

POLICY AND DESIGN FOR HOUSING

Lessons of the Urban Development Corporation 1968-1975

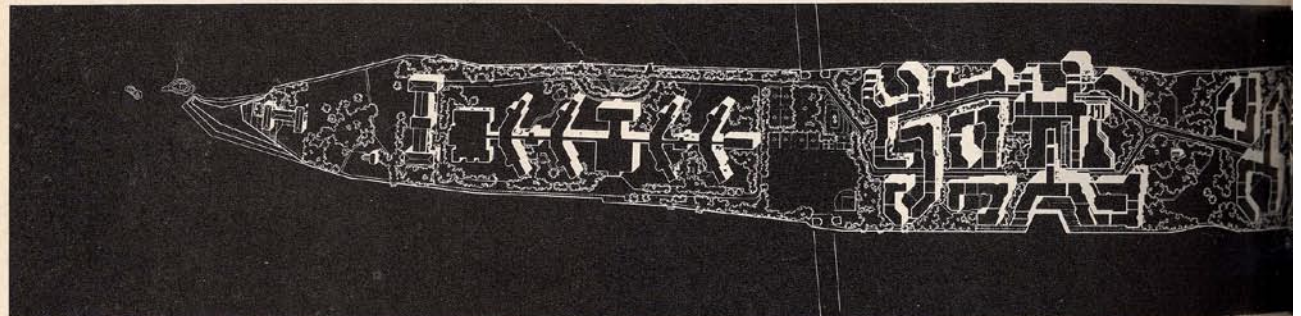
Journal Articles Roosevelt Island

How are 'planned communities' planned?
by Jonathan Barnett

A broad concept of 'community': What's new about new towns
by Felicia Clark with Todd Lee, AIA

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Roosevelt Island



New York City's new town opens up long-underused land with a plan that offers a unique life style.

Roosevelt Island—called Welfare Island until a recent name switch for obvious reasons—has a unique and ideal site. The 147-acre-site—just a literal stone's throw from the heart of Manhattan though isolated by the ship channel—lay largely vacant until a 1968 study by its owners, New York City. After studying proposals ranging from a nuclear power plant to licensed gambling, the City gave New York State Urban Development Corporation a 99-year lease to develop 5,000 badly needed dwelling units. The UDC was created by the state legislature to cut through the red tape involved in most urban renewal.

A master plan was prepared by Philip Johnson and John Burgee (see full plan directly below), but the architects now question whether UDC is following the plan closely. The site plans (below) for the first 2,100 dwelling units—presently in construction and designed by architects Sert

Jackson and Johansen & Bhavnani—are a case in point. Robert Litke, general manager of the UDC subsidiary responsible, states that adherence to the plan is closer than any other such that he knows, and a comparison of other plans in this issue might enforce that view. In tribute to the capacities of the developer, few large-scale plans have been prepared in such detail and executed at all. The case of Fort Lincoln (next page) is an interesting contrast—there have been three master plans.

The UDC normally, as here, operates on a fast-tracking basis—foundations went in before working drawings were complete. This short development schedule is "on track" at present, and Mr. Litke states that the only drawback is inability to adjust to experience—"There isn't time for mistakes." He is confident that substitutes for the frozen FHA funds will be found and allow the mixed res-

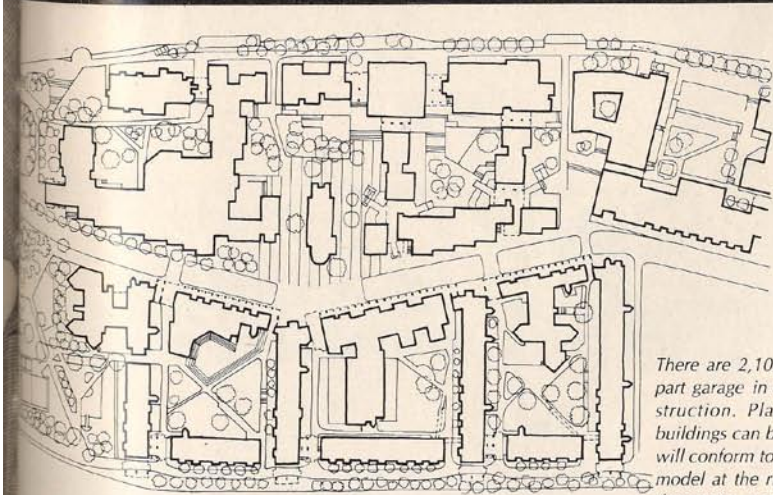
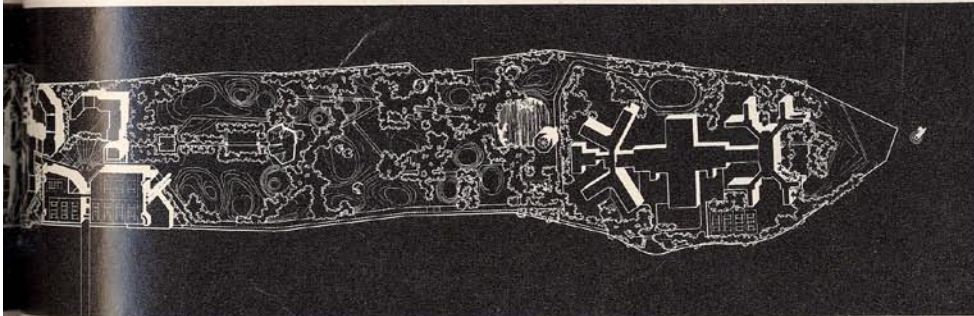
ident income levels as planned. However, it is the physical arrangement of the dichotomy of income levels that may prove to be Roosevelt Island's largest problem (see pages 104-105).

There are strong innovations on Roosevelt Island. There will be no general automobile traffic—cars will be garaged at the entry to the island in the now half-completed garage seen in the photograph, left. Travel within the two-mile-long island will be handled by mini-buses (see page 98). Trash collection will be accomplished by a pneumatic system directed to the entry-garage structure; saving the City an estimated \$200,000 a year in collection costs, and eliminating collection-truck traffic). The school program disburses classroom space throughout the apartment ground floors. Despite initial intent, structural innovation has been limited to a proprietary slip-form concrete system by one contractor.

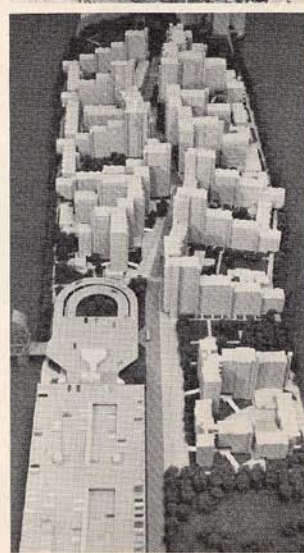
The UDC & Title VII:

The UDC is able to issue tax exempt bonds covering the expenses normally insured by the Federal Government. In this case, the desired Title VII benefit was the ability to receive ancillary Title VII grants as well as what UDC calls "intangible factors." In lieu of loan guarantees, 20 per cent supplemental grants would be added to those grants obtained.

Roosevelt Island was designated as a Title VII site only one month before the present curtailment of Federal grant programs went into effect, and the event was announced as an example of the ability of Title VII to broaden its scope in the effective use of public as well as private sponsors. The UDC has actually received only those monies covering a portion of the costs for one historic building renovation and a small park. All future program participation is presently in limbo—despite gaining Title VII approval.



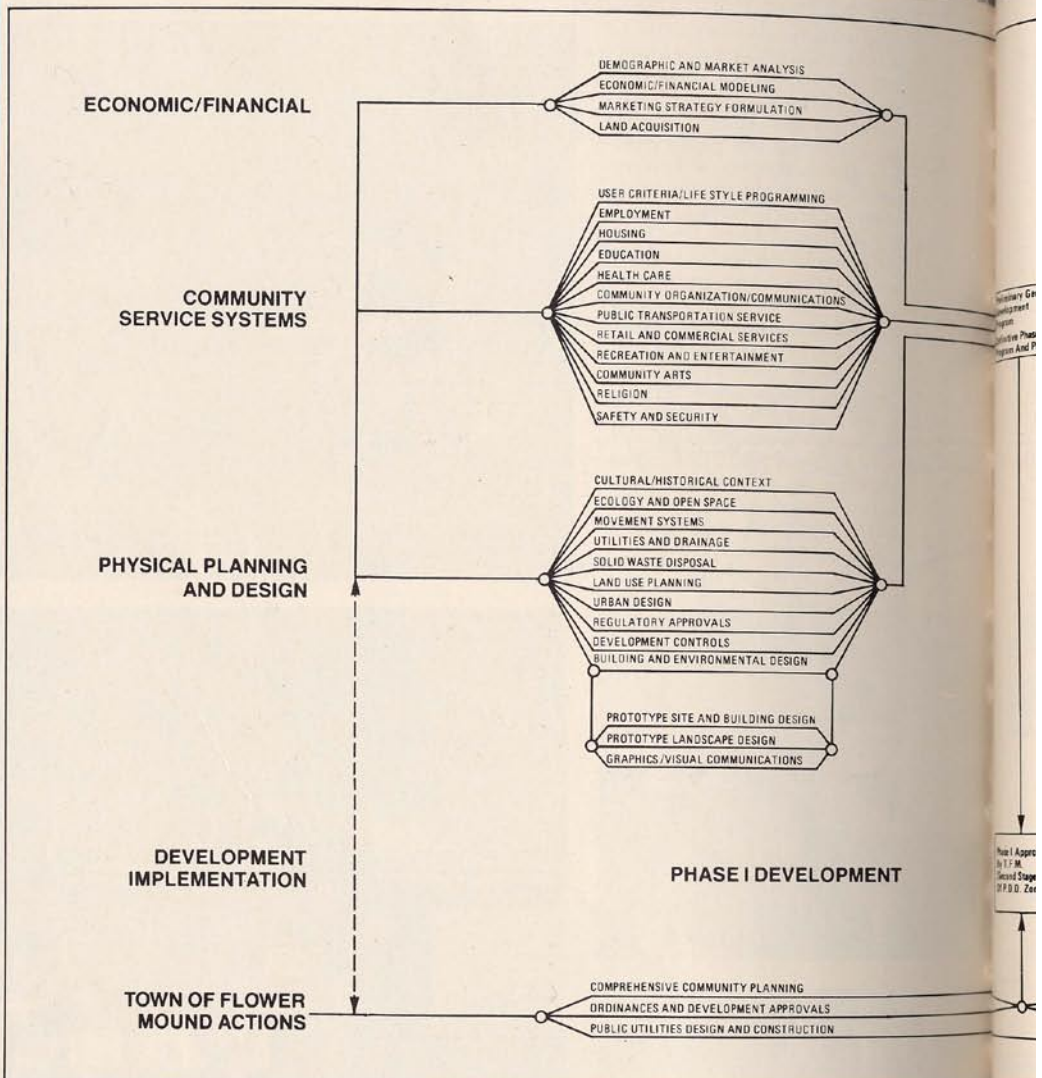
There are 2,100 dwelling units and a part garage in the first phase of construction. Plan for the residential buildings can be seen, near left, and it will conform to the profiles seen in the model at the right. This first phase is the center section of the island plan. One "main street" will run the length of the island and give access to a wide variety of commercial and civic functions. A program of historic building renovation will include the former asylum, above, and a church (center of plan, left).



How are "planned communities" planned?

The process is complex. Good results will depend on the coordination of many skills.

