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WHAT ARE NEW TOWNS FOR?

William Alonso

I. INTRODUCTION

Calling for new towns has long been a favorite activity of architects and architectural critics, but in recent years just about everyone in the United States seems to be advocating the development of new towns. The list of proponents is staggering and includes giant corporations, real estate developers, the American Institute of Planners, the New York Times, the current and former Vice Presidents of the United States, the former President, the Urban Affairs Council of the current President, the legislatures and planning or development agencies of several states, several Cabinet members, and the National Committee on Urban Growth Policy which includes in its membership and represents on this issue prominent congressmen, senators, governors, mayors, county commissioners, the National Association of Counties, the National League of Cities, the United States Conference of Mayors, and Urban America. Television shows and feature stories in newspapers and magazines have brought the general idea into pop culture. Hippies are forming communes reminiscent of the utopian communities of the last century.

The causes behind the interest in new towns in this country are intriguing but elusive. Some of the advocacy may be self-serving, as in the case of congressmen or federal agencies seeking to maintain constituencies

diminishing by out migration, or of professional groups interested in extending their role and influence, or of industries after new markets. In other cases, the images of glimmering and simpler future Camelots are a marriage of American nostalgia for the small town and escapism from the biting complexity of our real urban problems. But mostly, it seems that the very idea of new towns holds some magic that quickens the pulse and fires the imagination, a Promethean impulse to father a better place and way of life, a calm and healthy utopia of crystalline completeness.

But it is not my purpose here to analyze such causes for new town proposals; rather, I will try to examine the stated purposes of a new towns strategy in America as a rational policy in the public interest: What are new towns for? The romantic parentage of new towns concepts makes this difficult because it has established a style of advocacy which is hortatory, metaphorical, and often without specific meaning. When a cabinet member speaks of "avoiding chaos," "organic balance," "creative possibilities," "building poems," "communities of tomorrow," and the like, he is reading burnished but rather empty rhetoric taken by his speech writer from current exponents of a long tradition of architectural and utopian writers. Further, certain code words are commonly used. For instance, one of the most frequent reasons for wanting new towns is that they will be "planned" (a word used in urban matters as a term of praise acceptable to both the political right and left). But the fact per se that something is to be planned is of interest only to the professionals who get the work and to later chroniclers. To others, such planning is an input and the question is one of output: what does such planning do to what the new town will do? In this particular case, "planning" stands for certain land use and circulation features, lower costs through reduction of uncertainty in infra-

structure investment, and so forth. Some other code words are "balanced," "exciting," "variety," "living environment," "choice," "human scale." I have tried to interpret fairly these meanings into language that is clearer. I have also had to use my judgment in distinguishing between purely instrumental objectives and their intended purposes. For instance, it is frequently said that new towns will distribute the population more equally across the national territory. In such cases I have tried to get at why such a population distribution should be wanted and have referred these instrumental objectives to more general ones such as mental health or economic development. In all, I have discovered some two dozen principal objectives, some with several variants. I shall present these with some commentary in the coming pages.

In fairness to the reader, I must state my principal conclusions: There is little force in the arguments for a major national commitment of effort and resources to direct a substantial portion of our urbanization into new towns. On the other hand, there may be some sense in the limited use of new towns for the testing and development of technological, physical, and institutional innovations which might be applicable to the expansion and rebuilding of existing cities. These conclusions are presented more fully at the end of the paper.

A definitional interlude is necessary. Some have tried to draw a distinction, but "new town" and "new community" are currently used almost interchangeably, although the term "community" is gaining in accordance with the present fashion of using it to indicate approval of two or more people or of a place. "New community" also has a slightly wider meaning, and is often used for the promotion of subdivisions which would not be called new towns by anyone. This confusing usage may be illustrated by a passage from President

Johnson's Message on Housing and Cities to the 90th Congress (February, 1968):

But there is another way as well, which we should encourage and support. It is the new community, freshly planned and built. These can truly be the communities of tomorrow -- constructed either at the edge of the city or farther out. We have already seen their birth. Here in the nation's capital, on surplus land once owned by the government, a new community is springing up. In other areas, other communities are being built on farm and meadow land. The concept of new community is that of a balanced and beautiful community -- not only a place to live, but a place to work as well. It will be largely self-contained, with light industry, shops, schools, hospitals, homes, apartments, and open spaces.

This paper reserves the terms new towns and new communities to those that are to be built at some distance from existing urban areas, and will not discuss except in passing new communities which are extensions of the territorial margin of existing settlements or reconstruction of the internal structure of cities. Although terms such as "new towns in town" are gaining currency, they seem to be attempts to make use of a fashionable label to promote large projects which, regardless of their merits, are not new towns.

New towns may be "independent" if they contain the employment of their own residents, or be "satellite" if there is to be a substantial amount of commuting to existing centers.¹ Thus, Reston and Columbia, the best known current new towns, are satellites, as have been most of the other well-known ones over the decades: Radburn, Forest Hills, the Green Belt towns. Historically, independent new towns have been quite numerous. In a sense, of course, almost every American city has been an independent new town founded within the last three and a half centuries. But, in addition, the nineteenth

¹Some authors use the term "satellite" for towns which are self-contained labor markets but whose residents make some use of the facilities of a nearby metropolis. It seems clearer to use the term "independent" for towns with substantial closure of their labor market, and "satellite" for those with a more open labor market.

century saw a great many company-run towns, such as Lawrence, Lowell, and Pullman, and a substantial number of utopian and religious new settlements; also, the railroads planned and developed a very great number as they spanned the continent. Present-day independent new towns are most frequently resort or retirement towns, or such special cases as towns that originated as housing for workers in large projects (Boulder City and Norris) or atomic-energy towns (Oak Ridge and Los Alamos).

Although there has been some slight association between the new town ideas and the concept of growth centers or poles, especially by some federal agencies, there are enough differences that I shall concentrate on the new town idea as such. The principal differences are: (1) new town proposals are for newly built settlements, while growth centers usually deal with the expansion of an existing center to bring it to sufficient size to afford the economies of scale and externalities needed for self-sustaining growth; (2) new town proposals often stress self-containment as a labor market, while growth center proposals often stress the role of providing jobs for those living in the surrounding region; and, perhaps most important, (3) new town proposals are based on steering growth away from urban areas which are regarded as too big, while growth centers are viewed as steering growth toward underemployed populations (or, in the case of frontier regions, toward some unexploited resource). There is an obvious complementarity between new town policies that aim at deconcentration of urbanization and growth center policies that aim at an increase of urbanization in underdeveloped regions. This complementarity has received increased recognition in recent years in some European and developing countries, but in this paper I shall concentrate on new towns proposals -- that is to say, on the elsewhere or deconcentration argument.

Although much of the following analysis would apply to a policy of directing all further urban growth to new towns, the discussion will focus on proposed policies of directing to new towns only a substantial portion of that growth. There are two reasons for this. First, that with journalistic exceptions there are no proponents of a commitment to channel all further growth to new towns. Second, that it is inconceivable that such a policy be feasible. The British experience is instructive. As of December, 1967, after twenty years of sustained effort, the population of the new towns had grown by only 554,373, which is only one percent of the national population. During 1967, the population of the new towns grew by 34,577, which is less than 0.1 percent of the yearly British population growth.²

I shall group into three categories the principal objectives for new towns which I have found in the literature and in discussion with their proponents: (1) macro geo-economic purposes, (2) social policy purposes, and (3) production and physical purposes. These categories are not entirely satisfactory, but they serve to cluster the arguments.

