

THE PLANNING OF PHYSICAL RESOURCES  
A COMPARATIVE ANALYSIS OF THE GROWTH OF  
PHYSICAL PLANNING PROCESSES AT THE  
VARIOUS LEVELS OF GOVERNMENT

by

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## Abstract of Thesis

This report represents a comparative analysis of the evolution of the physical planning processes at the local, regional and national levels of government in the United States.

Background: A presentation of the social and economic factors which have interacted with the economic institutions of Urbanism, Regionalism, and Industrialism and thus created the conditions which led to the inauguration of three phases of physical planning: civic improvement, the conservation of natural resources, and the governmental regulation of commercial and industrial enterprise. Also certain governmental factors are discussed and the concern of government with the general social and economic welfare is stressed as a condition prerequisite to democratic planning.

Governmental Powers: Certain constitutional precepts are discussed as a basis of the American federal system - the separation of powers, dual sovereignty and the authority device. The power of eminent domain and the police power are discussed as inherent sovereign powers and as the basis for public control over property, wealth and land.

Urban Physical Planning: The growth of physical planning is presented briefly from 1870 to date emphasizing the growing tendency toward socially oriented planning of physical facilities.

Regional Physical Planning: is presented in those aspects which deal with the control and guidance of the development and use of natural resources, as it originates out of the public land policy through the conservation phase to its present comprehensive nature.

Rotch (Arch) Nov 2, 1952

National Physical Planning: is discussed in terms of those media which have evolved within the Federal legal structure for the regulation of industrial and commercial corporate enterprise - the nation's technological resources. These controls have grown out of the Interstate Commerce Act of 1887 and the Sherman Antitrust Act of 1890, and are separated into two main areas: control over transportation and communication facilities and control over private non-utility corporate activity.

Summary and Conclusion: A brief summary is given of each section in order to place the three parallel phases of planning in close perspective. A conclusion is drawn in the manner of suggesting some of the implications which come to the surface in making a comparative analysis of physical planning in terms of an "economic fabric". Thus in the field of physical planning if a functional separation actually exists, as is indicated by this study, then we have a potential basis for establishing an integrated national policy for physical planning as well as a means of further extending the system of checks and balances to assure a democratic government.

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Thesis Supervisor

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Title:

14 Westgate  
Cambridge 39, Mass.  
August 22, 1952

Professor Frederick J. Adams, Head  
Department of City and Regional Planning  
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Dear Professor Adams:

I respectfully submit The Planning of Physical Resources - A Comparative Analysis of the Growth of Physical Planning Processes at the Various Levels of Government as my thesis in partial fulfillment of the requirements for the degree of Master in City Planning.

Very truly yours,

John H. Geiger

## Preface

This report represents only a portion of the full study as originally conceived. I do not hold the view that physical planning is necessarily characteristic of the entire field, but the physical aspects of planning are more widely understood and are more commonly accepted as a valid function of government. Therefore, this phase of planning seemed to be the logical starting point.

It will be noted that the conclusion of this report has been held to the minimum. This is due partially to the feeling that conclusions drawn at this time would dissuade the reader from applying the same system of analysis to broader aspects of planning. An attempt has been made, however, to arrange the material in such a way as to suggest certain conclusions.

I should like to express at this time my sincere appreciation to the faculty of the Department of City and Regional Planning for the direction they have given me during my brief stay at M.I.T. Many thanks are due also for individual guidance to Professors John Howard and Kevin Lynch in the early stages of the study and to Professors Roland Greeley and Frederick Adams as the report neared completion.

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## INTRODUCTION

The purpose of this paper will be to present briefly a comparative analysis of the evolution of the physical planning processes at the various levels of government in the United States. The discussion to follow should help to clarify some of the frequently confused relationships which are in evidence among the agents and agencies engaged in physical planning activities at the local, regional, and national levels. It is expected that a clarification of the inter-jurisdictional relationships among these levels will bring to light some common qualities which may serve as a basis for establishing an integrated national policy upon which all of the physical planning activities of government, at all levels, may be founded.

The physical planning movement in the United States was formally inaugurated during the decade, 1885-1895. During this period a series of acts by public and private interests alike crystalized the long apparent need for planning action in three specific areas: 1) civic improvement, 2) the conservation of natural resources, and 3) the regulation by government of business and industrial combinations. Within the next sixty years these initial steps were transformed into three distinctive patterns of public action peculiar to the three levels of government: local, regional, and national. A discussion of the evolutionary growth of these patterns is the major concern of this paper.

The fabric upon which the forthcoming analysis will be constructed is not an original one, but it is one which is not commonly applied to the analysis of physical planning. It stems from a method of economic analysis which is frequently applied when an economist

evaluates the productive capacity of a given economy. There exists in an economy at any given time a certain measurable quantity of productive resources available for use. From these resources, ignoring all foreign intercourse, must come the goods and services which represent the standard of living of the people who live and work within the economy. These resources may be classified as follows: 1) the human resources - people possessing varying quantities of physical strength, endurance, and willingness to work, and also certain varying degrees and forms of knowledge and skill that are useful in producing things; 2) the natural resources - those physical resources provided by nature and made available as agents of production by man's knowledge of their use; and 3) the technological resources - the things man has made with the object of lessening his labor or increasing the scope and quantity of his output.

The manner in which we employ our human, natural, and technological resources determines to a large extent the heights to which our economy can rise. This height or productive capacity represents a direct measure of our economic well-being in terms of the standard of living. Americans have been granted an unusual heritage of natural resources. We have received through immigration from abroad an unusual heritage of human resources. These people have shown exceptional inventiveness in devising ways to transform our abundant natural resources into wealth. However, it is now clear that although our natural heritage was great, it was not limitless; and if we are to maintain a high productivity, we must exercise discretion in the use of all of our resources. The story of physical planning is the story of the efforts

exerted by government at the several levels to control the development and the utilization of our physical resources in the interests of the general social and economic welfare.

As the physical planning process has evolved at each level of government, a central core delineating a separate area of functional jurisdiction for each level has emerged. Each central core demonstrates a close correspondence to one of the three classes of resources. The drive for civic improvement seeks to provide a better physical environment for the human resources residing in urban centers. The conservation movement is centered upon natural resources, and the trend toward the regulation of business and industrial combinations is oriented toward the technological resource base of the nation. Each of these movements forms respectively the core of the physical planning activity at the local, the regional, and the national level of government.

This paper will concern itself solely with the planning of physical resources. The comparative analysis of the growth of the various physical planning processes will be approached in the following manner: Certain of the social, economic, and legal factors which make up the background of the planning movement (1870-1890) will be presented in chapter one, "The Background for Physical Planning". In chapter two, a discussion of "The Development of General Governmental Powers" will establish the broad framework under which the effectuation of the physical plan is achieved. The succeeding three chapters, which represent the body of the report, will present in turn a brief resume of the historical growth of the legal machinery for urban, regional, and national physical planning. The final chapter, "Summary and Conclusions" will be reserved for a discussion of the implications which have

become evident during this analysis in the application of an "economic fabric" to the planning of physical resources.

## CHAPTER I

### THE BACKGROUND FOR PHYSICAL PLANNING

"...For describing the total social process in a community there are at least two general modes: one in terms of the values people are seeking and the other in terms of the institutions by which they seek such values. In terms of values, the total social process may be described as people seeking such representative values as power, wealth, respect, well-being (safety, health, character, comfort), enlightenment and skill, and using any one or all of these values to affect the production and distribution of any one or all. In terms of institutions, the same process may be described as people at different positions in the value structure, applying specific practices (about allocation, planning, development, and exploitation) to resources, for the production and distribution of particular values. On closer analysis it becomes obvious that these two modes of description are completely complementary: values are but bare abstractions and vague aspirations apart from the institutions by which they are produced and distributed; institutions are but directionless, tropistic behavior apart from the values they serve.

"...What are the resources, natural and technological, of the United States today and what are their potentialities for the production of values? What values do the people of the United States demand today from their resources and institutions and by what procedures can these values be translated into concrete programs of action...?"

McDougal and Haber, Property, Wealth, Land (1)

#### Industrial Revolution - Institutional Patterns

At the root of the vast social and economic changes which occurred in the United States shortly after the Civil War was the emerging industrial era. This era was characterized by the following phenomena: 1) Urbanism - the rapid growth of population and the concentration within urban centers of the major portion of the nation's labor force and capital equipment; 2) Regionalism - fostered by the agrarian revolution which was characterized by the application of machinery to the soil. The use of the machine precluded an extensive type of agriculture which called for a high ratio of land and a low ratio of labor for

a given output. This led in turn to a labor surplus resulting in migration to the city, and perhaps more significant to the gradual disappearance of new arable lands. These factors combined with others to set the stage for several agrarian reform measures, established as a rule on a regional basis, and culminating in the recognition by government of the conservation movement; and 3) Industrialism - the tremendous expansion of business and industrial activity; drawing upon the increased labor force and supply of raw materials and using the corporation device to gather together the necessary capital. Each of these phenomena has exerted an emphatic influence upon the subsequent development of one of the three major divisions of physical planning activity.

#### Urbanism - Civic Improvement

In the first instance, during the period of the most rapid urbanization in the United States (1860-1920), the number of cities<sup>(2)</sup> increased by nearly six-hundred percent, and the number of people living in cities grew from one-fifth of the total in 1860, to one-half of the total population by 1920.<sup>(3)</sup> This concentration of population was further accompanied by an even greater concentration of productive capacity in urban areas. By the early 1890's, the "paleotechnic economy" so aptly described by Mumford and Geddes had reached its full bloom. Our industrial centers were characterized by inadequate sanitation systems and health facilities, by blighted tenements, by the scarcity of recreational facilities, by hopelessly congested circulatory systems, and by the lack of access to light and air.

In 1890, Jacob Riis, a reporter for the New York Sun, completed his book How The Other Half Lives, pointing vividly to the con-

ditions of the slum. Although a number of studies had been completed earlier of the health, sanitary, and housing conditions in New York City, Riis' book inspired a concentrated effort to provide adequate sanitation facilities, health services, housing, building regulations, and fire protection. By 1900, nearly a hundred settlement houses in New York and Chicago were administering programs of relief and education in public health and sanitation.

The attack on the inadequacy of urban recreational facilities was begun in New York with the laying out of Central Park in 1857. By 1900 the provision of a park system in our larger cities had become an integral part of the duties of municipal administration.

Prior to 1900, the problem of urban congestion of transportation facilities had not been complicated by the advent of the automobile. However, the rapid increase in the size of our industrial centers called for early action to reduce urban congestion. For example, it was necessary for New York to provide rapid transit facilities as early as 1875. During the 1920's, when the automobile had achieved ascendancy, it became necessary for many cities to undertake costly programs of highway improvement and replanning.

The problem of the lack of access to light and air in cities, although recognized prior to 1890, was not adequately met until several decades later, after the legal machinery for successful land use regulation had been developed.

Thus we see that there were several currents of reform behind the drive for "civic improvement". These reforms represented several seemingly divergent paths: the engineering approach stressed improvements

in the physical structure of urban circulation and sanitation systems; the aesthetic approach emphasized the "social" value of grandiose plans for civic centers and boulevards; the naturalists stressed the importance of large landscaped features and herbaceous settings for streets and structures; and the social-welfare approach, epitomized by the work of Jacob Riis, Jane Addams, Lillian Wald and others, made frontal attacks directly upon living conditions in the slums. These currents of reform among others stood at the threshold of the 20th Century. It was the force of such currents that transformed the drive for "civic improvement" of the 1870's and 80's into the city planning movement of today.

#### Regionalism - Conservation of Natural Resources

It is a common practice among historians and social scientists to compare the growth toward urbanization with the increasing tendency toward social reform in urban areas. There is little doubt that certain positive correlations exist between the two phenomena. It is also common practice to relate the two phenomena mentioned as causative factors in the inauguration of public measures deemed necessary to cope with the social evils of urbanization in the interest of the general welfare. These are well established practices and therefore, are above reproach when used to present new ideas. It is proposed here to extend this practice into an area where it has not been so commonly employed. An endeavor will be made to demonstrate that a comparable relationship exists between the concept of regionalism and the movement concentrated upon the conservation of natural resources, as exists between urbanization and the drive toward civic improvement. Since



this paper must encompass the entire breadth of physical planning in a very brief space, many of the details of explanation and illustration of the phenomenon of regionalism must be omitted. It is expected that interested readers will consult the references given for further information.

First let us examine the origin of regionalism. There are two major sources of the concept; one of domestic origin and the other an importation. The roots of the domestic variety are seated in the concept of sectionalism. Sectionalism first appeared in colonial America, and has been defined as "the political, economic, and social response of people to their geographic environment".<sup>(4)</sup> In the same vein Frederick Jackson Turner has said, "Physical geography and the stocks from which the settlers sprang are the two most important factors in creating sectional characteristics."<sup>(5)</sup>

As a pattern of behavior affecting our political stability, sectionalism has been considered one of the most serious fundamental facts in American history. Even the issue of state sovereignty was a "constitutional shield raised in protection of threatened sectional interests".<sup>(6)</sup> That sectionalism held serious political implications may be indicated by the fact that it is considered one of the major causes for the rift that led to the Civil War. The political power wielded by sectional forces has also caused frequent social and economic injury to one section at the hand of another.

