THE POLICY APPROACH
IN URBAN AND REGIONAL PLANNING

THESIS FOR THE DEGREE OF
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ABSTRACT

## THE POLICY APPROACH
## IN
## URBAN AND REGIONAL PLANNING

by Stephen Craig Nelson


We have reached a point in time where it is no longer
asked:  do we need planning, and, is planning possible?
Rather, we now ask:  how might existing planning practice be
improved? The challenge of planning has become a matter of
procedures and methods.  However, the development of new
methods and procedures can, in turn, raise weighty problems
concerning the theory of planning.  The "whys" are inextric-
ably interwoven with the "hows" of planning, especially in a
democratic society.

Contemporary planning efforts appear to be quite wrapped
up in solving two problems:

1.  How to bridge the implementation gap between the
present and the long-range plan? and;

2.  How to offer the people a greater voice in deter-
mining their future?

On one hand, we are concerned with making the planning function
produce a better product, and, on the other, we are attempting
to give greater attention to the democratic means of doing so.

The concept of "policy planning" seems to offer a step to-
ward the resolution of these two problems.  Policy planning is
the process of developing guidelines for decision (policies)
which proceeds inductively from goal formulation through

directional strategies to the specific tactics of plan effect-
uation. Policies are, in effect, "standing plans" which set
up decision criteria for recurrent public decisions (as opposed
to "single-use plans" which are used one time and then dis-
carded). As such, a policy plan provides a day-to-day guide
for public decision-making. It re-focuses the attention of
planning from generalized end-states to the process of becom-
ing. It thus gives much-needed consideration to the problem of
bridging the gap between the present and the futuristic master
plan.

Policy planning also affords an opportunity for greater
public participation and understanding. Policy formulation
puts the planning function squarely in the light of a decision-
making process, and lays bare the points at which choice ex-
ists. Traditionally these choices have been made intuitively
by the professional planner; the only choice the public had
was a "take-it-or-leave-it" decision upon completion of the
plan. By clarifying the steps of policy development, the
representative body, which will eventually be using the poli-
cies in its decisions, will gain a more comprehensive under-
standing of the function of planning. Consequently, public po-
licy will stand a far better chance of being translated into
action. And, most important, the representative body or citi-
zens committee will have participated more effectively in the
planning of their future environment.

To develop useful policy plans requires some modification
of the planning process. First, we need a better explanation
of how the urban area functions. We need to identify the

critical variables and the decision centers which control them. Second, we need to investigate more fully the kind of a community which its citizens desire. The essence of policy planning is plotting the courses of action, but until we know where the community wants to go we cannot realistically determine the best route to that destination. Thus, we must find better methods of ascertaining community values and goals. Third, with the decreasing constraints upon urban form we should begin to identify policy alternatives. The people should be made aware of the degree of choice which confronts them. Fourth, greater attention should be paid to developing methods for objectively evaluating and comparing the consequences of these policy alternatives.

It is through the development of these planning methods that the "whys" of planning can be more broadly understood and more effectively pursued.

THE POLICY APPROACH

IN URBAN AND REGIONAL PLANNING

By

Stephen Craig Nelson

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# INTRODUCTION

One of the salient characteristics of history has been the close correlation between the human events, issues, and movements and the cultural vehicles used to express their meanings. More specifically, ideological and technological change has always been accompanied by changes or modifications in vocabulary. Conversely, when changes in the vocabulary become noticeable, it is almost certain that such changes are only the outward indications of new ideas demanding new modes of expression. The planner's vocabulary is presently undergoing just this type of change, as evidenced by recent planning articles and reports. The traditional terms of "land use", "circulation", and "public facilities" are now being augmented by such terms as goals, objectives, aims, strategies, targets, policies, assumptions, principles, standards and alternatives.

The implications of the new terminology should be evident, even to the person not familiar with the field of planning. First of all, the field of planning is becoming more introspective. The difference in level of abstraction between the traditional and new terms is evidence of the fact that planning is getting more concerned with theory. Recognition is being given to the need for framing action in a body of philosophical purpose, an indication that the profession is beginning to mature.

Closely related to the above trend, planning appears to be re-focusing its attention. The traditional terms denote the view of planning as a profession concerned with the community as an artifact whose parts can be planned so as to create a better

living environment. The newer terms, which in no way conflict
with the purpose set forth above, introduce meanings of a very
different sort. They indicate an emphasis upon the human element
in planning for a better environment - an emphasis upon the
means of developing plans for its accomplishment. Planning is
being seen more and more in the light of a decision process.
In fact, the terms described are almost all drawn from the newly
developing body of knowledge called "decision theory". The
terms themselves are not new, but the uses being made of them
are very much so.

It is the hypothesis of this paper that the uses being made
of these terms constitute a newly-developing approach to urban,
regional, and even state planning. That approach is what will
be called, in this paper, policy planning.

Policy.

"Policy" has such a variety of definitions that the use
of the word raises a great deal of confusion. It is more or
less a catch-all term which is frequently associated with
government and management. Webster's New Collegiate Diction-
ary states one definition of policy as being, "a settled course
adopted and followed by a government, institution, body or
individual." However we have generally tended to include just
about any administrative decision in this policy category.
There has been little attention given to the differences between
policy and other types of decisions.

One of the more important characteristics of policy is its

relationship to time. Policy should be used to guide repetitive decisions. As such policy persists over a fairly long period of time, and it establishes a course of action. Policies are normally used to alleviate the time consuming task of deciding upon frequently arising problems and issues; they standardize the decision-making process for those types of problems which do not demand special attention. Policies thus free the decision-makers for problems which necessitate more deliberation due to their complexity or uniqueness.

Policies are similar to laws in society. They set the framework for group action. They establish patterns of consistency and do much to promote efficiency in administration. In doing so, they also make decisions more predictable.

The important point to be made is that policies set the framework for action decisions, whereas the capital improvements program sets forth a series of decisions concerning facilities to be built. A policy merely outlines the steps and criteria for arriving at these specific improvements recommendations. A policy thus remains in effect every time the capital improvement program is drawn up, but a specific recommendation is discarded as soon as the improvement is constructed.

Planning can benefit from greater emphasis upon the use of policies. The field of planning has, in the past, tended to produce end-product plans, which are composed of specific recommendations for the redesign of the environment.

The plan recommendations were generally single-use in nature, so that after they were implemented the community had little idea of where to go next. Such plans did not set a course of action.

Also, these plans said very little about how planning could be administered in the process of arriving at these prescribed end-states. In other words planning did not live up to its claim of being a "continuing process". It was only continuing in the sense that new specific recommendations were made every now and then. These "plans completed a decision-making process rather than inaugurating it".[1] There were no guides for day-to-day decision-making, and the only decisions with which planners concerned themselves were those which were necessary to develop the plan.

Policies provide a useful tool for making planning a continuous decision process. They set a framework within which continuity and efficiency can be increased over longer periods of time and development. Policies can potentially make planning a more viable and action-oriented process. We have been too much concerned with the "plan-development process" and too little concerned with the "planning process".

The Policy Planning Approach.

Policy planning can be defined as the initial steps of planning in which it is determined what kind of a community

[1] Twin Cities Metropolitan Planning Commission, The Ten Elements of the Joint Program Plan: An Initial Investigation, Design Paper #6 (June, 1963).

(or region or state) is desired, and what courses of action are
necessary to attain it. It is the stage at which the basic
purposes and directions of the planning process are decided
upon. It is also the stage at which decision guidelines are
laid down as aids to the various bodies concerned with develop-
ment. It thus runs the gamut from general to specific, but
at no point does it become involved with specific locational
recommendations. The purpose of the policy planning process
is to build framework for development and to make a set of
statements concerning the methods of accomplishment. The policy
plan is used both as a guide to developing a spatial plan, and
as a theme for operational decision-making.

The policy plan is made up of two basic components -
goals and policies. At the very heart of all planning lies
the task of defining goals. Goals set the criteria for mea-
suring the effectiveness of all subsequent planning. They de-
scribe the qualities which are desired as the outcome of plan-
ning for the future community. After the goals have been deter-
mined it is then possible to develop policies which, when
carried out, will contribute to the attainment of these goals.
Policies, as stated before, point the directions for action and
the rules for making them manifest.

This approach necessitates a much finer articulation of
the bases for plan development than has previously existed.
Policy development seems to bring about greater emphasis on
the "whys" of planning, and, as a result it makes the degree

of potential choice more evident. Thus, one of the strong
characteristics of policy planning is the consideration of
alternatives. It is being recognized more and more that urban
development is not only controllable, but that it is also con-
trollable in a number of alternative ways.

Scope and Content of the Thesis.

It is the aim of this thesis to provide an extensive
overview of the role, uses, and implications of policy in
the planning process, as well as to outline some of the ways
in which policy can be formulated. Chapter 1 discusses some
of the reasons why policies are just beginning to be recognized
for their value in the planning process. It also describes
some of the philosophical implications which are raised by the
introduction of policy planning. Some of the recent efforts
by planners concerned with policy are compared and evaluated
in Chapter 2. Based upon the conclusions from the two pre-
ceeding chapters, the third chapter discusses the author's
proposal for incorporating the policy element into the planning
process, and for using policy as a major component in setting
up a continuous planning decision system.

Chapter IV points out the need for a better understanding
of the past, present, and future of the planning area. Systems
theory is advanced as an aid in grasping the whole of the situa-
tion. Once this basic understanding is acquired, it is then
possible to develop policy. Chapter V describes some of the
reasons for and methods of identifying, evaluating, and selecting

the goal and policy components. And, finally, the last chapter synthesizes the major premises of this thesis and discusses some implications of policy upon the traditional planning process.

The topics discussed in this thesis extend considerably beyond the immediate uses of policy in the planning process. They overlap into both theoretical and technical considerations involved in the general process of planning. This has been consciously done so that policy can be viewed in a meaningful context. An attempt has been made to investigate and to better understand the holistic framework of planning activity so that policy can become, at least in the author's mind, a viable instrument for shaping man's environment.

# CHAPTER I

## POLICY PLANNING:

## EVOLUTION, BENEFITS, AND IMPLICATIONS

This chapter will be devoted to a general description of how the use of policy in urban and regional planning has evolved over time, how policy benefits and improves the planning process, and how policy can modify both the results and means of planning.

## Evolution of Policy Planning

It would be unfair to say that the afore-mentioned changes in planning vocabulary indicate completely new concepts, or to say that policy was an unheard-of term in urban and regional planning of the past. On the contrary, there are traces of policy statement dating all the way back to the 1920's. The Regional Plan for New York and Its Environs[1] of 1929 includes goal statements, consideration of a basic policy concerning centralization and decentralization, policies for transportation, and even a discussion of policy alternatives concerning centralization and decentralization, policies for transportation, and even a discussion of policy alternatives concerning highway design principles.

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[1] New York Regional Plan Association, The Regional Plan for New York and Its Environs; N.Y. (1929).

The Lansing City Plan[2] of 1938 sets forth functional
policies for transit operation, and, along with numerous
other plans (The Cincinnati Metropolitan Master Plan[3] of 1948,
and the Detroit Master Plan[4] of 1951), proposes development
principles and standards for recreation and transportationn.
These are only a few examples.

Why, then, is policy planning considered a contemporary
development, and why is it worth detailed investigation? The
reason is that, until recently, policy has been utilized
only in bits and pieces, as a crutch to help justify a plan.
It has not been thought of as a total and comprehensive state-
ment. It is just since about 1960 that planning reports have
begun to reflect the fact that the essence of planning is ex-
plicit statement of policy - that in order to plan effectively
we must have some consensus on where the community wants to go
and how it proposes to get there. Comprehensive policy plan-
ning involves a hierarchy of decisions beginning with the
most general and obvious and carrying on through the highly
specific choices. Past efforts have tended to jump in and
out of this hierarchy whenever the moment seemed appropriate.
And because of this, policy was incremental, unclearly stated,

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Harland Bartholomew and Associates, The Lansing City Plan;
Lansing, Mich. (1938).

[3]Cincinnati City Planning Commission, Cincinnati Metro-
politan Master Plan; Cincinnati, Ohio (1948).

[4]Detroit City Plan Commission, Detroit Master Plan;
Detroit, Mich. (1951)

and only partially developed. Policy, if even considered at
all, was only a sidelight of the plan.

The Setting for Policy Planning. It is somewhat diffi-
cult to understand the reasons why policy is only now receiv-
ing attention from the planning profession. Policy formula-
tion is certainly not a new concept; most corporate organi-
zations have used administrative policies for many years.
The field of business management is already quite advanced
along these lines. The slowness of planning in coming around
to the notion of policy planning is perhaps attributable to
the origins of the profession. Early planning was usually
performed by civil engineers, architects and landscape
architects, and quite understandably planning took on many
of the characteristics of these design professions. Although
they differ in some respects, none of them has been overly
noted for its verbal eloquence. They have as their prime
function the design of man-made components (on the micro-
scale) in the physical environment. Hence, they have ne-
cessarily relied upon graphic representation to portray
their proposals. The "picture is worth a thousand words"
philosophy has permeated the work of all three of these design
fields. The reliance of civil engineering upon graphics has
been due to the highly mathematical and geometric nature of
plan proposals. Architecture and landscape architecture have
used graphics more because they are concerned with the

creation of visual beauty.

Urban and regional planning, as an outgrowth of these fields, has inherited this graphic orientation. In addition, it also inherited the technical orientation of engineering, even though the subject matter was more at the macro-level. This visual approach is certainly not bad but the fact that it was relied upon to the exclusion of verbal justification was a problem. Policy was supposed to be implied in the mapped proposals, although in terms of most definitions this was not policy but rather a series of specific recommendations. Planners were more concerned with designing outcomes than with managing action.

The next phase of planning saw a pre-occupation with data collection and description. This was perhaps the effect of the social scientist's interest in planning. Substantiating background data was gradually increased until it was felt that the physical plan was unquestionably well-justified. As a result, the study and analysis conclusions became the focus of attention. Newspaper articles have consistently found the primary value of the master plan to be what it predicts a-bout the future - population growth, economic potential, and land needs - rather than how that future is to be met.

The typical plan of the above-described era was composed of about 95 per cent study and analysis and five per cent plan. Although the original map-plan approach was given some justification, and although the relatedness of the physical city

to its social and economic characteristics was established, there still existed a gap between the research and the plan proposals. And furthermore, increasing concern was being expressed over the number of master plans gathering proverbial dust on the proverbial shelf in the proverbial city hall.

Recent Reactions. Planners have in the last few years, reacted to this shortcoming of the master plan in a number of ways:

1. They have attempted to make the plan a more dramatic document - one which will generate greater public support.

2. They have attempted to define more succintly how the plan can be effectuated.

3. They have attempted to involve greater citizen participation in the planning process.

All three of these reactions seem to have culminated in a new emphasis upon articulation of planning policy.

First, the plan could not be made more dramatic through pretty pictures alone (although this has helped greatly). Visual appeal had to be supplemented by new and dramatic ideas upon which plans can be based. This meant that greater attention had to be paid to plan concepts and building blocks. This meant that some of the traditional planning principles had to be brought out into the open in the form of explicit verbal statements so that they could be

evaluated objectively. Too many vague and indefinite prin-
ciples were being freely tossed around as if they were law.
Policy has provided a vehicle through which these principles
and concepts can be expressed, and it has helped seperate the
true concepts from the "rules of thumb" and the "best guesses".

Secondly, after finding that implementation procedures
were not working well enough, planners have attempted to pro-
vide guidelines for the operational day-to-day decisions of
all groups concerned with carrying out the plan. This, again,
meant that the conceptual basis of the plan had to be drawn
out of the map and stated as policies. Such policies can
provide a reference point for repetitive problems and detailed
proposals, and thus the plan stands a far better chance of
becoming a usable guideline for action.

Thirdly, when it was decided that the non-professional
public should play a more substantial role in the develop-
ment of the plan, planners were forced to stop and analyze
their decision-making processes. How was the plan really
developed? In most past efforts it had been a relatively in-
tuitive process in which design was rarely consciously struct-
ured. Now planners had to sit down and make plan development
a rational scientific methodology. The problem boiled down
to levels of policy decisions. The Lansing Tri-County Region-
al Planning Commission's effort along this line provides an
excellent example of how a desire to incorporate a Regional
Advisory Council into the plan development stage caused this

staff to articulate the plan development process so that they could give a sound explanation of what planning was all about.[5]

Thus policy planning is the resultant of efforts to make the master plan a more viable doucment: by giving it a more dramatic appeal, by making it more usable, and by encouraging greater public participation. Through these efforts it has become necessary to pay far more attention to where the community wants to go and how it proposes to get there. This is, in essence, the process of policy planning.

## Benefits of the Policy Approach

Basically, policy formulation benefits the planning operation by:

1. Affording better opportunities for citizen and public participation.

2. Making public review and continued planning more effective.

3. Providing a tool for coordination of all agents concerned, either directly or indirectly, with the environment.

4. Providing an explicit basis for more consistent decisions.

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[5] Tri-County Regional Planning Commission, The Regional Advisory Council: Its Purpose and Function: Lansing, Mich. (1963)

5. Eliminating a lot of repititious work required when

decisions are made concerning recurrent problems.

Following is a more specific discussion of the above points.

Public Participation. One of the recurrent themes in

the few articles written about policy planning is the em-

phasis upon its value as a boost to democratic planning. It

might be said that all successful planning - that which has

produced lasting beneficial action - has been based upon

conscious and explicitly stated policies. "Therefore the

idea of 'policy planning' seeks only to place greater empha-

sis on this element of the planning process - to urge more

wholesome relationships between planner and democratic author-

ity - to meet more effectively the growing desire of people

to participate in the setting of directions pursuant to their

own views and understanding of their needs and aspirations."[6]

Policy planning makes this possible by affording a more

understandable and comprehensive level of choice to the

public. By moving from general to specific, the public is

far more capable of coping with the basic hierarchy of impor-

tant issues, assuming that the relationships  between general

and specific decisions are made clear. The people are thus

brought into the planning process at the conceptual level of

decision-making rather than at the detailed development plan

level where policy consideration may be overshadowed or

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[6] Frederick Aschman, "The Policy Plan in the Planning Program",
Planning 1963; American Society of Planning Officials,
Chicago (1963):  pp. 110-111.

obscured by design details.

Aschman points out an excellent example of this advantage when the policy approach was followed in developing a set of complex and advanced industrial performance standards for the city of Chicago. By avoiding the specifics of the issue at the beginning of the discussion and starting from the basic policy level choices, it was possible to keep the politicians from becoming distracted by possible effects of the standards on specific properties. "This group developed and then promoted such an understanding of the critical factors and the essentials of the policy choices that it was ultimately possible to secure formal adoption of progressive industrial land use policies and their translation into legislative measures with amazingly minimal opposition".[7]

Public Review. An advantage related to the one described above is that policy planning lends itself well to the review of policies, basic assumptions, conditions, and planning premises. It does this much more effectively than the conventional physical plan which only infers mappable policy. Since it is more understandable and limited to explicitly stated basic choices, the policy plan can be periodically subjected to staff, commission, and public re-examination in a more rational and more broadly participative way.

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[7] Ibid., p. 109.

It has often been emphasized that planning must be a con-
tinuing process; yet, as many of the older planning commissions
are sadly finding out, most of the plans which need revision
due to changing conditions are impossible to build upon. Poor
articulation of developmental policies and plan premises has
dictated the complete scrapping of many such plans and the
commencement of a new planning program as though there were
no planning precedent. The policy approach can overcome this
problem by setting down an explicit statement of the decision-
makers' values and attitudes at a particular point in time.
Such planning will gain considerably in historical continuity.

A Framework for Coordination. If planning is viewed as
a decision system, then the policy approach plays a crucial
role in making that decision process more coordinated. We
have always talked of coordination but seldom has it been
fully realized in practice. Henry Fagin feels this to be the
pivotal function of the policy plan - to bring together the
physical, economic, and social policies of all agents whose
decisions directly affect the system for which plans are
being developed.[8] For the governmental sector of the deci-
sion system this involves a comprehensive statement and
dove-tailing of federal, state and local policies. This
would promote a better understanding of each other's goals

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[8]Henry Fagin, "Organizing and Carrying Out Planning Activities
Within Urban Government," Journal of the American Institute
of Planners; XXV (August, 1959): pp. 112-113.

and programs while at the same time making more obvious the interrelated nature of their decisions. The policy plan, after sufficient coordination is achieved would then serve as a frame of reference for subsequent development of single-use plans, programs, and more specific policy.

By making such a document readily available and understandable, the various governmental agencies can present a unified front to the private sector of the decision system. It can provide a coordinated informational base upon which private decision-makers can make their choices. More positively, through conceptual agreement, government can begin to influence the images, plans, and actions of its constituents towards the policies selected by their duly elected representatives. In a pluralistic society there would be no sense in planning if such planning could not be used to influence these private actions. All influencing does not, however, have to be accomplished through regulatory action; simple presentation of the values and attitudes of the governing body plus a little public relations can be equally as effective (with less strain being put upon the private enterprise system) if a unified and coordinated governmental front can be pieced together. Influencing private decisions can be much more feasible if the private individuals have had a better chance to get their ideas considered in the original development of public policy.

Figure 1 points out the two ways of influencing private

decisions. The regulatory influence, although effective in most cases, does not have the effect of implanting the reasons for such action upon the actor's mind. The policy plan however, has the non-coercive effect of influencing the actor's value structure - of perhaps modifying his images, plans and eventually his actions. Goals and policies, especially when portrayed in an "outcome plan", provide a unit of identification. They educate the citizen and make him more aware of where his community is going, and perhaps instill him with a desire to aid in some small way. This is an era of concern for directions, and people are interested in what the future holds.[9] And when directions are understood, then regulatory action is more easily accepted and public development decisions begin to appear less capricious.

The physical environment is affected by a multitude of public and private actions, made by local governments, county governments, state and federal agencies, industrial firms, utility companies, individuals, etc. The policy plan affords the greatest opportunity for providing a coordinated basis of decision-making for all these agents. As figure 2 points out, the policy plan can guide a more rational movement toward a better environment through coordinating the basic types of decisions:

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[9] Aschman, op. cit., p. 110.

Figure 1

GOVERNING
BODY

POLICY
PLAN

COMPREHENSIVE
PLAN
ZONING ORDINANCE
OFFICIAL MAP
C.I.P.

INFLUENCE AND
IDENTIFICATION

REGULATION AND
PUBLIC DEVELOP-
MENT

PRIVATE
DECISIONS
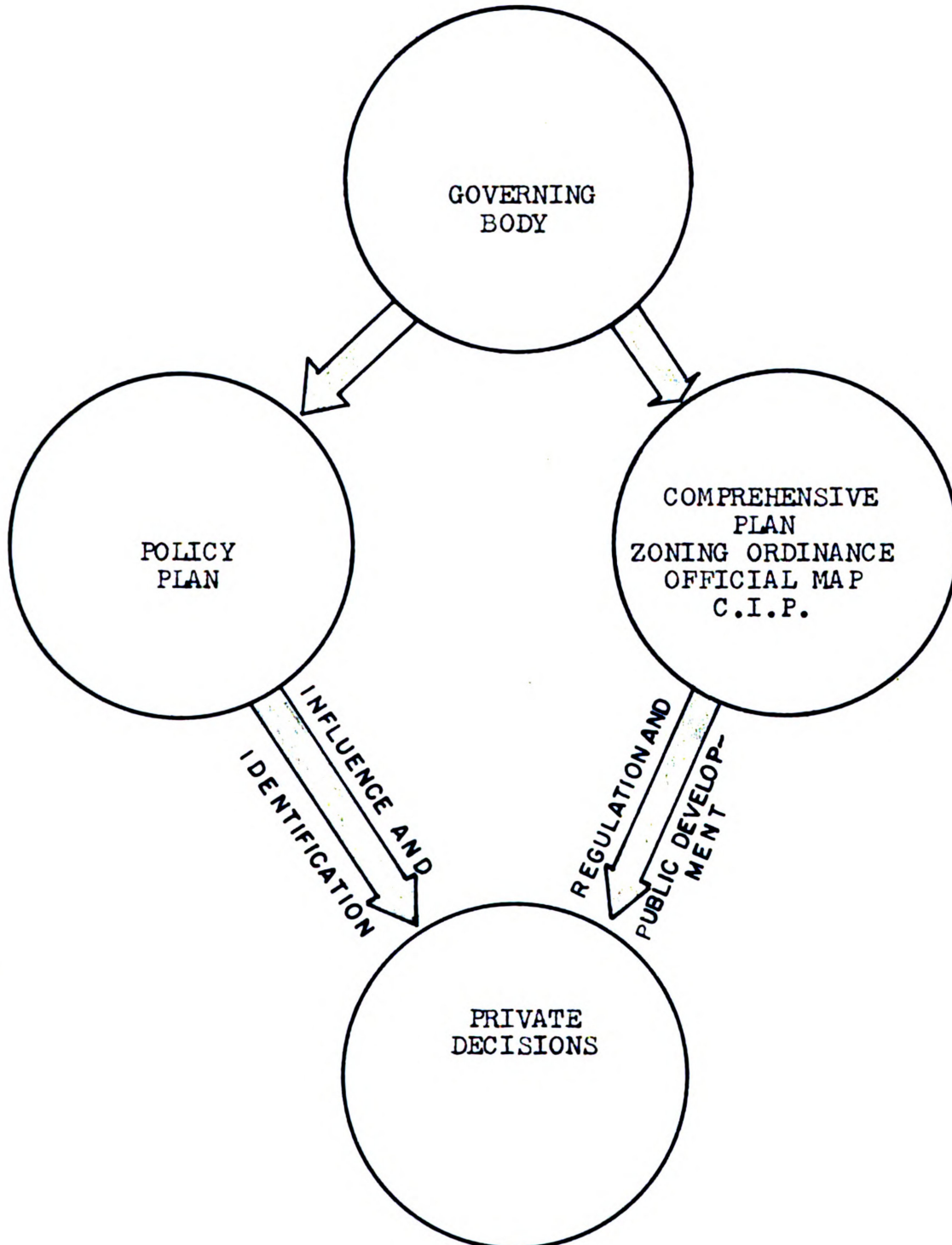
THE COORDINATIVE ROLE OF THE POLICY PLAN

Figure 2



ENVIRONMENT

CAPITAL DECISIONS

OPERATIONAL DECISIONS

DEVELOPMENT DECISIONS

REGULATORY DECISIONS

POLICY PLAN

LOCAL GOVERNMENT

COUNTY GOVERNMENT

STATE AGENCIES

SPECIAL DISTRICTS

SCHOOL DISTRICTS

FEDERAL AGENCIES

INSTITUTIONS

FIRMS

GROUPS

INDIVIDUALS

FAMILIES
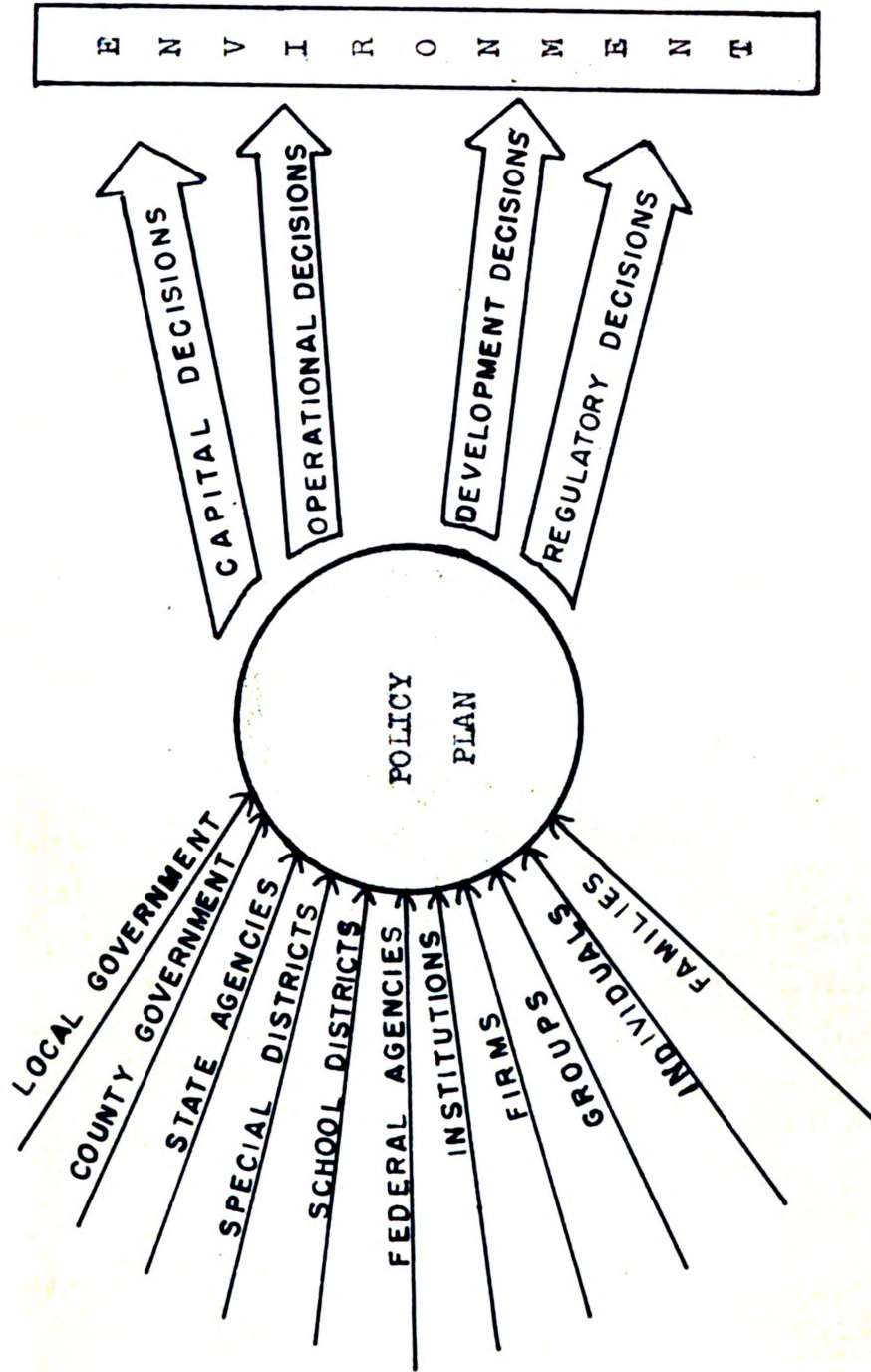
1. Capital decisions

2. Operational decisions

3. Development decisions

4. Regulatory decisions

This coordinative function of policy planning is becoming increasingly important in larger cities and metropolitan areas where the planning job must be shared by many agencies and interests. It offers a workable device for relating physical plans, financial plans, social welfare programs and various other elements of total community planning which are organized outside the physical planning agency.

