

# ROCHESTER HISTORY

Edited by Joseph W. Barnes, *City Historian*

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Vol. XLIII

January, 1981

No. 1

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## **Katharine B. Davis and the Workingman's Model Home of 1893**

By Joseph W. Barnes

In 1893 Chicago hosted a world's fair which rivaled the Paris World's Fair of 1889 for splendor and exceeded all previous fairs in magnitude. The World's Columbian Exposition sprawled over nearly 700 acres of Chicago's south side Jackson Park. It's most memorable feature was the "Court of Honor" enclosed by great neoclassical exhibition buildings and adorned with larger-than-life statuary. Twenty million visitors passed through this awe-inspiring architectural display in the space of six months. Almost all paid a visit to the fair's exotic commercial area, the Midway Plaisance, where an Ostrich Farm competed with the Algerian Village (famous for performances of the *danse du ventre*) to capture attention. On the Midway the great Ferris Wheel, 264 feet in diameter, carried 2,000 persons at a time and overshadowed all else. The Wheel, deliberately competing with the Eifel Tower erected in Paris four years before, successfully dramatized achievement in American engineering.<sup>1</sup>

But seriousness more than tempered amusement at the

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Columbian Exposition. The overall theme of the fair was the celebration of the four hundredth anniversary of Christopher Columbus' first voyage to the new world (the fairground was dedicated in 1892). Its purpose was to celebrate American progress in the arts, in manufacturing and agriculture, in machine design, in transportation and communications--in short, in all fields of human endeavor. The fair's 300 buildings contained some 65,000 individual exhibits.<sup>2</sup> All sections of the United States and the world were represented within subject exhibits in the main buildings and in state and national buildings scattered in the periphery of the grounds.

Like other world's fairs the great Columbian Exposition not only demonstrated that which had been accomplished, but also offered a vision of that which might be. Daniel Burnham and Frederick Law Olmsted laid out an orderly arrangement of buildings, promenades, and lagoons as a vision of proper city planning. The "White City," (or "Fair City" as it was also nicknamed) would help inspire the American enthusiasm known as the "City Beautiful Movement." The Exposition carried through the idea of a model urban life in detail as well as in its large features. The transformation of horse cars into electrified trolley cars had begun just four years before. At the Chicago fairgrounds, an internal elevated railway employing a third rail traction system linked all parts of the fairgrounds with a union railroad terminal. Model water and sewage plants demonstrated careful filtration of Lake Michigan water and the purification of sewage by chemical disinfection. The Exposition displayed a self-contained oil-burning electrical plant which generated controversial alternating current. The Westinghouse alternating current system was vindicated, as was the dramatic scheme of illuminating the buildings' exteriors. Such innovations brought together in a single place earned the fair another nickname as the "Magic City."

The Columbian Exposition paid "model" attention to social and human concerns as well. Day care for infants was provided as a service to fairgoers--and as a means to illustrate a well ordered nursery--in a Childrens' Building next to the Woman's Building. A Bureau of Public Comfort maintained toilets and first aid stations and supplied emergency aid to travelers. The Bureau of Public Comfort also supervised the Colombian

Guards. Prussian-clad (complete with swords) the Guard patrolled the grounds with the authority of Chicago park policemen and were meant to represent an ideal urban police force.

One of the Colombian Exposition's conspicuous features was the official inclusion of women in its management. Partly as the result of Susan B. Anthony's efforts, the federal legislation creating a National Commission to oversee the fair required the appointment of a Board of Lady Managers.<sup>3</sup> The National Commission appointed 115 women representing the various states and territories. When the Lady Managers first assembled, in 1890, there was some uncertainty as to the nature of their duties, which seemed merely advisory. Nonetheless, they decided to build the Woman's Building, which was highly successful. The "Women's Department" also operated a model hospital and kitchen, as well as the nursery. If such efforts seemed to reinforce unoriginal notions about women's proper sphere, the Lady Managers also encouraged the greatest degree of female participation in all sections of the fair.

In many states such as New York organizational arrangements for the fair imitated the national example. A New York Board of Women Managers, appointed by the state General Managers, expended some \$60,000 in state funds ensuring the proper representation of New York women at the Columbian Exposition.<sup>4</sup> In fact New York's Women Managers were stalwart contributors to several of the domestic model exhibits like the "Fitch Creche and training school for maids" (day nursery) and the Kitchen Garden, both housed in the Children's Building.<sup>5</sup>

But the most ambitious domestic exhibit of the entire fair, although originated and run by women, was launched without the aid of either the state or federal lady managerial boards. The exhibit, a life-size house with experimental family, was officially designated the New York State Workingman's Model Home. It was chiefly the work of Katharine Bement Davis of Rochester.

