

Open Space Control

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● THE URBAN EXPLOSION is challenging old measures for controlling land uses. Farms and villages disappear. Towns and cities are joined to become metropolitan complexes. Open spaces melt away. The future threatens a vast megalopolis reaching from Augusta, Me., to Richmond, Va.

Growth is often haphazard. Its hallmarks are scattered building developments and dreary miles of monotony. In some metropolitan areas, development is scattered over vast areas. Fertile farmlands are prematurely subdivided. A large acreage remains undeveloped in small, idle patches. Sprawl increases the cost of public services; breaks up land holdings into parcels that are not usable for parks, schools, and related public purposes; augments right-of-way problems; inflates costs; and breeds traffic congestion.

CHANGE, GROWTH, AND LAG

Causes of the problems can be indicated with three short words: change, growth, and lag. To be more exact, there has been a technological revolution, a population explosion, and an institutional lag.

Good roads and cars have cleared the way to the countryside. Federal mortgage insurance has assured a home there for millions of families. The telephone, radio, and T.V. have ended rural isolation. Electric power, household appliances, and the short work week have given time for country living.

At the same time, electricity and motor trucks have permitted factories to locate in rural places.

Second, there are more and more people and they have been moving to the countryside. Since 1940, the rural nonfarm population of continental United States excluding Alaska increased by approximately 27 million people. These are the people who live on the urban fringe, in unincorporated villages, and scattered over the open country, often out among the farms.

The rate of growth has not declined. Population projections for 1975 and for the year 2,000 seem fantastic. Census estimates for 1975 range from 207 million to 228 million people. Estimates of the Social Security Administration for the year 2,000 range from a low of 261 million to a high of 361 million.

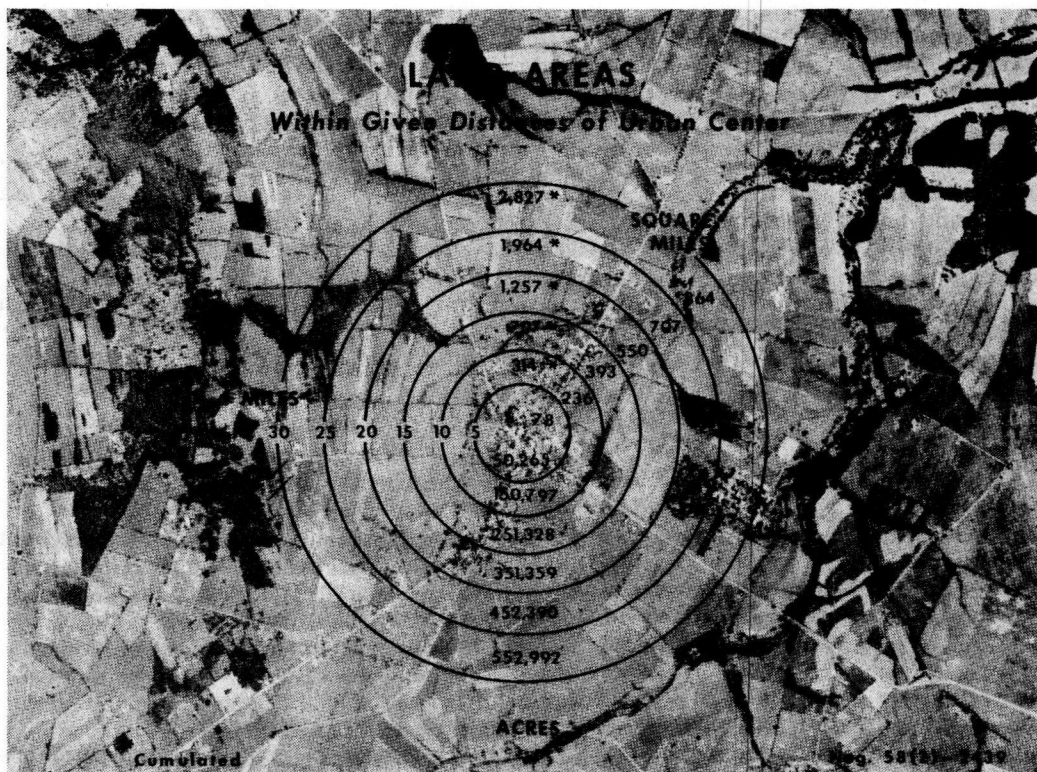
The third cause is institutional lag. The suburban explosion has rolled too fast. It has been too far-reaching. It has overwhelmed local government, both urban and rural. Making adjustments to changing conditions takes time. It takes time to change long-cherished points of view; to reshape local governments; to expand governmental activities and services; and to provide the tax funds needed.