Designing new communities



by Jonathan Barnett

Jonathan Barnett, an editorial consultant for ARCHITECTURAL RECORD, is professor and director of the Graduate Program in Urban Design at the City College of New York. He was formerly director of urban design for the New York City Planning Department, and his book, *Urban Design as Public Policy*, which describes the work done by Mr. Barnett and his colleagues in the New York City government, will be published by Architectural Record Books early next year.

Many different people are considered to be indispensable in the process of creating a planned community. The real-estate investor is one, the economist is another, the civil engineer is a third. The architect in his role as urban designer often comes fairly far down the list; in the process diagram pictured on this page, urban design is just one of the many professional areas that have to be considered. It is indicative that the Urban Land Institute's book "Federally Assisted New Communities" says almost nothing about the role of the design professional, and does not mention the names of the architects and urban designers whose work is illustrated.

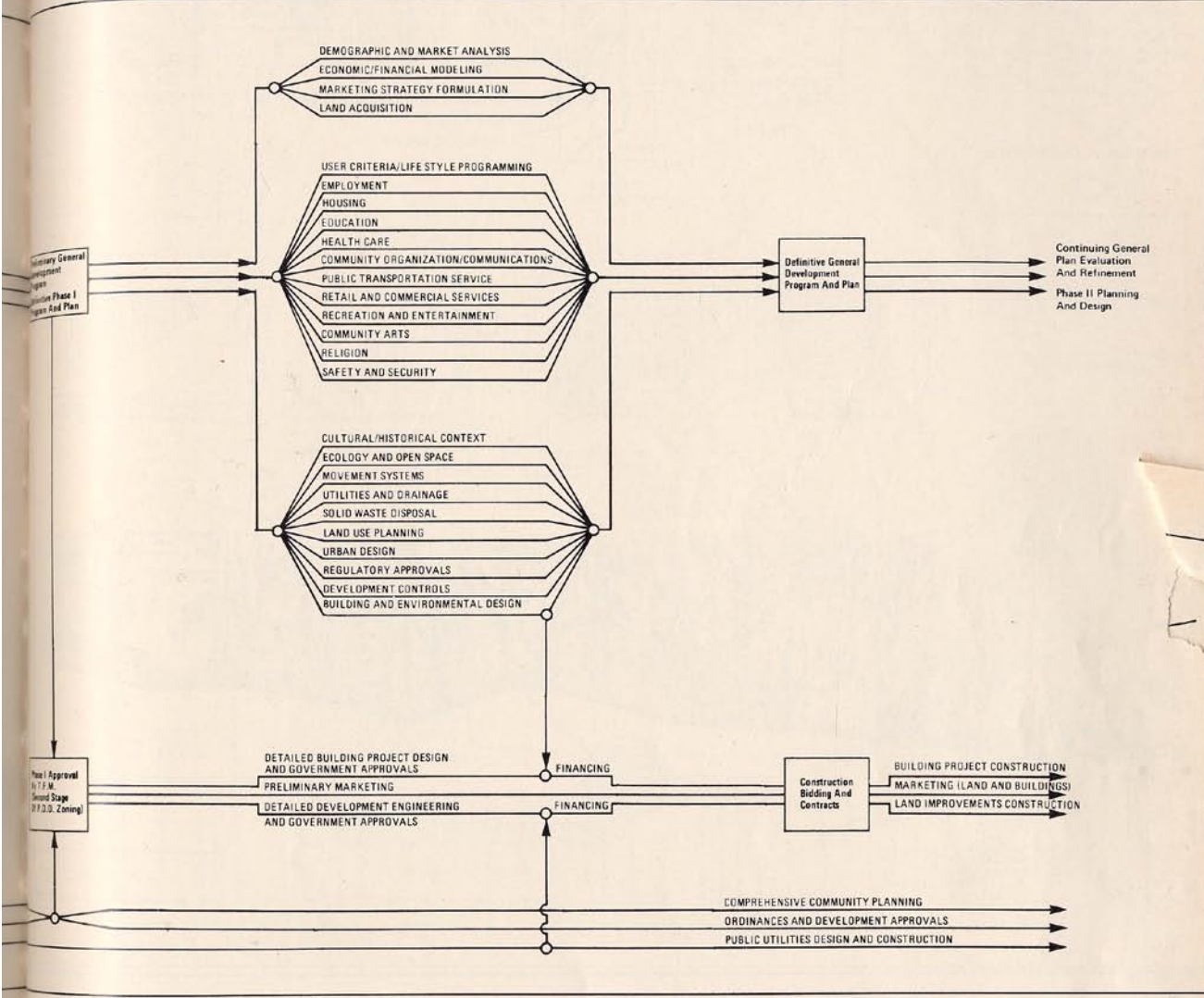
The design professional is capable of playing a leading role

in establishing the physical form of planned communities, but he has to find ways to make sure that other professionals, and the client, use his abilities when the real design decisions are being made. Otherwise he can be relegated to drawing illustrative site plans and perspective sketches that are little more than window dressing, and which no one else seriously expects to follow.

Planned communities applying for Federal assistance under Title VII of the Housing Development Act of 1970, or earlier legislation, must meet certain physical planning standards which provide at least the opportunity for creating a high quality environment. Of course, all such legislative standards are subject to interpretation

Phase I Approval by U.F.M. Second Stage by P.D.D. Zee

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and require an evaluation process as the planned community goes forward, to make sure that what was shown on paper is actually being done.

The demand for improved environmental design from citizen's groups like the Sierra Club and an increasingly competitive situation in some housing markets are also good omens, as far as quality design is concerned.

A new task and a new contest for the designer

The design professional has to learn to respond to these opportunities by working in an entirely new context, where the demands for his services are considerably different from those of a conventional architectural practice.

The designer working with the private investor who has not applied for Federal funding has an even more difficult task, because this kind of client has less money to spend and shorter time schedules. He wants specific answers to specific questions, which often relate only in the most general way to the design of buildings.

For example, real estate developers often come to architects, landscape architects or planners and say something like this: I have an option on a piece of property and I plan to build a hotel, a golf course and 500 condominiums on it: will it work?

If this question is asked of an architect, all too often he will go away for a few weeks and come back with a design concept for the

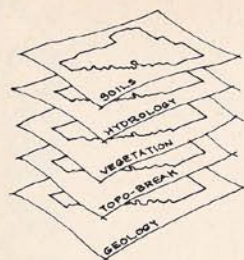
organization of the buildings. He explains how the same diagonal geometry used in the hotel corridors creates the order that informs the condominiums; he perhaps has a little sketch of the view from the entrance of the hotel, framed by the buildings that he has already visualized.

If the developer is impolite, he may say "you sonovabitch, you wasted my money". He is certainly thinking it. In any case, he is very likely to withdraw and seek the advice of someone who can answer his question. The architect sighs profoundly, realizing that he has again failed to find the patron who will appreciate his genius. In order not to waste all his work, the architect puts the unexecuted design in his brochure,

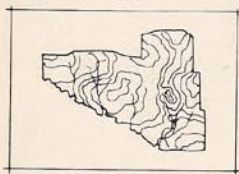
where it can frighten off the more sophisticated of his potential clients almost indefinitely.

The problem is that the developer is not asking the architect to visualize the buildings in detail: he is asking him to assess the potentialities of a piece of property that he is thinking of purchasing. At this stage he wants to know what his problems are, not his opportunities. He already knows it is possible to design a beautiful hotel and condominiums. He doesn't know if it can be done on the piece of land he has in mind, given the physical character of the land, the local political and environmental situation, the potential costs, the market place, and so on.

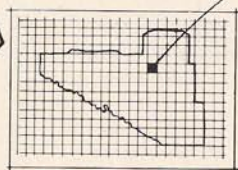
Some developers are knowledgeable in assessing these prob-



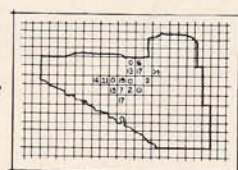
ECOLOGICAL FACTOR MAPS



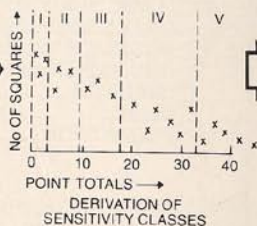
SUMMARY MAP



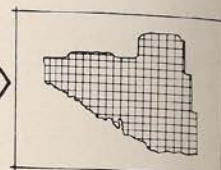
GRID OVER SUMMARY MAP



ASSIGNMENTS OF POINT TOTALS



DERIVATION OF SENSITIVITY CLASSES



COMPOSITE ECOLOGICAL SENSITIVITY MAP

THIS SKETCH SHOWS A 500' by 500' SQUARE CONTAINING EACH FACTOR. THE TOTAL No OF POINTS ASSIGNED TO THIS UNIT AREA IS 34. PLACING THIS SQUARE OF THE FLOWER MOUND SITE IN SENSITIVITY CLASS V.



BLOW UP OF SQUARE



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| <p>FRESHWATER MARSH</p> <ul style="list-style-type: none"> PONDWED (<i>Peltandra sp.</i>) WATER LILY (<i>Najas sp.</i>) PALM FRUIT (<i>Phragmites communis</i>) THREE CORNFLEET GRASS (<i>Eleocharis acicularis</i>) SAITAI (<i>Typha latifolia</i>) | <p>CYPRESS SWAMP</p> <ul style="list-style-type: none"> WALNUT (<i>Juglans nigra</i>) ROSE MALLOW (<i>Hibiscus mucronatus</i>) ARROWHEAD (<i>Sagittaria latifolia</i>) RED MATE (<i>Aster divaricatus</i>) COPPER BELL (<i>Erica sp.</i>) BLUE FLAG (<i>Iris versicolor</i>) BUTTON BUSH (<i>Opuntia inornata</i>) DWARF PALMETTO (<i>Sabal minor</i>) SWEETGUM (<i>Liquidambar styraciflua</i>) VALEPINE (<i>Ilex verticillata</i>) DEVIL SWALLOWING OIL (<i>Helioscopia</i>) JACK IN THE PULPIT (<i>Amorphophallaceae</i>) STAGHORN (<i>Platanus occidentalis</i>) SWAMP JACKEL (<i>Thalictrum flavum</i>) PINK FICUS (<i>Ficus sp.</i>) CARDINAL FLOWER (<i>Lobelia sp.</i>) SWAMP PINE (<i>Pinus serotena</i>) | <p>NATURAL LEVEE VEGETATION (ON SILTS AND CLAYS)</p> <ul style="list-style-type: none"> DAMONIA (<i>Desmodium sp.</i>) VALEPINE (<i>Ilex verticillata</i>) ROUGH LEAF DOGWOOD (<i>Cornus rugosa</i>) BLACKGUM (<i>Nyctaginia sp.</i>) WITCH HAZEL (<i>Hicoria sp.</i>) LIVERBARK (<i>Quercus sp.</i>) FALE BARK (<i>Hicoria sp.</i>) WATER HORN (<i>Claytonia sp.</i>) SOURWOOD (<i>Claytonia sp.</i>) BLACK WILLOW (<i>Salix nigra</i>) PEARL GRASS (<i>Tripsacum</i>) ROSSMORNE (<i>Tripsacum</i>) GRASS (<i>Tripsacum</i>) SKIMMIE (<i>Tripsacum</i>) GRASS (<i>Tripsacum</i>) LOUISIANA PALMETTO (<i>Sabal minor</i>) | <p>UPLAND FOREST TYPES (ON SANDY FILL ABOVE 14')</p> <ul style="list-style-type: none"> SILVERBELL (<i>Quercus sp.</i>) SLASH PINE (<i>Pinus sp.</i>) MOUNTAIN LAUREL (<i>Kalmia latifolia</i>) PHLOX (<i>Phlox sp.</i>) SPRING SAGE (<i>Phlox sp.</i>) WILD ROSE (<i>Rosa sp.</i>) TREE SPANGLER (<i>Yucca sp.</i>) FRANCIS (<i>Quercus sp.</i>) |
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lems, others need more help than they realize. If the developer is in the office of an architect he has not used before, the chances are that his property has some problem that requires an unconventional approach. The opportunity for good design is there; the designer has to know how to seize it.