### **Right Principles**

Katharine Davis was not a Rochester native. She was born in Buffalo in 1860, the eldest of five children of Oscar B. and

Frances (Bement) Davis. Before Katharine began school, the family moved to Dunkirk, N.Y. In 1877 they moved to Rochester. Her father worked for several years at the local office of the Bradstreet Company, "improved mercantile agency," and later set himself up as an independent insurance agent. According to Katharine's later admission, the Davis family was never well off, but the children were provided for "generously" and enjoyed lessons in music and art to supplement their regular studies.<sup>6</sup>

Young Katharine was destined to spend little time in her new home town. She entered the Rochester Free Academy, located in its new building on South Fitzhugh Street, where she studied natural sciences and graduated in 1879. She then spent nearly eleven years in Dunkirk as a high school teacher, apparently to help with her family's finances.<sup>7</sup> In 1890 she enrolled at Vassar College, an institution then just twenty-five years old and already deserving of its reputation for progressive experiments in the field of higher education for women.

Only a few years previously (1886) Vassar's curriculum was revamped and the last two years' of study made almost wholly elective. Lucy M. Salmon, the innovative history professor who insisted on the use of primary source materials and the seminar method for undergraduates, joined the faculty in 1887. Salmon was an adamant suffragist and pacifist. A year after the arrival of Katharine Davis, the reformer (and University of Rochester graduate) Herbert E. Mills came to Vassar and became its first chairman of the Department of Economics. In 1891-92 he began offering his course in "Charities and Corrections." The early '90s at Vassar were, according to Mills, years of preoccupation with "the labor question and social reorganization."<sup>8</sup> Indeed, the nation as a whole was preoccupied with social reform. One benchmark was the publication, in 1890, of *How The Other Half Lives*. In his widely read attack on slum conditions Jacob Riis did not hesitate to place part of the blame on the habits of poor immigrants themselves.

Katharine Davis passed through Vassar and its charged atmosphere of reform-mindedness as a science major. She was what we in twentieth century parlance would call an "advanced placement" student, graduating with the class of 1892. Determined to apply her knowledge of chemistry and biology to the solution of human problems, she took additional courses in

the relatively new field of nutrition at Columbia University while teaching at the Brooklyn Heights Seminary for Girls in 1892-93.<sup>9</sup>

As she would state after her experience in the World's Fair summer at Chicago, Katharine Davis was convinced that the application of sound natural science could go far towards the solution of social and economic problems. In an article on "the scope of domestic science" written for the *Vassar Miscellany* in 1894 she announced that "a correct theory of living is now possible." Housekeeping, she said, must be transformed from an "art" into an "art based on scientific principles." Both the "Women's Century" and the "Housekeeper's Century" had dawned. Physics, she said, will "inform" heating and ventilation; biology, sanitation; chemistry, food; sociology, the servant question.<sup>10</sup>

All of these topics taken together, now known as domestic science, Katharine Davis called *ecology* (literally, science of the house or habitat).<sup>11</sup>

Davis no doubt discussed her ideas on ecology with Lucy Salmon, who proposed that a "model house" be constructed at the World's Fair, designed to demonstrate the principles of "an ideal American home."<sup>12</sup> For some reason the women's boards at the state and federal levels found the proposal impractical, and would not carry it out. Perhaps Professor Salmon's politics resonated poorly with those of the generally conservative members of the boards.

While the New York women's board debated the proposal, it came to the attention of John B. Thacher, then serving on both the state and federal boards for the fair. Thacher, a former mayor of Albany, state senator, and writer of popular histories, was also an advocate of tenement house reform.<sup>13</sup> He supported Lucy Salmon's idea for a model house, but modified the plan to make it a workingman's model home. It would be, as Katharine Davis recorded in her official *Report*, an "exhibition of a home, where a practical illustration of right principles could be given."

### The Necessary and the Unnecessary

It was not until March 4, 1893 that Thacher secured an appropriation from the New York Board of General Managers to pay for the project, and notified a grateful Katharine Davis that she was selected to run it. Planning time was short, and the parameters for the experimental home were strict. One of the major educational goals of the exhibit would be to differentiate between the necessary and unnecessary in terms of household expenditures. A number of rapid decisions were made.

