No. 39

H I G H L I G H T S

O F

F O R E I G N H O U S I N G

(Abstracts of Recent Publications on Foreign Housing and Planning)

Compiled by the

International Housing Activities Staff,
~~Office of the Administrator~~
U.S. Housing and Home Finance Agency

C O N T E N T S

Please call your own library to borrow these publications.

Issued June 1953

Note: Because of curtailment of budget and personnel, "Highlights" is being suspended. If and when means are found to renew issuance, present subscribers will be notified.

AIDED SELF-HELP HOUSING

1. Review of Self-Help Housing published by the National Federation of Housing Societies, London SW 1; Special Number, November 1952. 42 pp.

The favorable experience of a score of subsidized self-help housing associations in England is illustrated by individual reports as well as by a general account of a council's clerk who assisted 12 such associations in his area in carrying out efficiently the job of helping themselves. He was very skeptical in the beginning, especially with regard to the workmanship of those unskilled self-helpers. Now he states that, in spite of some initial defects, the progress of the associations both with regard to quantity and quality of work has been excellent. Emphasizing the need for training, he says that in cases where whole groups of self-builders are employed at one firm (perhaps a factory) it has not been unusual for the employer to arrange some facilities for training on the works premises outside normal working hours. Other groups have obtained their training by their members who voluntarily assisted a group of self-helpers. Others again have taken training at technical schools and colleges, presumably at their own expense. One group of 28 men, working only in their spare time, began to build in May 1951 and expect to have completed 28 houses in less than two years.

2. "Brazil Housing Plan Set" in New York Times of May 28, 1953.

The Institute of Inter-American Affairs drew plans for a cooperative system of low-cost housing in Belem, Brazil, under which owners would pay for their homes with labor and $10 a month. These homes will have simple tile roofs but no basement and will consist of two bedrooms, living room, bath and kitchen, and will be sold to workers earning between $60 and $100 a month. A private company will finance the project, with a government guarantee. Prospective home owners will be required to make a small down payment to show financial responsibility. Then, they will attend classes where they will be taught the rudiments of construction. With tools issued by the Brazilian Government, the owner will be required to devote a set number of hours a week to the building of their own home and those of their neighbors. (Editorial Note: J. R. Dodge - HHFA-IHAS reports on return from Belem that minor inaccuracies appear in this dispatch: the rent and down payment have not been set, the wage range is wider, the financing agency is public.)

BUILDING CODES

3. Building Code for Construction and Highways of the City of Casablanca, Morocco (Arrêté Municipal Permanent portant Règlement Général de Voirie et de Construction) Casablanca, 1952. 53 pp. (In French)

This official publication contains the regulations on zoning, building, and sanitation presently in force in Casablanca proper and in its suburbs. Part I deals with the issuance of building permits, the specifications and requirements of various types of construction in the different zones and districts. Part II contains the law of August 25, 1952, governing the regulations of land uses and extending the zoning system to the areas outside of the city proper. The layout of the zoning districts is shown on a plan of the city and the adjacent areas which in part still are not fully developed.

A despatch of the American Consulate in Casablanca transmitting this booklet points out that this code may serve as a guide for the construction standards which are probably in effect in municipalities throughout the French zone of Morocco.

BUILDING METHODS AND MATERIALS

4. Build Your Own House--The Owner-Builder Guide by Betty Spence: The Government Printer, Pretoria, S. A. 74 pp. Price 3s 6d.

This official publication, sponsored by the Department of Native Affairs, presents a very helpful and easy instruction for laymen who intend to build homes of their own. Difficult technical terms are avoided or explained in a "List of Hard Words." Five house plans, varying in size and cost, are included. All are approved by the National Housing and Planning Commission. Tools and measurements are explained and illustrated. Drawings and pictures accompany each stage of the construction. Two house types have truss roofs, three can be expanded. A list of the building materials needed for each house type with quantities is added in the appendix.

5. Fire Resistance of Board and Joist Floors for Small Houses and Flats; Building Research Station Digest No. 54; U. K. Building Research Station, Garston, Watford, Herts, May 1953. 4 pp.

The introduction of new types of floors and of ceilings in board form made it necessary to ensure that these new floors offer the same fire protection as the traditional ones. Tests were made to measure the fire resistance in terms of time. It was found that with a traditional timber joist floor (with plain-edge boards and a wood lath and plaster ceiling), flames penetrate through the joints between the boards in about 15 minutes. Collapse occurs in about 30 minutes. This measured behavior was used as a standard of fire resistance for small houses. A third requirement was that the average temperature rise on the upper surface (not measured over joints) should not exceed 250 degrees F within 15 minutes.

It is stated that for boarded floors on timber joists, the fire resistance depends primarily on the size of the joists, the kind of boarding, and the kind of ceiling. The width of the joists is said to be more significant than their depth. The type of ceiling is held most important because with plain-edged boarding, it is virtually the only protection against penetration of flame. With other boarding, the protection by the ceiling is called less important because the boarding itself affords good resistance. It is further stated that for joists of pressed steel or of built-up lattice steel, although they are incombustible, the amount of protection required to prevent collapse of the floor may be even greater than for timber joists. Combustibility of the material may not be decisive. An added table lists all types of floor construction and ceiling which comply with these requirements. For flats, the requirements are somewhat more rigid. Here, sound insulating treatment between the flats that protects the joists may increase fire resistance. However, it is also stated that the fire resistance of a floor depends much on the detailed design.

BUILDING RESEARCH

6. Building Research in Australia, 1950-1952 by Commonwealth Department of Works, Building Research and Development Advisory Committee; Melbourne, Vic., December 1952. 30 pp.

This second report of the Committee covers the activities of the Experimental Building Station, of various divisions of the Commonwealth Scientific and Industrial Research Organization, and in addition, those of the Building Research Liaison Service of the Department of Works and of the Industrial Welfare Division of the Department of Labour and National Service. From this impressive research program, only a few items can be mentioned. The preparation of a model building code has been completed. Proposals for the improvement of efficiency and organization in the building industry were submitted. It is now intended to set up, in each state, working committees composed of representatives of architects, builders, and industries.

The Experimental Building Station investigated the thermal behavior of buildings, natural ventilation, earth-wall construction, soil and footing problems. Other divisions dealt with prestressed concrete, fire testing, economies in timber roof framing, lightweight clay aggregates, sand-lime bricks, foamed concrete and flat-roof problems. The Division of Forest Products was concerned with building boards from woodwaste, with laminated beams, decay of timber, and with research in the prevention and eradication of insect attacks (termites and borers). With the cooperation of other agencies, a series of film strips is being prepared illustrating specific applications of research to practical building.

