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HOUSING DEVELOPMENT AND URBAN
PLANNING: THE POLICIES AND PROGRAMS
OF FOUR COUNTRIES

REPORT
OF THE
SUBCOMMITTEE ON URBAN AFFAIRS
TO THE
JOINT ECONOMIC COMMITTEE
CONGRESS OF THE UNITED STATES



MARCH 24, 1970

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LETTERS OF TRANSMITTAL

MARCH 24, 1970.

To the Members of the Joint Economic Committee:

Transmitted herewith for the use of the members of the Joint Economic Committee and other Members of the Congress is a report of the Subcommittee on Urban Affairs, prepared by Representative Richard Bolling, chairman, and Representative Martha W. Griffiths, entitled "Housing Development and Urban Planning: The Policies and Programs of Four Countries," together with a staff report.

The views expressed in this report are those of Representatives Bolling and Griffiths who made a factfinding trip in the fall of 1969 and of the staff member who accompanied them. They do not necessarily represent the views of the other members of the subcommittee.

Sincerely,

WRIGHT PATMAN,
Chairman, Joint Economic Committee.

MARCH 19, 1970.

HON. WRIGHT PATMAN,
*Chairman, Joint Economic Committee,
U.S. Congress, Washington, D.C.*

Dear MR. CHAIRMAN: We transmit herewith our report of a factfinding trip, made in September and October 1969, on your authorization, to Great Britain, Finland, West Germany, and Israel to study policies and programs relating to housing development and urban planning, in connection with the studies of the Subcommittee on Urban Affairs. The aim of this trip was to examine European experiences in three respects: (1) To gain an understanding of the institutions which innovative European people are developing to bring about the reconstruction of their urban environments; (2) to gain an understanding of their institutions and practices in the realm of long-range planning; and (3) to observe the best and latest in construction technology that has been achieved abroad. Altogether we met with representatives of twenty-six government and private organizations in fourteen cities and towns. We were accompanied by Mr. Douglas C. Frechtling of the committee staff who drafted the staff report.

We wish to acknowledge the courtesy extended to us by officials and private citizens with whom we conferred during our trip. They were extremely generous with their time, and we feel that we profited a great deal from the frank discussions of their policies and programs in their respective countries. We hope this interest and cooperation will be somewhat repaid by an increased public understanding in this country of the approaches to housing and urban problems abroad.

Our report should not be construed as representing the views of other members of the subcommittee, nor do the views contained in the staff report necessarily represent our own.

Sincerely,

RICHARD BOLLING, *Chairman,*
MARTHA W. GRIFFITHS,
Subcommittee on Urban Affairs.

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ITINERARY

September 17 through October 1, 1969

- September 17:
Cumbernauld Development Corporation, Cumbernauld, Scotland.
- September 18:
Greater London Council, London, England.
Llewelyn-Davies, Weeks, Forestier-Walker and Bor, Planning Consultants;
London, England.
- September 19:
Ministry of Housing and Local Government, London, England.
National Building Agency, London, England.
Building Research Agency, Garston, England.
- September 20:
Harlow Development Corporation, Harlow, England.
- September 22:
Tapiola Housing Foundation, Tapiola, Finland.
- September 23:
National Housing Board, Helsinki, Finland.
Ministry of Planning, Helsinki, Finland.
Helsinki City Planning Office, Helsinki, Finland.
- September 25:
Academy of Art, Berlin, Germany.
- September 26:
Senator for Building and Housing, Berlin, Germany.
Berlin House of Representatives, Berlin, Germany.
- September 27:
City Officials, Hannover, Germany.
City Planning Office, Hannover, Germany.
Regional Planning Council, Hannover, Germany.
- September 29:
City Officials, Haifa, Israel.
Technion (Israel Institute of Technology), Haifa, Israel.
Valley District Ministry of Housing, Haifa, Israel.
City Officials, Nazareth, Israel.
- September 30:
Y. Perlstein and Associates, Architects and Town Planners, Tel Aviv, Israel.
City Officials, Ashdod, Israel.
Moshav Shafir, Israel.
North American Division, Ministry for Foreign Affairs, Jerusalem, Israel.
- October 1:
Ministry of Interior, Jerusalem, Israel.

HOUSING DEVELOPMENT AND URBAN PLANNING: THE POLICIES AND PROGRAMS OF FOUR COUNTRIES

SUBCOMMITTEE REPORT

By RICHARD BOLLING, *Chairman*, and MARTHA W. GRIFFITHS

The trip undertaken by our subcommittee was designed to discover the strengths and weaknesses of the attempts by the people of several countries to achieve quality living for themselves regardless of age, ability, size of income, and all the other personal factors which tend to determine how much an individual shares in the potentially available goods, services, and satisfactions of his society. We sought insights into the creation of quality living environment, not statistical information on housing. The former are often buried in a useless, growing pile of the latter.

Whether we succeeded or failed in our quest will be demonstrated by the soundness of those proposals which after some months of additional work we of the Subcommittee on Urban Affairs will make.

Nothing that we discovered was particularly startling. Nor was anything that we saw precisely applicable to the problem of providing "quality living" for tens of millions of our present citizens—much less for an anticipated increase of 100 million persons or more in the United States within the next 30 years. Nevertheless, we learned much from what we saw.

At least now we are better able to define the problems we seek to solve.

We now know that we are not talking simply about structures in which people may live—but we are seeking ways in which to create an environment which includes manmade physical structures in which people may live together with mutual pleasure and profit. "Quality living" includes much more than a house and lot. Or even that plus adequate education, medical services, and so forth. Also there must be safety—safety from the automobile as well as the criminal—safety from pollution as well as the seller of adulterated milk—safety from the flammable fabric as well as the swindler.

The ability to define the goals we seek to achieve in the cities and towns of the future gives us a clearer vision of the fundamental problems our society must face and overcome to achieve those goals.

One thing is clear. In the countries we visited, just as in the United States of America, only the rich consistently have a high quality environment in which to live. For the vast majority who are not rich, quality living is either the rare result of pure luck or the less rare result of careful and imaginative planning. Planning as such is not magical,

of course. It can even be a method of delaying action. As is said of computers, it is only as good as the material that goes into it—"Garbage in—garbage out." For "planning" to succeed, it must have general goals which it is designed to achieve in detail. Modern living is so complicated that every special problem relates to and is affected by every other one of several dozen other special problems. Every decision as to structures is affected by a dozen aspects of space, time, function and the interrelationship of these three.

Successful planning requires remarkable leadership by politicians and professional managers who blend the knowledge and skill of experts and specialized professionals and technicians into a coherent whole. In every place that we found exceptional quality in the environment for living, we also found exceptional people who had that indefinable quality of leadership.

But leadership without the tools to work with could not have succeeded.

The generalists, the specialists, and the planners first had to be able to define goals and make plans to achieve them. But having done this they had to devise methods, both public and private, to obtain sufficient amounts of usable land at affordable prices. To obtain the land and to build the structures—houses, schools, hospitals, clinics, roads, recreation areas and halls, shops and shopping centers—vast sums of investment funds had to be collected. And the financing, like the construction, had to be coordinated and scheduled and related in a time sense, while never losing sight of the thousands of small goals into which the broad general goal of quality living can be divided. The tangible seemingly objective factors must be dealt with realistically while the intangible and more subjective ones of quality and taste must be given equal, if less easily measurable, recognition.

The value of the trip of the subcommittee lay in the variety of methods we saw which worked in the fields of goal-definition, planning to achieve those goals, leadership, land accumulation, financing quality control, etc.

The financing apparatus in these countries is infinitely varied. For example, in the United Kingdom, there are 60-year loans for development corporations; in Finland, 45-year loans for apartment house-builders and 25-years for private homeowners; 100-year loans for nonprofit building societies in West Germany; and 24- to 30-year loans for residential units in Israel.

The same type of variety was found in the method of assembling land. In land acquisition, designated governmental units in Britain, Finland, and Germany have the right of compulsory purchase although compensation must be made for the full market value of the land. Israel, however, allows up to 40 percent of a single owner's landholding to be expropriated for specific public purposes without compensation.

All of these variations bear comparison with the financing and land-assembly method used here in the United States by James W. Rouse in the planning, land assembly and financing of the "new town" of Columbia, Md.

A more detailed chronological report of our trip is contained in the staff report of Mr. Douglas C. Frechtling, minority economist, who was the committee staff member who accompanied us. His report follows.

