

Chapter 2:

REGULATORY DETERMINANTS

THE IMPACT OF THE DEVELOPMENT OF PLANNING AND ZONING:

"The birth of modern town planning did not coincide with the technical and economic movements which created and transformed the industrial town; it emerged later, when these changes began to be felt to their full extent and when they began to conflict, making some kind of corrective intervention inevitable.

Even today town planning technique invariably lags behind the events it is supposedly controlling, and it retains a strictly remedial character."

Modern town planning in its methods and creation of legalistic authority over all forms of urban development, is perhaps the single most influential element in the urban systems matrix. The existence of such a body that has the authority to posit requirements on urban and architectural design has extensive ramifications on urban built form and development. Industrialization provided for the creation of urban service systems that were able to improve the urban environment. Planning law, as it generated from these systems, served to control and implement such urban systems.

Planning law developed out of reactionary concerns with the health and welfare of the industrial city, with respect to filth, sewage, disease and housing shortages. Although many of the early laws enacted were basically political responses to the problems of the times, this type of political behavior supplied the framework necessary for the establishment of Planning Law as we know it today. Planning Law has become a primary and essential determining factor that subjugates all urban development. It has the legal responsibility of enacting and enforcing *Official Plans* and *Zoning* for cities, which of themselves determine land use and buildable densities. The impact of these determinative measures on the urban organism is undeniable. This regulatory body, as an element of the urban systems matrix, has the ability to promote or deny urban development, and modify most other urban systems.

The Generation of Urban Planning Principles:

There were two schools of thought with respect to the initial phases of town planning. On one hand there was a group of theoreticians who felt that planning must start from scratch in the form of new/ideal industrial towns. The other group was more practical, handling each problem or crisis separately, but often without taking into account the interconnectedness of their natures.

The 19th Century: The Origins of the Problems:

In both Europe and America the surge of industry during the 19th century was accomplished by rapid population growth, unfettered individual enterprise, great speculative profits, and remarkable lapses in community responsibility. The rapid rise in population was chiefly due to the fact that the death rate was lagging behind the birth rate.

Industrialization was responsible for many changes in the character of the city, both in the process of the urban machine and the quality of the urban environment. The Industrial period was characterized by a rapid increase in the population, and the larger the size of the population, the greater the possibility was for the division of labour, the greater the division of labour, the greater specialization possible, which led to mass production of items. In this was industrialization led to increased productivity. A vicious circle was initiated and in this was industrialization led to increased mechanization and vice versa. The trend for the population to move from the rural to the urban areas continued into the 20th century with Europe 32% urban in 1920 and 70% urban in 1985, and the United States 6.1% urban in 1800 and 78% urban in 1985. (Urban areas defined as places of 2,500 inhabitants or more). In Canada, 75.7% of the population was recorded as living in urban areas in 1981 (from the 1981 Census).

The physical character of the cities inherited from the pre-industrial period required great modification in order to perform for the new factory system. The combination of the steam engine, the belt and the pulley set centripetal forces in motion that generated high population densities near places of work. The key industries were iron, smelting, metal products, machine building and glass manufacture.

Housing reform and moves towards city planning were the reactions against 19th century industrial slums, speculative constructions, which themselves were characterized by congestion, high density, unsanitary conditions and pollution. Early regulatory laws to counteract these conditions were slow to take effect as the rent paying ability of the slum dwellers did not make it profitable to invest in better housing. Early significant improvements in public health resulted from engineering improvements in water supply and sewerage that were essential to the later growth of urban populations.

Town planning did not appear as such until the early 1900's. Moves that reflect the ideas of town planning are evidenced in *Poor Laws* and actions to improve the sanitary conditions of the 1800's. These were seen as a problem to be controlled, and were perceived as one in the same by the ruling upper classes.

"But the basic pattern of planning problems created by the Industrial Revolution emerged, naturally enough, when people began to be really affected by the sanitary conditions brought about by the disorder and overcrowding of the new suburbs. It was only when these became intolerable, with the cholera epidemics which were widespread after 1830, and when the first measures to eliminate them were studied, that it became apparent that there was not one, but a whole number of basic causes, and that preventative measures would have to be various, yet coordinated. In this way sanitary legislation was the direct forerunner of modern town planning legislation, and it soon diffused the idea of compulsory land acquisition by extending its use from public works to include the whole body of a town."