Consistency. Planning commissions are often criticized as being capricious and arbitrary. Because the policy plan is designed for dealing with recurrent problems, it can serve to overcome the inconsistency at which these often valid criticisms are leveled. Certain precedents can be followed, if explicitly stated in the form of policy, which will make the decisions of the commission far less arbitrary. Policy can also be a useful tool to the citizen who finds it necessary to remind the commission or staff that it is veering from its stated course. A lot of extra work and needless public hearings might also be eliminated if policy is so clearly stated as to give the public an idea of the probable response a commission will give on certain questions, issues, and requests. For instance, a clear rezoning policy would undoubtedly be just as effective in keeping down the number of rezoning requests as the existing fee

process.

A note of warning should be sounded, however, concerning the bureaucratic static momentum which policies tend to take on. Policies should not be made so inflexible that even unique non-programmed type of decisions are crammed into such a framework. There are certain decisions in which the number of variables makes it difficult to formulate policy. Furthermore, policy should be placed under periodic review in order to take into consideration changing technological and design criteria, readjusted goals or higher level policies, and the feedback of the effects of existing policy upon the workings of the system.

Efficiency. When a community is confronted with a recurring problem of the same general nature, the development of policy statements regarding these critical areas can be of significant help in reducing staff time requirements without impairing the quality of planning recommendations. Such time-consuming problems as hill-side development, mobile home locations, and shopping centers could be handled in this manner. Each time the same problem arises the agency or the commission will not be required to start from the very beginning.

Justifying the Results of Policy Planning.

A number of recent articles have attacked present planning efforts as being overly concerned with portraying desirable end-states.

As Robert Mitchell states: "Most planning today is static.
It portrays a desired urban pattern at some future date. I
believe the plans of the future will be plans for the nature,
rate, quantity and quality of urban change - for a process of
development. They will be expressed in dynamic, rather than
static, terms. They will start with present conditions and
point the direction and rate of change."[10] It is not that
plans are too utopian but rather that they ignore the means
of arriving at the proposed destinations.

Much of the problem can probably be attributed to lack
of understanding of how the community, region, state or
country functions. Decisions concerned with carrying out
plans are not likely to yield the welfare benefits that are
desired unless we can then pursue courses of action which are
directed toward explicitly stated objectives. The Denver
Metro-Growth Plan represents one of the rare investigations
of the way the region grows.[11] Based upon a projection of
changing causal relationships, the Plan proposes a growth
plan staged by decades. Such a plan conceives of the environ-
ment as a dynamic process rather than as purely a physical
artifact.

Means Planning. As both Aschman and Mitchell have

[10]Robert Mitchell, "The New Frontiers in Metropolitan
Planning," Journal of the American Institute of Planners;
XXVII (August, 1961): p. 169.

[11]Inter-County Regional Planning Commission, Metro-Growth
Plan, Master Plan Report #16; Denver, Colorado (1961).

emphasized, future planning will be characterized by greater concern for the means of moving towards stated goals.[12] Friedmann has, in fact, defined planning as the process of society guiding its own development into the future, "<u>in such a fashion that maximum social good at any point in time may be realized</u>."[13] Master plans have tended, like dictatorial governments, to emphasize the maximum good only at a distant point (1980, 2000, etc.), giving little consideration to the present sacrifices involved.

As Banfield points out, an end may be thought of as having both "active" and "contextual" elements. The active elements are features of the future situation which are actively sought but which cannot be sacrificed without loss. He cites the extreme example of the man who burned his house down to get rid of the rats in the basement. Similarly, the theory underlying planning often appears to involve sacrifice of the present context of life in order to actively promote a better life in the future.[14] (Luckily, however, planning has not acquired the force to implement this implied aim).

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[12]Aschman, and Mitchell, loc. cit.

[13]John Friedmann, "Introduction" to "The Study and Practice of Planning", <u>Unesco International Social Science Journal</u>; XI, 3 (1959): p. 330.

[14]Edward Banfield, "Ends and Means in Planning", in "The Study and Practice of Planning", <u>Unesco International Social Science Journal</u>; XI, 3 (1959): p. 365.

The early renewal efforts provide an excellent example
of such disregard for the contextual elements. The primary
aim of renewal, at first, was the elimination of physical de-
cay, but in the process the social context of slum inhabitants
was often shattered and degraded to a lower level than origin-
ally present. Renewal specialists are now realizing that
this "environmental determinism" approach (a theory based up-
on the notion that social welfare and individual behavior are
conditioned by the physical environment) was oriented too
little towards the contextual elements of the future; however,
the problem is still a difficult one to overcome. One of the
primary reasons why it is difficult to overcome is that the
whole field of planning (including renewal) has grown out of
this "environmental determinism" philosophy, and it is diff-
icult to transplant even a young tree in a different soil.
This is one of the major causes of misunderstanding and de-
bate concerning the scope of planning - should we view the
city as a physical artifact or as a total system made up of
physical, social, and economic components?

In summary then, planning must begin to concern itself
with the "contextual" considerations involved in seeking an
"active" end-state. It must consider the means of accom-
plishment, and as such, planning will be more "a process of
becoming".

Planning for What Generation? This emphasis upon "be-
coming" raises the question of what generation should be

planned for. Developing a picture of a point in the future
to be used as a destination pre-supposes that the generation
which is on hand when that point is reached will have the
same objectives as the present generation. Will our prefer-
ences fit our children's? Will there be an influx of quite
different types of people whose preferences will differ
from ours? Even if we could truly assess our values it is
questionable that we should attempt to plan for future gener-
ations.

Yet, in spite of the fruitlessness of attempting to plan
for future citizens, we are committed by the very nature of
planning to proposing long term physical projects and facil-
ities whose life of consequences carry over into the next
generation. Whereas business can make incremental decisions
based upon market trends, government is involved in numerous
high-risk, long term decisions concerning capital improvements.

Pitirim Sorokin feels that this carryover of the phys-
ical city from one generation to the next is one very important
factor which gives culture its continuity, and as such is
very necessary in spite of the inadequacies caused in the
process.[15] Lynch points out that the only way to avoid this
problem is to create "disposable cities" composed of nebulous
patterns and low-quality, short-term facilities. However, he

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[15]Pitirim Sorokin, Society, Culture and Personality;
Macmillan, N.Y. (1947): pp. 215-251.

quickly adds that a loose shifting temporary world may be
ideal for meeting major changes in man's circumstances, but
it may also be relatively inefficient for present function
and it may not be a very happy place for human existence.[16]

A Theory of Becoming. Thus it appears necessary to re-
concile ourselves to the long term consequences of some of
our decisions, and for this reason long term planning targets
must be set. However, not all of our decisions, especially
when we consider more than pure physical planning, are of the
long term, irreversible type. "Particularly where 'final'
achievement may be as long delayed or even as illusory as it
is in city development, the attainment of objectives may be
affected more by the process itself than by the final form
that is being sought."[17] Because group values (and thus
goals) evolve and change over long periods of time, that
final desired form may be constantly in the process of modi-
fication and redefinition. A pure form, as expressed by a
particular group at a particular time may never be achieved
due to this changing nature of goals.

Thus the most important aspect is the means or the pro-
cess of becoming, and that process is described through policy
statement. As Hoover states: "It is better to travel the

[16]Kevin Lynch, "Environmental Adaptability", Journal of the
American Institute of Planners; XXIV (1958): p. 23.

[17]Kevin Lynch and Lloyd Rodwin, "A Theory of Urban Form",
Journal of the American Institute of Planners; XXIV
(1958): P. 211

road hopefully, than definitely to arrive".[18]  Idealized out-
come plans are seldom fully realized, but policies are con-
tinuously exerting a directive force (if they are fully
coordinated) upon the development of the environment.  This
is the unique feature of democracy - emphasis upon the means -
which master plans have seldom recognized.  Through devoting
more attention to this process of becoming we can reconcile
the longevity of physical features against the constantly
changing group goals, as well as against the ever-evolving
state of knowledge and information.

We often fall into the habit of thinking that we are
planning for the future.  More realistically we are attempt-
ing to anticipate the future so that better current decisions
can be made.  Our concern is as much with the present as it
is with the future, and good planning can only be judged by
how well the public welfare is optimized at all points in
time.

Disjointed Incrementalism.  There is some danger in
over-emphasizing the value of "becoming", however,  If direc-
tions or outcome targets are lost sight of, planning may find
itself floundering in day-to- day activities.  Lindblom sug-
gests that this is the only feasible way to make decisions.
He presents a challenging argument for on-the-spot decision-
making, or, as he has named it, "disjointed incrementalism".

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[18]Robert C. Hoover, "On Master Plans and Constitutions",
   Journal of the American Institute of Planners; XXVI
   (Feb. 1960):  p.

This approach is based upon a fear of projecting past ideals into future generations and upon a lack of faith in our a-bility to ascertain present value order.

Rather than relying upon previously determined policy, he suggests evaluating alternative decisions at the time they arise. Alternatives are compared in such a way as to deter-mine which one contributes the greatest "marginal value" (the degree of improvement over the existing situation). Marginal value is measured according to the decision-makers' goals at the time the decision has to be made, thus avoid-ing the difficulties of assessing and ranking pluralistic goals. Since incrementalism is segmental, serial, explor-atory, and marked by adjustment of ends to means, stable long-term aspirations are not of primary concern. Such an approach, which Lindblom maintains is followed by most de-cision-making bodies, is less concerned with pursuing a bet-ter world than with avoiding a worse one.[19]

The policy plan should not put such an extreme emphasis upon day-to-day decisions any more than it should over-emphasize outcome targets. Either extreme is dangerous. Disjointed incrementalism is no more than the type of unco-ordination and inconsistency which has caused urban areas their present headaches. Difficult as it is to ascertain goals, we have no choice but to try if we consider efficiency to be

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[19]Charles Lindblom and Robert Braybroke, _Strategy for Decision_; Wiley, N.Y. (1963): p. 116-185

a desirable aim of planning. Incrementalism is what planning was supposed to replace.

Furthermore, the citizens are beginning to demand greater consistency and direction. As Aschman points out, "...we work for a more knowledgeable and critical public, for people who are aware of the fact that our programs and our regulations not only touch upon their lives from day-to-day but also lead to some ultimate end. More and more people are concerned with directions as well as actions, and the longer range result."[20]

## Justifying the Means of Policy Planning

The foregoing section indicates that policy planning provides a useful vehicle for bridging the gap between the present state of affairs and the future as described by the comprehensive plan. As a result of the policy approach we can begin to visualize planning as a truly action-oriented activity, not just a design process.

Policy and Choice. Yet policy planning is more than a method of making planning more productive. It is also important in its contribution to the means of planning. It clarifies the element of choice in the planning process, and, in doing so, it presents a much clearer framework for democratic planning. The policy level affords an opportunity for the community to make its decisions with greater understanding

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[20] Aschman, op. cit., p. 105.

and self-determinism.

In the past the planner developed a plan and then submitted it to the planning commission for one big decision - the "take it or leave it" approach. This was primarily a choice indicating the commission's faith in the planner's professional judgement, and unless there was something to which the commission violently objected the plan was usually accepted in total. It can hardly be expected that this type of choice would encourage public understanding and support of the plan.

As a requirement in "701" federal planning assistance grants, the consultant must now submit the plan in sections so that the commission can digest the facts and recommendations more gradually, and make modifications in the course of plan development. Although an improvement in offering greater public voice, this process emphasizes only the review of specific findings and recommendations, not the principles upon which the plan is based. As Aschman points out, the public is becoming more interested in the directions and long-term consequences indicated by the plan.[21] In other words, the commission should be offered greater choice (not just review) concerning where they want to go and what kind of community they want to create. From this initial choice would evolve a whole hierarchy of choice including selection

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[21] Aschman, op. cit., p. 105.

of the courses of action needed to arrive at their predetermined destination, and the levels of adequacy which would be acceptable in carrying out the chosen course of action. It is this area of choice which is commonly referred to as policy.

New Role for the Planner. This means, then, that planning is no longer the exclusive domain of the professional planner. No longer is the planning profession viewed as something akin to that of the engineers and architects - too complex and technical for the average citizen to comprehend. Moreover, the breadth and influence of planning's subject matter is too critical to be left entirely to professional judgement; democratic government is grounded upon the premise that the people will have a voice in the determination of their future.

The policy approach represents, or at least permits a return to grass roots planning. In order to make this work the professional planner will have to move over and make room for the citizen planner; and this will call for some new working relationships between the planner, the planning commissioners and the public.

Summary

In an era which is witnessing an ever increasing rate of change with respect to technological and social development, it is odd that the field of planning should be reverting to the ways of grass roots democracy. While we are becoming more and more reliant upon mechanization and scientific method even

in the field of planning, we still find it necessary to go
directly to the people for our most basic decisions. Policy
planning provides the tool which makes this possible.

Yet policy planning is more than just a loudspeaker for
public choice. It is a means of coordinating all public
choices into a direction for future. It is a means of making
action more efficient, consistent and rational. It is a
means of meeting the complexity of life with a unified front,
yet with allowance for changes and modifications in human
values.

We have talked of policy in a rather isolated and un-
applied context thus far. It has been noted that policy plan-
ning is a rather recent development and that its introduction
will cause certain procedural and philosophical changes in
the traditional planning process. The next chapter will at-
tempt to analyze how various contemporary planning efforts
have adapted to the policy approach.

CHAPTER II


RECENT POLICY EFFORTS

IN THE FIELD OF PLANNING


A survey of recent urban and regional planning reports, studies, and plans indicates that a growing number of agencies are beginning to cope with policy. To a few of these agencies it appears to be a superficial inclusion of something which looks and sounds professionally sophisticated. But the majority of these efforts seem to have required some real soul-searching and practical clarification of the purposes of planning. Lack of precedent has been forceful in initiating reflective re-analysis of both the planning process and its place in the governmental decision-making structure.

In this chapter certain critical facets of selected reports and plans dealing with policy will be discussed, the purpose being to contrast different methods of treatment. For full descriptions of the various items refer to the bibliography under "reviewed policy reports". It should be readily evident that these reports vary greatly, but there is something of value in each one.

Uses of Policy

Generally the reports analyzed as background for this chapter are aimed at one or more of the following purposes in their use of the policy approach.

1. Exploratory Study (Technical Research)

2. Better Understanding of the Issues (Public Education)

3. Establishing Policy Guidelines for Operational
   Decisions.

4. Formulating the Framework for a More Detailed
   Development Plan.

5. Presenting the Final or Interim Development Plan.

Exploratory Study and Better Understanding. Most of the
reports which were intended to be exploratory studies of
policy implications had, as a complementary function, the
intent of promoting a better understanding of the issues.
The Akron Tri-County study (The Development of the Region)[1]
is probably the best example of a report aimed at both the
staff and the citizen public. It investigated the advantages
and disadvantages of spatial form alternatives based upon a
description of what critical variables contribute to the
growth of the region. It is useful to the staff as a tech-
nical document, but is written in simple enough language to
be comprehensible to the residents of the region.

The Baltimore-Washington Interregional Study also seems
to incorporate both these functions, but the value of the
report is essentially for the planning staffs and commissions

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[1] Due to the numerous references to the selected policy reports
footnotes will be ommitted in this chapter except for those
which refer to sources not specifically reviewed and for
direct quotes. For a complete description of the reviewed
reports refer to the Bibliography.

which sponsored the effort. It is quite detailed and technical in its presentation of findings and conclusions. The real value of this study was its attempt - through the construction of population, employment and traffic flow models - to convey an understanding of how the region functions.

The Hartford Regional Plan Alternatives study falls in between the two above-mentioned studies in terms of its audience. It appears to be equally directed to both public and staff. The purpose of this study was to investigate alternative methods of organizing the region.

The Penn-Jersey Transportation Study is using policies in a purely technical sense, to run through an urban growth simulation model. This is to be used to compare policy implications of alternative transportation system plans.

Other studies which place a good deal of emphasis upon promoting an understanding of the issues include the Year 2000 Plan, The Dade County Urban Growth report, the Lansing Tri-County policy plan report, and the San Diego policy reports.

Decision Guidelines. The use of policies as guidelines for decisions concerning the implementation of a plan has not received significant attention as yet. The one plan which does make a conscious effort in this direction, does so primarily because of its unique circumstances - the Washington Year 2000 Policies Plan. Since the publication of this plan, a presidential memorandum has been issued directing

all new federal building locations to be made according to the radial corridor policy as presented in the Plan. Such a location policy was recommended within the original Plan.

Other than this, few policy reports or plans have recommended that policies be used as implementation devices. The Beloit, Wisconsin memorandum on Planning Goals, Principles, and Projections comes close to presenting its policies in this context, but, as the memorandum states, the real purpose of the recommended principles is to serve as guideposts for the development of a comprehensive plan. There is little to indicate that planners are thinking in terms of "standing plans"[2] which can be used for decisions other than those involved in formulating the physical plan.

Two plans have begun to make steps in the direction of implementation policies, the Denver Metro-Growth Plan, and the General Plan for the State of Hawaii. Each sets forth detailed development standards for local level coordination. Such standards as public facility needs per unit of population, site needs for industry and facilities, floor area needs, and optimum accommodation limits are included. Both plans tend to visualize policy as a means of setting minimum

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[2] "Standing Plans" are those plans which deal with recurrent and routine problems. They can be used over and over again as guides for decision-making. They will be discussed in further detail in Chapter 3.

levels of adequacy. Yet they have not committed themselves to the more positive broad implementing policies, which Henry Fagin says are needed to coordinate spatial relationships and time relationships.[3]

Plan Framework. The fourth, and most common, use of policy is as a framework for the master or comprehensive plan. In fact, the Michigan State University master planning course recommends that policy statement be used to synthesize the study data and to set up the framework for the master plan. The effect of this policy consciousness in planning schools should have a marked effect upon the types of plans produced in the near future. Such an approach will make (and already has, in some cases) the heretofore ill-defined plan development process a much more conscious and scientific effort. It will force the planner to reason from the general to the specific in the tradition of deductive logic, and it will bring about an awareness to the planner of where his biases and information gaps lie.

In building a framework for the final plan most agencies have used three basic policy components; objectives, principles, and standards. The California State Planning Act, in fact, requires that they be considered: "The master or general plan shall consist of a map and a statement describing it and covering objectives, principles and standards used to

[3]Henry Fagin, op. cit., p. 112.

develop it."[4] The San Pablo, California Report on <u>Objectives,</u> <u>Principles and Standards 1959</u> defines the terms as follows:

1. <u>Objectives</u> - Preferences as to the character and location of the physical elements of the city.

2. <u>Principles</u> - A rule of action, usually based on experience, which can be used as a consistent guide in carrying out the objectives.

3. <u>Standards</u> - Established by custom or experience as measures of the quality or adequacy of the various components making up the physical city.[5]

The objectives describe the community's agreed upon destination, the principles describe the general means of accomplishment and the standards provide quantitative and qualitative measurements concerning the manner in which the principles can be applied. For instance, the following sequence might be utilized:

<u>Objective</u> - To promote a high quality residential living environment.

<u>Principle</u> - Residential areas should be designed so as to provide a variety of environments, and should be located so as to avoid the disruptive effects of incompatible non-residential uses and through traffic, while at the same time providing easy access to needed neighborhood facilities.

<u>Standards</u> - a. Desirable residential densities

b. Desirable convenience distances for various neighborhood facilities - schools, shopping, parks, etc.

c. Open space standards

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[4] State Planning Act of California, Article 7, Section 65462.

[5] San Pablo City Planning Commission, <u>op. cit.</u>, pp. 1, 3, 8.

d. Aesthetic criteria.

e. Street design criteria.

f. Required site improvements - sewer, water, and streets.

These three policy components are quite satisfactory categories for the purpose of plan development, but, as will be further discussed in Chapter III, they do not adequately cover the action policies needed to guide operational planning decisions. They are primarily concerned with describing desired outcomes.

There are several good examples of this use of policy formulation in final plan preparation. The Year 2000 Policies Plan, will be used as the framework for developing both the District of Columbia Plan for 1985 and the revision of the National Capital Region Plan. Similar uses have been made of: the Beloit, Wisconsin memorandum on Planning Goals, Principles, and Projections; The San Pablo, California report on Objectives, Principles and Standards; the Norman, Oklahoma Urban Area General Plan Policies; the Dade County, Florida policy reports; and the Lansing Tri-County Planning Commission's Regional Development Goals and Policy Statements. As the latter report states: "Realistic goals and reasonable policies serve to provide the framework for a regional plan which is more likely to be accepted and utilized because it is based upon sound development proposals".[6]

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[6] Tri-County Regional Planning Commission (Lansing), Op. cit., p. 2.

Final and Interim Plans. It seems reasonable that if policies are used as a framework for the master plan, they will be included in the text of the eventual plan, such as has been done in the San Mateo County Master Plan, the Oakland City Plan (this plan even included the schematic sketch policies utilized in developing the physical plan), the Abilene General Plan, and the Austin Plan.[7] Thus policy can also be used to present and clarify the physical plan.

There is perhaps one more use of policy which has been found in only one instance. The Year 2000 Policies Plan, because it is such a complete document and because verbal policies are well-defined, is in a sense an interim or pilot plan. It firmly establishes the intent of the sponsoring agencies, and as such can well serve as a guidepost for private and public development decisions. The document has, of course, even more influence since the issuance of the presidential memorandum.

In spite of the generalized nature of the spatial plan, private developers have seen fit to use the plan as a guide in locating the new corridor town of Reston. The fact that the Reston developers took enough stock in a policy plan to use it as a guidepost harks back to what was previously mentioned as a benefit of the policy plan approach. If a

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[7] City of Abilene, The Abilene General Plan (1959); and, Austin City Planning Commission, The Austin Plan (1958). These two plans were not specifically reviewed as policy plans but they do represent good examples of the use of policy in a final development plan.

plan is to have appeal to the decision-makers and to the public it must be dramatic and thought provoking. The appeal of this plan is testified to by the fact that the cover of the Reston publicity brochure displays how the Reston location relates to the radial corridor schematic plan. It must be granted that much of the appeal stems from the grandiosity of the concept, but such a grandiose idea could not have been better expressed than through the vehicle of a policy plan. The detail usually included in a master plan would have covered up the glamour. This example is a good justification for starting with the most broad general consideration, and for not being in a hurry to drag out the details.

It should be fairly obvious from the foregoing discussion that very few policy reports have only one purpose. In spite of the many overlaps, however, there appears to be some divergence among various agencies on the use of policies. This is understandable due to the lack of precedent in urban policy planning. This variety is also highly desirable in order that we will have a broad base of experience upon which to build future planning programs.

Approaches to Policy Planning

There is in policy planning the same basic question which we have always faced in developing a plan, that being where to set our targets. The horns of this dilemma were well stated by Robert Carpenter:

Regional planning as it is presented to us is

> based upon an accumulation of historical data,
> projected in straight-line trends, which lead
> to the ultimate conclusion that all areas in
> the path of the assumed and gargantuan expan-
> sion of the central city have no other choice
> but to brace themselves for the inevitable
> assimilation into the ever-growing urban mass.
> Contrasted with this is the imperative to a-
> bandon the archaic trends, concepts and pat-
> terns and to provide the vision and the in-
> itiative for achieving objectives and partic-
> ularly environmental conditions far superior
> to any so far realized by the giant urban
> centers.[8]

This quote refers particularly to regional planning, but the

issue - whether it be stated as realistic versus idealistic,

conservative versus liberal, or laissez-faire versus the

welfare state - is equally prevalent at any level of planning.

It is probably the most crucial and most basic policy to be

decided in the plan development process; it sets the philo-

sophy of the entire planning approach.

The Denver Plan. Two of the reviewed policy plans set

the extremes of this issue, and the others seem to fall at

various points in between. The Denver Metro-Growth Plan, on

one extreme, assumes that growth will occur in an inevitable

pattern and that the function of planning is to accomodate

that growth as efficiently as possible. The growth pattern

is assumed to be largely autonomous and therefore beyond the

control of metropolitan planning agencies. As such the re-

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[8]Robert D. Carpenter, "Dilemmas of Conflicting Objectives:
 For Whom Do We Plan?", Proceedings of the 1960 Annual
 Conference of the American Institute of Planners;
 Philadelphia (1962): p. 113.

commended plan represents a planned continuation of present trends, staged by decades from 1960 to the year 2000.

Briefly, the Denver planning approach consisted of gathering data, predicting growth trends, and attempting to achieve regional efficiency through coordination of capital improvements, community plans, and facilities, and the data used in making private and public decisions. Judging from the stated plan proposed, the emphasis is upon making the communities more livable and democratic, with only the most necessary region-wide coordination. This approach is, more or less, from the bottom up.

Policy is stated for the Denver region in three ways: (1) as a recommended growth pattern based upon existing trends, (2) as standards setting forth levels of adequacy for various public facilities, and (3) as generalized plans for the major communities in the region. The emphasis is obviously upon the communities as building blocks for planned growth.

The Year 2000 Plan. The Washington Year 2000 Plan represents the opposite extreme in a number of ways. First, it is more of a pie-in-the-sky approach in that it is far more daring, dramatic, and innovative than the Denver plan. It is what Carpenter refers to as an "imperative to abandon the archaic trends, concepts, and patterns".[9] It assumes that

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[9]Ibid., p. 114

trends are reversible (although this assumption is based upon a somewhat less stable factual base than is that of the Denver plan) and that the role of planning is to guide and mold growth to fit the needs of the people. The Year 2000 Plan attempts to present the ways in which we can adjust growth to people, while the Denver plan attempts to help people adjust to growth. The results of two such different planning philosophies are understandably quite dissimilar. The Year 2000 Plan proposes a target which has a high degree of divergence from existing trends, and the policies which are presented are of the positive guiding type. In the Denver plan, the targets represent very little divergence from the existing trends, and the policies deal only with detailed minimum levels of adequacy (See figure 3).

An interesting parallel can be drawn between the objectives of the Year 2000 Plan and the ideas expressed by Howard Fisher.[10] He maintains that in order to loosen our thought patterns, we must start the planning process by thinking through what would be the most ideal future community regardless of all physical, social, economic and political limitations - almost as if we were building a new community. Then after we have decided what would be the utopia modifications

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[10] Howard Fisher, Comments offered as a participant in the "Metropolitan Form Workshop", 1963 Annual Conference of the American Institute of Planners; Milwaukee (1963).