²The figures on new town growth are taken from New Towns Come of Age, a special issue of Town and Country Planning (January and February, 1968).

II. MACRO GEO-ECONOMIC OBJECTIVES

It is common to argue that present urban areas cannot cope with the expected growth of urban population. A recent and significant statement of this type was made by the National Committee on Urban Growth Policy. They predicted that by the year 2000, U. S. urban population would grow by 100 million, and recommended that to help accommodate this growth, we build one hundred new towns, each of at least 100,000 population, and ten new cities, each of at least one million population.³ The very roundness of these figures suggests their tentativeness and leads one to wonder how the proposals might have differed if men had six fingers on each hand. Nonetheless, accepting these targets, the year 2000 would see only seven per cent of the 300 million population residing in these new settlements and eighty per cent of the foreseen growth in existing ones. If replacement of one-third of the existing dwellings is taken into account, almost ninety per cent of new housing would be produced in existing urban areas. Thus, the National Committee's proposal, as radical as it first seems, would affect only a small part of our population and an even smaller part of our housing production. A program so marginal in its effect cannot stand very high in the list of our priorities. Further, it would seem that, within the uncertain state of our knowledge, we cannot say that existing urban centers can absorb 80 but not 100 million persons. If each of our smallest two hundred metropolitan areas took in a half million persons, we could hold the 100 million without any of these areas exceeding

³National Committee on Urban Growth Policy, "Key National Leaders Recommend Large Program of New Cities for U.S." (Washington, D.C.: Urban America, Inc., news release dated May 25, 1969). The story was carried by all major papers on that date; it was based on D. Canty (ed.), The New City (New York: Praeger, 1969).

two-and-one-half million. The argument is further weakened when we examine the growth assumption: our national rate of population growth has declined steadily for the past fifteen years and currently stands at one per cent. At this rate, by the year 2000 the increase will be only 75 million -- 5 million less than the growth allocated to existing areas.

Less crude than the "lack-of-room" arguments are those holding that further growth of large urban areas is inefficient. In brief, such arguments state that urban costs per capita rise with increasing urban size or, equivalently, that marginal costs increase with population.⁴ A considerable literature addresses itself to the shape of this cost curve and the location of its bottom, but has not settled the question of whether costs rise beyond a certain population for a given level of service. Whether they do or not, when the city is compared to a firm or unit of production (as this argument does), an analysis based only on costs is incomplete in its own terms: the objective of a unit of production is to make money, not to save it. The point of minimum costs is relevant only if we assume constant product per inhabitant. It appears that "product" per inhabitant rises faster than "costs."⁵ The situation may be seen in Figure 1, where AP and MP are average

⁴According to this line of reasoning, urban areas grow beyond their least cost point because arriving people or firms pay average costs as private costs in taxes, congestion, etc. These are lower than the marginal or social costs that their arrival imposes.

⁵Costs are traditionally measured by local government expenditures, and these do rise. However, the level of services is not controlled in such crude tests. The cost of living, which is available for the larger U.S. metropolitan areas and which includes transportation, housing, etc., is associated only weakly with population size and shows an extremely low elasticity. For the "product" side, we would like to have gross regional product or value added for the urban areas. This information is not available for U.S. cities, but family income rises steeply with population size, with a far greater elasticity than municipal costs or the cost of living. Fragmentary data for other countries repeat this pattern.

and marginal product and AC and MC average and marginal costs. Let us define net national product so as to exclude such goods and services as travel to work, fire protection, pollution control, etc., which are here viewed as costs instrumental to the production of ultimate consumption or investment. A national objective of maximizing net national product would optimize at the city's population size where marginal product equals marginal costs, if we assume a national labor surplus. If there is full employment, the optimum would occur at the population where the difference between marginal product and marginal cost is equal to opportunity costs similarly defined at another location. If product per capita rises with urban scale, this population level is obviously far higher than that at which average costs are minimized.⁶ The point is that efficiency arguments for diverting growth away from existing urban areas depend upon new towns having a greater difference between marginal product and marginal cost, while in fact the opposite seems to be the case if we judge by existing cities of a size comparable to that of the proposed new towns.

There are frequent suggestions that the new towns would intercept migrants from the rural areas to the large cities and provide a "domestic detente"⁷ to give our metropolitan areas time to absorb, culturally and

⁶If instead of maximizing net national product (which would be a national objective) we sought to maximize the net product per capita in the city (which would be an objective of the city's residents), we would be seeking to maximize the difference between average product minus average cost. This would occur at a lower population level than the national product maximization, but at a higher population level than the point of minimum costs per capita. This can be proved formally, but it is enough to refer to the diagram. The curious point is that, despite the locals' optimum occurring at a lower population level than the nation's, most cities want to grow while many national governments are trying to stop or slow this growth.

⁷American Institute of Planners, New Communities, Background Paper No. 2 (Washington, D.C.: American Institute of Planners, 1968).

economically, their earlier migrants. However, the image of a flood of rural migrants is by now out of date. Migration of farm population to metropolitan areas has dropped to an insignificant trickle, largely because there are so few farmers left. Migration plays a decreasing role in metropolitan growth. Of the 10.9 per cent growth of metropolitan areas during the 1960-1966 period, only 22.6 per cent came from immigration as compared to 35 per cent for the 1950-1960 period. Most of the domestic migration came from smaller urban places, rather than from farms, and migration proceeds upward through the hierarchy of urban places. But beyond this, the picture is very confused. For example, compare the yearly rate of 492,000 migration into metropolitan areas with the rate of 138,000 migration out of non-metropolitan areas and the rate of 377,000 civilian immigration into this country during the 1960-1966 period. I cannot discover an analysis of the interaction of these flows, but these figures strongly suggest that nearly three-fourths of the migratory increase into metropolitan areas is international in origin, and that only 6 per cent of their population growth comes from domestic flows.⁸

Many metropolitan areas are, in fact, losing population through out migration. The cross currents among metropolitan areas may make it difficult

⁸The figures on domestic migration are calculated from data in U. S. Bureau of the Census, Current Population Reports, Series P-25, No. 427, "Estimates of Population of Counties and Metropolitan Areas, July 1, 1966: A Summary Report," U. S. Government Printing Office, Washington, D. C., 1969. The figures on international migration are calculated from data in the U. S. Statistical Abstract. Some uncertainty exists in the analysis. If suburban growth has spilled strongly over the boundaries of the metropolitan areas, as defined by the Census, the real domestic migration into metropolitan areas, which is a net figure, would be an understatement.

to form a clear image. The fastest growing metropolitan areas, and strongest magnets to migrants in proportion to their size, are those between 200,000 and 2,000,000, while those over 2,000,000 were attracting only 0.2 migrants per hundred population per year, and those under 200,000 had net out-migration.^{8a} Nine areas⁹ accounted for 81 per cent of all net migration, leaving an average of less than 500 migrants per year entering each of the others. Or, put another way, twenty-eight metropolitan areas in the South, Southwest, Mountain States, and Pacific Coast accounted for 99 per cent of the net migration.¹⁰

Because the concern with intercepting migrants has a great deal to do with the racial question, some examination of black flow is of interest. Black migration to metropolitan areas during the 1960-1966 period averaged 145,000 yearly -- about 30 per cent of all net migration -- down from a 172,000 yearly rate during the 1950-1960 decade.¹¹ From 1960 to 1966, migration accounted for some 34 per cent of the growth of black metropolitan population, but only 31 per cent of the black migrants (44,000 per year) were from farms. The black population is already far more urbanized than

^{8a}Computed from Current Population Reports, op.cit., p. 5.