The model household was to consist of a man, a woman, two children, and an infant. They were to live on an annual income of \$500. This was meant to represent, as Katharine Davis said, "the income of an industrious laborer in times when steady work could be had." (In fact, the average industrial worker in 1893, who labored nearly 60 hours a week, earned between \$444 and \$480).<sup>14</sup>

Having made inquiries in the various cities of New York State, Davis determined that a "suite of four rooms with decent conveniences" or a small detached house could be rented for \$10 a month, or \$120 a year. Deciding that the experimental family could have "sufficient nutritious food" for 40% of its income, or \$200 a year, she drew up their family budget:

Income .....	\$500
Rent, at \$10 per month .....	\$120
Clothing .....	100
Food .....	200
Fuel .....	30
Miscellaneous .....	<u>50</u>
TOTAL .....	<u>\$500</u>

The first consideration was the provision of a dwelling place. Davis decided in favor of a detached house, rather than an apartment flat, but the question of whether the theoretical family could own the house was left more or less open.<sup>15</sup> (On the Midway Plaisance the Philadelphia County Women's Committee would exhibit a *model* tenement house, 16 by 15 feet.<sup>16</sup>) As the result of "consultations with business men of experience" it was determined that a capitalist in New York State could invest \$1,000 in building a rental property on the

outskirts of a city and make a fair profit on the investment at a rental of \$120 per year. Having established this limit, Davis brought the problem to the attention of Frederick B. Pratt, son of Charles Pratt. Charles, who had died in 1891, not only founded the Institute and Free Library which bear his name but also maintained an interest in housing reform; near his Greenpoint refinery he had erected an ideal tenement building, the "Astral," for his workers. The son carried on an interest in "comfortable housing." Architects and faculty members of the Pratt Institute in Brooklyn drew up plans for a two-story frame cottage, 20 feet wide by 28 feet deep.

The design of the house itself, as Katharine Davis would learn, seemed to excite more interest on the part of exhibit visitors than any other element of the model home experiment. Planned to fit the 25-foot lot common in American cities, the modest house contained, on the ground floor, a living room about 13 feet square, a slightly smaller kitchen, and a bath complete with tub and water closet. The upstairs contained a front bedroom about 11 by 13 feet, two somewhat smaller children's bedrooms, and no plumbing. The floor plan contained 1,120 square feet overall and about 900 square feet of living space. The size was extremely spartan by the standards of affluent persons in the 1890s (but ironically similar to the size of new townhouses sold to the affluent in the Chicago of 1981).

Experimental houses constructed today are replete with technological innovations that employ the newest materials, generally with a view towards energy conservation and lower construction costs. Katharine Davis and the Pratt designers offered little innovation, but they were concerned with not exceeding their \$1,000 limit. The "Bill of Material and Labor" submitted in Davis' *Report* details the amounts of hemlock and yellow pine, of sheathing paper, window frames, and siding used. "Five hundred and fifty yards of plastering" were used, as well as "four hundred pounds of nails." The bill of particulars contains only commonplace materials and no surprises.

Indeed, Davis and visitors to the exhibit were pleased with certain small details of arrangement. Good sanitation was, not without cause, a preoccupation of her era. Room within the

budget was found for the downstairs indoor plumbing, and "traps were of the best sort." The kitchen sink and bathroom fixtures were located on opposite sides of the same wall to reduce plumbing costs. An added dividend was the close proximity of the bath tub to the kitchen range boiler, which saved the mother of the family many steps with hot pails. Good ventilation was another concern. The Chicago house was provided with ample windows, and the living room fireplace chimney, which some may have criticized as a luxury, was regarded by Davis as another ventilator. The plans called for a full cellar, but without a cement floor, which Davis considered a grave sanitary error. As it turned out, no cellar at all could be dug for the prototype house as it was located too close to Lake Michigan's shore. Ample closet space was one of the small amenities of the house, though at least "one careful builder" was heard to remark that "it is entirely unnecessary and too expensive to give a laboring man so many closets."

Other details which did not escape Davis' attention included the finishing of floors (paint wore better than stain), the use of paint on walls rather than wallpaper (paint was more expensive but could be kept sanitary), and even the finish of the balustrade (oil was better than varnish as it does not show "every knock and scratch"). The house was to be heated by means of the kitchen range, the fireplace, and stoves. The \$30 allotted in the family budget for fuel was to cover the cost of coal, wood, kerosene, or gas, for heat and light. The allowance appears ample for a period when anthracite coal was less than \$2.00 per ton.

So popular was the simple design of the model house that visitors to the exhibit constantly demanded copies of the plans. They were reproduced and sold in pamphlet form at 25 cents; a second edition was necessary before the exhibit closed. Several houses were actually constructed in different localities according to the plans, all of which, according to Katharine Davis, came within the \$1,000 limit of construction costs.

### **Furnishings and Clothes**

As fair-goers streamed through the Workingman's Model Home in the hot Chicago summer they might well have marvelled at the precise thoroughness with which it had been

furnished for \$300. The figure was partly arbitrary, of course, but Katharine Davis imagined the case of a young couple engaged to be married. Both worked, the laboring man at \$500 a year, she, a house servant, at \$3.00 a week and board. In two years, Davis imagined, these two could save \$400, of which \$100 would set aside against a rainy day. The other \$300 would furnish their house. "Certainly, most young working people begin with less. We are imagining the ideal thing," she wrote.