STAFF REPORT

By DOUGLAS C. FRECHTLING

Introduction

As part of a continuing inquiry into the nature and solutions of urban problems, we set out to examine the experience of several other countries which seemed to have made significant progress in the provision of adequate housing, in terms of both quality and quantity, and an attractive, economically viable urban environment for their people. Consequently, three European countries and Israel were chosen and visited to determine what progress has been made, how housing objectives have been achieved, how urban areas are planned and managed, and what trends forecast for the future. We were primarily interested in discovering the role government agencies played in the various countries to bring about desirable results.

We were favorably impressed with what we saw. Each of the particular countries had made substantial efforts to provide living and working opportunities for their populations, in several cases overcoming vast financial and economic obstacles. However, none of the countries which we visited duplicated exactly the economic, cultural, and political problems that this Nation faces. Consequently, we hesitate to draw any definitive conclusions as to whether this country should pursue the policies followed by another. Instead, what follows here is largely descriptive of these policies, to indicate how other countries in other circumstances have attempted to grapple with the urban problems we find so baffling today.

Great Britain

The overall objective of town and country planning in Great Britain is to provide a pleasant environment in which people can live and work. With regard to urban areas, there are the twin objectives of first, reducing the population flow to and density of major urban areas and, second, renewing inner city areas to make them more livable and economically viable. One direction which this policy takes is the establishment of "new towns," or comprehensively planned urban communities, designed to provide all the requisites of pleasant urban living: housing, employment, recreation, schools, entertainment, and other cultural activities.

We examined three generations of new towns designed as alternatives to the growth of the major cities, and the plans of the Greater London Council to handle the redevelopment of a major world city on a rational basis. Although each urban area has clearly distinguishing characteristics, a general description of the governmental instruments and policies toward new towns and major cities is of course possible.

NEW TOWNS

Under the New Towns Act of 1946, the Ministry of Housing and Local Government (or parallel ministries in the case of Scotland and Northern Ireland) designates a precise area for the development of a new town. This is done only after the Ministry has undertaken detailed discussions with local authorities and a public inquiry into individual objections to the plan. The Ministry then sets up a development corporation to plan and build the new town. The Board of a development corporation consists of a chairman, deputy chairman, and up to seven members, all part time and paid modest salaries. Care is taken to assure that a wide range of relevant experience, local authorities and other major interests in the area are represented. The board appoints a full-time general manager, or chief executive, and the chief officers to serve under him for finance, architectural planning, estates, engineering, legal matters, etc. The general manager is responsible for actual policy execution and day-to-day operation.

The development corporation prepares a master plan of broad land-use patterns which, along with a comprehensive survey report, is submitted to the Ministry of Housing and Local Government. The Ministry holds public hearings on the plan to receive any objections, then rejects or accepts the plan with or without reservations. The Ministry's approval of the planning and financial proposals constitutes consent for construction to begin, and authorization for the advance of necessary government funds.

The development corporation has the power to acquire, by agreement or compulsory purchase, land for development purposes. However, the corporation must pay the market value of the land for the use to which they propose to put it. This involves a valuation by a Government representative, which the owner can then appeal to an independent land tribunal. The problem of rising land values and land speculation resulting from new town development is partially ameliorated by the imposition of a "betterment levy." This tax, presently amounting to 50 percent, is levied on the increment in the market value of the land attributable to public development of the area. It is expected that the imposition of the levy will reduce the tendency of landowners to withhold their land from the market in the hopes of higher prices, and reduce the cost of the land to the development corporation.

All development corporation costs and investments are met by borrowing from the National Government at current market rates of interest. The advances are repaid over a period of 60 years out of income obtained from property, and annual deficiencies are covered by borrowing until corporation revenues exceed expenditures. Outstanding advances are limited by act of Parliament to almost \$2 billion, and new commitments are presently running at a rate of about \$216 million per year.

New towns are proving they can be an economically viable investment in Great Britain. In Harlow, for example, it was originally assumed when the area was designated in 1947 that the corporation would make losses for the first 11 years, but after only 5 years the project was enjoying an excess of receipts over expenditures. The corporation presently has a surplus of \$120 million.

It is a basic principle of new towns that employment as well as housing must be provided to insure that they do not become merely suburbs or dormitory communities for nearby larger cities. All of the new towns surrounding London, for example, required that a prospective resident have a job in the town before he could move in. Some cities, such as Glasgow and London, maintain industrial selection registers to insure that employment opportunities in new towns which carry the offer of a house with them are filled by people presently living in congested areas and needing both employment and better housing.

The National Government controls the location of industry by requiring that businesses obtain industrial development certificates from the Government Board of Trade before any industrial or commercial development can take place. By this mechanism the Government can actually deny a business the right to locate in an area already flourishing economically. Further, certain areas of Britain have been designated as "development areas," or locations in need of special economic growth efforts. At the present time, a firm or business which decides to locate its plant in one of these areas can obtain Government grants to cover up to 25 percent of building costs, 40 percent of new manufacturing plant and machinery, as well as subsidies for each employee on the payroll and each employee training for a new job.¹ These inducements are now running a total of more than \$600 million a year.

We were quite fortunate to be able to examine three "generations" of new towns in three distinct phases of development. The term, "generation", is applied to distinguish the three "bunches" of new towns, each heavily influenced by the ideas on architectural design, traffic patterns, land use and user needs that prevailed at the time of their designation. Between 1947 and 1950, fourteen new towns were initiated, located in England, Wales and Scotland, constituting the first generation. Six years later, one more new town was authorized for development: Cumbernauld in Scotland. After that, no new towns were commissioned until 1961: since then, 12 have been designated as third generation new towns.

HARLOW

Harlow, located 25 miles north of London, is an example of a first generation "London ring town," designed to reduce the population growth of London by providing an attractive, economically viable place to live and work as an alternative to the capital city. Although it is a much-debated point how much the London ring towns have contributed to reducing the population flow to the city, it is a fact that London's population is now declining.

This new town, designated in 1947, has essentially achieved its original objectives in terms of population and housing: the resident population now totals in excess of 77,000, compared with the original target of 60,000 and a revised goal of 90,000, and three of the four "quarters" of the town are now virtually complete, with work on the fourth well advanced.

¹ For a detailed discussion of earlier policies to promote economic growth in Great Britain and other countries, see Joint Economic Committee, "Economic Programs for Labor Surplus Areas in Selected Countries of Western Europe," staff study, Government Printing Office: Washington, D.C., 1960, 15 pp.

During our visit, we saw little evidence of the so-called "new town blues" that are said to afflict residents in planned communities. The central shopping area was jammed the Saturday we were there, and a fair at one end of the plaza was very popular. The fact that less than 5 percent of the population moves out each year and that more than 17,000 second generation couples have been housed indicates a general satisfaction with the town as a place to live. Its economic viability is attested to by the presence of over 100 industrial firms and several large office buildings, offering employment equal to the size of Harlow's labor force. Actually, 80 percent of the town's working population is employed in Harlow, while over 6,000 workers commute to the new town from neighboring areas.

Harlow's layout graphically exhibits two of the principles of urban planning that seemed to have prevailed during the design and development of the first generation new towns. First is the division of the town into four distinct clusters of neighborhoods, each cluster self-sufficient to the extent of shopping, schools and recreation, and set off from others by broad expanses of open green land. Each of the 14 neighborhoods has its own subcenter which provides for daily shopping and recreation needs. All of these points are placed within walking distance of the residential areas, so that a subcenter is never more than one-quarter mile from the housing it is built to serve, and a cluster center never more than one-half mile.

The neighborhood clusters are drawn together at the town center, located on the highest elevation in the town and appropriately named "The High." It is here that almost 200 shops and stores are located, including large department stores, as well as office facilities and the town government.

The other characteristic of new towns built during the first generation was an underestimation of the growth of automobile ownership and travel. The initial policy of the Harlow Development Corp. was to provide parking in residential areas for only 20 percent of the families, but the interim growth of car ownership has caused a shift in planning to 100 percent, plus 25 percent for visitor parking. In all fairness, it is doubtful that the rapid growth of automobile ownership in Great Britain, from 1 car for every 5 families in the early 1950's to 1 car for every 2 families now, could have been foreseen. However, inadequate provision for auto travel and ownership is a serious problem. Furthermore, the care shown in Cumbernauld to separate foot and auto travel and guarantee the ease and safety of pedestrians is not evident in Harlow.