What is good design?

Obviously, if the designer is to create a high quality environment, he must know what constitutes the elements of a well-designed community. Edward Logue, the head of the New York State Urban Development Corporation, spoke recently to a meeting of the Design Committee of the AIA about his agency's record in fostering good architecture, which is certainly an

exemplary one. I asked him how he knew what good design was. Logue's reply: "Well, I know what it isn't."

Anyone filing plans for a new community has created a planned community. How do you know what constitutes good design in a planned community? Well, we all know what it isn't: the unplanned formless sprawl that has grown up around our cities in the last 25 years. But what is good community design, and how do you make it happen?

A four-stage design process

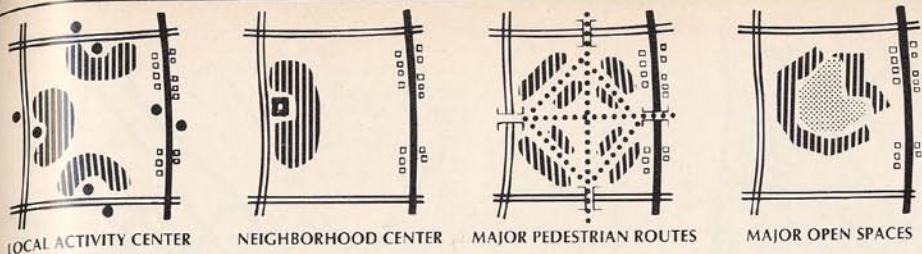
The process of designing a new community is much more extended, and involves a great many more people, than the design of a building: but it goes through a rec-

ognizable series of stages which are analogous to those of building design. As in the design of a building, it is possible to lose the ball game at any point. If the site is badly chosen, or the program is wrong, the task is already hopeless. A good set of schematics is no guarantee that the concept will survive the design development process, and so on.

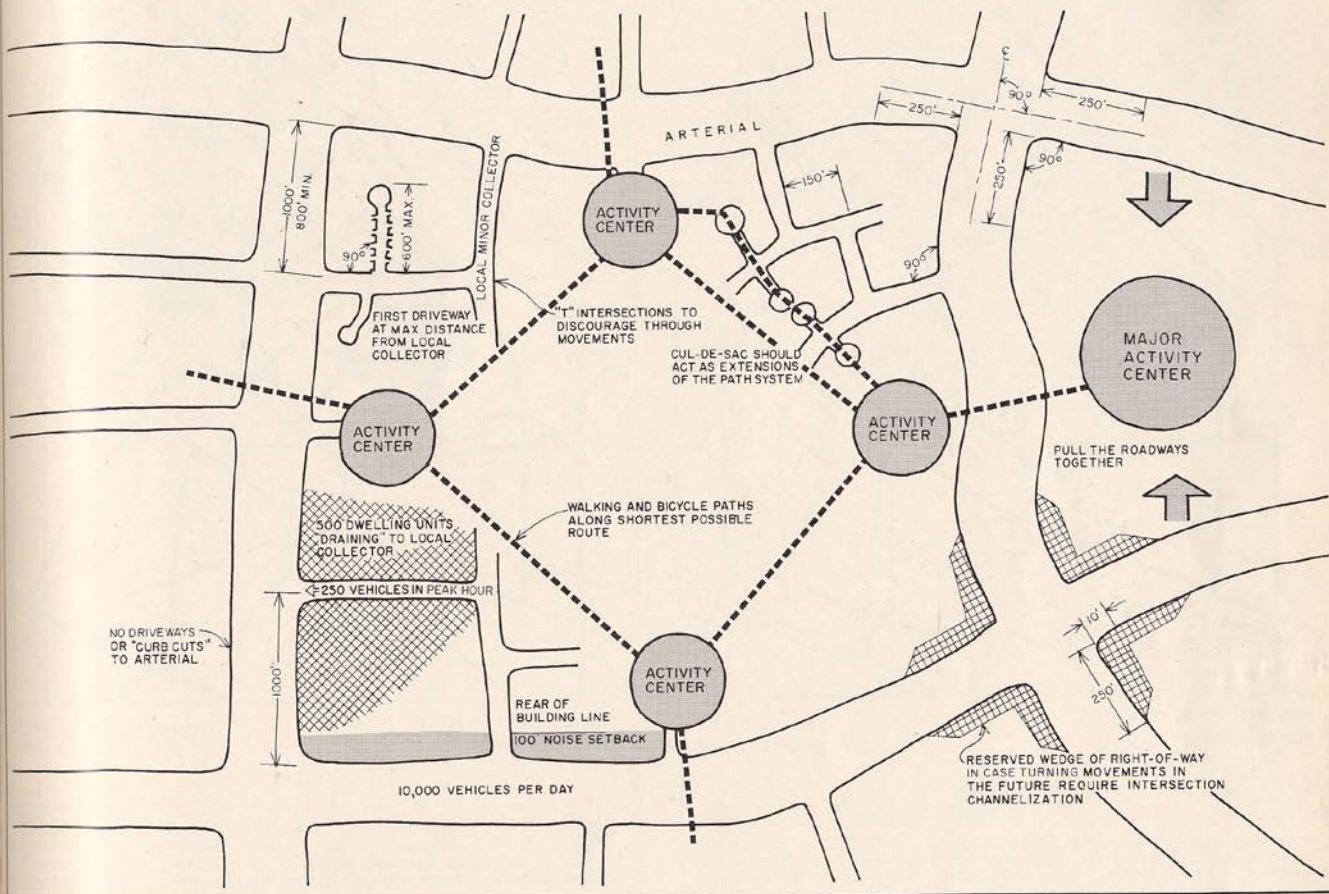
There seem to be four major stages in the design of a planned community. First, the site selection and programming phase, which involves the analysis of the land, and the selection—and testing—of some basic land organization principles. The next step is the land-use plan, which always embodies some kind of physical design concept. Such plans are

sometimes called N state plans, because they show the whole development at some indefinite time in the future. Frequently, however, the design principles upon which the land-use plan are based simply represent standard practice, and have little reference to the particular site and program. The third stage is the study of actual designs for infrastructure, lots and buildings, and the staging of the development process. Finally, step four is the execution of the actual structures, at which point conventional architectural and engineering design contracts will be let.

It is evident that the skill with which these four stages of design are interrelated will have a significant effect on the quality of the ul-



These diagrams illustrate the organizing principle for planned communities developed by Llewellyn-Davies Associates. The ones at left were drawn for Audubon New Town and the drawing below was developed for Flower Mound New Town by R. H. Pratt Associates and Alan M. Voorhees from the basic Llewellyn-Davies concept.



imate result. There is often a big gap between stage two and stage three, while the developer waits to see if the Federal Department of Housing and Urban Development will approve the application for Title VII funding that embodies an "N state" plan.

When it comes time to work out the actual staged development, the over-all plan may turn out to be more of a statement of good intentions than a framework for what really happens.

If there is a conflict between decisions taken in accordance with the over-all plan—roads, for example—and the design of actual neighborhoods or centers, design quality is sure to suffer.

We will come back to this problem of interrelationships after

we have looked in more detail at individual stages of the design process.

Design analysis of the site

The designer can play an important role in analyzing the site and in proposing organizational concepts for the physical "infrastructure," that is the roads, pathways, drainage systems, open space networks, and so on, but he is not always asked. In fact, the designer frequently does not come into the process until the site has been selected and some basic developmental choices already made.

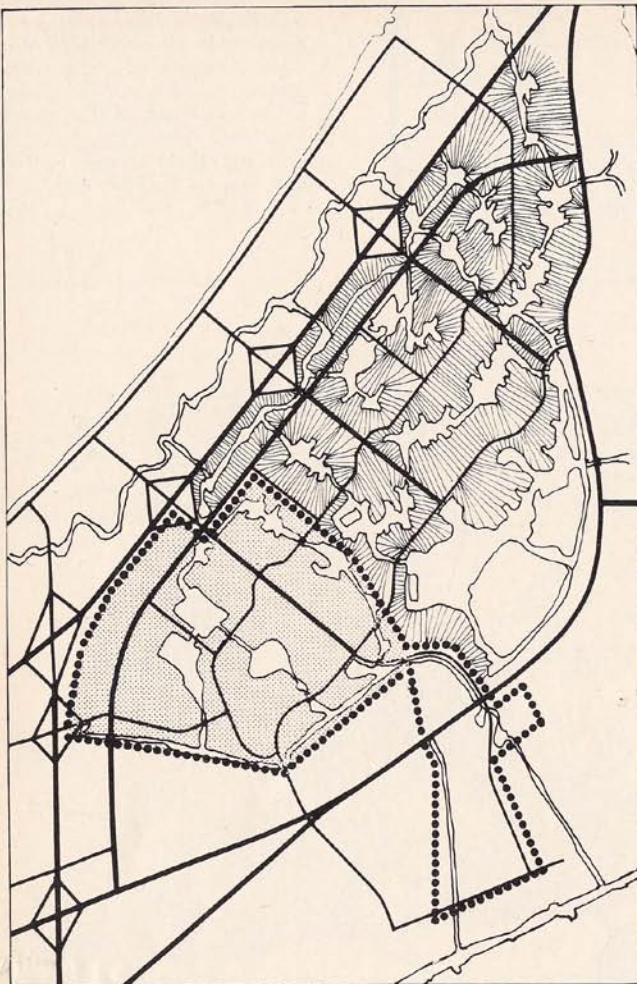
Sophisticated techniques for analyzing the ecology of a particular land development site are often associated with the name of

Ian McHarg, a landscape architect and planner, and a partner in the Philadelphia firm, Wallace McHarg Roberts and Todd. McHarg is the author of a book, *Design With Nature*, which sets out his basic theories, which seem so eminently sensible that it is hard to understand why they have not been accepted practice for many years.