If sectionalism involves political malpractices, why then do we compare it with regionalism, which implies constructive inter-regional cooperation leading to social, economic, and political gain for all?

The reason is this - sectionalism is not a static concept as we can see by examining the changes which have occurred in the sectional opposition between the East and the West.

"Owing to the movement of the frontier the settled area has been continually advancing to the former sparsely occupied western region... As the westward progress of denser settlement, more highly organized agriculture, manufacturing, city life, and accumulated capital goes on, some of the basis of this sectional difference disappears". (7)

For all practical purposes we may consider that our western frontier had been closed by 1880. (8) We may therefore conclude that after 1880, there was a general tendency toward the reduction of sectional differences throughout the nation.

History does record a decline of sectionalism after the closing of the frontier, however, other factors also served to accelerate the decline. Chief among these was the fact that several political movements motivated by sectionalist sympathies were successful in drawing the attention of the state and federal governments to the problem of outstanding economic handicaps. The most significant of these movements were the Grangers (1867), the Greenbackers (1876), and the Populists (1890). Each of these organizations had its chief constituents in the agrarian West, and represented, in the main, the opposition to the governmental manipulation of the currency and the disposition of the public domain, both of which tended to favor the industrial interests. The Grangers, although not primarily a political organization, were instrumental in precipitating legislation regulating railroad rates in Iowa, Minnesota, and Wisconsin. The legal cases involving these statutes led to the assertion by the courts of the commerce clause in the Federal Constitution, and the subsequent enactment by Congress

of the Interstate Commerce Act of 1887.

The Greenback Party wielded little political influence, but the issues it fostered were preserved in its merger with the labor parties in 1888, and appeared again as a stronger force in the Populist Party in 1890. The Populist movement exerted its greatest influence prior to 1900, when it became identified with the Democratic Party. The impact of the Populists on the trend of affairs may be seen by looking at some of the planks from its first platform: government money loaned to people at low interest rates; free coinage of silver; a graduated income tax; reclamation by government of all land held by railroads and other corporations in excess of their actual needs; and a rigid control and supervision by government of the means of communication and transportation. (9)

The participation of sectional factions in the national political arena was one of three major factors contributing to the adoption of a conservation policy by the Federal government. While these movements were openly giving the national political scene something to think about, the representatives of the agrarian West were forming into congressional blocks to fight for legislation which would serve those who lived off the land and natural resources. The Hatch Act of 1887, the Forest Reserve Act of 1891, and the Reclamation Act of 1902 were examples of national laws based upon sectional interest, which tended toward a policy of the conservation of natural resources.

A second factor which contributed to the development of a conservation program was the adoption of a new public land policy. In 1879, Congress appointed a commission to study the land system. After

analysing the laws and the administrative procedures pursued by the federal government since 1785, the commission recommended the following changes in policy: a classification of public lands; the repeal of the pre-emption law; the disposal of arable lands only under the homestead law; the reduction of the homestead period; the withdrawal of the right of commutation; the sale of grazing land at a low price; the sale of timber apart from the land; and the location of square mineral claims without the right to follow the lode. None of these recommendations were put into effect until 1891; they did however, represent the nucleus about which a conservation program was constructed nearly three decades later.

A third factor implicit in the conservation movement was the conviction "that the bounties of nature shall not be extracted in a haphazard or wasteful manner".<sup>(10)</sup> In order to accomplish this it became necessary to define, describe, and determine the quantity of our natural resources on a scientific basis. At this point the American natural scientists borrowed from the German and French Naturalists certain techniques for describing natural resources in terms of sectional units. The units employed by the German and French naturalists were Landschaft and Paysage<sup>(11)</sup> respectively. These units came to be designated as "natural regions", and the transmission of the cultural and philosophical basis for the European concepts into the scientific writings of American naturalists has helped to transform many of our destructive sectional feelings into the socially and economically beneficial channels of regionalism.

The "new sectionalism"<sup>(12)</sup> which was in direct lineage to the

efficient utilization of natural resources began to flower in other areas as well. The governmental studies, which described the physical and cultural qualities of regions, large and small, began to find their way into the popular literature. By the early 1920's the country was swept by a wave of realism and regionalism. This wave produced such writers as Sinclair Lewis, Theodore Dreiser, Ernest Hemmingway, and William Faulkner. In the field of painting, a similar wave produced a vigorous group of regional artists including John Steuart Curry, Thomas Hart Benton, and Grant Wood in the 1930's and a younger crop in the 1940's of which Peter Hurd and John Rogers Cox are outstanding.

During the past eighty years, Americans have witnessed a highly significant series of events - a series of events which has siphoned off many of the harmful qualities of an extremely complex social construct, i.e., sectionalism; and left in their place a new spirit of constructive regional pride. This phenomenon, which the historian refers to as one of displacement, is in reality one of transformation; for the forces of democratic action have transformed sectionalism, in all its evil ramifications, into a budding healthful regionalism. An idea of the useful potential which is stored in regionalism may be seen by examining the tremendous impetus which it has afforded to the field of creative art:

"...this tidal wave of nationalistic feeling surged over the civilized world to send peoples and nations scurrying back to their origins and their native traditions...Out of it came, in American art, the American scene group, based solidly on nationalism and its subdivision, regionalism.

"This was the most healthy development in the entire three hundred years of American art history...The American artist had come home." (13)

By expanding the policy of conservation under a regional

jurisdiction, the Federal government has responded to the needs of the agrarian sector of the economy; and established through public and private cooperation a new pattern of behavior as regards the utilization of natural resources - a pattern which proposes to balance the economic welfare of all. The potential benefits of such a planning program broadly applied may accrue to all sectors of the economy; for by maintaining a sound resource base throughout the nation, the continued expansion of industry and a steadily rising standard of living for the people may be assured.

The planning process appeared after the various patterns of urbanization, sectionalism, and industrialization had been firmly established. The growing trend in planning is to recognize these institutions as valid expressions of the time. Thus the city planning movement in America is beginning to recognize the urban complex as a highly efficient productive unit, and the goal of urban planning is to maintain this productivity by providing a better physical environment for the human resources which reside there. By the same token, national planning will recognize the large business and industrial corporation as a highly efficient productive unit and will plan the development and utilization of our technological resources in such a manner as to increase the productivity, to the social and economic benefit to all.

#### Industrialism - Regulation by Government

The growth of industry, the outstanding feature of the industrial revolution, has been made possible in the American economy largely because the corporate device has served as the means of assembling the

capital necessary for large scale operations. Although the corporation has been a widely known institution since the time of the Romans, few business or industrial corporations existed until modern times. In 1837, the State of Connecticut passed the first general corporation act known in this country. Prior to 1837, a corporate charter could be procured only under special act of a state legislature; a separate act being required for each charter. Under the Connecticut statute, which has been the model throughout the United States, there was an authorization for a tremendous enlargement of corporate purposes and powers, so as to permit an incorporation for almost any lawful purpose. Until about 1870, however, the ordinary industrial or commercial firm was a small scale operation by modern standards. However, corporate consolidation accelerated rapidly during the 1870's. The corporate device was used to whip competing firms into a single organization in order to reduce costs and control prices by monopolizing the market. By 1890, the pool and the trust were as common a means of combination as was the corporation in 1870. As a part of the general sweep toward social reform legislation of this period, Congress passed the Sherman Antitrust Act on July 2, 1890. This act was merely a law against combinations and conspiracies in restraint of trade. It was expected that a dissolution of the great industrial corporations would encourage small business, and thereby restore competition to the economic scene. This act, which was supported by the agrarian and labor reform movements, did not fair very well. We shall examine the development of Federal controls over business and industry in chapter V, for this is national physical planning.

## Governmental and Legal Patterns

We have just discussed some of the social, economic, and political factors which created the setting for the physical planning movement. Let us now look at some of the governmental and legal considerations which had an equally strong impact upon the ultimate form of the emerging physical planning process. Laws are made to establish order among a disordered people, and the state is created to adjust, judge, and execute these laws. In any system of government, there are three interacting elements: the people, the laws, and the state itself. The laws serve the function of intermediary between the people and the state. We can view the system of law within a society as an expression of the rights and the duties of the people; the rights being defined as the obligations of government to the people, and the duties being the obligations of the people to the government. There will develop accordingly, within a system of law in any society, a complex series of correlative rights and duties between the state and its citizens.

The people and their economic activities are a variable quantity. The laws and form of government change in response to the changing social and economic milieu. Therefore, when the social and the economic conditions of a society undergo change, there becomes a positive need for a redefinition of the rights and duties which constitute the system of law. Society is undergoing a constant gradual change which calls for a constant gradual modification of the structure of law. Under these conditions, the goal of the jurist is no longer the quest for "legal certainty",<sup>(14)</sup> but the construction of a dynamic system of law; one which is well founded on modern legal theory but yet responsive to the "Economic



side of human activity."<sup>(15)</sup>

The great changes which have occurred in the economic and social structure of the United States as a result of the Industrial Revolution have begun to affect the pattern of rights and duties which form the core of the American legal system. The scope of this paper, however, is limited and the evolution of law will be used only as a vehicle for portraying the evolving physical planning processes. The discussion of law to follow will be restricted, for the most part, to that area of public law which forms the immediate framework for the operation of physical planning. Generally speaking, this framework falls within two broad divisions of public law - welfare law and utility law.

Welfare laws are "those that with a view to the common welfare affect the relations between citizens"<sup>(16)</sup> They are the result of the political upheavals which were characterized by the democratization of the people during the period from (1750 to 1850), and from the social and economic upheaval associated with the Industrial Revolution (1750 to date). In the United States, welfare laws are exercised under the police power of the government, and as such regulate private action in the interest of the health, morals, safety and the general welfare.

Utility laws are those laws which enable government to "provide utilities for common enjoyment".<sup>(17)</sup> They are the result of the realization by citizens that there are many desirable things which can be secured by group action, that could not be secured at all or could not be secured so readily by individual action. The two major areas in which utility laws operate are; national defense and the creation of public works. The power of eminent domain is nearly coincident with

the operation of utility law in the United States.

Within the last eighty years, the volumes of welfare and utility law in our libraries have multiplied many fold. The increased numbers of people and the increased frequency of impact one upon another which occurs in a highly congested urban center, increases the cause for legal action. The realization that our natural resources, are not limitless and must be utilized with caution, further invites governmental action and laws, to see that the public interest in our natural resources is not destroyed. New inventions, new industries, an expanding stock of capital equipment all create the need for defining new rights, and new liabilities. The concentration of our industries and business enterprises, our labor pools, and our consuming public into institutionalized organs, also call for a tremendous increase in the legal machinery of government. Much of this expanding law has been directed toward the redefinition of governmental powers to undertake planning operations. After defining the planning process as it has thus far evolved, we will discuss systematically the development of the general legal processes and then the specific laws which form the legal framework for the operation of the physical planning processes as they operate at the local, the regional and national levels of government.

#### The Physical Planning Process

There are several limitations which will be imposed upon the definition of the planning process in the interest of reducing the problem to the proper scale. The scope of the report will be limited to a discussion of the growth of governmental instrumentalities for

physical planning. In order to include each level of government, and yet embrace the concept in a single definition, the following terms will be adhered to: those governmental activities which are directed toward the control and guidance of the development and use of all public and private facilities which: 1) impinge upon the health, morals, safety and the general welfare of the people, 2) affect the rate and the efficiency of utilization of natural resources and 3) modify the productive capacity or output of the business plant and capital equipment of the nation. These terms delineate the goals which are essential to any physical planning operations in a democratic society. The legal instrumentalities which we shall discuss are designed to achieve the ends which are implicit in the terms of the foregoing definition.

Secondly, in discussing the growth of physical planning at each level of government, a simplified view will be taken of the departmentalization of the planning process. The analysis will be made in terms of two broad functional areas: planning the land-use system and planning the circulatory system. The term "land-use" as presently employed has no precise meaning when applied to different levels of government. At the local level the term applies mainly to the concentration of structures upon the land as it affects the general welfare of the human resources residing in urban areas. At the regional level "land-use" indicates more nearly what the term implies, since our natural resources are embodied in the land. Whether we grow crops, extract minerals, or store water we use "land" essentially as nature provided it. At the national level the term "land-use" applies to the industrial and business systems (the technological resources), which

are located on land in relation to the human resources (labor and market), and the natural resources (raw materials). While reading each of the three chapters on the development of physical planning it will be helpful to keep the aforementioned distinctions in mind.