Capping the shortcomings of local government in fringe transition areas is the shortcomings of planning, especially for the long term. Both the physical plan and the land-use plan are neglected. The urban explosion demands space for living, for working, for transportation, and for other uses. Without a guiding master plan, it uses space haphazardly and lavishly. Future rights-of-way are preempted; potential park lands are covered with houses. Backyard-oriented suburbanites have little money for parks and other open spaces so long as tax funds are needed for schools and roads; besides, woods and farms can still be seen in the distance.

LAND RESOURCES ARE AMPLE

There is ample room for urban growth with open spaces included, if the land is used wisely. Land requirements of urban areas are less than 2.5 sq mi per 10,000 people. That is the national average. Suppose a half-section is added for suburbia (3 sq mi). A different yardstick may be suitable in your community (1).

A circle extending 5 mi from an urban center contains nearly 78 sq mi (Fig. 1). Assuming that the entire area is suitable for development, there is space within the 5-mi circle for 260,000 people.



CONVENTIONAL WAYS OF RESERVING OPEN SPACES

Two conventional techniques, for reserving open spaces are (a) by acquiring title to the land through purchase, gift, or otherwise; and (b) by exercising community zoning powers. A third and new technique is by acquisition of development rights in the land reserved (2).

Acquiring Title

Land for service, except for watersheds, is usually public owned. Local, State, or Federal tax funds are used to acquire title, except for occasional donations by reluctant subdividers and by generous citizens.

Parks are usually given a low priority by backyard-oriented suburbanites and by all levels of government.

Large parcels are often needed to structure development. An unusual example is the sprawl-checking greenbelt of 37,500 acres that will circle Ottawa, Canada. The price tag for the land titles must be high. Could a similar job have been done with zoning?

Zoning

Greenbelts comprised of some 50,000 acres have been set aside by zoning in Santa Clara County, Calif. Exclusive agricultural zoning districts, for farming and related uses only, were created. Similar districts have been established in other counties.

Are these agricultural greenbelts likely to last and continue to structure development over the long term? The exclusive agricultural zones were created after petition by farmers. They can be abolished in the same way. The future will bring pressures — tax, economic, and other — that may be reflected in zoning amendments.

Nor can the community save its greenbelts by rezoning them for parks or reservations. Such action would constitute a taking of private property for public purposes. Zoning merely regulates the use of land and buildings. It is legally charged with preventing harm to neighbors by keeping apart land uses that conflict.

An understanding of zoning principles and practices by highway officials and engineers is desirable. In many ways zoning can have a major bearing on their problems. Zoning ordinances, for example, may establish separate zoning districts for various land uses — agriculture, residence, business, industry, forestry-recreation, etc. These districts will have differing population densities and/or traffic-generating propensities.

A recent traffic study in the Detroit metropolitan area (3) found that an acre of residential land generates an average of 29 trips per day. But the average per acre was only 14 person-trips per day in the residential suburbs more than 12 mi from the city center.

The over-all average for commercial areas was 268 daily trips per acre. In fringe commercial areas, however, the daily average was only 182 trips per acre. The average was much lower for fringe industrial areas. These generated only 8 daily trips per acre.

Population densities in residential districts can be materially influenced with zoning tools. With building-tract regulations, the size of lots, yards, setbacks, and coverage by buildings can be controlled. With building-size regulations, the height, number of stories, and bulk of buildings can be limited. Large building tracts, large yards, and low coverage allowances result in lower densities of population, whereas smaller tracts, smaller yards, and greater track coverage permit higher population densities.