In England the first attempts to regulate and improve the sanitary conditions came in the Reform Bill of 1832. Along with this the Poor Law Commission was set up and Edwin Chadwick appointed its inspector. The Poor Law Amendment was passed in 1834. In 1838 the Poor Law Commission investigated the causes of an epidemic in Whitechapel, which provided a full account of the sanitary conditions of the working classes. Up until this point in time the

causes of disease were not known, and measures taken to control sanitary diseases were often ineffective as a result. The introduction of scientific thought into the problem helped to bring about measures that were to prove effective.

A Royal Commission was appointed to further investigate the problem and published its findings in a report on 'The State of Large Towns and Populous Districts' in 1845. Proposals for the improvement of hygiene included:

- delegating responsibility for sanitary control to local authorities, under the direct supervision of the Crown*
- preparing surveys and detailing investigations of a district before planning the drainage system*
- coordinating work on sewerage with work on the roads*
- allocating funds to local authorities for road widening and improvement*
- laying down minimum sanitary requirements for all dwellings and making efficient sanitation obligatory*
- giving the authority power to insist on adequate ventilation and compulsory cleansing of foul houses, and to introduce the use of a license for lodging houses*
- setting up a regular panel of medical officers of health*
- granting funds for the opening of public parks in industrial cities which had none.*

Action in England continued to be piecemeal during the later half of the 19th century. Boards were set up between 1848 and 1858 to regulate and inspect various concerns of public health, including the General Board of Health. In 1851 the first law on subsidized housing was passed, and modified in 1868 and again in 1875. The new Sanitary Law was passed in 1875. The laws concerning subsidized housing and health were amalgamated in the Housing of the Working Classes Act of 1890. Urban problems continued to be viewed as specific causes and effects of the lower classes.

France felt a lag in the trend towards displacement to the urban centres, but from 1840 onwards, the problems were as severe as they were in England. The two opposing parties, the Catholics and the Socialists worked separately towards the same ends. As in England, the sanitary problems were perceived to be the genesis of the problem, and in 1842 the Society of St. Vincent de Paul set out to study the sanitary problems of Lille. The Socialist view was that economic provision would solve the ills of housing and other related problems.

In reaction to a cholera epidemic in 1849, a law was passed in 1851 which simply laid down regulations for lodging houses, but which did not provide for any central body to enforce the regulations.

It was easier for Haussman to realize the radical transformation of Paris given the existence of a law of 1841 that provided for compulsory land acquisition, which became an even more powerful governmental tool under the amendment of 1852 that gave power to acquire land with recourse to the courts.

The 1848 Revolution in France was the turning point in French town planning. The Revolution brought about a new wave of reform measures that were caught up in humanitarian motives that were partially attributed to the Socialists. During the 20 years following the Revolution the first of the large-scale corrective measures in urban planning were to take place, in Paris by Haussman (1853-69) in Brussels by Anspach (1867-71), in Vienna with the construction of the Ringstrasse (1857), and in London with the designing of the main drainage system and construction of the Underground Railway (1848-65). The reason for the success of many of these undertakings was that they were executed by a new type of worker -- the civil

servant -- planners and workers who were scientific, competent and satisfied with their work and level of responsibility.

Haussman was responsible for creating the role of the town planner as a specialist as well as bringing all public works under one control, under the authority of the government, thereby ensuring sufficient funds for the execution of the works as well as their maintenance.

Although the urban structure of the city had been improved and in most large centres, sewer systems had been installed to remove the waste from the streets, the problem of the quality of workers' housing still remained. While the government was providing adequate subsidized housing for workers, private contractors continued to construct substandard housing in spite of the reform laws and acts that were passed to prevent the construction of inadequate housing. The authorities having jurisdiction were simply not powerful enough to control the situation.

The ideas of the Utopians reappeared at this point in time, and resulted in the construction of several 'ideal' industrial towns. These ideas are reminiscent of the imaginary ideal town of Chaix, whose focus revolved around the industry of the saltworks, as designed by C. N. Ledoux during the late 1700's.

"The transformations that took place in the big cities from 1850 onwards -- in Paris, Lyons, Brussels, Vienna, Barcelona, Florence -- must be assessed in this political and ideological context.

The idea of a single comprehensive plan for a town implies the existence of an ideal model, distinct from and contrasting with reality; and during this period the ideal of the city as a geometrical abstraction -- as regular and uniform as the existing masses were shapeless and disorganized -- came into its own once more."

In 1849 John S. Buckingham published his 'Utopia' and proposed that his town plan be adopted and repeated as a means of solving most of the urban problems, while at the same time decreasing unemployment. It was the belief of the Utopians that urban planning was capable of solving all social ills.