The corporation deliberately planned a varied range of house designs (about 500 different types) although the great majority of housing is two- and three-bedroom units in two-story buildings, each unit with its own small private garden. This conforms to the traditional British housing demand. Rents range from about \$250 to as much as \$960 per annum for some fully detached housing. Almost 90 percent of the dwellings are rented, but there are a number of houses built by private developers for sale. Density is kept at 50 persons per acre.

Industry is located on the periphery of the town in two main areas. It was early decided that Harlow should not become a one-industry town, subject to the ups and downs of that one particular business, so the corporation has discouraged firms which employ more than 3,000

people from locating there. Several attractive office complexes have recently been built and the corporation finds that building plants or offices and then leasing them is most profitable. In any event, a business cannot buy land in Harlow but must rent it on a 99-year lease.

The question of the lifespan of the development corporation in Britain and the disposition of its assets has been a difficult one. Under the New Towns Act of 1959, a Commission for the New Towns was set up to take over property when a development corporation has largely completed its tasks and the town is a going operation. By 1968, the assets of four new towns had passed from the corporations to the commission and the corporations dissolved. Eventually the National Government hopes to dissolve the commission and turn all publicly owned housing over to locally elected authorities. The problem of commercial and industrial asset ownership is still being considered.

Harlow has not yet reached the stage of completion. However, a locally elected authority, the urban district council, was created in 1955 to take over the responsibility for providing and maintaining parts of the town already built, highways, public health facilities, police and fire services, as well as the social amenities. The development corporation considers itself as "land developer with a conscience" now that it has turned over virtually all of its public service and governmental duties to the council. It concentrates on completing the town, administering the public housing and commercial and industrial assets. The intent of the corporation as it was explained to us, is to break even on the public housing by charging economic rents without profits, and to earn profits on the housing and land sold and industrial facilities rented, which profits will be plowed back into more public housing.

The Harlow Development Corp. has overcome most of its original problems, which included water supply, drainage, and the fact that Essex County was not a popular area in which to live. The challenges it still must grapple with are the provision of adequate parking and road facilities for the unexpected increase in automobiles while insuring the safety of the pedestrian. Further, the biggest current criticism of Harlow is the lack of a good system of public transportation within the town. Some of the facilities cannot be reached by easy foot travel, and public transit authorities serving the area complain that the population is spread too thinly for efficient and profitable public transport.

CUMBERNAULD

Cumbernauld, the second generation new town in Scotland, was initiated to relieve the congestion of Glasgow, and it is hoped that 80 percent of the target population of 70,000 will eventually come from that city. The new town is located on a ridge 14 miles northeast of the city, and the predominately gray color of the housing and town center stand out strikingly against the sky. Land acquisition of the 7,000 acres was facilitated by the fact that only a few large property owners were involved. Although the development corporation does, of course, have powers of compulsory purchase, corporation officials seemed reluctant to use them.

Housing construction has been at a rate as high as 1,000 units a year, at a cost approximately \$2,900 to \$3,600 per unit. The corpora-

tion has allowed some private firms to build housing, but officials stated that these are not as acceptable to the residents as corporation-built housing. There are 55 different housing types, and although most of them are rented, an effort will be made to provide more housing for sale. Residential density averages about 85 persons per acre.

Rents in this area are generally low, both in absolute terms and as a proportion of family income. This is partly due to tradition and partly to the long lifespan of housing in the area, with some houses presently occupied that were built 100 years ago. Construction costs on this housing have long since been repaid, and rents need no longer be set at a level high enough to recover any capital costs. Consequently, to be competitive, the development corporation must charge less than the economic rent for the new housing, although this is still a bit above the prevailing market rent. Rents in Cumbernauld range from \$396 a year to as low as \$60 a year for old-age pensioners.

One of the distinguishing characteristics of the planning of second generation new towns was to avoid dividing the town up into individual neighborhoods, but instead to promote compactness and to provide a large town center as a focal point for the entire community. The Cumbernauld center, still under construction, contains stores of all sizes and kinds, as well as recreation and entertainment facilities. Some local shipping and community facilities are provided for every 400 housing units in the form of the "corner store."

Automobile traffic definitely takes a back seat to foot travel in Cumbernauld. There are no through roads in the housing areas, and the major highway passes underneath the town center and thus does not interfere with any of the activities there. Footpaths predominate in the town, and are designed to prevent pedestrian conflict with automobiles. The footpaths take the direct routes while the roads are longer, and they pass under roads and through buildings, with ramps provided at grade changes and undercrossings. This attention to design for movement without the automobile has paid off handsomely, for Cumbernauld has become the safest town in Britain in terms of road accidents and casualties.

But the automobile and its needs are not forgotten. Attractive garage and parking facilities have been designed for flexibility in the face of a further growth of car ownership. Presently these facilities provide room for 1.4 vehicles per household.

MILTON KEYNES

Milton Keynes, designated in 1967, became the first new town to have a target population of over 100,000. This town will have a population of 250,000 by the end of the century and is expected to benefit from a faster and a more economic rate of building, a greater variety of employment, and a wider range of urban facilities earlier in its development than has been true of previous new towns planned on smaller scales. It is anticipated that 60 percent of the target population will come from London. The growth of car ownership, an unanticipated problem in Harlow and a successfully met challenge in Cumbernauld, is actually turned to an advantage in Milton Keynes by permitting a larger new town without the loss of the sense of community or a lack of convenient facilities.

Milton Keynes will eventually spread over 22,000 acres 50 miles northwest of London. The new town will be built among and incorporate four present towns with a total population of 40,000. The objective of the town planners is not so much to designate activity areas and delineate community boundaries but rather to provide a framework within which the town can develop according to the needs of its residents. For Milton Keynes, the watchword is "flexibility."

The town will be based upon a grid system of roads, making all parts of the town equally accessible to all residents. Earlier towns have tended toward the radial road system, with convergence of roads at the center of the town, making this area crowded with traffic and quite dangerous. It was decided that Cumbernauld's system of three tiers or categories of roads was too expensive for the advantages gained. Furthermore, instead of concentrating industry in one or two areas on the periphery, Milton Keynes will disperse industry throughout the town, also tending to alleviate traffic congestion.

Instead of attempting to define neighborhoods or preventing this definition, activity centers (schools, shops, et cetera) in Milton Keynes will be placed at pedestrian underpasses at primary roads and the town allowed to develop without artificial community boundaries. Adaptive flexibility is further enhanced by placing all roads at ground level, thus allowing easy expansion. Provisions for parking and roads are based upon an estimated 1.5 vehicles per family, yet freedom of choice between private and public means of transportation will be guaranteed by a minibus transit system, traveling on primary roads with several stations located within easy walking distance of each 5,000 person "block."

Housing construction in this new town is unique in that 50 percent of the units will be built by private companies. The development corporation expects to reach a peak rate of 2,500 housing units constructed each year, whereas new towns up to now have achieved top rates of only 1,000 per year. Fifty percent of the housing will be available for purchase, a substantial change from an average in previous new towns of around 10 percent, yet conforming very closely to the national average. The development corporation will help finance homeownership on a long-term basis. The question of whether residents will work in Milton Keynes will be left to the individuals, in contrast to previous London ringtowns, such as Harlow, where in order to qualify for housing, a worker must be employed within the town.

As Milton Keynes is still very much in the planning stages, it is difficult to evaluate its success as a new town. However, it does seem that the planners are not directing sufficient attention or resources to providing entertainment and other leisure-time facilities. Furthermore, the placement of the third London Airport could have substantial ramifications for the development of the new town. Apparently, two of the four prospective sites are near Milton Keynes, and the estimated population that such an airport would generate is 250,000, enough to disturb long-range planning for the urban community a great deal.

LONDON

The new towns of Great Britain are, of course, the more novel aspect of British urban planning and housing policies, but signifi-

cant efforts are also being made to rehabilitate the dense inner cores of the major cities. In this context we found the progress of the Greater London Council most interesting.

The Greater London Council (GLC) is at present the only regional authority in Great Britain. As such, its 100 elected and 16 appointed members have been charged with developing a "greater London development plan," which broadly and comprehensively designates land use in the greater London area. This plan was submitted to the Ministry of Housing and Local Government for its approval in 1968, and it is expected that the Ministry will begin to hold public inquiries to hear objections or representations from affected parties in mid-1970. Once approved, each of the 33 London local government authorities will prepare its own more detailed plan carrying out at the local level the broad objectives stated in the overall plan.