Davis demonstrated an imposing attention to detail in this branch of "ecology." It is difficult to fairly summarize the task she accomplished. She divided expenditures into eight broad categories: Sitting Room Furniture, Front Bedroom, Back Bedroom, House Linen, Bedding, Kitchen Furniture, Table Ware, and Kitchen Utensils. Lists of all the items, which were purchased in Brooklyn, were posted near the objects in the Chicago exhibit. Below are abbreviated samples from two of the lists:

Sitting Room Furniture		Kitchen Utensils	
Sewing chair . . . . .	\$0.98	Biscuit Cutter . . . . .	\$0.03
Large rocker . . . . .	3.00	Candlestick . . . . .	.09
Stand . . . . .	1.65	Tub . . . . .	.90
Bric-a brac . . . . .	3.00	Washbasin, agate . . . .	.44
Clock . . . . .	2.50	Washboard . . . . .	.50
Table Cover . . . . .	2.00	Washboiler . . . . .	.90

and so on, for a grand total of \$291.38, nearly nine dollars below budget. In choosing furniture, Davis emphasized durability, simplicity, and plainness. Two single iron bedsteads were better than a wooden double one, even though they cost more, because "they will last a lifetime and can easily be kept clean." Besides, "single beds are much more healthful and are particularly desirable for hard-working people who need to sleep undisturbed, as the restlessness of one will not then trouble the other."

No less attention to detail was spent on clothing the experimental family. Here the problems included normal wear and tear and the budgetary limit of \$100 per year. Since it was expected that almost all outer garments except those purchased for the man and boy of the family were to be manufactured by the woman of the house, Katharine Davis' lists contained many bills of material. They are of more than passing interest, but one sample from the *Report* should suffice here:

### Clothing for Woman

One Cloth Summer Dress	Cost	# yrs. worn	Ave. for 1 year
Four yards serge, at \$1 . . . . .	\$4.00		
Five yards cambric, at 6 cents . . .	.30		
Three-fourths yards drilling, at 15 cents . . . . .	.12		
Three-eighths yard velveteen . . . .	.36		
One spool silk . . . . .	.09		
One spool thread . . . . .	.04		
Hooks and eyes . . . . .	<u>.05</u>		
	\$4.96	3	\$1.66

Davis meticulously priced all needed clothing for the Man, Woman, Girl of Ten years, Boy of Eight Years, Girl of Five Years, and Baby, estimated the expected life span of each garment, and figured an annual cost. The five year old was very inexpensive to clothe, most of her things being made over from the mother's and sister's cast-offs. A yearly cost for the baby was not calculated, his outfit being treated as a one-year expense (one dozen new diapers @ \$0.96, one dozen old diapers @ \$0.00, six slips @ \$1.34, etc.). The summary of clothing for the family was only slightly over-budget:

	Cost for 1 year
Man . . . . .	\$ 29.21
Woman . . . . .	27.59
Girl of ten years . . . . .	16.60
Boy of eight years . . . . .	15.98
Girl of five years . . . . .	3.67
Baby . . . . .	<u>9.83</u>
	\$102.88

As was the case with furnishings, the clothing of the model household was exhibited in an educational manner. Outer garments were hung in closets and underclothing laid away in bureau drawers. Cards attached to all items provided the curious with ample cost information.

### Food and the Family

In the few months after the March approval of the project, Katharine Davis completed a prodigious amount of work. The workingman's model house was planned and constructed. Furnishings, most of them shopped for in Brooklyn, were

shipped to Chicago and installed in the house. A family's entire wardrobe was carefully assembled and placed on exhibit. Yet Katharine Davis considered herself chiefly a nutritionist and the nutritional experiment conducted as part of the Workingman's Model Home exhibit would receive her greatest attention.

While still in Brooklyn Davis applied herself to the plan of feeding her theoretical family for 55 cents a day, the level of expenditure possible on an annual budget for food of \$200. She gave careful consideration to supplying the necessary balance of "proteids," fats, and carbohydrates, as well as sufficient calories. Nutritional needs were calculated for the family as an aggregate. Thus, the wife of a laboring man requiring 100 units of nutrition would require 90; their children 8 or 10 years old would need 75; and small children 6 or under would need 40 units.

The actual experimental family assembled at Chicago consisted of a Columbian Guard living in nearby barracks who "was very glad to come to the house for his meals" and an Irish widow and her three children. The first two were described by a physician as

"Man, American--age 28 years; height, 6 ft. 1 in. in stockings; girth, 34 in.; weight, 180 lbs.; pulse, 80 (warm day, been walking fast); well nourished, florid; comes of family of good eaters; occupation, Columbian guard.