"The fundamental change to be noted was that the geometrical and technical aspects of town planning were now accepted, while political and economic considerations had been discarded. It was in this attenuated form that the contribution of the socialist theorists was adopted by the new conservatism of the eighteen-fifties."

This desire for order and organization of systems inspired the first British regulations and by-laws.

The 20th Century: A Problem of Dispersal:

During the 19th century urban problems were essentially a result of population concentration in the city. The problems of planning during the 20th century were essentially a result of the reversal of this trend. Improvements in transportation and communication during the 20th century resulted in population dispersal initially, and secondly, economic and industrial dispersal. The new urban unit was characteristically different from the historical urban unit, especially if viewed aurally.

This decentralization of service, specifically industrial, gained the advantages of more and better space for mass production, parking and truck areas -- adjacency to highways and rail lines for distribution of products providing superior services as an alternate to adjacency to

waterways (a characteristic of 19th century city locations). The ideas central to industrialized efficiency had completely permeated the functioning of the urban organism.

Urban problems also resulted from the physical decay of cities. In most cases, the urban physical plant -- residential, industrial, commercial and governmental -- was constructed hurriedly in response to rapid urbanization. Land-use patterns and infrastructure development were largely the product of market forces, which produced a remarkable physical plant but which also permitted rapid obsolescence and decay as evidenced by large proportions of substandard housing and slums. Additionally, decentralization resulted in the abandonment of much of the industrial area in urban centres, contributing to the erosion of the urban fabric.

In affluent countries the automobile is now threatening urban centres with congestion, and new attention is being focused on problems of circulation within the city. New transportation systems and particularly the urban expressway and the subway have helped to alleviate some of this problem, but have resulted in unique problems of their own.

The 20th Century: Organization of the Solutions:

Planning cities and regions found its rationale in the belief that a controllable future offers more promise than an uncontrolled one, and that a planned environment provides better opportunities for all people to enjoy life in their community setting.

During the early part of the 1900's planning became a governmental concern, and was formalized as a department or agency of the government. In 1907 the first official planning agency was established. It was located in the United States, in Hartford, Connecticut. In 1909 there was the passage of Britain's first town planning act as well as the first national conference on city planning which was held in the United States, the publication of Daniel Burnham's plan for Chicago, and the appointment of Chicago's Plan Commission.

The early emphasis of city planning was on preparation of a single and authoritative plan, noting only later that the future was not entirely predictable and that the plan must be flexible. It was realized that this government influence in planning on private industry must be negative in spite of the amount of city growth the result of financial input by private enterprise, as much of the need for planning was to control rapid capitalist expansion that was not mindful of social and community concerns. Planning departments strived to encourage private industry to work with them, realizing that the support and funding of private industry was crucial to the success of the operation.

Zoning was established during the early part of the 20th century to achieve segregation of use and control of the density of development, again as a reform measure of the 19th century tendency to mix with noxious factories with residential areas that were themselves comprised of tenements mixed with small houses and overshadowed by tall buildings. Zoning responded to the need to sort out incompatible activities, limit height and density of building and protect established areas from despoilment.

Planning has gone through a great deal of evolution during the 20th century. Two types of planning are now recognized, namely, *Urban and Regional Planning*, and, *City Planning*. Inherent in the evolved concept of planning was the recognition that an ideal cannot be a fixed objective but will itself change, that the ideal city can be strived toward but never achieved. This turned the focus of planning away from the "*master plan*" and toward a stress upon the process and the directions of change.

Urban planning currently recognizes six prime objectives in the design of the ordinances that will shape the city:

- 1) *the orderly arrangements of parts of the city -- residential, business, industrial -- so that each part could perform its functions with minimum conflict and cost;.*
- 2) *an efficient system of circulation within the city and to the outside world, using the maximum advantage all modes of transportation;*
- 3) *the development of each part of the city to optimum standards, in terms of lot size, sunlight, and green space in residential areas, and parking and building spacing in business areas;*
- 4) *the provision of safe, sanitary, and comfortable housing in a variety of dwelling types to meet the needs of all families;*
- 5) *the provision of schools, recreation and other community activities of adequate size, location and quality;*
- 6) *the provision of adequate and economical water supply, sewerage, utilities, and public services.*

Inherent with new concepts of urban planning was the recognition that the city had changed and that the 20th century had evolved new types of urban machines. The term "*metropolitan area*" was used to describe the central area with its outer ring. "*Urbanized area*" came to be the designation for solidly built up areas with population densities requiring residence in city block patterns. "*Consolidated areas*" is an American term used to describe contiguous metropolitan areas. "*Megalopolis*" is used to describe a number of coalescing metropolitan areas.