The circulatory system encompasses the public and private facilities which serve in any way as a channel of flow between two or more elements of the land-use system. The elements of a comprehensive circulatory system may be classed under the following headings:<sup>(18)</sup> 1) the transportation of persons and goods (freight) - highways, railways, airways, waterways etc., 2) the transfer of persons and goods - terminals, airports, harbor facilities, etc., 3) the transmission of utilities and power - water supply, power supply, irrigation, waste disposal systems etc., 4) the transmission of intelligence - postal service, communication systems, etc., and 5) the transfer of values - coinage, currency, banking, stock exchange systems etc.

The planning process did not appear as a fully developed set of administrative procedures and practices. It has resulted from trial and error and is the combination of several elements which have been employed in the governmental process at different times since the early 1890's. The process consists essentially of three stages: research, analysis, and design. Each of these phases typifies a movement which contributed the core of its own activity to the planning movement; making planning in effect a synthesis of several reforms: 1) in response to the flood of graft and corruption which swept over many municipal governments at the end of the last century, privately organized and financed bureaus of municipal research were inaugurated; 2) contri-

butory to the scientific analysis of planning problems was the system developed by Frederick Winslow Taylor for the scientific management of business. The movement proposed "to substitute science for rules of thumb, harmony for discord and cooperation for individualism."<sup>(19)</sup> An elaborate system of principles was worked out to achieve greater efficiency in business. The movement took the business and industrial world by storm and it was not long before men in government were applying its principle to the planning operation; 3) the early city plans were produced by consultants who were members of the design professions, and who were not a part of the municipal administrative organization. However, by 1920, the design procedure was gradually being incorporated into the activity of semi-independent official planning commissions. During the depression of the 1930's the design process became an integral part of the planning operation.

The essential elements of a physical planning program are as follows: 1) an agency within the governmental administrative structure with the powers and the means of gathering sufficient basic information to evaluate the problems and formulate the needs appropriate to the particular level of government under consideration; 2) a means of arriving at a policy which is based upon physical, social, and economic needs and the governmental capacity to cope with these needs; and which also reflects the conditions revealed in the basic research and preliminary analysis; and 3) a staff whose duties are the preparation of a general plan or a series of proposals intended to lead to the physical improvements which most effectively meet the social, economic, and physical needs.

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## CHAPTER II

### THE DEVELOPMENT OF GENERAL GOVERNMENTAL POWERS

"...man is by nature a political animal. And therefore men, even when they do not require one another's help, desire to live together all the same. They are in fact brought together by their common interests in proportion as they severally attain to any measure of well-being. Well-being is certainly the chief end both of individuals and of states".<sup>(1)</sup>  
Aristotle, Politics

#### The Method of Comparative Analysis

Of the several institutions within a given social order, the system of laws is apt to respond more quickly and reflect more accurately the changing patterns of social and economic behavior. For purposes of this study it will be assumed that a fairly accurate expression of the societal evolution, which has occurred in the United States during the last 80 years, may be achieved by employing the changes in law to highlight the broader picture. This study is not intended to be an analysis of legal doctrines or specific planning practices but intends rather to discuss the broad patterns which have become evident in the evolution of three specific physical planning jurisdictions; urban, regional, and national. It is proposed herein to employ specific laws to illustrate the pivotal points of change which have occurred in applying physical planning techniques to social and economic problems. It is in this respect that the legal structure has been selected as the vehicle upon which to base a comparative analysis of the growth of physical planning processes operating at the various levels of government.

In discussing the development of physical planning law at

each level of government, an endeavor will be made to adhere in each case, to a specific outline in order to assure a more correct and a more competent basis for comparison. The following four subdivisions of law conveniently submit to a systematic evaluation of the precepts upon which "planning law" is founded: 1) Constitutional law, its antecedents and the resultant governmental system which it prescribes, 2) Case law and judicial interpretation of the Constitution, 3) Legislative law, the enactments of legislative bodies, local, state and federal, and 4) Administrative procedures and practices.

The development of the law, making possible the present practice of planning, is exemplified in these four major areas, which also possess in the order given, an increasing relevancy to specific "planning laws" and the several planning processes. At this point it must be recognized that there is no "planning law" as such, and when the lawyer, the planner, or the political scientist speaks of "planning law", he refers only to that body of legal machinery under which governments, at the various levels, are empowered to carry out programs of planning.

#### Constitutional Precepts

In the forefront of intellectual discourse among the founders of the American union were the political and economic doctrines of John Locke concerning the goals of a liberal-democratic government and the means of achieving these goals. In Locke's own words:

"The great and chief end, therefore of man's uniting into commonwealth, and putting themselves under government, is the preservation of their property; to which in the state of nature there are many things wanting.



"First, There wants an established, settled, known law, received and allowed by common consent to be the standard of right and wrong, and the common measure to decide all controversies between them...

"Secondly, In the state of nature there wants a known and indifferent judge, with authority to determine all differences according to the established law...

"Thirdly, In the state of nature there often wants power to back and support the sentence when right, and give it due execution." (2)

The basis of this "known law" in the United States is a constitutional one, and it was the Federal Constitution that incorporated into our government the separation of duties into the legislative, judicial, and executive branches of government.

#### Governmental Concern With the General Welfare

In establishing the premise to the division of functions, Locke also defined the nodal point about which much of the subsequent controversy over the constitutionality of laws has centered. This is especially true in the sphere of government control and guidance over the development of the physical resources of the nation. At the time of the preparation of the Constitution, there was no apparent conflict between the government's obligation to maintain the security of the individual in his property, and its correlative duty to regulate the actions of its subjects in the interest of the general welfare. However, when the growth of cities progressed to the point where millions of people and thousands of factories were tightly woven into a single urban fabric; or when the exploitation of the nation's natural resources diminished the supply of several to the point of possible exhaustion within a few generations of use; or when the growth of corporate interests became such that a single productive unit embraced billions of dollars worth of productive capacity;- then action by government in the sphere of physical

planning to assure the continued operation of our productive potential becomes imperative in the interest of the general welfare.

The increased law-making activity in the last six decades in the fields of welfare law and utility law attests to the existence of the controversy between the rights of the individual and the welfare of all. It also demonstrates the need for governmental regulatory and promotional activity in developing the public and the private physical facilities which impinge upon the general welfare of the people; affect the efficiency of utilization of natural resources; and modify the productive capacity of the industrial plant of the nation.

#### Dual Sovereignty - Federalism

In addition to establishing separate departments at the federal level, the Constitution called for a division of authority between the federal government on the one hand and the several state governments on the other. In actuality, the system of dual sovereignty which was adopted, necessitated the creation of a written constitution in order to define explicitly the divided authority. The adoption of a federal system was implicit in the conditions that prevailed at the time the union was created, since there was a strong desire for union offset by an equally strong resistance to unity. However, the distribution and definition of powers among the coordinate bodies and the central government were quite naturally limited by the lack of understanding on the part of the drafters of the Constitution, as to the great changes which would occur in the economic structure of the country.

In passing from a predominantly rural, agrarian economy to a

highly urbanized, industrial economy the United States has witnessed the imposition of a severe strain upon its political structure and especially upon the maintenance of a system of dual sovereignty. Changes in the economic structure have necessitated modifications in the structure of law as regards the rights and duties; and in the course of redefining these rights and duties to fit the demands of an industrial economy it, has been found necessary to increase the functions of government so that the readjustment process will inflict the least social and economic injury. Many of the stresses associated with this changing economy exerted their greatest influence upon government between the years of 1880 and 1920. During this period the foundation and much of the framework was completed for a system of laws which provided the basis for physical planning operations.

Under the impact of expanding governmental function, Federalism in the United States has demonstrated a lack of response to the social and economic needs for legislation. As a result, the various power centers; the labor and consumer groups, the agrarian interests, and the industrial and commercial organizations have turned to the Federal government as the most competent authority to administer to the newly discovered need for control and guidance. There was little effort expended in trying to work out a rational basis for the emerging legal pattern; one which would utilize most efficiently the legislative, judicial, and administrative resources of government at each of the various levels. We therefore find that many public functions, no matter what the relative merits for decentralization of each may be, are seated within the highly diversified and complex legislative and administrative organization at Washington.

## The Authority in a Federalist System

Another legal device has been introduced lately into the "kit of tools" previously developed under the system of dual sovereignty. This device is commonly called the authority, and may be designated as a self-sustaining public corporation. In this narrow sense, the authority was first put to use in English speaking countries in London in 1908.<sup>(3)</sup> However, in analysing the source of authority under which local governments in America operate, we see that local rights, duties, and powers are dependent upon the will of the state and must be derived by grant (charter) from the sovereign.<sup>(4)</sup> These charters granting authority over local functions date back to the Colonial period,<sup>(5)</sup> and thus we see that the authority device, in one form at least, is an old established practice.

The authority is a distinct political entity which may be created by any sovereign body. It performs a specific set of functions and in order to carry out these functions is normally granted power to plan, finance, construct, manage, and operate one or more public services of a revenue-producing nature. The Municipal Corporation and the Quasi-Public Corporation on the other hand, are created by a higher sovereign authority (the state) and each represents a distinct political entity within certain geographic boundaries. The functions of municipal corporations have within the last century become all-pervasive in nature and in most cases the limitations imposed upon their authority by the state is exercised only when they relate to extra-territorial matters. Municipal corporations have been granted broad powers in the sphere of revenue acquisition, and the state powers of eminent domain and police action

have been handed down to them generally without limitation except those imposed by geographical boundaries.

In affectuating any plan for the redistribution of governmental functions in the future, the authority device will probably be widely used. It has a diverse range of applications, and in every respect tends to increase the adaptability of the federal system to rapidly changing social, economic, and technological phenomena. For example, the authority device has been effectively employed in the Tennessee Valley<sup>(6)</sup> for nearly two decades to decentralize federal functions. It has been employed in this country for more than three decades at the municipal level to centralize metropolitan functions,<sup>(7)</sup> and it has been successfully used in America for more than three centuries to decentralize the proprietary functions of Colonies and States.<sup>(8)</sup>

#### The Power of Eminent Domain and The Police Power

Much of the emphasis of this paper is upon the evolution of laws which enable planning action to take place. The physical planning process as we know it today is largely the result of this evolution of law, particularly in the form of modified interpretations of several basic legal tenets. These tenets are either a part of, are derived from, or are related to one or both of two broad legal powers of the state; the power of eminent domain and the police power. Each of these powers imposes restrictions upon the use of private property, however, they are necessary to the operation of government in that they afford the power and the means of restraining certain private actions and encouraging certain public actions which are deemed to be in the interest of the general social and

economic welfare.

The power of eminent domain may be defined as the right of the state to take private property for public use upon payment of just compensation to the private owner. The taking, however, must be for a public purpose, for the government has no power to take property for private use even upon payment of just compensation. No person may "be deprived of property without due process of law"<sup>(9)</sup>, and a taking for any other than a public purpose has always been considered a violation of "due process". Since there is no fixed constitutional or legislative definition of what constitutes a public purpose, the question depends to a great extent upon changing social and economic conditions and upon legal theory. For purposes of law a "public use" has been defined as a use "where government is supplying its own need or furnishing facilities for its citizens as to matters of public necessity, convenience or welfare, which from their peculiar character or the difficulty of providing for them otherwise, it is useful for government to provide."<sup>(10)</sup> The body of law which emanates from the actions which government takes, under the power of eminent domain, is generally known as Utility Law. It forms the basis for nearly all the physical planning activities which entail the public acquisition of property, land, or wealth.

The police power of the state in its relation to the physical planning process is a coordinate power to the power of eminent domain. For it is now generally established that an adequate physical planning program must exercise control and guidance over the development of both the public and the private domain. The police power is a power inherent in the sovereignty of government to protect itself and all its constituents.

It is free, so far as necessary, from any limitations imposed in the past. The police power actually transcends the Constitution, although it is constantly being held in check by this document. As a matter of practical application however, it is generally held that police regulation is valid only when exercised in the interests of health, morals, safety, and the general welfare. The body of law which results from the exercise of the police power is normally designated as welfare law. We will be concerned herein only with that relatively small portion of welfare law which seeks to regulate the use of property, land, or wealth in the interest of the general welfare. The general welfare may be measured by the character of the physical environment of people, the state of development of the natural resources, and the stage of development of the technological resources. The productivity of the nation as a whole will be stressed as the chief index of the general welfare in terms of the goals of physical planning. Thus leaving to social and economic planners the problem of distribution and consumption and the host of social and economic implications attendant to these problems.

The power of eminent domain and the police power are not expanding powers. The changes which occur in law, resulting from these powers, occur by expanding the limits within which these powers may be invoked. Once the extent of either of these powers at a sovereign level has been established, further extension of that power will depend upon judicial interpretation of one of two concepts: a public use and the general welfare. In considering the growth of these two powers it will be necessary to distinguish between their operation at each of the two levels of government, state and federal, since ours is a nation of

dual sovereignty.