7. International Council for Research and Documentation in Building; Papers presented to the Meeting of the General Assembly of the Council at Geneva, Switzerland, June 25-30, 1953. (In English).

The program of this meeting covers the whole front on which CIBD has been working; namely, international exchange and dissemination of information on experimental research, studies and application of research results, and documentation. So far, nine papers have been received; at least their titles may be mentioned. The bracketed symbol serves identification purposes. (CIB/2) Provisional Programme and Commentary; (CIB/10) Research on Materials, Components and Elements of Structure by Dr. Th. W. Parker (U. K. Building Research Station); (CIB/12) Climatological Factors in Healthful Housing by D. Van Zuilen; (CIB/15) Research in the Efficiency of Buildings (Heating, Ventilation, Lighting, Sound Insulation and Acoustics) by A. T. Pickles (U. K. Building Research Station); (CIB/17) Scandinavian Experience in Collaboration in Building Research on a Sub-Regional Level by Dr. M. Jacobsson and Dr. E. Strokirk; (CIB/19) The Application of Building Research to Current Building Programmes by R. Fitzmaurice (U. K., Consultant); (CIB/21) Outlook for some Problems of Environmental Sanitation in Europe by R. Pavanello (World Health Organization); (CIB/22) The Mechanization of Building in Western Germany by Dr. Wolfgang Triebel and Dipl. Ing. Alwin Marsch (Building Research Institute, Hannover, Germany); (CIB/23) The Concept of Probability as Applied to the Safety of Buildings by R. Levi.

8. Papers of the Scientific and Technical Building Centre (Cahiers du Centre Scientifique et Technique du Bâtiment); Folder No. 17, including Nos. 158-167; Paris, April 1953. (In French).

These papers cover a great variety of subjects. An article on "Prefabricated Reinforced Concrete Flooring" outlines methods of testing the quality of the prefabricated members and the main regulations governing their use. "The Metering of Heat in Centrally Heated Apartment Buildings" is considered a means to restore, in part, the independence of the individual users. Two papers deal with chimney stacks. An article on the prevention of fire in Germany continues the series on "Precautions Against Fire Hazards in Buildings." "Plastics in Sanitary Installations" are discussed with the aid of numerous illustrations. A paper devoted to "New Building Industries" describes the use of cement blocks of various shapes and of panels, both prefabricated according to the "system Barbé." Another series dealing with "European Studies on Construction Costs" presents three papers. The first investigates the variations of the construction cost of a single-family house as a function of the surface of the dwelling. The second describes studies of the German Institute for Building Research in Hanover on the technical development in relation to the reduction in construction cost of housing. The third is a publication of the City of Stockholm on the "Smalhus" type of housing.

An annotated list of French and foreign publications on various aspects of construction, materials, town planning, and architecture is also included.

9. Report for the Year 1951-52 of the U. K., Department of Scientific and Industrial Research (Cmd. 8773), London, 1952. 278 pp.

The activities of the Building Research Station cover the whole field of building and related parts of civil engineering, such as materials, foundations, structures, operations, functional efficiency, and requirements of users. The Station takes part also in the publication of the "Advisory Leaflets" and of "Economy Leaflets", both issued by the Ministry of Works. It carries out a substantial volume of work for the compilation of "Codes of Practice." Advice is given to the Ministry of Housing and Local Government and other agencies on the suitability of non-traditional house designs, on new materials, and on the revision of building by-laws. A Colonial Liaison Organization has been set up to assist in the dissemination of results to Colonial territories.

Progress is reported in studies on cement, lightweight concrete, silicate chemistry, the cleaning of clinker, and bricks using pulverized fuel ash (a waste material available from power stations). Special reports have been published in the series "National Building Studies" on the behavior of asbestos cement, water pipes, and the corrosion of steel in buildings. Further studies are concerned with plaster board, newer types of flooring materials, the protection of aluminum alloys from corrosion, and on the production of prefabricated gypsum panels.

Research work on soil mechanics and foundations has shown the importance of controlling the neighboring vegetation to reduce the risk of

damage to existing buildings. Problems of heating, lighting, acoustics, and plumbing are dealt with in extensive experimental work. Non-traditional houses are investigated to ascertain the extent to which the houses are meeting the requirements of occupants. In this context, it is stated that there is a definite preference for traditional houses, mainly on account of external appearance. Work on building operations and development has been concentrated on a study of productivity and costs of building, the mechanization of building processes, and on a study of new methods of house construction.

Note: The following publication also was received: Report (abbreviated) for the Fiscal Year 1951-52 (No. 5) of the Danish National Institute of Building Research; Copenhagen, 1953. 26 pp. (In English).

HOUSING CONDITIONS

10. "The Soviet Urban Housing Problem" by T. Sosnovy in The American Slavic and East European Review, published by Columbia University Press, New York; Vol. 11, No. 4, December 1952. pp. 288-303.

Personal observation and interrogation of displaced persons lead the author to his conclusion that after thirty-four years of experimentation, the urban housing problem in the USSR seems to have become even more acute than it was at the outbreak of the revolution. Showing a decline of the average dwelling space per person from 6.6 sq. yd. in 1914 to 4.3 sq. yd. in 1940, the author describes the extremely low level of equipment and services in rental apartments. It is stated that before the second world war in Moscow alone only 16.6% of the apartments had bathroom fixtures, in Leningrad almost 20%, and in the entire country only 11.7%. Overcrowded conditions and the sharing of kitchen and other installations caused numerous problems.

With the destruction of almost 1,250,000 dwellings during the war, the postwar housing situation became extremely difficult. Although during the fourth Five Year Plan about 109.4 million square yards of new dwelling space were provided, the author believes that overcrowding now is even more acute now than it was in 1940, due to the intensive growth of the urban population and accelerated by the rapid industrial development. One of the surest signs of inadequate housing conditions is seen in the increased allotment of communal barracks which frequently lack water, plumbing, and gas. The author estimates that by 1950 the average dwelling space per person in urban centers fluctuated between 3.9 and 4.0 square yards.

Insufficient investment of public funds in housing, a monopolistic public policy, and expropriation of private (cooperative) property are called the principal factors responsible for the slow improvement of housing conditions. In order to attract private construction again, a decree of 1948 offered to Soviet citizens the right to build houses and to buy houses for an "unlimited time ownership" including the privilege of willing the property to their heirs. However, the author believes, in view of the tremendous housing shortage and with the present trend to

concentrate the allocation of resources on military purposes, that the housing crisis will not be lessened in the foreseeable future but probably will become more severe.