"Woman, Irish--age 34 years; weight, 100 lbs.; girth, 25½ in.; florid, but looks a little haggard and overworked; occupation, housework, cleaning, washing, etc. . . ."

The three children, all "Irish parentage, American born," not to mention "florid, robust," were a boy of 8, a girl of 6, and a boy of 5. For purposes of nutrition, the family's needs equalled those of 3.45 men.

Davis' goal was to supply food in sufficient quantity to meet at least two nutritional standards, the German "Voit" standard and an American "Atwater" standard. The Voit daily standard for the average German laborer was comprised of 118-145 grams of proteids, 56-100 grams of fats, 450-500 grams of carbohydrates, and 3,055-3,370 calories. The Atwater standard called for 125-150 grams of proteids, 125-150 grams of fats, 450-500 grams of carbohydrates, and 3,520-4,060 calories. The

differences between the two standards, Davis wrote, are explained by the fact that “the American laborer demands and habitually consumes more food than the European working man, the excess being largely fat.” The higher and lower values for each component within the standards represented the needs of a “man at hard work” and those of a “man at moderate work.”

Katharine Davis’ ability to supply her family’s nutritional needs within a budget of 55 cents per day was of course constrained by retail food prices. These she carefully assembled for both the Brooklyn and Chicago markets. She noted that there were only minor differences in the food prices of the two cities, meat being a bit cheaper in Chicago as one would expect, but fresh fruit cheaper in Brooklyn. A portion of her list of “Market Prices, Chicago, July 1893” may be of some interest, not only for the prices, but also for some suggestion of the type of staple foods Davis expected the typical working-man’s family to consume:

<i>Article</i>	<i>How Purchased</i>	<i>Price per pound</i>
Beef (shoulder) . . .	By the pound, 6 to 8 cents . . . . usual . . . .	\$0.08
Beef heart . . . . .	Each, 10 to 12 cents . . . . . about . . . .	.056
Bacon . . . . .	By the pound . . . . .	.18
Codfish (salt) . . . .	By the pound . . . . .	.12
Butter . . . . .	By the pound . . . . .	.24
Cabbage . . . . .	By the head, 8 to 10 cents . . . . about . . . .	.04
Dried peas . . . . .	By the pound . . . . .	.035
String beans . . . .	By the quart, 5 cents . . . . . about . . . .	.051
Bananas . . . . .	By the dozen, 10 cents . . . . .	.046
Apples . . . . .	By the quart . . . . .	.04
Sugar . . . . .	By the pound, 10 lbs for 55¢ . . . . .	.055
Syrup . . . . .	By the quart, 16½ cents . . . . .	.059
Macaroni . . . . .	By the pound . . . . .	.09

Davis’ entire list of commodities included 43 items.

During the nutritional experiment in July 1893 Davis necessarily modified the “bills of fare,” or daily menus, which she had laid out in Brooklyn. For one thing, it was not always possible to find some anticipated foodstuffs in the groceries around Jackson Park. For another, “it was found on trial” that members of the family had their likes and dislikes: “e.g., the woman disliked cheese and the man would not eat salt pork.” All had a greater appetite for butter than anticipated.

Davis imposed strict standards of conduct on her experimental subjects. No food was permitted to be wasted. Bones and meat scraps went into a stock pot for bean or cabbage soup; no waste at all was permitted of such things as milk, bread, butter, or sugar. "If the children took a piece of bread and butter more than they could eat, it was set aside for the bite they sometimes insisted upon between meals." As a result of her careful weighing, Davis could declare that "out of 412.35 pounds of food purchased, only eleven pounds were wasted." Eating by family members outside of the planned regimen was discouraged, generally successfully. "The children were given candy several times by benevolent visitors, who thought them abused because they were deprived of sweet things for a whole month." Usually these transactions were discovered in time for Davis to coax the candy away and prevent transgressions. She was perhaps less successful with the footloose Columbian Guard, who confessed to several cookies and a glass of milk while making a social call and, on another occasion, a plate of ice cream.

The following are examples of the actual meals served the family in the workingman's home:

[Day] No. IV

- Breakfast* -- Oatmeal mush with milk and sugar; bread and butter.  
*Dinner* -- Corned beef; cabbage; boiled potatoes; bread and butter.  
*Supper* -- Corn meal mush and milk; corned beef hash; bread and butter.

No. XI

- Breakfast* -- Bread and butter; oatmeal with milk and sugar.  
*Dinner* -- Scalloped beef with rice; macaroni; boiled potatoes; bread and butter.  
*Supper* -- Croquettes (meat and rice left from dinner, one egg added); potatoes with milk; stewed prunes; bread and butter.

No. XVIII

- Breakfast* -- Oatmeal with milk and sugar; bread and butter; coffee.

