

The Greatest American Living Machine

by Michael Mullen

A WARNER BROTHERS CARTOON from the 1930s shows a dog trying to escape the clutches of another dog, the bully, by running into a modern, streamlined home. The bully follows and both dogs become the comic victims of the mechanical devices that fill the house. At the same time that the house served as the backdrop for the dogs' antics, it also gave the creators of the cartoon a chance to poke fun at the modern, futuristic appliances that threatened to change the way people lived.

Edward Earle Butler of Des Moines did not see such inventions as a threat. Instead, Butler built a house in Des Moines in 1935/36 that would showcase the exciting possibilities of the modern home in America. What he offered was not a cartoon fantasy, but a functional, livable home reflecting many of the most progressive ideas in house building at that time.

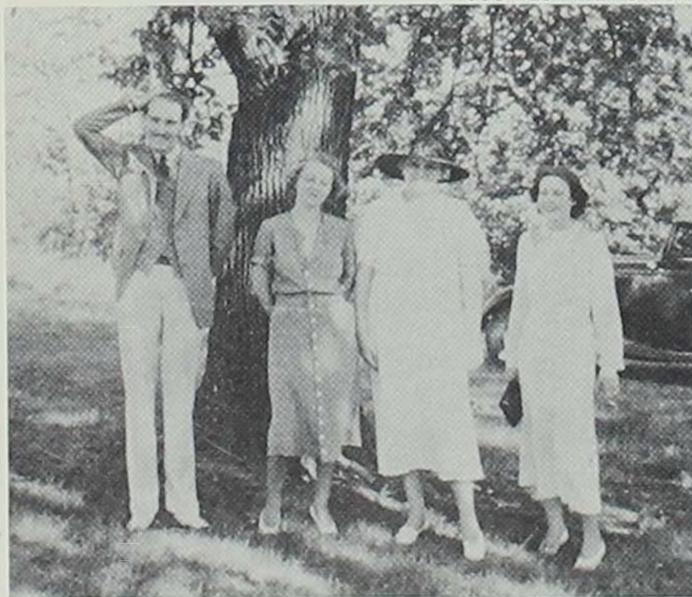
Butler was a likely candidate to build one of the best examples of streamline deco architecture in the country. For one thing, he had money. His father, Eugene K. Butler, was a millionaire when he retired as general manager at McCormick Harvesting Company in 1900 and moved from Chicago to Des Moines. Butler's own occupation was managing his family's investments, which included many real estate properties in downtown Des Moines. Besides his financial resources, Butler was a thoughtful and practical man who looked to the future.

According to an article in *American Magazine* in 1937, Butler was graduated from Culver Military Academy and the University of Chicago, where he majored in chemistry, and served in the U.S. Army Signal Corps during World War I. He was 23 when he first decided to build a house on a hillside overlooking Des Moines, a site that continues to provide an exciting view of the capital city. But it would be more than two decades before he would begin.

Butler and his wife, Fannie Harriet Butler, had lived in Des Moines hotel suites or apartments from the end of World War I until the mid-1930s and traveled extensively during that time. Butler preferred plane flights over train travel. His son, Edward B. Butler, was manager of United Airlines in Des Moines, and Butler himself knew many pilots and had his own license. On their travels, Butler enjoyed looking at houses and planning his own. Finally he decided to act on his interest in house design and his desire to create his own house. He purchased an eleven-acre tract of land and began plans to build at 2633 Southwest Twenty-First Street (now Fleur Drive).

Butler's landmark house suggests that he may have visited the Century of Progress Exposition in Chicago in 1933 and 1934. House design was an integral part of the Home Exhibits section at the exposition. He was certainly aware of what many believed to be a coming revolution. *Home and Furnishings*, published in conjunction with the exposition, announced that "the design of the 'perfect' home seems to be the same in everyone's mind. Its main qualifications are only four in number. It must be DURABLE;

COURTESY THE AUTHOR



Edward Earle and Fannie Harriet Butler flank their daughter Sarah and an unidentified woman (in large hat).



CONVENIENT; LIVABLE; AND INEXPENSIVE.” Butler’s house in Des Moines would meet the first three qualifications. And though the house would not be inexpensive, Butler would emphasize that the principles he incorporated into it could also be part of a more modestly priced house.

