

ORCHESTRATING REGULATORY TECHNIQUES IN
A STRATEGY FOR MANAGING THE URBAN SPATIAL
ENVIRONMENT TO ACCOMMODATE DEVELOPMENT
WHILE PRESERVING NATURAL LANDMARKS

Romin Koebel

Department of City and Regional Planning
School of Architecture
College of Engineering
The Ohio State University
Columbus, Ohio 43210

Abstract

Leapfrogged over initially, Glen Echo Ravine, an interstitial natural area in Columbus, Ohio now faces development pressures. Plans for a superstore precipitated a minor crisis because of the inherent destruction of the scenic landmark. Close-in natural areas ought to be protected; development plans should capitalize on such assets. A prototypical growth management strategy is proposed in which development rights transfers, zoning and urban renewal are orchestrated to achieve major mixed-use development centered on the open space which is preserved. Topographical irregularities and breaks are linked phenomena. Analysis further corroborated Clay's finding of a frequent correlation between blight and breaks. The strategy exploits this circumstance. The city acquires suitable properties, draws up a development plan and designates a development rights receiving zone. Development allowed by right is pegged sufficiently low to induce additional demand. In fact, to be in conformance with the envelope plan, developers must acquire additional development rights. The natural area, designated as an exporting zone, furnishes the supply. Key to the scheme's success is voluntary landmark owner participation. Owners have several options. Rights may be sold to developers in the receiving zone or to the city, for banking. Moreover, receiving zone sites are made available at favorable terms, thus permitting owners to participate in "a piece of the action", a particularly powerful incentive, since owners can now participate directly in the growth of area values attributable in large measure to the preservation of the natural asset, the preservation of which they have made possible through participation in the scheme.

INTRODUCTION

By enhancing environmental quality, amenity and area ambiance, natural areas and open space make cities better places to be in. In the past, cities have made major efforts to create open space: Georgian London has handsome residential squares, while in Paris Renaissance plazas supplemented urban squalor. Recently, provision of open space has figured

prominently in strategies to rehabilitate the quality of the environment. Striking examples are Boston's Government Center Plaza and Lower Manhattan's Chase Manhattan Plaza which restored investment builder confidence and triggered dramatic economic revival. As rehabilitated structures and new private-by-financed construction quickly surrounded the new spaces carved out of the existing urban fabric, real estate tax revenues soared.

Many cities are endowed with a legacy of natural areas, close-in and surrounded by development. Leapfrogged over in earlier waves of urban growth, unusual topographical features remained islands of green. As development pressures mount, such difficult-to-develop urban natural landmarks are now the target of developers. Such natural areas, however, constitute a major asset, and consequently the question arises: how can the destruction of privately-owned natural areas close-in be averted, while at the same time meeting demands for development? A workshop at EDRA 10 was structured around the experience with a ravine area in Columbus, Ohio. A principal objective was to seek to devise a model for a course of action on which substantial agreement might be reached between: citizens concerned about the natural environment; the city interested in a strengthened tax base; and owners of urban natural landmarks.

THE GLEN ECHO RAVINE CONTROVERSY

The controversy over plans for development at Glen Echo Ravine provides a basic illustration of the range of issues involved. The controversy revolves around a proposal for a "superstore" which entailed creating a large tabletop flat site by filling in a scenic ravine.

The Context

Deeply indented in the bluffs above the meandering Olentangy River, the ravine had once been part of a park. Over the years the surrounding area has experienced substantial change, yet the goal of developing the southern portion of Olentangy Park - with the ravine - has remained an elusive one. Although there has been no death of plans, development has thus far been deferred. In no small measure difficulties were attributable to the unusual configuration of the topography. Columbus is characteristically quite flat. Developers preferred level sites between ravines.