*Dinner* -- Beef stew; raw onions cut up with vinegar; boiled potatoes; bread.

*Supper* -- Milk toast; tea with milk and sugar.

No. XXV

*Breakfast* -- Oatmeal with milk and sugar; bread and butter.

*Dinner* -- Boiled mutton with rice; mashed potatoes; bread and butter; corn starch pudding with milk and sugar.

*Supper* -- Stewed potatoes; dried apple sauce; bread and butter.

Each day's bill of fare was carefully weighed, item by item, and Katharine Davis meticulously tabulated food values to the third decimal place. Family members were encouraged to eat all they wished at mealtime, and they declared themselves satisfied with the food.

At the end of the 28-day food experiment Davis assembled her data and demonstrated that nutritional needs had been met within the budget allowance of 55 cents a day; in fact her daily expenditures averaged \$0.539. In all, just over 400 pounds of food were consumed at a cost of \$15.11. (Davis admitted to accepting gifts of some fly-specked apples--about five pounds--from the New York State horticultural exhibit.) Nutritional standards for the "3.45 men" the family represented were more than satisfied, at least for a "man at moderate work." The daily allowance "per man" consisted of 127 grams of protein, 102.51 of fat, 503.49 of carbohydrate, and provided 3,556.4 calories.

Alas, the practical results on the experimental family were not a complete success. They were re-examined by a physician and again declared in good health. The Columbian Guard, who had not been entirely under supervision, had gained five pounds at the end of the month. The woman and children, who were, showed mixed results. The mother lost 3/4 pounds, and the children variably gained and lost weight within a similar margin of 3/4 pounds. Katharine Davis was distressed that the children showed "no perceptible gain, since they were broken during the month of their bad habits of eating." But she was pleased that the mother had showed only a small loss, "consid-

ering the circumstances under which she worked during the month. All the housework for a family of five persons, cooking, washing and ironing, etc., was necessarily carried on in the presence of from 500 to 2,000 persons daily."

### No Complete Scheme

At first glance the methodical domestic science of Katharine Davis with its weigh-in and weigh-out of the workingman's "family," fine measurement of food elements, and specification of paints and finishes, seems inhuman. But Davis was a reformer of her time, and ameliorative approaches to social questions were considered legitimate enough even in Chicago on the eve of the Pullman Strike. In the late twentieth century new phrases such as "poverty line" and "working poor" are used to describe the same kind of economic problems that concerned Davis and her teachers at Vassar. Now, however, Katharine Davis' line of reform has been largely abandoned. Traces of it may be found in free government brochures aimed at homemakers and in school programs that enshrine the ideals of domestic science, or "domestic living."

Katharine Davis herself made no comprehensive claims for her approach. A classmate who visited her "in the blazing heat of Chicago" remembered her saying, "you *could* feed a workingman's family on fifty-four cents a day but it was a grave question whether you *ought* to do so."<sup>17</sup> Davis elaborated in her formal *Report*:

Perhaps a word is in place as to what [the Workingman's Model Home] did *not* attempt to do. Among the many visitors to the house were those who severely criticized because no complete scheme of living was outlined. "How are you going to educate your children?" "Where is the money coming from for church, club, newspaper, and amusements?" . . . "What scheme have you devised for laying aside money for old age?" These are only a few of the questions asked. And they are all important questions. They must be met and answered in some way by every family whose intelligence causes them to aim higher than at the gratification of merely animal needs.

.....

The persons who will show how such families can live in comfort on their present incomes will be the greatest benefactors of their time. But the question is too closely involved with the social and industrial problems of the day to be easily answered.

It was, as Katharine Davis put it, “obviously ridiculous” to look for the solution of all social questions in her model home. Returning home to Rochester, Davis was invited to address a meeting of the new Women’s Educational and Industrial Union. She stated that there were two ways to increase the value of a fraction. One could increase the numerator or decrease the denominator. For her own part, she believed in fair wages, labor organizations, and the like, but her line of work happened to lie in decreasing household expenses.<sup>18</sup>

### **Subsequent Careers**

In later life Katharine Davis’ qualities of pragmatism and intelligent thoroughness helped make her an acknowledged leader in two fields only distantly related to her early preparation in nutrition and “ecology,” but both reflecting in some way her social concerns. She became first a reform-minded prison administrator and subsequently a pioneer sexologist. These angular turns in career came about after her fortieth birthday.