Butler participated “to an unusual degree” in planning and supervising construction, according to an article in *The Architectural Forum*, which called the house “the result of two years’ close collaboration between a strong individualist and his architect.” Butler worked closely with friend and architect George A. Kraetsch (partner with his brother William Kraetsch in the architectural firm Kraetsch & Kraetsch). To satisfy their requirement of durability, Kraetsch and Butler chose concrete, reinforced with steel. Exterior walls were made of ten-inch-thick monolithic concrete (poured into a form as a continuous mass), furred on the inside with latticed metal studs and lath. Interior partitions were of cinder concrete blocks covered with hardwall plaster. The floor was also reinforced concrete over steel joists. Double-paned windows kept out cold and heat.

With 15 carloads of Portland Cement, 110 tons of steel, and over 19,000 feet of telephone wire and cable, Butler and Kraetsch created a house that was remarkable for its practicality. In the *Architectural Forum* article Butler explained, “Materials were selected for permanence and ease of upkeep; they were to be fireproof, tornado proof, earthquake and termite proof, assuring a nominal insurance rate. Surplus materials for decorative purposes are totally lacking as I believe that simplicity and good

Built of ten-inch poured concrete walls, the Butler house in Des Moines is distinguished by the curved corners, flat roofs, and terraces characteristic of streamline deco architecture.

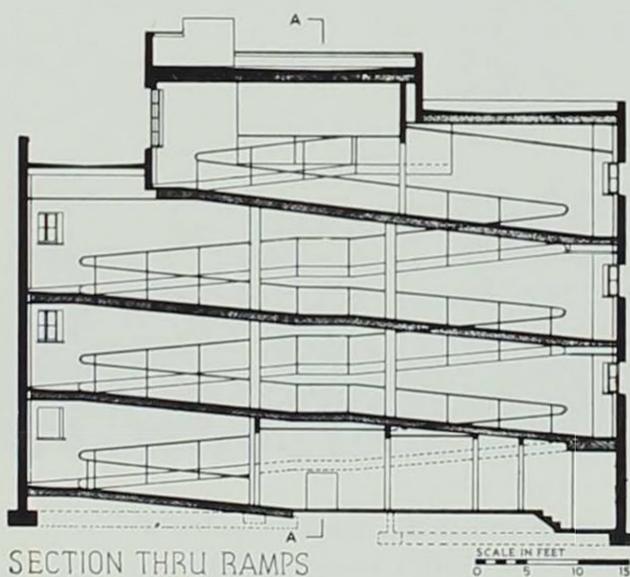
design are much more restful and inherently beautiful in a home." Butler chose an architectural style generally known by several names: art deco, moderne, streamline moderne, streamline deco, or depression modern. It incorporated the common features of relatively unadorned surfaces, curved corners, and flat roofs.

BUILT INTO A HILLSIDE, the house had three floors, which became six staggered layers (plus garage and sunroom) when divided by a special feature — a wide concrete ramp that served as a central staircase. Butler had researched the topic of safety and had found that almost 50 percent of accidents in buildings happened on stairs. To alleviate the problem, he designed a central ramp that gently spiraled from the ground floor up to the top-floor sunroom. As he explained, "The ramp was selected for the convenience in circulation it offers. It provides a method of wheeling vehicles anywhere in the house and also to permit older people to meter their rise and descent to their physical ability. It has proven very successful in use, and practically puts the basement and two stories above on one level." The ramp was less tiring to climb and allowed quicker and freer movement along it.