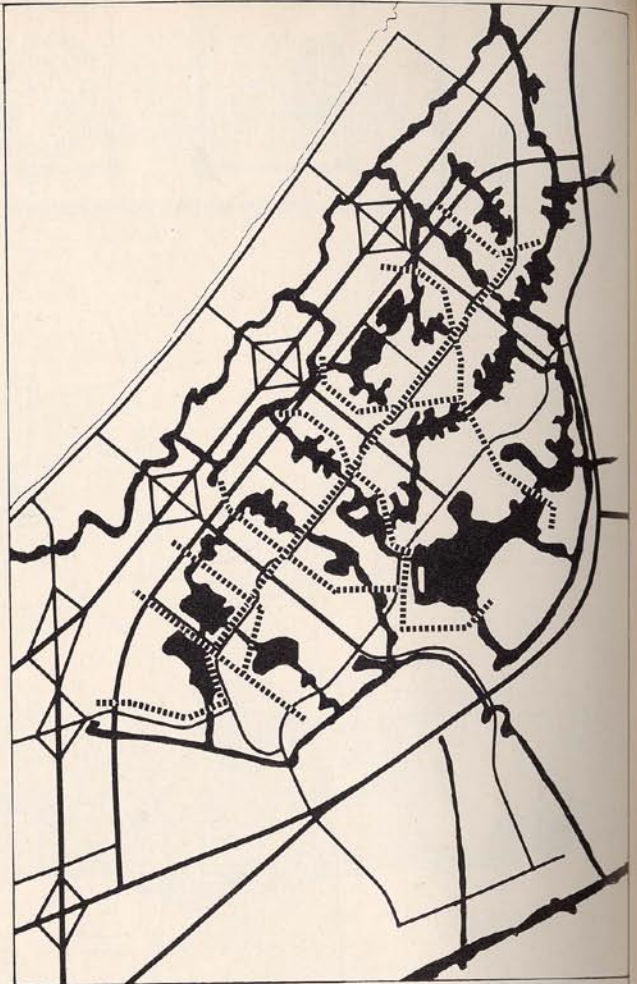
Essentially, McHarg's point is that most site planning techniques are devices for subduing nature. But, because the site in its natural state embodies an equilibrium of complex natural forces, cutting down tree cover, bulldozing hillsides or putting streams in culverts invite appropriate retribution: eroded topsoil, flooded basements, collapsed roads. In addition,

there may be more far-reaching disturbance of the natural ecosystem: disturbance of bird migration patterns, climatological change, new vegetation patterns changes in the water table.

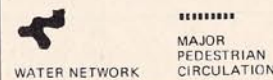
McHarg suggests designing with nature, rather than against her, by analyzing the role played by each part of the site in the natural eco-system and building only on land which can sustain development without far-reaching side effects. The diagram at the top of the opposite page shows a McHargian analysis done for Flower Mound New Town by another team of consultants that has accepted McHarg's premise. The drawing of vegetation on the same page was done by McHarg's firm to illustrate the natural systems



INFRASTRUCTURE CONCEPT
PONTCHARTRAIN



CIRCULATION CONCEPTS
PONTCHARTRAIN



prevailing on the site of Pontchartrain New Town, in New Orleans.

A preliminary ecological analysis can save a lot of trouble later. The proposed San Antonio Ranch new community in Texas has received a Federal Title VII grant and is well advanced in planning. Now, however, environmental groups and local government agencies are opposing the project in the courts, claiming that the town is situated in such a way that it will inevitably pollute the water supply for the entire city of San Antonio. One of the owners of the site was quoted in a recent issue of *Business Week* as saying: "Had I ever dreamed this project would turn into the nightmare it has become, I would never have thought about building a new

town." Similar, if less drastic, experiences have happened at other planned communities.

Basic organizing concepts for planned communities

Some of the basic organizational concepts for planned communities are so widely accepted that people have ceased to think of them as design solutions and have given them the status of basic assumptions.

One is the curving pattern of local streets that goes back more than a century to Olmsted's design for Riverside, Illinois, and before that to the curving paths and naturalistic landscaping of English garden design.

Another is the cul-de-sac street and interlocking greenway

pattern used by Clarence Stein and Henry Wright at Radburn almost half a century ago.

A third is the concept of neighborhood and the relationship of houses to the elementary school as outlined by Clarence Perry also half a century ago.

The procedure for designing a planned community according to these assumptions has been stated very clearly by George Pillorge in the AIA's new book on planned communities, *New Towns in America*.

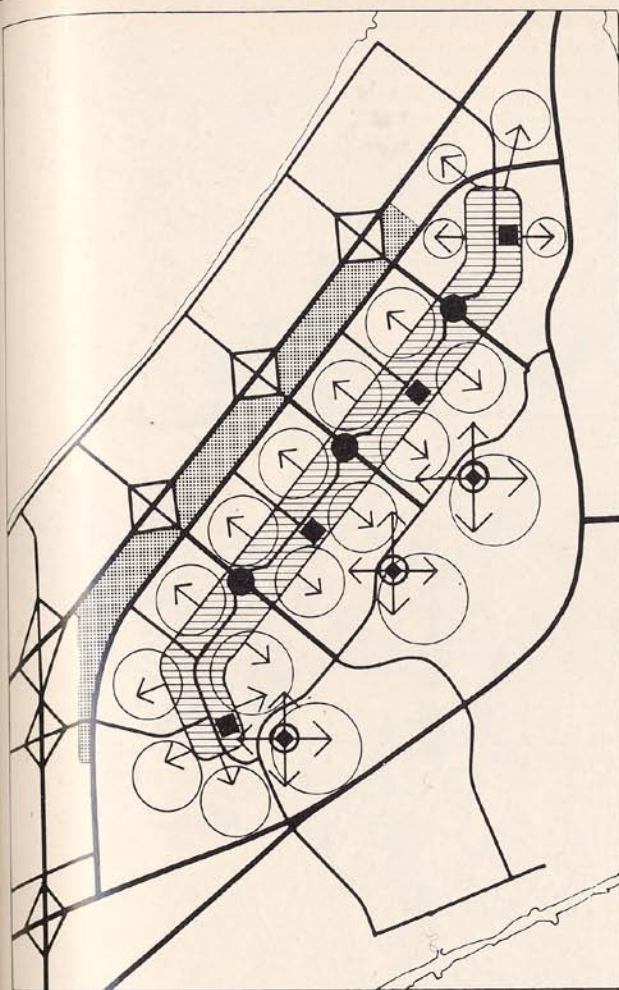
Just because an idea has a long history is no reason to suppose that it is no longer valid, although, in a period of accelerated social change, that suspicion does come to mind.

Pillorge's article should be

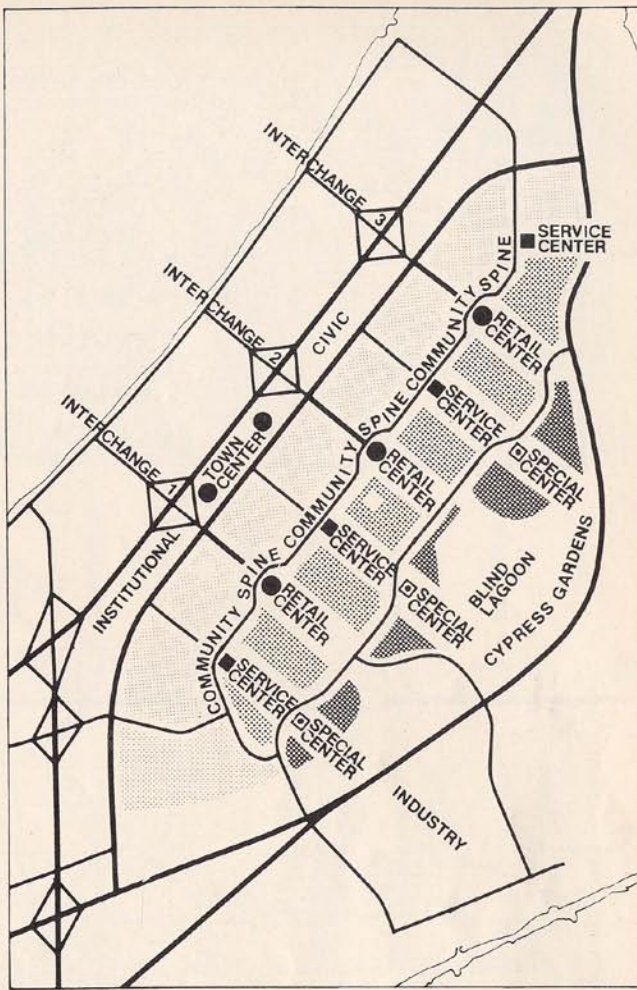
read against statements such as that by Lord Llewelyn-Davies entitled "Changing goals in design," in *New Towns, The British Experience*, essays introduced by Peter Self.

Llewelyn-Davies is particularly suspicious of the idea of a planned community as a self-contained entity with a green belt around it, believing that, in the age of the automobile, such isolation is not practicable. He prefers to think of a planned community as part of a larger network of relationships.

It is interesting that a form of cross-fertilization of rejected ideas is going on between Great Britain and the United States, with the Americans importing the self-contained new community out of dis-



SERVICES DELIVERY CONCEPT
PONTCHARTRAIN



LOCATION MAP
PONTCHARTRAIN



satisfaction with formless urban growth, and the British looking to America for ways to loosen up what is seen as an overly rigid structure in their planned communities.

The pattern of organization suggested by Llewelyn-Davies is very much what you might see out the airplane window flying over any part of the American Midwest: the mile-square grid defining the landscape sector by sector.

The illustrations at the top of page 123 show the Llewelyn-Davies formulation, originally worked out for the new town of Milton Keynes in England, applied to Flower Mound New Town in Texas and Audubon New Town in New York State. (The long-range development plan for Milton

Keynes appears on page 134).

George Pillorge, in his article in the AIA's book, outlines the street organization that is considered good practice for Planned Unit Developments and new communities in the United States: a hierarchy of three kinds of street: local or access, collector, and arterial. The Llewelyn-Davies formulation, by contrast shows only two kinds of street: local and arterial. There is also a calculated ambiguity about the nature of the neighborhood, which might be within the mile-square grid, or on either side of the arterial.

The importance of neighborhoods in planned communities is another concept which is not as widely accepted as it once was. Marshall Kaplan, the social plan-

ner who is the general manager of Flower Mound New Town, is vehement about the lack of relevance of the neighborhood for modern American life. The AIA book, on the other hand, assumes that the provision of neighborhoods is sound practice, as have the designers of many planned communities.

An inspection of the maps for the first phase development at Flower Mound reveals that Kaplan may be making a distinction without a difference. There seems to be a strong similarity between development at Flower Mound, planned without neighborhoods, to that at Reston, where the individual neighborhood was the *sine qua non*.

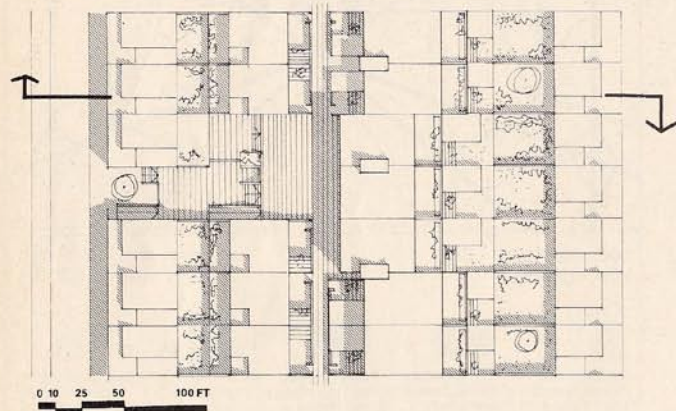
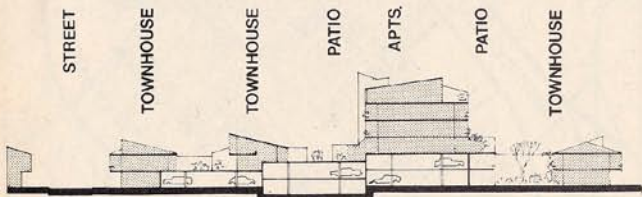
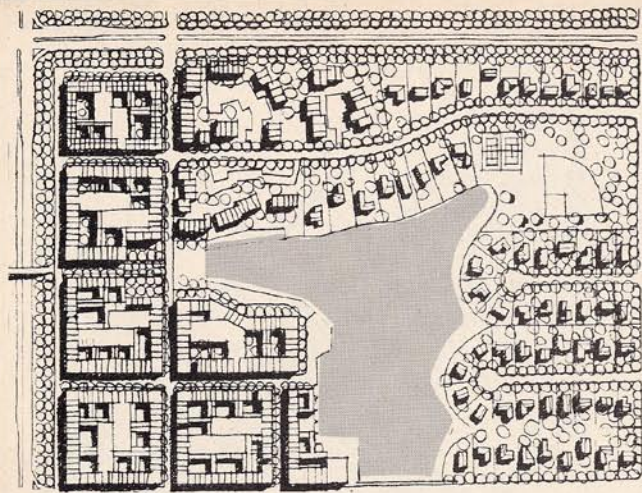
As a diagram, however, the

Flower Mound or Audubon development pattern shows a much more modular distribution of major activities than has been usual in planned communities, with the mile-square pattern permitting greater flexibility of movement than is possible within a strongly-defined street hierarchy.