The GLC will finance the operation of its plan through a combination of Government grants and loans. About 25 percent of the estimated \$12.3 billion capital expenditure will be met by grants from the National Government. The rest will be borrowed from the Government at market interest rates, and the debt-servicing costs will be met by increased property taxes collected by the council.

Although it is not our purpose to go into the details of the greater London development plan, some of the broader considerations are of interest. The primary objective of the plan is to retain London's position as capital of a nation and a world financial and industrial center, while improving the quality of housing, transportation, and employment offered by the area. In the field of housing, London faces the paradoxical situation of a declining population, an increasing number of new dwelling units, yet a continuing housing shortage. The explanation is that the demand for higher standards of housing, both in terms of quality and increased living area, has been growing while the existing London housing stock is becoming obsolete at an increasing rate.

In the area of transportation, London can either succumb to the growth of automobile travel by building expanded road networks, or control this growth and develop an already efficient public transportation system. The problems of industry and employment cannot be divorced from the trend of declining population expected. The city must decide whether industry should grow irrespective of the declining labor force, thus promoting commutation, restrict present industrial growth and thereby risk either growing unemployment within the city or increased emigration, or steer a narrow course between these extremes. The greater London plan faces each of these problems squarely and offers detailed solutions which could well be studied as ways to meet urban problems that are found throughout the world.

HOUSING IN LONDON

Approximately one-third of the total capital costs of the greater London plan will be spent on housing. At present, public housing in the greater London area is provided by each of the 33 London borough councils, and the GLC, with the latter building about one-quarter of the total amount of public housing produced. The GLC acquires property, usually by way of compulsory purchase orders, rehouses those families dislocated by land clearance, clears the areas, rebuilds

and then leases the housing. Rehousing of those families displaced by renewal is done with the greatest care, with determination by personal interview of each family's desires and need, and the finding of a vacancy as close to the original living site as possible before demolition begins.

The housing is financed primarily from rents received, partially by housing authorities such as the Greater London Council. In the past, the National Government has subsidized dwellings constructed by housing authorities such as the Greater London Council in the form of an annual payment per unit, payable for 60 years, based on the costs of construction and maintenance. Since 1967, however, all new GLC housing has been subsidized through interest rates, the National Government paying the difference between the average market rate and 4 percent. Thus, the construction of the flats is subsidized. However, under the Social Aid Scheme, aid is also given to individual tenants whose incomes are low relative to their rents and who claim need. The plan assumes that a tenant can pay rent equal to one-seventh of his income up to \$33 a week and one-fifth of his income over that amount.

There has recently been a heated debate over how to help lower income families afford adequate housing. Subsidies to the construction of housing do not assure that low-income families will receive the benefits by living there. In fact, there is no legal requirement that families with middle to high incomes must be barred from living in public housing. And the fact that after the imposition of the more generous rent subsidy program few tenants claimed this aid would indicate that the poor do not constitute much of the total GLC tenants. One view we heard was that subsidies directly to the individuals without subsidizing the actual building would be the more efficient way to aid the low-income families.

There are no Government guarantees of home loans in Britain. However, the Government will guarantee the down payment on a home. This is not covered by a building society loan and averages about 20 percent of the total cost. In new towns, of course, development corporations have devised ways of aiding individual home purchases, such as through direct loans and enlarged guarantees.

PEPYS ESTATE

We were quite fortunate to receive a lengthy guided tour of one of the Greater London Council's housing projects: the Pepys Estate, Lewisham, begun in 1963 for completion in 1970. This housing estate, located at the site of the former Royal Victoria Naval Yard on the Thames, will provide 1,324 new housing units over 45 acres, with a density of 159 persons per acre. The estate mixes three 24-story high-rises with a number of three-, four-, and eight-story apartment buildings, yet manages to give an impression of spaciousness by providing 12 acres of open greens. Housing rents range from \$684 to \$1,644 per year. One of the principal themes in planning the estate has been the separation of pedestrian and auto traffic through extensive elevated walkways and parking facilities beneath ground level.

One of the most interesting aspects of the Pepys Estate is the renovation of two former naval rum warehouses dating from the

early 19th century. When completed, they will provide 65 flats renting in the upper ranges. The first such rehabilitations undertaken by the GLC were in the Brandon Estate, which we also examined, but at present this is an unusual exercise. Rehabilitation has been found to be quite expensive and thus not very appropriate for low-income tenants.

If there is a criticism of the Pepys Estate, it is that the 24-story high rises are quite unappealing, especially to a people that prefers low-rise living and individual gardens. The young families who lived in them found the high-rise features quite limiting and inconvenient.

MINISTRY OF HOUSING AND LOCAL GOVERNMENT

Our meeting at the Ministry of Housing and Local Government indicated that the fragmentation of local and regional responsibilities for planning and housing construction was a major obstacle to more rational and effective provision of urban services. Town and country planning currently rests with about 140 different authorities: cities, counties, and county boroughs all develop plans. And there are more than 1,000 house building and management authorities. A recent report by the Royal Commission on Local Government in England has recommended that the number of authorities be reduced to 61, each with the power to develop and carry out land-use and housing plans.

One of the primary responsibilities of the Ministry is to evaluate and approve the development plans which all local planning authorities are required to prepare and submit. Once approved, all buildings within a given area must conform to the local development plan. The process includes the publishing of a proposed plan by a local authority, and then hearings held by the Ministry on general planning and housing aspects. Once individual reactions are heard, the Ministry decides whether to accept, accept with reservations, or reject the local plan. It is most important that there be wide opportunity for public participation in the planning process; however, the final decisions are made at the top level.

One of the major principles of urban planning developed by the Ministry is the provision for green belts around built-up areas. In order to restrict urban growth and sprawl, prevent adjacent towns from merging and in some cases preserve the special character of certain towns, a green belt is established around the town. Here, the land is intentionally left open, say for farming or recreational use, and there is a proscription against new development in them. The green belt around London has been instrumental in restricting the sprawl of that city, and the idea has become so widely accepted that few proposals are ever made to encroach upon it. The new towns which ring London were established just outside the London green belt.

We were told that the use of industrialized systems in construction has been mainly concentrated in schools, high-rise apartments, and other public authority buildings. However, there is a trend toward increased use of industrialized technologies in the private sector, and prefabricated housing components are quite common. It seems that the least expensive single-family units are still those made of brick with some industrialized components, because brick is a quite cheap building material.

There has recently been a move away from public construction of high rises, primarily because families dislike living in them. The majority of current residents are young couples with children, who usually require the lowest cost units, but these are precisely the people who find them most inconvenient. Furthermore, in one instance a gas explosion in a local-authority high rise in London built of an industrialized system blew out an entire side of the building and this has been described as the end of public high-rise construction for all intents and purposes.

BUILDING AGENCIES

The National Government has established several agencies to promote improved housing, and we visited with two of them briefly. The Building Research Station was established under the Ministry of Public Building and Works in 1912, to conduct fundamental and applied research in building technology. Its research efforts are aimed toward improving building design and construction efficiency, developing performance specifications and testing procedures, surveying user needs, and developing new methods of manufacture and new materials. We found the Station's studies of user needs most interesting, indicating how room areas and relationships can best be designed for maximum efficiency and ease of use. Recently, the Station has begun a program of "more aggressive selling of results to key users in the industry and associated professions."

In 1964, the National Building Agency (NBA) was established by the Minister of Public Building and Works as an independent advisory body to promote the use of improved techniques of design, management, and site operations in both the public and private sectors, and particularly in housing. The NBA's most widely known activity is appraising industrialized housing systems primarily for low-cost public projects. At the request of a sponsor of a new system, the agency evaluates the system with regard to technical standards in meeting statutory requirements. While it is not mandatory for sponsors to accept only certified systems, they are usually preferred and officially encouraged. And in Scotland, a system is not approved for loans unless it is so certified. The NBA also advises public authorities on the appropriate use of building systems. The Agency is financed by Government grants and the fees it earns for appraising systems.