The power of eminent domain is vested in the state by virtue of the fact that it is one of the inherent sovereign rights. The extent to which eminent domain resides within the Federal government has undergone changes in the course of time. Prior to 1875, the Federal government was obliged to file its condemnation cases in the State courts.

In that year however, the leading case on the federal power of eminent domain was decided. In this case Mr. Justice Strong said,

"The powers vested by the Constitution in the general government demand for their exercise the acquisition of lands in all the States...If the right to acquire property...may be made a barren right by the unwillingness of property-holders to sell, or by the action of a State prohibiting the sale to the Federal government, the constitutional grants of power may be rendered nugatory, and the government is dependent for its practical existence upon the will of a State, or even upon that of a private Citizen". (11)

Not only may the Federal government exercise the power of eminent domain but the sovereignty under this power is as great as that of the various states:

"...Government is as sovereign within its sphere as the States are within theirs. True, its sphere is limited. Certain subjects only are committed to it; but its power over those subjects is as full and complete as is the power of the States over the subjects to which their sovereignty extends..." (12)

Finally in *Stockton v. Baltimore and N.Y.R. Co.*, eminent domain as a Federal power achieved a status parallel to the supreme law of the land.

"If it is necessary that the United States Government should have an eminent domain still higher than that of the state, in order that it may fully carry out the objects and purposes of the constitution, then it has it". (13)

The police power is also an inherent sovereign right. However, the courts will assign to it no precise meaning, preferring to determine



at the proper time whether or not a specific case falls within its sphere. Because of this broad application, the police power was in no way delegated to the Federal government by the Constitution. The Federal government however, in exercising its enumerated and implied powers, exerts control similar to that of the police power. Justice Brandeis expressed this doctrine as follows:

"That the United States lacks the police power, and that this was reserved to the states by the Tenth Amendment, is true. But it is none the less true that when the United States exerts any of the powers conferred upon it by the Constitution, no valid objection can be based upon the fact that such exercise may be attendant by the same incidents which attend the exercise by a state of its police power..." (14)

In both spheres, eminent domain and police power, the Federal government is restricted to operating within the scope of the delegated powers. However, the Constitution expressly provides that Congress shall have the power to appropriate funds to "...provide for the common defense and general welfare of the United States..."(15) In 1936, it was determined that this general welfare clause constitutes a delegation of power separate from and not restricted by those later enumerated by the Constitution, such as federal authority over commerce.(16)

In a more recent case the Court noted that:

"Congress has a substantive power to tax and appropriate for the general welfare, limited only by the requirement that it shall be exercised for the common benefit as distinguished from some mere local purpose... Thus the power of Congress to promote the general welfare through large-scale projects for reclamation, irrigation, and other internal improvements, is now as clear and ample as its power to resort to strained interpretation of the power over navigation". (17)

It will be noted the resultant power granted the Federal government by the interpretation of the Courts in these two cases closely approximates that of the police power and the power of eminent domain together. The extent to which these powers are used will be an interesting future

development.

On the assumption that the Federal government may exercise eminent domain and the police power only in carrying out its delegated powers; let us look at these powers. Grouped according to the function which they are most commonly employed to carry out, these powers are as follows: a) Those related to land and hence the utilization of natural resources; the proprietary power, power over the territories, and power over lands involved in interstate controversies; b) Those related to technological resources; the commerce power, the power to administer standards for weights and measures, and the patent and copyright power; c) Those powers relevant to the circulatory system providing access to the nations technological resources; the commerce power, the postal power, and the admiralty and maritime power, and d) Finally those powers incident to international affairs, often employed to affect the internal physical structure; the treaty making power and the war power.

In addition to exercising the aforementioned powers in a multitude of ways the Federal government may employ one or several of the following devices to encourage within political jurisdictions other than its own, a wide range of activities not restricted by the list of delegated powers: interstate compacts, regional authorities, governmental corporations, interstate commissions, and grants-in-aid.

#### Summary and Conclusions

Thus far we have tried to bring to mind some of the social, economic, and political factors which constitute the background for the growth of physical planning. We have stressed the federal system as a

significant factor in American government, and have pointed to the socio-economic implications of a separation of power at each level into the functional areas of law making, administration, and judging. We have introduced the authority and shown that it serves to enhance the flexibility already inherent in a federal system. The impact of these elements of our government upon the citizen, in his individual and institutional natures, is one of great importance. For these elements represent in part the checks and balances which have been introduced into American government to preserve its democratic character.

In the face of several rapidly growing economic institutions; urbanism, regionalism, and industrialism for example, government at the several levels and within each of three departments has been called upon to make radical changes in the manner of achieving social control. New laws, new administrative practices, and new methods of weighing countless litigations have evolved. In short, public functions have increased since 1870 by accretion and by accumulation until the reason behind a separation of authority and the logic of dual sovereignty is barely visible.

The planning function at the several levels of government has evolved along side of numerous other functions. But planning, by its very nature, has tended to create order out of the confusion which has resulted from accretion. The application of research, analysis, and design has demonstrated that direction can be given to the activities of government. Planning early appeared in both Europe and the United States as an adjunct to the executive branch of government. If we include the research, analytical, and design activities within the Federal executive

departments and their state and local counterparts, or if we count the research staffs of our legislative bodies and higher courts, which in a sense carry-out research, analysis, and design procedures, we must indeed assign a long history to the planning function. Each of these activities is a line function of government and as such does not comply to the definition of planning which we have established earlier (see above pp 20-21), for these activities have been a traditional part of government for many centuries. The real application of scientific management to American government manifests itself as the "planning function" in any one or all of the following categories: 1) Planning for interdepartmental coordination under the executive branch of government; 2) Planning for coordination between the legislative and the executive branches of government; and 3) Planning, under a federal system, for the coordinated interaction among the various levels of government.

Since the scope of this paper is limited to physical planning we need only discuss the foregoing in terms of the means for exercising control over physical facilities. At each level of government; local, state, regional, and national, some planning activity has been evident in relation to the coordination of executive functions. Although urban planning is not universal by any means it is sufficiently widespread to indicate general acceptance. One of the major functions of urban planning agencies has been the coordination of public works with the activities of other departments. With the appearance of the means for control over the private domain, the planning agencies have been generally assigned to this function as well.

Much of the coordination of executive departments at the state, regional, and national levels has been centered upon the Federal government. The National Resources Committee created by executive order in 1934, has been the predominant coordinator at these three levels. Under the stimulus of the NRC many state planning boards were established; and the Committee, which included the secretaries of interior, commerce, and labor, was in an excellent position to coordinate federal activities in regional or national planning. In 1939, Congress established the National Resources Planning Board, mainly on the basis of the work done by the NRC. After less than five years of operation the NRPB was abolished (October 1, 1943).

During its brief period of existence the NRPB prepared seventy odd publications which dealt with many diverse fields including social and economic planning. Judging from the scope of its research activities, the Board was well on its way toward establishing a sound policy for the coordinated planning of human, natural and technological resources. Although the functions of the NRPB, upon its dissolution, were incorporated into other federal agencies; the Bureau of the Budget, the Federal Works Agency, the Office of Economic Stabilization and later into the National Security Resources Board, the synthesis was lost and national planning as well as coordinative-planning suffered a significant set-back.

Little progress has been made in this country toward the establishment of agencies for the execution of the second and third type of planning. There is tremendous resistance against any move to coordinate legislative and administrative planning, and perhaps justifiably so. However, an attempt had been made by the NRPB to coordinate

planning activities at the various levels, and perhaps the current drive to consolidate the activities of the Federal government is the first step toward the creation of a broader program aimed at an integrated national policy, which will serve to coordinate urban, regional and national physical planning. This will be discussed in the concluding chapter after presenting the evolutionary development of physical planning at the urban, regional, and national, levels.

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14. Hamilton v. Kentucky Distilleries & Warehouse Co, 251 U.S. 146, 64 L.Ed. 194, 40 S.Ct. 106, (1919)
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## CHAPTER III

### THE DEVELOPMENT OF URBAN PHYSICAL PLANNING

"...from the moment that men begin to live together, and constitute even the rudest sort of society, self-support becomes impossible. As men grow more civilized, and the subdivision of occupations and services is carried out, a complex mutual dependence becomes the universal rule. Every man, however solitary may seem his occupation, is a member of a vast industrial partnership, as large as the nation, as large as humanity". (1)

Edward Bellamy, Looking Backward (1)

#### Expanding Legal Powers of Municipalities

In dealing with the evolution of urban physical planning, the municipal corporation and its associated functions and legal powers will form the framework for the discussion. As instrumentalities of the state, municipal corporations "embrace definite geographical areas containing more or less compact and urbanized populations, and possessing broad legal powers of local self-government".<sup>(2)</sup> The functions of the municipal corporation are primarily oriented toward the achievement of better environmental conditions for the "human resource" segment of our economy. These functions, however, are subordinate to the state government and are subject to all constitutional limitations. The municipal corporation is, in effect, entirely under the domination of the state legislature. Any power, privilege, or function of the city must be derived by grant in accordance with statutory or constitutional provisions. Now, however, municipal corporations are granted authority to exercise all three fundamental powers of government: legislative, judicial, and administrative. But the exercise of these powers is technically limited by the following restrictions: 1) those powers



expressly granted by statute of incorporation or charter; 2) those powers necessarily or fairly implied in or incident to the powers expressly granted; and 3) those powers essential to the declared objects and purposes of the corporation - not simply convenient but indispensable.

Several factors, however, tended to inhibit a strict legal interpretation of these limits on municipal powers. First among them was the "home rule" movement started in 1875.<sup>(3)</sup> The outcome of this movement has taken the form of constitutional modification, and has spread to many states since its inception. It was generally provided that the larger municipalities (those already advanced in their progression toward urbanization, the concentration of industry, congestion, blight, etc.) might frame a charter for their own government. Concurrent with the "home rule" movement was the growing disposition to grant general rather than specific powers to municipal corporations. A third tendency modifying municipal powers was the increasing practice of the state government to diminish its legislative control over the city. Each of these factors greatly increased the scope of the "necessary or fairly implied" powers of the municipal corporation. And each, in its own turn, served to demonstrate the growing recognition, by municipal and state officials alike, that the problems attendant to urbanization could not be adequately handled under a centralized state government, but must be met by local authorities with broad legal powers.

#### Periods of Evolutionary Growth of Urban Physical Planning

The evolutionary development of the physical planning process at the municipal level of government may be separated into four broad

periods, each epitomizing a major phase in the evolutionary tendency toward a planned physical environment for urban dwellers. The first period, which we shall designate the Pre-Planning Period, has a rather nebulous origin. Presumably, it began at approximately the same time as urbanization in the United States, let us say 1870. This period has a very definite ending, however, for the Columbian Exposition of 1893 with all its imperial pretention, is commonly accepted as the inspiration behind the city planning movement.<sup>(4)</sup> The four periods, their dates, and a superficial designation of their chief quality is as follows:

- (1) 1870-1893      The Pre-Planning Period
- (2) 1893-1909     The City-Beautiful Period
- (3) 1909-1929     The City-Practical Period
- (4) 1929-date      The Period of Socio-Physical City Planning<sup>(5)</sup>

In the discussion to follow each of these periods will be treated individually. First the outstanding characteristics of the physical planning activities as they have thus far evolved during the period will be presented. Next this pattern will be discussed in terms of the two major compartments of planning; the land-use system and the circulatory system. Finally a summary of the outstanding developments in the law and court decisions will be discussed. The discussion of the planning activities and their separation into land-use and circulatory functions is undertaken here to clarify the presentation of the growth of the legal means for effectuating physical planning.

## 1870-1893 The Pre-Planning Period

Physical planning operations during the pre-planning period were centered upon those problems which first became evident after the initial surges of industrial concentration were felt in our larger urban centers. Foremost among the problems were those of water supply and sewage disposal. Since the early American cities had not been laid-out so that they might cope with the incidence of rapid growth, little public action had been taken in these two areas prior to 1870. Indeed, several cities were subject to serious epidemics,<sup>(6)</sup> before they finally recognized the community nature of these problems.

Also of importance during this period was the problem of transportation. Increasing intensity of land use had already overburdened the existing means of urban transportation in many cities. During this period the railroad, which was at the same time opening up the West, was applied to the equally important function of "opening-up our urban centers. A third area of activity which emerged as a municipal function during this time was that of providing our cities with the necessary parks and open areas. This activity although in the sphere of the land-use system was a reaction to the growing congestion which had thus far been chiefly expressed in relation to circulatory problems i.e., water supply, sewage disposal and transportation.

The social and economic conditions of our cities during this period has been briefly discussed earlier (see above pp. 6-8).

One outstanding judicial decision which has had a significant impact upon the entire growth of the planning process occurred prior to the beginning of this period. In 1853, the Massachusetts Court defined

the police power as the authority of the legislature to "establish all manner of wholesome and reasonable laws...for the good and welfare of the Commonwealth".<sup>(7)</sup> This power residing in the state in 1853 was later delegated to municipal corporations and in such capacity serves as a highly significant adjunct to the city's ability to plan. For the most part, laws concerning the power of municipal corporations to construct, own, and operate public facilities underwent little change during this period. The tendency to free the states of prime responsibility in urban public works was begun during this period (see above p. 41), but the greatest progress in this area was made during the next two succeeding periods.