11. "The Housing Crisis in France" in Amembassy Despatch from Paris, June 8, 1953.

A Congress for Low-Cost Housing was held in Mulhouse. It reported that there are now 12,750,000 homes for 12,900,000 families in France, but only about 9 million homes are fit for occupancy. There are 30,000 large families living in one-room quarters. The Congress complained of the conditions of homes, which on the average are 77 years old in the cities and 117 years old in rural districts. Less than 36% were built within the past 20 years. In Paris, only 11% of the units have bathrooms, 22% have flush toilets, and only 4% have modern installations. The Congress claimed that prevailing rent and housing legislation only aggravates the difficulties. It recommended an effective long-term program involving repairs and improvement of existing homes, and additional construction of more and cheaper homes.

12. Taking Stock (Slums-Improvements-New Building); Proceedings of the Annual Conference of the Housing Centre, London. 25 pp.

The Housing Centre distributes some of the papers presented to its Annual Conference early in June, 1953. Sir John Wrigley presented "An Assessment of the National Stock and the Next Desirable Moves" stressing the need for improvement of existing homes. The Position in the Industrial Urban Area of York was described by Alderman Mrs. Crichton who reported that in this area the housing shortage is becoming somewhat easier. "The Situation in Birmingham" discussed by T. H. Parkinson, refers to the ambitious redevelopment and slum clearance program of this City which will require a continued effort, although since 1945 over 14,000 new homes have been erected. The housing situation in rural districts was discussed in two papers. W. Dewhurst describes the County of Somerset, a typically agricultural area. Dr. G. McKim Thomas reviews the situation in the mixed mining and agricultural districts of Cardiff and Cowbridge.

13. The Economic Development of Mexico; Report of the Combined Mexican Working Party; published for the International Bank for Reconstruction and Development by the John Hopkins Press, Baltimore, 1953. 387 pp.

This comprehensive study presents an account of the unprecedented growth of the Mexican economy from 1939 to 1950. This progress is illustrated by an impressive array of statistical evidence. It is stated that the development of this country was only made possible by forcing savings up and by curtailing consumption and on the other hand by concentrating on investment opportunities which offered quick and substantial returns. Although this is not stated in the text, it may be assumed that these same factors explain the modest role of residential construction. It is pointed out that residential, commercial, and industrial construction combined (no breakdown is available) amounted to 18% of total investment during the entire period 1939-1950, and public buildings accounted for 2%. While it

is said that there was some construction of expensive housing for the well-to-do, and of some hospitals and institutions, the main task of providing low-cost housing and adequate educational and health facilities for most of the population was left for the future.

HOUSING DESIGN

14. "Are Owned Homes More Expensive?" by Siegfried Stratemann, in Die Volksheimstaette, Vol. 5, No. 5; Bielefeld (Germany); May 1953. pp. 3-5. (In German).

The author wishes to prove that a fair comparison between the cost of rental units and those of owned single-family homes does not support the general assumption of an economic superiority of the rental unit. Besides, living in an owned home offers privacy, the creation of a lasting property, the use of a small garden, and self-management of the home. The yield of the garden, the self-management, savings in taxes and in costs of repair would balance any cost excess on the part of the single home. The author is convinced that with regard to construction, land, and street cost, a row house is not more expensive than a unit in multi-family structures, provided that equal units with equal rooms, sizes, quality, and building types are compared. For a fair comparison, the author also includes equal sunshine and equal hygienic qualities. For, adding another story to a building on the left side of the street means a loss of sunlight to the ground floor on its right side, and if, to avoid this, the distance between both rows is increased, this may cause additional land cost. In areas of low density and of low structures, the width of the streets, the quality of their surfaces, and the diameter of utility connections may be kept lower and less expensive. With regard to construction cost, the structural type itself is held insignificant (other things being equal). Differences may occur between singles and rental units in large structures, but only because here the auxiliary spaces in attics or basements are smaller. Again, while it is true that the number of stairways, needed for a given number of families, may be smaller in large structures, they also have to be wider and of greater strength.

HOUSING FINANCE

15. "International Home Loans" by Wilhelm Flatz in Continental Building Societies Correspondence, No. 1, Salzburg, Austria, 1953. pp. 6-20.

The director of an Austrian building and loan society and a staunch advocate of financial cooperation with the United States wrote this extensive article on a proposed "International Home Loan Bank." He refers to earlier attempts along these lines, especially to a book entitled "The Way Out" written in 1931 by Henry S. Rosenthal, Cincinnati, Ohio, who suggested international home loans as a means of mitigating the depression. At the World Congress of Building Societies in London in 1933, Flatz advanced the Rosenthal proposal. More recently, the International Union of Building Societies (Morton Bodfish, President) has been reviewing the

relationship of the American savings and loan movement to similar movements in England and in continental countries. It is expected that during the summer, numerous such proposals will be discussed at meetings in Salzburg and presumably in Germany.

The author envisions three stages in the time sequence for realization of an international home loan plan: (1) direct loans from the U. S. Government to the building societies of Europe to enable them to give a boost to building; (2) issuance of earmarked U. S. Government bonds to provide money to American savings and loan associations and American home loan banks who then would use the proceeds for loans to European building societies. Risks of expropriation would be guaranteed by the U. S. Government. (3) Ultimately, the supposedly "best solution" would be the creation of a network of home loan banks throughout the Continental countries, to be headed by a central home loan bank in the U.S.A. "First, the International Home Loan Bank in America would form a stock of capital by issuing shares and bonds after the pattern of the Federal Home Loan Bank. It would then proceed to participate in floating the Continental home loan banks also cooperating in issuing their bonds .... It will be necessary to induce the several Continental governments to guarantee the auxiliary loans granted by the International Home Loan Bank in America in respect of currency and transfer." The author properly labels these ideas as "conjecture."

16. (1) Creation of an International Loan Bank for Buildings, Item 2 of Proceedings of the Governing Body, Paris, October 17-18, 1952. Draft by Mr. Marc Lombard dated November 20, 1952. 18 pp. (Mimeographed)

(2) Draft Articles of Agreement of the European Institute for Housing Finance, drawn up by Mr. Marc Lombard, April 2, 1953. 26 pp. (Mimeo.)

Both published by: Fédération Internationale du Bâtiment et des Travaux Publics, 33 Avenue Kléber, Paris 16 (in English).