At the turn of the century, Glen Echo Ravine, a drainage tributary to the Olentangy River to the west, marked the city's northern limits; it bisected North High Street, a main growth axis. Here, at the end of the line, street cars used to turn around. Today, the ravine

R. Koebel
ORCHESTRATING REGULATORY TECHNIQUES IN A STRATEGY FOR MANAGING THE URBAN SPATIAL ENVIRONMENT TO ACCOMMODATE DEVELOPMENT WHILE PRESERVING NATURAL LANDMARKS

M-ES

heralds the entry to Clintonville. In former years an outing to Olentangy Park, an amusement park at the end of the street-car line, was a popular event. But with the advent of the automobile, recreational tastes changed; as mobility increased, dependence on the street car decreased. With the disappearance of street cars, the commodious car-barns were supplanted by a string of service stations, now seemingly, increasingly under pressure from fast-food franchisers. A community shopping center replaced an ice cream plant east of High. North High School, the area's major institutional land use scheduled to close. Located to the east of High and immediately to the south of the ravine it occupies the site of a former brick plant. At a busy High Street intersection, a used car lot is to be converted to a mini-park. As new demands are felt and existing uses become obsolete, the image of the area is gradually transformed.

As High Street became more intensively developed, developers switched their attention to the ravines bisecting High Street. Thus, at Glen Echo, the stream in the ravine bed was enclosed in a culvert and the embankment widened to accommodate new building sites. Conventional strip development remained the prevailing model.

In the thirties with changing recreational tastes and Olentangy Park popularity waning, a civic minded local entrepreneur acquired the site with a view toward developing rental housing. Inspired site planning took full advantage of the site's assets: the ravines and high bluffs, the meadows and woods a distinguished site plan resulted. Three and four story buildings were laid out to form a sequence of court yard like spaces. Although the apartment complex was an instant success, only the first stage of the plan on the level northern part of the site was implemented. The master plan had envisaged continuation of the urban design theme with housing wrapping around the ravine and even a bridge across it. The site's zoning classification - apartments - is a reminder of the original intent.

The Threatening Ravine

Plans for the "superstore" caused widespread concern; the scheme entailed destruction of a distinctive landmark. By filling in the ravine a table top flat site was to be created with parking space for more than 500 cars. In order for plans to go forward, a zoning change to commercial was needed. Opposition to the scheme was led by an alliance of concerned citizens. "Citizens Against Glen Echo Rezoning" conducted a vigorous campaign to overturn the commercial rezoning which City Council granted in January 1978. In a city-wide referendum the rezoning was decisively rejected; zoning reverted to its previous residential classification.

Subsequently "Citizens Action on the Glen Echo Ravine", as the group now called itself, opposed a scheme for housing at the ravine's

southern edge. C.A.G.E.R. took the view that such housing would be visually intrusive, would cast long shadows and upset the fragile ravine ecology. Moreover it would block views and be a barrier to access to the ravine. Interpreting the substantial majority by which the commercial zoning designation had been overturned as a decisive reaffirmation of conservation goals, C.A.G.E.R. advanced plans for a "passive" park for use primarily by the elderly. It was to include a bird sanctuary, nature trails and scenic outlooks. The housing scheme, however, would have precluded use of the South Meadow as part of the park, the inclusion of which was considered essential. Instead, C.A.G.E.R. advocated extending Olentangy Village southward. Neither proposal was acceptable to the owners. After dickering with the proposal for housing south of the ravine, the owners finally decided not to relinquish control of this strategic part of the property. Nor were they willing to sell the ravine itself for use as a park. However, they did make known their intention not to proceed with any development until a master plan had been drawn up. Such a plan would respect the ravine; the days of filling the ravine were gone it was assured.

The Challenge

The Glen Echo site poses a definite challenge. Approaches based on piecemeal development or on filling the ravine fall short of the goal of optimizing the environment. Intensive development at Glen Echo could adversely affect maximization of area-wide development potential by preempting opportunities for subsequent schemes capitalizing on the presence of open space. Various expenses have been cited that suggest the city stands to reap greater real estate tax revenues where new development benefits from the presence of open space; prospects of superior locational and environmental attributes would serve as strong incentives for area wide revitalization. In view of the enhanced potential for achieving a substantially expanded tax base by pursuing an area-wide policy, limited intensive development might well be shortsighted. The scenic asset should be an integral component of the land use pattern.