⁹Los Angeles-Orange County; New York-North Eastern New Jersey; San Francisco-Oakland-San Jose; Washington, D.C.; Philadelphia; Houston; Miami-Fort Lauderdale; San Bernardino-Riverside; and Dallas.

¹⁰I have taken these figures from a review of such studies in Advisory Commission on Intergovernmental Relations (ACIR), Urban and Rural America: Policies for Future Growth (Washington, D.C.: Government Printing Office, 1968).

¹¹These figures are derived from census population data by applying the rate of growth of all black population to its components and attributing the differences at a later period to migration. This crude technique may understate rural-to-urban migration slightly if rural birth rates are higher.

the white, and the shifting proportions of blacks among urban areas of diverse sizes indicates that, on the whole, they are moving upward along the urban-size hierarchy faster than whites. This is understandable because the percentage of blacks below the poverty level declines as size of urban place increases.¹²

On the basis of this brief review, three questions may be posed:

(1) Is the flow of migrants so large that we should undertake a reorganization of our system of urban places to gain a "domestic detente"? It would appear not. If we exclude the twenty-eight metropolitan areas in the developing and urbanizing crescent from the South to the Pacific States, the other metropolitan areas are either trading already urban migrants with each other or they are trading ex-migrants for new migrants. Black migration from the farms is relatively small and declining, and the other black migration is primarily from small urban places to urbanized areas. (2) If new towns were developed, would they attract these migrants? Again, it would appear not. New towns or even new cities would of necessity be smaller, at least in the beginning, and the pattern of migration, especially for blacks, is away from smaller urban places toward bigger ones. Of course it might be that new towns of extraordinary amenity, offering strong inducements and having a credible guarantee of future size, might succeed in attracting people, but there is no assurance that these arrivals would be the same migrants that are to be intercepted.¹³ Further, it may be that the cost of inducements to effect a geographic shift might be better used directly for

¹²ACIR, Urban and Rural Policies, p. 5.

¹³The British experienced a similar missed population target in their new towns. See B. J. Heraud, "The New Towns and London's Housing Problem," Urban Studies (February, 1966).

the welfare and acculturation of the intended populations. (3) If the new towns can attract population, would they do so in time? From the present stage of vague discussions and the experience of such programs as urban renewal, one may estimate that ten years from now there may be some small beginnings on the ground, and that it would be another decade before the new towns would involve enough people to affect significantly the migration flows to metropolitan areas. Of course, a determined federal government could act much faster, breaking ground within a year and promoting fast growth by hot-house techniques. But this would make extremely unlikely those elements of amenity, detailed programming, technical and institutional innovation, private-public cooperation, and so forth, that are integral to most new town proposals. The dilemma is that quickly-developed towns would be new but not innovative, and a poor magnet for migrants if we are to judge by existing cities of comparable size. On the other hand, innovative new towns would have a long gestation in research, development, and organization. Two decades from now, of course, we shall be far more urbanized; migration to metropolitan areas then will be smaller in absolute figures and quite small indeed as a relative number. Further, it is to be hoped that our national conscience and political necessity will have led us to improve the cultural and economic capacity of those future migrants to a level well above that of today.

A variant of the objective of intercepting migrants for the relief of urbanized areas is the positive statement that industrial new towns be developed in rural areas or other areas of declining employment in primary production in order to provide jobs that offer people a permanent alternative to out-migration from their district. This variant was advanced by the U. S. Department of Agriculture during the Johnson administration under the

label "urban-rural balance."¹⁴ The proposals included new towns, growth centers based on existing communities, and "new communities" that would encompass several counties in ways which were not clear. Although these proposals were not very specific, they apparently called for new towns that would be quite small, just large enough to absorb the district's surplus population. Standardized process manufacturing has been leaving the larger metropolitan areas, moving to smaller ones and cities, but it is doubtful that enough plants could locate in rural surroundings or small towns as would be necessary for such a policy to be effective. Also, because the size of a plant typically increases with decreasing urban size, this suggested pattern would lead to a very large number of one-company new towns under absentee ownership. But, more important, it appears that the rate of out-migration does not vary with local hardship; rather, migrants leave at a steady rate regardless of local conditions, while local conditions affect the rate of in-migration.¹⁵ These findings have strong policy implications. They suggest that population maintenance and jobs-to-people programs, if successful, may in effect bring new people to depressed areas (which are usually labor surplus) rather than retain the original residents who are leaving. It is well known that those who leave these areas

¹⁴See, for instance, Secretary Orvil Freeman's statement in National Growth and Its Distribution, Department of Agriculture (Washington, D. C.: Government Printing Office, 1968).

¹⁵"Geographic Labor Mobility in the U.S.: Recent Findings," Social Security Bulletin, 30, No. 3 (March, 1967), quoted in ACIR, Urban and Rural Areas. See also Ira Lowry, Two Models of Migration (San Francisco: Chandler Publishing Co., 1966), and J.B. Lansing, et al., "The Geographic Mobility of Labor: A First Report," Survey Research Center (Ann Arbor, Michigan, 1963).

are younger and better educated than those who stay behind, so that their departure weakens the local economy out of proportion to their number. Unfortunately, it appears that migrants entering depressed areas are more like the stayers than the movers (older, less educated, and less skilled),¹⁶ so that the newcomers do not replace the qualities lost through out-migration.

It is sometimes suggested that new towns are needed to preserve agricultural land, an argument which derives from the British. But in this country, where historically we have been abandoning agricultural land, the argument lacks force. To accommodate 100 million people at suburban densities (with homes, factories, and so forth) would take about 14 million acres. This is a fraction of one per cent of U. S. land territory (excluding Alaska and Hawaii), less than two per cent of the present area in forests, and less than five per cent of the area in crops. It is also only about one-half the decrease in planted crop acreage that occurred during the 1959-1964 period. The territory to be occupied by urban growth is relatively small, but beyond this one must question whether new towns would take up less space. It is hard to believe that they would. Densities are likely to be low as the American preference for large lots meets low land prices, and most descriptions of new towns stress the land-consuming amenities that will be found there (such as parks, playing fields, artificial lakes). Some designers advocate very high density towns, but it is doubtful that these would prove attractive. Some point out that growth at the margin of existing urban areas overruns some of the most valuable and productive agricultural land; but the value and productivity of this land derives not from its intrinsic fertility but from the more intensive use of capital, labor,

¹⁶Social Security Bulletin, 30, No. 3 (March, 1967).

and other inputs on land valued for its adjacency to urban markets. Growth of existing areas would merely slide the von Thunen rings outward.

Another conservation-of-land argument is based on the sprawl of marginal urban growth. Sprawl is an ill-defined word, referring to a condition characterized by very large lots, or by a ribbon development along major highways, or by the leap-frogging of clustered development which results from speculation. Thus, by thin development or by leaving gaps, sprawl covers more land than continuous compact development. I am unaware of studies showing the extent to which bypassed land is withdrawn from agricultural production; the one study I know of that attempts an economic analysis of how sprawl functions concludes that it may be an effective way of withholding land from premature development at low densities.¹⁷ This depends, of course, on whether growth eventually backtracks to fill in the gaps at higher densities when demand has ripened. My impression is that this does occur, but I do not know of systematic studies of the process. Even if sprawl is dysfunctional, however, it would seem that the effects of redirecting a fraction of urban growth to new towns would be correspondingly small. It would be more effective to use direct strategies based on taxation of land and capital gains, on land banks, on the pricing of public services, and on direct regulation.