Both these documents refer to a project of creating in each European country a joint organization of banks and contractors with State representation. This organization would channel funds which, it is hoped, would be obtained from a European Loan Bank for Building through the services of the respective central banks of each country. The originators believe this to be "the most advantageous method of fostering housing construction" which would attract both "secreted money in member countries and that from non-member countries." These ideas are in line with a unanimous vote of the Consultative Assembly of the Council for Europe recommending a European Loan Bank for Building. The debate highlighted the belief that such a bank would supplement and not clash with profit-making ventures.

The draft articles of agreement refer to the European Institute for Housing Finance which is conceived as a department of a "European Investment Bank" with broader functions. The purpose of the Institute would be to aid particularly in the financing of low-cost housing by making or guaranteeing loans. Funds would be obtained from both interested governments and the money markets. The proposed capital stock of 100 million U. S. A. dollars would be subscribed in gold or in U. S. dollars or under

certain conditions in local currencies of member states. To protect the value of these participations against any reduction in the foreign exchange value of a currency, it is provided that each member state be obligated to restore the initial gold value of its participation by additional payments.

Loans seem to be limited to cases in which a borrower or state could not obtain loans from other sources on a reasonable basis. The aggregate of guarantees and loans should not exceed the amount of subscribed capital plus reserves of the Institute.

17. "Changes in Loan Authorizations of the Central Mortgage Bank in Colombia" in AmEmbassy Despatch from Bogota, June 3, 1953.

A new decree broadens the activities of the Banco Central Hipotecario for the construction of housing at medium prices. The Banco may construct or purchase for resale homes not exceeding 25,000 pesos (about $10,000). The down-payment may be reduced to 20% (formerly 50%). A special low rate of interest will be established for these loans. The Banco is now required to use 50% of its funds for this type of housing construction. Commercial banks may now invest up to 10% of capital plus reserves in shares of the Banco or of any other mortgage bank. Detailed regulations still have to be published. For the remainder of 1953, the Banco expects to have about 8 million pesos available for housing loans which would permit the construction of 320 homes. For 1953, the potential volume to be built with financial assistance of the Banco is estimated at 700 homes.

HOUSING PROGRAMS

18. "The Italian Housing Effort" in Building Digest, Vol. 13, No. 5; London, May 1953. p. 144.

This article digests a commentary in the February 1953 issue of the Swiss journal "Das Wohnen" written by W. Feld. The scope and early results of the postwar construction, to a large extent carried out by local and provincial authorities, are called considerable. One of the nationwide programs is the "Fanfani Plan" of 1949. This law created a National Fund of 60 million "working days" to pay within 7 years for the construction of 200,000 low-cost dwellings. About one-fifth of this amount is borne by the 5 million non-agricultural employees, equivalent to six-tenth of 1% of their wages. Nearly two-fifth are contributed by employers, the rest (two-fifth) by the government (funds of the National Insurance Institute). During each of the two latest fiscal years, more than 10 million "working days" were spent on the program, equivalent to the employment of 50,000 workers.

The cost per room is limited by law to 400,000 lire (1,000 lire equal $1); outside the major cities costs were kept down to 340,000 lire. However, a 10% increase is due to the recent rise in materials costs. About 80% of the dwellings include kitchen and three to four rooms. The monthly rent for a three-room unit varies between 2,500 and 4,000 lire. For an additional amount payable over 25 years, the tenant can acquire the house

as soon as three-quarters of the price are paid. Administrative expenses are less than 2% of land plus building cost. A portion of the funds is available to industrial firms for company housing if they advance their contributions for 7 years and if the houses are erected within three years. It is stated that at the end of 1952 one out of 30 contributing employees has been housed in new accommodations under this program.

19. Problems of Rural Housing in Eastern Pernambuco by Olen E. Leonard; United Nations Technical Assistance Programme; New York, 1952. 60 pp.

This report is the result of a study of the problems of rural housing in North Brazil, undertaken in 1951 at the request of the Government of Brazil. The principal objective of the report is to analyze some of the more salient aspects of rural housing in the State of Pernambuco and to make recommendations for improvement based upon present housing conditions, industrial development, availability of construction materials, and the desire of the people themselves for improvement. The conclusions are of a general, predominantly sociological nature. In view of the limited time at his disposal the author refrained from making any specific program or from drawing detailed plans.

The use of local materials does not seem to present any major problem since a good quality of clay is said to be available for the production of bricks and tile. The author emphasizes that needs of which the people themselves are conscious should not be subordinated to other needs (such as pure water and sanitation) of which they are not yet aware. Guidance and supervision, provided under the auspices of the State and Federal Brazilian Governments, should operate as a general educational device and not be limited to engineering and technical aspects of building. Continuing use should be made of the resources and findings of such agencies as the Instituto Joaquim Nabuco, a fact-finding agency. If labor for improvements is provided by the resident families, means should be developed to assure that their investments in better houses are safely protected. This refers to areas in which almost all rural houses are owned by a few people. Existing organizational and leadership patterns in the communities should be used for quick indoctrination and effective action. Otherwise operational difficulties and even opposition from the people are to be expected.

PREFABRICATED HOUSES

20. "Swedish Prefab Housing - Declining Export and Increasing Domestic Sales" in AmEmbassy Stockholm Despatch of May 20, 1953.

It is reported that due to exchange difficulties of several importing countries (Australia, and most European countries) and due to the increasing competition of British, West German, and Austrian producers, Swedish exports of prefabricated wooden houses have gradually declined since 1951. On the other hand, a relaxation of government building controls since the summer of 1952 and timber price reductions have stimulated domestic sales. It is estimated that in 1953 these sales will reach about 7,000 units. Exports may drop further in 1953 to about 1,250 units as against 2,100 in

1952 and 3,700 in 1951. It is stated that current exports include mainly relief shipments, financed by the Swedish Government and the Red Cross, for West German refugees from the Soviet zone and for flood and earthquake victims in the Netherlands and Turkey. According to this report, the prevailing structural type is a three-room unit with kitchen, bath, garage, utility and laundry room. The total living area is about 1,000 sq. ft. It is said that in recent years a high degree of prefabrication in house components has been achieved. Erection at the site of a one-family unit requires less than 100 man-hours.

21. "United Kingdom Prefabricated Buildings Industry" in AmEmbassy Despatch from London, dated April 24, 1953.