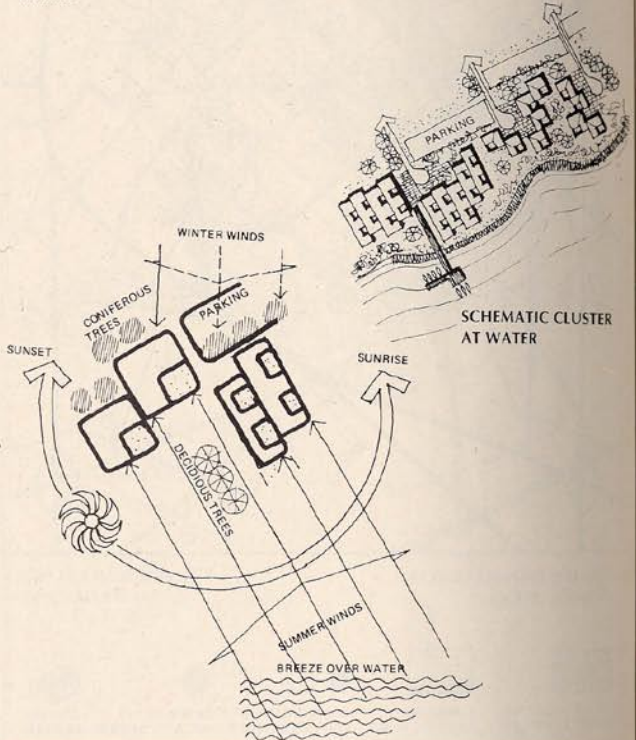
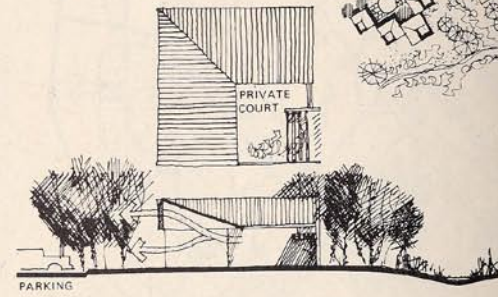
A design based on ecology

The plans for Pontchartrain, a new community on unbuild land within the city of New Orleans, show the practical consequences of an extensive ecological analysis and a modular system of land-use organization.

The new town will be situated on 8,400 acres of what we used to call swamp, and have now learned to call wetlands, within a



Some of the housing types developed by Wallace McHarg Roberts and Todd for Pontchartrain, to demonstrate the feasibility of the concept, which requires high-density clusters, so that much of the site can be water.



larger, 32,000-acre tract, part of which will be preserved, and part of which will ultimately be developed as well.

Much of New Orleans has been built on land that was originally like this, and it is perfectly possible, through the use of drainage culverts and fill, to convert the wetlands to buildable plots. However, this conventional engineering approach is completely destructive of the natural ecology of the area, and would have a bad effect on the surrounding wetlands.

What the consultants suggested instead was a natural drainage system, based on an interlocking network of canals and lagoons. By putting much of the open space on the site into water-

ways, the remaining land could be built up and contoured to drain naturally. Portions of the site could also be preserved in their natural state, and there will be a smooth transition to them.

The solution to what is commonly considered a routine engineering problem thus provided the basic design concept for the entire planned community.

The consultant also provided the basic conceptual organization for the land uses in Pontchartrain. Starting with three existing highway interchanges the plan has evolved into a modular system along a service "spine," a form of organization usually associated with much denser development, but quite appropriate to this site, where the same conditions repeat

themselves again and again.

The way in which these strong conceptual ideas for drainage and land planning combine to produce the plan for the whole community can be seen in the drawings on pages 124 and 125.

The consultants for Pontchartrain, because they were dealing with high land preparation costs, and the need for unusually high building densities on some parts of the site, found it necessary to develop drawings illustrating the housing types that could be used to carry out the development as planned. In this way, the consultants are trying to insure that the work done in stage two of the design sequence is not invalidated when you get to stage three.

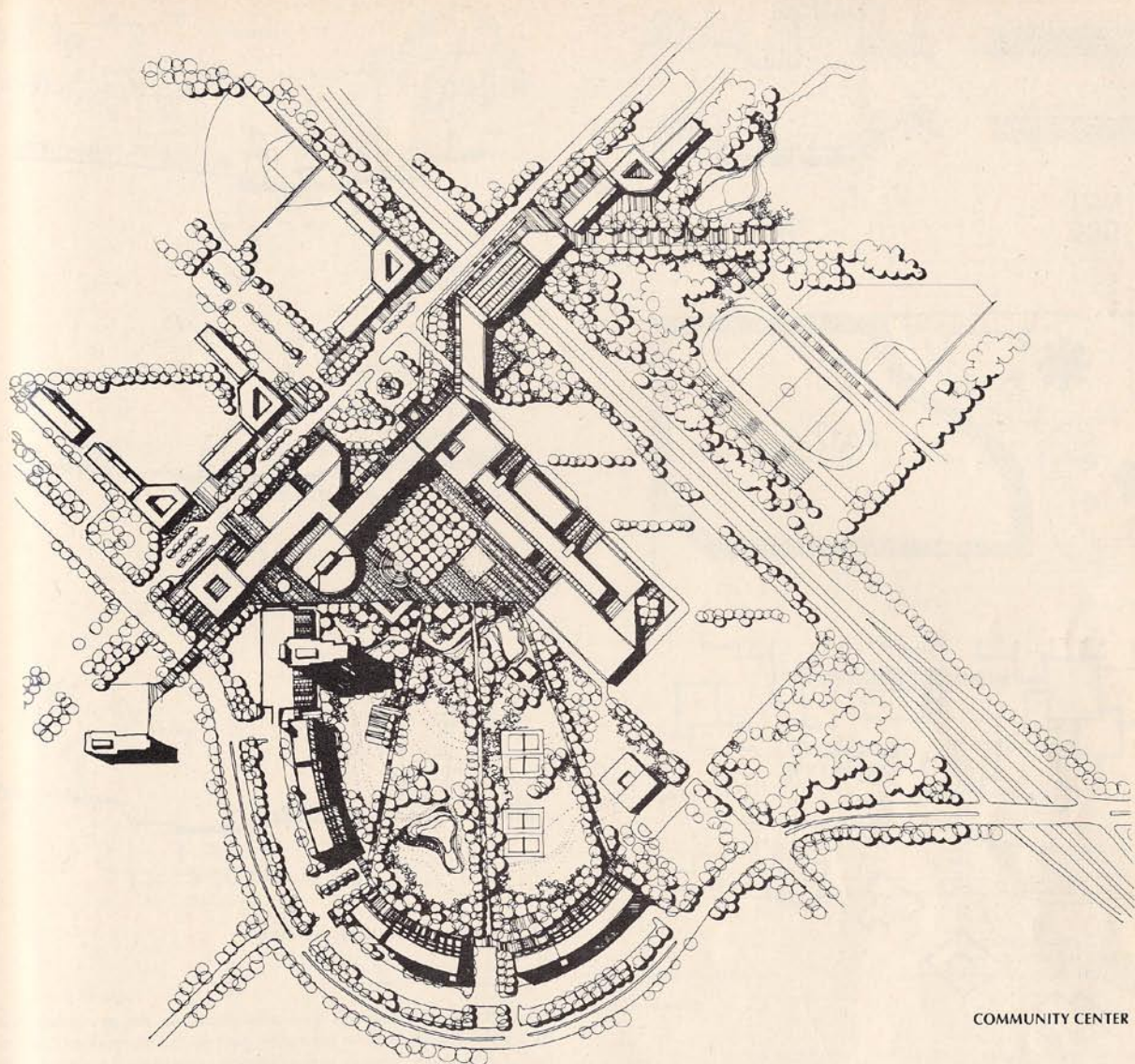
Examples of these housing

type studies are shown at the top of this page. They are based in part on an analysis of traditional New Orleans building practice, and also on a climatological study.

Relating site and building design

The relationship between stage two and three of the process of designing a planned community—that is, between the conceptual organization, and the concepts for the actual physical development, is an extremely tricky one.

It is possible to go wrong, as mentioned earlier, by doing too much architectural design prematurely, it is also possible to go wrong by not doing enough architectural design, and choosing a conceptual organization that does



COMMUNITY CENTER

not work out well in the later stages.

The firm of Sasaki, Dawson and DeMay has given a lot of thought to these problems, and has evolved an interesting methodology. The firm receives a lot of queries of the "I have an option and want to build 500 condominiums" type, and Kenneth DeMay says he has gotten to the point where "I don't even bother to go to the site any more. All that happens is that you get lost in the woods."

Instead he spends his time trying to find the project's vulnerable spot. What is the zoning? Is there a local sewage system that can take care of the new development? What about anti-growth forces in the locality? The only de-

sign the firm does at this early query stage is an analysis of the physical capacity of the site to take the proposed buildings in a manner consistent with quality development. Working from maps and aerial photographs, DeMay says he can go away from the office and "knock out these studies in two or three days, over the dining room table."

This much expenditure of his time, and the client's money, is often enough to uncover serious difficulties; leading, for example, to a recommendation that the developer acquire additional property, or forget the project.

Once a development goes ahead, however, the firm likes to do schematic designs for the buildings at the same time that it

is laying out roads and lot lines, and will develop a series of very explicit design relationships between the site, the infrastructure and the actual architecture.

Naturalism or geometry?

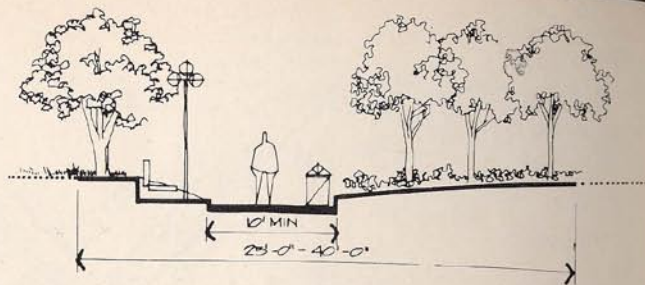
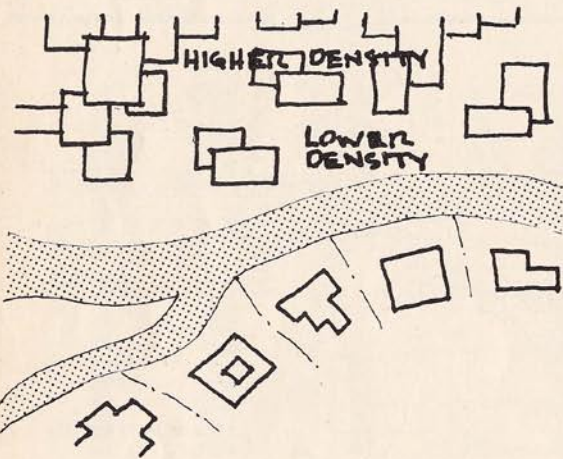
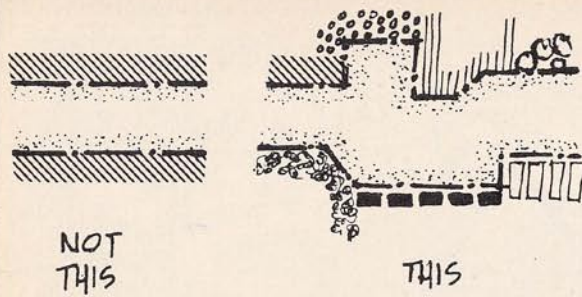
Many land planners, including Sasaki, Dawson and DeMay, develop the road organization for a planned community by going out and "walking the site," adjusting the roads not only to the contours, but to the character of the land.