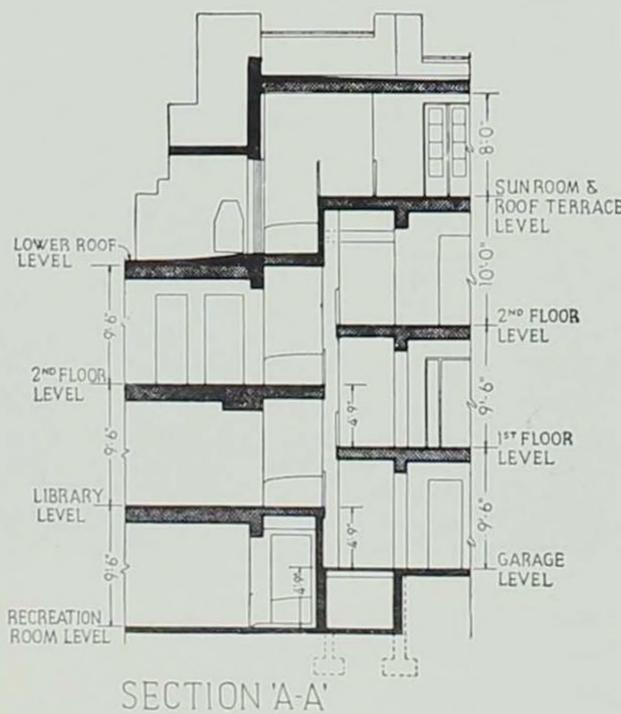
In his research on home design, Butler had noted that few owners are satisfied with their homes and that defects in equipment and construction cause friction and expense. He believed, according to *American Magazine*, that "a perfect house . . . has a psychological effect which may alter entirely a family's outlook on life, stimulate it socially, and even prevent a divorce."

Butler designed the house to be practical and efficient, but not at the price of comfort. The master suite included a bedroom, closets, bathroom, dressing room, and a shoe closet. Most rooms — there were twenty-eight — had adjoining terraces, porches, or balconies, allowing the Butlers, their adult daughter, Sarah, and their guests to enjoy the pleasures of fresh air and sunshine. The low walls built around each terrace were tilted back slightly so that they were more comfortable to sit against, and the concrete terraces were painted to reduce glare. From the glass-walled sunroom the Butlers enjoyed picnics and an unparalleled view of Des Moines and the Raccoon River valley. Butler could plug his portable grill into an electrical outlet there or build a fire in the fireplace.

Butler took advantage of modern technology to install labor-saving devices "that would pay for themselves in time saving and low cost of operation," he wrote, "and that if necessary would make one independent of servants." In a description that must have overwhelmed the masses of rural Americans who still lacked electricity on their farms, Butler listed some of these labor-saving devices: automatic heating and air conditioning; automatic water softening and heating; an electric towel dryer; an electric eye that



The ramp zigzagged up from the recreation room and three-car garage, through the living areas, to the glass-walled sunroom on the top floor.



ARCHITECTURAL FORUM

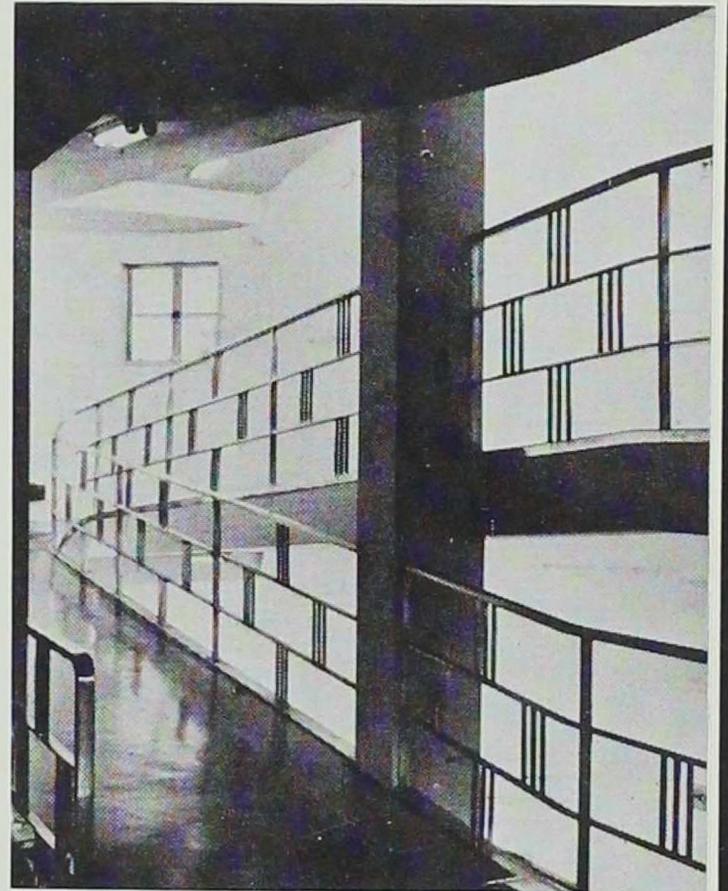
responded to blinking car headlights to open and close the garage doors; eight intercom "house telephones"; and one of the first residential dishwashers and electric garbage disposals. Such features, though fairly standard today, in the mid-1930s required some explanation; a *Des Moines Register* reporter defined a garbage disposal for readers as "an electric sink, a feature of which will be a waste disposer in which garbage may be thrown, pulverized, and worked down the sewer." As might be expected, the house had an electric refrigerator — and a bit more for a homeowner who liked to hunt ducks and entertain: "a small cold storage room for freezing game; a cooling room for storing meats in quantities that make wholesale purchase possible; [and] an extra ice cube freezer with a 675-cube capacity."