BREAK ANALYSIS AND THE MANAGEMENT OF THE URBAN SPATIAL ENVIRONMENT

Grady Clay, observing the American cityscape in new ways has called attention to the significance of breaks. Breaks form psychological as well as geographic barriers. Break analysis may yield valuable insights: in addition to helping further an understanding of the evolution of an area's spatial pattern, such analysis may point to new directions for future planning. Important recommendations for alternative courses of action may result.

Breaks: A Definition⁽¹⁾

Breaks, abrupt visible switches in the direction and/or design of streets, occur where a new gridiron clashes with an earlier one, especially where the pattern shifts diagonally or where a gridiron of streets laid out on flat land encounters a topographical irregularity such as a steep hill or a valley. Original grids typically paralleled a bridge, a town landing, or a railroad. They were, however, rarely large enough to accommodate growth. The geometry of late-coming grids typically clashed with that of the original grid. Many landmark buildings are located at visually prominent and highly accessible break locations. Conversely, breaks can be uninviting. They may reveal unsightly views of buildings, be difficult to negotiate and disruptive to circulation. Such fracture zones may be slow to develop. They may also have a blighting influence and as such be sought as sites for urban renewal or freeways.

Breaks and the Metropolitan Spatial Pattern: The Experience of Columbus, Ohio

In Columbus, Ohio, the configuration of the watercourse system and its associated landforms profoundly affected the evolving spatial pattern. The original grid, aligned at a right angle to the bridge across the region's principal watercourse and offset from the principal points of the compass, established the directions of High Street and Broad Street, the region's two main growth shapers. Initially, these areas, intersecting at right angles, governed the alignments of new plots such as that of outlying North Columbus with its skewed grid of small square blocks taking its directional cue from North High Street which it straddled. As growth continued, however, new development began to be aligned to the all-embracing national grid. Older pockets of development were enveloped by the new pattern. Clashing geometries resulted in fracture zones.

Local Effects: The Experience at Glen Echo and Environs

The Impact on the Transportation Network

Fracture or break zones exerting a strong influence on the development of the local circulation network

- While one major artery takes its directional cue from the diagonal slask of High Street, a second artery is aligned to the national grid.

⁽¹⁾Readers are warmly recommended to refer to Grady Clay's Close-up How to Read the American City. Praeger, New York City, 1973. This pioneering text contains an extensive discussion of the phenomenon of breaks and the effects of breaks on the American urban landscape. This section makes extensive reference to Clay's penetrating analysis on pages 42-51.

- At the eastern edge of the area, formerly known as North Columbus, there is a diagonal shift in the direction of the streets. Such directional changes are an identifying characteristic of interfacing grids.
- Several dog-leg intersections exist in the study area.
- Where Glen Echo Ravine intervenes in the path of development, a major break occurs. High Street excepted, north-south thoroughfares terminate abruptly at the ravine. Cross-town, radial core-bound and local traffic all use this section of High Street. Plans to continue Neil Avenue, a local collector paralleling High Street to the west by means of a bridge never materialized.
- East-west circulation was also significantly affected. The landforms of the ravine and environs were a major obstacle for a river crossing. A crossing point to the south had to be chosen; as a consequence traffic must negotiate several dog-leg intersections and a confusing one-way street pattern.

