

Assembly Line for That Dream House

In the striking modern building of the Department of Housing and Urban Development in Washington last week, top staff members and a jury from nine Federal agencies were closeted with the 37 finalists of Operation Breakthrough, the Government's highly publicized, concentrated attack on the American housing shortage. They were working their way down, or up, to the top 20 entries in a national competition for a kind of industrialized housing that is meant to make it possible to mass-produce and mass-market, for the first time, one of the country's most needed products.

Twenty years after Congress passed the Housing Act of 1949 calling for "a decent home and suitable living environment for every American family," only slightly more than half the units authorized for construction have ever materialized. In 1968, the Administration recalculated and asked for 26 million new and rehabilitated housing units in the next 10 years. Less than half the annual quota for this figure is being met and existing housing is deteriorating faster than it can be replaced. Costs soar and production drops each year owing to inflationary rises in land, labor, money and materials. The population explosion, urban migration and the decay of cities have all done their part to create crisis conditions.

Handcraft Methods

The answer, according to H.U.D. Secretary George Romney, a successful industrialist, is the development of a housing industry. Until now, small producers have built by handcraft methods or limited prefabrication for fragmented markets, and they can no longer afford to build on low and middle income levels without subsidy. There has been no volume production and none of the savings this could bring.

Thus, Americans looking for a new home in the lower or middle-income brackets are caught in a squeeze. First, more than half of all Americans are unable to afford a new place because of soaring costs and the difficulty of obtaining mortgage money these days. And second, even if they could afford such a home, they might not find one because construction of lower and middle-income homes is virtually at a standstill.

The purpose of Operation Breakthrough is to prod private business into producing housing on the industrialized scale that is the only realistic way to meet the national need. That need must be translated into the kind of nationwide market that would justify plant investment and tooling costs for mass production. One H.U.D. objective — and a word heard frequently in the agency's halls—is to "aggregate" the market to make these housing plants practical, so that both public sponsors and private developers, in any part of the country, could buy housing, in a sense, "off the rack."

The breakthrough being sought is threefold. First, a design and technological breakthrough is needed for an industrialized

building system capable of delivering both quantity and variety at a reasonable price. Second, a marketing and managerial breakthrough must provide a national distribution and sales system. Third, a financing breakthrough is essential for long-term, large-scale investment in design, planning, plants and programs.

To achieve all this, the Government is wrapping the whole package in a "consortium." This is a design-engineering-management-manufacturing-distribution-financing team meant to handle all phases of the operation so that breakthrough does not become breakdown.

Typical consortium bedfellows in H.U.D.'s entries are the country's largest corporations (U.S. Steel, Alcoa, Westinghouse, General Electric), investing insurance companies, university urban research centers, and distinguished architectural firms with a heavy emphasis on Establishment Modern.

Expected Soon

Announcements of systems and consortiums selected by H.U.D. are expected soon. In the next step, Operation Breakthrough will assist the construction of some or all of the top 20 systems as samples, or prototypes. About a dozen demonstration sites have been selected around the country, where local code restrictions have been waived to permit innovative planning and construction. Site planners are being engaged now and groundbreaking is hoped for this spring. After the demonstrations, the consortiums are expected to go into mass production on their own.

Among the incentives H.U.D. is offering to producers are subsidies of development expenses for these prototype systems, beyond normal housing construction costs, through \$15-million in research funds. Private capital is investing about \$35-million in this preparatory stage, motivated by the promise of a substantial housing market. Cooperating communities will get expedited government processing and priority on grants and loans from H.U.D. programs.

The theory behind Operation Breakthrough has been explored with varying degrees of success in Europe and Britain in the last 20 years. It is that a set of standardized, flexible, factory-made housing components, in slab, block or other module form, can be combined in many ways for cheapness, efficiency, variety and volume. Industrialized Housing is now a fact of life from Scotland to Siberia.

What can the American public expect from Breakthrough? High in the running is the most successful of the European systems, such as the composite French-British process being used to build Thamesmead. This is a new town for 60,000 near London, which uses concrete slabs stacked up as towers or arranged as row houses. American systems under consideration include concrete, plywood, plastic and steel.

Single-Family

The majority of systems selected by H.U.D. will not be for tall buildings. They will stress single-family, low-rise or row houses in the familiar American suburban life style. The few high-rise solutions will be used only in center cities. "Market acceptability" is another phrase heard frequently in H.U.D. offices. Private prefab experiments have already found the American buyer favors paste-on brick veneer or a suggestion of ersatz half-timbering over factory finishes.