Other designers prefer a more assertive, man-made scheme of things. David Crane and Partners favor what Crane calls the "8 vector grid," which was used for the town of Lysander, being developed by the New York State Urban Development Corporation

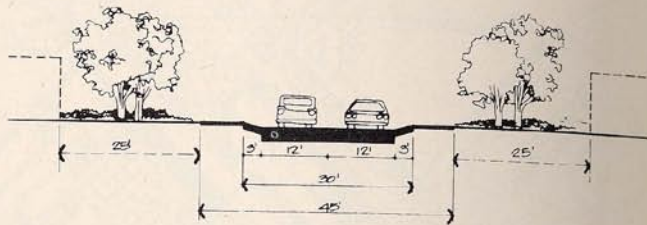
near Syracuse, New York. (See above, cover and pages 88, 89).

Eight vectors means the four sides of the square and the four sides of the square formed by the diagonals. The site of Lysander is relatively flat, and there are strongly geometric man-made marks in the terrain already present. The Crane design makes them into a systematic geometric pattern that covers the whole area of the town. In addition, the town center is marked by another strongly geometric construction: a shopping complex, designed at right angles to form an "L," intersects with a sweeping quarter-circle curve, which is both a curving group of apartment buildings, and a curve in a major roadway.

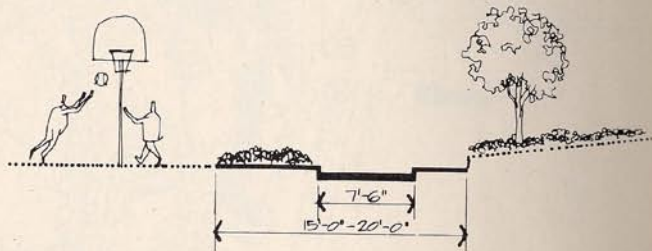
The shapes are present purely



PRIMARY WALKWAY



MAJOR RESIDENTIAL CONNECTOR



SECONDARY WALKWAY WITH OPEN SPACE

At left, three of the diagrams illustrating conceptual design controls developed by Caudill Rowlett Scott in the master plan for the Thornwood Community at Park Forest South. Above, design controls developed by David Crane and Partners for the new community of Lysander, near Syracuse in upstate New York.

for "design" reasons, to give a definite character to the town.

The Crane firm has been given a contract to do the design development drawings for this town center, and the buildings, while they have evolved considerably, still follow the same basic concept. (See page 129).

Design controls

The designers of a planned community do not always have the opportunity to carry their ideas on to the implementation stage, nor does one firm of designers usually work out all the buildings in a planned community.

In order to create a design continuity, various control methods have been proposed.

One method, which might be

called conceptual design controls, is a speciality of Caudill, Rowlett and Scott. The firm has developed a technique for stating physical design objectives in an abstract form, and getting all the parties involved in a project to consider them, and agree to make these formulations part of the master plan. Some examples of such design admonitions, drawn up for the Thornwood Development at Park Forest South, Illinois, are shown on page 93.

A more explicit, and more usual, form of design control, developed by David Crane and Partners for Lysander is also shown at the top of this page. These typical sections through roads and pathways, are developed with the engineers and land-

scape architects as definitive design standards.

Design controls for subdivision development

Finally, what are usually called subdivision controls represent an opportunity to exercise design control over the work of individual builder-developers, erecting groups of houses for speculative sale.

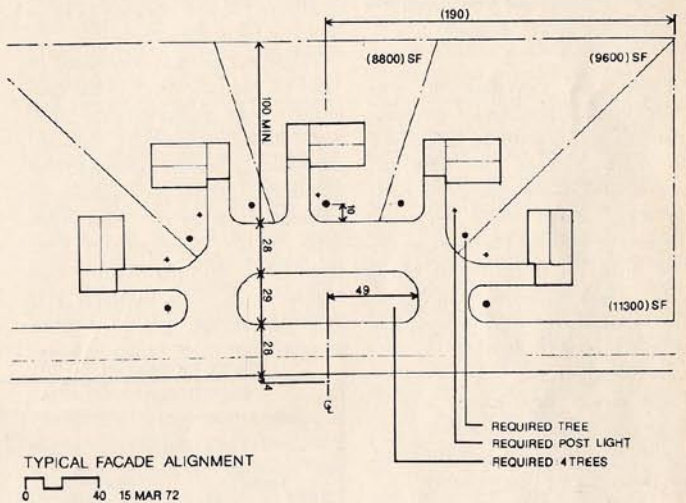
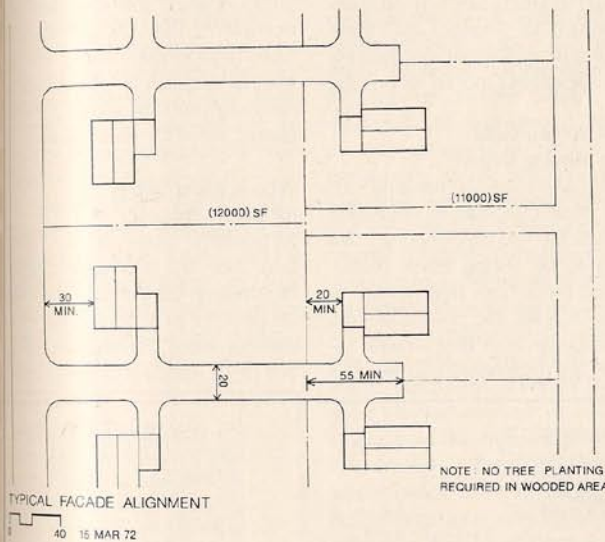
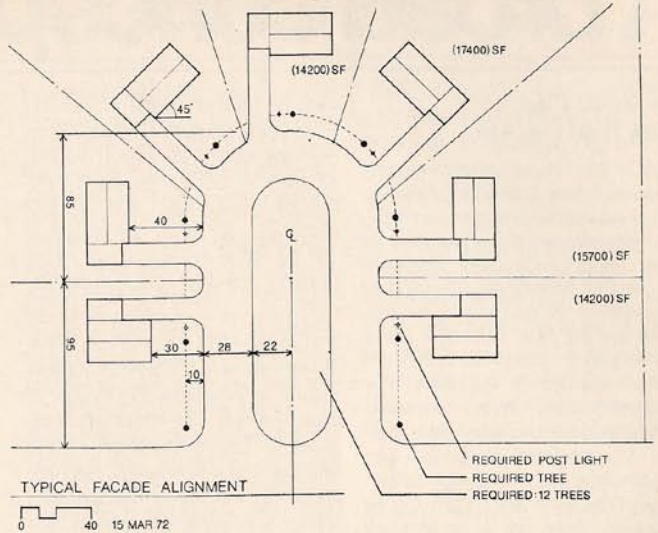
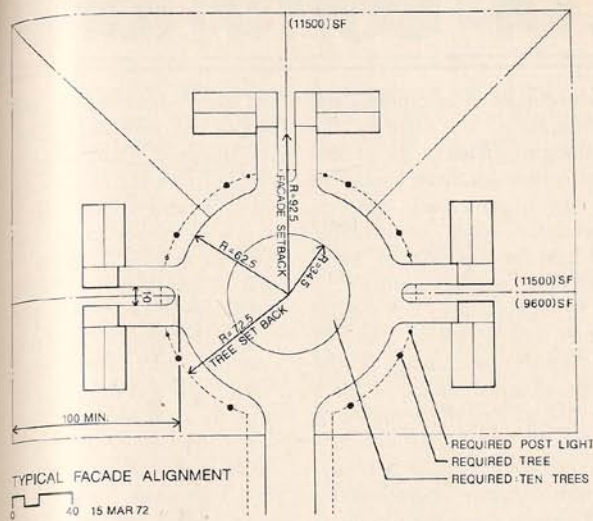
The David Crane organization developed the controls shown opposite, for Flower Mound New Town. The designer has created "build-to" lines, specified some elements of building location, and created landscaping standards. Nothing is said, however, about whether the house has shutters or diamond-paned win-

dows. In the case of Flower Mound, a strong in-house design staff at the new town corporation seems determined to enforce even more stringent controls over the builder's taste.

However, the pressure to get some income flowing to off-set the extraordinary "front end" costs of planned communities will in turn create pressures to stop "back-seat-driving" builders. The kind of controls developed by David Crane have the advantage of being explicit, relatively objective, and easily understood and agreed to in advance.

Requirements for good design

We have seen enough to be able to discern some kind of operational definition of what consti-



Drawings by David Crane and Partners set up design standards for subdivision developers at Flower Mound New Town, near Dallas, Texas.

lutes good design in a planned community.

A pre-condition for good design is that people with strong design ability must be involved in the real design decisions about planned communities: such as site selection, land-use allocation, road layout and subdivision.

A perspective sketch showing a row of houses fronting on a tree-lined path does not really say much about the design of a new community; neither does an illustrative site plan with a lot of neatly rendered roof tops, but no explicit system of organization and no method of design control.

Good design also requires continuity between the various stages of the design. An elegant conceptual plan, submitted to

HUD as part of an application for funding under Title VII, may not survive the process of being divided into realistic stages, or being parcelled out to various developers.

Good design is also rooted in an understanding of the development process. The design professional must know what to design, when to do it, and how much architectural explicitness is appropriate.

Planned communities present important new opportunities to the designer: he must learn how to make good use of them.

FLOWER MOUND NEW TOWN, Texas. Developer: Flower Mound New Town Limited Partnership—Edward Marcus and Raymond D. Nasher, general partners. Urban planning: Llew-

lyn-Davies Associates. Urban design and landscape architecture: Lawrence Halprin and Associates. Civil Engineering: Shimek, Roming, Jacobs & Finkler. Traffic and transportation: The Pratt-Voorhees Joint Venture. Economic program modeling: Economic Research Associates. Ecology: The Office of Richard Reynolds. Golf Course Architect: Joseph Finger and Associates.

PONTCHARTRAIN NEW TOWN IN TOWN, New Orleans, Louisiana. Owner: Pontchartrain Land Corporation. Wallace McHarg Roberts and Todd (physical, ecological and social planning). Tippetts, Abbebt, McCarthy, Stratton (engineering, and transportation planning). Gladstone Associates (economic and social planning).