The Impact on Development and Spatial Form

Natural landmarks, situated in the path of development, interrupted development. However, such interruptions were typically of a temporary nature and when development resumed, clashing geometries of interfacing grids left an indelible imprint. Consequently, urban natural landmarks and breaks or fracture zones are frequently linked phenomena. Glen Echo Ravine is a striking case in point. The proposed model conservation strategy takes advantage of this circumstance. Study of the spatial pattern reveals several defects; confusion regions in the ravine's environs. An awkwardly proportioned, wedge-shaped fracture zone with diminutive, irregularly shaped blocks, discontinuous streets and disruptive dog-leg intersections results as the conflicting geometrics of interpenetrating grids clash. There is a poor pattern of land-use and an incoherent circulation pattern. A medley of uses jostles for space including: several service stations, untended rearyards; redundant weed infested alleys; different types of residential structures; an electric company sub-station; parking areas and a carry-out store. Densities are low; structures, single-story and widely spaced. The portal to Clintonville is presently dominated by automobile service related uses. Adjacent service stations, a used car lot, and until recently a third service station, in conjunction with a truck and trailer rental lot, line the east side of High Street. Vis-a-vis, a fourth gas station occupies an entire block face. The fracture zone reinforces the sense of entering Clintonville. Travelling north on High Street the spatial character changes abruptly as one crosses into Clintonville at Dodridge. High Street stops downhill as it approaches the ravine crossing.

Distant views as well as views of the middle and foregrounds are revealed; there is a sense of openness and of the presence of nature. The sky occupies a large part of the visual field. By contrast, North Columbus to the south is much more highly developed. Densities are higher and buildings, several stories high, extend from side lot line to side lot line without set back. Upper stories are largely vacant.

A Programmatic Statement

Both a perceived need to rectify the various deficiencies of the physical environment and the goal of optimizing the environment would appear to justify decisive intervention. Consequently, the proposed strategy for managing the urban spatial environment is premised on two sets of needs:

- (1) The need to conserve the natural environment of the ravine;
- (2) The need to reorder the spatial environment of the ravine's environs.

THE CHALLENGE OF MAKING TRANSFERS OF DEVELOPMENT RIGHTS (T.D.R.) WORK

As noted earlier, preservation of the natural landmark ought to be a key priority in any planning for the area. Any strategy aimed at maximizing area real estate values should respect Glen Echo's open spaces. While some development can be absorbed at Glen Echo, such a strategy implies development primarily beyond Glen Echo's boundary. Yet, convincing the owners of the wisdom of leaving the site in an essentially undeveloped state would appear to be, on the face of it, a daunting task.

Development Rights Transfers: The Basic Concept⁽²⁾

The concept of T.D.R. holds considerable promise. It was conceived primarily as a response to a need for a way to save land uses threatened by more intensive development. Additionally,

²In recent years much theoretical groundwork has been laid. Many of the major papers on the topic have been gathered together by Jerome G. Rose of the Center for Urban Policy Research, Rutgers - The State University, New Brunswick, N.Y. Written mainly by lawyers, they appear in a useful volume containing interalia sections on T.D.R. as a method of preserving landmarks, open space and fragile ecological resources (Rose, Jerome G., The Transfer of Development Rights: A New Technique of Land Use Regulation. Center for Urban Policy Research Rutgers - The State University of New Jersey, New Brunswick, 1975. Among the authors represented are John J. Costonis, writing on the Chicago Plan for preserving landmarks (pp. 95-122) and on the Puerto Rican Plan for preserving fragile ecological resources (pp. 200-209); B. Budd Charooshian, writing on preserving open space;

preservation of such assets as landmarks, open space and natural areas enhances area amenity and ambience. Under the approach, unused development rights, generally expressed in terms of floor area ratio, are detached from endangered/to-be-protected sites, conveyed and reattached to less vulnerable sites. Preferably, this should occur in accordance with an urban design framework plan. Rights transferred from a site may not exceed the difference between existing development and the amount of development rights allowed at the site by zoning.

Potential Obstacles

Despite a strong general interest in the concept, a repertoire of consummated transactions is lacking. Several types of difficulties are likely to be encountered:

- (1) Conveniently located receiving lots may be unavailable;
- (2) Developers may have to incur substantial costs in preparing receiving lots for construction;
- (3) With no body of experience to draw upon, marketing rights poses a problem. Matching supply and demand may be difficult. Rights' values may fluctuate greatly between granting and receiving lots. Determining appropriate price levels may be fraught with problems.