At a recent exhibition at the Housing Centre, London, of plans and photos of exported prefabricated houses, the Minister of Works suggested to establish some sort of overseas housing corporation ready to build and equip a complete town anywhere from the sub-Arctic to the Equator. He expected that the increase in exports of prefabs would continue and promised his assistance for the securing of needed imported materials not available on the free market. He said that housing exports could be worth as much as £10 million a year, and to this end pooling of resources to finance this export was held necessary. He stated the ultimate figure of the export of prefabricated houses may reach £100 million annually within 10 years.

22. "British Prefabricated Buildings for Export" in AmEmbassy Despatch from London dated May 11, 1953.

Some forty British manufacturers of prefabricated buildings showed their products at the British Industries Fair in an area called "Transportation Town." The report stresses the recent progress of the industry in adapting design and mass production to requirements of both domestic and export markets. The United Kingdom is said now to be the world's largest exporter with an export of almost £7 million in 1952. Two thirds of this value went to Australia, the rest largely to British colonial, chiefly tropical, areas. It is expected that exports to the United States will increase.

All shown buildings use timber, to some extent, mainly softwood, but also hardwood, plywood, and wallboard. Other types make use of slate, asbestos, plaster board, and metals. One typical bungalow of about 1,000 sq. ft. area includes two large bedrooms, living room with dining alcove, kitchen, bath, cupboard and storage space in attic. It weighs 23 long tons and sells (from factory) for £1,700. If the ocean freight is included, this home could be landed in New York for about $7,500 including all plumbing and kitchen but without electrical installations. Another all-timber house with an area of 920 sq. ft. sells for £1,550 f.o.b. It is claimed that it can be erected in 160 man-hours.

The remainder of the despatch refers to a group of eight demonstration houses using standardized mass production and prefabrication principles but obviously substituting other materials for rare softwood.

23. "Prefabricated Buildings for Export" (from England) in The Builder, Special Supplement of April 24, 1953. pp. 625-648.

Indicating and supporting the systematic efforts of the British prefabricators to develop an ever increasing export of prefabricated structures to foreign markets, this special supplement contains a series of articles on markets and needs in New Zealand, South Africa, Southern Rhodesia, Canada, Australia, and the United States. The requirements and preferences of these potential customer countries are investigated in detail. With the exception of Canada, where climatic and labor conditions appear to add prohibitive costs, most of those countries offer promising markets, provided that existing prejudices against prefabrication can be overcome. It is anticipated that in some cases, the exporting firms may have to provide their own building crews, at least temporarily. In the case of the United States, it is suggested that difficult marketing problems may be solved by a cooperative organization of special sales force. The supplement also illustrates 19 prefabricated structures for various purposes which were on display at the British Industries Fair (see the preceding item).

24. The U. K. Prefabricated Buildings Industry published by the Central Office of Information, London, April 14, 1953 (Quote No. R.2588), 13 pp. (Mimeo.)

This official document reflects the increasing interest in the development of a new export industry in England. It tells the story of prefabrication in that country. The contribution of "New Tradition" methods in the postwar is illustrated by statistics showing that of approximately 897,000 permanent dwelling units erected by other than private builders in England and Wales from April 1, 1945 to December 31, 1952, well over 177,000 (20%) have been built by these methods. In Scotland, the proportion is 50%. Prefabrication is also used for schools, offices, and shops. Particular reference is made of a prefabricated aluminum school completed at Coventry in September 1952 and of a secondary modern school building at Wokingham, Berkshire, four stories high. Skillful combination of various building materials is said to be typical for modern prefabrication. The report describes various applications, materials in use, and sp special features to facilitate the export to foreign markets, such as thermal insulation, snow tightness, double glazing for sub-arctic climates, and fly screens, termite protection, and good ventilation for tropical countries. A list of British prefabricators and systems available for use under license is attached.

REHABILITATION OF HOUSES

25. "Housing and Town Planning Problems" by W. R. Brackett in The Municipal Journal, No. 3142, London, May 8, 1953. p. 938.

In a paper presented to the Congress of 1953 of the Royal Sanitary Institute, the author discusses the question of what to do with the mass of housing built in the ninteenth century. These houses, still the bulk of the housing plant in industrial cities, are said to lack modern amenities and to deteriorate due to rent restrictions. If they cannot be

replaced, many could be provided with modern amenities at low cost. But he realizes that few landlords could do that with isolated blocks, while they might if a whole area were being improved altogether. He sees a potential alternative in house improvement associations which would take over houses in areas zoned for improvement where individual landlords are unable or unwilling to do the necessary work. Some types of houses could be improved only by "horizontal conversion" which involves larger outlays that may be unjustified with buildings which are already ageing. Others again cannot be modernized economically and must be replaced. The author feels that this problem deserves the same imagination and enthusiasm as the provision of new houses.

TOWN AND CITY PLANNING

26. "New Cities" - Special Edition of Urbanisme, Revue Francaise, Vol. 22, Nos. 25, 26, Paris, 1953. 76 pp. (In French).

A special edition of truly international character, devoted entirely to the presentation of the new cities which have been built recently all over the globe. The editors wish to demonstrate how and to what extent contemporary city planning achieved the creation of urban centers which are in harmony with the trends and requirements of our times. In a general section of this issue, André Siegfried, renown writer, contributes a few broad views on the role of the cities as centres of gravity of our civilization. Pierre Lavedan shows that and how at all times new cities have been built. The "disintegration" of the big cities and the need for new communities are the subject of an article by Carlos M. della Paolera. A second section devoted to New Capital Cities includes some general remarks on and pictures of New Delhi, Canberra, Ankara, and Chandigarah. Under the heading of "New Cities Built in Connection With New Industries and With Regional Development," examples in the United States, Poland, Russia, and Yugoslavia are briefly discussed. "New Cities Planned for a Better Distribution of People and Industries" are represented by the "New Towns" of Great Britain and by some developments in the Nepean district of Australia (near Sydney). Types of "New Urban Centers in Countries With Rapidly Increasing Populations" are found in Argentine, Brazil, and in the Netherlands. As a contribution of France, the creation of new cities by Marshal Lyautey in Morocco is mentioned. Most of the articles are profusely illustrated.

27. Bemis Conference on Economic Development and Housing Abroad, held at Massachusetts Institute of Technology on May 1, 1953, Cambridge, Massachusetts.

The following papers presented to the Conference were received, so far, in a preliminary draft form.

Industrial Experiences of the Standard Oil Company (New Jersey) Abroad, by K. H. Quick.

Town Planning and A Study of Permanent Housing in Overseas Mining Development, by David M. Hansen, Orinoco Mining Company (subsidiary of U. S. Steel Corporation). (Digested in the next following item).