A frequent argument for new towns is that sprawl is expensive because of additional utility and street costs. Although the proposition is plausible, studies show these costs to be quite insensitive to alternative forms of

¹⁷R. O. Harvey and W. A. V. Clark, "The Nature and Economics of Urban Sprawl," Land Economics (February, 1965). See also, J. Lessinger, "The Case for Scatteration," Journal of the American Institute of Planners (August, 1962).

development.¹⁸ Even if these costs did vary, they are so small that their marginal changes with urban form would not justify much of anything. For instance, the 1966 per capita expenditures of local governments were \$31 for utilities (including debt maintenance and transit) and \$22 for streets. This point will be further discussed below under control over development.

It is often suggested that new towns will stimulate the economy, presumably by their contribution to demand. Such an argument is often advanced by the very ones who promise that new towns will be cheaper to develop and to run than the corresponding extension of existing urban areas. Such inconsistency aside, if new towns are to be used to stimulate the economy during recessions, their rate of development must conversely be slowed when the economy is working at full capacity. But new towns could not very well be used as a balance wheel for the cyclical control of the economy. Their lead times for decision and for action are far too long, and the success of various aspects of their development depends upon keeping to a time schedule. The heavy front-end investment which characterizes them presents critical cash-flow problems for the private developer, and a slowdown would be disastrous for him. From the public point of view, a slowdown would be extremely costly in terms of the opportunity costs of idle capital.

Most new town proposals stress that they will be as self-contained as possible, providing housing, jobs, schools, and shops for their residents, even when the proposals are for new towns on the edge of existing cities or in central city redevelopment projects (see the passage previously quoted from President Johnson's message to the 90th Congress). The purpose of this

¹⁸For a review of this literature, see J. F. Kain, "Urban Form and the Cost of Urban Services," Harvard University Program of Regional and Urban Economics, Discussion Paper No. 6 (rev.; May, 1967).

closure, often called "balance," is not altogether clear. It seems to stem in part from a desire to produce a sense of community that combats alienation -- this will be discussed later -- and in part from the intention of reducing commuting costs and congestion by reducing distances involved. Two questions may be raised in this respect: (1) Does this make economic sense? and (2) Would it work? As mentioned earlier, the cost-minimizing strategy makes sense only if productivity is fixed; in fact, income and most other measures of material welfare rise strongly with urban size. This is not the place to present a lengthy discussion of the reasons for this rise. They have to do with adaptability and innovative power and, in general, with the advantages of high connectivity for actual and potential interaction within a large system. In these terms, seeking closure at a small scale may economize on certain inputs (such as those of commuting) but result in lower per capita production (and lower disposable income after accounting for commuting costs) as well as the risks of instability and low adaptability which affect small cities. In small cities a declining firm can be a local disaster, new firms are less likely to develop because of the sparseness of linkages, a dismissed worker has fewer chances for reemployment, a boy has fewer career opportunities, a woman fewer choices for shopping, and so on. In short, trying to save on transport costs may be penny-wise and pound-foolish.

But could such self-contained new towns be achieved? It seems to be quite hard. Several of the much admired European new towns, such as Tapiola, have about as many jobs as they have workers, but in fact, residents work outside and outsiders commute to work inside. The British experience demonstrates how difficult it is to keep labor market closure. British authorities have had extraordinary power since, in the face of a crushing housing

shortage, they made the award of housing in new towns conditional on local employment and vice versa. The British new towns still show about the same number of jobs as workers but, after some years, 7.3 workers enter and leave the town in their daily trip to work for every 10 who live and work in the same new town.¹⁹ People seem unwilling to constrain themselves to a localized and therefore small range of choices; they avail themselves of outside opportunities.²⁰ It is extremely doubtful that new towns at all near metropolitan or other urban areas could maintain self-contained labor markets, with their residents making only occasional trips to the larger cities for special services and facilities. Yet, if the new towns are not independent or self-contained, the space that intervenes between them and other opportunities can only lengthen travel and make it more costly. Thus a new town pattern of development might have an effect opposite from that intended, lengthening travel except for those new towns in remote areas which are free from temptation. Yet virtually all our national territory, with the exception of some of our great deserts, is within commuting range of some existing urban center.^{20a}

¹⁹ Computed from A.A. Ogilvy, "The Self-Contained New Town: Employment and Population," Town Planning Review (April, 1968).

²⁰ The probabilistic nature of social behavior where there is choice is well illustrated in such findings as these: at low rural densities, shoppers for a particular type of store break into discrete market areas as deterministic location theory would have it; but at dense urban areas, where more choices are easily accessible, market areas diffuse through each other in accordance with the probabilistic Huff model (B.J.L. Berry, Geography of Market Centers and Retail Distribution [Englewood Cliffs, N.J.: Prentice Hall, 1967]). Ogilvy, "The Self-Contained New Town," finds a similar pattern in the commuting new towners.

^{20a} See, for instance, J.R.P. Friedmann and J. Miller, "The Urban Field," Journal of the American Institute of Planners (November, 1965).

The last two geo-economic arguments can be dealt with briefly:

In the early years after World War II there was considerable interest in dispersing populations in order to reduce potential damage from nuclear attack; some saw a silver lining in such dispersal in that it clearly pointed to the breakup of large cities and the development of new towns across the nation. This line of argument has virtually ceased, perhaps because bigger bombs and ubiquitous fallout would do us all in, whether we were clustered in cities or sprawled out in towns.

Some take up the Henry George argument that, with public ownership of the land retained, fresh starts in new towns would permit society to recapture the increase in land values. The difficulties with the Henry George argument are well known: On the one hand, if land is publicly owned and its price determined by bureaucratic procedures, we forego the cybernetic mechanism of the market for setting prices and, quite possibly, the entrepreneurial search for new uses--a matter of great importance since land rent is primarily a reflection of opportunity costs as determined by alternative uses. On the other hand, ad valorem taxation in effect socializes as much of this value as desired if the land is properly assessed.²¹ It should be noted that this argument is currently a minority one. Most advocates speak of a mixture of private and public participation in which the increases in land value are one of the primary incentives for private participation.

²¹For instance, if the rate of return on a piece of land is \$20, and the discounted value of this stream \$200, the value of the land in the absence of taxes is \$200. A 10-per-cent tax will, in effect, half-socialize the land, driving the money price down to \$100 (the other \$100 of the economic value belonging now to the public sector) and dividing the yearly \$20 equally between owner and government.

III. SOCIAL POLICY PURPOSES

One of the most persistently advanced purposes of the new towns might be classed under mental health. According to this view, the big cities impose role-segmented contacts on people and keep them from knowing each other as whole persons. The bigness and impersonality of the cities prevent people from understanding the forces which control their destinies and result in alienation and anomie, in lonely and joyless lives. The new towns, being smaller, simpler, and the locus of home, school, job, shops, recreation, and social and civic activities, would afford deep and enduring relationships and the possibility of a comprehensible environment in which the individual may participate and which he may, to some extent, control.

Millions of words by thousands of writers dispute this dismal picture of life in the big city and the corollary rosy view of life in the small one. Jane Jacob's picture of ethnic life in the big city makes even the most glowing descriptions of what life will be like in the new towns sound like the atmosphere among strangers in an English railroad compartment. The studies by Gans, Young and Willmott, Fried, White, and others differ considerably from the traditional equating of big city and alienation, which traces back to Durkheim, Mead, and Redfield. On the other side, a far less flattering picture of life in the small city is drawn by Sinclair Lewis, Thomas Wolfe, William Faulkner, Sherwood Anderson, John Cheever, and John O'Hara, among novelists, and Warner, Kornhauser, the Lynds, and others, among behavioral scientists. At the extreme, Oscar Lewis observes that

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. . . interpersonal relations in small peasant societies . . . are characterized by distrust, suspicion, envy, violence, reserve and withdrawal . . . In some villages, peasants can live out their lives without any deep knowledge or understanding of people they "know" in face-to-face relationships.