Large-lot zoning will produce open space of a kind but may induce sprawl.

Two other zoning tools are of special interest to highway people. One is zoning regulations that require buildings to be set back stated distances ranging from 20 to 60 ft or more from the right-of-way line. Deeper front yards are sometimes required along primary highways than along secondary roads. A reasonable setback reduces the noise, dust, and gas fumes that can reach the house. It promotes health and safety. That is its legal justification. Other benefits are permissible but legally incidental. Requiring an unduly wide setback to provide open spaces or to save right-of-way funds at a later time, when roads are widened, rests on dubious legal grounds. Both have the semblance of an uncompensated taking of private property for public purposes.

Detroit caused the open-space problem. Will it also provoke a solution? Perhaps in the near future with a new gadget, Detroit will cause conditions that will provide the basis for legally justifying much wider setback lines. Air cars that rise from ground or river on streams of air ejected under pressure from below are in the offing. Wider setback lines (open spaces) may then be needed for reasons of health to avoid the resulting dust. The same jets of air forced into foul waters may help cleanse our polluted rivers.

The other zoning tool mentioned earlier is the "special use permit." Extreme traffic-generating land uses such as outdoor theaters, and perhaps shopping centers, among others, might be located only on obtaining a special permit. Thus, aggravating traffic problems might be avoided.

Special-use permits are valuable also for influencing the location of large space-using activities, including institutions, cemeteries, and airports. A most neglected way of reserving open spaces and also avoiding grievous losses is by zoning hazardous flood plains so as to exclude damage-prone urban-type development.

The Dilemma Remains

Such in brief review are some attributes of the two conventional ways of reserving open spaces. One involves public ownership of land; the other involves public regulation of private land uses. Both methods have their advantages and grave limitations.

Reserving open spaces by acquiring title to land usually requires tax moneys, which may be in short supply. That is the big hurdle. Land prices are high. Also, there are confused objections to the resulting reduction of tax rolls. Moreover, hearty support for parks is received from only a limited cross-section of interest groups in the community.

Relying on zoning for reserving open spaces has its hazards too. Zoning regulations are usually applied by the local community; but the benefits from zoning may accrue largely to nonlocal people. Zoning districts may be created for various land uses with differing population densities and traffic-generating propensities. But zoning barriers of low-density districts may soon be swept aside by tax pressures and by economics. Traffic congestion increases and community problems multiply.

The dilemma has prompted a searching for new legal techniques for reconciling private and public interests in land in ways that promise reservation now of open spaces for the future. A technique is needed that will encourage and facilitate the provision of open spaces by private individuals and by private, public, and quasi-public agencies; that will gain support from diverse interest groups in the community; and that will require fewer immediate tax dollars.

SEPARATE DEVELOPMENT RIGHTS AND KEEP THEM UNUSED

To help achieve these goals, it has been suggested that certain rights, called development rights, in suitable lands might be separated from remaining rights; that the development rights — the right to develop for subdivision, business, or industry — might be transferred for appropriate consideration, or by gift, to public or quasi-public agencies or foundations to be held in trust for open spaces; that all remaining rights in the land, including agricultural, might remain in private ownership and also on local tax rolls.

By not exercising the development rights, the land would be kept open.

An open-space program might begin with the acquisition of development rights in fertile valley lands near expanding cities. Both flood-free lands and those that flood periodically might be included. Similar rights might be acquired later in other fertile acreage, farms, or forests, in the path of urban expansion. The farmers who dispose of their development rights could continue to farm their lands as before. Fertile soil, therefore, would remain in agriculture. Land might be selected so as to structure development and separate cities and their satellite communities with agricultural greenbelts.

Acquisition of development rights in lands of suitable location would be facilitated by an exercise of the powers of eminent domain.