Finland

In order to understand urban planning in Finland, it is helpful to know the administrative structure of the Nation's Government. At the highest level is the National Government, which has divided the country into 14 Provinces or administrative districts—the second level of government. The Governors and higher officials of these districts are appointed by the National Government and are, of course, directly responsible to it. At the third level are the local governments or "municipalities" as they are called. These include cities (about 47), rural communes (communities) (460), and towns which seem to be halfway between the cities and the communes. The local governments have a substantial degree of autonomy, dating back to centuries-old traditions, and although dependent to a greater or lesser degree on national subsidies, they do have the power to levy an income tax.

We examined city planning in Helsinki, which began in 1941 but was not governed by legislation until 1965. The city is part of a larger regional planning association including 14 communes. Metropolitan Helsinki has a population of 600,000 to 800,000 and will grow to about 1.2 million by the year 2000. Helsinki is presently engaged in drawing up a city plan as its contribution to the larger regional plan to be submitted by the regional association to the Ministry of the Interior for approval by the end of this year. If the regional association disapproves the Helsinki city plan, it can register its objections with the Ministry, which has the ultimate power of approval. Once the city plan is approved by the Ministry, Helsinki will issue building permits in accordance with it. The implementation of the plan will be enhanced by the fact that the city government owns nearly all of the land in the city.

One of the major principles of the plan is to contain the business and commercial expansion which has been eating up the residential districts, primarily in the south of the city. Instead, business expansion to the north will be promoted, thus relieving commercial congestion in the city and helping the development of the rural communes as well. The other aspect of the Helsinki plan we investigated was the plan for a new city center, designed by Alvar Aalto, renowned architect and town planner. The center will be built around an inlet in the center of the city and will include public buildings, concert hall, opera house, and a large park. The area will be designed for pedestrian travel, with roads, parking, and the existing railroad terminal placed below the activity level.

RURAL COMMUNES

The rural communes have the same responsibility to develop and implement plans for their jurisdictions as do the cities. Like the cities, they have the power to expropriate land for public purposes, although the market value for the land must be paid, including price increments due to public development. The strong Finnish tradition of private land ownership has made even this sort of expropriation difficult, and it is often impossible to obtain needed land without lengthy recourse to the courts.

The communes, however, have significantly less autonomy in planning than do the cities. For one, the Administrative District has the power to designate "densely populated communities" which have a substantial degree of autonomy from the rural communes in which they are located. And the town plan of a rural commune is prepared by the Administrative District rather than by local officials. Furthermore, whereas a city submits its plan directly to the Ministry of Internal Affairs for approval, the building plan of a rural community must first be endorsed by its Administrative District, which also prepares the building bylaws. Once a plan has been approved by the Ministry, all building within a commune must receive a permit from the local authorities, including new construction, reconstruction or clearance of property. The local authorities can expropriate a building lot that has not been developed as stipulated in the town plan.

We visited the Helsinki rural commune about 12 miles outside of the city, and spoke with the planners of a new town, called Kovulkyla. The town presently has a population of 70,000, but planners antici-

pate an increase to 150,000 by 1980. Much attention here is directed toward efficient use of land, and this seems to indicate a general government orientation. Efficiency is reckoned by density, and we were shown calculations indicating that costs per resident of providing housing and other services fall rapidly at first, and then flatten out. It was felt here that the density of Tapiola Garden City was much too expensive, and instead a density comparable to that of Cumbernauld and Harlow is anticipated.

Housing will be placed so as to obtain maximum benefit from the sun. Eventually about 20 percent of the housing will be available for rent. The main mode of transportation will be the automobile, and it was indicated that ground level parking would be discouraged.

Where the Ministry of Interior Affairs believes it necessary, it can designate a regional planning association, formed by a coalition of communes, to prepare a regional plan. There are at present 15 regional associations covering 25 percent of the land area of Finland and 60 percent of the population. Planning costs are divided up between the National Government and the communes.

There is as yet no national physical plan for Finland, although it is hoped that regional plans will cover the whole country in a couple of years. National policies now are aimed at stemming the migration from northern rural areas to the concentrated urban areas, primarily in the southwest. At present, about one-half of the total population of Finland lives on 12 percent of the land area, although it is expected that past rapid flows to urban centers will decline in the future.

In order to help stem this flow, the National Government has defined the central and northern sections of the country as developing areas, and certain financial and tax advantages are available to businesses locating in these areas.

There have been a number of criticisms voiced of this planning structure, some by Government officials themselves. A central objection is that it has not yet been possible to integrate rural and city planning satisfactorily because of the autonomy of the cities and the lack of specific legislation covering urban areas. Further, there is little coordination between the 15 regional organizations and the 11 administrative districts.

The Government already has plans to improve the coordination of regional and urban planning and alleviate the problems communes have in land acquisition.

HOUSING

A general shortage of investment capital, and the underdeveloped nature of long-term credit facilities means that the Government, builders, and prospective homeowners must all participate in financing the production of housing units. Most mortgage lending is done by savings banks and insurance companies and individual saving has been organized to facilitate homeownership. The breadth of influence the National Government has on housing is indicated by the wide range of subsidies available and the fact that one-half of total dwelling production is influenced by Government loans and supervision over costs and quality.

In most cases, the future dweller is expected to finance about 30 percent of the total costs of the housing unit through his own savings.

Government housing assistance can amount to from 25 to 60 percent of the total costs. For example, the Government can provide a housing loan of up to a maximum of 30 percent of building costs at 3 percent for 15 to 25 years; an additional loan is available to low-income families for up to 30 percent of costs with no interest due for 8 years and 3 percent thereafter up to 25 years. All loans depend upon the need of the applicant for a dwelling and his income, and the terms are adjusted accordingly.

In addition, rent subsidies are available for poor families with children, the amount based upon the number of children, the annual income and the number of rooms rented. These subsidies supplement annual income by from 20 to 70 percent. Furthermore, apartment homeowners and cooperatives can obtain Government loans of up to 60 percent of building costs at 1 percent interest for the first 5 years and 3 percent thereafter up to 45 years. Thus, those who rent are also subsidized to some extent.

Other subsidies available for housing include tax exemptions and rebates. Under certain conditions, new housing, land, capital invested, and rental income are exempt from all taxes for 10 years. This particular feature has been most successful in attracting capital into the housing sector.

The lack of special credit establishments giving consolidated long-term housing financing has already been mentioned and results from general financial instability, and a history of substantial inflation. Consequently, what mortgage banking establishments and insurance institutions there are raise most of their capital abroad, and ordinary banking establishments and insurance institutions have been responsible for the greater part of the private financing of housing production. Of particular interest is the organization of individual saving for homeownership, through promotion of systematic saving in advance of purchase and the availability of long-term loans based on the size of this saving. This has been apparently quite successful.

BUILDING

The great majority of housing is built by the private sector: in 1966, only 7 percent of the total dwellings constructed was by local authorities. In urban areas, housing companies build between 65 and 80 percent of all new units, and it is interesting to examine the structure of the companies.

Housing companies include local authorities, contractors, nonprofit housing societies, industrial firms and building material producers, all as shareholders. Individuals who wish to own a home buy shares as well, and the purchase of a certain number of shares entitles an individual to a dwelling. Where companies build housing without Government subsidy, there are no restrictions governing the resale of individual shares, but where there are such subsidies, a homeowner can sell his shares for only as much as he paid for them. In a country where substantial inflation has been the rule, this type of housing has understandably become less than popular.

The nonprofit housing societies which help promote housing companies also have shareholders who are primarily consumer cooperatives, industrial firms and local governments. Perhaps the *Asuntosäätö Housing Society*, created by six nonprofit associations, is the

best known. Its activities have been concentrated in the construction of Tapiola Garden City near Helsinki, and the planning of new residential areas in the Uusimaa Administrative District.

The qualitative standard of housing in Finland has always been high, and although national building legislation regulates construction over the whole country, there are considerable differences in the ways the regulations are applied. The growth of prefabricated housing has so expanded the capacity of the building industry that the amount of housing now produced annually could be doubled if financing could be found to support this higher level. The time required for housing construction has been shortened by as much as 25 percent in some cases by new techniques, and in some situations costs have decreased by as much as 8 percent upon the introduction of prefabrication technologies.

TAPIOLA

In 1952, six large private social organizations formed the nonprofit Asuntosäätiö Housing Foundation to build a garden city as a contrast to the industrial environment of Helsinki, where residential densities ranged from 80 to 160 persons per acre. The Foundation chose a site several miles outside the city limits to obtain freedom of planning and to avoid the restrictions of Government bureaucracy. A heavy price was paid for this decision: the Government initially refused to help finance the venture, no powers of expropriation were available and the developers had to provide all urban services themselves (roads, sewage treatment, electricity, water, etc.).