He contrasts this to the more mature and sympathetic relationships among sophisticated cosmopolitans.²² It appears that the traditional dichotomy between the alienating metropolis and the cohesive small city is a gross oversimplification, and that people can lead alienated or full lives in either place.

How would social life in a new town differ from that in an existing city of equivalent size and, in particular, what would make it better? Unless there is a difference, those persons in the big cities who speak longingly of going to live in a smaller place and those who do not wish to live in a big city may choose from an abundance of small cities without need of building more. New towns might be more beautiful or efficient as physical places, but it would take extraordinary faith in environmental determinism to think that this would affect institutions or life-style to any great degree. Except for an older utopian literature, I can discover no specifics as to the instrumentalities or manner of social change.

New towns present a particular difficulty to those who stress the importance of participation, as can be seen in the policy statement issued by the American Institute of Planners:

Planning with people must be the philosophy of all those specialists --professional planners, developers, builders, and governments--who become involved in new community development. It will cost more and complicate the development process to consult with potential residents

²²O. Lewis, "Further Observations on the Folk-Urban Continuum and Urbanization with Special Reference to Mexico City," in P. Hauser and L. Schnore, The Study of Urbanization (New York: Wiley, 1965).

of new communities and with local residents in areas slated for new community development, but it must be done. Unless the interdisciplinary teams that create new communities make every effort to encourage citizen participation in the development process, the end products could well be sterile academic models instead of dynamic, democratic communities.²³

Aside from the likelihood of higher costs, the great difficulty for participation is that several years of planning and development go by before the new town has any residents. Except in rare cases where a specific group of families is to be transplanted to the new town, there appears to be no manner of participation which would amount to more than a consumer survey. A further difficulty is that new towns are like present space ships. There must be a very detailed plan for the vehicle and its course before the launching, and once under way, travelers can make only limited choices of their own. This accounts for some of the tension which commonly occurs between residents and developers in some of the new towns now under way. The developers struggle to keep control of the nature and timing of the development according to their physical and financial plans, while the residents struggle to achieve the measure of local autonomy which is normal for a city or a town.²⁴

Some associate physical and mental health directly with physical density of population rather than with life-style. This argument derives primarily from the current interest in ethnology, based on concepts of territoriality and personal space, and from findings of the effects of high density on rats, fish, lemmings, and large ungulates. But there is

²³ A.I.P., New Communities.

²⁴ It should be noted that some of the literature on housing indicates that this common struggle against the developer is a powerful force for the cohesion of the residents of large housing projects, but that it ceases to operate after the project is completed.

no direct finding of comparable effects in the case of humans.²⁵ Further, this concern about the noxious effects of high densities is at odds with the concern about low densities through sprawl and with the declining densities of urbanization in general and the central cities in particular.²⁶

It is sometimes suggested that new towns would be healthier in other ways. Walking or bicycling to work is in itself salutary, and would be more so since there would be less automobile exhaust in the air. (One enthusiastic author includes the reduction of cancer among his objectives.) Further, the small scale of new towns and their relative isolation would ease the dispersion of pollution and wastes.²⁷ Such advantages of small places would be shared by the new towns, but a new town policy would affect pollution levels for the vast majority only by the marginal effect of the population diverted from metropolitan areas. In these, the answer would still have to be in terms of legal and technical control of the sources of pollution.

"Social balance" is a traditional objective of new town theorists; it means that new towns shall contain substantial proportions of diverse

²⁵ See G. Rosenberg, "High Population Densities in Relation to Social Behavior," Ekistics (June, 1968); R.C. Schmitt, "Density, Health, and Social Disorganization," Journal of the American Institute of Planners (January, 1966); A.L. Schorr, "Housing the Poor," in Power, Poverty and Urban Problems, ed. W. Bloomberg and H.J. Schmandt (Sage Publications, 1968). A distinction must be drawn between density per acre, which has no observable effect, and housing space per capita, which is associated with poverty and all sorts of social pathology.

²⁶ See, for instance, Edwin Mills, "Urban Density Functions," Urban Studies (February, 1970).

²⁷ Early versions of the purposes of the Minnesota Experimental City stressed the totally integrated control of the environment, including air, water, heat, power, and waste. See A. Spilhaus, "The Experimental City," Daedalus (Fall, 1967).

social, economic, and ethnic groups. In many cases it is proposed that social integration be total within the districts of the town as well as at the level of the town as a whole. However, except for an occasional suggestion such as having a fine-grained mix of houses of different prices, few operational suggestions are available for the success of this policy. Based on past experience, the prospects are not encouraging. Aside from the literature on social stratification of cities of comparable size, studies of new towns indicate that many of the early developments made purposeful exclusions on economic and ethnic grounds. Some recent studies indicate that many people are attracted to new towns in part by promises of planned growth and high levels of amenity, which they interpret as code words for social-exclusion practices.²⁸ At the extreme, some of the "new communities" in major cities are advertising such features as guards, fences, gate check-points, and other security measures. Recent studies of the British new towns, which were supposed to mix social classes, indicate that higher classes have tended to leave the town and that residential areas are differentiating by social class.²⁹ To these social difficulties to the mixing of populations must be added a strong economic difficulty. At present we cannot produce new housing without heavy subsidies for people below middle class. The less affluent are housed in existing cities in housing delivered to them, made cheap by

²⁸ E. Eichler, The Community Builders (Berkeley: University of California Press, 1968), and C.S. Werthman, "The Social Meaning of the Physical Environment," Ph.D. Dissertation, University of California, Berkeley, 1968.

²⁹ B.J. Heraud, "Social Class and the New Town," Urban Studies (February, 1968), and L. Bollwell, B. Clarke, and D. Stoppard, "Social Class in a New Town: A Comment," Urban Studies (February, 1969).

age, by the filtering process of the market. Since new towns would lack a stock of older housing, "social balance" would require very large subsidies. In the balance, since there is no apparent reason to believe that new towns would promote social integration, it seems that some form of "social balance" is a condition for the acceptability of new towns as national policy rather than one of their purposes. Unless this is recognized, there is the danger that satellite new towns may be used by the white middle classes as dormitories to escape from class and racial mixture in metropolitan areas.

One argument for new towns currently in great favor is that they would increase the range of choice of living environments available to Americans. This position holds that new towns would "offer every individual or family selecting a place to live an alternative environment to existing cities, small towns and suburbs."³⁰ It is not clear from such statements what manner of difference is intended. The A.I.P. disclaims size as a difference; New Jersey's Division of State and Regional Planning, Department of Community Affairs, however, favors a new town policy in order, among other reasons:

. . . to provide medium density environments, varying community sizes, and prevention of urban sprawl; . . . the timing or strategy necessary to implement variety of living environments; the active encouragement of living environments for all income levels.³¹

Specifications of the manner of variations are hard to find. Architectural and other physical features might be the principal difference, although

³⁰ A.I.P., New Communities, p. 7.

³¹ New Jersey's Future: Goals and Plans, 1967, quoted in A.C.I.R., Urban and Rural America.

other proposals include a black town (Soul City, North Carolina, proposed by Floyd McKissick), a technological utopia (the Minnesota Experimental City), hippy communes, maximum security developments, and resort towns. Although, of course, those who want to should be able to live in such special settlements, these do not appear to be the basis for a large-scale national effort in the direction of new towns. If, indeed, a basic conservatism on the supply side does not provide some possible types of settlement which many would like, this may constitute a basis for assistance for such latent demand in proportion to its relative size.