# ALTERNATIVE PLAN APPROACHES

## Figure 3
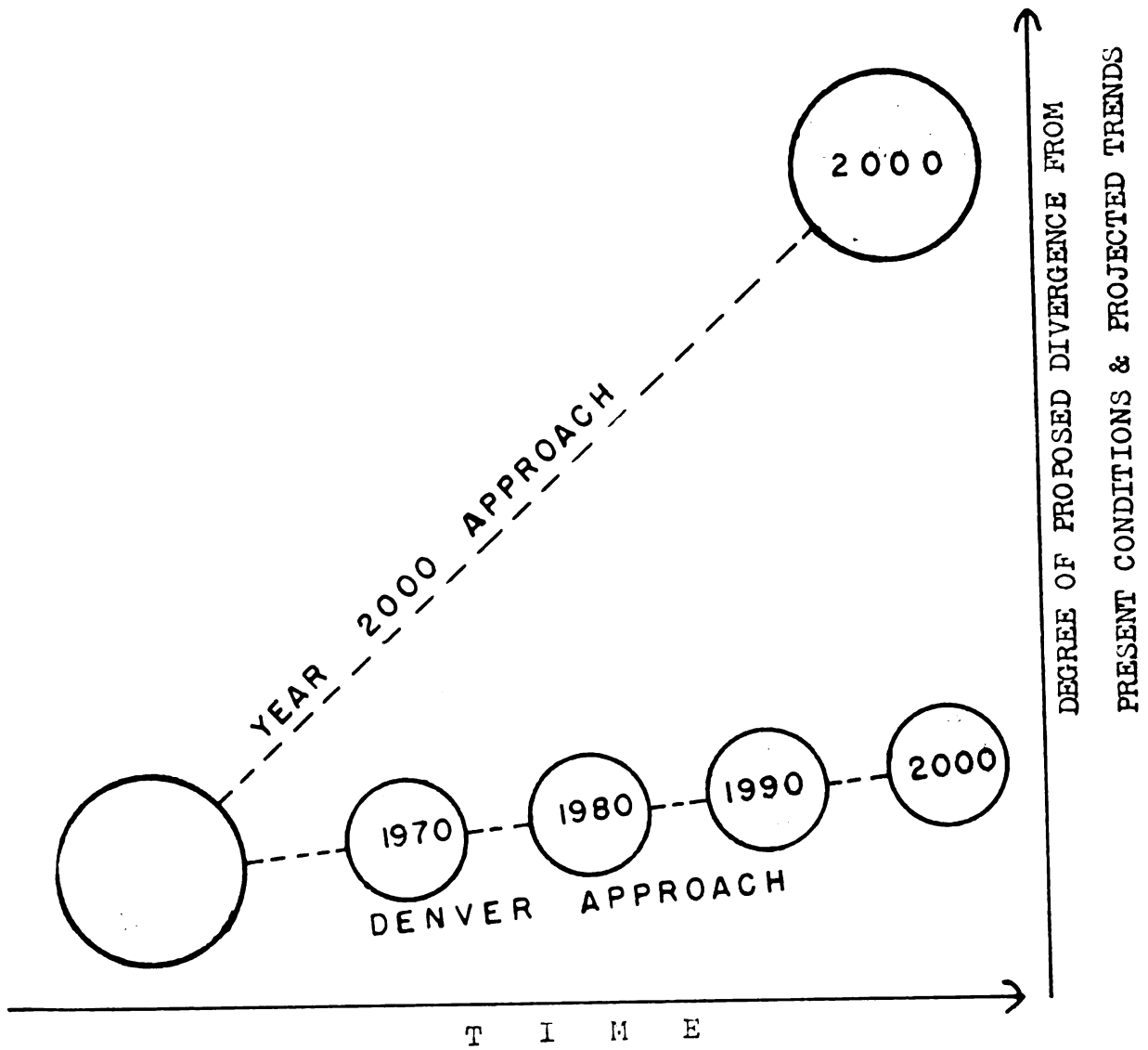
should be made according to the reality of the situation.
Utopia would remain the ultimate planning target, and the mod-
ifications forced by reality would be handled through staging
or phasing out the limitations over time. In other words, one
sets up a target and then discounts back to the present, with
the time intervening between the present and the target being
dependent upon the complexities of accomplishment.

The Year 2000 Plan has, in effect, set the target and
now most of the agencies in the Washington region are concern-
ing themselves with how existing conditions, trends, and tools
must be modified in order to approximate the target set forth
in the Plan. This target setting, it appears, can be most
effectively achieved at the policy planning level. Indications
are that more and more agencies will utilize policy formulation
as an encouragement toward bolder, more innovative planning.

The second major difference is that the Year 2000 Plan is
one of the first plans to offer alternatives for public choice.
Not only is growth controllable, but it is controllable in a
number of ways.[11]

The third major difference is that the Year 2000 Plan
starts from the largest possible context, both conceptually
and geographically, and works down to the specifics, whereas
the Denver plan appears to work from the community up. The

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[11]
This point will be further discussed in the next section.

former is concerned with achieving an ideal whole while the latter is more wrapped up in making each part of the system more efficient. Both plans use the communities as building blocks (although the Washington approach utilized other equally important components - highways, transit, open space, and employment centers), but Denver is far more concerned with what should be done within each of the communities than is Washington.

To put it another way, Denver views the region as the context for research and the local units as the context for planning. Washington views both research and planning as a necessary function at all levels of the planning area hierarchy. Thus, it is even more evident that the Denver plan wishes to show the outlying communities (the City of Denver is not considered in this plan) how they can best adjust to the inevitable growth, while the Year 2000 Plan is primarily attempting to sketch out a plan for the future region so that plans for the District of Columbia and its Metro-Center can be coordinated with it. At present, the National Capital Regional Planning Council is attempting to show the counties and communities outside the District how they can dovetail with the policies outlined in the Year 2000 Plan.

Holistic Policy. The majority of other policy reports tend toward the Denver approach, as do most of the past master plans, whether policy-oriented or not. Very few plans

consider overall development policy. The Beloit memorandum on Planning Goals, Principles and Projections and San Pablo's Objectives, Principles and Standards are typical approaches. In both reports, goals and policies are listed only under the headings of land use categories and transportation. No broad policies dealing with overall physical form, direction of growth, and component relationships are considered. The same is true for the Norman report, the Hawaii Plan, and most of the California city and county plans.

Such fracturing of wholes into parts is a direct manifestation of the western philosophy of life. We are not accustomed to thinking in terms of total concepts; because we are an action-oriented culture, we tend to place greater reliance upon our perceptions of reality, which by their very nature are disjointed and incremental. Generally speaking, western man has not taken time, or has not felt the need, to develop a consistent structure which could serve as a method of ordering and systematizing his perceptions of the world around him.

In contrast, the eastern philosophies are basically holistic and inductive in structure, devoting vast amounts of time to understanding the total system and the interrelationship of its parts. There are strong indications, however, that the two philosophies are beginning to blend in both cultures. Eastern influences are showing up in the United States in the form of ecology, systems theory, and the rise of the behavioral sciences. And the beginnings of this holistic and cross-

disciplinary approach are beginning to find their way into the field of planning, yet the fragmentized policy reports indicate that there is a long way to go.

However, it must be recognized that attempts to make planning more holistic are confronted time after time with the fragmentary nature of existing planning and action agencies (political, economic, and social). If plans and policies are disjointed, it may be because of the balkanized structure of our urban society. It must also be granted, however, that too much coordination and consolidation is not necessarily desirable either; so it is doubtful that planning can ever be completely holistic. But at least research into how the system functions can be holistic. We must pay far more attention to developing adequate models for describing and understanding the nature of this loosely organized urban system.

One method of developing holistic policies for the total planning area, which was used first by the Year 2000 Plan, is the application of urban form or structure studies. The Hartford Capital Region Planning Agency, the Twin Cities Metropolitan Planning Commission, and the Akron Tri-County Planning Commission, and the Lansing Tri-County Planning Commission are also using urban or regional form to tie together policies for land development. These form considerations will be discussed in more detail in the next section.

## Consideration of Policy Alternatives

One side effect of the trend toward policy planning has been the increased emphasis upon alternatives. In forcing planners to structure the plan development process more scientifically, planning is being seen more and more as a decision-making process. And the backbone of decision theory is comparison of alternatives so that the selection of strategies will be based upon greatest marginal benefit. The conceptual level of policy planning seems to provide a good point at which to examine alternative courses of action. More time can be spent upon the basic issues rather than upon time-consuming plan details.

Form Alternatives. Although alternatives exist at many stages of policy plan development (objectives, verbal policies, assumptions, standards, etc.) most policy reports have dwelt upon alternative regional forms. The components of these form alternatives have generally included:

1. Employment Centers

2. The Transportation System

3. Residential Density and Location

Though such alternatives have seldom been tried on smaller urban areas, it would not be difficult in spite of the necessity for going into somewhat more detailed components.

In many respects this experimentation with generalized forms harks back to the many utopias developed throughout history. Most alternatives are classic in simplicity and

quite formalized. This is perhaps the natural result of broad conceptual thinking. Of course, it is highly unlikely that any of these agencies concerned with form do not realize the modifications which will be needed when such idealized forms are superimposed over our existing helter-skelter land patterns. Some examples of historic forms which are now being re-analyzed are yMata's "Lineal City", Ebeneezer Howard's "Garden Cities", Corbusier"s "Ville Radieuse", Wright's "Broadacres", and Doxiadis'"Dynopolis".

The most frequently used forms fall into the following categories.

1. <u>Continuation of Present Trends</u>. This alternative, sometimes referred to as sprawl or scatteration, is usually thrown in as the "straw man" - the evil against which planning is contraposed. As such, it does serve a useful purpose in the comparison of alternatives. We cannot know the advantages of other alternatives until we seek out the consequences of continuing our present patterns. This alternative provides a comparative basis for measuring the marginal benefit of the other alternatives.

2. <u>Planned Sprawl</u> - This alternative assumes that the present pattern of residential and employment decentralization will continue, but that sub-centers for community services and commercial services will emerge, linked by highways; and that these will form

a sprawling but partially nucleated suburban pattern. There is also the inference that some area-wide controls will be established for better coordination. This alternative has generally been rejected immediately upon the basis of its similarity to our present problematic pattern; however it deserves a great deal more attention than it has received to date.[12]

3. <u>Radial Corridors</u> - This alternative, like the one above, is a contiguous nucleated growth pattern. However, rather than the all-over growth pattern of urban sprawl, this one proposes extension radially along major highways and mass transit routes, leaving wedges of open space projecting in toward the region's central core area. The pattern would supposedly focus the region's parts upon the core area, while at the same time providing for smaller semi-contained nucleations. It is based upon that traditional pull which transportation routes have exerted upon growth patterns. This alternative appears to be the eleven to one favorite among most planning agencies, due to its classic purity of form, and its functional advantages.

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[12]See Jack Lessinger, "A Case for Scatteration", <u>Journal of the American Institute of Planners</u>; XXVIII. (August, 1962): pp. 102-111.

4. <u>Separate Settlements</u> - This non-contiguous pattern
   assumes a justification similar to that of the
   "Garden Cities" and "New Towns" in England that
   most of our cities have already reached the point
   of diminishing returns in terms of size. Population
   growth should be decentralized to new and/or exist-
   ing balanced communities outside the direct influ-
   ence of, and spatially separated from, the central
   city. Normally the recommended maximum population
   of these semi-independent communities would be
   from 80,000 to 200,000. Such proposals have been
   called by various names - "new independent cities",
   "peripheral communities", "ring of cities", "green-
   belt towns", and "satellites". This alternative
   will likely receive greater attention since the
   introduction of new towns legislation by President
   Johnson.

The staff memoranda used in developing the <u>Year 2000 Plan</u>
indicate an interesting approach to form studies (figure 4).
A similar analysis technique was used by Robert Edwards in
applying operations research methods to comparison of the ad-
vantages for various form alternatives.[13]

In a thought-provoking article, William Wheaton assails
two recent policy plans (<u>Year 2000 Plan</u> and the <u>Denver</u>

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[13]Robert Edwards, <u>The Form and Shape of Cities</u>; Unpublished
Paper (Mimeographed).

REGIONAL FORM ALTERNATIVES - YEAR 2000 PLAN

Figure 4

| Plan Components | Continuation of Present Trends | Strong Center, Dispersed Fringe | Strong Center, Concentrated Fringe | Weak Center, Dispersed Fringe | New Cities |
|---|---|---|---|---|---|
| **Transportation System** — highway / ooo transit | | | | | |
| **Employment Centers** — ■ Central Employment, ● Major Employment, ○ Minor Employment | | | | | |
| **Residential Density Profile** | | | | | |

-54-
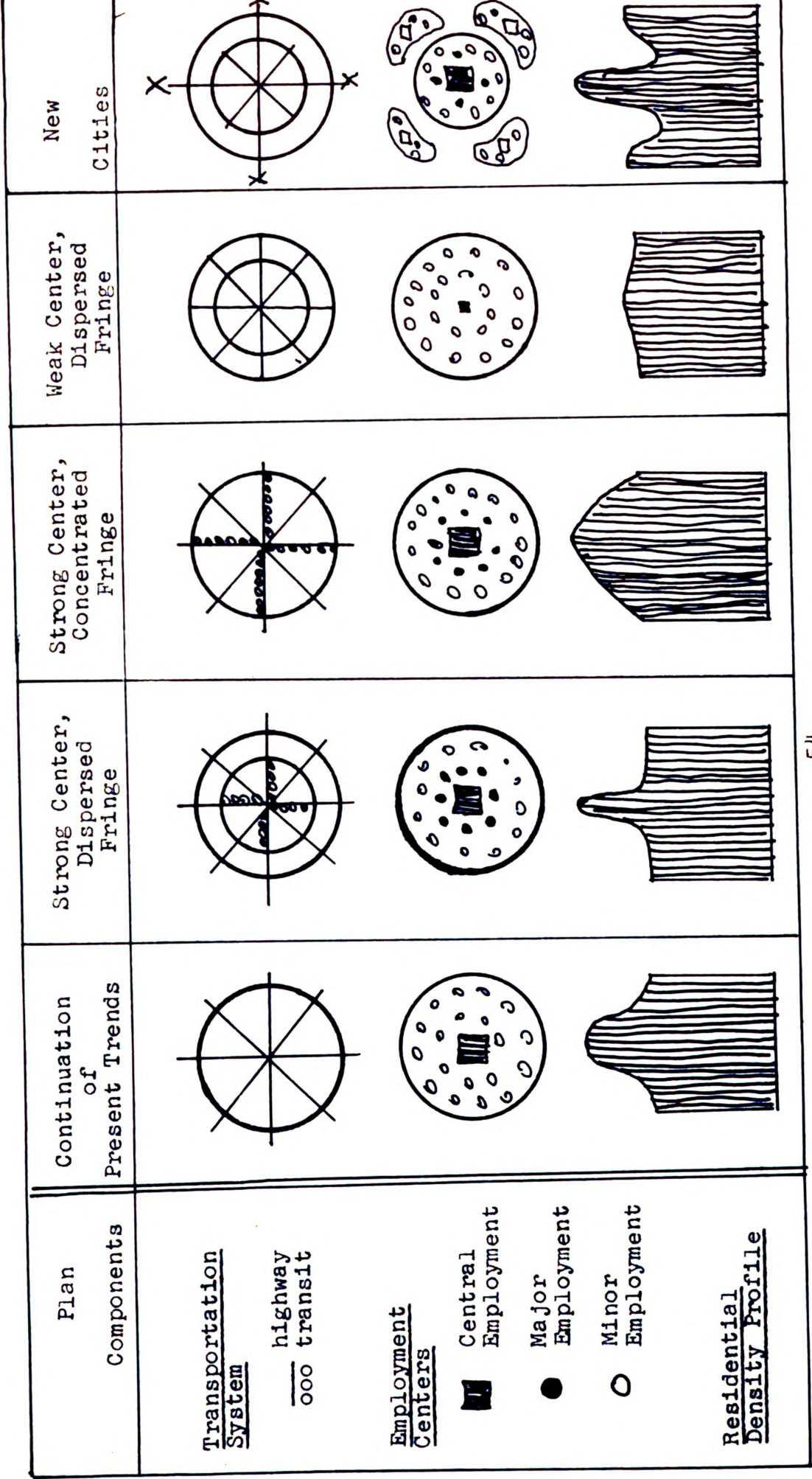
Metro-Growth Plan) for their lack of objectivity, although he

does admit that they are among the best to date.[14]  He main-

tains that the Year 2000 Plan did not go far enough in weigh-

ing the pros and cons of its identified alternatives, and that

the Denver plan did not even make the pretense of considering

alternatives.  In both cases he feels that the final decisions

were less influenced by scientific analysis than by traditional

planning biases, such as:

1. The present pattern of scattered development is
   inherently evil.

2. Open space will elevate the lives of all who see,
   enter, or use it.

3. The city and region must have a high density cen-
   tral core, containing a high proportion of the
   area's shopping, banking, commercial, managerial,
   civic, educational, and cultural functions.

4. The journey to work should be reduced by short-
   ening the distance between places of residence
   and places of employment.

5. American people desire a wider tange of choice in
   the types and locations of dwellings.[15]

Mr. Wheaton is by no means inferring that these notions are

necessarily false; rather he is taking issue with the lack of

scientific objectivity in even the better planning efforts.

Planning principles, such as those listed above, have too

often been taken for granted.

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[14] William L. C. Wheaton, "Operations Research for Metropoli-
tan Planning", Journal of the American Institute of Plan-
ners; XXIX (November, 1963):  pp. 250-259.

[15] Ibid.  pp.  254-255

Consideration of policy and form alternatives calls for substantial spelling out of consequences so that comparative advantages and disadvantages can be weighed by the decision-makers. However, this is an extremely complex and elusive task, as indicated by the frustrations of cost-benefit analysis. Non-material costs and benefits are difficult to quantify, and thus comparison still rests upon the shaky decision bases of personal values and preferences. A further complication is the process of determining long-range implications of proposals. We have no well-developed tools for projecting policies over time to test consequences. Policy consequence determination can be no better than our predictions of future trends, and these must be made under difficult conditions of uncertainty.

Most of the reports reviewed seem to have skipped over this problem very lightly. The <u>Year 2000 Plan</u> and the <u>Hartford Plan Alternatives</u> sketch out some rough implications of the alternatives, but very unsystematically. They fail to provide criteria for choice between the alternatives presented. Kevin Lynch and Lloyd Rodwin advocate a better relationship between planning goals and urban form. "Not only are goals put in a confused or even conflicting form but also the physical forms decided upon have very little to do with these goals. Choice of form is most often based on custom or intuition, or on the superficial attraction of simplicity. Once constructed, forms are rarely analyzed for

their effectiveness in achieving the objectives originally set."[16]

There is one example which indicates a good step in this direction. The Maryland National Capital Park and Planning Commission's Wedges and Corridors Plan includes a short section on the goal-form relationships (see figure 5).[17] In this section a simple but rather innovative attempt was made at scoring how well each alternative meets the prescribed goals. However, it is rather disheartening to find this table at the conclusion of the plan, included primarily to justify the selected corridor pattern over the other alternatives. Furthermore, the planner's biases and intuitive selections are obvious. Sprawl is painted as all black and the corridor scheme as all white. It is evident that goals need to be described in greater detail in order to analyze the comparative advantages systematically. It is difficult to visualize differences at this level of generality.

Other Kinds of Alternatives. Very few of the policy reports have considered anything more than form alternatives. Mappable policy still seems to claim the attention of most planners. Two exceptions are the Erie plan which looks into alternative economic systems, and the Penn-Jersey Study which is investigating alternative courses of action for designing

[16] Kevin Lynch and Lloyd Rodwin, op. cit., p. 209

[17] Maryland National Capital Park and Planning Commission, Wedges and Corridors Plan (1962): p. 148.

# COMPARATIVE ANALYSIS OF DEVELOPMENT PATTERNS*

## figure 5

| Goals | Alternatives | | | |
|---|---|---|---|---|
| | Sprawl | Average Density | Satellite | Corridor |
| 1. Use land efficiently | - | o | + | + |
| 2. Encourage an orderly conversion of undeveloped land to urban use. | - | + | - | + |
| 3. Protect natural resources and encourage their proper use. | - | + | + | + |
| 4. Maintain large open space. | - | o | + | + |
| 5. Expand opportunities for outdoor recreation. | - | + | + | + |
| 6. Facilitate the orderly & efficient arrangement of public utilities and services. | - | + | - | + |
| 7. Provide an efficient transportation system including rapid transit. | - | - | + | + |
| 8. Encourage greater variety of living environments. | - | - | + | + |
| 9. Invite imaginative urban design. | - | - | + | + |
| 10. Assure implementation of the Plan. | + | + | - | + |
| Total | -8 | +2 | +4 | +10 |

*Wedges and Corridors Plan by the Maryland National Capital Park & Planning Commission

transportation systems.

The Twin Cities Joint Program is following a quite unique approach to policy formulation. Their staff has been divided into three sections each of which is approaching policy formulation from a different tack. One section is taking a values - goals - policies approach, placing primary reliance upon the abstract human value system. The second section is moving from issues to goals to policies, thus using practical metropolitan problems as the starting point. The third section is following a design approach, moving from metropolitan form to goals to policies. When the three groups have completed their respective tasks they will get together and synthesize the results of their work with the result being a set of goals and policies which reflect a comprehensive answer to the values, problems, and design characteristics of metropolitan activity. The study admirably goes beyond the mappable planning orientation which has been so characteristic of other policy formulation efforts.

Simulation and Growth Models. In reference to the problem of projecting policy consequences into the future, some agencies are devoting a great deal of time to simulation and growth models. The Penn-Jersey Transportation Study, for instance, has posed five alternative courses of action which will be plugged into a mathematical model of how the region will grow. The growth model will simulate the region's

development according to a particular policy alternative for five year increments, and at each increment consequences will be observed, noted, and compared to the consequences of other alternatives. In another interesting effort, the Pittsburgh City Planning Commission has been developing a similar method of simulating community renewal policies into the future. The Baltimore Urban Renewal and Housing Authority will also use this type of model to test renewal policies. Such attempts point out the increasing desire to understand how the system functions before trying to remedy its problems through policy recommendations.

Summary. Consideration of policy alternatives has been characterized by:

1. Reliance upon simple classic urban and regional forms, expressed schematically.

2. Little attention given to other types of alternatives - goal alternatives, verbal policy alternatives, alternative assumptions and predictions, and alternative standards.

3. Emphasis upon the statics of the system, and little attention to the dynamic interrelationships.

4. Sketchy analysis of policy alternative implications - selection is usually highly intuitive.

5. Little correlation between goals and alternative policies.

6. Difficulty of assessing and comparing future consequences of policy decisions.

7. Negligible concern for the means of accomplishment - financially, legally, and politically.

## Who Makes the Policy Decisions?

Policy plan development has tended to highlight the public decision-making function and, as a result, the role of democratic government in carrying out that function. It is being realized that many of the decisions previously made by the planner can, and should, be made by the governing body or its duly appointed representative. Consequently there has been a strong rise in concern for the citizen's voice in planning the environment in which he resides - a revival of grass roots planning.

President John F. Kennedy set the direction for greater citizen participation in his special message to Congress on Housing and Community Development:

> The city and its suburbs are independent parts of a single community, bound together by a web of transportation and other public facilities and by common economic interests. Bold programs in individual jurisdictions are no longer enough. Increasingly, community development must be a cooperative venture through the common goal of the metropolitan region as a whole.
>
> This requires the establishment of an effective and comprehensive planning process in each metropolitan area embracing all major activities, both public and private, which shape the community. Such a process must be democratic - for only when the citizens of a community have participated in selecting the goals which will shape their environment can they be expected to support the actions necessary to accomplish these goals.[18]

18
President John F. Kennedy, _Special Message to Congress on Housing and Community Development_ (March 9, 1961).

In addition to the democratic significance of citizen participation, many people also feel that the planner, regardless of his professional and technical qualifications, cannot be all-knowing and all-wise. "A soundly conceived plan must incorporate the combined knowledge of many people who are informed about the Region (or any other planning unit). Besides, the planners' ideas of what is 'good' or 'bad' development does not always correspond with the public ideas. And one of the basic concepts of our political system is that social goals should be set by the people ...... not by the professional."[19]

Citizen participation, however, is not without its complications. We live in a pluralistic society whose goals are based upon a constant interaction of changing individual values. The planners' client is a large group, difficult to talk to, often incoherent, and usually in some conflict with itself. And the larger the representative group, the more frequently conflicts arise, the more general must be the level of agreement, and the more time it takes to reach a consensus. In the face of such complications, the planner is often forced, or thinks he is forced, to rely upon his own intuition. This is extremely hazardous because he himself may be a member of a rather small class or interest group within that society.

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[19]Tri-County Regional Planning Commission, The Regional Advisory Council: Its purpose and Function; Lansing, (March, 1963): p. 9.

What then should be the role of the planner in such important policy decision? Lynch and Rodwin state that the planner should be reliant upon democratic processes to some degree in establishing group goals and to some extent he must use sociological techniques to uncover them.[20] He does, however, have some responsibility to urge a modification of the citizens' goal system or to acquaint them with new alternatives - to break them away from the status quo.[21]

The Lansing Tri-County Regional Planning Commission, which proposes a Regional Advisory Council of about 100 members (in addition to the Commission), defines the staff-council relationship in a similar fashion.[22]

|  | Staff | Council |
|---|---|---|
| 1. | Compile factual data. | Review. |
| 2. | Presentation of goals, policies and standards. | Suggestions and Changes. |
| 3. | Submission of sketch plans. | Review discussion, and changes. |
| 4. | Preparation of publications outlining Council recommendations. | Recommendations submitted to Planning Commission. |

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[20] Lynch and Rodwin, op. cit, p. 208.

[21] For additional discussion of the role of the planner in the development of policy, see: Keith Honey, Comprehensive Policy Plans for the Lansing Tri-County Region: A New Dimension in the Planning Process; Unpublished Masters Thesis, School of Urban Planning and Landscape Architecture, Michigan State University (1964).

[22] Tri-County Regional Planning Commission, op. cit., p. 18.

The policy formulation was handled in a similar manner for Beloit, Wisconsin; San Pablo, California; San Diego County, California; Dade County, Florida; and Denver, Colorado; although without the use of an expanded citizen participation program.

In contrast, a number of the policy reports placed complete faith in the planners' perception of goals, principles, and standards. These include the Year 2000 Plan, the General Plan for the State of Hawaii, the San Mateo County Master Plan, the Penn-Jersey Transportation Study, and the Wedges and Corridors Plan. These reports were eventually submitted for review to the representative bodies, but only after the reports were completed and in final publication form. The drawbacks to this approach are numerous but two specific examples provide a good lesson.

1. The Year 2000 Plan was developed entirely by staff with little contact with the two commissions involved and no contact with the Council of Metropolitan Governments, which has since been given sole responsibility for carrying out the citizen education function. When it came time for the National Capital Regional Planning Council to endorse the plan, it would only issue a one-sentence statement and has since been of negligible value in promoting the plan. Luckily, however, the Council of Metropolitan Governments has given full endorsement and is performing its

function effectively.[23]

2. The Wedges and Corridors Plan, an elaborately pre-
   pared document, was submitted to the Maryland Nation-
   al Capital Park and Planning Commission in 1962 as
   an extension of the Year 2000 Plan. However, it was
   flatly rejected and it has taken two years to make
   the necessary modifications, thus allowing two years
   of intervening development not in accordance with an
   accepted plan.[24]

In both of these cases, it is reasonable to assume that
with a better communications system between commission and
staff and public many of the final time-consuming disagreements
could have been avoided. It is also interesting to note that
the National Capital Regional Planning Council is now engaged
in a reassessment of goals for the region. When it came time
for the more detailed planning of open space preservation,
they found the assumed and highly generalized goals included
in the Year 2000 Plan to be of little or no value.

Conclusion

The state of policy formulation in the field of urban
planning is embryonic. It has been slow in arriving but now
that it is here it seems to have generated a great deal of
enthusiasm and support. The potential value of policy in

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[23]This information was obtained during an informal inter-
view with Larry Hodges, staff member of the National
Capital Planning Commission, on February 18, 1964.

[24]Ibid.

planning is being recognized by a growing and diverse number
of agencies.

Although heterogeneity has characterized the various
agencies' approaches to policy planning, there are some gen-
eral directions which have been set thus far.

1.  The policy level of planning has afforded greater
    opportunity for boldness and creativity. Plans are
    being framed in broader and more comprehensive terms.
    They are reflecting a changing philosophy of plan-
    ning; that is, that physical growth is not an in-
    evitable and fixed path. Planning is becoming more
    a tool and philosophy of change, and the policy
    level appears to be the point at which this process
    begins.

2.  The policy emphasis has forced a clarification of
    the procedural steps involved in plan development.
    Planning is being seen more as an inductive reason-
    ing process with emphasis upon a hierarchy of de-
    cisions ranging from general to specific.

3.  There has been increased interest in identifying
    and clearly stating the issues for decision.

4.  There has been a rejuvenation of "a faith that to-
    gether we can supplement each other's understanding,
    not alone through an intellectual exchange, but
    also through a sympathetic involvement in facing

the same problems and searching for unique aspects of the same truth".[25] In other words we find a greater interest in the team approach - a team composed of both professionals and civic leaders - to solving common problems.

5. There is increasing recognition of the fact that there is more than one way to reach the goal of a better physical environment.

6. Policy formulation is giving public bodies a more concrete and usable set of guidelines for operational decisions, thus facilitating better coordination, cooperation, and consistency.

7. Because of the emphasis upon the decision-making function of planning, it has been necessary to understand the types of critical decisions which exert an influence upon urban and regional growth. This has led to new and comprehensive attempts at modeling the operations of planning units.

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[25]Robert Hoover "On Master Planning and Constitutions", Journal of the American Institute of Planners; XXVI (Feb., 1960): p. 98.

# CHAPTER III

## POLICY AND THE PLANNING PROCESS

Heretofore, planning programs have often failed to consider the policy level of the planning process. With the growing interest being shown in policy planning, it will be necessary to re-examine our traditional methods of carrying out planning. This chapter discusses where policy fits into planning, how the introduction of this new element affects the comprehensive plan, what components comprise the policy plan, and how policy can be incorporated into a continuous planning decision system.