After completing her duties at the World’s Columbian Exposition Davis was named head resident at the St. Mary’s Street College Settlement in Philadelphia. The college settlements of the day, patterned after Hull House, absorbed the energies of young women like Davis in a grab bag of reform efforts. At St. Mary’s Street five women ran a kindergarten and a gym and conducted classes and clubs. No doubt the teaching of household work and nutrition along scientific principles received a high priority. In addition the women apparently experimented with still another reform scheme known as “cooperative housekeeping.”<sup>19</sup>

Davis found herself back in Chicago in 1897 where she had won a fellowship to study economics at the new university. She travelled to Berlin and Vienna to gather data on the condition

of European Bohemians, intending a comparative study of both industrial and agricultural Bohemian laborers abroad and in the United States. Although she never formally submitted this dissertation, she received her Ph.D. from the University of Chicago in 1900. A portion of the Bohemian study appeared in the *Journal of Political Economy*.<sup>20</sup>

Katharine Davis next became, by several accounts, the “first” college woman to enter the field of corrections. She accepted appointment as the first superintendent of New York State’s women’s reformatory at Bedford Hills. A colleague later recalled that Davis was assumed to be a “woman of questionable character by those who thought no other kind of woman would take such a position.”<sup>21</sup> While in charge of Bedford Hills Davis introduced numerous rehabilitative programs. The innovation in which she took the greatest pride, was, however, a diagnostic center known as the Laboratory of Social Hygiene in Elizabeth Fry Hall, funded by John D. Rockefeller, Jr. Here, incoming inmates, all first-offense felons who faced three-year indeterminate sentences, received several weeks of careful psychological evaluation. The hope was that such study could add to understanding the etiology of criminal behavior. The categorization of individual Bedford Hills inmates also theoretically aided in determining the correct course for their reform.<sup>22</sup>

In 1914 Davis accepted appointment as Commissioner of Corrections for New York City in the administration of Mayor John P. Mitchel. The appointment of a woman to the mayor’s cabinet was without precedent, and Davis would be responsible for the care of fifteen institutions and 125,000 prisoners per year. Calling the appointment “appalling,” the *New York Times* declared that “handling the hardened criminal is a man’s job.”<sup>23</sup> But Katharine Davis proved to be as successful an administrator for Greater New York as she had been at Bedford Hills.

Despite the numerous reforms she instituted as Commissioner of New York City Corrections, her administration was not without its critics, who charged that even while at Bedford Hills Davis resorted to “‘ice box doors,’ chaining to beds, and washing of mouths with soap and water.”<sup>24</sup> In any case Davis was turned out of office as Corrections Commissioner (and as

head of a Parole Commission she persuaded the state legislature to create in 1915) in a 1918 political turnover.<sup>25</sup> She then turned to her old benefactor, and was made Secretary of the Bureau of Social Hygiene, a division of the Rockefeller Foundation.

In this capacity Davis carried on a number of studies of female sexuality by questionnaire.<sup>24</sup> Antedating the Kinsey studies by decades, her work contributed significantly to modern understanding of sexual behavior.

In the 1920s Katharine Davis received numerous honorary degrees and other awards. A poll of the League of Women Voters named her one of the twelve greatest living American women. John D. Rockefeller, Jr. called her "the cleverest woman I have ever met."<sup>27</sup> And yet, like many of her generation of practical reformers and social scientists, she maintained a personal modesty which kept her away from the public limelight. A supporter of women's rights, she was never a major leader in the cause.<sup>28</sup>

Katharine Davis retired from the Bureau of Social Hygiene in 1928. Late in life she made a number of visits to her home town of Rochester to visit with her brother and two sisters. On at least two such occasions she made keynote speeches to local civic groups.<sup>29</sup> Her ties to Rochester were tenuous at best, however, and in 1930 she retired with her sisters to Pacific Grove, California. There, in 1935, she died, but her remains were returned to lie in the family plot in Riverside Cemetery.