Urban Land Policies: Summary of Findings and Conclusions, by Charles Abrams.

Operational and Statistical Research in Building, by J. Bronowski.

Possibilities of International Financing of Housing in Underdeveloped Areas, by Leo Grebler.

The Importance of Housing and Planning in the Economic Development of Latin America, by Anatole A. Solow.

Opportunities for Training, by Howard T. Fisher.

Architectural and Planning Experiences, by Robert E. Alexander.

The Case for Regional Planning and Urban Dispersal; how to achieve better living conditions along with basic economic progress, by Catherine Bauer.

Asia's Housing Needs, by Lloyd Rodwin.

28. "Town Planning and A Study of Permanent Housing in Overseas Mining Development" by David M. Hansen, Orinoco Mining Company. Paper presented to the Bemis Conference on Economic Development and Housing Abroad, held at Massachusetts Institute of Technology on May 1, 1953; Cambridge, Massachusetts.

The paper discusses the efforts of a U. S. Steel subsidiary to develop additional sources of iron ore abroad and outlines the engineering and town planning tasks involved. Since housing is recognized as an important part of the Master Plan, various aspects of the housing design suitable for the selected areas are analyzed, such as climate, use of local materials, life expectancy of buildings, ventilation, and standardization of materials.

From the planning point of view, the methods used to obtain area control and an integrated town development appear particularly interesting. It is stated that during the early stages of the development people not connected with the industry are entering the area seeking to profit from the huge payrolls released in the town. These newcomers typically install themselves on land bordering on the limits of the town, build primitive dwellings and soon create difficult sanitary, social, and political problems in the midst of chaos. A three-cornered struggle between the marginal communities, the industrial town, and the local government usually ensues. Especially the failure to provide utilities results in much unrest and discontent.

To counteract the recurrence of these conditions, the Company tried to prevent them from the outset. A long-range program, submitted by the Company was approved by the Venezuelan Government. This plan encompasses both the industrial area and those sections occupied by outsiders and provides public utilities and sanitary services on an over-all basis. Also, properly planned areas open to outsiders have been set aside. The local authorities and the government cooperate in this program which includes

administrative and financial measures. The development plan will have the force of law and will be backed by municipal zoning and construction ordinances. To prevent outright speculation, the zoning ordinances will ascertain that the town sections are utilized for the original purposes. It is stated that people desiring to raise their standards will be welcome to participate in the development of integrated communities.

29. "Plans for Exodus from Greater London" in Municipal Journal, Vol. 61, No. 3143; London, May 15, 1953. p. 983.

This article refers to a new circular No. 29/53 of the Minister of Housing and Local Government "Movement of Population to New and Expanded Towns." This circular attempts to find a solution to the problem of moving industries as well as people without resorting to dictatorial directives. The Minister believes the time has come when wider arrangements should be made to ascertain that the new housing built in new or expanded towns would be used to house people moving from the congested "exporting" authorities. He states that with one exception none of expanded towns has yet begun to build houses for Londoners.

The Minister suggests direct arrangements between "exporting" and "receiving" areas, but he realizes that the moving tenants need employment in or near their new location, meaning that the tenant must be selected with a view to (1) his employment need, (2) to the employment opportunities in the receiving area, and (3) to his housing need. At the same time, all the areas which are seriously over-crowded should have an opportunity to obtain dwelling space for their people in the new or expanded towns.

The solution to these difficult problems is seen in the creation of an elaborate administrative machinery to keep people moving along channels between exporting and receiving areas. Authorities in new and expanding towns will draw tenants for their new houses through employers settling in the district. Employers in turn will be asked to recruit labor (except key workers) through the Labor Ministry from lists prepared by exporting authorities of Greater London. The exporting authority naming the proposed tenants must be prepared to pay to the receiving authority the rate subsidy for the first ten years life of houses occupied by those tenants. It is stated that this industrial selection scheme is not intended to be in place of direct arrangements between Greater London and outlying authorities under the Town Development Act. The Minister promises favorable consideration of such arrangements, if he is satisfied that people moving out will have work to go to.

30. "Stockholm Builds a New Town" by Clarence S. Stein, in Planning 1952; Proceedings of Annual National Planning Conference at Boston, Massachusetts, October 5-9, 1952; Chicago, Illinois, American Society of Planning Officials, 1953. pp. 56-64.

In this paper, the well-known American city planner and architect describes how the City of Stockholm developed an entirely new community Vällingby for about 60,000 inhabitants. The first district, Blackeberg, housing about 10,000 people will be completed this year. The essential characteristics of the development procedure are summed up by the author

about as follows: (1) "They" (the Swedes) see their problem as a related part of the comprehensive development of the city. (2) They are realistic people, building their city to meet their needs, insofar as their resources permit. (3) They prepare for action well in advance--five years or so. (4) All agencies concerned with the creation and operation of the community participate in the planning procedure from the beginning. (5) All costs are counted in advance and for the community as a whole. This permits planning and building according to a schedule. (6) Development is orderly, an area at a time, built completely. (7) The new area is ready to operate as a completed integrated community as soon as it is inhabited.

The author calls this realistic city building.

31. A Master Plan for Caracas (Venezuela); (Plano Regulador de Caracas; Estudio Preliminar) published by the Comision Nacional de Urbanismo (Ministerio de Obras Publicas), 1952. (In Spanish).

After several years of study, the National Planning Commission of Venezuela published this report which was prepared with the assistance of Maurice E. H. Rotival, Francis Vilich, Jacques Lambert, and José Luis Sert. Its purpose is to provide, although in a preliminary fashion, the basis for an orderly development of the capital city and its metropolitan area. These studies result in proposals for a revision of the present land uses and in the creation and preservation of parks and green belts. Various maps and statistical data are included in the report.

32. "Housing for the Lowest Income Group" by Elizabeth S. Chuman, Head of Architecture Department, Delhi Polytechnic in Journal of the Indian Institute of Architects; Vol. XVIII, No. 4, Bombay, October-December 1952. pp. 17-18.

This brief, illustrated article, presenting a theoretical layout for very low-cost housing in India, takes off from such challenging premises as the following: "India abounds with people who live a vital and successful life on very small incomes." They "make their houses of whatever material comes to hand, and great ingenuity and artistry are shown." "The grouping, when left to the builders themselves, shows interest and a real feeling for community life." "Any housing done officially for this group must aim at fostering this spirit of friendship, ..." "There must be space in which children can grow and some privacy and quietness in which they can study and think their own thoughts."