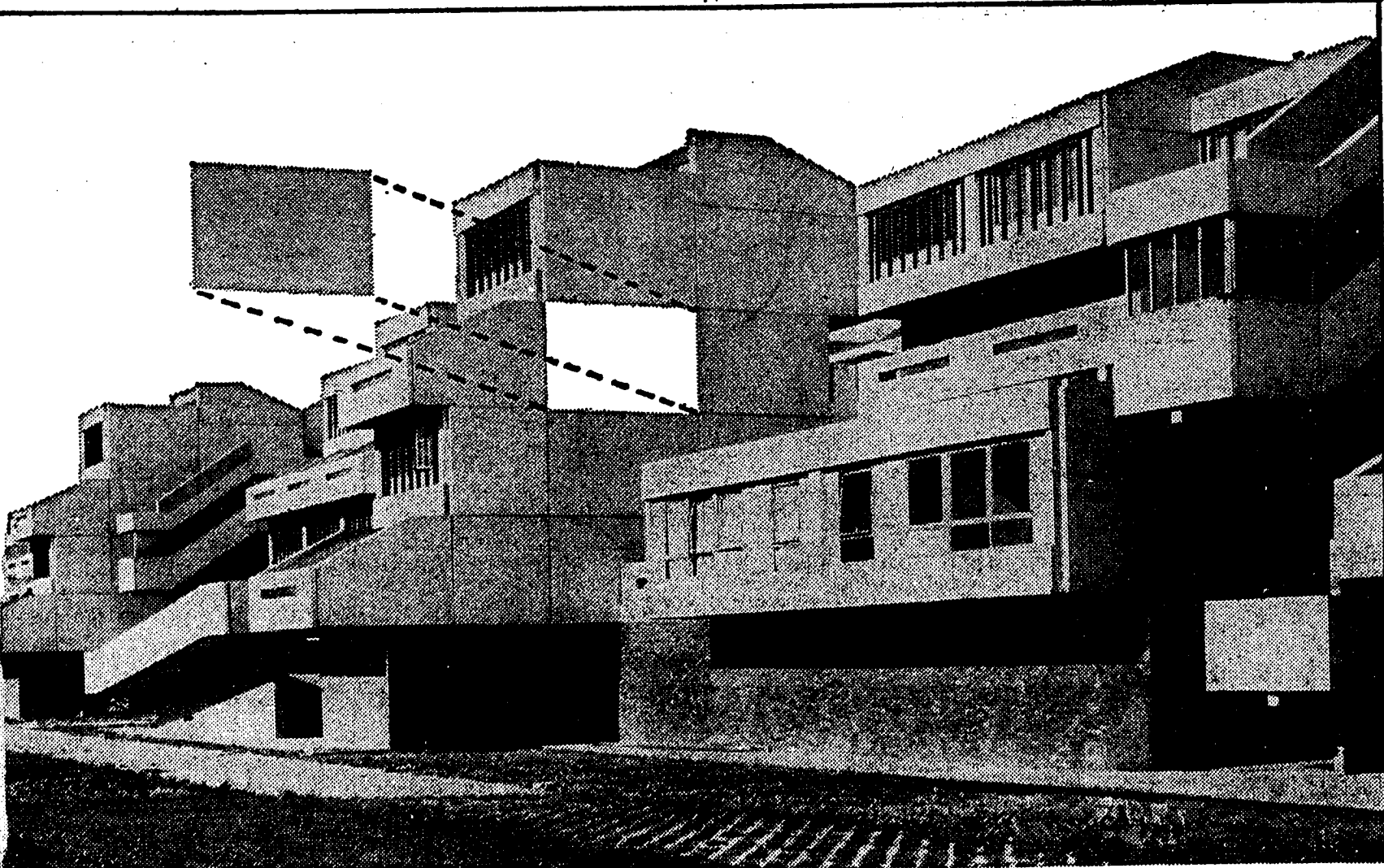
"Evolutionary, not revolutionary," is the way the program is characterized in Washington. "One hundred per cent of the designs have been seen in some form before," Assistant Secretary Harold Finger says. The range, he emphasizes, will be from the architecturally advanced, such as Thamesmead, to the conventional shuttered box. There will be no bubble domes or far-out experiments.

Critics are already focusing on the fear that design and technological innovation may be losing out to proven management performance and marketing expertise. In other words, that consortiums are winning over systems. The fact that H.U.D.'s performance will depend largely on both public and corporate acceptance of the product obviously looms large in Washington.

A key consideration is union acceptance. As a start, the carpenters have approved union-shop housing factories and the hiring of less skilled labor suitable for the factory product, and that may be a breakthrough of sorts. Except for the high-rise systems, only a modest breakthrough is expected in costs. The advantages are in quantity production. So the net result would be to make more lower and middle-income homes available, but not necessarily at substantially reduced prices. And in any case there will be no production at all if inflation and tight money continue to block financing.

Many producers say that having gone this far with development, they are now in mass housing to stay. And that may be the most important breakthrough of Operation Breakthrough.

—ADA LOUISE HUXTABLE



The Department of Housing and Urban Development, in its Operation Breakthrough, is seeking ways to mass-produce and mass-market housing to alleviate the shortage of homes. One of the systems being considered is shown here at Thamesmead, a new com-

munity near London. Thamesmead is being constructed of prefabricated industrialized building components, or precast concrete slabs made in standardized shapes and sizes (inset). The slabs can be assembled in various ways to build towers or houses.