#### 1893-1909 The City-Beautiful Period

Spurred on by images of the classic "City Beautiful" which emanated from the Chicago World's Fair in 1893, the American cities, which were just beginning to know the growing pains of "unrestrained industrialization and unguided urbanization",<sup>(8)</sup> began to embrace the yet unnamed city planning movement. By 1909 numerous cities had purchased for themselves an equal number of plans for city beautification with proposals for street planting and widening projects, and park developments built around redesigned civic centers. These "designed" cities aroused great public enthusiasm. However, the great flux of plans during this period served to no avail, for only a small percentage of these proposals achieved reality. At the same time however, there was an undercurrent of "engineering" at work planning those elements of a city necessary to meet the rising tide of congestion. It was this group

that reached ascendancy during the succeeding period and, for the most part, set the pattern for physical planning which has remained to this day.

There was little of "practical" value in the earlier aesthetic city plans, their chief goal being to provide an attractive setting for the mundane activities of urban life. These plans, however, encouraged greater acquisition by the public of lands for civic centers, parks, and buffers cushioning the shock of intensified use on the streets and highways. And of course, the activity begun earlier on the circulatory system continued to expand in scope and in scale. For example, New York inaugurated the first American subway system during this period, (1904).

Throughout the period there were no outstanding pivotal points in the development of the law of planning. Just as the city-beautiful period was closing, however, the General Court of Massachusetts passed a statute applicable to the city of Boston establishing two types of height districts, one enforcing an eighty foot limit and the other enforcing a 125 foot limit on the height of structures.<sup>(9)</sup> The successful test of this statute before the highest state and Federal courts contributed greatly under the principle of Stare Decisis to the subsequent development of public controls over the land-use system (private domain). This development was to become the outstanding feature of the city-practical movement.

#### 1909-1929 The City-Practical Period

The city-practical phase in the evolution of urban planning

embraced several highly significant administrative and legislative innovations. Nearly coincident with the Court decision favoring zoning in Boston was the appearance of the Plan of Chicago (1909). The Chicago plan, although architectural in emphasis, acknowledged several important trends which served (along with zoning) to revitalize the city planning movement. The Plan continued to recognize the primacy of transportation but went beyond the work of the early thoroughfare designers by linking the design of the street system to subdivision control. Rapid transit was related to the growth of the suburb and for the first time terminal problems were considered important in the planning of the circulatory system. In its proposals for the land-use system, the Chicago Plan provided a comprehensive park system, but of even greater significance the plan recognized the problems of urban blight and the attendant social evils. This was an acknowledgment of the work done by the social-welfare reformers discussed earlier (see above pp. 6-7).

Chief among the legislative innovations of this period was the advent of zoning.<sup>(10)</sup> Zoning designates the division of land into districts having different regulations as to height, area, and use of buildings (and the use of land).<sup>(11)</sup> The potentialities of zoning as a method of dealing with the long existent problem of urban congestion were quickly realized by cities all over the nation. By 1933 thirty-eight states had passed general zoning enabling acts, whereas only three such acts existed in 1920.<sup>(12)</sup> With the advent of zoning, the planning powers of municipal corporations were extended well into the private domain, and for the first time public control was exerted over the growth and development of the entire urban land-use system.

Concurrent with the increasing powers of the municipal corporation since the 1870's was the development of utility law. The powers of the state and thereby municipalities were continually being expanded in the sphere of public utilities and the power to regulate private utilities. During this period the power of the city to own or regulate intra-urban natural monopolies was well on its way to full realization, thereby extending the city's power to plan the circulatory system.

The Plan of Chicago and zoning set the stage for an extension of urban planning into many new areas. These extensions were fully expressed in the numerous plans which appeared during the 1920's. Until the industrial and commercial depression of 1929, however, the entire movement tended to focus its attention upon the physical structure of the community and the provision of public works remained the chief concern of the urban administrator. (13)

#### 1929-Date The Period of Socio-Physical City Planning

The early part of the period of socio-physical planning was dominated by the forces set in motion by the economic depression of 1929. The depression was characterized by a significant decline in the business and industrial activity of the nation. Unemployment was rampant and by March of 1933, 14,762,000 people were unemployed (29% of the total labor force). (14) Had the decline in economic activity been short lived, governmental policies probably would not have been materially modified as a result of the depression. However, the average unemployment rolls exceeded 10,000,000 through the years 1932, 1933,

1934, and 1938. And public opinion gradually shifted to the view that the meeting of this social and economic emergency was a governmental obligation.

Stimulated by the decline in private economic activity and by the shift in public opinion, government at all levels gradually adopted the practice of engaging in public economic activity in order to maintain a semblance of normal economic and social welfare. Much of the increased activity in public works at the local level was stimulated directly or indirectly by the federal government. For example, the National Resources Committee was active in stimulating the adoption by states of State Planning Boards.<sup>(15)</sup> The function of these boards being to encourage public development of natural and human resources. Many studies were made of the circulatory and the land-use aspects of natural resource development. However, the development of the human resources was decreed to be a municipal function and thus the majority of the state boards attempted to stimulate planning activities at the local level.

Despite the additional stimulus from state governments, municipal planning agencies were forced to curtail expenditures during the early 1930's. Money for planning could not be justified when relief and welfare activity was so urgently needed. Modifications in planning procedures during the depression were characterized by two considerations: 1) an increasing concern with the social implications of an economic depression and 2) the ready availability of staff assistance from the rolls of the unemployed.<sup>(16)</sup> As governmental compensations for the reduction in private activity began to meet the social



and economic needs of the time, more and more of the unemployed were put to productive use in research and design directly related to municipal planning activities. Physical projects began to be based upon social research and analysis. As the body of social statistics relevant to urban planning increased, the entire urban planning program began to assume a social orientation.

With the coming of economic recovery and World War II, urban planning operations again demonstrated a tendency to shift toward a physical planning emphasis. It was popular among those planning agencies which maintained a full wartime staff to recommend broad programs of post-war physical improvement. The motivation behind many of the broad public works proposals was the feeling that the United States was again due for a post-war recession, thereby necessitating a great increase in public economic activity. This was also a strong force behind the congressional passage of the Housing Act of 1949. This Act inaugurated a broad program directed toward slum clearance, urban redevelopment, and public housing; and authorized a comprehensive research program to achieve these ends. With this act by the Federal government, local planning was again given a strong orientation toward physical planning based on social research.

#### Summary

By way of summary let us discuss the urban physical planning function in terms of the procedures which have evolved for regulating and promoting the development of the physical facilities which constitute the urban complex. These facilities may be placed in two broad

groups: 1) the land-use facilities and 2) the circulatory facilities. The land-use system consists of the following classes of uses: a) Residential areas, b) Industrial areas, c) Commercial areas, and d) Recreational areas. We have already expressed the all pervading legal principle that all governmental action must be in the interest of the general welfare. In terms of land-use we have seen that through the eighty odd years since the inception of the Industrial Revolution and urbanization, there has been a general broadening of public powers in the sphere of land-use controls. These controls influence private action in two ways; first they provide that municipal corporations may acquire the necessary property to perform a specific service for the people, and secondly they provide the legal machinery for exerting public control over privately owned land-uses.

In terms of the former, American cities have provided open areas for public gatherings since colonial times (e.g., the New England Common). And the provision of municipal parks has been one of the urban proprietary functions since at least as early as 1853.<sup>(17)</sup> The public ownership of administrative buildings and grounds has also been a long recognized municipal proprietary function. Considerable expansion of this function has occurred since 1900. In one large area, the provision of several land-use services in the form of public utilities, the laws have been greatly modified. The expansion that has occurred to broaden municipal proprietary powers over utilities has been closely guarded by the courts. Therefore, these powers do not generally extend outside the area of social or fiscal monopolies. More recently the provision of public housing has become an urban proprietary function. In

1936, the provision of public housing was declared a "public use" in New York City.<sup>(18)</sup> Just to round out the picture, several municipalities have engaged in commercial activities of various kinds, but this is a highly scattered procedure and there seems to be little relation in most of these cases between public commercial enterprise and the general welfare.

In the second case where public control is exerted over private property, we have the greatest expansion of public functions. Building codes are one of the earliest forms. In New York City such an ordinance was passed in 1761. The Chicago fire of 1871 and the Baltimore fire of 1909 gave great impetus to the accumulation of building codes on a nation-wide scale. A series of other types of regulations have grown up around those of building codes. The majority of these are aimed at securing improved health, sanitation, and safety conditions.

Subdivision regulations as another form of police-power control over private property were introduced when the urban fringe about our growing cities began to be recognized as a problem. Mention of this problem appeared in the Plan of Chicago in 1909, and subdivision control has been increasingly employed as a means of controlling the development of urban physical facilities since that time.

The most important public control measure over urban land-use is zoning. As mentioned earlier, zoning as such was first introduced in 1916. Since then zoning has grown to be the backbone of planning legislation, for zoning serves as the chief legal basis for effectuating a general urban land-use plan.

Planning the circulatory system of a city is generally a

simpler matter than planning the land-use system. In the first place the greatest portion of the land-use system is in private ownership. Whereas the major elements of the circulatory system are generally publicly owned. In the second place, functional patterns are easier to achieve when ownership is under one head (the city). And thirdly many of the elements of the circulatory system logically follow the same physical pattern throughout the city in order to afford adequate service access to the land-use system.

The control pattern which has evolved is as follows: first the cities were charged with providing only street access to property. With the growth of cities and the attendant congestion, sanitary and water supply facilities became necessary. And finally with the advance of technology several other utilities were made equally necessary, i.e. electricity, gas, communication lines, etc. Many of these utilities have remained in private hands, but the control problem has been greatly simplified by the willingness of the courts to recognize them as social monopolies. It is a significant fact also that in many cases the only access of privately owned utilities to the consumer is along public rights-of-way. These factors tend to facilitate public control and guidance over the development of the urban circulatory system.

In developing methods of planning the two coordinate systems; land use and circulation, two divergent problems have appeared. In the first instance the pattern of legal controls over the development of the system has generally demonstrated a tendency to lag behind the need for these social controls. By contrast, in planning the circulatory system, the pattern of controls has in most cases been adequate for the

job, but two other limitations have rendered the problem equally difficult. The first of these is the problem of securing the revenue required for providing the necessary public circulatory facilities. Perhaps there is a lesson to be learned from this. The second of these is that given sufficient funds for an adequate system there seems to be some indication that certain technological limits exist, exerting another backward thrust to the planning of adequate means for urban circulation.

We have talked a great deal in this chapter about the relationships between the physical elements of the urban complex. Despite all of this one central theme should be kept in mind; "the city is the people". And when we plan land-use relationships our dominant motive is the health and safety, the comfort and convenience of the people. We plan our urban areas, for living, for working, for marketing, and for play with the eye constantly upon the human organism. We plan our elements of travel with the mind upon human convenience, comfort, and safety. Each element in the urban plan should contribute to the general welfare of the human resources which reside in the city, in the interest of the general social and economic well-being of the nation.

#### Reference Notes For Chapter III

1. Bellamy, Looking Backward, (1888); Packard and Company, Chicago, p. 90
2. Stason and Tracy, Cases and Materials on the Law of Municipal Corporations, (1946) p. 1
3. Missouri gave St. Louis extensive powers of self-government by a constitutional amendment of 1875

4. Menhenick Ed., Local Planning Administration, (1948) p. 4
5. Cf., Walker, The Planning Function in Urban Government, (1950)
6. Philadelphia - Yellow Fever Epidemic reduced population by half 1793-1797.  
Memphis was practically depopulated as late as 1879.
7. Commonwealth v. Algee, 61 Mass. 53, 85 (1853)
8. Walker, Planning Function in Urban Government, (1950) p. 12
9. Welch v. Swasey, 193 Mass. 364, 79 N.E. 745, 214 U.S. 91, 29 S.Ct. 567 (1909)
10. First comprehensive zoning ordinance adopted New York City, 1916
11. Bassett, Zoning, p. 9
12. Menhenick, Ed., Local Planning Administration, (1948) p. 24
13. Walker, The Planning Function in Urban Government (1950) p. 34
14. Natural Resources Planning Board - Security Work and Relief Policies (1942) p. 19
15. Twenty-eight State Planning Boards were inaugurated 1933-1937.  
Menhenick, Ed., Local Planning Administration (1948) p. 24
16. Cf., Walker, Planning Function in Urban Government, (1950) p. 37-38
17. Bushnell Park, Hartford, Conn. (1853) - One of the first notable examples of large parks
18. New York City Housing Authority v. Mueller, 270 N.Y. 333, 1 N.E. (2d) 153, 105 A.L.R. 905 (1936)

## CHAPTER IV

### THE DEVELOPMENT OF REGIONAL PHYSICAL PLANNING

"The TVA Act was nothing inadvertent or impromptu. It was rather the deliberate and well-considered creation of a new national policy. For the first time in the history of the nation, the resources of a river were not only to be 'envisioned in their entirety'; they were to be developed in that unity with which nature herself regards her resources - the waters, the land, and the forests together, a 'seamless web' -"

David E. Lillienthal, TVA Democracy on the March (1)

#### The Natural Region

The discussion of the growth of physical planning at the regional level will be undertaken in terms of the "natural region". The concept of regionalism has many contexts.<sup>(2)</sup> However, it needs mention here only that the basis for establishing the unifying character of the "natural region" and the physical extent of its boundaries should hold some significant relationship to natural resources and the mode of developing these resources.