OPEN SPACES CONFER MANY BENEFITS

Open spaces are multiple-benefit resources. The legal techniques used in reserving open spaces — by zoning, by acquiring land titles, or by acquiring only the development rights therein — will foreshadow future land uses. In turn, the uses made of open spaces — for parks, or forest reservation, or for agriculture — will determine the number and kinds of benefits that accrue, and their incidence. Benefits may be largely urban, largely rural, or both. Benefits from some parks, for example, are mostly urban. But a comprehensive open-space program for the future that promises to succeed will need to gain favor with diverse groups in both town and country.

Agriculture-Oriented Benefits

If a program of open-space reservation is carried out by acquiring development rights and the land remains in agriculture pending use for public purposes, both rural and urban people will gain. The benefits that will go to farmers who work the land may be divided three ways — between ownership, management, and labor.

Benefits that accrue to agriculture-oriented business and industry from maintaining the community's productive agricultural base are often overlooked. A century ago farmers wanted little from the city. Few off-the-farm supplies were needed to grow a crop. Processing also was done largely on the farm with family or home labor.

It is different today. In this day of agri-business, the farm plant is coupled with much that is found in the city. Urban business enterprises that are agriculture-oriented to the greatest extent are farm supply and service firms, marketing outlets, and processing industries. Farmers buy hay, feed, seed, fertilizer, sprays, farm machinery, gasoline, lumber, crates, and hundreds of other items. They sell their crops in the city. Processing, depending on the crops grown, is performed in town in a variety of factories — canneries, freezers, packing plants, creameries, cheese factories, cold storage plants, warehouses, etc.

Urban-Oriented Benefits

Other benefits from open spaces that remain in agriculture will result to urban people generally and to the community. Foremost among urban-oriented benefits are those that structure development. Open-space reservations can break up continuous urban development, prevent cities from growing together, provide greenbelts between cities, and buffers between zones, separate neighborhoods, and provide major disaster firebreaks. Providing major open-space reservations is likely to be too costly, unless new legal techniques are developed that will induce landowners to keep their lands in agriculture or forestry.

The same open spaces of green fields and trees will prevent continuous ribbon development and urban monotony, lower over-all population densities, and reduce pressures on travel arteries and on other public facilities. Other benefits may accrue from reducing runoff, avoiding flood damages, reserving natural storm drainages, protecting watersheds and wildlife, and from an avoidance of sprawl-inflated costs of public services. There may also be benefits to consumers from local food production and there may be aesthetic values that accrue to urban people generally from reserving some natural countryside. Attractive agricultural greenbelts will enhance values of adjacent residential properties.

Finally, the community may gain from later acquisition, as land is needed for parks, playgrounds, rights-of-way, and other uses, of the remaining private rights in the open space reservations.

ASPECTS THAT NEED FURTHER STUDY

Reserving open spaces for the future by use of the development rights technique is a relatively new proposal. Much research is needed on insufficiently explored aspects, including areas in economics, law, taxation, planning, and administration.

Economic Studies

Many benefits have been mentioned, both urban and rural, that will occur from reserving open spaces for the future. Some of these benefits will begin when the program starts and as it progresses. Other benefits will be deferred until the near or even the distant future. Some benefits will be realized by present and/or future landowners. Other benefits will accrue to the public and community at large. Some of the expected benefits can be measured readily in dollars and cents with present economic techniques. Other benefits and values are difficult to quantify but are equally important to the community and its people.

Involved also are costs, present and future, direct and indirect. There are the initial costs of acquiring development rights, plus interest for successive years, plus losses of tax revenues, if any. Other possible costs include loss of income from keeping land undeveloped; outlays for additional road mileage; and increases in transportation costs.

Other economic studies might be concerned with valuation of development rights in various commuter time zones and at several ad valorem tax levels and with valuation of the remaining rights in the land under various permissible land uses.

Finding Legal Solutions

Many challenging problems remain for legal scholars. Development rights comprise only an important few of the total bundle of rights in land. Just what are their legal characteristics? Are development rights comparable to some existing legal device? For example, are they akin to easements, perhaps negative easements, either appurtenant or in gross? Are they more like restrictive covenants? Or, is one dealing with a new kind of contractual restriction or agreement with unfamiliar legal characteristics?