LYSANDER NEW COMMUNITY, Syracuse, New York. Developer: New York State Urban Development Corpora-

tion. Architects: David Crane and Partners. Project administration: Metropolitan Development Association of Syracuse and Onondaga County. Consultants: O'Brien and Gere (engineering); Alan M. Voorhees and Associates, Inc. (transportation); Gladstone Associates, Inc. (economic).

AUDUBON NEW TOWN, Amherst, New York. Owner: New York State Urban Development Corporation. Consultants: Llewelyn-Davies Associates (planning); Real Estate Research Corporation, (economic); Barton-Aschman Associates (transportation); Dubin-Mindell-Bloome Associates (engineering).

THORNWOOD AT PARK FOREST SOUTH, Park Forest, Illinois. Owner: Park Forest South Developers. Planning consultants: Caudill, Rowlett, Scott.

A broad concept of "community"

by Felicia Clark
with Todd Lee, AIA

Felicia Clark is associated with the League of New Community Developers as project director and co-author of "Community and Social Facilities for New Towns" (in progress), sponsored by the Ford Foundation. She has been co-ordinator of educational development for the New York State Urban Development Corporation (UDC) and has participated in the planning of Roosevelt Island New Community (Wellfare Island), Audubon New Community (Amherst), Lysander New Community and the Buffalo Waterfront Education and Town Center Complex. Todd Lee is an architect contributing to the LNCD study. He is a Loeb Fellow at the Harvard Graduate School of Design and is on assignment with McKee Berger Mansueto.

"Large-scale development embracing ambitious social, environmental, and economic objectives is finally part of the American scene, and in my opinion is here to stay" stated HUD Secretary James Lynn during the hearings on the Title VII program in May, 1973. The ambitious social objectives described by Secretary Lynn reflect a clear difference in concept between the tract development and a "new town" and in large part this difference lies in the ability to create an environment for people, or a "community."

Title VII of the Housing and Urban Development Act of 1970 (new communities) clearly states as its purpose the provision of a "more just economic and social environment", and "the encouragement of desirable innovations in meeting domestic problems whether physical, economic or social." All other disciplines including economic modeling, market analysis and design appear to be technical support for the social plan—the lift it takes to get a new community off the ground, with its social goals as the guiding system toward the right direction.

America has never been a planned society. Belated recognition of the need for both planning and enforcement, however, is extending to the preservation of our environment, not only in ecological but in human terms. If the new towns are our starting place for the 70's, how are we going about it and how are we doing? The *tabula rasa* that a new community presents to planners has tempted

utopian thinkers since Plato, and with good reason. Nowhere else can one take a long hard look at an over-all design for living, the delivery of human services, and the expansion of opportunities for all. Ingrown bureaucracies, lack of funds and staff for planning, established ways of doing business and antipathy to change have always stood in the way of achieving major innovations in the social environment. The intent and language of Title VII spell out clearly the hopes that new towns become a vehicle for social change, and reflect a general recognition that new communities may be the only place that major changes in the quality of life and delivery of services can be accomplished.

While not all new towns are in Title VII, the objectives of the program reflect aspirations of other and smaller settlements, and are increasingly being applied to the planning of major renewal developments such as the New York State Urban Development Corporation's Buffalo WaterFront (figure 1) by Paul Rudolph and PUD's across the country. A sense of community, of humane envi-

ronment, is often amorphous and philosophical. The state of the planning art guided by social concepts is now advanced enough to put forward some basic concepts of what the words "community" and "humane environment" mean for facilities and their design.

Serious problems face the developer who wishes to plan and build a truly new community. The design of social structures for a changing society, the financing of community and social amenities in an era of tight money and government antipathy, absence of on-site residents when their political support is most needed, ingrown social bureaucracies and local antagonism to change—all these place a heavy burden on the new town developer, public or private.

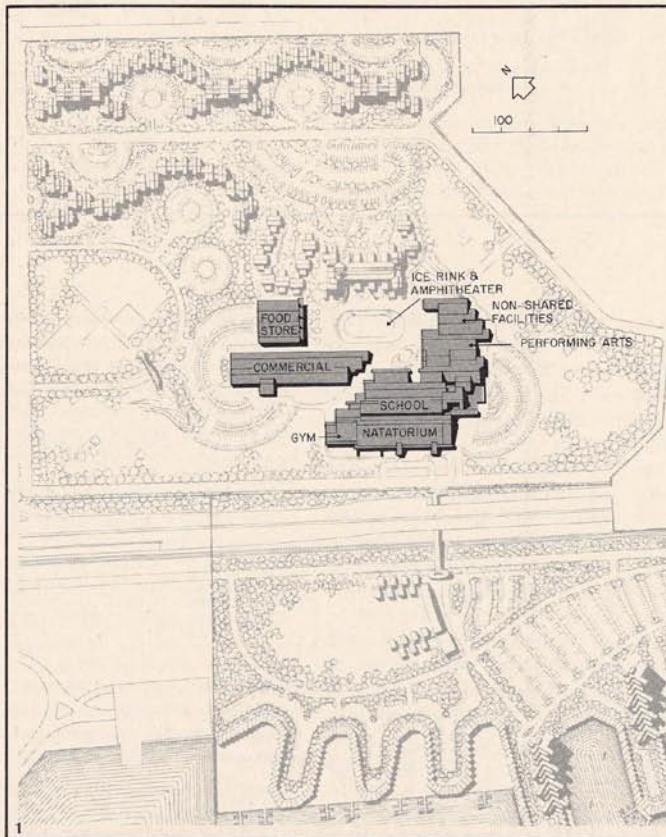
How do you build for a moving target?

American society is changing rapidly. New concepts in education and social services abound. We seem to be seeing fewer monuments: the school built to last at least 75 years, the post office and art museum with their classic facades are disappearing as services

and government move closer to people and their neighborhoods. The design of changeable or alterable space has become the architect's newest challenge; what is a supermarket today can become a school tomorrow. This type of construction is perfectly suited to the new town, with its problems of phasing as its population increases. Unassigned or "spec" space is emerging as another program essential. Because no one can predict all the requirements of an unidentified population, however, undesignated space presents the developer with a financial gamble; who can afford spaces unrented and unoccupied? But social programmers believe there is no alternative. Unfortunately methods of financing and design of these spaces are still in their infancy.

Who is going to pay for public spaces?

Particularly those which don't look like the traditional public buildings of the past century? Over 80 per cent of school bond referendums were defeated in 1972, and these were for single-purpose



The Waterfront Town Center in Buffalo, New York, designed by Paul Rudolph with Felicia Clark as social planning consultant, will merge the resources of city government, the board of education, community service agencies, and the New York Urban Development Corporation. This community/school complex, in the center of 2,800 residential units, will serve the educational, recreational, commercial and social needs of more than 10,000 inhabitants. Since 81,000 square feet of the

What's new about new towns

school buildings only. The continuing Nixon vetoes of Congressional appropriations for social programs clearly describe an attitude in Washington of antipathy rather than support for the human services. On the local level, funds often need voter approval and residential pressure, yet the developer of a new town feels that he is fighting the battle alone and is.

In the areas where a new town is coming, the attitudes of existing residents have often been antagonistic and apprehensive. They suspect (and in many cases rightly so) that the new town will change their way of life and threaten the values with which they have grown up. Planning itself is a threatening word. And planning by somebody else, for someone else, describes a nightmare of change. Furthermore, the security of local agencies is often based on business as usual.

These and many other difficulties have initiated some productive innovations which come through clearly in four areas: user needs analysis (planning and programming); integration of services (financing); the

community complex (43 per cent) will be shared space, the UDC will establish a subsidiary corporation, comprised of representatives from all the users which will own and manage those spaces which otherwise might be under-utilized or disputed by the several agencies. The Buffalo Waterfront Town Center will open in September 1975—the first community school to involve private service agencies and fully private commercial tenants in an adjacent and related complex.



multi-purpose town center complex (design); and community control of institutions (governance).

Methods of user needs analysis

New town developers, public or private, plan the social side of their new communities in a variety of ways, but the essential process begins with user needs analysis. What people need can be the subject of a great deal of argument. In time past the swimming pool, the golf course, the school building and a shopping center were considered adequate. Now there is rising demand for day care and early childhood education, activity space for teenagers, adult and vocational training, services for the elderly, extended health and mental health programs, varieties of recreation—both public and commercial, arts, and opportunities for ad hoc activities which the new community residents themselves will generate to suit their own emerging needs. Some developers have strong commitments to certain types of activity and insist upon them, some use complex computer assisted analysis of what is available in the area and build for that, some turn their backs on the whole issue. Unfortunately, public hearings have been used as a substitute for local consultancy and sharing of the planning process. This after-the-fact ratification won't fool many people any more.

Probably the most exciting innovation in user needs analysis has been the user consultant and surrogate process developed by Urban Design Associates for the new town of Gananda, New York and by Ashley-Myer-Smith for the G Street Project in Washington, D.C. In both of these cases extensive consultation is carried out with local residents and local officials acting as surrogates for future residents. Participants are divided into affinity groups—young, old, rich, poor, black, white, etc. With sophisticated planning techniques developed by these two firms, the groups discuss their needs and aspirations and these are built into the plan. This can be a lengthy process and requires very open minds on the part of the planners and architects. Decision-making is moved from the plan-

ning office into the field. Preconceptions give way to actualities. Not many professional planners have yet relinquished the role of playing God. The user needs analysis process, however, seems to be working and in terms of expense certainly justifies itself in the potential elimination of costly mistakes later on and the generation of local support for the plans the developers will put forward.

The Ashley-Myer-Smith user consultancy process cost the developers less than 1/10 of 1 per cent of the total anticipated cost of the project. Obviously it is dangerous to raise local expectations for amenities that cannot be provided. Planners must take extreme care that this does not occur. Many things users and planners want cannot be built, usually for lack of capital or operating funds. For example: Despite UDC's strong commitment to day care for all income groups, New York State has little available money, and that is limited to the very poor. Cedar-Riverside is short on recreation facilities without schools to share space and cost.

The social planner should participate from the start

Frequently in the past the social planner has been called in after the fact, either to appease the locals with glowing descriptions of what could happen in a design already finished, or in an effort to insert into that design certain socially acceptable facilities which were not considered as part of the over-all plan. To meet the evolving programs generated by changing user needs, a decision-making team of disciplines, broad enough to deal with such complexity, must be either permanent (a developer's in-house staff) or be able to be reconstituted easily (a problem to which consultant groups are only now responding).

Programming the community facility is a technical translation of user needs into quantities and rules for putting those quantities together. Two kinds of change require that the program not be a rigid document. The user's own perception of what is needed will be modified by seeing the spaces and physical relationships which are generated, while the program team will begin to understand what is possible. More important, the users and their needs are never

constant. The program must not only be malleable enough to reflect these changes, but be developed to the point that it can predict them and respond to feedback. The essence of the program for a community facility will be identifying those program elements which are fairly static and those which will need to change repeatedly over the life of the project. To be an effective guide to design decisions, the program must be recycleable—able to reflect changes in user needs.

Columbia, Cedar-Riverside, Flower Mound, Gananda, Riverton and Roosevelt (Welfare) Island have pioneered in the use of social planners as a basic part of the design team. The social planners are essentially leading the team in directing the over-all planning for Flower Mound and Riverton. Cedar-Riverside's social planners participated from its inception in all aspects of the development program including selection of construction sites, financing and cash flow analysis, land use and environmental impact. Roosevelt Island was always conceived as a social experiment and a challenge to inner city living. The program developed by its educational and social planning team, which included city professionals as well as in-house staff, has made Roosevelt Island a testing ground for innovations in education and the coordination of health and social services. Unfortunately, because of the curtailment of Federal grants, this program is in limbo. So far, only a part of the costs of a small park and the renovation of one building have been funded.