### The Planning Process

Figure 6 presents a general conception of the steps in the planning process. Based upon study, analysis and synthesis of the characteristics, problems, needs, human values, policies, and resources of the planning area, goals are formulated. From these goals can be developed a set of policies which will set the courses of action for decision-making and for the development of comprehensive plan recommendations. The last step is that of implementing these recommendations and of using the policies as a guide to more consistent and objective decision-making on the part of the representative body.

Too often, planning operations have skipped right from the synthesis step to the specific plan recommendations, without first trying to sketch out an idea of what is desired

THE POLICY PLAN AND THE PLANNING PROCESS

Figure 6



THE POLICY PLAN

STUDY AND ANALYSIS

SYNTHESIS AND PROJECTION

GOAL FORMULATION

POLICY FORMULATION

COMP- REHENSIVE PLAN

IMPLEMENTATION

REVISION

CONTINUED PLANNING

-69-
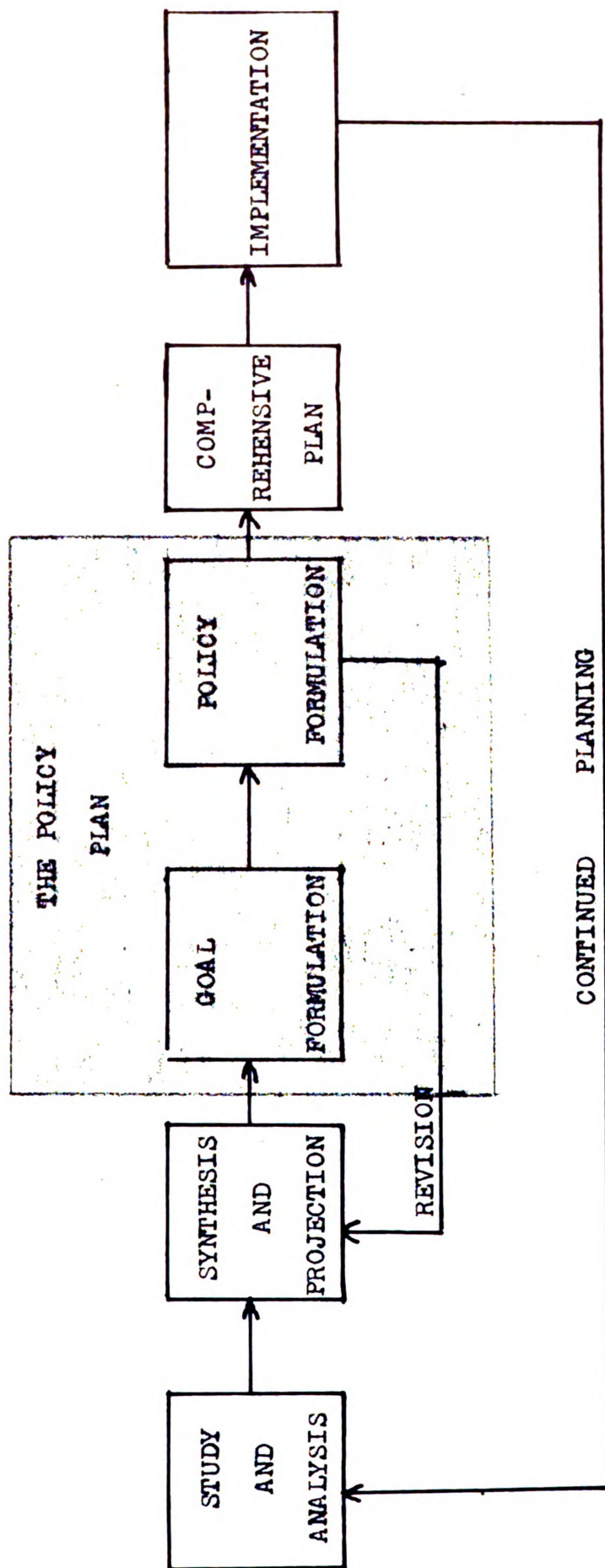
(goals) and how it should be attained (policies). These are
the two basic components of the policy plan, and securing
agreement on them is essential to avoiding the danger of
proceeding to design and programming on invalidly assumed
policy. It is important to emphasize that the formulation of
policies proceeds from general to particular, with each level
of policy-making supplying the foundation for subsequent more
detailed determinations. It has been assumed by too many
planners that such higher level decisions would be implied
in the comprehensive plan recommendations, even if they were
not specifically considered in the plan development process.

Standing Plans and Single Use Plans

There are a number of types of plans used in the plan-
ning function. Figure 7 presents a diagram of the relation-
ships between these plans and a further breakdown of the
policy plan components.

The first important distinction to be noted is the one
which identifies the significance of the policy plan. Poli-
cies, as noted in the Introduction, are distinguished from
other plans by the fact that they deal with recurring prob-
lems and questions. They are what is referred to in busi-
ness management as "standing plans".[1] They set the frame-
work for consistency and predictability in human patterns

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[1] William H. Newman, and Charles E. Summer, _The Process of
Management: Concepts, Behavior and Practice_; Prentice-
Hall, Englewoods Cliffs, J.J. (1961): pp. 189-192.

# RECOMMENDED SEQUENCE OF PLAN DEVELOPMENT

## Figure 7

STANDING   PLANS

```
┌──────────────┐      ┌──────────────┐      ┌──────────────┐
│              │      │  STRATEGIC   │      │              │
│    GOALS     │ ───► │   OUTCOME    │ ───► │  STRATEGIC   │ ───►
│              │      │   POLICY     │      │   ACTION     │
└──────────────┘      └──────────────┘      │   POLICY     │
                                             └──────────────┘

                      ┌──────────────┐
                      │   TACTICAL   │
                      │              │
                      │    POLICY    │
                      └──────────────┘
```