The suggested layout is planned both for economy andto meet the above requirements. The "cooking apartments" face a communal lawn. At the other side of the house there is complete privacy. An upper room may be built for quietness and study. Room is provided also for a goat house at a reasonable distance from the human habitation, and a grazing ground.

The road system gives access to each house, but there is not more than 180 sq. ft. of road per house. The layout is arranged so that both the communal lawn and the grazing ground may be reached without crossing the main road.

U.S. Housing and Home Finance Agency...
Highlights of foreign housing.

DATE	ISSUED TO

DATE	ISSUED TO

PRINTED IN U.S.A.

To reduce initial costs, water is made available at certain points only, and there are communal washing places and latrines. But the plan permits later extension of these services to each house.

The density is 20 houses per acre, which could be increased after the installation of services by addition of upper floors.

The theoretical layout would be varied according to the site, "but the underlying principles are present, orientation in relation to the sun and wind, the grouping of the houses to retain life and growth and the whole thing to be attainable with the least possible expenditure."

Note - The following publication was received: "Town Planning in South America" by P. L. Wiener and J. L. Sert. Reprinted from L'Architecture d'Aujourd'hui, No. 33, 1951. 55 pp. Contains plans, illustrations, and text (in French and partly in English) describing the pilot plans of four South-American cities: Medellin (Colombia), Tumaco (Colombia), Chimbote (Peru), and Lima (Peru).

TROPICAL HOUSING

33. Cottage Housing Scheme by C. N. Nettleton, Government Architect, Colony of Fiji; Social Development Circular No. 14. Published by South Pacific Commission, Sydney, Feburary 1953. 12 pp.

This circular describes an experiment in cottage housing carried out as a part of the Colony's Development Plan. Two semi-detached houses have been erected at Korovou at a cost of under 18s 6d a square foot (in Fiji money, equivalent to 16s 8d in British currency). A cost reduction is expected from building the houses in groups. For the walls, concrete pillars with slots on either side were first erected. Into the slots, concrete slabs were slid one above the other and fixed in position with plaster. Both pillars and slabs were prefabricated by the Public Works Department. Floors were laid in both concrete and asphalt. Corrugated asbestos was fixed on a timber frame to form the roof. Each of the two buildings has 3 rooms, one of which is a kitchen. The pre-cast pillars and slabs are made in reusable moulds. Much of the work of fitting the pre-cast units together can be done by the families themselves. The indicated average cost of the three-room unit with an area of 506 sq. ft. and including out-privy and septic tank is £F 458, equivalent to British £ 412. These costs include drains, water supply, and internal but not external electrical services.

34. Small Sewage Disposal Systems (with special reference to the Tropics) by O. J. S. MacDonald, m.d., London, 1952 (at H. K. Lewis & Co., Ltd.). 294 pp.

The author, assistant director of Ross Institute of Tropical Hygiene, London, believes that the greatest defect in the development of tropical hygiene is the failure to produce systems of sanitation and water purification applicable to rural conditions. Although sewage is more dangerous in warm climates than in moderate climates, little or nothing has been

published about disposal systems suitable for use by tropical labor forces who commonly live in small colonies with a reasonable but often limited water supply. The purpose of this book is to fill this gap and to supply information to those who supervise the installation of good disposal systems.

The first part of the book deals with Construction and Practice and discusses the factors affecting construction, various domestic waterborne systems and communal installations. In addition, some of the most frequent systems are evaluated, such as the flush latrine, the aqua privy, pit and bucket latrines. Also maintenance problems are treated.

In the second part, entitled Background and Design, the technical aspects of the planning of septic tanks and of aqua privies are studied with reference to the practical experience in various tropical countries. Numerous illustration, tables, and references enhance the value of this book.

35. "Tropical Architecture, Conference at University College, London" in The Builder; London, April 10, 1953. pp. 558-560.

It is reported that over 50% of the 200 participants came from tropical or sub-tropical lands. In 11 sessions during the week beginning March 23, various subjects of importance to practicing architects were discussed. C. Y. Carstairs (Colonial Office) speaking on "The Social and Economic Background" stated that the problem of raising the standards of living in less developed tropical areas is considerably complicated by a steep rise in population and the resultant uncontrolled drift to the towns. New land should be opened up for food production. An architectural profession from amongst the people of the territories themselves was called essential.

"Physical Planning Problems in the Tropics" were discussed by Sir William Holford. He demanded that at the early stages of any plan, a standard Code of Development be established combining the building layout with the planning requirements and that satellite development should be the norm.—Dr. O. Koenigsberger spoke about the specific urban problems of the tropics, namely outdoor living and its effect on urban sprawl; shade and ventilation requirements with their effect on the location of buildings; the difficulties of providing adequate drainage and sewerage plans, and the endowing of some feeling of urbanity on loosely knit settlements.

In his paper on "Indoor Climate and Thermal Comfort" G. P. Crowden (London School of Hygiene and Tropical Medicine) showed by diagrams the influence of temperature change on people engaged in various occupations and demonstrated the various degrees of absorption of solar heat by materials of different colors, especially methods of deflecting heat by using light-colored materials, the provision of verandahs and the planting of trees.--"Housing Standards in the Tropics" were discussed by G. Anthony Atkinson (Colonial Office). He gave a short account of the main principles of housing design suitable for each of the five main tropical climates and called for greater flexibility in the number and sizes of rooms.

A paper on the natural lighting of tropical buildings by sunlight reflected from the ground and from opposing structures was presented by Dr. R. G. Hopkinson and R. Petherbridge (Building Research Station). Speaking on "Style and Tropical Architecture" Fello Atkinson stated that in many ways contemporary architecture found its most suitable expression in the tropics. Openness and flexibility, independence of any visual or esthetic desirability, were called essential to catch the breeze and to exclude at the same time the direct sunlight.—Arthur M. Foyle, speaking on "Materials and Construction", referred to the climatic, social and physical factors which had influenced indigenous architecture in West Africa. More research on the effect of the weather on traditional materials and pooling of information would assist the architect in the tropics. Soil cement has been used with striking results on the Gold Coast.

Frank Rutter showed typical details of construction in the new University College of the West Indies and stated that there is an urgent need for the setting up of efficient local building groups whose capacity would be increased by the production of building components on a regional scale.—A paper "New Building Techniques in the Tropics" discussed by Ove Arup, underlined that the general under-development of the tropics affected building more than any other factor. Most of the imported materials presented cost and labor problems. Light-weight prestressed and post-tensioned concrete units could cut the cost of site supervision.