The Origins of Planning in Canada:

Canadian efforts towards planning came as a result of Conservation movements. The connection between conservation and urban and regional planning began with the Commission of Conservation in the years before World War I. Canadian enthusiasm was drawn from international sources -- the British town planning movement, gaining advancement after a slow start with the 'health towns crisis' of the 1830's; from the progressive reform movement in the U.S., with its attacks on political corruption and public mismanagement of all kinds; from the housing reform movements in both countries, and from the City Beautiful Movement.

Early planning control took place in the form of Urban Reform measures. In 1896 there was the introduction of the Toronto Board of Control to police urban social problems. Public health concerns before this early reform period had taken the form of ad hoc reactions to sporadic epidemics. The advance of germ theory of disease in the 1880's made control related to filth, sewage and urban congestion more scientific and rational.

Urban reform continued during the early part of the 20th century. Acts and City By-laws passed between 1900 and 1920 worked to eliminate outdoor toilets, overcrowded dwellings, adulterated food, and contaminated water supplies. Housing was generally a reform concern between 1900 and 1920 due to the population explosion -- thoughts of philanthropic housing were shelved though due to the depression of 1913, and the First World War. Dr. Charles Hodgetts was an advisor to the Commission from 1909 to 1915, and it was he who brought awareness of the British Planning Statute of 1909. He organized an international city planning conference in Toronto in 1914 and secured the appointment of Thomas Adams, one of Britain's most eminent town planners, as the commissions town planning advisor. Adams represented the 'city-efficient' or 'city functional' school of planning which strove to design different parts of the city to suit their different functions, and be provided with appropriate amenities or facilities. He felt that land should always be allocated to its 'best use' and never wasted. In 1919 he founded the Town Planning Institute of Canada to give Canadian planners their own organization.

Adams spent much time encouraging provincial governments to adopt his 'model planning legislation'. Good planning law was important to Adams because it established the framework within which individual communities can act on matters affecting their physical environments. In 1914 only Nova Scotia, New Brunswick and Alberta had planning statutes. It was problematic that these Acts did not make it mandatory for municipalities to prepare plans, therefore making it difficult to propose and enforce planning law.

The new American technique of Zoning was first adopted by Kitchener in 1924, but it was first necessary to persuade the Government of Ontario to pass an amendment to the Municipal Act to make Zoning binding.

The Great Depression brought an end to most planning activity in Canada. The Town Planning Institute was disbanded in 1932 and was not revived until about 1952.

The year 1944 brought about a resurgence of social concern, which resulted in several reform laws being passed. Recognition of the ills of uncontrolled urbanization was noted in "Housing and Community Planning" by Curtis and Marsh, 1944, which described the slum conditions in Canadian cities and extensive occurrence of wasteful, uncoordinated and unsightly urban developments. In 1944 the government made widespread changes to the National Housing Act, to promote the construction of new houses and the repair and modernization of existing houses and the general improvements of community environments. In 1945 the Canadian Mortgage and Housing Commission (CMHC) was founded to aid in the implementation and improvement of the National Housing Act and was the first national planning agency with strong regulatory and financial power. CMHC was responsible for the massive slum clearance and redevelopment schemes of the 1950's and 1960's and for major neighbourhood rehabilitation projects of the 1970's.

The limited metropolitan government established in Toronto during the 1950's was one of the first effective examples where planning was considered an integral function of the metropolitan government -- it having been realized generally that planning needed to be considered on a metropolitan and even national level to prove effective.

Reform moves resurged during the 1970's and their prime motives were to stop the building of expressways and high-density residential projects in medium to low density neighbourhoods.

Planning Law:

Planning Law currently is in the form of a Planning Act. The essential purposes of all provincial and territorial planning Acts are to secure the orderly, coherent growth and development of Municipalities based on sound forethought and considerations of public interest; to bring about, and conserve, physical environments, including buildings and other works, which are satisfying to human needs and community concerns; to regulate how private and public participation in planning decisions. Provincial planning Acts spell out what municipalities or regional authorities must and may do.