SINGLE - USE   PLANS

```
                ┌──────────────┐
                │ COMPREHENSIVE│
      ───►      │     PLAN     │
                └──────────────┘
```

```
┌──────────────┐   ┌──────────────┐   ┌──────────────┐   ┌──────────────┐
│   OFFICIAL   │   │   ZONING     │   │   CAPITAL    │   │    DESIGN    │
│    CITY      │   │              │   │ IMPROVEMENT  │   │              │
│    MAP       │   │    PLAN      │   │   PROGRAM    │   │    PLANS     │
└──────────────┘   └──────────────┘   └──────────────┘   └──────────────┘

                                       ┌──────────────┐   ┌──────────────┐
                                       │   ANNUAL     │   │ ENGINEERING  │
                                       │   BUDGET     │   │SPECIFICATIONS│
                                       └──────────────┘   └──────────────┘

┌──────────────────────────────────────────────────────────────────────┐
│                          A C T I O N                                   │
└──────────────────────────────────────────────────────────────────────┘
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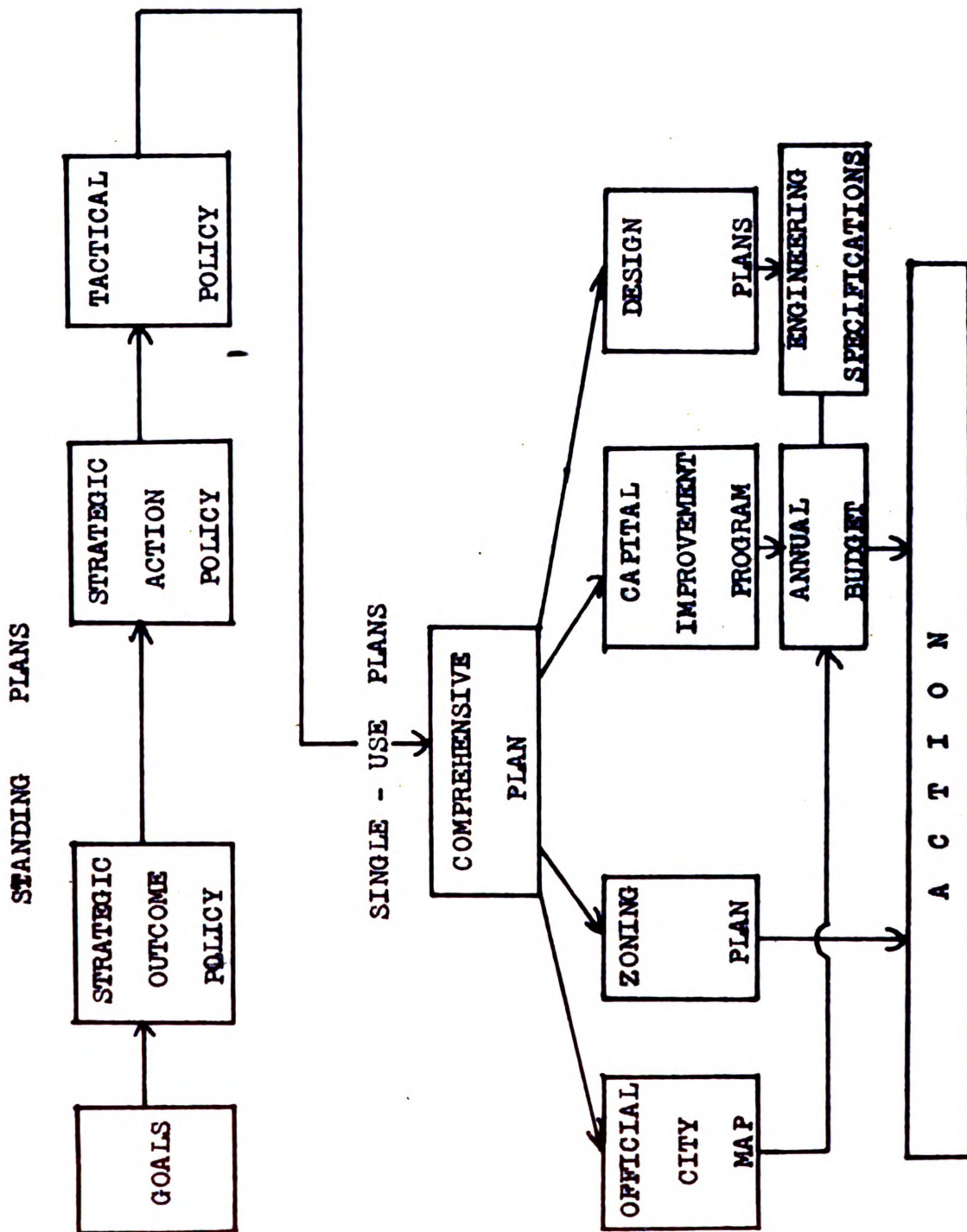
of behavior. Annexation policy and subdivision regulations are good examples of standing plans. They can be used over and over again, and they do not lose their value after one decision is made. Some of the advantages of such standing plans are:

1. Authority can be delegated (such as has been done with the building code and engineering specifications). The desirability of doing so in planning will depend upon the specificity of the policies;

2. They improve the quality and consistency of operational decisions; and,

3. They make both decisions and physical development more predictable.

Standing plans are effective in dealing with what Simon calls "programmed decisions" - those which are repetitive and fairly standardized in nature.[2]

In contrast, the other plans are called "single-use" plans.[3] They deal with the non-programmed, non-repetitive, exceptional types of decisions. As the name implies, they have a one-time use, and are designed to lay out the principal steps of accomplishing a mission. Most of the plans presently used in urban and regional planning tend toward this type, although none but the very shortest in duration

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[2]Herbert Simon, The New Science of Management Decision; Macmillan, N.Y. (1960): p. 89.

[3]Newman and Summer, op. cit., p. 202.

can be considered purely single-use. Examples of purely sing-
le-use plans are the annual budget, engineering plans, and
renewal project plans. These plans are the final step before
the action which they describe takes place.

The comprehensive plan, zoning ordinance, official city
map, and the capital improvements program fit this category
of single-use plans less easily. They all indicate a set of
recommendations to be fulfilled within certain time limits.
This is in a sense a singular purpose, but because the target
date of accomplishment is fairly distant (5 years for the CIP,
about 10 years for the official map and zoning plan and 20
years for the comprehensive plan) the documents and maps
serve an intermediary function as policy guides. For in-
stance, any one, or all, of these plans may be referred to
when the commission reviews a subdivision proposal. However,
because each of these plans is related to locational descrip-
tion of a specific desired end-state, they must be considered
primarily single-use plans. Any policy value is merely a
result of their aid in predicting, spatially, the future de-
velopment pattern, and this is only implied.

The Sequence of Decisions in Plan Development

The planning process is made up of outcome and action
decisions. The first-level decision sets forth a desired out-
come. The second-level decision is concerned with defining
the actions necessary to carry out that first-level decision.

But from the standpoint of the third-level decision, the second-level decision becomes an outcome for which more detailed action plans must be developed. Thus there is a complex outcome-action chain in which each action becomes an outcome for the next lower decision. This makes it extremely difficult to define the steps of the planning process. For example, we have always considered the official city map as an implementation tool or an action plan. But in reality it is also a short range desired outcome. We can only say that plans become more action-oriented as they get shorter in time range and more precise in locational detail.

Goals. The top of this outcome-action chain begins with the formulation of goals (see figure 7). They are derived from the predominant human values and the important issues. Thus goals are based upon the shared abstract sentiments of the inhabitants as well as upon the pragmatic issues which currently demand attention (or upon anticipated issues). Goals state positive directives as well as problem solution needs. In addition, goals could also set forth the parameters for future development, such as the projected population and population needs which plans must meet. These are sometimes referred to as the critical dimensions of the planning process. Figure 8 diagrams the relationship between values, issues, and goals; and shows how goals eventually serve as the evaluative criteria for selecting from alternative policy solutions.

# THE BASES AND USES OF

# GOALS IN POLICY FORMULATION

Figure 8
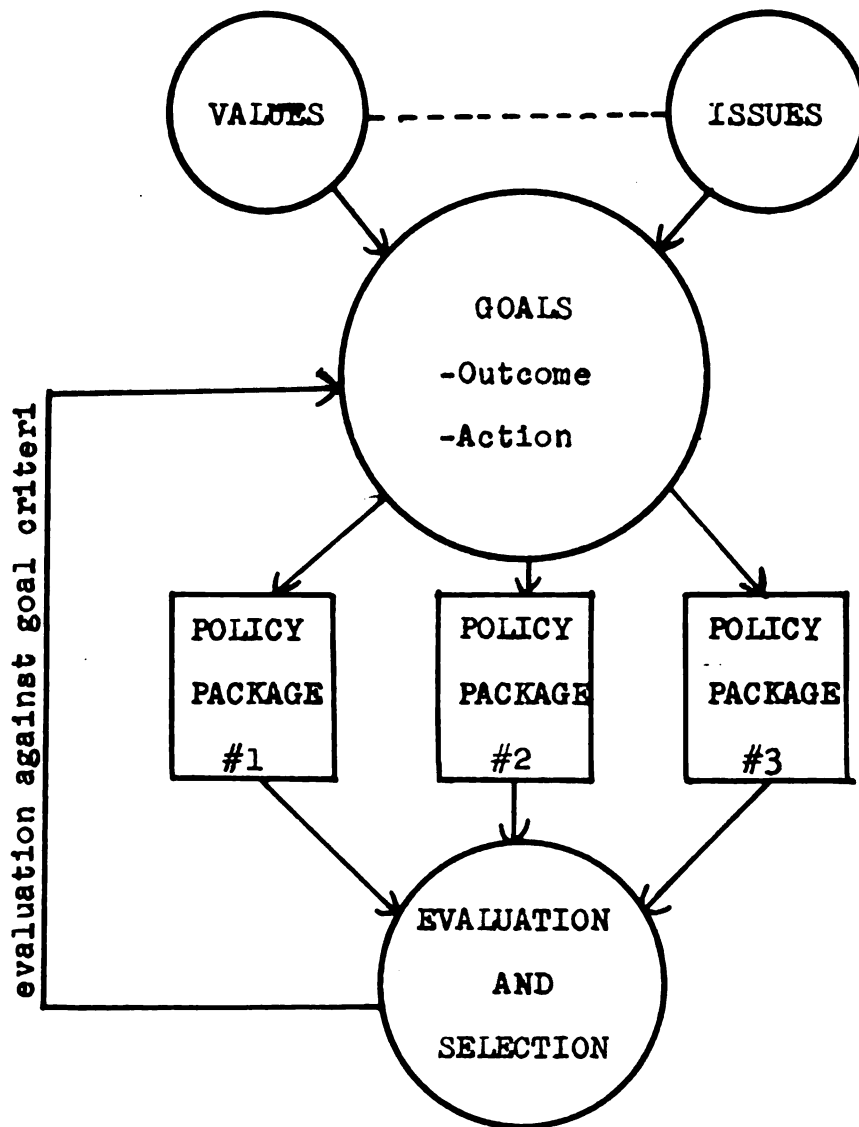
The first function of goals, then, is to provide a guide
to the development of subsequent policies and plan recommen-
dations. They do this by stating criteria which the results
of planning activity must satisfy. Secondly, their function
is to outline the criteria for achieving the desired outcomes.
This forces the planner to justify his methods as well as
his results, and this is a strong basic tenent of all democra-
tic planning.

Goals are thus, according to this definition, much more
than mere glamorous statements of planning intent. They are
the working measurement rods for plan and action evaluation.

Strategic Policies. Goals are typically quite general.
Strategic policies can be used to define more specifically
the courses of action which will lead to goal-attainment.
Strategic policies first set forth descriptions of outcomes
which will supposedly meet the criteria prescribed by the
goals. These are strategic outcome policies. They usually
deal with broad land use relationships, urban form, desir-
able distribution of employment, the flows of people, and
so forth. They might be considered the same as planning
principles. When portrayed on a map, strategic outcome
policies are differentiated from the comprehensive plan map
by the fact that they are only schematically delineated with
little attention to locational detail. The form alternatives
presented in the Year 2000 Plan provide an excellent example

# EXAMPLES OF STRATEGIC OUTCOME
## POLICIES - YEAR 2000 PLAN
### Figure 9



NEW INDEPENDENT CITIES



RADIAL CORRIDOR PLAN
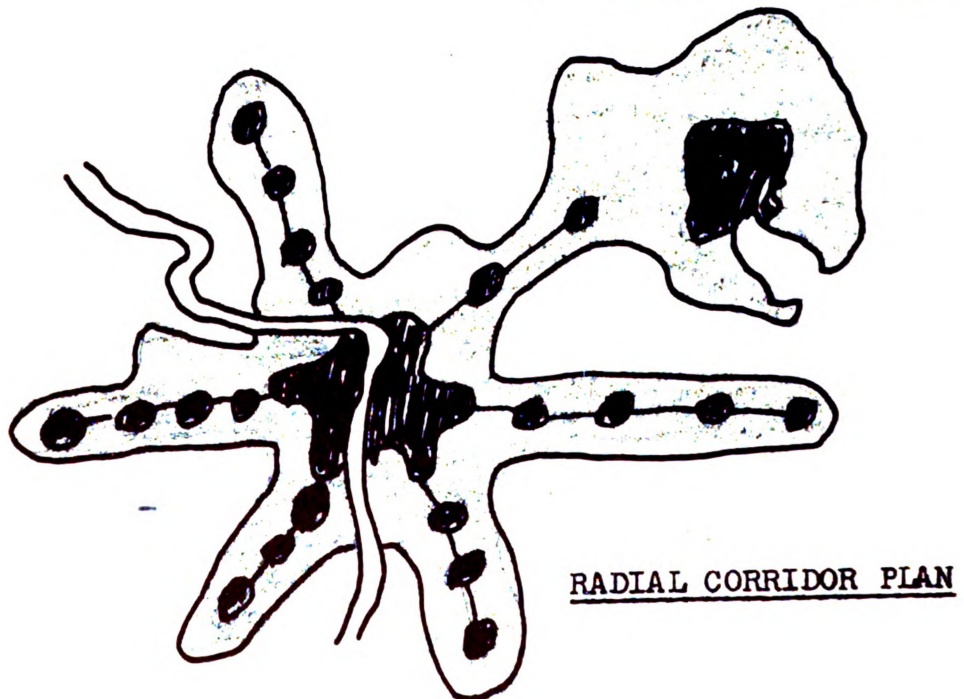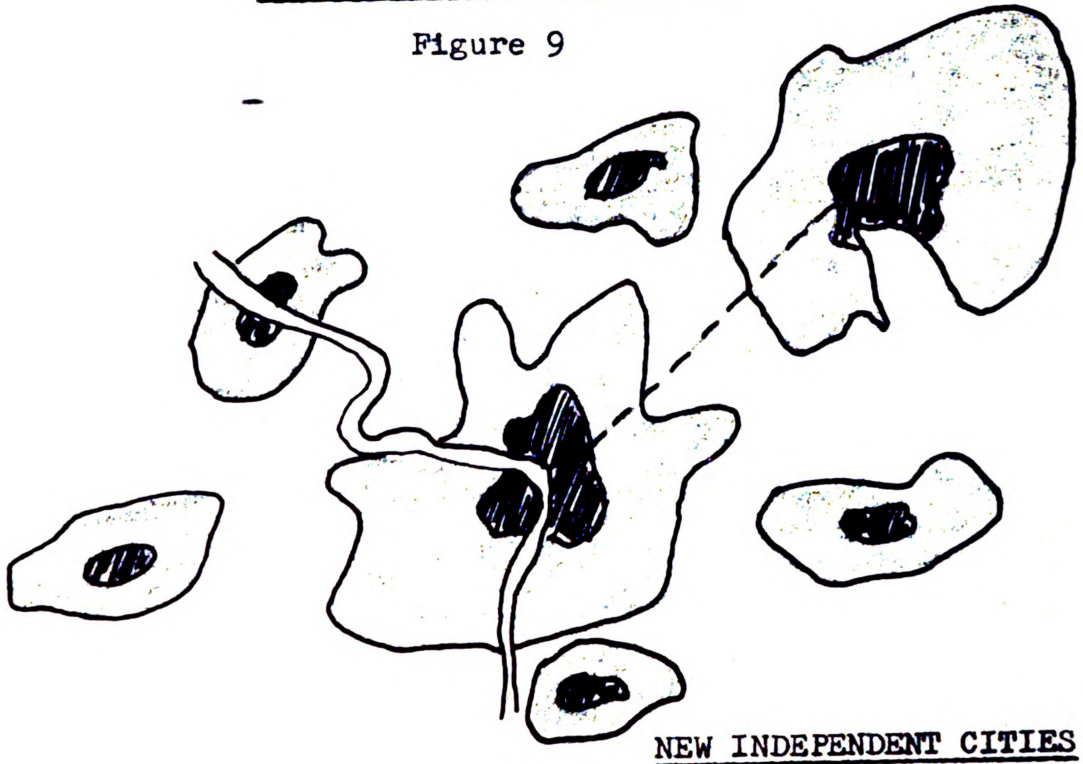
of strategic outcome policies on the regional level (See figure 9).[4]

Next, strategic action policies should be formulated as the broad actions necessary to promote and create these outcomes. They might cover such matters as rate of growth, rate of change, priorities for growth and change and the degree of interaction between components.

The principal use of strategic level policies is in outlining a framework for comprehensive plan development. In effect they set down a rough outline for the more specific comprehensive plan recommendations. However, strategic policies do differ from the comprehensive plan in their scope. These policies will cover a wide range of subject matter, not just the purely spatial considerations.

Tactical Policies. The distinction between strategic and tactical policy is a matter of level. Tactical policies are decision rules concerning specific methods of procedure for achieving the strategic policies. They are, in effect, strategic policies extended down the hierarchy to the operational level where they can be directly translated into action. They include: subdivision design and improvement standards, convenience standards, blight criteria, recreation standards, renewal priorities, taxing policy, financing techniques, and so

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[4]National Capital Planning Commission and National Capital Regional Planning Council, A Policies Plan for the Year 2000: The Nation's Capital. (1961): pp. 34-46.

forth.

The tactical policy discussed here should not be confused with Guttenberg's "tactical plan".[5] He makes the distinction between the capital improvements program as a "city-serving" device and the tactical plan as a "city-building" tool. For the purposes of this discussion, the tactical policies encompass both of these motives.

Policy Evaluation and Selection. As shown in figure 8, policies are grouped into alternative policy packages. Each package includes a set of strategic outcome policies, strategic action policies, and tactical policies. After the policy alternatives have been formulated they are compared and evaluated against the previously-determined goals. Upon the basis of maximum goal-attainment, one policy package alternative is eventually selected.

The Comprehensive Plan. Then it is necessary to formulate specific recommendations for effectuating this policy alternative. At this point we move from the policy plan into the comprehensive plan. As previously mentioned, the comprehensive plan is somewhat of a renegade - difficult to classify as to its purpose and real functions. It overlaps both the standing plan and single-use plan classifications. Traditionally it has included a conglomeration of policy and

[5]Albert Guttenberg, "The Tactical Plan", in Explorations into Urban Structure, by Melvin Webber, et al. University of Pennsylvania Press (1964): pp. 161-188.

specific recommendations. However, if policy is developed be-
forehand, as espoused here, then the role of the comprehensive
plan becomes more clearly one of translating policy into spec-
ific recommendations. The following examples should portray the
proposed relationship between the policy plan and the compre-
hensive plan. These decisions would of course, be preceeded
by the formulation of a set of goals. Also, in spite of the
fact that these decisions move in a logical sequence, it would
be of doubtful utility to evaluate comprehensive plan recommend-
ations as part of the policy alternative. They would probably
be more logically developed after the basic policy plan has
been selected.

1. a. <u>Strategic Outcome Policy</u> - a more balanced and
stable economic base. This might be displayed
as a statistical distribution of employment to
manufacturing, service retail, wholesale, govern-
ment, and agriculture; or as desirable economic
_input and output flow levels and rates. The
Erie, Pennsylvania planning study has used
input-output diagrams to demonstrate three
alternative outcome strategies.[6]

b. <u>Strategic Action Policy</u> - encourage the expan-
sion of heavy industrial activity in the planning

[6]M.E.H. Rotival and Associates, <u>Erie County, City, CBD -
Planning Concept Report:   Part II - Operational Research</u>
(1960):  pp. 33-35.

area.

c. Tactical Policy - organize an industrial develop-
ment committee; offer tax concessions to desir-
able industries; put a high priority on improving
the functional environment of industry.

d. Comprehensive Plan Recommendations - develop in-
dustrial parks at such and such locations; im-
prove the major highway access; put in a new sew-
age disposal plant.

2. a. Strategic Outcome Policy - a strong single central
core area serving as the symbolic and functional
focal point of the entire planning area.

b. Strategic Action Policy - increase the density of
core area activities; renew the core area facil-
ities functionally and esthetically; develop a
strong symbolic image; promote residential living
in the core; reduce traffic flow within the core
area.

c. Tactical Policy - route through-traffic around the
core area; provide perimeter parking lots so that
core area visitors need not walk more than x
minutes to reach their destinations; locate all
civic facilities in this area; promote a land
coverage of about x percent; encourage the re-
newal of the old residential portions of the core;

give top priority for new schools and parks to
the core area.

.  d.  <u>Comprehensive Plan Recommendations</u> - a new free-
way loop around the core area; renewal of such
and such areas; construction of a new civic
sports arena in such and such location; develop-
ment of new parking lots on the inner edge of the
freeway loop; allow higher density development
in such and such areas; close such and such
streets for malls.

3.  a.  <u>Strategic Outcome Policy</u> - a star-shaped urban
pattern accomodating growth along a few radial
channels extending from the central city and
separated from each other by vast wedges of open
space.

b.  <u>Strategic Action Policy</u> - hold the wedge areas
out of intensive development; promote radial
growth along high speed mass transit and free-
way routes; decentralize employment centers to
the radial channels; promote a high rate of
growth; promote the development of well-balanced
radial communities.

c.  <u>Tactical Policy</u> - push for more restrictive rural
zoning; allow tax increase immunity for wedge
areas which are beseiged by spreading urbanization;
use highways and rail transit lines to lead

urbanization; top priority should be given to

growth in the NE sector; radial community develop-

ment should be at a density of x persons per acre

and should have a population range of between y

and z.

d. Comprehensive Plan Recommendations - Such and such

areas should be reserved as open space wedges

and the corridors should be located in such and

such areas; a new freeway should be built at

such and such location.

Because of the hierarchial relationship of the plan com-

ponents it would be helpful to portray the decisions in pyra-

midal form. The examples listed here could tend to be some-

what disjointed unless this were done, and demonstration of

the interrelationships between policies and recommendations

is of critical importance. Such a decision pyramid for one

policy package alternative is presented in figure 10. Vis-

ualizing the various decisions in this manner will aid in

showing the decision-maker exactly why a particular decision

is necessary and what affect it will have upon higher level

decisions. In addition, it will encourage the relating of

decisions in one area to the decisions of another. If policy

alternatives were represented in this form, it would be easy

to determine the points of difference and similarity.

THE HIERARCHIAL NATURE OF PLANNING DECISIONS

Figure 10

POLICY
PACKAGE
#1

SPATIAL
ASPECTS

ECONOMIC
ASPECTS

SOCIAL
ASPECTS

STRATEGIC
OUTCOME
POLICIES

STRATEGIC
ACTION
POLICIES

TACTICAL
POLICIES

COMPREHENSIVE
PLAN
RECOMMENDATIONS
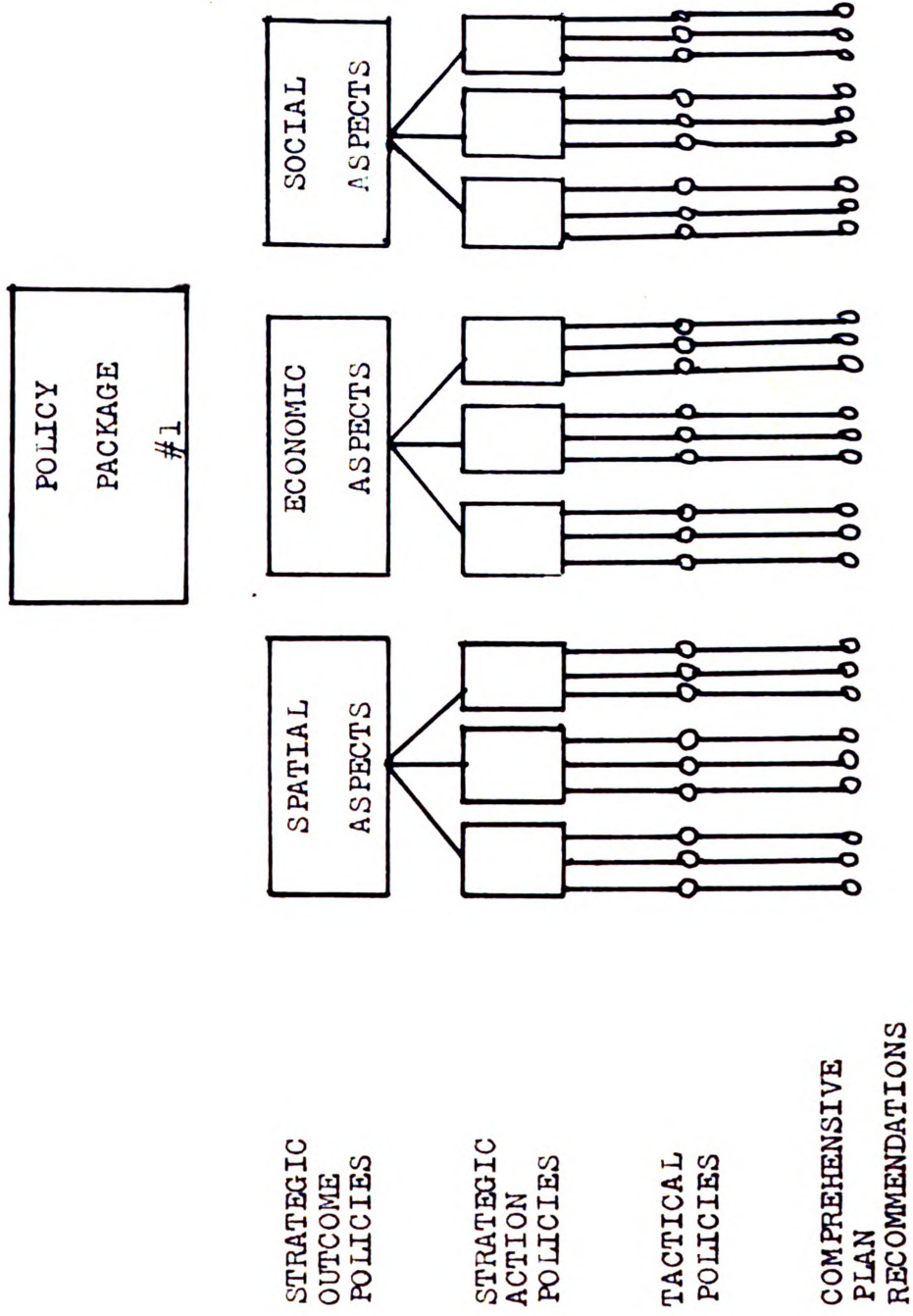
## Models for Decision-Making

To meet the increasing complexity of planning problems and to formulate effective policies, it is necessary to develop more scientific and more open models of the decision process. A quick glance through recent literature will show that almost every pure and applied discipline is now in the midst of re-analyzing its decision-making processes. In business administration, Newman and Summer set forth the following steps in a decision-making model: (1) Diagnose, (2) Find alternative solutions, (3) Analyze and compare alternatives and (4) Select a plan.[7] The Armed Forces Staff Officers Field Manual proposes: (1) State and develop the mission, (2) Analyze the situation and problems, and develop alternative courses of action, (3) Determine outcomes of alternatives, (4) Compare, and (5) Decide and translate into a complete statement showing who, what, when, where, how, and why.[8] From the field of operations research Abe Shuchman recommends: (1) Identify alternatives, (2) Define "best", (3) Predict outcomes, (4) Compare, and (5) Select.[9]

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[7] Newman and Summer, op. cit., pp. 253-341.

[8] Ibid., Discussed in Newman and Summer: p. 253.

[9] Abe Shuchman, Scientific Decision-Making in Business; Holt, Rinehart and Winsten, N.Y. (1963): p. 10-11.

"Chester Barnard lists means, ends, and conditions as the requisite components of decision-making. However, Herbert Simon suggests that when you adopt the Barbardian dichotomy of means and ends, factual judgements and value judgements are confused. Dr. Simon defines factual judgements as decisions regarding the implementation of values and value judgements as decisions in which you select final goals."[10] In addition, this usually leads to separation of means from ends, which is inadvisable; it can, in fact, promote the "ends justify the means" fallacy.[11]

Even in the field of planning some interest is being shown in decision theory. Paul Davidoff and Thomas Reiner recently set forth a choice theory of planning in which they portray three levels of planning: (1) the selection of ends and criteria, (2) the identification of a set of alternatives consistent with these general prescriptives and selection of a desired alternative, and (3) guidance of action toward determined ends.[12] Although this model, like Barnard's is based upon the ends-means scheme, due recognition has been given to the differences and relationships between value and fact premises. Such a theory introduces a step which has

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[10]Glenn W. Ferguson, "Comments on Decision-Making and Planning", in _Planning and the Urban Community_ by Harvey S. Perloff (ed); Carnegie Institute of Technology and University of Pittsburgh Press (1961): p. 194.

[11]Herbert A. Simon, _Administrative Behavior_; Macmillan, N.Y. (1958): p. 65.

[12]Davidoff and Reiner, _op. cit._, p. 103.

seldom been considered in planning - the identification of alternatives.

## A Planning Decision System

Most of the decision models which have been proposed have four common elements which can be used as the core for a planning decision system:

1. Understanding the Situation. Planners have always recognized this as an important area of concern; however, it has seldom been approached from a truly holistic viewpoint. This is an area which needs much greater attention in any planning effort, especially since we are becoming more concerned with simulating the results of our planning recommendations. We need to focus greater attention on understanding how the total system functions, what the critical variables are, who controls those critical variables, what their past and present plans and policies for control are, the criteria for measuring levels of adequacy, the interrelationships of seemingly independent problems, and the means of projecting the system into the future.

2. Setting Goals. Where goals have been defined at all, the results have left a great deal to be desired. Usually they have been nothing more than "anti-sin" and "pro-motherhood" statements. A major part of the inadequacy of such goals has been due to the failure

to carry general goals down to the operational level. Another reason is that too often the planner has merely assumed that he knew what was best for the community. Goals, when viewed as the starting point for all eventual policy, will become a much more important component of the planning process. This may even involve broad goal surveys and citizen discussion sessions.

3. <u>Identifying Alternatives</u>. After goal statements have been formulated, methods of attaining them must be developed. This involves a comprehensive search for all the feasible alternatives. Each alternative should be simulated into the future so that consequences can be more rationally identified and compared.

4. <u>Evaluation and Selection</u>. Once the available alternatives have been reduced to those regarded as most suitable, the next step is to evaluate the pros and cons of these alternatives, and to select the one that offers the best probability of contributing to the previously-formulated goals within the limits of established decision criteria.

Figure 11 presents a schematic diagram of how these four basic decision components can be fitted together in the form of a decision system. "Understanding the situation" is shown as a continuous process from which a simulation model of the

real system is developed, and from which goals are formulated (based upon a flow of information concerning the state and changes in issues and human values). Neither the model nor the goals are static because they are connected to a constant stream of information from the real system.

After the alternative plans, solutions or proposals are identified they are fed into the simulation model and projected several years hence so that long term consequences can be ascertained. These alternative consequences are then compared against the goals (outcome or consequence criteria) and the most beneficial alternative is selected.

The decision is then officially accepted and applied to the real system, and the results will feed back to the "existing situation" component so that we can begin to collect empirical evidence for subsequent decisions. In addition, if the decision has some immediate effect upon the system model structure (i.e., if it modifies one of the variables or parameters), then it should be incorporated as part of the model.

What has been described above is only a general or theoretical decision system. Figure 12 is an application of the system to the policy plan development process. The first two steps are the same as in figure 11; however, the identification of alternatives and the evaluation and selection steps take place at each level of policy decision. Also, each decision feeds back to the next higher decision in order to

A THEORETICAL PLANNING DECISION SYSTEM

Figure 11

IMMEDIATE AFFECTS
OF DECISION

REVISE MODEL
ACCORDING TO

IMPLEMENTATION

EVALUATION
AND
SELECTION

CONSEQUENCES

MODEL OF REAL SYSTEM

TEST

IDENTIFICATION
OF
ALTERNATIVES

REAL SYSTEM

FORMULATION
OF
GOALS

UNDERSTAND
THE
SITUATION

CONSTRUCTION AND UPDATING OF MODEL

RESEARCH
AND
FEEDBACK
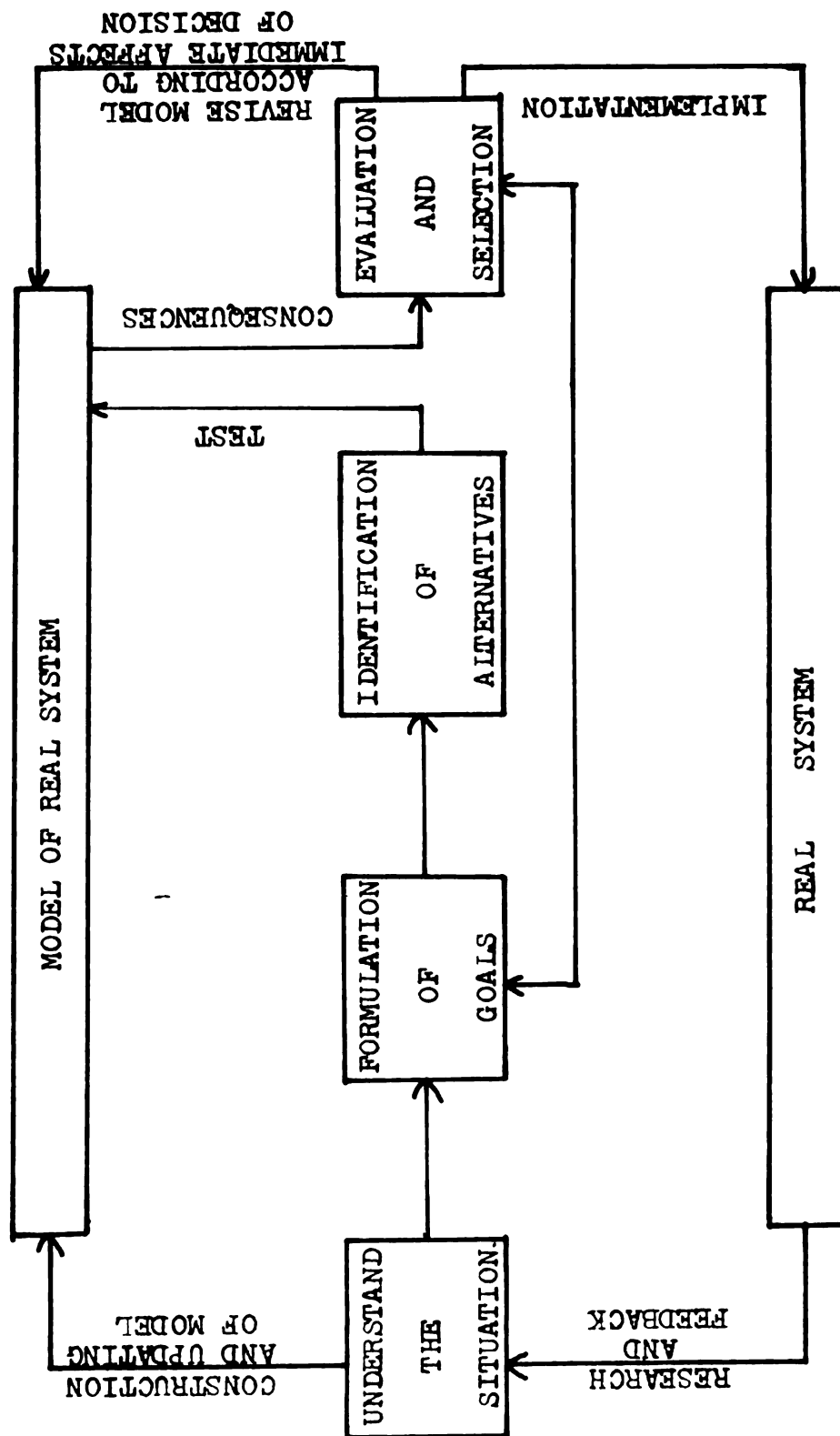
A DECISION SYSTEM FOR POLICY PLAN DEVELOPMENT

Figure 12



- 91 -
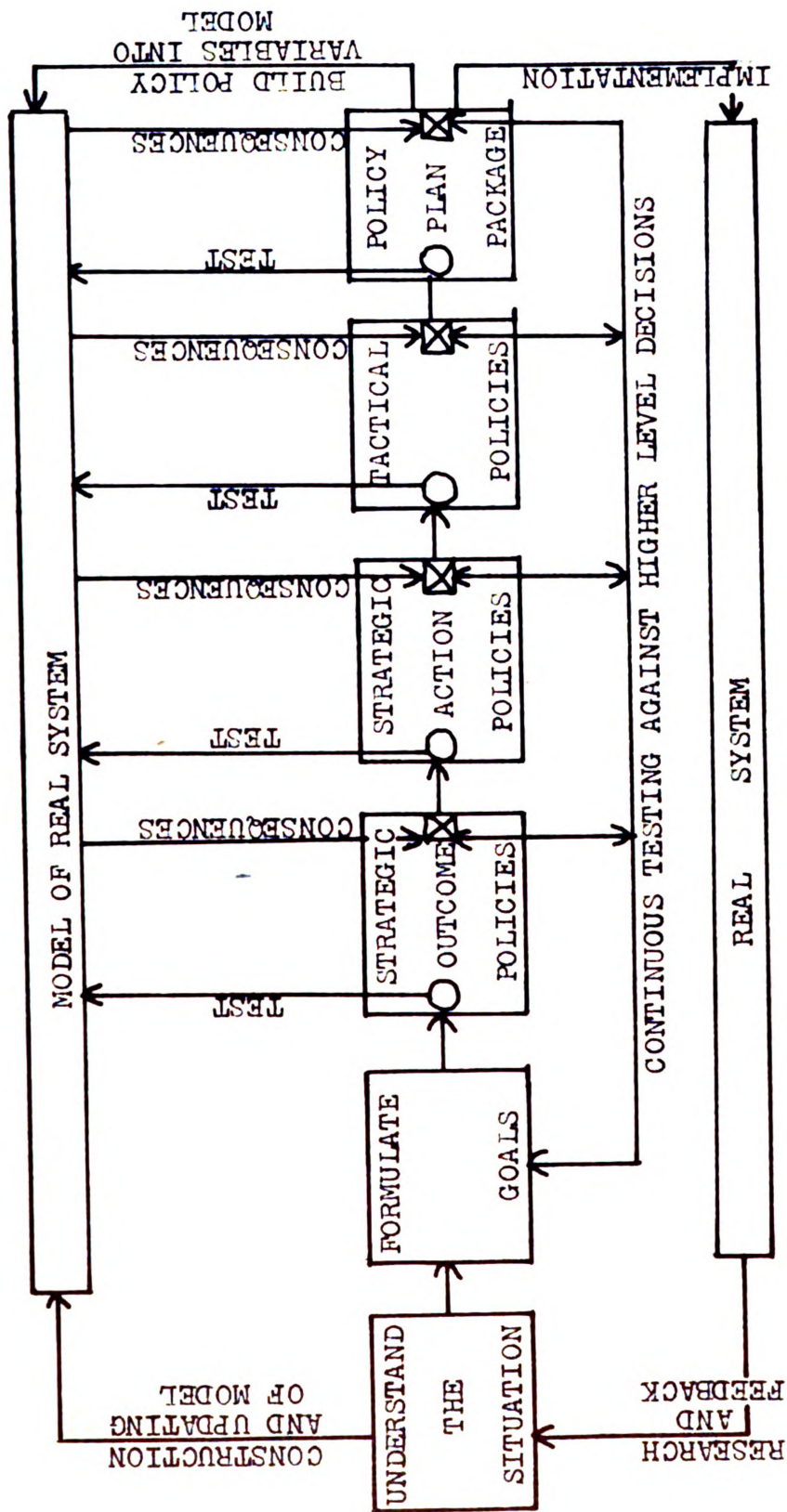
test consistency and compatibility. The final selected poli-
cy package becomes a very important component of the simula-
tion model in all subsequent consequence testing.

Policies as a Component of a Continuous Planning Decision System

The foregoing section concentrates upon the use of a
decision model in plan development. In fact, where policies
have been used in planning operations they have usually been
visualized purely as an element of a plan. Yet one of the
major points of this thesis is that policies serve a valuable
function in day-to-day decision-making. Once formulated,
policies become operational tools for guiding and coordinating
development-oriented actions. Thus policies not only set the
framework for the comprehensive plan, but they also act dir-
ectly as implementation devices.

Routine Decision-Making. Subdivision regulations are an
example of tactical policies which standardize a particular
set of repititious decisions, thus making administration more
efficient and more consistent. The policy merely outlines
the criteria and standards which the applicant must meet in
order to receive approval. Without such a policy, the re-
viewing body would be forced to review each submission as a
separate and unique proposal. Needless to say, this would
be a wasteful misuse of time as well as a haphazard decision
process.

Yet, just such a waste presently occurs in many of a

planning commissions' decisions. They often find themselves
faced with recurrent questions concerning parking, annexation,
hillside development, school location, shopping center appli-
cations, and so forth. Policy can be used to standardize
some of these decisions, just as subdivision regulations have
been handled. Every decision body should be equipped with a
comprehensive policy manual to aid them in dealing with re-
current issues.

Non-Routine Decision-Making. However, the procedure is
not so simple when highly significant non-programmed decisions
or new policy decisions come before the planning commission.
This requires a more complex procedure.

Figure 13 presents a diagram of a decision system which
is based upon the model described in figures 11 and 12. It
may be most helpful to follow a specific example through the
whole process. Suppose that a regional planning commission
has recently completed a policy plan much like that described
thus far (goals, strategic policies, and tactical policies).
The approved policies should then be incorporated into a sim-
ulation model of how the region functions. Thus, the model
will be composed of controlled policy variables, uncontrolled
variables, and their equated relationships. The model would
be kept continuously up-to-date through some type of feedback
process from the real system. The feedback would be composed
of: (1) new data concerning trends, levels, and rates of
change for the uncontrolled variables (i.e., population,

employment, money flow, rate of obsolescence and deterioration, population, preferences, etcetera.), and (2) the results of applied public policy and decisions (tax rates, renewal policy, capital improvement priorities, annexation policy, resource conservation policy, regional form policy, etcetera.). Such feedback would be used for continual review of policy effectiveness, and would integrate the features of a simulation model and a data bank.

With this model of the real system completed, the planning commission is, so to speak, open for business. The following discussion will describe two possible applications of this model to operational decisions. The first deals with a unique non-programmed decision, and the second with the formulation of a new policy to be plugged into the model later.

A developer comes before the commission with a proposal for a complete new town in the region. He wishes to feel out the commission's ideas concerning such a development. In figure 13 this is step number 1, introduction of the problem. The commission then discusses the proposal and identifies the alternative choices open to them (step 2). They might come up with the following decision alternatives:

1. Locate in area A.

2. Locate in area B.

3. Locate in area C.

4. Postpone the development for the time being.

# A CONTINUING PLANNING DECISION SYSTEM

## Figure 13
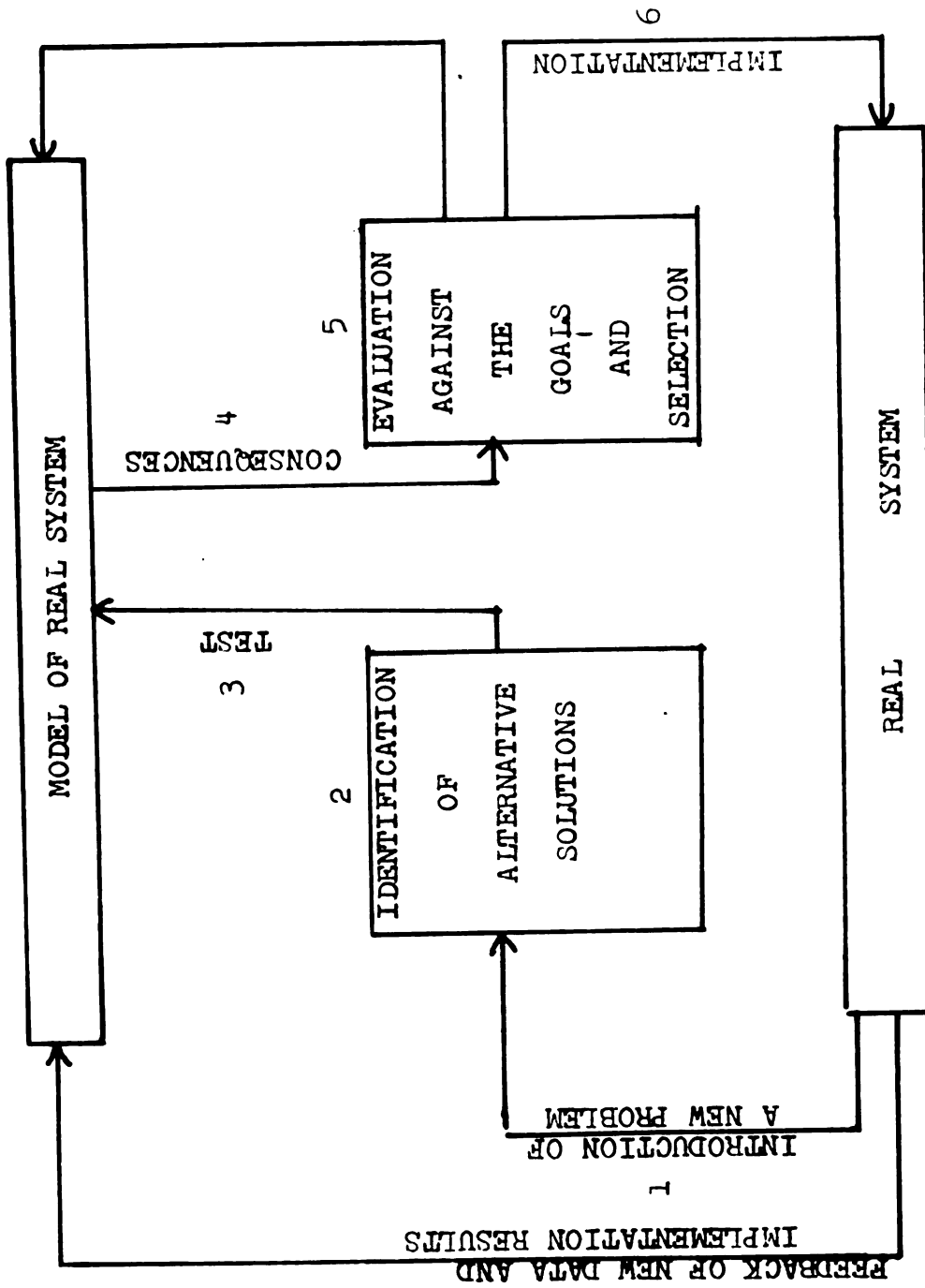
Each alternative is then fed into the model and run for suc-
cessive five year iterations up to, say, the year 2000 (step 3).
When the outputs of the model are retrieved (step 4), an
analysis of the alternative consequences is made (step 5).
Perhaps, alternative #4 is rejected because it might discour-
age the developer, and alternatives #1 and #3 are unsatis-
factory but they do not promote the strategic policies which
the commission has agreed upon. Alternative #2 will pull
urban expansion toward the highest priority growth area. Thus
alternative #2 is selected and recommended to the developer
for action.

As the developer applies the commission's recommendation,
there will be a constant feedback of data concerning the de-
velopment and its effects upon the overall region. If the
situation is not developing as was indicated originally by
the model, then either the variable relationships in the model
will have to be modified to achieve a higher degree of pre-
dictive accuracy, or else the policy variables will have to
be re-adjusted so as to better produce the desired consequences.

The second example to be run through this decision sys-
tem involves a need for the commission to develop a policy
concerning flood plain development. The problem has become
so recurrent and critical that a statement of public policy
is necessitated. The commission must first decide its alter-
native courses of action. This may also involve manipulation

of some of its already existing policies (i.e., give a higher priority to clearing deteriorated housing located on flood plains, give a lower priority to the development of new public facilities for these flood-prone areas, give greater recognition to multiple-use of river control sites, etcetera.). The alternatives might be:

1. To prohibit all flood plain development.

2. To allow the local units of government to settle the problem.

3. To buy development rights to all flood plain areas.

4. To devise flood plain zoning regulations which would permit any development if certain fill requirements are met.

After simulating these alternatives into the future, it will be possible to compare monetary costs, levels of protection for natural resources, legal problems, social costs, effects upon regional form, and so forth. One alternative will be selected and integrated into the model as a policy variable. Also, of course, it will be translated into action and the results will be feeding back into the model's data storage component.

It may be some time before a decision system, such as the one described here, can be taken from the conceptual drawing boards. The most complex task will be that of identifying the system variables and their relationships; however,

progress in this area of model building and computer programming is occurring at a rapid pace.

However, until adequate knowledge of model development techniques is developed, there is no reason why non-computerized conceptual simulation models cannot be used. This simply involves an attempt to more consciously and objectively anticipate the effects of decision alternatives upon the existing and future state of the system. This is essentially the method which has been used in recent policy plans (i.e., the Year 2000 Plan, the Wedges and Corridors Plan, the Twin Cities Joint Program and the Metro-Growth Plan). In other words, conceptual models will have to suffice until the more complex mathematical models become more widely understood.

The decision system does point out two very important ideas. First, the human brain and the computers and models are complementary functions. The model does not subsume the decision-making function. It merely aids in remembering the variable relationships and in predicting the future state of the system. The human decision-maker still has to identify alternatives, tell the computer what to consider, compare the alternative outcomes, and make the final choice.

Second, policy is an integral part of any model. Too often, the model-building task has assumed a certain inevitability to the future. However, we do have the power to

shape the future through the formulation and manipulation of public policy, and it is thus important the policy variables be built right into the structure of the model.

## Fact and Value in the Decision System.

The fact-value dichotomy in planning is an important but elusive topic. There is no such thing as a correct decision; or at least there is no known way to find out for sure. This infers, then, that decisions are something more than pure factual propositions. They are, in part, valuations. If a goal states that some particular state of affairs ought to be or that it is preferable, then the goal performs an imperative function and is neither true nor false, correct nor incorrect.[13]

The judgmental character of many decisions is an essential and crucial aspect of policy development, for it indicates man's potential power over the shape of his environment. However, value decisions should not be considered as untestable premises for planning. Facts can be disproved or confirmed by comparative observation of reality, but value verification is much more complex. As mentioned previously, values cannot be truly proved or disproved, but they can be tested for validity or acceptability in two ways:

1. By relating value premises to the next higher level on the value hierarchy. Consistency indicates validity; and

2. By confronting values with facts or consequences.

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[13] Herbert Simon, Administrative Behavior; op. cit., p. 46.

Once a particular set of values is posited, know-
ledge of the facts is needed to determine the rela-
tive weight and feasibility of a particular value.
For example, value X might be preferred, but upon
examination of the cost facts it is found that an-
other value might be better suited (The Year 2000
Plan provides an example of failing to confront
values with the implementation facts).

Value and fact premises are interspersed throughout the
policy development process, and it is often quite difficult
to pull them apart. Davidoff and Reiner list some areas of
inseparability:

1. Factual statements and their analysis reflect
the values of their makers; if only in the
importance attached to them or the sequence in
which they are studied.

2. Our personal experiences show that our values
are colored by our understanding of the facts.

3. We can make factual assertions about values:
for example, their distribution in a given
group. Conversely, one can make value asser-
tions about facts, as does the city planner
who desires to counter the fact of public
apathy about a public program.[14]

Yet, generally, each type of premise has a particular
and necessary place at certain points in the planning process.
Figure 14 presents the fact premises as being particularly
important in understanding the existing system, predicting

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[14] Davidoff and Reiner, op. cit., p. 105.

the future of the system (although value judgments also play a significant part here), and projecting the consequences of alternative policies. Value judgments prevail in setting system objectives, developing policy alternatives, evaluating alternatives and in selecting the final policy.

Fact premises developed from the prediction stage should not be presented as inevitable constraints upon the range of policy choice. "All too often planners first predict the nature of the future, then help set in motion programs that, fulfill this prophecy, and thus limit men's aspirations."[15] Greater creativity will be encouraged if policy discussion operates under the assumption that all things are possible, given the willingness to meet their costs. Only when the public decision body reveals that costs are excessive should the alternative be excluded from consideration.