Prerequisite Conditions to Enhance the Chances of Success

- (1) Proximity of granting and receiving lots;
 - (2) Common ownership of granting and receiving lots;
 - (3) Comparable values of rights at both types of sites;
 - (4) Substantial demand for higher density development at candidate receiving lots;
 - (5) Absence of competing bonus systems;
 - (6) Appropriate limits to development allowed as of right;
 - (7) Guidance of transfers by an urban design framework plan;
 - (8) Availability of receiving lots of a size and shape allowing absorption of rights without
- together with T. Norman, and George H. Nicswane and Donald H. Elliott, a former chairman of the New York City Planning Commission, writing jointly with Norman Marcus, Counsel to the Commission. Particularly pertinent is David A. Richard's critique entitled "Development Right Transfers in New York City" (pp. 123-156). Kevin Lynch, one of the few non-lawyers represented, writes on T.D.R. as a method of regulating the location and timing of community growth (pp. 254-264).

creating negative externalities.

THE MANAGEMENT STRATEGY: COORDINATION OF URBAN RENEWAL, ZONING AND DEVELOPMENT RIGHTS TRANSFERS AS A MEANS TO PRESERVE PRIVATELY OWNED URBAN NATURAL LANDMARKS.

To meet the stated objectives, a synthesis of several regulatory techniques is proposed. The strategy drawn on: traditional zoning, urban renewal powers and development rights transfers. Development rights transfers play a strategic role with urban renewal and zoning assigned key supporting roles. Urban renewal powers are the way for an effective development rights transfer program. In any such program the availability of transferee lots is critical; receiving lots should meet specific criteria with regard to size, location and configuration. Urban renewal provides a basis for creating viable receiving lots. Major steps in the process include: site assemblage; selective demolition; resubdivision and parcel disposition. Zoning establishes favorable conditions for marketing rights by imposing strict limits on the amount of development allowed as of right. Since new development in the renewal area must conform to envelope specifications spelled out in the renewal plan which require development rights in excess of the amount allocated as of right, developers need to acquire additional rights. The strategy assures the demand can be met. A development rights transfer district framework is established in which Glen Echo and environs constitutes the granting zone and the abutting redevelopment area, the receiving zone.

Several measures work in concept to assure that area values achieve a higher level than if development were to occur in a piecemeal and haphazard fashion: preservation of the unique landscape feature and its environs; development in accordance with an urban design framework plan; urban renewal controls to secure superior environmental attributes. Success of the strategy depends in large measure on prospective grantors of rights' perception of the incentive package: will it be sufficiently attractive? Assuring landmark owners a commensurate share in accelerating area values is critical. Patterns of common ownership in both granting and receiving zones are likely to provide owners of landmarks with a strong incentive to participate for the following reasons: rather than having to forego opportunities to engage in and own new development projects - which is the case when development rights are sold outright - owners are afforded an opportunity to participate in and actually own new developments. Consequently, the strategy proceeds from the assumption that it is desirable to establish such ownership patterns. This objective is accomplished through the redevelopment parcel disposition process under which landmark owners are offered strategic parcels in the receiving

zone at favorable terms. Once this is accomplished, development rights can be conveyed between sites under common ownership in amounts sufficient to fulfill envelope specifications spelled out by the urban design framework plan.

CONCLUDING OBSERVATIONS

In summary, then, the approach offers several advantages. By creating a mechanism for establishing ownerships in both the receiving zone and the granting zone, it expands the array of options available to landmark owners. Such owners now have several basic options open to them: sale of development rights to eligible redevelopers; sale of development rights to the city which may hold such rights for later disposition, in effect, a banking operation; and, finally, retention of rights and their redeployment in the redevelopment area. The approach permits owners of landmarks to engage in development in accordance with an urban design framework plan that takes full advantage of the design potential inherent in protecting the scenic asset. By facilitating retention of development rights, the process permits owners of natural landmarks to recapture values arising from a course of action in which the landmark is preserved. Landmark owners are thus afforded the opportunity to partake in economic benefits of a built environment of a quality superior to the quality achievable under conventional development patterns.