DURING CONSTRUCTION, lighting engineers from General Electric went through the entire house with a foot-candle meter to determine the precise degree of lighting needed in each room. Five hundred light bulbs were installed, many in recessed banks that would direct light on the object or work surface. Ninety-six bulbs lit the dining room, with controls to change brightness and color (for example, the lighting in the room could be adjusted to complement the appearance of the most important female dinner guest). Butler's stated goal was no less than "perfect illumination in all the house to prevent eye strain."

In late October 1936 General Electric executives from Cleveland and New York met in Des Moines to tour the completed house, marking the first time such a large group of G.E. executives had met on this side of the Mississippi. Judging from their enthusiastic response, the trip was not wasted. Carl Snyder, G.E. manager of the home bureau, called the house "the first truly American home in America," explaining that "all the things we have done in the past have been borrowed from Europe. We think the Butler home includes all the elements we need in the American home today."

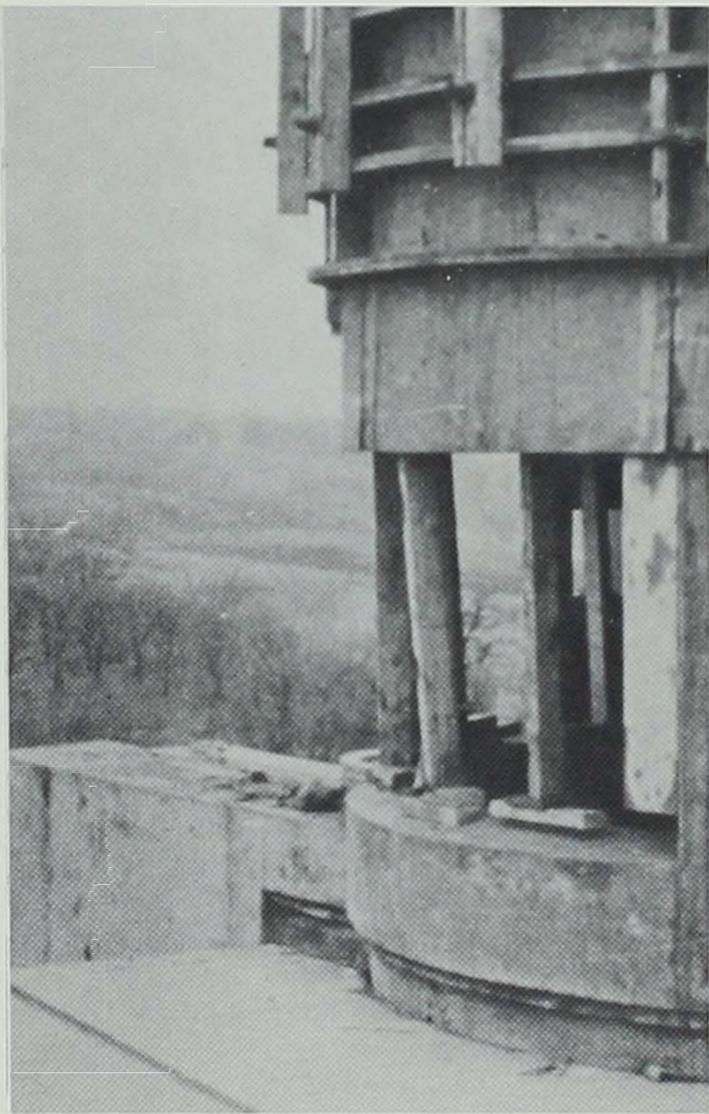
The general sales manager of the appliances and merchandise division, P. B. Zimmerman, was equally enthralled. "Mr. Butler," Zimmerman said, "has built his house from the inside out, employing only modern standard equipment, just as an automobile comes in one unit. He has set a mark in unified architecture, and the building industry must follow his example." Zimmerman called the house "the charm home of America" and "the greatest American living machine ever devised."