Generally speaking, an Act provides for five basic measures. First, the municipality is to prepare a '*general or official plan*' to set down the policies that will govern where and when developments can take place. It usually includes statements on the community's social, economic and quality of life goals, and the fiscal management of the public works (i.e.. sewers, roads) that will be required. A second set of plans may be prepared for areas requiring a more detailed description. The remaining three measures are legal and administrative instruments for implementing a general plan: a 'land use' or 'zoning' by-law, subdivision controls, and a building permit process. Subdivision control governs the process of converting raw land into building

plots or adequate size and shape. Zoning establishes the detailed range and limitations of use to which a plot can be put.

Zoning:

Zoning is the legislative method of controlling land use by regulating such considerations as the type of buildings that may be erected, function of such buildings, building height, setbacks and the population density. Applied primarily to urban areas, it is accomplished by dividing land area into zoning districts, each having specific conditions under which land and buildings may be legally developed and used. In combination with other city planning techniques, zoning is a major instrument for gaining greater physical order in cities.

The earliest form of zoning was inspired by architectural and urban design controls introduced in European cities toward the end of the 19th century. German and Swedish cities applied zoning regulations about 1875 to new land being urbanized around the older city cores as a way of controlling the heights and concentrations of buildings and avoiding problems of congestion. Much of the consistent fabric of European cities can be attributed to the strict regulations enforced during the periods of rapid urban development during the Industrial Revolution.

Zoning became an established part and means of planning during the early part of the 20th century to achieve segregation of use and control of the density of development, again as a reform measure of the 19th century tendency to mix noxious factories with residential areas that were themselves comprised of tenements mixed in with small houses and overshadowed by tall buildings. Zoning responded to the need to sort out incompatible activities, limit height and density of buildings and protect established areas from despoilment.

In 1916 New York City adopted the first comprehensive zoning ordinance. These first ordinances were primarily simple regulations to protect existing property in respect to light and air. The 1920's saw a great deal of land speculation, which gave impetus to the development of subdivision controls during the 1930's which generally specified that new streets conform to the overall city plan, and that new lots be properly laid out for building sites. During the 1930's zoning was developed more as a tool to provide a legal backing to planning policies for land use. Some of the subdivision controls required that the developer provide all the land needed for streets, playgrounds and school sites, and to pay all or most of the cost of development of the facilities.

Zoning in the United States has been more concerned with social and economic functions for which land is used rather than with architectural and site planning criteria. The earliest U.S. zoning regulations dating from the turn of the century were motivated by the need for regulating the location of commercial and industrial activities.

Currently the Zoning By-law forms part of a set of legal planning controls. The Zoning By-law and any amending by-laws must conform to the Official Plan as designed by the City, which is legally governed by the Provincial Planning Act. The Zoning By-law is an extensive and very specific set of rules governing land use, building density, building height, landscaped areas, and parking and loading requirements.

The actual implications of Zoning with respect to the subsequent built form of the urban environment is immense. Zoning considerations are perhaps the strongest vehicle for the implementation of planning policies. All of the build environment is subject to zoning, and in this regard, zoning represents an urban system able to most completely control development.

The Committee of Adjustment:

If an architect is unable to design a project completely within and following all of the requirements of the Zoning By-law which presides over a particular site, and if the variations from the requirements are considered to be *minor*, application may be made to a municipal panel called the Committee of Adjustment, which, after deliberation and hearing any opposition to the proposed development from owners of properties in the vicinity, will rule regarding the variance. Often such minor variances are permitted. When such are disallowed, an appeal may be made to the Ontario Municipal Board (in our case) where additional information may be presented as well as oppositional views. If this Board rules against the development, only an Act of Parliament will allow for the construction of the development.

The Building Code:

Once a proposed development is deemed to be in agreement with the Official Plan, and Zoning Regulations of a municipality, it must then be examined for compliance with a Building Code. In Canada all Building Codes are based on minimum agreement with the National Building Code, although each province may have requirements which are more strict. In Ontario, the Ontario Building Code is the governing document. It is the responsibility of the Municipality to enforce this code. Construction of a building may not be commenced until a Building Permit is issued. This Permit will not be issued until the construction documents indicate that the proposed building has been designed in conformance with the Code. Unlike Zoning, variations from the Building Code are not permitted.

The Building Code is concerned with building safety; fire safety, structural safety, soundness of construction, durability and life safety. It proposes a set of *minimum* standards for design and construction.

Conclusion:

It is evident that the generation of town planning through concern regarding the state of the industrial city resulted in the creation of a systemized means of control over the development of the urban environment. Through the creation of legislative bodies, Planning Law, Official City Plans, and Zoning By-laws, an urban system was implemented with which all architectural development must content. This urban system has ultimate impact on the design and structuring of all urban centres.