The value-fact distinction is also pertinent to Wheaton's discussion of "planner's biases".[16] Planners have too often regarded planning principles as accepted facts, often unconsciously. It is important to realize that, although the planner has an obligation to propose certain accepted planning principles (preserve open space, retain single core area focus, provide variety of housing types, etc.), these are value judgments rather than accepted facts. If this is kept in mind, policy formulation will be far more objective and receptive to new ideas.

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[15]Ibid., p. 104.

[16] Wheaton, op. cit., pp. 250-259.

# THE ROLES OF VALUE AND FACT

## IN THE PROPOSED DECISION SYSTEM

### Figure 14



FACT PREMISES                                    VALUE PREMISES
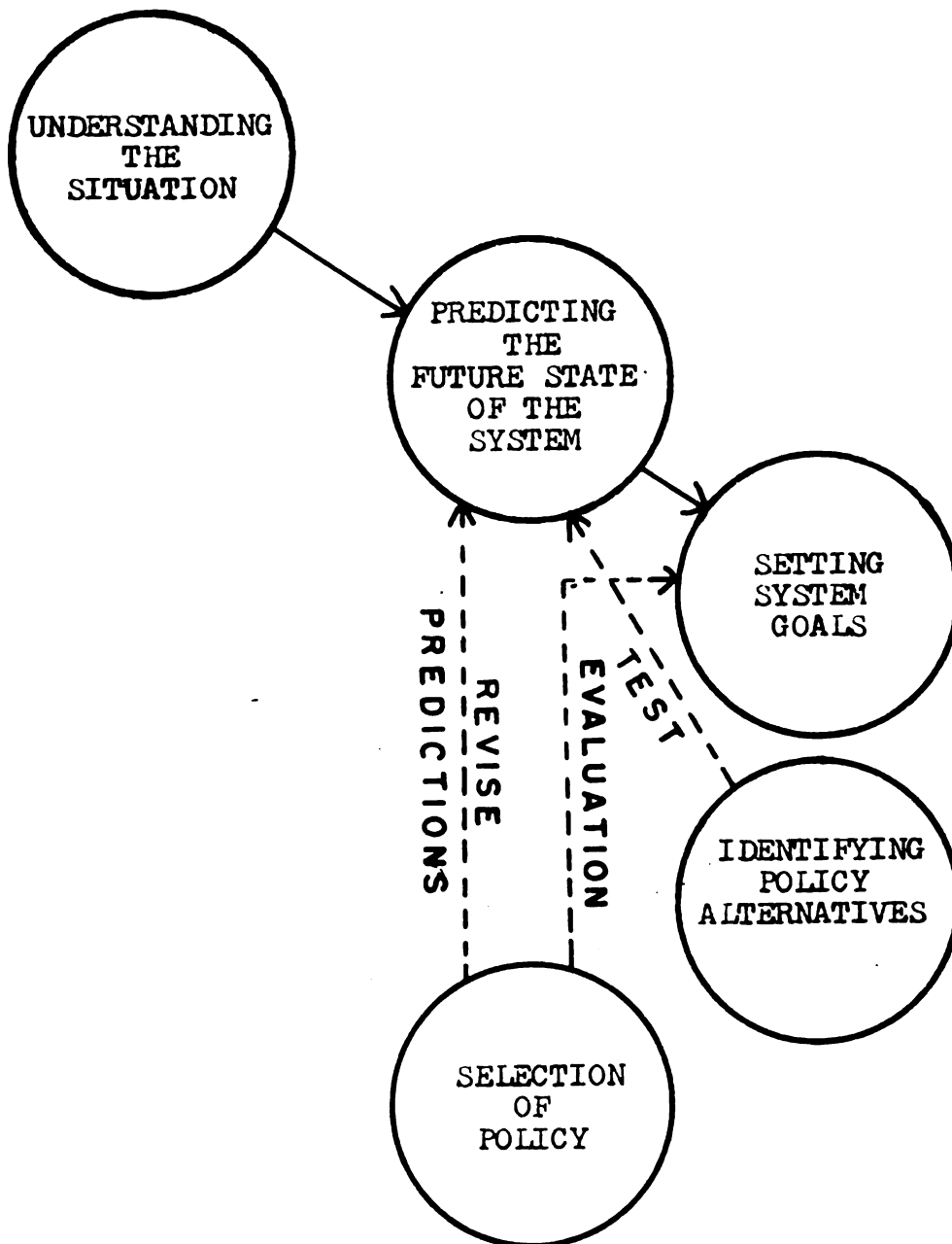
# CHAPTER IV

## UNDERSTANDING THE SITUATION

If planning is to become an effective decision system we need a better understanding both of the decision processes and the subject matter with which planning deals. Or, in other words, greater attention must be paid to the valuative and factual premises of planning decision. The last section of the preceeding chapter has dealt with the respective positions of values and facts in the decision system; this chapter will explore the types of facts (including facts about existing values) which are needed to formulate policies. The next chapter will discuss the valuative processes involved in policy planning.

### The Need for Understanding

The artifactual city has always been the focus of urban planning, even though it has often been necessary to conduct research on the social-economic-political city in order to better organize the artifactual city. As Webber points out: "By tradition and by the professions choice, city planning is primarily concerned with the physical plant within the municipal territory and with the locations at which people conduct the various types of activities in which they engage. The typical planning agency is only tangentially concerned with the non-locational aspects of the population's activities, and is scarcely concerned with the operating programs of the various service agencies in local government."[1]

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[1] Melvin Webber, "The Prospects for Policies Planning," in The Urban Condition by L.J. Duhl; p. 322

It would appear that urban planning is suboptimizing in that it has taken as a starting point a sub-unit of the total system. We are optimizing the objectives of one set of sub-systems without really relating them to the objectives of the total system. We have only occasionally attempted to relate the physical and non-physical city.

As planning becomes more sophisticated it will become increasingly necessary to start with an understanding of the total system, especially if we hope to fathom the consequences of our physical policies upon the non-physical city, and vice versa. "Unless we try to find our way through the complex web that ties us all one to the other, we can never be confident that what each of us does with one hand is not undone by his other, or that what one of us does is not unwittingly countered by the actions of his colleague."[2]

Dr. Warren Weaver presents an interesting analysis of our evolving approach to better understanding of the world. He lists three stages of development in the history of scientific thought:

1. _Ability to deal with problems of simplicity._ This era, which took place roughly during the seventeenth, eighteenth and nineteenth centuries, tackled problems with two variables (i.e., gas pressure depends upon the volume of the gas). Other variables were

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[2]_Ibid.,_ p. 329.

usually ignored or held constant.

2. <u>Ability to deal with problems of disorganized</u>

<u>complexity.</u> After 1900 came the rise of concern for

solving problems dealing with millions of variables.

To carry out such analyses some new powerful tech-

niques (statistics and probability theory) were

developed. This type of analysis was concerned

with averages - predicting the average frequency

of telephone calls, the probability of financial

loss, the motions of atoms, median income, standard

deviation, etcetera.

3. <u>Ability to deal with problems or organized com-</u>

<u>plexity.</u> These problems, as contrasted with the

disorganized situations with which statistics can

cope, show the essential feature of organization.

Examples are: what makes an evening primrose open

when it does?, what keeps salt-water from satisfy-

ing thirst?, and what causes a city to develop in

a certain pattern? These are all problems involv-

ing great numbers of variables but they fit together

into an organic whole.[3]

Jane Jacobs maintains that planners have failed to realize

that the city is a problem or organized complexity.[4] With-

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[3]Warren Weaver, <u>1958 Annual Report of the Rockefeller Founda-</u>
<u>tion</u> (1958).

[4]Jane Jacobs, <u>The Death and Life of Great American Cities;</u>
Random House, N.Y. (1961): pp. 428-448.

out getting into the matter of her personal opinions, it
appears that even if the city is purely a problem of organ-
ized complexity, certain analytical benefits can be obtained
also through statistical techniques. At any rate, it should
be obvious that the problems with which the planner must deal
are multivariate, highly complex, and impossible to solve by
intuition alone.

In Models of Man, Herbert Simon has stated that, "the
capacity of the human mind for formulation and solving com-
plex problems is very small compared with the size of the
problem whose solution is required for objectively rational
behavior in the real world - - or even for a reasonable ap-
proximation to such objective rationality".[5] Simon has
labled this the "principle of bounded rationality". Decision
models can never be infallible but their development can at
least reduce our fallibility to a level of reasonable secur-
ity. We will never know for sure if there is a limit to ra-
tionality unless we keep pushing to test its limits.

The Areas of Needed Understanding

What, then, do we specifically need to know before we
can begin using the decision system.

First, we need to develop a holistic understanding of
how the urban or regional system works, so that a model of
the real system can be constructed. As described in the fore-
going chapter, such a model would serve as the policy alternative

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[5] Herbert Simon, Models of Man; Macmillan, N.Y. (1960): p. 47.

testing component of the decision system. Through examination of development over time it will be possible to begin formulating a conceptual theory of the dynamic forces which have contributed to the present state of the system. Too often the research phases of planning have unfortunately concentrated upon understanding the problems and needs of the present, or when the past was considered at all it was seldom used to exemplify the nature of growth processes.

Rather than centering our attention upon the symptoms and results of system activity, we must begin to focus upon the reasons, the causal relationships, and the processes which underly the present state. This involves greater research into the variables which make the urban area or region a dynamic and ever-changing system. The principal use of this information will be in simulating the consequences of eventual policy.

Second, we need to identify the control centers which guide these variables, either directly or indirectly. The identification of these critical decision-makers will aid the policy formulation process by pointing out which decisions public policy must directly influence. After initial identification of these control centers, it will then be necessary to investigate their existing values, goals, policies, and plans. Public planning has seldom included the private sector as a planning agent; but in recent times some of them are doing more planning than the public agencies. We must

influence, and thus must understand, both public and private policies, especially since the policy plan is portrayed here as a direct guide to operational decision-making by all agents whose actions affect the environment.

Third, we must develop an understanding of what kind of a community or region is desired. This we should do in two ways: (1) by studying the state of the present system and identifying the critical issues for decision (problems, critical dimensions, and needs) both in the present and the anticipated future; and (2) by ascertaining the values of the people concerning desirable attributes of future life in general. Based upon these two premises, goals can be developed which will describe the criteria for measuring the acceptability and effectiveness of policy proposals.

## The Urban Area or Region as a System

If, as Dr. Weaver suggests, today's research must be directed towards organized complexity, then planners should begin to pay more attention to building conceptual models of how complex urban and regional planning areas are organized as wholes. By doing so, planners will learn more about how the planning area grows and changes, how and why problems develop, and how policies can best deal with these problems. In addition, we will obtain some better clues as to how the urban area or region will perform in the future, according to alternative sets of planning policies.

The Systems Approach. General systems theory appears to provide a useful approach to understanding and designing organized complexity. It is a cross-disciplinary approach which emphasizes the interrelatedness of problems, functions, and processes. It may be helpful to set down a definition of what a system is. Perhaps the simplest (and one of the first) definition of a general system is that given by Ludwig Bertalanffy: "A complex of interacting elements".[6] Johnson, Kast and Rosenzweig expand this somewhat by stating that a system is, "an organized or complex whole; an assemblage or combination of things of parts forming a complex or unitary whole."[7] Other definitions include reference to the fact that a system strives to maximize a set of objectives. Thus it can be inferred that a system is complex, that is a whole made up of interacting parts, that it is organized, and that it seeks goal attainment.

Issacs lists the following as some common system characteristics:

1. A system is comprised of elements, components, or subsystems, grouped or organized in some manner to accomplish a set of overall objectives.

2. Each component has a particular function that differs from the total system function, yet

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[6] Ludwig Von Bertalanffy, "An Outline of General System Theory", British Journal for the Philosophy of Science; Vol. I (1950: p. 26.

[7] Richard Johnson, Fremont Kast, and James Rosenzewig, The Theory and Management of Systems; McGraw-Hill, N.Y. (1963): p. 4.

contributes to the overall system perform-
ance.

3. The components generally do not perform
their functions in an isolated fashion but
require some functional support and/or
communication from other components.[8]

The systems approach emphasizes the interrelationships
of components and subsystems, and thus provides a new way to
view reality. Past research has been segmental due to the
segmental nature of our research and design disciplines. We
have the social scientists who study the interactions of man;
we have the engineer and architect who design artifacts; and
we have the biologist and resource specialist who study and
attempt to preserve nature. In very few cases have we deve-
loped disciplines or professions whose purpose it is to deal
with the interrelationships of man, nature, and artifacts.
The systems approach is an answer to this need for cross-
disciplinary knowledge and action.

Figure 15 contrasts the segmental approach against the
systems approach. In the segmental approach the three major
components are considered separately, and, in fact, many
aspects of the same component are usually considered separ-
ately (economics and sociology both deal with man's interre-
lationships but there has been little integration of these
two disciplines). The systems approach, on the other hand

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[8]
Herbert Issacs, "System Considerations in Building a Metro-
politan Data Bank for Urban Research"; Systems Development
Corp., SP - 862 (June 29, 1962): p. 1.

attempts to relate the study of man, artifacts and nature both vertically and horizontally.[9]

Aspects of the System. The distinguishing characteristic of the urban or regional system is its spatiality. Planners are, of course, most directly concerned with this aspect. But as Foley emphasizes, we must first understand the non-spatial aspects of the urban system.[10] He presents a diagram (see figure 16) of what he believes to be a holistic approach to the understanding of an urban system. At the basis of all system activity and structure are the normative aspects of the human components including social values, cultural patterns and the institutional setting. These normative aspects are mani-fested in the distribution of human functions, roles, and pat-terns of behavior. The planner's concern is directed towards the manner in which these functions, roles, and behavior pat-terns are allocated throughout the spatial environment; and correspondingly he becomes involved in understanding and de-signing the natural and man-made components so that they are compatible with the needs and desires of these human components (as expressed through their functional characteristics).

Decentralized System Control. In a democratic society the urban area is loosely organized and the controls are quite de-

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[9] Extracted From Notes on Systems Theory, by Stewart Marquis; Michigan State University, East Lansing, Michigan. (1964).

[10] Donald Foley, "An Approach to Metropolitan Spatial Struc-ture", in Explorations Into Urban Structure by M. Webber, et. al: University of Pennsylvania Press (1964): p. 24.

# CHARACTERISTICS OF THE SYSTEMS
## AND SEGMENTAL APPROACHES*

### Figure 15

**SEGMENTAL APPROACH**

**SYSTEMS APPROACH**

| | POLITICS | ECONOMICS | SOCIOLOGY | KINSHIP |
|---|---|---|---|---|
| **HUMAN COMPONENTS** | | | | |
| **ARTIFACTUAL COMPONENTS** | TRANSPORT | SEWAGE | BUILDINGS | COMMUNICATION |
| **NATURAL COMPONENTS** | SOIL | CLIMATE | WATER | AIR |

| | LOCAL GOVERNMENT | TRANSPORTATION | EDUCATION | PRODUCTION |
|---|---|---|---|---|
| **HUMAN COMPONENTS** | | | | |
| **ARTIFACTUAL COMPONENTS** | | | | |
| **NATURAL COMPONENTS** | | | | |

* Extracted from Systems Notes by
  Stewart Marquis, Michigan State
  University, East Lansing, Michigan. (1964

# ASPECTS OF THE URBAN SYSTEM*

## Figure 16

|  | A. Aspatial Aspects | B. Spatial Aspects |
|---|---|---|
| 1. Normative or Cultural Aspects | **1A** Social values; culture patterns; institutional setting; technology. | **1B** Spatial distribution of culture patterns and norms; values and norms directly concerned with the qualities and determination of the spatial patterns of activities, population and the physical environment. |
| 2. Functional Organizational Aspects | **2A** Division and allocation of functions; functional interdependencies; activity systems and subsystems including persons and establishments in their functional-role sense. | **2B** Spatial distribution of functions and activities; linkages (functional relations spatially conceived); spatial patterns of establishments, by functional type. |
| 3. Physical Aspects | **3B** Physical objects; the geophysical environment, man-developed material improvements, people as physical bodies; qualities of these objects. | **3B** Spatial distribution of physical objects; the resulting spatial pattern formed by the distribution of land forms, buildings, roads, people, etc. distribution in space of varying qualities of physical objects. |

*Excerpted from: Foley, Donald L., "An Approach to Metropolitan Spatial Structure" in Explorations Into Urban Structure, Univ. of Penn. Press; 1964: p. 24.

centralized. The normative aspects are subject to a great deal of diversity, and, thus, so are the functional and spatial manifestations. This is in contrast to the business and military systems in which all components serve a monolithic purpose. Because of this trait, planning must be directed towards a vast number of decision-making agents.

An Open System. It is often quite difficult to define the spatial extent of the urban system. This is due to the system's openness to its environment.[11] The urban area is an open system interacting vertically with higher level systems (region, state, nation) and horizontally with other urban systems of the same order. This is a trait which has gained considerably more impact over the last few years due to rapidly increasing mobility and interdependence, and it will probably continue to increase in impact until it will be impossible to define anything smaller than regional systems (i.e., the East Coast Megalopolis). Much of what occurs in a community today is actually controlled from some part of the environment.

System Structure and Process. What we need in planning, and what is facilitated through the systems approach, is an understanding of how its structural components are interrelated. Urban theories, and most planning efforts, have centered attention on the structure of the system. Little study has been

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[11] Stewart Marquis, Communities and Planning Areas: A Systems Approach to Spatial Community, Paper #10 in a Series on Spatial Patterns of Development in the Lansing Region; Institute For Community Development, Michigan State University, East Lansing, Michigan (Feb., 1963): pp. 57-58.

directed towards the flows and processes through which these structural components interact. Thus we have a knowledge only of the system statics and this is only half of how the system functions. We will not be able to construct models suitable for simulation until we understand both the statics and dynamics of system behavior.[12]

## System Variables and Control Centers

The urban area has one unique characteristic which sets it somewhat apart from the systems referred to in business management and the military. In most systems there is some external agency that conceived the requirements to which the system was designed. The urban system is not so tightly organized. "The urban system.....evolved almost randomly with perhaps some guidance from city administration and federal agencies concerned with general economic and social affairs. In fact, upon examination, it becomes apparent that several components of the system design and development."[13] Thus there are no agreed upon objectives for the total system; they are more often a composite of various decentralized objectives.

Variables. This "fact of life" means that many of the critical variables which determine growth and development will not be directly controllable through planning. It is important

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[12]Ibid., p. 26

[13]Issacs, op. cit., p. 4.

that these variables be discovered and classified according
to their controllability and predictability. If the systems
approach described above is followed it should automatically
bring to light many of these variables. Chapin and Weiss have
been conducting studies on critical development variables, and
have come up with the following list:

1. Location of water areas and areas subject to
   flood.
2. Location of major highways.
3. Location of work areas.
4. **Location of city's water service area.**
5. **Location of city's sewer service area.**
6. Location of city's fire protection service area.
7. Location of city's police protection service
   area.
8. Location of city's school service area.
9. Location of city's zoning jurisdiction.
10. Location of city's subdivision control
    jurisdiction.
11. Location of areas of mixed land use.
12. Location of blighted residential areas.
13. Location of non-white areas.[14]

Out of this list there are seven variables over which local
government has direct control (numbers four through ten).
Chapin and Weiss call these "primary actions" - actions which
will guide and direct secondary private developmental actions.
In addition, local government exercises at least partial con-
trol over the locations of major highways and work areas
(variables number two and three). Variables one, eleven,

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[14]
    Stuart Chapin, Jr., and Shirley Weiss, <u>Urban Growth Dynamics</u>!
    Wiley, N.Y. (1962):  p. 450.

twelve, and thirteen are not really subject to control, but they are influencable through the planning efforts of local government. Armed with such a knowledge of critical variables, policies can be developed to control and influence these variables toward goal attainment. It should be noted, however, that the variables listed here are only locational. There may well be many other variables which are non-locational (i.e., rate of investment, population growth, job availability, etcetera).

Control Centers. Not all policy can be translated into direct regulatory control. So we must pay special attention to the arrangement of decision-making centers throughout the system. Too many plans have failed because they did not recognize the fact that local government is only one significant maker of decisions in the system. In fact, of the six bases of power - (1) control of wealth, credit, and resources, (2) control of mass media, (3) control of solidary groups, (4) control of jobs, (5) possession of charisma, popularity, acceptance, etcetera, and (6) control of legal power - government figures significantly in only (1) and (6).[15]

Identification of this myriad of decision centers will aid policy development in four ways:

1. It will reveal who really controls the critical
    variables;

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[15]Robert A. Dahl, "The Analysis of Influence in Local Communities", in Social Science and Community Action by Charles R. Adrian (ed); Institute for Community Development, East Lansing, Mich. (1960): p. 32.

2. It will offer an opportunity to identify and analyze the existing policies and plans being followed by these decision centers. This will lead to greater coordination possibilities;

3. It will show where the potential for policy change exists; and

4. It will provide key persons for aiding in future policy development. Through understanding the role of decision-making in the system, policy plans will be given a greater opportunity to be realistic and effective.

Values and Goals

The third need for understanding is in the area of factors which contribute to goal formulation. As has been pointed out, this includes issues and values. Issues can be determined during the two previously mentioned phases of research. Planners have never had much trouble identifying the issues which need attention.

However, the study of values as part of the planning process has been sadly neglected. The following section discusses the benefits of value identification and the relationship of values to goals.

Values and Culture. Culture has been defined as the interaction of meanings and values (irreducible absolutes of quality[16])
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[16]
    Julian Huxley, Man in the Modern World, as quoted in Values and the Planning Process by Twin Cities Metropolitan Planning Commission; St. Paul, Minn. (1963): p. 6.

along with their forms of expression.[17]  In other words, cul-
ture is both ideological and material.  For example, a feel-
ing is nonexistent unless the human being can find the words
or actions through which it can be communicated.  Thus our
language is an important part of culture.  Similarly, the
urban environment is a language for the expression of plur-
alistic human values.  To be more specific, the urban environ-
ment is the unplanned resultant of innumerable individual val-
ues and value expressions (actions).

One of the purposes of planning is to coordinate and
establish some degree of order among this myriad of values,
so that the future urban environment will reflect a greater
consensus of direction.  In order to realistically carry out
this task the planner should have some notion of what values
the inhabitants hold in highest regard.  And most important,
he must determine the degree to which these various important
values are shared and the rank in which they are preferred.

Why Study Values? There are good reasons for examining
the effects of values on the planning process.  They can be
summarized as follows:

1.  "As values are at the root of a social order re-
    ference to them will avoid possible conflict be-
    tween individual goals and their attendent policies
    and implementation devices.  Conversely, they may

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[17]Pitirim Sorokin, op. cit., p. 247.

also explain seeming goal contradiction as being different aspects of a values system."[18]

2. "Values, being so often implicit, may become blurred, or even forgotten in the process of time. By making them explicit they can take their rightful place as foundations of society, or be rejected as being anachronous, shallow, or even destructive."[18]

3. "Through a knowledge of values, we may be in a better position to create an equable balance between goals and expose false goals."[18]

4. Because of the difficulties of avoiding personal bias in a field such as planning, there is a danger of creating plans for planners rather than for the public. By starting with the investigation of values it should be easier to avoid unintentional bias.[18]

5. The planning process may seem esoteric and arbitrary to the layman. "If, however, policies and plans were approved on the basis that they satisfied certain agreed values and goals, the decisions as to policy and plan can be recognized as means for furthering our deepest needs rather than appearing to be ends in themselves."[18]

The study of values represents an attempt to dig into the

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[18] Twin Cities Metropolitan Planning Commission, _Values and the Planning Process_, _op. cit._, pp. 6-7.

knowledge gap between the stimulus and response components of human behavior. To plan without such a knowledge is to assume universality of behavioral response for particular stimuli. Human beings are considerably more complex than such an assumption would imply.

The Twin Cities Metropolitan Planning Commission staff has set up an interesting and apparently useful framework for values and their expression through goals. They feel that although the planner is chiefly interested in environmental goals, he must first analyze the total human value structure because the environmental forces are grounded in an extremely broad aura of values. They list the most primary values as those which deal with survival (security, sustenance, and continuity). From this base a set of development values arise as the means of social cohesion (cooperation, extension, surplus, and choice). Finally, man's values extend into the non-material area of fulfillment values (beauty, goodness, truth, immortality, recreation, and happiness).[19]

From this broad analysis of values the staff then developed a set of planning values which could be directly reflected through goal statement. Figure 17 presents the results of this endeavor. The resulting goal statements are considerably more comprehensive than any others investigated by this author.

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[19] Ibid., pp. 12-16.

# AN EXAMPLE OF VALUE-GOAL RELATIONSHIPS

## THE TWIN-CITIES APPROACH

Figure 17

| PLANNING VALUES | PLANNING GOALS |
|---|---|
| INDIVIDUALITY | Give individual identity in the community |
| MATERIAL WELFARE | Facilitate wide choice for buying |
| LEISURE | Shorten: a) Journey to work<br>b) Journey to play |
| COMFORT | Maximize protection from inclement weather (Improve micro-climate) |
| DEMOCRATIC GOVERNMENT | Scale community to human perception |
| COMMUNITY PRIDE | Increase imageability of the community |
| NATURE | Preserve and give access to the countryside |
| COOPERATION | Increase cohesiveness of the metropolitan area |
| EQUALITY | Do not favor one group or age above others |
| SECURITY | Give a sense of permanency in the metropolitan form |
| FLEXIBILITY | Build in adaptability to change |
| SPACE | Create spaciousness in the developed area |
| PRIVACY | Arrange adapted spaces to avoid intrusion |
| NEIGHBORLINESS | Create conditions fostering interpersonal relationships |

Figure 17 (cont.)

| | |
|---|---|
| CHOICE | Create maximum accessibility between all urban functions |
| HISTORICAL CONTINUITY | Integrate new development with the old |
| ENCLOSURE | Create a metropolitan form enabling meaningful space relationships between buildings and other elements |
| CONSERVATION | The efficient use of land, energy, human life |
| HEALTH | a) Provide efficient water supply and sewage disposal<br>b) Give easy acess to medical facilities |
| SAFETY | a) Maximize ease of fire protection and police patrol<br>b) Reduce road and traffic hazards |
| DIVERSITY | Increase range of possible living environments |

However, there still appear to be some basic discrepencies in the transition from values to goals. First the values do not appear to be fully represented in their attendent goals. For instance "democratic government" should mean a great deal to planning,more than just the scaling of "community to human perception". The value of democracy should have quite a bit of reference to the techniques and methods to be used in attaining other goals. Similarly, "leisure" can certainly be reflected in qualitative goals as well as the quantitative goal of shortening journeys.

The second point is that values and goals have not been translated into measures of preference. We have no way of knowing whether privacy is a more important value than neighborliness. It might be useful to view values as existing in sets. Lynd maintains that there is a certain set of rock bottom values which exist in every culture, but they usually exist in pairs of apparent opposites such as: security and risk, coherence and spontaneity, novelty and latency and rivalry and mutuality.[20] In reality they are no more opposite than sleep and waking. The planner's function is not to maximize certain values, but to present the greatest opportunity for perpetuating each of the values.

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[20] Robert S. Lynd, "Persistent Cravings of the Human Personality" in Knowledge for What by Lynd; Princeton University Press (1940): pp. 189-201.

## Value and Goal Identification Methodologies

Values and goals can be identified in four ways: (1) Professional Assumption, (2) Verbal Survey, (3) Observational Survey, and (4) Citizen Participation.

Professional Assumption. The first method, in which the planner assumes values and goals either implicitly or explicitly, on the basis of his professional competence and community familiarity, has generally been the accustomed approach in past efforts. This approach finds justification in the difficulties of social and attitude surveys, and in the feeling that the planner has the responsibility "to know", in the full sense of the word, and the role to lead.[21] In other words, the planner because of his professional training is expected to be a specialist in perceiving the values and goals of the public, or, at least, he is expected to know better than anyone else what the people need in terms of the physical environment.

Recently there have been rumblings of dissent against such an approach. There are many who are beginning to feel that the planner is not so omniscient as he once thought he was. Does his professional training make him any more perceptive, detached, or objective than other members of society?

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[21]Ronald Reed Boyce, Paper presented at the Symposium on "Public Opinion and Goals for Planning," Proceedings of the 1963 Annual Conference of the American Institute of Planners; Milwaukee (1964): p. 181.

Actually he leads a personal life just like everyone else; he joins social and religious organizations, has certain preferred patterns of living, and even states opinions concerning current affairs. There is thus some danger of the planner promoting, in his public life, values which are not really those of the democratic majority. He may also be proposing goals in areas where he is not competent.

Verbal Survey. One of the methods of avoiding these dangers is the verbal attitudes or values survey. Verbal surveys may be approached either formally or informally. The informal survey relies on open-ended priming questions. General questions are offered by the interviewer with the hope that they will elicit expository answers concerning any subjects which the interviewee feels strongly about. Serendipity has great value in this approach. Good planners make use of this "technique whenever they come in contact with the lay public. The other, and more common, type of verbal survey is the "specific question-specific answer" survey. It is more highly structured and formalized, and is often carried out through written communication.

There are two very good examples of this latter type of verbal survey which it might be useful to describe. The first one is the Goals for the Region Project conducted by the New York Regional Plan Association. Their methodology was basically to go out and stimulate the creation of small

citizen groups, which were usually rather homogeneous and thus without communication impediments (there were neighborhood groups, employee groups which were encouraged by employers, and social, fraternal and religious organizations). After these groups were organized (with a total of 5600 participants), a set of five meetings was scheduled each of which consisted of: (1) a half-hour special television program discussing the issues for that meeting, (2) an informal discussion among the group participants of these issues, and (3) filling out questionnaires related to the discussion. Before each meeting the participants were sent a brochure describing certain background information so that they could have a chance to think out their feelings in advance of the meeting. However, it was revealed later that less than 50 per cent had read the brochures.