After much difficulty, resulting from the lack of virtually any long-term capital market and the marked novelty of the idea, the Foundation was able to obtain financing. This was initially in the form of short-term credits at rather high rates which were continually refinanced until the venture gave signs of being successful.

Tapiola is designed as a total community, providing housing, shopping, social amenities, and employment in an attractive environment. It was decided at the outset that this environment could best be provided through low-population densities in a wooded setting, retaining as much of the original topographical features as possible. The town has been successful in keeping density down to 26 to 30 persons per acre. The appearance of substantial wooded areas even where high rises have been built testify to the planners' success in overcoming the traditional construction firm's tendency to cut down every tree in sight. Although some have argued that both the low density and the retention of natural features are much too expensive for general application, it has produced an appealing community in Tapiola.

The buildings in Tapiola, including houses, have been designed by a number of private architects and architectural firms through competition. It is interesting to note that the plans for housing are selected by a team that includes a sociologist and often a housewife, along with the usual building and technical experts. The predominant type of housing is the three- or four-story apartment house, and relatively few high-rise blocks of apartments have been built. The feeling is that high rises are not designed on a human scale but rather built for most efficient land use. Consequently, most younger families live

in low rises to maintain contact between children at play and the home. Placement of the different types of housing is unique in that multistory buildings alternate with low-rise housing. The object is to achieve the spaciousness and variety that are missing when high rises are set off in one area and low rises and single detached housing predominate in another.

Although no real attempt has been made to define neighborhoods, there are three independent neighborhood centers, each designed to serve approximately 5,000 to 6,000 residents. In addition, there are small grocery stores placed within 250 yards of each dwelling. There is, of course, a town center with administrative and business offices, major department and specialty stores, and leisure and cultural facilities. The center can be reached quite easily on foot from any section of the town, and through auto traffic has been eliminated.

Garage and parking have been provided on the basis of 1.5 cars per dwelling. There is an extensive system of pedestrian walkways, but the auto is dominant where road meets walkway, for all crossings are at road grade level.

Housing is built primarily for ownership because of the traditional national demand, the need to recover invested capital as quickly as possible, and savings available on maintenance. The Foundation carefully allots the available housing to insure a socially mixed population, and takes great pride in the fact that 55 percent of the residents are white-collar workers while 45 percent are blue collar. It is not clear, however, if there are any housing opportunities for the poor in this project. And although there is an attempt to make the income levels in a neighborhood heterogeneous, the officials feel that it is important "that manners, housing habits, and the general level of culture do not differ too much."

Prospective homeowners are expected to save in advance for the 20 percent downpayment and are of course eligible for the appropriate government subsidies and loans from financial institutions.

There was substantial difficulty at first in interesting business firms to locate in the new garden city, due to the extreme novelty of the idea. As a consequence, Asuntosäätiö resorted to what Heikki von Hertzen, the president and planning director, calls "provocative town planning." The Foundation itself built a light industrial plant and then offered to lease it to business firms for 3 years, after which the firms could buy their space. As a result, some 20 firms took up the offer, found the new quarters quite profitable, and now are permanently located there. Several large manufacturing firms have since moved into the industrial area and this section is now complete. The original problem of attracting sufficient industry has been solved by the proven profitability of the move, coupled with the desire of many firms located in Helsinki to leave the city for areas providing more room for expansion and imposing lower taxes.

There is no heavy industry in Tapiola, but small-scale and light industries will eventually provide employment for about one-quarter of the economically active population when the town is completed. Including other sources of employment, such as business offices and local services, there will eventually be employment opportunities for about 70 percent of the working population. Only those establishments that do not produce any smoke, soot, or excessive noise are allowed to locate in the community.

The provision of heat, hot water, and electricity for the entire town is most unique in Tapiola. All three are produced at a single remote heating plant owned by the housing company. The heat and hot water are then piped to each individual housing unit. This method has the advantage of not only being most efficient, but also producing a much lower level of air pollution than individual units would.

The original objective of the planners of Tapiola to create a successful total community, once thought a visionary ideal, has been achieved. The housing foundation has turned the administration of the town over to the local residents and has gone on to plan and develop two more total communities in Uusimaa province. Their experience has shown that to build a community from scratch, with little or no initial government aid, can be an economically viable proposition. The most important prerequisites, according to the developers, have proven to be decisive control or ownership of the land involved and adherence to long-term planning considerations with avoidance of short-sighted alterations that may look good at a particular time. The greatest obstacle seems to be the existence of a formal government bureaucracy which can inhibit or prevent creative community planning.

Germany

The major objective of German housing and urban planning policies has been to rebuild as quickly as possible the cities and housing units destroyed during World War II. The primary vehicle of this commitment to provide enough housing for all has been the social housing program, which has been highly successful in promoting the needed construction. The program, through substantial subsidies, has accounted for as much as 80 percent of annual housing construction in Germany, but now that initial postwar needs have been met, the proportion of new housing built under the program has dropped to one-third, and the Federal Republic has turned its resources toward improving the quality of the housing stock.

The social housing program includes Federal, State, and local financial aid to housing. The subsidies are geared to bring rentals in line with lower income levels, and it has been estimated that the percentage of tenant income which must be paid as rent averages no more than 10 to 11 percent. The direct subsidies include direct Government loans covering up to 40 to 50 percent of land and construction and with no interest due on the principle during the early years of the loan. For example, in Hamburg, the zero rate of interest can continue for 35 years on a loan with a 55-year term. After the initial period, rates subsidized below market interest rates are applied.

In addition, the presence of a Federal loan commitment enables housing companies to obtain private loans for 40 percent of costs at liberal rates and terms. Finally, rent supplements are available to individual renters who can qualify under the income limitations. These direct subsidies have helped reduce rentals including utilities to as low as \$44 per month. There are also a number of indirect subsidies available to aid housing construction. Tax deductions are available to housing sponsors and individual homeowners. And various subsidies are available to construction workers, in the form of assistance for vacation, transportation and so on.

There is practically no public housing in Germany in terms of public ownership and management of units. Instead, the entire social housing program is carried out through nonprofit and limited dividend organizations as housing sponsors. These sponsors are usually large trade unions or building and loan associations which have the necessary equity funds. One of the largest is Neue Heimat, formed by the German Trades Union Federation as a limited dividend corporation (4 percent). This sponsor has built more than 300,000 units in the Federal Republic and Berlin since the war.

PLANNING

The Federal law concerning regional planning, adopted in 1965, provides that the 11 German States set up regional planning bodies, and consequently the State governments have control over regional planning. The Federal Government is largely limited to advisory and coordinating activities, and has no responsibility for helping fund regional planning. All community or other local planning bodies, including foundations and institutions must conform to the regional plans. Although the regional plan itself does not deal specifically with the internal planning of cities, the city plan must be consistent with the general principles laid down in the regional plan.

We visited Hannover, the capital of Lower Saxony, and examined planning under its state law of 1962. The regional planning agency there has jurisdiction over about 1 million people and 209 municipalities, and is composed of representatives from Hannover itself and the larger towns in the area. The agency's functions were described to us as the most extensive of any regional authority in Germany. They include responsibility for developing a uniform regional plan, establishment of land-use controls, acquiring property for benefit of member authorities, and the performance of advisory services to the towns and cities. Although the member towns are required by law to set up plans in agreement with the regional plan, in practice, most of the functions of the planning agency are carried out on a cooperative basis in consultation with the local governments. The officials we spoke with took pride in the fact that so much was done through persuasion rather than compulsion.

In the city of Hannover itself, over 50 percent of all dwelling units and over 90 percent of all buildings in the central city area were destroyed or heavily damaged during the war. The city has been redeveloped along the general lines of the main central streets, with one area including all of the older structures left intact. The town center is designed mainly for pedestrians. No roads pass through the town center, and auto traffic in the center is limited to necessary vehicles. Extensive building has also been done in the areas outside the city, with many single-family attached houses with courtyards in the area we visited. Multistory apartments were separated from the single-story dwellings to promote privacy.