Are questions of legal devices largely semantic confusion? Are existing legal techniques adequate, perhaps with some reshaping; or are new legal devices needed to do a new job well? Custom-made legal devices may have advantages in some circumstances, including (a) overcoming certain constitution tax hurdles at State levels; (b) obtaining exemption of development rights from ad valorem taxation; (c) facilitating transfer, ownership, and protection of development rights; and (d) avoiding legalistic wagon ruts that may lead the wrong way.

The California legislature has allowed wide room for experimentation. It has granted counties and cities a large choice of legal devices for reserving open spaces. In 1959 the legislature declared "...that any county or city may acquire, by purchase, gift, grant, bequest, devise, lease or otherwise, the fee or any lesser interest, development right, easement, covenant or other contractual rights..." that is necessary for the preservation of open spaces, including purchase of the fee and then conveying or leasing the property back to the original owner or to others with limitations on its future use. (West's Annotated California Code, Government Code, Vol. 32, 1959 Cumulative Pocket Part, sec. 6950-6954. Added by Stats. 1959, c. 1658, sec. 1.)

Tax Problems

First among some vexing tax problems are provisions in many State constitutions that require assessment and taxation of all property to be based on fair market values. These constitutional provisions may be decisive if they are construed to require ad valorem taxation of open spaces that have been reserved either by using the development-right technique or by using other legal devices. The legal technique that is employed may be significant in overcoming these constitutional tax hurdles.

A practical solution may be to exempt from taxation all development rights that are held in trust for open spaces either by public agencies or by public or private foundations.

Tax studies are needed of development rights from two viewpoints: (a) that of the community which receives the appreciated development rights in return for a downpayment, plus annual taxes foregone, which would have increased over time as development rights appreciated in value and as tax rates increased with progressing urbanization; and (b) that of the landowner who receives the downpayment, which he can reinvest, and

who also has the use of land as permitted under the rights retained, without liability for ad valorem taxes on the transferred development rights.

Other tax aspects concern income taxes payable on sale of development rights. Also, tax studies might explore the comparative impact of open spaces in various uses on assessed valuations of selected areas.

Providing Planning Criteria

Research might also be concerned with providing criteria for selecting appropriate locations for open-space reservations. Here again, there are many problems. Maximization of benefits, both urban and rural, from open spaces is a sound objective. But the selection of sites will need to be guided by cost considerations. In this connection, studies of the value of development rights in alternative locations, as was mentioned earlier, will be helpful. Acquisition costs may not be excessive if the community plans far ahead.

Collateral to questions of "where" and "when" are questions concerning "how much" open space. The latter questions are related to the purposes of open-space reservations — for services, to structure development, to separate cities, etc. Automotive transportation at low costs and high speeds have outmoded old yardsticks. The future may bring transcending transportation innovations.

If the purpose of open spaces is to separate cities, and the reservations consist of fertile lands that remain in agriculture, the areas reserved might be large. Selection of the location and size of open spaces will need to be guided by their purposes, uses, and cost.

Administrative Aspects

There remain many vexing problems concerning governmental and administrative aspects of open-space reservations whether effected by use of the development-rights technique or by use of other legal devices. What level of government — local, regional, State, or national — promises to do the best job of administering development rights? Where will the purchase money come from? Might existing foundations be interested, perhaps on a pilot-area basis, in acquiring and holding development rights in trust as open spaces? Or should special local foundations or authorities be organized and empowered to acquire development rights by purchase, grant, gift, devise, or otherwise, and to accept donations of private or public funds?

There remain questions regarding citizen acceptance of a divided public-private ownership of land. Will the probable lower costs involved in acquiring development rights compared with costs of fee interest in land, plus retention of remaining rights on local tax rolls, be ameliorating factors?

A new transportation technology allows cities to sprawl far and wide over the countryside. New legal techniques are needed to help contain that sprawl and allow cities and farms to flourish side by side.

REFERENCES

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