#### Legal Methods of Achieving a Regional Jurisdiction

We have earlier discussed the region in terms of some of its social, economic, and cultural characteristics (see above pp. 8-14). It now remains to establish the political character of the natural region. There are at least four ways which might be used to establish the political jurisdiction for exercising regional planning powers: 1) the regional authority, 2) the regional corporation, 3) the interstate compact, and 4) the interstate commission. The establishment of a regional authority might be achieved in either of two ways: 1) by the

use of the interstate compact device as used in establishing the New York Port Authority, and requiring the consent of Congress or 2) by the establishment of a Federal authority, similar in nature to the TVA, operating under specific delegated powers. Either of these two methods should afford the means appropriate to the effectuation of a program of development and utilization of both public and private natural resources. One problem exists however, in relation to the normally acceptable mode of delegating powers to an authority. It is the general practice to provide an authority only with those specific powers needed to carry out a specific program. There might be some doubt as to whether a satisfactory nation-wide program of resource development would be possible in these terms. We do not know whether the authority device would be entirely successful, for the high quality of administrative skill and the same intensity of public relations activity as prevailed in the TVA experiment might be difficult to achieve on a nation wide basis.

The interstate compact might be employed to establish a regional corporation, similar in scope of powers to the municipal corporation. (See above pp. 40-41.) If this were possible, broader powers could be delegated to such a corporation. Another method of establishing a regional corporation would be through the federal government. This seems highly improbable since only those powers which have been delegated to the Federal government under the Constitution could be delegated in turn to the regional corporation. This might lead to extreme legal complications. However, if the regional corporation were capable of achievement under the law, it would certainly represent the



best legal instrument for decentralizing natural resource planning activity. It seems highly improbable that the interstate commission device could ever be used to cope with the complexities of regional physical planning.

Having thus mentioned several methods of achieving the proper political jurisdiction to effectuate regional planning, we shall dismiss all but one. We shall discuss the legal powers and the administrative programs which have evolved in terms of the regional authority, deriving its power to plan from both the Federal government and the various states.

#### Federal Powers Applicable to Regional Planning

The Federal government, being one of delegated powers, must carry out its entire legislative and administrative activities in relation to physical regional planning under fewer than a score of delegated powers. Several of these powers have been extensively employed for controlling the utilization, development, and conservation of the nation's natural resources. These powers are as follows: The power of eminent domain,<sup>(3)</sup> The general-welfare power,<sup>(4)</sup> The proprietary power,<sup>(5)</sup> The power over territories,<sup>(6)</sup> The war power,<sup>(7)</sup> The treaty-making power,<sup>(8)</sup> The commerce power,<sup>(9)</sup> The power over interstate compacts,<sup>(10)</sup> and the power of equitable apportionment.<sup>(11)</sup> Each of these powers has been variously employed in providing the legal basis for the operation of regional planning under Federal delegated powers.

## State Powers Applicable to Regional Planning

Since the states retain all powers not delegated to the United States by the Constitution or prohibited by it to the states, a list of specific state powers as they apply to regional planning cannot be compiled. The states do however, possess broad general powers which make it desirable that certain of these powers be incorporated into the legal machinery for regional planning.

Although several states inaugurated highly efficient programs for the planned development of the natural resource base, these states represent the exceptions rather than the rule.<sup>(12)</sup> Perhaps the reason for the lack of response by state governments to the need for conservation programs has been the early existence of sectional pressure groups, which preferred to lobby for a conservation program at the national level. (See above pp. 10-11.)

## The Growth of Federal Natural Resource Planning

The Public Domain - National policy in relation to the utilization of natural resources had its origin in the changing public land policy of the second half of the 19th Century. At one time the public domain embraced over half of continental United States. Under the leadership of Thomas Jefferson, the United States adopted a policy of disposing of its public land "for the common benefit of all the people". The method of disposing of Lands was established in the Land Ordinance in 1785, which was drafted by Jefferson. For more than a century after the adoption of this ordinance much of the public domain was transferred to private ownership. In 1850, the public domain was estimated at

1,200,000,000 acres.<sup>(13)</sup> By 1912, estimates indicated that the public domain had been reduced to 6,000,000 acres<sup>(14)</sup> despite the fact that the United States had purchased nearly 19 million additional acres.<sup>(15)</sup>

From 1875 on there have been four general methods of disposing of the public domain: 1) Sale on low terms to various types of purchasers, 2) Grants to individuals for military bounties or homesteads, 3) Grants to states for education and internal improvements, and 4) Federal grants direct to corporations for construction of canals and railroads.

The turning over of the nation's public lands to the people was largely brought about by the efforts of the frontiersmen to break down the conservative theories of land disposition, which were the result of the domination of the Federal government by the East. However, in securing the liberalized land disposition policy, the western factions failed to realize that many of these reforms would later be exploited by eastern corporations to the net result that a vast amount of the public domain resulted in little direct benefit to the agrarian reformers who had brought about this legislation. For example, prior to 1912, over 500 million acres of land had been granted by the United States without direct return,<sup>(16)</sup> an area more than two and one-half times the size of the original thirteen states.

From 1785 to 1841, the public domain was looked upon as a source of revenue and the land ordinances drawn during this period had that aim in view. In 1841, however, the Pre-emption law was passed representing a victory for the frontier. This was followed in 1845 by a bill calling for the free granting of public lands to families settling

in the West. For seventeen years bills of this nature were passed in the House and thrown out in the Senate. However, on May 20, 1862, the Homestead Bill finally became law, thus opening-up the public domain to wide popular disposition. The Timber and Stone Act of 1878, disposing of land unfit for cultivation at date of sale; and the Dawes Act of 1887, providing for individual as opposed to tribal ownership of land in Indian reservations, further contributed to the rapid disposal of the public domain. Homestead grants continued to be liberalized until 1916. However, from 1878 on, pressure began to be exerted upon the Congress to check the wastes that were occurring through the misuse of numerous liberal land ordinances.

Toward a Conservation Policy - Probably the first indication of the need for a modified public land policy appeared in the report of Major John W. Powell, on the "Lands of the Arid Regions of the United States", prepared in 1878. Powell pointed out that the land disposition system which obtained throughout the nation could not logically be applied to the arid region west of the hundredth meridian. This report served as a great stimulus toward subsequent legislation aimed at achieving a reclamation program for the arid regions. Powell expressed the view that;

"In general the lands greatly exceed the capacity of the streams thus the lands have no value without water. If the water rights fall into the hands of irrigating companies and the lands into the hands of individual farmers, the farmers then will be dependent upon the stock companies and eventually the monopoly of water rights will be an intolerable burden to the people". (17)

The Congressional Commission of 1879, which was formed to investigate the land system, incorporated Powells findings into their own recommendations. (See above p. 12.) Thereby preparing the ground for the adoption

of a conservation policy.

One of the first congressional responses to the investigation of 1879, was an Act of 1888, establishing an irrigation division of the United States Geological Survey, a direct although belated response to the pleas of Major Powell made ten years earlier. This Act also authorized the withdrawal of irrigation reservoir sites from public entry. The first significant congressional act embodying the recommendations of the Committee of 1879 was the Forest Reserve Act of 1891. Under this act nearly 200 million acres of land were incorporated into the nation's forest reserves between the years 1891-1909. Although some of this land was not forested at the time it was reserved.

In 1898, Gifford Pinchot was appointed chief of the Forestry Bureau of the Department of Agriculture, Pinchot had long held an interest in the conservation of natural resources and greatly influenced Theodore Roosevelt in this respect. These two men together with Charles R. Van Hise, formed the nucleus for the growth of the conservation movement. And it was due largely to the efforts of these men that conservation became a national concern. Three qualities of this movement were outstanding: 1) popularization, welded scattered enthusiasts into a nation wide movement, 2) systematic surveying of natural resources and the planning of their development, and 3) the reservation of great areas of the public domain and the adoption of a federal policy of natural resources conservation. (18)

Stimulated by Roosevelt's zeal for conservation, the Congress passed the Reclamation Act of 1902. This Act provided for the construction of irrigation systems in the arid West to be financed out of proceeds

from the sale of the lands benefited. The adoption of the reclamation program not only increased the nations arable soil acreage but committed the Federal government to an indefinite retention of the catchment areas supplying water to the irrigated lands. The conservation movement reached the peak of its activity in 1908, when President Roosevelt established the National Conservation Commission whose function it was to make an inventory of the natural resources of the country.

In 1909 the National Conservation Association was organized. This Association was a national body based on state representation, designed to encourage the formation of state conservation organizations. During this early period of growth, the conservation movement in United States had gained sufficient political momentum to carry it through two decades of governmental apathy, the period of World War I and the "back to normalcy" movement. From 1910 to 1933 several significant studies were made<sup>(19)</sup> and even several acts of Federal legislation were passed<sup>(20)</sup> indicating that the movement held vigorous undercurrents.

Expanding Scope of Resource Planning - In the field of natural resource development the great industrial and commercial depression of the 1930's again served as the stimulus for increased governmental activity. The decline in the purchasing power within the urban and industrial sectors of the economy tended to depress further agricultural conditions which had been generally low since the early 1920's. Another significant factor which served to dramatize the need for more rigid governmental control and guidance in the field of natural resource utilization was the plight of the great plains. As a direct result of

the dust storms of 1934, Congress enacted the Soil Erosion Act of 1935.

It was declared a national purpose

"to provide permanently for control and prevention of soil erosion and thereby to preserve national resources, control floods, prevent impairment of reservoirs, and maintain the navigability of rivers and harbors, protect public health, public lands, and relieve unemployment".

New conservation programs were introduced into the existing structure of the Department of Agriculture and Interior. The Civilian Conservation Corp was organized and Works Progress Administration labor was assigned to conservation programs.

The Tennessee Valley Authority Act was passed on May 18, 1933, and was one of the legislative enactments of the "first hundred" days of the New Deal. The TVA was created as a public corporation to carry out a broad program:

"To improve the navigability and to provide for the flood control of the Tennessee River; to provide for reforestation and the proper use of marginal lands in the Tennessee Valley; to provide for the agricultural and industrial development of said valley; to provide for the national defense by the creation of a corporation for the operation of Government properties at and near Muscle Shoals in the State (21) of Alabama, and for other purposes".

In 1934, the Taylor Grazing Act withdrew from public entry another 80 million acres of public land for the constitution of grazing districts. In 1936, this area was expanded to 142 million acres.

A program of water resource conservation was inaugurated very early in the New Deal era. Federal support for flood control was adopted by the comprehensive Flood Control Act of 1936. In 1940, flood control projects accounted for an expenditure of \$170,000,000. (22) Affirmation of the 1902 Act was given by the Reclamation Project Act of 1939.

## Regional Land-Use and Circulatory Systems

Like urban planning, the planning of natural resources within a regional framework breaks down conveniently into two broad classifications: 1) the land use system and 2) the circulatory system. The land-use system may be further subdivided into four classes of natural resources; 1) the land resources, which refer generally to land as the vehicle for agriculture, ground water supply, etc., 2) the renewable resources, commonly associated with land but not inherently a part of the land. These are fish, wildlife, forest, and forage, 3) water resources, in arid regions as a source of irrigation and in humid regions as a source of power and a means of navigation, and 4) mineral resources. Mineral resources are often subdivided into two classes - mineral and energy resources. Through the application of technology certain of our water resources have been transformed into energy resources; perhaps such resources in combination with the mineral fuels should represent a fifth classification.

The regional circulatory system is distinct in several ways from the local or the national circulatory systems. First, the regional system may be restricted to those secondary systems which form the framework for local systems, or serve as feeders to national networks of transportation and communication. In the case of power transmission systems, these should probably remain totally at the regional level until technological developments enable the creation of a nation-wide power distribution network. Secondly, and this distinction should be stressed, the regional circulatory pattern must bear a positive functional relationship to the natural resource base of the nation,



thereby establishing a basis for the functional separation of the natural resource planning program.