Originally a \$55,000 building permit was issued, but the 1937 *American Magazine* article states the cost at \$150,000. Yet throughout construction and thereafter Butler insisted that the design principles in his house could be applied to houses costing much less. He wrote in *Architectural Forum*, "Our electric bills are no larger than those of our neighbors with homes of compara-



Wanting to avoid the frequent household accidents that happen on stairs, Butler designed this three-story ramp. Later he tested the incline by riding a coaster wagon down it — and then quickly and wisely banned children's wagons and skates in the house.

COURTESY THE AUTHOR



The balconies (here still under construction) offered the Butlers fresh air and a view of the wooded Raccoon River Valley.

ble size. In other words, we have tried to include all the things which add to the pleasure and convenience of a house without anything in the nature of a gadget. There is hardly anything that we have used that can't be used in lower priced houses." To further his point, he instructed Kraetsch to draw up plans for a \$10,000 house with similar features, taking advantage of the extensive planning and testing they had done. "Concentrate for a year or two on planning a house," Butler advised homeowners, "and no matter whether it is large or small, you will spend the rest of your life enjoying it."

ONE MIGHT WONDER why so few other examples exist today of what G.E. executives heralded as "the start of a new era in American home building." The largest concentration of streamline deco buildings can be found in cities that showed enormous growth during the 1930s, such as Tulsa, Oklahoma. American architects were addressing a housing crisis brought on by the influx of industrial workers into the cities during World War I. Prevailing economic conditions of the 1930s and returning veterans after both world wars would deepen the crisis. Americans needed immediate housing, not streamlined "living machines."

The new era never came; nor did the Butler house prove as durable as Butler had believed it would be. Built to withstand fire, tornado, earthquake, and termite, the house nevertheless developed cracks in the roofs and walls. The brass hardware supporting the terrace awnings broke away from the concrete.

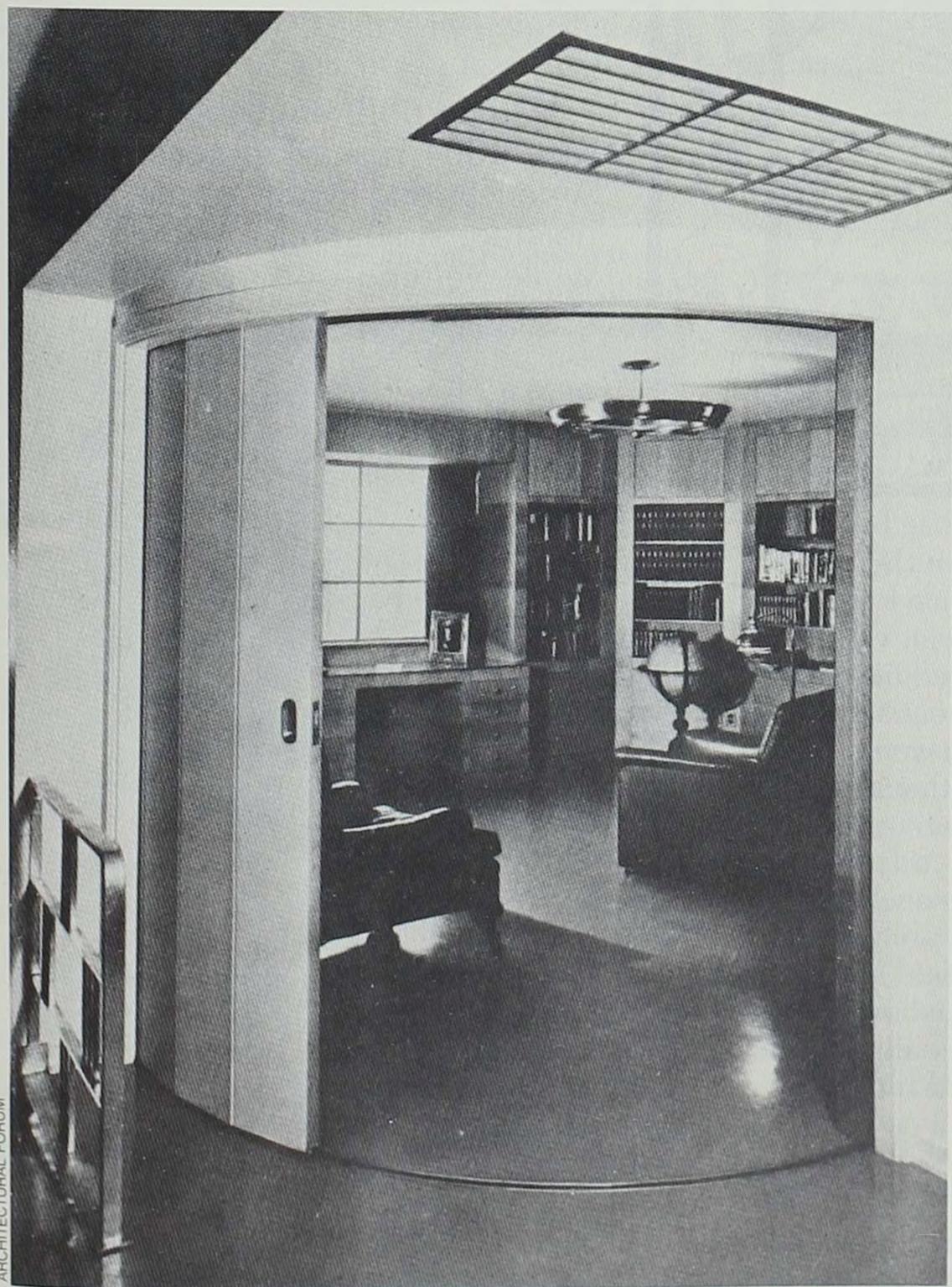
Butler and his wife lived in the house until September 1966, when they moved to a Des Moines apartment. Butler died in February 1970, a month after his wife. The new owner, the Open Bible College, used the house for administrative offices and classrooms. The college fixed the cracked walls, sealed the exterior, and placed a rubber membrane over the roof to stop further leaking. The next project — window renovation to prevent fogging up — stopped at the planning stage when the college decided in 1986 to merge with its sister campus in Oregon and sell the Butler house.