C. H. Gobie dealt with termite infestation and showed methods of control, such as the forming of specially designed flashings at danger points and impregnation of timber.--Max Lock spoke on "Architectural Education and Training in the Tropics." Training of an architectural student from the tropics in England was said to be insufficient. A special course more suited for tropical practice should be provided for the fourth and fifth year of study. When the centers of education would shift from England to tropical countries, the native student would receive a basic training at home before going to Europe or America for specialized training.—R. S. Gardner-Medwin dealt with "The Position of the Architect in the Tropics" and stated that where the architect had been recognized, an improvement in the standard of design was already evident.

several interested Swedish firms set up the AB Elementhus as a production company to exploit these methods. A new factory began to deliver houses in the autumn of 1952. The Swedish Government supported this undertaking by a loan of Kr. 1 million.

House parts are strictly standardized, but the finished houses themselves can be freely adapted to individual requirements. The framework is divided into small, easily combinable units measured in one- and two-decimeter standards (modular system) obviating the need for standardized house types. Interior equipment is purchased from other manufacturers. Delivery is made from a centralized warehouse. Complete housing units are packed into large crates, transported to the building site and mounted there by four technicians within two or three weeks. The foundation is prepared in advance. The price of a completely assembled one-family house of 75 square meters (807 sq. ft.) area, including 3 rooms, kitchen and full-sized cellar, was Kr. 27,000 (equals $5219) in 1952 (excluding foundations and wall-papering). The article is amply illustrated by plans and construction details.

22. "The Veitscher House, An Austrian Prefabricated Timber Design" in Building Digest, Vol. 13, No. 3, London, March 1953. p. 82.

The Veitscher Magnesit Werke at Neuburg, Austria, developed a new prefabricated house consisting of mass-produced wooden wall panels, boarded on both sides and fitted with an inset of tar board. Their frame is said to be strong enough to serve as bearing structure. The panels are partitioned into several air chambers. The addition of a plaster coat is optional. It is claimed that these panels could be used for houses of up to $2\frac{1}{2}$ stories and that the thermal insulation is greater than that of a 16" brick wall. The standard wall panels are 8' 3" high, 5 1/8" strong and have a width varying between 12" and 48". The panels consist of a framework of 2 external and 2 intermediate square timbers stiffened by horizontally inserted boards and lined on either side by boards so that enclosures with stagnant air are created. (A more detailed description is available in the German journal "Der Deutsche Holzbau, 1952, No. 1," in an article written by Wilhelm Schmidt.)

TOWN AND CITY PLANNING

23. Town Design by Frederick Gibberd, published by The Architectural Press, London, 1953. 296 pp.

Town design, as the renowned author defines it, embraces architecture, landscape, and road design. These elements combined are said to become a new thing, "the urban scene". The profusely illustrated book is mainly concerned with the visual quality of town design which is conceived as an art. The volume, arranged in four parts, deals with the design of the

complete town, with central areas, industry, and housing. At the end of each part, typical compositions are analyzed as examples. Photographs are shown from various angles to avoid idealized impressions and are supported by plans.

Like all the other buildings, housing is treated more as an element of the urban scene than from a technical or social point of view. Various types of layouts are analyzed both in neighborhoods and blocks. Mixed housing developments are emphasized as the best solution not only for appearance's sake but for economic and social reasons as well. However, the author does not advocate simply the combining of small one-family structures with flats. He wants to mix the various building types together in such a way that each form is complementary to its neighbor. "Instead of designing a building as a complete and independent architectural composition to be related to other complete architectural compositions, it is designed as part of a whole; its form, color, and texture do not belong just to that one building but to a much wider scene."

24. The Heart of the City; Towards the Humanization of Urban Life. Edited by J. Tyrwhitt, J. L. Sert and E. N. Rogers. Lund Humphries, London, 1952. 176 pp.

Some thirty leading architects and city planners contributed to this symposium that tries to redetermine the role of the central core of the modern city so that this core could help "to transform the passive individual in society into an active participant of social life." Sweeping through history and all over the world, the well-illustrated work points out the potential human values of this core which would be lost unless its functions for the life of the community are restored. Examples of city cores are shown in the European countries and in the U.S.A. as well as in Morocco, Peru, Japan, Colombia, and India, where new towns are planned or built. These examples seem to indicate, as S. Gideon points out in his summary, that the emerging consciousness of remote peoples leads to a more courageous and less prejudiced view of construction and that the extra-European projects are also larger in scope.

A short outline of the needs of the city core, prepared by the eighth Congress of CIAM (Congrès Internationaux d'Architecture Moderne), suggests that in each city there should be only one main core. It should be a place secure from traffic where the pedestrian can move about freely. Cars should park on its periphery but not cross it. Commercial advertising should be organized and controlled. The architectural setting should be planned to allow for the inclusion of mobile elements which can make an important contribution to the animation of the core. The architect, in planning the core, should employ contemporary means of expression and work in cooperation with painters and sculptors.

TROPICAL HOUSING

25. "Hurricane Housing in Jamaica" in Despatch from the American Consulate General at Kingston, Jamaica, dated March 26, 1953.

This report summarizes personal observations of the Reporting Officer on a visit to the housing site developed under the hurricane housing program of the Jamaica Government which aims at 10,000 houses and is financed from a £2 million grant by the U. K. Government. (See "Highlights" No. 35, Item 12, and No. 36, Item 3). It is stated that the visit of the two TCA experts Hanson and Garcia in 1952 resulted in a revision of the program by introducing the "aided self-help" principle which seems generally accepted, although some opposition still may exist.

On a housing site some 35 miles from Kingston about 50 houses have been built but were not yet occupied in March. They are one-room houses about 8' x 14' with provision for a partition; some have verandahs. Floors are wooden, roofing is aluminum. No plumbing facilities are available inside the houses; water is piped throughout the community outside, however, and separate septic lavatories and community showers are being built by the Housing Authority. The land is said to be poor and rocky. The houses are called plain and tiny but can be improved by the occupants.

They cost $280 to $420. Of this cost, 35% is to be provided by the occupant; the remainder is provided by a government grant. The report states that the prospective occupants, now living in tents or thatch huts, appear to be pleased with the prospect of these community homes and that with further guidance, successful community activities can be developed.

U.S. Housing and Home Finance Agency...
Highlights of foreign housing.

DATE	ISSUED TO
GAYLORD 40	

DATE	ISSUED TO

PRINTED IN U.S.A.