#### Summary

We have earlier discussed the growth of Federal physical planning program as it relates to the conservation of natural resources. This program, which emerged as a series of definite federal projects in 1891, had its origin at the very foundation of our public land policy. The growth of the program may be characterized by five phases. The first phase (1862-1878), was the period during which the policy to transfer the public domain into private hands to encourage the economic and social development of the West reached its fullest expression. It was during this period that "the conquest of the Great Plains" was brought about by the "Homesteaders", and also the time of the most rapid growth of sectional interests, culminating in the several reform movements which in turn precipitated the initial enactments of the three phases of physical planning; local, regional, and national. The period was brought to a close by Major Powell's report on the arid lands.

During the second phase (1878-1891), the problems of resource conservation, especially land and water resources, were being studied by numerous public and private interests. The conclusions were clearly evident but so also was the conflict between a solution to the problem and the principles of the old land policy. In 1891, Congress took the first step toward a positive federal program of the conservation of natural resources, by providing for the establishment of extensive national forest reserves.

The years 1891-1909, marked the period of expansion for the conservationists. Everyone in the nation became aware of the goals of conservation and several important programs were inaugurated. A reclamation policy was put into effect and the first nation-wide program for the scientific measurement of our natural resource base was begun. By 1909, enough popular support had been garnered by the movement to carry it through the period (1909-1933).

By 1933, the economic and social consequences of the depression had prepared the nation for a new approach to the problem of resource planning. Many of the conservation measures which had been incorporated into the executive departments were expanded. The planning of natural resources became a nation-wide concern; broad research programs were inaugurated; policies were reoriented to the new social and economic needs, and plans were prepared for the development of hundreds of small sub-regions. Every aspect of our natural resource base was investigated; and the need for new modes of utilization was met by the application of scientific management. Practices were developed to restore the fertility of the soil, to prevent continued erosion, to reduce forest wastage, to check flood damage and put our rivers to work producing power and carrying commodities. New mineral deposits were discovered, new uses for abundant non-economic resources were developed and in a thousand new ways the energy of a hundred and fifty million people was directed toward a renewal of our nation's natural resources. Thus the work of three generations of sectional and regional interests have secured a series of programs at the Federal level designed to achieve the efficient and effective use of the nation's natural resources.

With the inception of the Tennessee Valley Authority and similar programs, this pattern of regional resource planning has begun to return to its origin.

#### Reference Notes For Chapter IV

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2. Odum and Moore, American Regionalism, (1938),  
Mumford, The Culture of Cities, (1938) pp. 300-401,  
Hartshorne, The Nature of Geography, (1939) pp. 250-365,  
Lilienthal, TVA Democracy on the March, (1945) pp. 165-181
3. United States Constitution, Fifth Amendment
4. United States v. Butler, 297 U.S. 1, 64-66 (1936)
5. United States Constitution, Art. IV, Sec. 3, Cl 2
6. United States Constitution, Art. I, Sec. 8; Art. IV, Sec 3
7. United States Constitution, Art. I, Sec. 8, Cls 1, 11; Art. I, Sec. 9, Cl 7
8. United States Constitution, Art. II, Sec. 2, Cl 2; Art. VI, Cl 2
9. United States Constitution, Art. I, Sec. 8, Cl 3
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## CHAPTER V

### THE DEVELOPMENT OF NATIONAL PHYSICAL PLANNING

"It is a matter of common knowledge that corporations are not natural persons. They are artificial persons. They are creatures of the government. Only on the authorization of government can they come into existence. Only with the sanction of government can they perform any acts, good or bad. The corporate abuses which have occurred, the concentration of wealth which has come about under their operations, all can be laid directly and immediately at the door of government. There is no escape from this responsibility.

Charles A. Beard (1)

#### Planning the Business Plant and Capital Equipment

Thus far we have discussed the growth of urban physical planning in terms of its social implications, and regional physical planning in terms of the conservation of natural resources. These two phases of physical planning are commonly considered as correlative parts of a single broad operation. However, when dealing with the physical planning operation at the national level of government, it is the common practice to treat only those planning processes which are aimed at the utilization of natural resources. This aspect of national physical planning has been discussed in the preceding chapter. We will herein limit our discussion to those media which have evolved within the Federal legal structure for the regulation of industrial and commercial corporate enterprise.

National physical planning thus limited revolves about the development and the utilization of our nation's technological resources, and the fundamental concern of government is the regulation and promotion of the use of these resources to secure the optimum productivity

in the interest of the general welfare. Federal regulation has manifested itself in two major areas; that over transportation and communications facilities and and that over corporate enterprise engaged in the production or distribution of goods. Federal concern in these two areas began at very nearly the same time, for the two facets of the movement achieved their first expression in two parallel Congressional acts: The Interstate Commerce Act of 1887, and the Sherman Antitrust Act of 1890. Each of these inaugural acts started a chain of events which has culminated in two highly developed programs of physical planning. On the one hand an elaborate program for planning the national circulatory system has emerged from the Interstate Commerce Act and the subsequent litigation. The Sherman Antitrust Act, on the other hand, has precipitated a series of controls directed primarily toward the guidance of the "land-use" system, specifically the business plant and capital equipment of the nation. We will hereinafter equate these productive facilities to the nation's technological resources.

#### Federal Powers Applicable to Technological Resource Planning

Despite the fact that the Federal government is one of delegated powers, it is particularly well supplied with authority to plan the technological resource base of the nation. The courts have handed down broad interpretations on several of the following delegated powers. The patent and copyright power,<sup>(2)</sup> the power to establish standards for weights and measures,<sup>(3)</sup> the war power,<sup>(4)</sup> the treaty-making power,<sup>(5)</sup> the commerce power,<sup>(6)</sup> the postal power,<sup>(7)</sup> and the admiralty and maritime power.<sup>(8)</sup> Each of these powers has been employed as the basis

for governmental regulatory or promotional activity in the field of technological resources. The basis for antitrust and interstate commerce legislation has generally been the commerce power. The major part of the discussion in this chapter will be centered upon the controls impinging upon the commercial and industrial physical and corporate structure as national land uses and upon the transportation and communications, physical and corporate structure as the national circulatory system.

### Planning the National Land-Use System

Antitrust Law Background - Many of the same moral forces which precipitated the movements for civic improvement and conservation were the motivation behind the laws controlling monopolies. Many antimonopolist writers of the day, Edward Bellamy, Henry George and Henry Demarest Lloyd, for example, reached a wide audience and inspired popular antagonism toward business combinations. However, the clamor for legislation against "The trusts" was not wholly without legal precedent. For legal protection against restraints on competition was the tradition of the common law as expounded by the courts in various states.

This tradition reached back in English Common Law to the Dyer's Case of 1415, and was fortified through succeeding cases up to the early part of the 18th Century. Many states wrote comprehensive antitrust legislation. By the date of passage of the Sherman Act, seventeen states and territories had enacted antitrust laws. By 1900 thirteen additional states had followed suit. Most of these states were west of the Mississippi, indicating the sectional strength of the

Granger and Populist movements. Since 1900 there have been few additional state antitrust laws. The decline in state interest however, was not due to apathy but rather to the decreasing importance of intrastate business.

The Sherman Act - Maintaining Competition - The need for Federal antitrust legislation had been popularized in 1881 by Henry Demarest Lloyd in his Story of a Great Monopoly. Additional impetus was contributed by the Federal Cullom Committee which investigated the railroad practices in 1885-1886. In 1887, President Cleveland demonstrated the relationship between the tariff and the trust. And by 1888, even the Republican Party wrote an antitrust plank into its platform. With the support of both parties, it was inevitable that antitrust legislation would soon be written. Several bills were introduced in 1888 and 1889 but these were shelved in committee. Finally, on July 2, 1890, the long awaited Sherman Bill became law.

This Act provided that,

"Every contract, combination in the form of trust or otherwise, or conspiracy in restraint of trade or commerce among several states, or with foreign nations, is hereby declared to be illegal".

The Act defined any such combination or conspiracy as a misdemeanor and placed a \$5,000 maximum fine or 1 year maximum prison sentence or both for violation. However, during the first 14 years under this law little action was taken which was coincidental with the popular motivations for the legislation.

In 1904, under Theodore Roosevelt the Department of Justice entered suit against the Northern Securities Company as a violation of the Sherman Act. In this case the Supreme Court overruled its previous



decision in the Knight Case,<sup>(9)</sup> and stopped a process of consolidation which was proposed to bring every important railroad in the country under one control.<sup>(10)</sup> This case was the beginning of a series of similar prosecutions by the Federal government. In 1911, the "rule of reason"<sup>(11)</sup> was established. This rule implied that there were "good trusts" and "bad trusts". A "good trust" is the result of natural growth and does not restrain trade unreasonably. Regardless of the size of such trusts, their actions should not be curtailed by the Sherman Act. The adoption of the rule of reason by the courts was a significant turning point in Federal lawmaking. It was a necessary prerequisite to the popular and governmental acceptance of the large commercial and industrial corporation as an efficient productive unit.

The Federal Trade Commission Act - Regulating Competition - Until the rule of reason was established in 1911, Federal antitrust policy was directed primarily toward the maintenance of competition through interdiction against monopoly and restraints of trade. This policy underwent a gradual change; case histories more and more indicated that the courts were evolving a framework of established rules upon which their decisions were based. It was no longer proper to prosecute merely because of the physical size of the trust. It was realized also about this time that if competitive practices were to be held to any standard, there must be some means by which to enforce such standards. In 1914, these two trends materialized in two new laws; the Federal Trade Commission and the Clayton Acts.

The Clayton Act embodied the principle that:

"...item by item we can put in our statutes what constitutes restraint of trade, not leaving it to the courts for generalizations which may fit<sup>(12)</sup> some cases and not others".

The Clayton Antitrust Act, administered through the Federal Trade Commission, exerts a great influence not only upon the economic patterns and practices of our commercial and industrial corporate structure, but also upon their physical disposition and scale of operations. Those elements of Congressional law which regulate and promote the development and utilization of the business plant and capital equipment of the nation, under the guise of "Antitrust regulation", constitute land-use controls and as such should be considered as an integral part of the physical planning program. It is true that much of the legislation regulating trust activities is inextricably involved with economic controls, this is equally true, however, of those controls which have evolved for the planned use of our natural resources. And no one has yet made a thorough study of the economic implications of the land-use controls existing at the urban level. However, the economic overtones of such laws would loom large if it were not for the vast social benefit derived therefrom.

#### Planning the National Circulatory Systems

Background to Railroad Regulation - We have already discussed some of the forces which precipitated railroad regulation; the agrarian reform movement, the adoption of state regulations on pressure from the Grangers, and the Cullom Committee of 1886. Congressional action in this area, however, was made imperative by the decision in the Wabash case.<sup>(13)</sup> This decision invalidated an Illinois statute regulating the railroads of that state. In part the decision of Justice Miller read as follows:

"When it is attempted to apply to transportation through an entire series of states a principle of this kind, ... the deleterious influence upon the freedom of commerce among the states...cannot be overestimated. That this species of regulation is one which must be ... of a general and national character, and cannot be safely and wisely remitted to local rules and local regulations, we think is clear".

Again the agrarian forces of reform found it necessary to invoke national authority in order to meet the exigencies of economic needs which were beyond the reach of local authority. The passage of the Interstate Commerce Act of 1887 marked the end of an era of industrial expansion just as the closing of the frontier five years earlier had marked the passing of a century of westward expansion. Each of these events punctuated the desideratum of public action and each in its own turn was met by legislation which satisfied for a time the economic requirements.

More than sixty-five years of Federal railroad regulation has carried us far. We have moved in our philosophy of law from a narrow restrictive conception designed only to eliminate the past abuses by negative action, to a broader conception based upon the assumption by government of a constructive policy aimed at the planned control and guidance of railroad development. We have expanded these principles to include all forms of transportation. For the planning of our airways and airports under the Civil Aeronautics Board, our waterways and merchant marine under the Inland Waterways and Maritime Commissions, and our national highway network under the Public Roads Administration, are motivated by the same legal and economic principles as those currently guiding the Interstate Commerce Commission. In addition our communications network is growing under the guidance of the Federal Communications Commission and the Federal Power Commission

regulates the growth of our power distribution systems. These functions are all circulatory ones and as such serve to supply the life's blood to our industrial and commercial enterprises.

#### Railroad Regulations

Antitrust Laws Rigidly Applied - 1887-1906 - During the hearings held prior to the enactment of the Interstate Commerce Act, Congress was advised by some witnesses to take action which would avoid handing down a "transportation mortgage" to the succeeding generation. This advice was rejected by Congress and the principles which brought about this rejection dominated the administration of the act until 1906. Repeated court decisions ruled that the two antitrust laws would be violated by any rate agreements or combinations tending toward railroad consolidation. As a result of this view, the railway network increased in mileage by over 55%, between 1890-1916, <sup>(14)</sup> and was characterized by needless duplication of facilities.