WEST BERLIN

The major objectives of West Berlin's housing and planning efforts have been to first replace housing destroyed during the war, and then turn attention to rehabilitating housing units that have become obsolete. At the end of the war, about one-third of West Berlin's

900,000 housing unit stock was destroyed and another one-third heavily damaged. To date, more than 300,000 new units have been built, bringing the total stock to a level higher than before the war.

This has been accomplished primarily through Government assistance. Ninety percent of new housing built since the war has been assisted under the social housing program, a much higher proportion than is true for Germany as a whole. Nearly half of the city's budget has been earmarked for housing subsidies. These include the normal subsidies discussed above, as well as special aid. For example, building sponsors have obtained Government loans for new communities for up to 65 percent of the building costs for 100 years at one-half percent interest. Special subsidies are given to construction workers who come to West Berlin as well.

In addition, there are financial incentives available to business and individuals who locate or economically participate in West Berlin. Tax incentives under the Berlin aid law promote sales, capital loans, productive investment, and income growth. Other financial incentives include subsidized loans and loan guarantees to promote investment, production, sales, and employment. Apparently these incentives have been effective in stimulating productive activity: since 1958, West Berlin's production index has risen more than 80 percent, new orders have risen more than 60 percent, and unemployment, once a substantial problem in the city, has been replaced by a large net excess of job vacancies.

An administrative decision was early made to build flats as quickly as possible because the municipality's authority to control land distribution was scheduled to lapse in the early 1970's. Furthermore, since the city has no control over land prices, there has always been a good deal of real estate speculation. When rent control ends soon, it is feared that land prices will rise sharply, vastly increasing the cost of redevelopment. And the increase in rents that would result from a limited housing supply would aggravate the population outflow that has always been a major problem. The result of these pressures has been over-building of certain kinds of apartments and poor community planning in some cases.

Another limitation on rational development is that the city government owns only 15 to 20 percent of the land and there is no effective power of eminent domain in Germany for housing or related programs. However, the city is able to exercise more influence over housing than its own property holdings would indicate through its commissioning of 14 corporations, mostly nonprofit, to undertake urban renewal. These bodies have been able to acquire a substantial portion of the properties requiring renewal and presently own more than 150,000 housing units.

We visited one of the largest housing projects in West Berlin, Markisches Viertel, designed for 45,000 people. The project has been built quite swiftly through industrialized building. A large plant next to the project site makes component parts, including precast cement walls and staircases. These elements are then put in place by large cranes. Monotony is avoided to some extent by mixing varying building heights, and including one story dwellings. The striking feature of the project is the painting of parts of the high rise structures

in different bright colors, earning the development the nickname, "Parrot Estate."

Urban renewal seems to be carried out in a most rational manner in West Berlin. Areas scheduled for renewal are cleared only when reconstruction has been assured. Further, in a given area, the several different phases of urban renewal are carried on at the same time, reducing negative economic effects to a minimum. People displaced by demolition are contacted by a city agency prior to displacement and suitable accommodations are found for them, often in the same general neighborhood. It is significant that the city pays the expenses of this removal.

West Berlin has been quite successful in building a large number of dwellings in a short period of time. However, this has meant that some mistakes have been made as far as the kind of housing that has been provided. Further, there is no mix of economic classes in the projects since the largest share of assistance subsidizes the projects rather than individuals in need. In addition, the city plan came too late to guide much of what has been built, although it is quite helpful now. Finally, the lack of a feasible law covering Government powers over real estate has been described to us as the greatest problem. However, reconstruction and growth of the city has been rationalized to a significant extent and one result has been the reduction of central city densities from over 200 persons per acre to less than 100 now.

Israel

PLANNING

The major objective of Israel's planning and housing policy continues to be to reduce the concentration of population and industry in the central coastal strip and disperse them more widely throughout the country to enhance economic and social development, and military security. The current major instrument for this policy is the 1965 planning and building law, which supersedes the town planning ordinance of 1936. This new law provides for the first time for comprehensive country-wide planning. Under the law, the National Planning Council was set up, composed of representatives of the National Government, local governments, and public and professional organizations. The Council prepares a national master plan covering the entire country, designating land for residential, agricultural, commercial, and recreational uses. This plan is submitted, along with comments of District Commissioners, to the Government for approval.

The country is divided up into six districts, and each District Planning and Building Commission draws up a district master plan determining the details required to implement the national master plan on a regional level. The district plan must then be approved by the National Planning Council before it can become effective. Once it has been approved, local planning and building commissions must draw up local outline plans, and where required, detailed plans, and submit them to the District Commission for approval.

In contrast to the situation prior to the law, the order of priority of planning is now clear. A district master plan takes precedence over a local plan unless otherwise stated in the district plan, and the national plan takes precedence over all other plans unless expressly stipulated in the national plan.

In the case where a local planning area includes the jurisdiction of only one local authority, the local council or governing body constitutes the local planning commission. Further, representatives of the National Government can attend the deliberations of the local planning commission in an advisory capacity. The local planning commission's control over building within its jurisdiction is absolute: no building or alterations can be done without obtaining a permit from the local commission. The local commission can also reallocate land between owners and expropriate up to 40 percent of a single owner's land holdings for public purposes without compensation—for roads, recreational areas, educational, religious, or welfare institutions. For any land needed over and above this, or for other purposes such as public housing, the Government must pay the fair market value. The persons affected have the right of appeal to the District Planning Council and in certain cases, to the Supreme Court, which may grant relief or force the administering agency to desist. In all cases where the local commission deprives a person of his dwelling, the commission must provide him with suitable alternative accommodations or reasonable compensation to obtain one.

HOUSING

The accommodation of a great influx of new immigrants has been a major challenge to Israel and the state has successfully met it by directly providing adequate housing in most cases. The Government provides most housing for sale, and this fits in well with the general desire of people to own a home. Home purchase conditions are made particularly favorable. The downpayment normally amounts to about 20 percent of the purchase price, and more than half of this can be offset by rents previously paid for the dwelling. The remainder of the sum can be borrowed from the Government at 3 percent for 24 to 30 years. There are also special financial arrangements offered young couples for housing purchase, and a "saving for housing" scheme is promoted.

The development of the country's interior is stimulated by dividing the area into regions of six priorities, based on the need for economic development and security. This division is intended to serve as a guideline for Government agencies in determining the distributions of public incentives and assistance.

All new towns, for example, are supplied with Government-provided roads, water, power, and necessary services. The other main incentives employed are generous land allocations, reductions in income taxes, and Government loans on favorable terms. In the region of highest priority, this has amounted to 70 percent of total investment costs. The achievement of increased regional development has been significant, although this may have been aided by the relative stability of labor in remote areas and the fact that few of the industries have their locations predetermined by raw material needs or transport requirements.

HAIFA

Haifa, the major deep water port city in Israel, has grown enormously in a short time to a population of more than 250,000. The Government has undertaken the major part in clearing slums, re-

settling slum dwellers and providing new housing for the vast inflow of immigrants. The renewal has been facilitated by Government ownership of most of the slum areas, many obtained through forfeiture by the original Arab landlords who fled the area. The principle followed in this renewal has been to disperse the original slum residents throughout the city and to not allow them to concentrate in a single area. The slum land is then redeveloped and new housing built, and allocated to mixed income groups.

The developers of the city have no power of land expropriation but much is accomplished by persuasion. Most of the housing built is for purchase, usually on liberal terms, because people prefer to own their own homes and the property is kept in better shape. The terms of the mortgages here are quite liberal, and were described to us as 10 to 12 percent downpayment, part of the remainder to be borrowed from the banks at the prevailing interest rate (about 11 percent) and part from the Government at 6 percent for 25 years. The monthly payment on loans comes to only about 10 percent of income, on the average. The major problem is determining how to allocate the housing between new immigrants and older inhabitants living in substandard dwellings. The temptation seems to be to give the new housing to the immigrants, in order to attract skilled labor to the country.

We visited the Druze village of Isfiya, a settlement of 4,500 inhabitants outside Haifa on Mount Carmel, where the Government is building new housing. The houses were quite appealing and seemed more than adequate to the needs of the residents. We also visited Nazareth 25 miles southeast of Haifa and the largest Arab center in the country. Here, there are plans to vastly enlarge the size of the town by providing new residential quarters for both the Jewish and Arab populations.