STREAMLINE DECO was a short-lived style in residential architecture. But the Butler house was to some a convincing example that the truly modern home was feasible and sensible. Another Des Moines couple read about Butler's home and commissioned Kraetsch and Kraetsch to build them a similar modern, though more modest, home in Des Moines. Butler had told *American Magazine* writer Lawrence McCann that his wife had originally disliked modern architecture, preferring a "nice colonial house with green shutters." But once the house was built, she "wouldn't swap this one for six dozen colonial

houses." And even McCann was convinced; instructing his readers on what "modernism" meant, he wrote, "When Mr. Butler told me the idea behind his house, I understood for the first time what this modern movement is all about. The word 'modern' had suggested something that would give ordinary folks the fidgets — queer gadgets, goofy furniture, jazzy decorations, weird exteriors.

"Actually," McCann continued, "modernism in housing is . . . a plan to make your life more comfortable — to obtain, in a home, durability, beauty, utility, and economy. When you bought your first vacuum cleaner and electric toaster you joined the modern movement."

In applying that definition on a much grander scale than toasters and vacuums, Edward Earle Butler set a nationally recognized example of the modern movement in American residential design. □



ARCHITECTURAL FORUM

A semicircular sliding door opened into the library. Many rooms continued the sleek curves and clean lines of the exterior of the house.

NOTE ON SOURCES

For an overview of the 1930s streamline style, see Martin Greif, *Depression Modern* (New York, 1975). The most comprehensive article on the Butler house is Lawrence McCann, "The World's Most Modern Home," *American Magazine* (March 1937). Another important article, because it contains Butler's remarks, is "House for Earl Butler, Des Moines, Iowa," *Architectural Forum*, 67 (Sept. 1937). The *Des Moines Register* followed the house as it was being built; see "New Butler Home in Des Moines to Embody the Best in Scientific Construction," June 23, 1935; "New Butler Home Nearing Completion," April 26, 1936; "Home of Tomorrow — New Times — New Ways," Oct. 30, 1936. Rev. Dennis Schmidt, former president of the Open Bible College in Des Moines, was exceedingly helpful in sharing his knowledge of the house. His interest in preserving the history of the house, as well as the structure itself, was admirable.