The five meetings dealt with a history of the region, the need for planning and the present problems, projections, goals, and means for accomplishing the goals. The small discussion groups were used for the following reasons:

1. They were the easiest way to reach the people, considering time and money limitations.

2. The surveyers could be confident of regular meetings and attendance; and,

3. It seemed most likely that these were the kinds of groups which would continue to work with the Regional Plan Association.

This project, because of its attempt to deal with such a large spatial area, has been viewed as a milestone in the field of planning. However, as with any innovative endeavor, some criticism have been leveled at the Regional Plan Association:

1. The participants turned out to have well-above the average income and level of education of the Region, and they were 97% white despite efforts to enlist the cooperation of various racial and ethnic organizations. There was thus a strong middle-class bias to the views expressed.

2. Many people have criticized the surveyers for brainwashing the participants before asking the questions (through the Regional Plan Association's presentation of so-called facts and research conclusions which were presented in the television series and on the information brochures).

3. Related to the above is the criticism that choice was unduly limited - not enough alternatives were offered. As Boyce has said, "...to ask the public whether it prefers a 'spread city or a city with more variety in density, housing types, transportation opportunities and urban agglomerations' hardly seems a fair choice when phrased in this manner."[22]

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[22] _Ibid._, p. 179.

The only choice offered was between good and evil.

Although these criticisms probably have some validity, the approach has contributed significantly to the cause of planning in the New York Region. Citizens have been made more aware of the issues and the potential value of planning, a large number of local leaders and groups with a willingness to work have been identified, and the Association has a much better idea of what the public feels it needs in terms of regional goals.

A second example of the verbal survey approach has been outlined, and tested in two North Carolina cities, by Robert L. Wilson.[24] Whereas the New York project was issue-oriented, the purpose of this survey was to investigate some of the factors which seem to contribute to the general image of a livable city. As such, this survey was values-oriented. In contrast to the Goals for the Region Project, this was based on personal interviews chosen on a random sample basis (thus ensuring a better socio-economic distribution). The survey was quite detailed with each interview taking two to three hours.

Four types of questions were asked:

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[23] For a more complete description of this project, see William Shore's paper for the Symposium on "Public Opinion and Goals for Planning"; op. cit.

[24] The techniques and survey results are described in: R. L. Wilson, "Livability of the City: Attitudes and Urban Development", in Urban Growth Dynamics, op. cit., pp. 359-399.

1. <u>Personal questions</u>. These were concerned with basic
   social, economic, and occupational background data,
   plus a series of questions designed to gain some
   understanding of the respondents personality.

2. <u>Preference questions</u>. These were aimed at developing
   a satisfaction-dissatisfaction scale concerning the
   neighborhood, the city and life in general, and at
   determining preferences for improvement.

3. <u>Neighborhood photographs</u>. In this part, respondents
   were asked to compare, evaluate and state their pre-
   ferences between pictures of three different types
   of neighborhoods. Through this technique a basic
   understanding of their values (privacy, safety, clean-
   liness, convenience, variety, etcetera.) was derived.

4. <u>Choice game</u>. This was viewed as a realistic test of
   value application. Respondents were given a certain
   amount of hypothetical money with which they could
   purchase the types and qualities of public services
   and facilities which they felt were most important
   (paved streets, police protection, sewer system,
   water system, street lights, etcetera.). The intro-
   duction of limited resources to the idea of choice
   provided interesting and quite realistic results.

Although this survey did not aid in public education
and leadership identification, it did provide extremely useful
data concerning both the concrete preferences and the basic

values of the resident population. The survey results appear
to contribute significantly to the information needed in goal
formulation.

Observational Survey. The third approach to value identi-
fication has been called observational survey. It is based, in
part, upon the contention that "talk is cheap", "actions speak
louder than words", and"money talks". The advocates of this
approach maintain that the respondent in a verbal survey cannot
help but be influenced by the question and the manner in which
it is phrased. In addition, it has been proved by research
that people will often say one thing and do another.[25] We
actually use a great deal of information gathered from obser-
vation - traffic counts, sales indices and trends, and obser-
vations concerning the trend toward decentralization.

However, there is a great danger in deriving values from
observable actions. Sorokin, in discussing culture as being
made up of values and the vehicle of expressing them, cautions
the reader as to the loose relationship between these two
cultural components.[26] For example, out-worn customs often
live on even though their meanings are obscured and out of
touch with reality. Yet if, 500 years from now, an anthropo-
logist were to examine our value system through our vehicles
of expression, he might surmise that the value commonly

[25] Boyce, op. cit., p. 178.
[26] Pitirim Sorokin, op. cit., p. 222.

associated with that custom was, in fact, held by our culture.
The same can happen when the observational approach is applied
to urban life. Because we patronize a shopping center does not
necessarily mean that we categorically prefer shopping centers
to the central business district; it merely means that in the
context of certain existing circumstances this is our prefer-
ence. With other alternatives we might have different prefer-
ences. This approach indicates the best choice in a bad sit-
uation, and thus only perpetuates the status quo.

Another danger of this approach lies in the difficulty
of interpreting the meanings of actions. The surveyer usually
must assume his values to be fairly universal when he attempts
to make such interpretations. However, he can never be sure.
We can say that people live in slums because they have no
choice, and from a middle class suburban view-point this would
probably make sense. But, in reality, there could be any
number of reasons why the slums continue to hold a large seg-
ment of our population, not the least of which is a fear of
failing to make the best of change. We can never be sure un-
less we actually analyze the values behind these actions.

Citizen Participation. The fourth approach to the identi-
fication of values and goals is "citizen participation", which
is basically applied group decision-making organized in such
a way as to reveal the value motivations of all decisions.
It is less time-consuming than the verbal or observational

survey, and if the selected citizen body is large enough and diverse enough, the cross-section of values should be fairly representative. And, in addition, it shakes the burden of goal selection off the shoulders of the planner. He does, however, play a crucial role in providing the alternative goals for a discussion starting point, and he should help guide and control that discussion.

Such an approach can be quite frustrating, in that consensus of agreement is increasingly difficult as the group becomes larger, more diverse, and as the goals become more detailed. The Lansing Tri-County Planning Commission staff found their greatest problems to be that many of the citizens on the Citizens Advisory Council were either unconcerned about physical goals or were too wrapped up in a basic suspicion of "creeping government".[27] It has been suggested that to overcome these two problems it might be beneficial to start the goal formulation process at a higher level where the needs and goals of the entire region (not just the physical aspects) would be considered without getting into the details of how the government will accomplish them. Then after everyone has agreed upon the needs, the role of government and its policies can be considered more objectively. In addition, starting at the higher level would provide issues which are more easily

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[27] Keith Honey, op. cit., pp. 102-110.

related to the individual's personal values. The citizen gen-
erally does not have any feelings concerning the relationship
of land use to circulation, but he undoubtedly has some opinions
and interest in the promotion of jobs, the role of the indivi-
dual, the standard of living, etcetera.

Combining the Methodologies. None of these four discussed
methodologies is all bad or all good. Planning, if possible,
should make use of all these methods. The professional planners
do have a certain degree of expertise in the field of needs
determination and issue identification, and if he has a well
rounded education he may have some understanding of how and
what values need to be promoted through planning. However, to
cover his inadequacies and unconscious biases, he needs to do
a certain degree of objective survey work. These techniques
provide a testing mechanism for his understanding of values
and goals. And, as the final test of the validity of values
and goals, the planner ought to compare his information with
the decisions of the planning commission and lay bodies which
might also be involved in the making of planning decisions.

# CHAPTER V

## THE POLICY PLANNING PROCESS

After gleening a basic understanding of the points dis-
cussed in the previous chapter, it is then necessary to be-
gin thinking in terms of how the system can be altered by
redesign or management to perfor more effectively in meeting
human purposes.

This chapter delves into the valuative phases of the
proposed policy plan development decision system (see figure
14 for a breakdown of the fact-oriented and value-oriented
steps in the decision model). More specifically, this chap-
ter discusses:

A. Goal formulation;

B. Identification of the alternatives and their
consequences; and

C. Policy evaluation and selection.

The result of performing these steps will provide the basis
for the type of continuing planning decision system presented
in figure 13, and will provide a logical framework for develop-
ment of the comprehensive plan.

### A. Goal Formulation

Goals can be thought of as general descriptions of the
desired outcomes and actions toward which the community strives.
They set the parameters for planning and action. Goals can
have negative and positive characteristics; that is, goals are

usually directed both at the correction and elimination of problems and at the promotion of change, growth, improvement, and advancement. Goals reflect the aspirations of those persons who control the system.

Definition of the system goals can fulfill several types of purposes:

1. They can delineate the decision-makers' areas of concern.

2. They can be utilized as guides for action, especially in providing a framework for making unique non-programmed decisions. (The later-to-be developed policies would be the guides to standing or programmed decisions).

3. They can set the criteria or standards for "good system performance". This will be of great value when it comes down to evaluating alternative plans and policies.

4. They can be used to unify and dove-tail various operations involved in goal-attainment.

5. They can explicate and clarify the role and purposes of government in the development of the urban system. This should lend greater reliability to governmental decisions.

## Characteristics of Goals

The idea of goals and values has long been avoided by planners. It is often assumed that goals and objectives

cannot be formulated, and especially not by a planner. It is
not so much a matter of goals being non-existant or of their
being considered unimportant, as it is a matter of operational
difficulties. Goals are just plain difficult to formulate.
Lindblom lists the following reasons for this operational
difficulty:

1. Multiplicity of values. People have many different
   interests which may be expressed in many ways. A
   liberal democrat will be willing to subscribe to a
   rule about encouraging private enterprise, but such
   a rule would differ greatly in content and form of
   expression if stated by a conservative republican.

2. Instability and fluidity of values. Our conception
   of the circumstances will vary from moment to moment
   and so will the values which we call to mind. In
   addition, we often do not know quite what our values
   are on some points because we have never had to face
   a concrete choice. For instance, with what compe-
   tence can an individual who has never tasted either
   decide his preference for a hypothetical dinner of
   guinea pig or armadillo?

3. Conflicts among values and combinations of values.
   Values do not stand by themselves. They must be
   related quantitatively and qualitatively to other
   values. There are no rock-bottom, across-the-
   board preferences.[1]

In addition, as Friedmann points out, the elected representatives
each have their own personal preferences which arise, in part,
from "drive for political and economic power".[2]

Webber contrasts government against business in terms of
preference determination. Private business is able to analyze
customers' relative preferences by offering goods and services

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[1] Lindblom and Braybrooke, op. cit., p. 47.

[2] Friedmann, op. cit., p. 332.

on the open market where they can buy or not buy as they choose. Government, on the other hand, must handle its service provision outside the natural principle of supply and demand. In the face of value pluralism, it is difficult to know just what the customers prefer and hence what combination of services and facilities would benefit the community most.[3] Carrying the comparison somewhat further, when it comes time to confront the customer with an alternative which he has never before experienced, business has the added advantage of being able to set up a test market. The situation in planning is considerably more complex, although some attempts are being made at the simulated testing of plans.

In the face of such barriers to goal formulation, it is tempting to merely step aside and leave the task for someone else. However, although the planner is ill-equipped to do so, he is forced to at least hypothesize which goals are to be pursued; for there is no other professional staff agency which has the responsibility. And without at least implied goals, planning is a functional impossibility.

Some Pitfalls in Goal Formulation

Higher Level Goals. One of the most common pitfalls in formulating objectives is failure to recognize the higher level goals. As was pointed out earlier, a system has layers of subsystems, each of which has its own goals that should

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[3]Webber, "Prospects for Policies Planning", op. cit., p. 321.

also contribute in some way to those of the system. "It might appear then that it would make sense to begin with some broad 'given' or accepted objectives; to derive from them appropriate local or subobjectives for the systems problem in hand; and then to design the analysis to maximize, in some sense the proximate objectives."[4]

To not respect these higher level "givens" is to "sub-optimize". We must first look towards regional, state, and national objectives before we can complete the building of goals on the local level.

There has, however, been good reason for some of the suboptimum planning which has occured. In many metropolitan areas there is no set of given goals. This fact has been wrestled with in many of the recent transportation studies. The staff of the Chicago Area Transportation Study, when faced with an absence of clearly-stated metropolitan objectives, decided that they were not policy-makers and thus would promote strictly the goals of the transportation system. The Penn-Jersey Transportation Study staff, on the other hand, decided that they had a vested interest in the whole region and thus had to develop their own goals for regional development.

Under-Defining. Another common pitfall in goal formulation has been "under-defining" - not stating goals in a com-

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[4] Hitch, op. cit., p. 45.

prehensive organized framework or else stating goals so generally as to be meaningless. In reference to the first type of under-defining, Hitch provides an amusing but illustrative story.

> One of my colleagues, a sophisticated system analyst, once tried to solve a personal problem by rigorous maximization of an objectives function supplied by his doctor. He needed to lose weight, so he determined by consulting the experts his minimum requirements for proteins, carbohydrates, fats, vitamins, minerals, etc. He also obtained the quantities of each of these food elements in the 500 or 600 foods on the Bureau of Labor Statistics list. Then, on the plausible theory that mass is filling and that most dieting attempts fail because the subject feels hungry, he maximized, subject to various constraints, the weight (not counting water content) of the diet that would give him his minimum caloric requirements. The answer, ignoring minor quantities of various foods, was that he should drink 80 gallons of vinegar per day (vinegar is a weak acid, and its weight per calorie is remarkably high).[5]

The problem, of course, was that he did not define all of the relevant goals. In planning we must be careful of the same thing. We do not want to burn down the entire house just to get rid of the rats in the basement, nor do we want to maximize the rationality of land use relationships to the point where variety and deviation are non-existent, nor do we want to promote renewal at the expense of rupturing the social fabric of the community. These points may seem obvious but it is not unusual for a person to get so enchanted with one

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[5] Ibid., p. 49.

goal as to wear a set of blinders to shield him from all other competing goals.

Over-Defining. A problem closely related to "under-defining" is "over-defining". Goals are seldom fully achievable, due to the fact that many singly desirable goals are governed by the principle of "zero-sum-game". That is, to fully realize one goal often makes another less attainable, and the more goals that are considered the greater the chance for conflice becomes. For example, to maximize speed of movement might make it difficult to maximize a goal of safety, or to emphasize a goal of renewal might drain the financial effort which can be put into the resolution of pollution problems. Competing goals are constantly pressing for attention, and to blatantly state that one wants to improve everything is a naive and useless framework for action.

The only way to get around this problem is to rank goals or establish priorities. However, it is important that these priorities be continually reviewed and rearranged. The importance of any goal depends on how much of it we have now; the more there is the less value we attach to additional effort (Except, however, with goals which are never maximized - orderly fringe growth, facility maintenance, social identity, etcetera). Lindblom raises some interesting and difficult questions concerning the ranking method (he calls it the "naive conceptions model").

1. What if we have to choose between substantially

extending the second priority goal at a low cost or promoting the first priority value at a high cost?

2. What happens if you have to choose between a policy offering promotion of the first, fifth, and seventh priority goals, and one concerning the second, fourth and sixth priority goals?[6]

These are questions which would involve a loosening of the decision model, and the decision would probably have to be made as if the problem was of the non-programmed type. In other words, such decisions could not be guided strictly by goal rank; other criteria would have to be developed.

Types of Goals

Goal formulation can be approached either idealistically or realistically (for instance, the Year 2000 Plan approach versus the Denver approach). If goals are set high, many people feel that the work effort will be stronger and more continuous. If goals are set realistically in terms of what one expects to accomplish, the decision-makers are respected for their grasp of the real world. In the latter approach, rewards are more frequent, whereas in the former, rewards may never be received. Planning has been beset by the extremes of both approaches - the utopias and the status quos. Goals, if they are to be both useful and challenging, must find a happy medium.

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[6] Lindblom and Braybrooke, op. cit., p. 67.

Targets and Optimizing Indices. Roland Artle distinguishes between two types of goals:

1. Optimizing an index of community welfare.

    i.e., a. Maximize total income/capita

         b. Maximize growth rate

         c. Maximize local government revenue

         d. Minimize costs

2. Setting targets as levels of adequacy.

    i.e., a. Area density

         b. Number of face-to-face contacts

         c. Rate of growth

         d. Maximum population[7]

Most of the efforts at defining goals have followed the optimizing approach, but this is perhaps due to the fact that few have carried goals down to the specific levels.

Level of Generality. Goal statements have usually been of a fairly generalized nature (i.e., to protect and enhance the esthetic environment; to achieve coordinated arrangement of land use and transportation facilities which will meet the range of social, economic and cultural needs of the citizens; to provide maximum opportunities for all types of recreational activities; etcetera.). These more general goals have the advantage of relative stability; they are applicable to more

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[7] Roland Artle, "Public Policy and the Space Economy of the City", in Cities and Space by Lowden Wingo Jr.,; John Hopkins Press, Baltimore (1963): p. 164.

situations for larger groups over a longer period of time. Also, the more general the goals the greater the potential for achieving consensus.

However, they have the corresponding disacvantages of lack of precision and difficulty of application in any specific problem. As Lynch and Rodwin point out: "General goals should be more than top-level showpieces, or covers for hidden motives. They must be related to goals farther down the hierarchy." This raises some question in respect to the recommended policy plan components:

| GOALS | → | STRATEGIC OUTCOME POLICIES | → | STRATEGIC ACTION POLICIES | → | TACTICAL POLICIES |
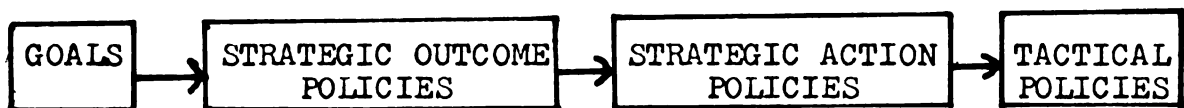
More detailed goals begin to overlap into the strategic outcome policy area, because this model is basically just a hierarchy of decisions. Yet goal statements should be fairly detailed if we are to compare policy alternatives against them. One way to make the distinction between goals and strategic outcome policies more clearcult might be to direct the goal statements at the entire system and policies only at the spatial aspects of the system. Such comprehensive goals would deal with all aspects of the system - social, economic, cultural, as well as physical - whether or not the government has direct control over them. Thus, when we arrive at the point where policies must be compared to goals

we will have a truly comprehensive and rational basis for evaluation. And by doing so, the dangers of suboptimizing will be avoided. This type of approach would also provide a better framework for other governmental programs and services, and would place the responsibility for goal-formulation with the official elected body rather than with the planning commission.

## The Sources of Goal Formulation

Values. The previous discussions of goals might lead one to believe that goals are merely extensions of values. In a very realistic sense, this is true because values are the most basic roots of social behavior. However, for the purposes of planning we must go beyond pure values. Values are quite abstract; they are much like standing plans because they are usually discussed in an unapplied context. The study of values indicates long range desired outcomes - those qualities that would contribute to an ideal civilization. Planning is of course very much a part of this pursuit of the ideal.

Issues. However, planning is also a problem-solving activity. In order to reach those valued ideals, planning must squarely face the immediate issues or problems. Thus the goals in addition to stating positive ideals, must set down the concrete problems which must be solved and the needs which can be expected. This balances the abstract approach (value determination) with an applied approach (issues and needs determination).

Issues are visualized as particularly important problems which plague the efficient operation of the urban or regional system, such as river pollution, strip commercial, decaying central area, sprawl, lack of suitable land for industry, and so forth. Issues also include the anticipated needs of the system such as housing, jobs, investment, services, and land. Issues, in effect, delineate the areas of concern which are determined in the study and analysis phase of the planning process.

There is a strong interrelationship between the abstract values and the concrete issues. They are, in fact, two ways of approaching the same problem. Issues are the result of innumerable past and present values (and resulting policies) and once the cause and effect can be identified it will be easier to derive more effective and acceptable policies and plan proposals.

B. Identification of the Alternatives and
Their Consequences

As emphasized earlier, choice permeates the entire po- licy planning process. For this reason a conscious effort should be made to explicate points of choice and to identify alternatives whenever it seems appropriate or necessary. Choice will begin with goal formulation (although there is also room for choice in preceding basic research) and carry through the selection of strategic and tactical policies,

and eventually into the various derivative, single-use plans.

The actual degree of choice varies greatly between different cities, regions and states. Not only are there differences in substantive focus of various planning agencies, but there are also vast differences in what is already there and in probable future rates of expansion. For instance, the choices open to New York City, Los Angelos, Denver, and Miami differ due to such factors as:

1. Dominant functions.
2. Particular endowment of resources - wealth, knowledge, energy, ability, and existing natural and man-made attractions.
3. Area and character of land available for new development and redevelopment.
4. Capacity for effective action toward common ends via market and political processes.[9]

Identifying the Alternatives

Initially the desired areas of policy formulation should be designated and the alternatives identified. For instance, the transportation system problems might be met through a freeway emphasis, a mass transit improvement, a combination of the two, or possibly through reducing the need and incentive to travel. Growth might be best facilitated through a policy of new towns, radial corridors, or an extension of present policies. A community may have a number of choices concerning the most fruitful dominant function to be promoted - industrial community, educational center, state capital, vacation haven,

[9]Catherine Bauer Wurster, "Form and Structure of the Future Urban Complex", in Cities and Space, op. cit., p. 77.

etcetera. There might also be a certain degree of choice between economic emphases (for instance, Erie, Pennsylvania has considered various relationships with the St. Lawrence Seaway and the industrial complex of Pittsburgh). And at the tactical level, various taxing rates, assessment procedures, and exemptions might be evaluated.

Systems Approach to Policy Categories. The type of systems approach discussed in chapter four provides us with an interesting and seemingly fruitful set of policy categories. Figure 18 diagrams, schematically and non-spatially, the oranization of the community as a system.

The most basic units are the components - humans, artifacts (cars, building, bridges, streets, etcetera), and nature (woodlots, rivers, lakes, muck-lands, etcetera). These components, when they interact, become parts of numerous operating subsystems, such as households, factories, schools, parks, shopping centers, and so forth. Some of these components are permanent parts of the subsystem (building, trees, humans buried in the cemetery, etcetera); others are quite mobile (humans, animals and transport vehicles) and move about from subsystem to subsystem.

Subsystems are usually part of certain community processes. For instance the production process is composed of energy subsystems, raw material subsystems, parts supply subsystems, transportation subsystems, the actual production subsystems,

# ORGANIZATION OF THE COMMUNITY

## SYSTEM

Figure 18



○●○ = Components      ↔ • Flows

⬤ = Subsystems      ⬤ Community
                       System
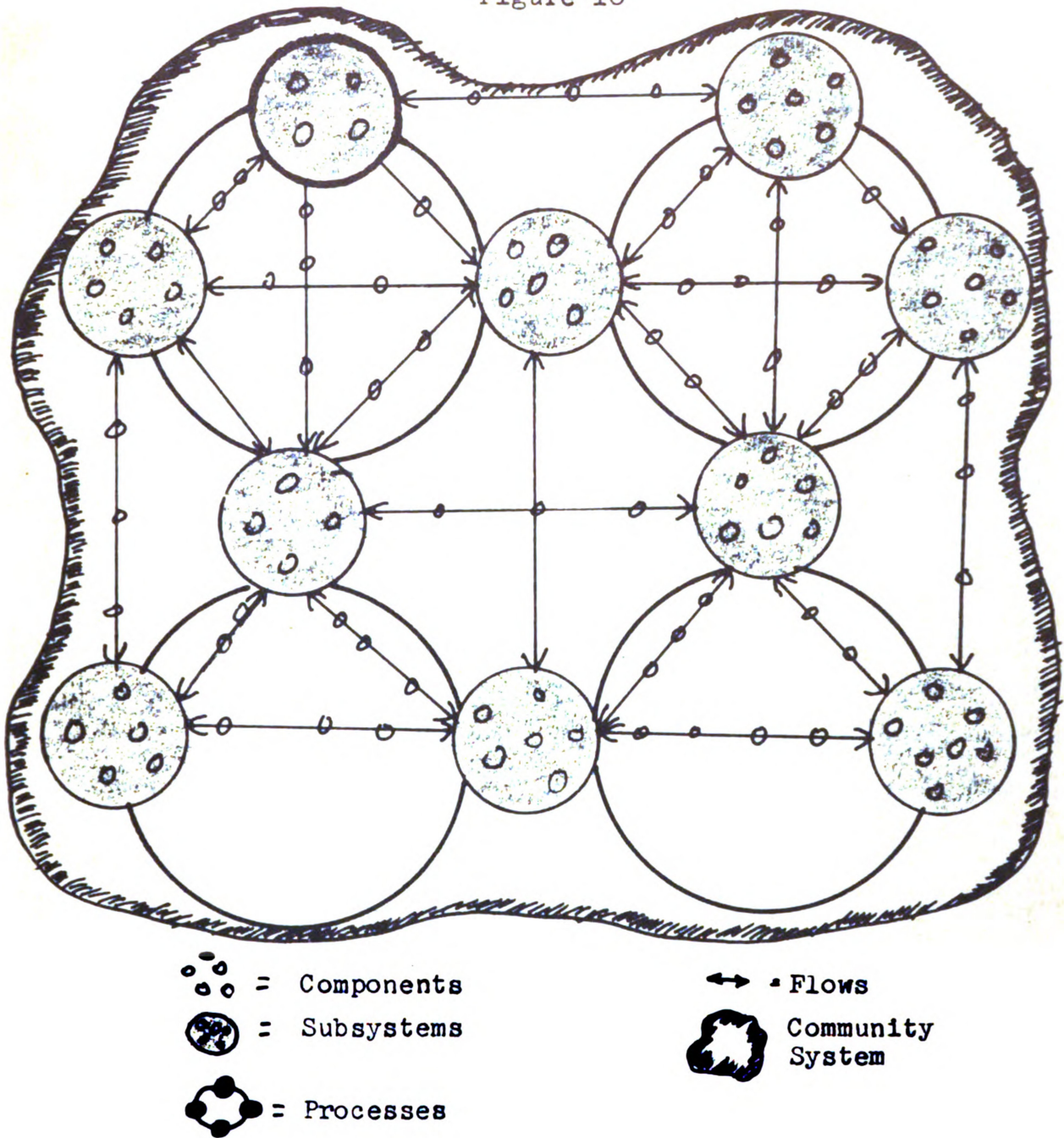
⬤ = Processes

and the household subsystems which supply labor. Other process categories might include goods distribution, socialization, recreation, education, and government.

The interactions which take place between the subsystems of the processes are called _flows_ (flows of materials, organisms, energy, information and people). In addition, these flows relate certain subsystems to other processes, including processes which are part of a system on a higher level than the community.[10]

These categories suggest then that policies might be developed in the following way:

1. Policies for the total community system --- size, growth rate, rate of change, etcetera.

2. Policies for the community processes --- production, goods distribution, social identity, land development, watersheds, etcetera.

3. Policies for the community flows --- flow rates, directions, periodicities, volumes,etcetera.

4. Policies for the operating community subsystems --- stores, schools, transportation companies, developers, real estate concerns, etcetera. (It is especially important that policies be directed to the

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[10] I am indebted to Stewart Marquis for this set of systems categories. They were first brought to my attention in: _Development of Community Centers, 1830 - 1960: An Analysis of the Evolution of Human Community Systems in the Lansing Tri-County Region_, Paper #7 in a Series on Spatial Patterns of Development in the Lansing Region, Institute of Community Development, Michigan State University, East Lansing, Mich. (May, 1963)

subsystems because these are the units which actually exert control over the flow, process, and total system variables).

5. Policies for the components -- Individuals, building design, subdivision design, natural resources, etcetera.

There may be some overlap in such an approach but it at least provides a comprehensive framework for policy development.

Policy Packages. The next step is to group these alternatives into fairly cohesive policy packages; each including a basic strategy and a description of the means needed to promote it. We have too often attempted to review, evaluate, compare, and choose from alternative urban and regional forms without any evidence concerning the feasibility or acceptability of the effectuating means (i.e., The Year 2000 Plan and the Hartford Regional Plan Alternatives). Ends should be as much adjusted to means as means are to ends.[11] To make evaluation more realistic then, each alternative policy package will include a broad description of the tactical policies needed or desired, the new legal tools needed, and the costs of accomplishment.

It should be cautioned, however, that it would not be necessary to go into all the details of tactical implementation at this point. To do so would involve more work and cost than the benefits justify. In addition, such details

[11]Lindblom and Braybrooke, op. cit., p. 69.

as zone standards, subdivision standards, and specific blight
criteria would only make comparison and agreement more diffi-
cult. They should be developed after the basic strategy
alternative has been selected.

## Consequence Identification

In tackling problems of choice, people in all walks of
life have found it helpful to think about the consequences
of alternative policies rather than to choose on the basis
of coin-flipping. To assist them in this process they use
models of the real situation. Such models range from intui-
tively perceived sets of relationships to highly complex
mathematical equations derived from laboratory experiment.
In no case are these models photographic reproductions of
reality. If they were, they would be so complicated as to
be of little use. By necessity, they abstract from the real
world.

Recent developments are making model utilization an
increasingly more frequent and sophisticated operation in
today's society:

1. Rapid development of all the sciences so that
   it has become possible to say much more about
   the relationships of one phenomena to another.

2. More and better data.

3. Refinements in the methods of statistical
   inference - for instance, in the use of
   small samples, sequential sampling, and ex-
   perimental designs - and in techniques of
   computation and model building, such as linear
