and polio.

And many of today's ordinary childhood complaints, curable within a few days of the ingestion of antibiotics, once might have entailed weeks, or even months, of full-time attention: bronchitis; strep throat; scarlet fever; bacterial pneumonia; infections of the skin, or the eyes, or the ears, or the airways. In the days before the introduction of modern vaccines, antibiotics, and vitamin supplements, a mother who was employed full-time was a serious, sometimes life-endangering threat to the health of her family. This is part of the reason why life expectancy was always low and infant mortality high among the poorest segment of the population—those most likely to be dependent upon a mother's wages.

Thus modern technology, especially modern medical technology, has made it possible for married women to enter the work force by releasing housewives not just from drudgery but also from the dreaded emotional equation of female employment with poverty and disease. She may be exhausted at the end of her double day, but the modern "working" housewife can at least fall into bed knowing that her efforts have made it possible to sustain her family at a level of health and comfort that not so long ago was reserved only for those who were very rich. ■

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