Three bases for public assistance seem possible. The first, and vaguest, would be to consider the variety of settlement itself as a merit good deserving outright subsidy. It might be suggested that unusual new towns may be a public good which contributes to the satisfaction of people who do not live there, somewhat as some historic towns do. The second basis would be grounded on the Bernoulli effect on risk-taking. This would attribute the conservatism of the supply side to the developers' diminishing marginal utility of money, which leads them to weigh potential losses more heavily than potential profits. The greater the risk, the lower this subjective valuation of returns on the investment in proportion to their actuarially expected value. Under such circumstances, an insurance program such as FHA might encourage experimentation by leading developers to evaluate risks more nearly at their expected value. If premiums are pegged to actuarial risks, such assistance would not constitute a subsidy. The third basis for assistance would be that certain experiments might lead to innovations that could be applied elsewhere. The expected value of these external benefits would provide the

grounds for subsidy to a group of experiments, with the expectation that the value of the successful ones would cover the cost of the failures. This will be further discussed below.

Although the last two of these bases (the evaluation of risk and the external benefits from innovation) would apply also to innovations in the technology of production which involve no significant changes in product design, the "variety of choice" arguments hold that there are "alternative environments" which we could have and which we would like. In the words of Daniel Moynihan,

What we very much need are some examples. The country really does need to get a few of these things going. Thank goodness, we have a Reston and we have Columbia and we have Hansford, I suppose, and we have Oak Ridge in Tennessee and a few places like that. But by and large these are satellites. I think there is a strong sentiment in this group [the President's Urban Affairs Council] that let us build one of these things and see if we like it. So, people who want another one can say, "That's the one I want."³²

This is a sensible position, but on this basis, the variety-of-choices argument would lead to minimal national consequences in this century because (a) there exist few if any concrete ideas for new towns which differ in significant respects from existing ones; (b) the development of proposals, the construction of the experimental towns, and seeing whether we like them will take a very long time; and (c) if we do like them, then going into production would take even longer.

³² D.P. Moynihan, Press Conference, Office of the White House Secretary, May 22, 1969.

IV. PRODUCTION AND PHYSICAL PURPOSES

Considerations of land use are often adduced in behalf of new towns, and some have already been discussed. Two others will be considered here. The first is the difficulty of assembling large tracts of land on the edge of metropolitan areas, in part because of their fractioned ownership and because of the game-like complexities of speculation. Large tracts may be important to permit both the economies of large-scale construction (of which more will be said below) and certain design features. Therefore, urbanization should be easier where large pieces of land can be put together, presumably at some distance from existing settlements. Most of the earlier discussion of sprawl applies here, and will not be repeated. If there are great advantages to large development tracts, much could be done to make land available at the margin of existing cities through institutional instruments such as land banks, property and capital gains taxes, and public intervention through police powers and eminent domain. Distant locations for the sake of land assembly would bear the cost of weakening or severing social or economic linkages with existing cities. If it is argued that separate and self-contained settlements are in themselves possible and desirable, the easier availability of land would facilitate this development but would not be a justification for it.

The companion argument is based on land prices. Suburban land prices have risen sharply for many years, and it is suggested that development on cheap, distant land would both provide land at less cost to new town residents and discourage speculators at the edges of existing cities.

Again, the lower price for new town residents would facilitate, but not justify, development of new towns. The price of urban land is based primarily on the value of its location by reason of its accessibility. Cheap land will probably be inconvenient land, and might prove to be very expensive in the end.

The picture is complicated if we take speculation into account. The speculative value of land is a discounted future value (modified in complex ways by tax considerations) as perceived by the speculator.³³ The rise in value stems both from the approaching of the future and from reconsiderations of the probable price of the land in the end. The functional consequence of such speculation, if the individual demand for land is elastic, will be a higher density when development occurs. From an efficiency point of view, such speculation is not bad. To consider the distributive point of view, we must distinguish the economic rent of land from its money price. For instance, suggestions that new towns be built on "free" federal land address themselves to the money price. The town would receive as a subsidy the economic value of that land and this value should be counted in the costs of development.³⁴ The purchase at inflated prices of land at the edge of cities for development purposes is a transfer of money, presumably regressive, but it does not affect the economic (or social) costs of committing that resource to that use. It would seem that such a problem of income distribution can best be handled by fiscal

³³I exclude from consideration as unlikely the case in which one speculator corners the market and becomes a monopolist.

³⁴This case presents, however, some pretty problems as to the meaning of opportunity costs because of the legal and political restrictions on alternative uses.

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measures and does not justify a new town policy. Further, it is doubtful that redirecting a fraction of urban growth to new towns would have much effect on speculators or benefit the vast majority who will locate at existing centers.

An irony of the cheaper-land argument is that many of its proponents have argued for urban renewal and zoning on the basis of "highest and the best use," and agreed with the inclusion of the increase in land values in the calculation of benefits from transportation improvements. The issue of whether land costs should be treated as a cost or a benefit is too tangled to try to unravel here. But, on the whole, arguments based on the ease of assembly or cheaper prices are reminiscent of the drunk who, although he had lost his wallet farther up the street, went looking for it under a lamp post because the light was better there. In effect, these arguments favor a fancy kind of sprawl.

Arguments based on the reduction of production costs seem more promising. These arguments seem to break down into issues of scale, of control, and of freedom from constraints. Some proponents suggest that, because of these, development will be cheaper and possibly better in new towns. If this were so, it would be a plus for new towns but, to repeat, since they would involve such a small proportion of people it would not justify a major national effort. To illustrate, if new towns accounted for twenty per cent of all urban growth and they could achieve a thirty per cent reduction in the cost of housing, roads, schools, hospitals, and all other forms of infrastructure, the saving would amount to less than one-fourth of one per cent of gross national product. Arguments favoring new towns have force if they are based on the development of socio-technical

improvements which could be applied to existing cities and their growth.

The arguments dealing with freedom from constraints are basically simple. One says that urban physical development is hampered by a number of institutional circumstances, including local zoning, subdivision and building ordinances, and the practices of building unions organized by craft. Local zoning and subdivision and building regulations are designed to prevent abuses; therefore they are restrictive, negative, and tend to stifle innovation. A new town, if it can be an institutional tabula rasa, could experiment with performance criteria for building and with the clustering and spacing of buildings and land uses. New towns would thus serve as laboratories for urban development and the concepts and modes of its legal regulation. Similarly, the construction industry (especially in housing) is backward, slow to develop and slower to adopt innovation, partly because of management structure and union practices. It is conceivable that considerable reduction in cost could be achieved within present technology if intelligent and well-financed management together with industrially-organized labor were free to do their best. Even more might be achieved if there were technological advances. Conditions seem favorable. Large corporations and other sources of managerial and financial muscle have become quite interested in ventures of this kind. Although labor has not shown itself willing to abandon its restrictive practices, the long-range demand in construction so clearly exceeds the productive capacity of available labor under present practices, that labor might be persuaded to experiment. Similarly, many local governments seem to be searching for more rational modes of regulating development and might be helped along by intelligently designed federal incentives.