## Notes

1. Two recent, comprehensive, histories of the World's Columbian Exposition are R. Reid Badger, **The Great American Fair** (Chicago, 1979) and David F. Burg, **Chicago's White City of 1893** (Lexington, Ky., 1976). Older works include the enormous pictorial Hubert H. Bancroft, **The Book of the Fair**, 10 Sections (Chicago, 1893) and Rossiter Johnson, ed., **A History of the World's Columbian Exposition**, 4 Volumes (New York, 1898). Curiously enough, in all of these works only a single brief mention of the New York Workingman's Home can be found, Johnson, III, p. 336.
2. Badger, pp. 70, 103.
3. Susan B. Anthony and Ida Husted Harper, **The History of Woman Suffrage** (Rochester, 1902), IV, p. 233.
4. "Report of the Board of Women Managers," pp. 156, 177, and *passim* in [N.Y.S. Board of Managers, World's Columbian Exposition], **Report of the Board of General Managers of the Exhibit of the State of New York at the World's Columbian Exposition** (Albany, 1894).
5. *Ibid.*, pp. 166-167
6. Jean Trepp McKelvey, "Katharine Bement Davis," **Dictionary of American Biography** (New York, 1944), XXI, pp. 227-228; W. David Lewis, "Katharine Bement Davis," **Notable American Women** (Cambridge, Mass., 1971) I, pp. 439-441; Katharine B. Davis, "Three Score Years and Ten," **The University of Chicago Magazine**, 26 (December, 1933), 58-61.
7. Lewis, *loc. cit.*
8. Dorothy A. Plum, **The Magnificent Enterprise; A Chronical of Vassar College** (Poughkeepsie, 1961), pp. 27, 30, 31; Herbert E. Mills *et al*, **College Women and the Social Sciences** (New York, 1934), pp. xi, 293.
9. Lewis, *loc. cit.*
10. Katharine Bement Davis, "The Scope of Domestic Science," **Vassar Miscellany**, 23 April, 1894), pp. 273-280.
11. *Ibid.*, p. 277
12. Davis, "Report on the Exhibit of the New York State Workingman's Model Home," in **Report of the Board of General Managers . . .**, p. 394-443. Where not otherwise indicated, quoted material is from this report.
13. Frederick S. Hills, *comp.*, **New York State Men** (Albany, 1910), II, p. 78.
14. United States Department of Commerce, **Historical Statistics of the United States 1789-1945** (Washington, D.C., 1949), pp. 67-68. The lower figure represents an average unskilled wage, calculated at 50 x \$8.88/week; the higher figure is the one given in **Historical Statistics** for all industrial workers.
15. Katharine Davis believed it was possible for the workingman to own his house, but that it meant "the utmost industry, care, thrift, and self-denial . . . with a chance of losing all the savings through sickness or misfortune . . . The majority are compelled to rent." This was true in all of America's growing cities, where renters averaged over 77% in 1890. New York (93.67), Brooklyn (81.44), Jersey City (81.2), and Boston (81.57) contained the largest percentages of renters, while Rochester (56.02) and Milwaukee (57.82) contained the smallest percentages, Charles N. Glaab and A. Theodore Brown, **A History of Urban America** (New York, 1967), p. 160.
16. Johnson, II, pp. 274-275.
17. Amy L. Reid, "Katharine Bement Davis," **Vassar Alumnae Magazine** (February, 1936).
18. Rochester **Union and Advertiser**, April 12, 13, 1894.
19. **U&A**, April 12, 1894; Davis, "Is Co-operative Housekeeping a Failure?" **Outlook**, 50 (December 8, 1894), 985-986.
20. Davis, "The Modern Condition of Agricultural Labor in Bohemia," **Journal of Political Economy**, 8 (1900), 491-524. That Katharine Davis "still owes" the University of Chicago a doctoral dissertation is confirmed by her own admission in a letter to Gordon J. Laing, general editor of the University of Chicago Press, February 15, 1928 [U. of C. Registrar's Files]. In the rush to move to the new job as New York City Corrections Commissioner in 1914 her maid discarded the cartons of draft manuscript and notes.

21. Mary B. Harris, **I Knew Them in Prison** (New York, 1936)
22. Davis, "Introduction" in Jean Weidensall, **The Mentality of the Criminal Woman** (Baltimore, 1916) [Educational Psychology Monographs No. 14], pp. ix-xii.
23. Quoted in Jean Henry Large, "A Man's Job," **The University of Chicago Magazine**, 26 (January, 1934), 105-108.
24. Rochester **Democrat and Chronicle**, December 20, 1919. These practices were carried on according to Davis' own testimony.
25. McKelvey, "Katharine Davis," pp. 227-228 and Lewis, "Katharine Davis," pp. 439-441.
26. Davis, "The Use of Contraceptives," **Journal of Social Hygiene**, 8 (April, 1922) 173-189; "A Study of Certain Auto-Erotic Practices," **Mental Hygiene**, 8, 9 (Pt. I, July, 1924; Pt. II, January, 1925); "Periodicity of Sex Desire," **American Journal of Obstetrics and Gynecology** (December, 1926); **Factors in the Sex Life of Twenty-Two Hundred Women** (New York, 1929). Davis' interest in the relationship between "sexual immorality" and criminal deviancy began during her superintendency at Bedford Hills; cf. Davis, "The Duty of the State to its Delinquent Women," An Address to the 18th Annual Illinois Conference of Charities and Correction, Rockford, Illinois, October 11-14, 1913, in **Institution Quarterly**, 5 (March, 1914), pp. 115-118.
27. Lewis, *loc. cit.*
28. *Ibid.*; Near the end of her life Davis stated that "in spite of my ardent belief in the rights of women I have never advocated more rights for them than for men," "Three Score and Ten," 58.
29. Unidentified newspaper clipping, Rochester Public Library, Tengwall Scrapbook, V, p. 36, December 1930?; *D&C*, December 13, 1930, December 11, 1935.