The Broadening of Powers - 1906-1920 - Despite the decision in the Northern Securities case, it was not until 1906 that the beginning of effective regulation of the railroads by the Interstate Commerce Commission was reached. The passage of the Hepburn Act of 1906, although of little importance to the planning of the physical structure of the railroads, marked the beginning of a steady stream of legislation enlarging the powers and the jurisdiction of the Commission in such a way as to enable the pattern of administrative procedures to evolve into a basis for future policy. Extensions were made to the commission's power by the Mann-Elkins Act of 1910, the Panama Canal Act of 1912, and the

Valuation Act of 1913. These acts widened the economic powers of the Commission. During World War I, the Federal government operated the railroads for a twenty-six month period. To meet the demands of the war, all railroad facilities were pooled and treated as a part of a single system. This experience, which was the first time that the railroads of the United States were treated as a unified and integrated national system, was the forerunner of the Transportation Act of 1920.

Toward A Comprehensive Railroad Plan - 1933-Date - The Emergency Railroad Transportation Act of 1933 attempted to correct some of the obvious defects of the 1920 Act. It took a broader view, however, of the importance of consolidation and vested the Commission with power to direct future consolidation moves. Approval by the Commission was required before any plan of reorganization was put into effect and the Commission was empowered to initiate plans on its own volition. Thus the Commission was given broad powers over not only the economic aspects of railroad operation but over the physical development of the national railway network as well.

#### Water Transportation

The Federal government has been active in the construction of river and harbor facilities since as early as 1822. In 1924, the Inland Waterways Corporation was created. The objective of this agency was to demonstrate the practicability of water transportation on inland waterways and construct, maintain, and operate such facilities. It has been the policy in the construction of barge lines to offer competing services to certain rail facilities. However, in the main, inland water

transportation has never been a serious competitor to the railroad and its significance as an element in the transportation complex seems to be declining.

Another aspect of the water transportation picture at the federal level is the governmental concern over the maintenance of an adequate merchant marine. Federal expenditures during the period 1916 to 1927, were over 16.5 billion dollars.<sup>(15)</sup> This expenditure which is the largest for any transportation function, should be considered primarily a war cost, and not a governmental expenditure for internal improvements.

#### Federal Concern with Air Transportation

Since the inauguration of air mail services shortly after World War I, the Federal government has had an interest in the development of airways and airports. Postal subsidies through the last three decades have had a significant impact upon the development of air transportation facilities. The recent increase in Federal concern over the planning of air transportation facilities has emerged as a result of the Federal Airport Act of 1946. Under this act Congress authorized the appropriation of 500 million dollars for airport development. This fund is to be matched with state or local funds with the ratio of the federal share ranging from 75% to 20% depending upon the class of airport and the percentage of public domain within the state. Based upon the provisions of this Act the Civil Aeronautics Administration inaugurated a National Airport Plan which in 1949 included 4,977 airports and associated airway systems.

## Federal Highway Activity

Federal interest in highway transportation on a nation-wide basis began with the passage of the Federal-Aid Road Act of 1916. This Act appropriated 75 million dollars for construction of rural post roads. Subsequent re-enactments made further appropriations and by 1948, a total of 4.5 billion dollars<sup>(16)</sup> had been authorized for road construction. The Federal Aid Highway Act of 1944 introduced a modified emphasis in the federal program. This Act authorized expenditures in three areas: 1) On the Federal-Aid Highway System, 2) On principal secondary and feeder roads in each state, and 3) On Federal Aid Highway System in urban areas. The chief emphasis now in national highway planning is upon the planning, design and construction of a National network.

### Technological Resource Planning Within Executive Departments

In no small measure has the growth of industrialism in America been encouraged by the activities of the executive departments of the Federal government. In terms of the guidance granted in utilizing our nation's industrial land-use resources, three of the executive departments have been outstanding; the Department of Agriculture, the Department of the Interior, and the Department of Defense. The numerous functions of these departments cannot be herein delineated, however, mention of several of the bureaus within each will facilitate the understanding of the comprehensive research and educational programs engaged in by these various departments. In the Department of Agriculture, operating since 1862 and raised to departmental status on February 9,

1889, the following bureaus are illustrative: the weather bureau, the bureaus of animal industry, plant industry, forest service, chemistry, soils, entomology, and the biological survey etc. Within the Department of Interior the geological survey, the Commissioner of patents, the Bureau of Mines, and Commissioner of Education serve the public by encouraging sound practices in the use of technological resources. As regards the Defense Department little need be said to aver the extent of scientific research. The dissemination of this information and its application to peace-time uses is also a significant factor to the general internal welfare of the people. For example, the military expenditures for atomic research are already beginning to bear fruit in the fields of medicine, food preservation, and the production of power.

Chief among the executive departments contributing to the development of the technology of the circulatory system are the Post Office Department and the Department of Commerce; the Defense Department also contributes significantly to this phase of planning'. The provision of postal roads and the adjustment of postal payments to carriers, especially air mail payments, illustrate the impact of the postal service upon the national circulatory network. The activities of the Coast and Geodetic Survey, the Bureau of Standards, the Bureau of Navigation etc., point to the part played by the Commerce Department.

#### Summary

Thus we see that the Federal government is actively engaged in "planning" for the sound development and use of our industrial equipment and business plant. It is engaged in developing new industries, and encouraging those which tend to falter under economic pressure. It



is a highly significant fact, that in the main, these agencies have encouraged the adoption of sound practices without the use of the police power. By engaging in scientific research, basic as well as applied, these agencies of government, in cooperation with private interests, have encouraged the adoption of sensible and efficient operational procedures in the fields of agriculture, industry, and commerce to mention only a few. In many areas the Federal government has worked out an exemplary pattern of activities as the repository for technological skills and has served in the interests of the social and economic welfare in seeing that these skills are properly applied.

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6. United States Constitution, Art. I, Sec. VIII, Cl 3
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## CHAPTER VI

### SUMMARY AND CONCLUSIONS

"It is not difficult to document the fact that the Federal government does not today have institutions appropriate to effective planning for an efficient physical environment. Except for the brief periods of the National Resources Committee and the National Resources Planning Board it has never even undertaken the task of an over-all intelligence function. ...all the work of the federal government for remoulding our physical environment is being carried on, without the guide of integrated national policy, by a multitude of federal departments, bureaus and services and in such a way as to make unified national development and unified regional development impossible".

McDougal and Haber, Property, Wealth and Land<sup>(1)</sup>

#### Introduction

Several broad phases of the physical planning process as it has evolved at three levels of government have demonstrated a surprising similarity of pattern. From common origins, three movements have emerged within the brief span of a decade. Each of these movements has served as the nucleus about which a complex program of public action has been created. The drive for civic improvement was crystallized at the Chicago World's Fair of 1893. The movement toward the conservation of natural resources received its first nation-wide recognition in a Congressional act of 1891. And the trend toward the governmental regulation of business and industry received its earliest expression by Congress in 1887 and 1890. During the three short generations since the inception of these programs, the "planning activities" which they embody have grown to include a significant portion of the regulatory and promotional measures of government as they effect the development and use of the physical facilities of the nation.

Parallel with this development was the emergence of three institutions: urbanization, regionalism and industrialization. These institutions represent the core of the changes which have grown out of the Industrial Revolution, and in this capacity they are economic phenomena. In the foregoing chapters we have analyzed the growth of the planning process through the past eight decades. The character of this entire period has been determined by the Industrial Revolution. Since the essence of the revolutionary changes which have occurred during this era are of an economic nature, an economic fabric was selected as the framework for the analysis of various phases of the physical planning process. Throughout the foregoing analysis it has been implicit that the central core of the physical planning operation is the physical resources base of the nation.

#### The Background

In chapter one we have discussed the phenomena of Urbanism, Regionalism, and Industrialism in terms of the social and economic factors which have helped to create them, and we have delineated certain social and economic consequences which have grown out of conditions generated by each of the phenomena. We have discussed certain governmental and legal factors inherent in a democratic society, and shown that the law in a free society is responsive to social and economic change. We have discussed the response of government to a rapidly changing society and have described the procedures developed in government to meet the demands of a rapidly changing social and economic environment. We have called this set of procedures "the planning process".

## The Powers of Government

In chapter two we have designated a method of analysing the operation of "the planning process" at three levels of government - local, regional, and national. We have stressed the significance of analysis in terms of the legal changes which occur and the administrative procedures which are prescribed by the laws. We have discussed the Constitution as the basis of law in our society. We have shown that the fundamental concern of government is the interest of the general welfare and that certain other duties of government conflict with this interest. We have discussed certain characteristics of the Federal system of government in the United States - dual sovereignty, the separation of powers, the authority. We have described the two fundamental powers of government as they affect property, wealth, and land: the power of eminent domain and the police power. And we have related these powers to the general social and economic welfare of the people. Finally we have discussed the planning process - research, analysis and design - as a procedure which may be applied in four areas: intra-departmental coordination, interdepartmental coordination, interjurisdictional coordination, and coordination among the various levels of government. The implications which are attendant to each of these areas differ greatly. One factor is common to all however, the coordinative nature of the planning function.

## Urban Planning

In chapter three we have presented a brief panorama of the urban physical planning movement; the legal powers, the growing concern

with the problems linked to urbanization and congestion as it affects the circulatory system and the need for open land-uses. We have described the adaptation of the urban planning function as a response to the need for a planned physical environment, the concern for aesthetics, the desire for a practical city and finally the emergence of the idea that the social and economic well-being of urban inhabitants was at once the core and the objective of a planned urban environment.

### Regional Planning

In chapter four we have discussed the regional physical planning function in terms of the natural region and in terms of the regional authority. We have delineated the powers of the Federal government to effectuate a conservation policy and have discussed the like delegation of various state powers. We have presented the growth of natural resource planning and its early antecedents - the public land policy, the conservation movement and the culmination of the process in the establishment and the success of the regional authority, the T.V.A. We have seen that physical planning at the regional level demonstrates a fundamental concern with the development and the use of the natural resources - the land, the water, the vegetation, and the minerals.

### National Planning

In chapter five we have described the evolution of the national physical planning process. We have discussed this process in terms of

the development and the utilization of the technological resources of the nation. We have delineated seven delegated powers which seem to be focused upon the technological aspects of our economy, four particularly concerned with the land-use system and three particularly concerned with the circulatory system. We have discussed the growth of planning action in the realm of the regulation of the commercial and industrial trust. We have shown that much of this regulation, although primarily economic in nature, tends to affect the physical disposition of the business plant and industrial equipment. In discussing the national circulatory system we have seen that in at least four areas, rail, water, air, and highway transportation, a pattern of regulatory and promotional controls has evolved. These controls were aimed initially at the curtailment of monopolistic practices and have grown through a 65 year period to the position where it is now considered necessary for the Federal government to determine to a large extent the size, the physical disposition, and the scale of operations of the various elements of the entire transportation complex. These measures are deemed necessary in the interest of the general social and economic welfare and in the interest of national defense. We have shown also that numerous agencies of the Federal government, during nearly its entire existence have been working to provide a scientific and industrial basis for our nation's economic activity. In short we have demonstrated that a significant proportion of the Federal energy is spent in "planning" certain physical facilities, both public and private, which tend to increase the technological potential of the nation.

## Conclusion

Throughout this report we have stressed the historical factors in the development of planning and we have emphasized the pattern which already exists in the structure of American government. The form of this government was drafted at the very dawn of the industrial age as a world-wide phenomenon. A series of checks and balances were incorporated into our governmental pattern in order to assure the continuance of the democratic process. Outstanding among these checks and balances was the separation of power at the federal level. This functional separation is now applied universally at all three levels of government. At the same time the framework for the functional separation of powers, among the various levels, was established in the principle of dual sovereignty. Under the pressure of industrialism and with the continued accretion of new functions, the areas of functional jurisdiction which are implicit in the federal system have been violated. New functions have frequently been assigned to various governmental jurisdictions with little thought given to their impact upon the entire jurisdictional pattern.

The findings of this study indicate that within the area encompassed by governmental activity in the planning of physical resources there exists a pattern of functional separation. It is believed that the existence of areas of functional jurisdiction in the planning of physical resources at the local, regional, and national levels suggests that there is an over-all unity to the governmental pattern which must be divided. It is maintained herein that this unity of pattern is predominantly economic in character and is the direct



result of a democratic government's response to the economic revolution of industrialism.

We have mentioned earlier the four levels of planning as applied to government. We have indicated the tendency of government to expand its functions and we have related this expansion to the Industrial Revolution. We have cited the system of checks and balances which the drafters of the Constitution employed to assure a democratic government. If we expect to inaugurate planning activities which go beyond the first two levels, intra-departmental and interdepartmental planning, we shall have to devise methods of assuring the continuance of a democratic process. A mere extension of the principle of the separation of powers as a way of achieving the necessary checks and balances, suggests itself. Thus in the field of physical planning if a functional separation actually prevails, as is indicated by this study, then we have a potential basis for establishing an integrated national policy for physical planning, as well as a means of further extending the system of checks and balances to assure a democratic government.

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