Control over development may also have advantages. If the

developer knows the timing, nature, magnitude, and location of the components involved, he will be able to plan investments more intelligently. He will know what roads and utilities are needed, how big they should be, and when they will be needed. Similarly, schools, hospitals, and other facilities could be provided more efficiently and perhaps of better quality. Certain difficulties arise. I have already mentioned the conflict between developers' control and citizen participation. The lumpiness of much of this type of investment might affect the degree of control which can be exercised in practice, and an isolated development would forego the flexibility and economies of marginal increases in the use of existing plant which is available to the incremental development of existing areas. Further, the control may be very imperfect over the crucially important variables of the kinds and numbers of people and industries that arrive and leave. Lastly, the advantages of control will be significant only to the extent that they are transferable to the growth of existing urban areas.

The third major possible production advantage is that of scale. For instance, a town that grew to 100,000 by 10,000 per year would build about three thousand housing units per year. Such rates might make it possible to achieve economies of scale both in production and purchasing, and might permit innovations such as the provision of heating and air conditioning through central utilities. But economies of scale may be of three geographic types. To illustrate, using the housing industry, one type requires a large continuous site, as in a new town or a large subdivision. This was the type on which large merchant builders (such as William Levitt) based their success, increasing construction efficiency by carefully programming a conventional building process. Another type is that found in the prefabrication of entire houses, which, because of

transport costs, have a competitive marketing radius of 200 to 300 miles. The third type operates over a larger geographic range, and applies to prefabricated building components.

The first type of these economies of scale, those that have an effective radius of a few miles, might be further explored in new towns and large suburban developments. New towns may have the advantage of fewer institutional constraints on innovations in design, organization and technology. However, economies of scale in housing based on regional and national markets appear at present to be more promising, and these do not require a large continuous site. Evidence of this is the remarkable emergence of mobile homes, which now account for more than a fourth of all single dwellings produced and are rapidly increasing their share. The growth of this industry is being accelerated by mergers with large corporations, and at present the square foot costs for mobile homes are less than half those of conventional construction, in spite of the furnishings and equipment in the mobile homes. There is increasing recognition of the possibility that the mobile home industry may evolve into a modular housing industry, producing large components which may be combined into free-standing houses or multi-story structures. Most significantly, there is strong indication of increasing returns to scale in that industry: in the past year, production increased by thirty-five per cent while square foot costs dropped by about fifteen per cent.

Many large corporations have become interested in the possibilities of new towns. Although the subject of this paper are the public purposes of new towns, it is interesting to look at the basis of this interest by such potentially significant participants. Some corporations, for one reason or another, have large land holdings, and are naturally considering

going into real estate development to realize the potential increase in land values. Some corporations are interested in the construction side as well. Some are looking for investment outlets for their funds. Some are considering new towns as potential customers for their products, such as consumer durables and power utilities, in the case of certain electrical manufacturers, or as outlets for materials in the case of lumber and aluminum producers. Some are also interested in new towns as potential plant sites. A great many firms with systems analysis experience, principally in space and military work, are interested in developing design and management capability either for their own development projects or as a division or subsidiary to operate as a consulting and management firm.

This list of corporate objectives may exaggerate the clarity with which many corporations are approaching this activity. Quite a few are making only half-hearted attempts, investing less money, time, or talent in this most difficult area than they do to develop a wing section or a timer for a dishwasher. As a result, many of these attempts are naive and indecisive.

The experience of one company has been described.³⁵ In 1966, General Electric announced the formation of the Community Development Division "to undertake land development on a city scale". It was interested in new construction as a market for its products, and, observing that the building industry was fragmented and had inadequate technology, financing, manufacturing procedures, marketing and management, it was thought that "it seemed entirely reasonable that a systematic approach to

³⁵This account and the quotations are taken from G.T. Bogard, General Manager, Community Development Division, General Electric, "Construction Market Development", Remarks at the Utility Conference, Appliance Park, February, 1969.

planning and phasing the construction of a new town from scratch could result in substantial savings in initial capital investments as well as per capita cost of community services. . . . Perhaps such a company as G.E. could undertake the long-term development of a prototype community with so much better master planning and environmental values as to set a pattern for future urban growth. But, whatever was done must be accomplished on a sound basis and return profits equal to or better than the ongoing business operations of the company."

They searched for a site for a town that would grow to 100,000 over twenty years, developed a Critical Path Method for the programming of the operation, studied and compared housing construction technologies, and developed a computer program for financial and market analysis. However, G.E. became discouraged and terminated the operation in early 1969. They concluded that the new town was a high risk operation with a dubious long-term payout. Because of carrying costs, land values would have to double every five years to stay even, and the marketing rate was critical. They anticipated very large front-end investments for the first seven or eight years and profits, if all went well, only in the last seven years of the twenty-year period. To make a project possible, G.E. thought it would need use of eminent domain for land assembly, a tax holiday for the early stages, state legislation reserving for the developer control over planning, zoning, and community services over the twenty-year development period, and state and federal grants and loans for water, sewer, and transportation.

Perhaps the most deep-seated reason for wanting new towns lies in images of their physical form. The new towns literature usually offers photographs of European new towns where the sun always shines, and pervasive phrases such as "alternative environments" appear to have primarily

physical referents. But the specifics of these alternative forms are elusive. There is no dominant school. Some ideas on the Neighborhood Unit group of the nineteen-twenties and thirties appear frequently, such as cluster housing and grade separation of different types of traffic. Other frequent aspects are the juxtaposition of buildings of various types and certain mixtures of land uses which are usually separated in conventional zoning practice. A great many facilities for outdoor recreation are usual. Less frequent ideas include towns of medieval densities and mega-structures, domes over the entire town for climate control, and certain suggestions for transit.

On the whole, the suggestions for technological alternatives seem either minor or undeveloped. The force is in the suggestions for an urban landscape which would be more beautiful and sensually satisfying than the vast majority of our cities and their suburbs. No one can avoid being struck by the aesthetic poverty of most of our urban environments in contrast to our economic and technical power. Other places and other times with a fraction of our resources have produced districts and whole cities whose extraordinary beauty and functional features contribute greatly to the pleasure of their people.

Two causes for the drabness and outright ugliness of much of urban America suggest themselves. The first is that we lack models of possible and superior physical environments, and that we must develop these together with the cultural maturity to adopt them. Most of the physical design ideas which are proposed for new towns apply to their residential and commercial land uses, and most of these could be incorporated into the extension and rebuilding of existing urban areas. This is, in fact, occurring here and there, but new towns might have a powerful demonstration

effect as showcases, both for the producers and the consumers of the urban environment, and assist greatly in the diffusion and acceptance of design innovations.³⁶

The other possible reason for the current environmental drabness is that urban beauty is a public good available without charge and not exhausted by its enjoyment. This presents the usual problems of pricing and incentives for the provision of such goods in a market economy; and beyond these some special ones, such as the joint production of beauty with the other uses of the urban plant, and that not only can we not measure beauty, but that what some see as beautiful, others see as ugly. To a large extent, new towns would substitute developers' control for the operation of the market, and use expert opinion to determine what is beautiful and how much to pay for beauty. In this respect, they would not appear to provide guidelines to existing cities for framing institutional mechanisms to produce urban beauty as a public good.

Lastly, a most traditional argument is that new towns, simply by being small, would provide their residents with ready access to open land. By contrast, a resident of a large metropolitan area may have a long ride to get out of the urbanized area if he has a car, and he may find it hard to do it at all if he is poor and has no car. This distance from open land may be psychological as well as, or instead of, functional. A resident in a large metropolitan area may feel that developed land goes on virtually forever in all directions, and may suffer a form of claustro-

³⁶It should be noted, however, that Columbia, which is in most ways the most successful current American new town, consciously chose architectural conservatism to avoid the joint risk of innovations in mode of development and architectural style.

phobia. Although the restoring powers of contact with nature are an important motif in our culture, a question must be raised of the meaning and functions of different types of open land. An urban park, a regional park, agricultural fields, and untrammelled nature may all be colored green on a land-use map, but they are quite different from one another as potential places for recreation and contacts with nature. One would have to attach extraordinary importance to immediate access to agricultural land to advocate a new town's policy on this basis. This type of concern would rather point in the direction of increasing the provision of parks in urban areas and facilitating access to them and to other forms of open land.