TEL AVIV AND ASHDOD

Greater Tel Aviv contains almost one-third of the total population of Israel, and never had the benefit of a thoroughly prepared and enforced master plan during its early years. Consequently it has grown quite dense and spread out as major cities have a tendency to do. The present regional plan includes a green belt around the city to limit further growth and satellite cities planned for the dunes along the shore to conserve precious agricultural land.

We visited the new town and port of Ashdod, located about 25 miles south of Tel Aviv and designed as Israel's second deep water port on the Mediterranean. The town has a target population of 350,000 and the port will handle over 4-million tons annually when completed. The enormity of this project is indicated by the population of only 219 in 1956 when the project was started, and the fact that the port will handle more cargo than Haifa when completed, and will cost \$120 million. The location was chosen to help develop the south of Israel and the Jerusalem area, and because the production of significant export goods has shifted toward the center and south of the country.

The master plan embraces an area 7 miles long along the coast and 1.5 to 2.5 miles wide. Housing, interspersed with local shops, will be distributed among 16 residential quarters in an irregular gridiron pattern. Each quarter will have its own subcenter, while the city center will be placed at the geographic center of the development.

Density will be restricted to between 50 and 100 persons an acre. Most of the housing falls under Government construction programs, with three- and four-story apartment buildings predominating.

Unemployment is unknown in the new town, and instead a shortage of skilled workers and professionals is the complaint. The docks of the port employ a large number of workers, but there are also several large and a number of medium and small manufacturing firms. The major problem seems to be that the area has grown so quickly that the social and cultural life has not had a chance to keep pace. Furthermore, the new town and port has not yet developed a clear relation to its surrounding areas. However, one thing is assured and that is continued economic and population growth, if not affluence and a real boom. This promising future is firmly based on the growing production of citrus fruits and minerals to be collected and shipped here, the opportunity of becoming the major import point for the south, and the growing attractiveness and development of the south in general.

JERUSALEM

We found the city of Jerusalem fascinating, as most visitors do. The total population of the city is over 250,000, with most of the developed area located west of the old city of Jerusalem, which was Israeli territory before the 1967 war. The drastic change in the national boundaries produced by that war and the debate over how permanent this change will be have vastly complicated planning in this area. However, rapid Government development of land that was formerly Jordanian is evident around the old city.

There is practically no flat ground within the boundaries of the city, and this has had a major influence on urban planning. Major buildings are located on the crown of the hills while others are built on the sides of the milder inclines. The valleys and rifts between the hills have been set aside for green areas: gardens, parks, and fields. The center of Government has been located on a hill south of and overlooking the main part of the city.

It was in Jerusalem that we saw industrialized construction in its most graphic form. The urgent need to speed the construction of new housing has led to the adoption of a number of prefabrication techniques. We witnessed the construction of three- and four-story apartment buildings in the Jerusalem suburbs. Entire walls were formed by pouring concrete into metal forms and then allowing it to dry in the hot sun. The dry walls were faced with stone and then lifted into place by large cranes and fitted into slots. An old Jerusalem bylaw requires that all buildings built have facing of natural stone which not only promotes the beauty of the area, but enhances stability and saves maintenance costs as well. The presence of ample supplies of materials for concrete and granite for facing further stimulates this type of building.

Within the old city, we saw efforts to rehabilitate ancient dwellings. In many cases, the walls and foundations are firm so that at the very most, gutting and refurbishing of the interior is all that is required. In cases where new buildings are built, pains are taken that they reflect the "idiom" of the old city and fit in with the character of surrounding structures.

NATIONAL POLICY

Although the National Government owns 92 percent of the total territory of Israel, this has not been enough to insure perfection in housing and urban planning. For one thing, the other 8 percent is concentrated in the cities and the coastal orange belt, and thus is much more important to the rational growth of the nation than its relative size would indicate. The rapid inflow of immigrants has meant that housing and cities had to be planned and built quickly and oftentimes without sufficient thought given to important details.

Although the essence of planning policy in Israel—the dispersal of the population throughout the nation and reduction of the relative sizes of major cities—has been successfully achieved, it is plainly opposed to the spontaneous migration trends in many nations today. The population dispersal in Israel has been accomplished largely by directly transporting new immigrants from the port of their arrival to the town designated for them. Unfortunately, little of the veteran population of the country has moved to the new towns, with the result that there is a substantial difference in social and cultural levels between the older and larger cities, where professionals concentrate, and the new towns where the immigrants, often culturally less developed and lacking in economic skills, congregate. In a broader view, however, Israel has shown that a country “not especially planning minded” can substantially improve its urban environment.

Conclusion

It is evident that there is a rather wide range of planning and building comprehensiveness and authority in the four countries we visited. Israel with its national plan seems to have tight control at the national level over all planning and development in the nation, while Finland, at the other end of the spectrum, is just beginning to cover the country with regional plans, while local governments still maintain substantial autonomy. It is not our intent to single out any of these four countries as having arrived at the “best” method of insuring rational urban development and adequate housing. Each has met the different challenges it has faced with specific policies developed from particular circumstances. Tradition, climate, social and cultural factors, resource endowments, political history, and population trends have all conditioned the programs of these nations as they have others.

But there are at least a few strands running through all four countries of issues that have been recognized and dealt with in one way or another. We have already discussed how the degree of national control of planning differs over the four countries, but the more important point is that they all try to manage the development of the country from at least the regional level. And in Great Britain and Israel, planning is primarily determined at the national level. The approach is always a comprehensive one. It is not just the construction and placement of different kinds of buildings that is determined in advance, but overall land-use patterns for all activities. These countries have recognized that any land-use choice, such as the placement of a major highway, will have important implications for urban growth and development.

-Nor is the plight of the family displaced by urban renewal left to chance. Great Britain, Finland, Germany, and Israel all have elaborate procedures for locating, and interviewing people who will be displaced once renewal begins, and finding suitable dwellings for either temporary or permanent occupancy. In West Berlin, further efforts are made to schedule the phases of urban renewal so that the fewest people possible are ever displaced.

In three of the countries, a trend was evident toward national building regulations as opposed to allowing each locality to develop its own building codes. (It was not clear in Germany whether the National Government was moving toward this goal.) In Great Britain, national building regulations developed by the Government have replaced local bylaws in England and Wales, and Scotland has a separate set. In Finland, there is a single national building code, although there are some indications that it is administered in different ways by different local authorities. And in Israel, the Minister of Interior is responsible for drawing up national building regulations to cover the whole country.

The lack of many individual building codes may have helped stimulate a market for industrialized housing in these countries. In any event, use of systems techniques and prefabricated components is widespread among both private and public builders. This acceptance of and ability to use industrialized techniques has seemed to stem from the need to build a substantial number of housing units in as short a period as possible. The savings in terms of money is matched by savings in terms of scarce skilled manpower and time.

All four of the countries are facilitated in the acquisition of land for public purposes by compulsory purchase powers. However, only in Israel can the local authority expropriate land for public use without compensation, and then only for specified public purposes, not including housing. Land needed for housing must be bought at the market rate. In Great Britain, the authorities can at least exclude from the prices they pay part of the increments in land value due to public development, although even then some reluctance to use these powers was expressed. This reluctance was present in Finland as well, where an old tradition of private landownership allows lengthy court struggles over land acquisition. And in Germany, only under rare specific conditions can the Government purchase land compulsorily. In West Berlin, apparently no powers at all are available.

One of the strongest threads running through all four countries was direct Government financial aid to the housing sector, both to promote an adequate rate of construction at reasonable prices and to aid individuals to afford to rent or purchase dwelling units. In Great Britain, the Government has set up development corporations for the purpose of developing whole communities. In other cases, construction is directly subsidized and rent supplements are becoming important for poor families. In Finland, Government loans to both individuals and building societies at subsidized rates are employed, as well as tax exemptions and rebates and rent subsidies for the poor. Germany employs these same means as well as various subsidies to construction workers. In Israel, where most housing is built by the local authorities, homeownership is facilitated by direct Government loans to individuals at subsidized rates.

In summary, the national governments of four countries have taken an active role in the urban growth and housing in their jurisdictions. Furthermore, this has taken the form of positive plans and proposals rather than mere restrictions. There are generally provisions for flexibility and public participation in the decisionmaking process to incorporate new elements required by changing resources and demands. But the most important factor in rational urban development and housing of both sufficient quality and quantity seems to be a recognition that housing and urban growth problems must be perceived and dealt with in their totality and not on a partial, piecemeal basis.

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