Emerging alternative: the multi-purpose complex

Gaining acceptance is the concept of the lively multi-purpose complex which blends education, recreation, services, shopping and the arts together into an exciting focus for a community day or night. Although not yet widely understood by the average school superintendent, architect or commercial developer, the multi-purpose complex, with spaces leased to many users through time- and cost-sharing, is one clear way to save on capital cost. In addition, combinations of programs which this kind of structure allows, can eliminate operating overlaps as well.

Planning with residents and their local governments

Developers frequently encounter the greatest problems in local negotiations with residents and pre-existent governmental organisms. New town developers are rarely welcome. They are considered a threat to a way of life, mysterious autocrats who are not listening, purveyors of crafty plans in which the locals have no voice. This aura of antagonism can create serious problems for developer and planner. Locally initiated lawsuits are common. The developer finds that in the social services the locals usually hold all the cards. The school district, not the developer, will pay for and run the school system; the county welfare department will decide whether to allocate its thin resources for day care and other social service programs to the new town. The developer and planner who find themselves at war with the people in their district are going to see a great many of their cherished ideas go down the drain while losing costly time in the process.

A resolution of this problem is to make the people and the government officials part of the planning team. This is not often easy. Most of these people are untrained in planning concepts and have had little opportunity to explore alternatives to their present situation. User consultancy goes a long way in the right direction. In addition, developers have granted money to local entities to enable them to do the kind of planning for themselves that will make them able to respond and participate as the new town gets underway. Other techniques will evolve in the coming years if the basic premise is accepted by planners and developers—that social planning is an essential part of the process of the new community.

Democratic self government within the new town

When the first residents begin moving into the new town, they and the developers and planners face some new and critical issues. How does the developer transfer authority to the embryonic government authority, board or community association? Can he help develop a governmental organism which is truly democratic, broadening and strengthening participation from all sectors of society? Can he preserve the integrity of his over-all concept while admitting maximum citizen involvement in planning? How can services be

equitably distributed, and can taxes, assessment or user charges support those services needed by low- and moderate-income residents? How can resident-users contribute to the financial support of these services in terms other than money? What is the relationship of the new town governance mechanism to already extant government entities?

New towns are seen as laboratories for testing new forms and processes of local self-government. New towns provide a unique opportunity for experimentation and reform. Some of the answers lie in the consultancy planning process, others in changes in the structuring of state and local law. The various forms now in existence or under discussion are too numerous and complex to be discussed here. These are historic legal political questions of governance and remain a major challenge to the planner and developer.

Two case studies:

Lysander and Roosevelt Island

Of the many projects with which UDC has been involved, Lysander and Welfare Island (now officially Roosevelt Island) lend themselves best to a description of the social planning process. Lysander, a large and virtually empty tract of wooded hills 12 miles northwest of Syracuse is part of the town and school district of Baldwinsville. Essentially rural in nature, although on the frontline of the Syracuse growth pattern, Baldwinsville was the quintessential American small town. Virtually all white with a minimum of social services (no day care, no public library, few health facilities), it had little of the sophistication which would enable its town fathers to work with the UDC. At the same time the UDC, an agency in its infancy and just assembling its forces, had hardly begun to organize its own processes. Few of us knew an accurate method for user needs analysis; moreover, the needs of the existing residents seemed to be in another world from those low- and moderate-income people whom we were planning to bring to the new town. As is often the case in a brand new agency conceived to get things done in a hurry, team organization was almost totally lacking. It was every man for himself and the loudest voice usually won the day. Planning was further complicated by the fact that the specialists commuted from New York

where we were deluged with other problems all along the way. The issues we faced in Lysander were basic to almost any new town outside of the major urban centers: local apprehension and confusion, the necessity for political approval of bond issues to build social facilities, determination by present residents that the new town would not get all the good things that the UDC might be planning and that the locals should have their share. There were almost no local resources for community facilities, even though in many cases these were agreed upon as essential for everyone.

A basic plan for the Lysander town center, combining educational facilities, recreation, other community facilities and a commercial shopping center was evolved in New York City. Without the team process and effective partners from the local community, the plan was eroded by local negotiation, altered by commercial and marketing experts and finally the school bond on which a major portion of the public spaces depended went to referendum and was defeated.

Unlike many developers, the UDC is not willing to, or believes it cannot, build without firm commitments well in advance that it will get its money back. A number of us believe, however, that in cases like this "spec" space for the Lysander town center, a gamble on the part of the developers is the only answer to the provision of public services which the local people, prior to the arrival of the new residents, will not support. In the case of Lysander, we are proposing that the UDC build commercial space in the town center, which can be used with the cooperation of the local school district as a temporary school. The school board, when faced with the actuality of pupils it must educate, can lease that space and operate it until enough residents of Lysander arrive to put the bond issue through. This type of phasing and alterable space is a new idea for the purveyors of social service in general, most of all school people, but it can be done with little additional cost and an enormous saving in time.

Roosevelt Island was at the opposite end of the planning pole. Conceived as an innovation and basic improvement on urban life, it came at a time when the managers of New York City services were desperate for opportunities

to experiment with new ways of doing things. There was plenty of information on user needs; the problems of New York City dwellers, whether rich or poor, are too well-known. There were plenty of planning partners from the city. A joint planning committee which included some of the most powerful thinkers and managers in the city (including Albert Shanker of the United Federation of Teachers, Jule Sugarman of the Housing and Redevelopment Authority, Harvey Scribner, Chancellor of the New York City School System, and others) gave the project the full benefit of their imagination and their frustrations. A strong concept evolved with social planning at the core. Roosevelt Island's school plan (figure 2) is generally considered the most radical and innovative in the country at this time. On Roosevelt Island there are no school buildings; each small and intimate school space, with a maximum of 250 students, is within the apartment buildings and the community complex which will make up the town center. All non-academic spaces will be shared with other users and are considered community resources for all. The town center program combines school spaces which can be shared with the community (theater, library, cafeteria, film, shops and a multiplicity of arts facilities) with the commercial center offices and a proposed hotel. The town's main street takes the place of school corridors. Children and adults will learn, play and work together in an effort to end the traditional isolation of the schools from the mainstream of community life. With powerful political allies the social and community facilities plan went through almost unopposed and the decision-making implementation process for the schools and social services moved smoothly forward. If certain questions remain unanswered as to how to make such a system work, at least Roosevelt Island has gone a long way in setting the physical stage for innovations which may change public service delivery for New York and other cities across the nation.

I am now directing a nationwide survey, sponsored by the Ford Foundation and the League of New Community Developers, on the financing, design and planning of community facilities for new towns. While the study is not complete and there are many issues which we have not yet re-

solved, certain innovations have emerged which we believe are answers to a good many questions.

The first is the multi-purpose town complex, as illustrated in the designs for the Buffalo Waterfront (figure 1) and Roosevelt Island (figure 2). These complexes, usually housed in one extensive building with interior streets, a plaza and a major access, contain both public and commercial spaces under the same management and governance system.

They are in essence the focus of neighborhood activity: a housewife can drop her children at school, take her baby to day care, do her shopping, take an adult education or vocational training class, re-join her husband and her children for eating and entertainment. Most of the areas of the center are shared by a multiplicity of users on a shared time lease basis, producing major savings in capital cost. The school principal will not have to worry about keeping his school recreation areas open for the community at night and justifying that cost to his school board. These areas will now be community spaces which he uses only when he needs them. Museums can put on intermittent shows, the Y's can set up recreation programs without building themselves a building, the church can use the school cooking facilities on Sundays, and the community organizations can use them in the evenings during the week. Time and expense allocation will be determined by a governing board representing institutional representatives and community people who can decide what they want to do with the spaces and how they can pay for it. All this adds up to a place where a feeling of community and belonging can grow, where young and old, black and white; rich and poor, can participate together in learning, in recreation, and in the essential businesses of daily life, a place which is alive day and night, open

to all people and an exciting, good place to be.

These complexes require an ability on the part of social service agencies to lease (sometimes difficult under state and local ordinances), pay for shared time, and relinquish some traditional authority over place and turf. But they go a long way towards easing the financial crunch these agencies are finding themselves in for both capital and operating expenses, and they open facilities to changing uses determined by the community.

Implications for architects, government and developers

As part of a team the architect-planner becomes an interpreter of peoples' concerns, a planner for spaces which may rapidly change, a designer of patterns of movement and socialization which can produce the sense of community.

It is clear that the Federal government, and HUD in particular, could do a great deal more than they are doing now. It is easy to say: "build for the community." The lack of money facing school districts and social service agencies inhibits the very process without governmental support.

Title VII was intended to be a major step in governmental support of real estate developments that went far beyond shelter. To quote the bill once more, its goal is "providing a more just economic and social environment" and "(encouraging) desirable innovation in meeting domestic problems whether physical, economic or social." This section goes on to include within its purpose the integration of social planning and innovation with new community development, and improvement of the organizational capacity of the Federal government to carry out these programs of assistance. Section 712 states that the new communities "will provide an alternative to disorderly urban growth ... and will

contribute to good living conditions in the community ... characterized by well-balanced and diversified land use patterns and will include or be served by adequate public, community and commercial facilities (including facilities needed for education, health and social services, recreation and transportation)."

Despite the elegant aspirations of the Secretary and the drafters of Title VII, HUD has not begun to carry out its commitments. Supplemental and planning grants have been few and far between, many of the community development programs have not been funded, or when funded their monies have been impounded by the Administration.

Developers frequently believe that they do not have the time, energy or resources to involve themselves in the hassles of local government—school districts, referendums, county welfare departments, etc. In doing so, they are abrogating their basic responsibility to plan and build for the community. Unquestionably, the low- and moderate-income and integration requirements of the Title VII program place a burden on developers which the average business man out to make a fast buck in the real estate business has not had to face.

The developer too must see himself in the role of providing for a community of people, not necessarily just housing them. Inspired developers have accepted this role gladly despite the occasional time-consuming hassles it involves with local residents and municipalities. And, of course, a well-planned community for people is essentially a marketing tool. People will buy into such a place because it's the place that they want to be—not just as a roof over their heads, but a place where they can bring up their children, grow old, learn new skills and participate in the planning of their own future. Not

many developments in this country offer this at the present time. New communities seem to be taking the major role in providing for Americans this kind of life.

Planners don't yet have all the answers

There are a great many complexities and unknowns in planning for an ethnically and economically integrated community. What are the integrative factors in a mixed community that will bring together people of widely differing backgrounds and economic resources? What activities and programs tend to split a community into segregated groups? Do people really want to segregate themselves, ethnically or economically? How does the developer balance his commitment to the new town, as well as to his investors, against the natural desire of existing residents and municipalities to make sure that they get part of the goodies he is proposing? At what point does the developer relinquish control to his new residents in terms of decision-making and project governance? How are felt needs analysed, and people enabled to make choices when they have never had these opportunities presented to them before? If the new towns are seen as this country's basic step towards housing its people and controlling urban growth, then these issues must be squarely faced and soon.

Social planning is the only assurance of the ultimate success of a new town project. It is the only way to come close to achieving the goal of community and fulfilling the directives of the Title VII program. When you plan without the needs of people before you, you run the risk of building what may be costly and irrelevant at best, possibly even destructive to the fabric of human lives. The social fabric of a new town is not someone else's problem: it is the developer's and the architect's.