V. CONCLUSIONS

On the whole, a national policy of settling millions of people in new towns is not likely to succeed, and would not advance the national welfare if it could be done. The principal flaw in new town proposals lies in an underestimation of the social and economic integration and connectivity of a modern society, which is expressed in the complex reticulation of functional areas and the counterpoint of centers and sub-centers which constitute a metropolis. This complexity allows specialization and complementarity; its fluidity makes it capable of producing innovations and accepting change; and its ambiguities permit it to encompass the strains and inconsistencies which inevitably accompany change. We may be vexed at the inertia of this system with respect to its many grave problems, such as pollution, massive segregation, and ugliness; but new towns, with their stress on diverse "balances" seem to fall into a deterministic fallacy which, under the guise of increasing choice, would reduce it in nearly closed subsystems of too small a scale. It is curious that an idea

which has most of its roots in humanism should take such a materialistic form, basing itself largely on reducing the cost of infrastructure and on physical environmental determinism, and slight the importance of freedom under uncertainty and of communications and interaction in a society based on information.

A particular form of myopia of new town proposals might be called the "developer's complex". This bases decisions about urban development on the costs and returns of land and infrastructure. The annualized stream of these costs is a small fraction of the economic magnitude of an urban system, and the cost advantages that might be possible under one or another physical scheme a fraction of that fraction, insignificant in terms of the potential variations in social and economic benefits.

Another form of myopia, which this paper has shared in the interests of brevity, is to regard the system of existing metropolises as one that grows only by proportional expansion, ignoring the continuous processes which create urban novae. Washington, Dallas, Los Angeles, Chicago, and many others, have risen in the last century to join the constellation of large urban areas, absorbing in their growth larger shares than those proposed for new towns and new cities. This crucial aspect of national urbanization differs from the new town proposals in that the growth occurred because it wanted to be there, not because it wanted to get away from something.

I have tried to distinguish between a new towns policy which aims at housing a substantial portion of the population (with which I do not agree), and a policy which makes use of new towns for testing or exhibiting innovations which might be adaptable to existing cities or novae in their expansion. A policy of using some new towns as instruments for increasing

knowledge seems indicated on a number of grounds; but it should avoid both the extremes of the mindless advocacy of diversity for its own sake without regard to cost and expected benefits, and the extreme of support of redundant experiments which do not contribute to knowledge. Experiments in new towns should be carefully selected to fulfill certain requirements. The first is that the findings be transferable to other areas. The second is that the experiment must be a reliable indicator of the likelihood of success or failure of further applications of the innovation. The third is that the findings be available fairly promptly: the value of the expected findings must be discounted with respect to the time of their availability. In addition, there must be the careful technical and institutional provision for objective reportage and evaluation, and only those experiments must be undertaken where there is the political will and means to learn from the findings, be they failures or successes. Virtually all of the value of today's experiments is undermined by the hyperbole and puffery of most new town advocacy, which in effect conceals what we might learn.

Because this analysis has been to a large degree an attack on new town proposals, it is necessary to make clear that it is not an attack on the definition and rationalization of our urban policies. Much is needed to improve the match between people and jobs, at the interregional level balances and at the level of the internal structure of metropolitan areas. We need housing policies and programs that include the break-up of the exclusionary suburban local ordinances and the lowering of the economic costs of housing production, and an incomes policy to go with it. We need territorial and functional redesign of local government, fiscal reform, and new institutional bases for the participation by individuals

and interest groups in the decisions that affect them. We need policies and programs to deal with pollution, with urban transportation, with sprawl, with ugliness, with parks, with education. In particular, I have not argued against improving the way in which we rebuild and extend our urban areas, nor against large projects. This paper is only an argumentation of one side against another on one particular issue of national urban policy. It is based on the judgement that even if new towns turned out to be wonderful places, this would be almost irrelevant to our present urban problems, and that as sirens of utopia they might distract us from our path.

END

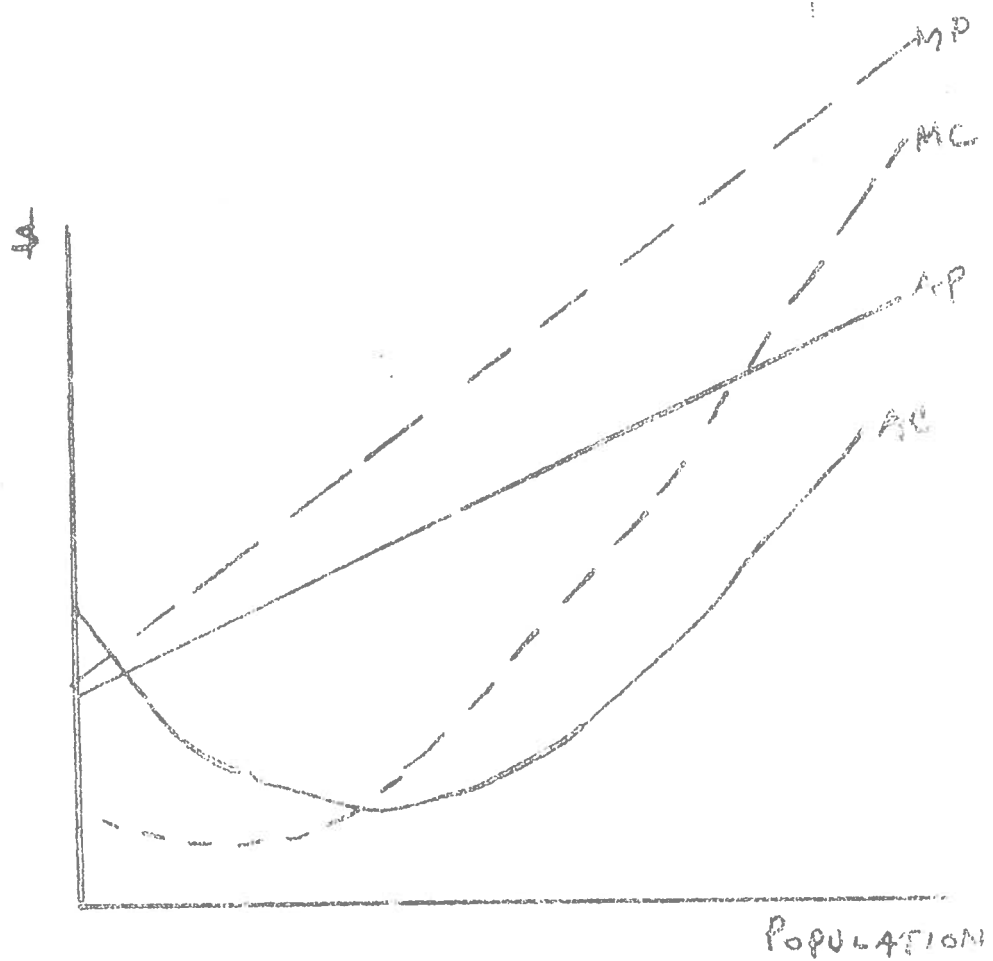


Figure 1. The city as a unit of production.

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