   programming.

4. The fact that electronic computers are

becoming financially feasible for an increased
number of agencies and organizations. It is
this development which will make it practic-
able to utilize all the other refinements.[12]

The use of models can be an extremely useful exercise in
determining the consequences of policy alternatives. "Through
the use of a model it will be possible not only to understand
the region (or any other planning area), but also to test the
effects of alternative decisions and policies before critical
comments are made. In this way, it will be possible to mini-
mize the reliance on 'intuitive' decision-making so character-
istic of the past."[13]

Simulation. This process is called simulation. A sim-
ulation model is dynamic in that it "acts like" the system it
represents. This is in contrast to a static or iconic model
(i.e. a photograph or a three-dimensional model) which "looks
like" what it represents. The critical advantage of simula-
tion for planning purposes is its capacity to project and
predict the future operation of the system. It can compress
the results of policy applications to that system from 50
years to one day. In essence, it is like running a 33 1/3
r.p.m. record at 78 r.p.m.'s so that you hear the conclusion
sooner.

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[12] Pittsburgh Department of City Planning, Data Processing and
Simulation Techniques (1962).

[13] Southeastern Wisconsin Regional Planning Commission, Region-
al Planning Systems Study, Planning Report #1, (1962):
p. 2.

The development of a system simulation model should be started in the first phase of the policy formulation process - "understanding the situation". In fact the framework for the data collection and analysis should be in part, set by what will be needed to build a system model. Particular attention should be paid to identifying the controlled and uncontrolled system variables and their interrelationships, because they are the basis for any model.

It has been assumed by many that the only way to simulate is with a computer. A computer undoubtedly offers the fastest and most accurate method, but the planning agency often does not have the necessary human, financial, and technological resources to take advantage of such a high-powered methodology. At minimum, such an agency can still attempt to set down certain critical relationships, and perhaps equations, which will serve as guides to purely human system prediction.

The Pittsburgh Example. Figure 19 represents the simulation elements being used by the Pittsburgh City Planning Department in developing their community renewal program. Values are to be established for the "policy variables", which are viewed as levers to the manipulation of "environmental variables". The latter are those elements which are indirectly affected by the planners, and as such represent the planner's environment. The specified "processes" relate policies to the affected elements of the city. Given the impact of the policies and other external influences upon the environmental variables

COMPONENTS OF THE PITTSBURGH SIMULATION MODEL

Figure 19

## ENVIRONMENTAL "STATUS" VARIABLES

1. Regional framework; commercial, residential, wholesale, manufacturing
2. Land vacancy and availability
3. Industry mix and employment
4. Population: working and non-working; skills
5. Transportation system
6. Purchasing power distribution
7. Land area for thoroughfares

## ENVIRONMENTAL FACTORS

1. Investors
   a) Impact of: code enforcement; financing; tax structure
   b) Land developers
   c) Rates of return
   d) Maintenance
2. Consumers
   a) Demand elasticity for housing
   b) Newcomers
   c) Residential shifts
   d) Purchasing power

## CHECK AGAINST CONSTRAINTS

1. Budgets
2. Land assembly difficulties
3. City Planning
4. Traffic
5. Ground space per use
6. Residential and industrial land use by zone
7. Race, etc.

## PROCESSES

1. External economics and diseconomics
2. Time lags
3. Discontinuities
4. Relocation
5. Attraction of industry
6. Rates of decay
7. Induce private investment
8. Trends in: employment, economic activities, community facilities, and residential preferences

## CRITERIA

1. Degree of blight
2. Population mix
3. Revenue, tax base, etc.
4. Location of residential areas
5. Kinds of industry and types of workers
6. Cost/benefit ratios (short and long range)
7. Prestige--educational institutions, etc.
8. Land use--redeveloped, R, I or C
9. Relationship to State and Federal Plans
10. Market tests
11. Social vs. economic costs

## POLICY VARIABLES

1. Revenues
   a) Rates
   b) Assess/true value
   c) Graduated rates
   d) Differential rates
   e) Borrowing
2. Expenditures
   a) Municipal service costs
   b) Capital improvement program
   c) Allocation of budgets to department
3. Urban Renewal
   a) Location and timing
   b) Rehabilitation vs. replacement
   c) Conservation
   d) Public land bank
   e) Priorities
   f) Private and federal participation
   g) Pricing policies
4. Police powers
   a) Zoning
   b) Code provisions
   c) Leasehold
   d) Land strategy
5. Eminent domain
6. Information and control
   a) Research
   b) Planning
   c) Central relocation agency

(in each time period that the model is run), the model will then proceed to test the reactions of these variables against certain specified "constraints", such as those imposed by zoning, housing codes, federal policies, restrictions on land assembly, and so forth (Some of these constraints can be relaxed as they are also policy variables). Finally the outputs of the model are calculated and described by the factors listed in the "criteria" block. The results will yield certain feedback modifications in the policy variables and very likely in the component relationships upon which the model is based.

This is an important point to realize. Simulation models are not necessarily based on fact premises. The selection of kinds of data and data relationships are only judgmental. "Needless to say, with so many interrelated variables and assumptions, it will be extremely difficult to assign any but the crudest 'confidence level' to these (the model's) predictions."[14] Thus, simulation models are not like the "Genie" and the "magic lamp". One must rub the lamp many times (run numerous test iterations) before even a rough degree of validity can be assigned to its outputs.

The Southeast Wisconsin Example. The Southeastern Wisconsin Regional Planning Commission is taking a somewhat more comprehensive approach to simulation.[15] They feel that the

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[14] Pittsburgh Department of City Planning, op. cit.

[15] Southeastern Wisconsin Regional Planning Commission, op. cit.,p. 3.

complexity of the regional situation necessitates the construction of several autonomous but interrelated models:

1. Regional Activity Model

2. Spatial Activity Model

3. Transportation System Model

4. Water Resource System Model

The first two models recognize the distinction between the structure and process of the regional system. The regional activity model is a functional model representative of the primary economic activities of the region, including the flows of goods, services, money, capital equipment and information. This model "is spaceless because it considers all activities of the region to be concentrated at a point".[16] Thus the economic and population predictions of the activity model will be fed into a spatial activity model which distributes activities to areal locations within the region. The outputs from the spatial activity model will, in turn, become the inputs (in the form of service demands) for the various working models. These working models will be used in the design of spatially-oriented services such as transportation and water-sewage systems. The spatial activity model will have to be modified in a feedback fashion when these service systems reach the design stage.

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[16] Ibid. p. 5.

When to Simulate. There is some divergence of opinion
concerning the point in the planning process at which alter-
natives should be simulated into the future.  The Lansing Tri-
County Regional Planning Commission, for instance, does not
anticipate the need for building a growth model until they
reach the detailed land use and transportation plan develop-
ment stage (single-use plans).  Objectives, goals (which they
view as more detailed objectives), policies, and standards
are being developed without consideration of alternatives.
The only policy-level alternatives in their program are in
terms of regional form, and they appear to feel that such gen-
eral policy consequences can be identified and compared with-
out resort to a simulation model.

In contrast, many other agencies (The Penn-Jersey Trans-
portation Study, the Southern Wisconsin Regional Planning
Commission, the Pittsburgh City Planning Department and the
Baltimore-Washington Interregional Study) have introduced, or
are planning to introduce, simulation at the policy level.
Within the context of the procedural model presented here,
this latter approach is more appropriate.  One of the prime
justifications of the policy planning approach is that not
all planning policy can be portrayed on a map plan.  And
similarly, plan alternatives cannot be comprehensively com-
pared on the basis of mapped outcomes; there are numerous
other non-mappable, non-physical and indirect policies
(tax rates, programming priorities, subsidies, etc.) which

must also be compared.  Simulation at the detailed single-use plan level does not encourage this type of comprehensiveness.

## C.  POLICY EVALUATION AND SELECTION

In the preceeding section the policy alternatives were identified and their respective outcomes were predicted. Yet without some method of assigning payoff values to these outcomes it is difficult, if not impossible, to evaluate alternative policy plans in an objective way.  Mathematical models make it possible to predict more accurately the consequences of an alternative, but without rational criteria for evaluating these consequences, we are no better off.  We must, then, determine how the manipulation of system components through policy formulation will affect the attainment of the previously - determined set of goals.  In other words we must develop a preference scale which can be utilized in final policy selection, as well as in any subsequent planning decisions.

### Cost - Benefit Analysis

One way of expressing the purpose of planning (or of any service for that matter) is to say that it seeks to select that policy which obtains the highest benefits at the lowest cost (social as well as monetary).  This puts planning squarely in the context of cost-benefit analysis, a tool which has long been thought to be of some value to urban and regional planning; however, it has seldom been carried beyond the "thought"

stage.  There are several reasons for this:

1. "In their fight for recognition planners have had

   to rely upon emotional reaction against squalor,

   inefficiency, and the mistakes of the past gener-

   ations; and some might prefer to continue to jus-

   tify a particular plan by demonstrating the draw-

   backs of no planning."[17]

2. Some politicians, and planners as well, might

   prefer to keep the motivations and considerations

   behind their decisions unclouded by awkward facts.

3. There are several mechanical problems inherent in

   the application of cost-benefit analysis to plan-

   ning, such as:

   a. Some costs and benefits are "one-time" and

      others are continuing.

   b. From whose viewpoint should costs and benefits

      be compared - the politicians, the planners

      or the citizens?[18]

   c. How do you quantify such intangibles as bene-

      fits to freedom, mental health, social identity,

      and so forth (this is probably the most fre-

[17]Nathaniel Lichfield, "Cost-Benefit Analysis in City Planning", Journal of the American Institute of Planners; XXVI (Nov., (1960): p. 241.

[18]Ronald McKean, "Costs and Benefits from Different Viewpoints", in Public Expenditure Decisions in the Urban Community by Howard Schaller (ed); Resources for the Future, Inc. (1962): pp. 187-190.

quently cited of all areguments against cost-
benefit analysis)?

d. It is difficult to blend long-range and short-
range costs and benefits together, due to diff-
erent time scales for various parts of the plan.

e. There is also question as to how far indirect
costs and benefits should be traced, and as
to how specific benefits should be attributed
to specific costs.

Although the barriers are significant, they are not im-
movable as has been indicated in recent efforts to better
identify alternative plan costs. Wheaton has suggested that
we can obtain data for at least one-third of the total pro-
ducer and consumer expenditures necessary to effectuate a
particular plan or policy. This could be accomplished by
predicting the cost of governmental services plus the public
and private expenditures involved in following the transpor-
tation system recommended by the plan.[19]

Ackoff has gone one step beyond this to include other
types of plan effectuation sacrifices. He lists the following
costs in a transportation system:

1. Monetary costs (consumer and producer);

2. Lost time;

3. Harm (bodily and property);

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[19]Wheaton, _op. cit._, p. 258.

4. Lost energy; and

5. Loss of enjoyment.

He suggests using money as a common denominator for measuring these sacrifices (i.e. the cost of time, the price of a human life, the monetary value of expended energy, and the amount one is willing to pay for physical comfort). Conversely, the benefits can be measured by identifying the marginal value increases of an alternative over the existing situation, or over another alternative.[20]

Two questions immediately become obvious. First, how do you obtain the data needed to fill in the blanks, and second, what about the more intangible objectives? In answer to the first question Ackoff recommends an experimental approach. For instance, he suggests that for two means of transport, both alike in all respects except travel time, we should increase the charge for the faster of the two by one increment at a time. By noting the percentage of passenger volume decrease, an estimate of the average dollar value for time can be obtained. Energy and physical comfort measurements could also be made in a similar manner. Such an approach would probably become vastly more complex when applied to other components of planning policy (i.e., rate of growth, density, housing standards, urban form, etcetera) but it does

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[20]Russell Ackoff, "Toward Quantitative Evaluation of Urban Services", in Public Expenditures in the Urban Community; op. cit., pp. 102-107.

represent a beginning foothold towards better cost-benefit
analysis of planning policy alternatives.

The second question is not so easily answered. Ackoff
has considered "enjoyment" as consisting of physical comfort.
Mental comfort and, indeed, all objectives dealing with
social values, have not been realistically treated. And, in
fact, it may be misleading to evaluate physical comfort as
something separate from mental comfort. The goals of social
identification, community pride, socio-economic stability,
and cultural betterment are still too intangible for quantifi-
cation.

A major part of this problem is the fact that most poli-
cy decisions are made under varying degrees of uncertainty.
Even if we can simulate the broad outcomes of alternatives,
there still remain the judgmental decisions concerning the
social worth of those outcomes. For instance, we may know
that a certain renewal policy will produce more logical,
healthful, and visually appealing living environments, but
we still have to guess when it comes to estimating the future
attainment of social benefits. Furthermore, the policy may
produce short-term social losses (the effect of relocation
on the social patterns of slum inhabitants) but long-term
social benefits (after the period of readjustment). The
former we can learn from experience, but the latter will not
be known for some time, perhaps not even in our generation.

However, it would be unwise to discredit cost-benefit

analysis purely on the basis of its inadequacies in dealing with social goals. It still provides a valuable technique for comparing the more concrete characteristics of outcomes, as suggested by Ackoff.

## A Payoff Matrix Approach

Recently operations researchers have been giving some consideration to the use of the payoff matrix in assigning payoff values to the outcomes of policy alternatives. This technique appears to be quite useful to planning policy formulation. Certainly it does not produce magic answers, but it does place value judgments in their proper perspective and it represents quite clearly the relationship of policy to goals and the future nature of the system.

The technique involves three basic components:

1. The policy alternatives (P) or the controlled variables.

2. The outcomes (O) or consequences of those policy alternatives; and

3. The states of nature (N) or the uncontrolled variables.

Following is an example of how this approach could be used to evaluate a set of hypothetical planning policies. The components can be set up in a matrix such as below:

|       | $N_1$ | $N_2$ | $N_3$ |
|-------|-------|-------|-------|
| $P_1$ | $O_{11}$ | $O_{12}$ | $O_{13}$ |
| $P_2$ | $O_{21}$ | $O_{22}$ | $O_{23}$ |
| $P_3$ | $O_{31}$ | $O_{32}$ | $O_{33}$ |
| Probabilities | .8 | .15 | .05 |

Where:

$P_1$ = "Planned Sprawl"

$P_2$ = "New Independent Cities"

$P_3$ = "The Radial Corridor Plan"

(For simplicity, only three of the Plan's Alternatives will be considered here.)

$N_1$ = Growth rate will be $A_1$

Maximum population will be $B_1$

Technological advancement will be $C_1$

$N_2$ = Growth rate will be $A_2$

Maximum population will be $B_2$

Technological advancement will be $C_2$

$N_3$ = Growth rate will be $A_3$

Maximum population will be $B_3$

Technological advancement will be $C_3$

$O_{11}\ldots O_{33}$ = Descriptions of the results of policy alternatives under alternative states of nature. These would be the information outputs of the simulation model.

The lower line of the matrix lists the probabilities for each of the alternative states of nature occurring. Thus the probabilities of the outcomes are also estimated. This offers a chance to make use of the "optomistic", "likely", and "pessimistic" projections which are so frequently seen in population studies. However, it forces us to make more specific judgments as to their probabilities, not only concerning population but also in respect to technology, investment rate, employment, and so forth.

The next step in the process is the actual assignment of payoff values to the outcomes. To accomplish this the outcomes must be evaluated in terms of their goal attainment potentials. Goals will serve as measurement criteria. The goals (G) formulated in the <u>Year 2000 Plan</u> serve as good examples:

1. A broad range of choice among satisfying living environments.
2. A broad range of employment opportunities.
3. An ample range of opportunities for participation in the decisions that shape the development of the region.
4. Efficiency in the use of land.
5. Efficiency in the transportation of people and goods within the metropolitan area.
6. A healthful environment.
7. An environment which is visually satisfying, and which combines harmoniously the best

> contemporary expressions with those of a
> rich and valuable heritage.
>
> 8. A living environment which affords a clear
> sense of place in all sections of the metro-
> polis.21

For purposes of a more comprehensive comparison, it is sug-

gested that another goal be added in this discussion:

> 9. Economy in the means of environmental improve-
> ment.

Out of this goal set there appear to be a few goals (i.e.,

$G_4$, $G_5$, $G_6$, and $G_9$) for which cost-benefit factors can be fig-

ured and compared on a dollar measurement scale. This would

include such computations as the cost of open space preserva-

tion, time and energy costs. These quantifications should be

included in the various outcome descriptions. The other less

concrete goals will have to be described in more qualitative

terms, but with the greatest possible objectivity.

The next step is goal-outcome evaluation or payoff assign-

ment. Each outcome is analyzed for its potential contribution

toward the nine goals, and scored from one to ten. (See figure

20.)

Assuming for the moment that there is a .8 probability

of growth occuring at an average rate, a .15 probability of

a slow growth rate, and a .05 probability of a wildcat growth;

this would indicate that the "radial corridor plan" ($O_{31}$,

$O_{32}$ and $O_{33}$ would be optimum in both the average growth

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21National Capital Planning Commission, op. cit., pp. 28-30.

AN EXAMPLE OF

PAYOFF MATRIX EVALUATION

Figure 20

| Alternative States of Nature | | $N_1$ .80 probability | | | $N_2$ .15 probability | | | $N_3$ .05 probability | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Outcomes | | $O_{11}$ | $O_{21}$ | $O_{31}$ | $O_{12}$ | $O_{22}$ | $O_{32}$ | $O_{13}$ | $O_{23}$ | $O_{33}$ |
| G | $G_1$ | 5 | 6 | 8 | 8 | 6 | 5 | 5 | 4 | 9 |
| | $G_2$ | 6 | 6 | 7 | 7 | 6 | 4 | 5 | 6 | 8 |
| O | $G_3$ | 5 | 5 | 8 | 8 | 7 | 5 | 4 | 6 | 8 |
| | $G_4$ | 4 | 4 | 8 | 8 | 7 | 6 | 4 | 5 | 7 |
| A | $G_5$ | 4 | 6 | 8 | 6 | 6 | 6 | 5 | 6 | 7 |
| | $G_6$ | 7 | 5 | 8 | 8 | 7 | 6 | 6 | 4 | 8 |
| L | $G_7$ | 8 | 8 | 9 | 8 | 8 | 6 | 7 | 7 | 8 |
| | $G_8$ | 2 | 8 | 9 | 6 | 9 | 5 | 4 | 7 | 9 |
| S | $G_9$ | 7 | 6 | 4 | 8 | 7 | 2 | 6 | 5 | 6 |
| Total Scores | | 48 | 54 | 70 | 67 | 63 | 45 | 46 | 50 | 69 |

prediction and the wildcat prediction, but that if below norm-
al growth occured  both the "planned sprawl" and the "new in-
dependent cities" policies would be better.  In other words,
there is a .95 probability (the total of the two states of
nature in which it is optimum) of the "radial corridor plan"
being optimum.

The decision-makers may not want to consider aggregate
scores as the only indication of optimality.  For instance,
$O_{31}$ has high scores all the way down the line until we reach
the score for cost of implementation ($G_9$).  Thus, we know that
it has many advantages but also that it will cost considerably
more than the other alternatives to accomplish.  At this point
it may be necessary to establish some system of goal priori-
ties.  However, it should be remembered that these goal prior-
ities will undergo review and rearrangement over time, due to
changing needs, changing citizen or political values, and diff-
erent decision-makers.  If too much value is placed on the
existing priorities, the policy selected is likely to be opti-
mum only for the immediate future.

Criteria for Selection.  It might be surmised that the
selection decision has already been dictated by the alterna-
tive with the highest score and the highest probability rate.
However, there are actually a number of different criteria
which have been proposed, throughout history, to facilitate
decision-making under conditions of uncertainty (uncertainty

about the future):[22]

1. <u>Pessimistic Criterion</u>. According to this criterion, the decision-maker should act as if Nature were always against him, and the only way he can counter this tendency is to minimize his losses. In other words, he would select the alternative which would give him the largest minimum payoff. Thus even though the "radial corridor plan" offers the best total score and has the highest probability rate, he must choose the "new independent cities" alternative because it involves a lower potential payoff loss.

2. <u>Optimistic Criterion</u>. This criterion is just the opposite of the pessimistic. The optimistic decision-maker automatically chooses the policy which has the greatest potential gain. He maximizes his maximum payoff. Such a man would choose the "radial corridor plan" with its high score of 70.

3. <u>Calculating Criterion</u>. This criterion is based upon a total consideration of all the payoffs and probabilities for each alternative, and it would be figured as follows:

$P_1$   (.8) (48) + (.15) (67) + (.05) (46)   50.75
$P_2$   (.8) (54) + (.15) (63) + (.05) (50)   55.15
$P_3$   (.8) (70) + (.15) (45) + (.05) (69)   66.20

Thus $P_3$ ("Radial corridor plan") would be selected.

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[22] Miller and Starr, <u>op. cit.</u>, p. 289.

In reality, decision-makers should use a little bit from each of these criteria. We cannot be pure pessimists, but we should consider the ramifications of a prediction going astray. We can always change a policy if we find out that policy was based on an invalid prediction, but we cannot reverse the development which that policy has already stimulated. Similarly, we cannot be pure optimists, but someone must try to foresee a brighter future. We must be something more than "satisficers" for it is inherent in the planner's responsibility to the community that he maximize welfare.

# CHAPTER VI

## POSTSCRIPT ON THEMES FOR PLANNING

In reading back through the pages of this thesis, the author finds that several themes keep popping to the surface. They all appear to be critically important to the use of policies in the planning process. In fact, the future effectiveness of all planning may hinge upon the manner in which these themes are handled. The increasing use of the policy planning approach is, more and more, bringing them into clear focus.

### Planners as Designers or Managers?

Planning can be described as the design of outcomes and the management of actions which will lead to effectuation. Early planning, especially in the "City Beautiful" era, placed emphasis upon design. This tradition has carried through quite strongly into contemporary efforts. We are still more concerned with designing outcomes than with the management of implementation actions. Even though most planning agencies spend vast amounts of time on the administration of zoning ordinances, subdivision regulations and other day-to-day problems, the relationship between these actions and the long range plan has been very weak.

We need much more planning for action. We need to develop more concise and useable tactics for achieving outcome designs, and these tactics should be developed right at the same time the long range plan is formulated. As pointed out earlier,

ends should be as much adjusted to the means as means are to
the ends.

Too often long range plans have completed the decision-
making process rather than beginning it. Decision-making is
a continuous process beginning with the outcome plan and
carrying through the never-ending planning function.

It is likely that the future will see the planner be-
coming more of an action manager in two respects. First he
will become more adept at programming activities which con-
tribute to the long range plan. The relatively new arrival
of the community renewal program seems to be a partial re-
sponse to this need for short range programming. Second, the
planner will move more and more into the policy area. He will
have to begin formulating guides for the day-to-day decisions
which presently consume the majority of his time. This will
make his operation both more efficient and more consistent
with the aims of the long range plan. For instance, if he is
going to give greater emphasis to programming he will in turn
have to establish criteria and procedures for doing so. This
involves the formulation of tactical policies.

The planner, of course, will never lose his role as a
designer of outcomes, because without targets he would not
know where to direct his actions. But he will have to estab-
lish a greater balance between design and action. Planning is
not only aimed at an improved future state, but it is also

aimed at making better present decisions possible.

## Institution Versus the Scientific Method

Because planning has been so design-oriented, intuitive processes have often been applied to the development of plans. However, planning is now becoming less of a design profession and more of a social science. And with this shift in the approach to planning is coming a greater emphasis upon the scientific method.

More and more planning is being asked to justify its proposals upon grounds other than an intuitive feel of the situation. And correspondingly, planners themselves are getting frustrated with the flaws in so-called traditional planning techniques and with the gaps in knowledge about how the city and region really work.

Planning should become a much more innovative profession - one which is constantly seeking new ways of doing things. Some of the areas in which planning will have to become more rational and scientific are:

1. Projection techniques;

2. The steps of the planning process;

3. Methods of understanding how a city or region functions;

4. Ways of identifying human goals;

5. Policy formulation;

6. Programming techniques;

7.  Plan testing; and

8.  Influencing privately controlled variables.

In the next few years planning will probably undergo a re-
volution similar to business' rapid changeover to scientific
management.

## Inevitability Versus Controlled Destiny

With this increasing emphasis upon scientific investiga-
tion we are finding that growth dimensions and directions are
not so inevitable as we once thought.  The "best plan" is be-
coming less unrealistic all the time.

However, in spite of advances in the knowledge of environ-
mental control and influence, there still remains a significant
barrier to the application of this knowledge.  Our society has
traditionally placed a high value upon the role of the indivi-
dual in the development of his land.  In many ways we still
have a great deal of the laissez-faire philosophy from the early
nineteen-hundreds.  Consequently, there are strong feelings that
the size and quality of the physical environment can and should
only be the product of inevitable natural forces ("natural"
meaning the vector resultant of pluralistic human development
actions).

The discussion, in Chapter II, of the differences be-
tween the Year 2000 Plan and the Denver Metro-Growth Plan aptly
points out the conflict in values on this subject.  The former
implies that the form of the region is controlled destiny while

the latter implies a great deal of inevitability to the future.

There may perhaps be a slight shift in the future towards the controlled destiny approach, but it is highly unlikely that the semi-laissez-faire philosophy will ever give way completely (unless change becomes such a dire necessity that little choice exists).

## Professional Dictate-Versus Public Choice

One of the strongest contemporary movements in the field of planning is toward greater citizen involvement. Although an ulterior motive of greater eventual public support of plans is being sought through this movement, it cannot be denied that citizen involvement is also making the planning process far more democratic than in the past. Choices are being opened to the public in a manner quite new to the planning profession. In effect, we are recycling back to grass-roots planning.

Earlier plans were the result almost entirely of the professional planner's knowledge and ideas. Public choice was only exercised on a "take it or leave it" basis, and even the planning commission participated very little in the actual plan formulation. The plans produced in this manner were based upon professional dictates concerning public needs and solutions.

There are some who argue that the planner still has a responsibility to tell the public what it needs. Certainly the planner should make recommendations but it appears that the lay public will be making many more of the major decisions concerning

improvement of the physical environment.

In addition, with the points of choice being exposed the planner is put in the position of supplying alternative solutions. He is thus forced to objectify his proposals and examine his biases. He is also forced to explicate more clearly the purposes and processes of planning. Planning, it appears, will be much less contingent upon the planner's dictates than upon actual public choice, although both play an important role.

## Artifactual Planning Versus Holistic Planning

The last theme which reared its ugly head in the process of writing this thesis was the question of what the scope of planning should be. How should physical planning be related to planning for the rest of a community or region? If the physical city is only the material expression of cultural meanings and values, how can we plan one without planning the other? How can we eliminate physical blight without first eliminating social blight?

One reaction to this problem has taken the form of integrating physical planning with social and economic planning (See the recent work of the Southwestern Pennsylvania Regional Planning Commission). Another approach, which has been suggested in this thesis, is that, in the absence of existing social and economic planning agencies, the physical planning agency should begin its task by developing an understanding of how the normative and functional aspects of a

community or region relate to the spatial aspects. Goals would correspondingly be developed for the total system so that policies can be evaluated in terms of their effects upon all aspects, not just the spatial. This involves a rejection of the traditional mapped-planning philosophy which has so much permeated the work in planning.

## Conclusion

All five of these points contribute significantly to the future effectiveness of the policy planning approach, and, conversely, policy planning contributes to the realization of these themes. Policy makes it possible for planners to become more effective action managers. The scientific method is greatly needed if we are to formulate goals and policies which can be simulated without suffering losses through trial and error. Policy makes it possible to analyze the basics of how our destiny can be controlled. Policy planning, by beginning with the more general and abstract decisions, clears the way for greater public choice. And finally, holistic planning creates a more conducive framework for the analysis and design of policies which will be most effective in dealing with our artifactual environment.

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