21 Vegetation Types, Functions, and Constraints in Metropolitan Environments

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I. INTRODUCTION

Urban landscapes by definition are dominated by the works of man. Natural objects, such as the plants which collectively make up urban vegetation, survive in cities because people want, or tolerate, or ignore, them. City plants are affected by people's ideas, customs, and activities, as well as by natural environmental factors such as climate and soil. Thus both human behavior and environmental constraints must be considered when the planning of metropolitan vegetation is discussed.

The vegetation of every metropolitan area differs sharply in quantity, pattern, and species composition from that which would exist locally in the absence of human activity. In contrast to farm or forest areas, vegetation does not receive first priority as an urban land use. Townspeople bulldoze forests, replant trees, mow lawns, cultivate flowers. Hence the vegetation of each human settlement comes to reflect the felt needs, cultural practices, and landscape traditions of its occupants. Vegetation is affected also by the inadvertent consequences of urban-industrial activity, such as air pollution. People can rearrange environmental factors to encourage or to exclude vegetation, but the economic cost of departing drastically from natural conditions seldom is defrayed for long by any social group. More common, and more enduring, are efforts to shape vegetation to human purposes within the constraints offered by local combinations of rock, climate, topography, soil, and water supply.

The vegetation of one city resembles or differs from that of the next, in part because of common or contrasting environmental constraints, and in part because of shared or antithetical human ideas and ideals. The same is true of the vegetational patterns within a single city. In few cities has the counterpoint of variation among environmental patterns and cultural patterns been studied as it creates the distinctive urban landscape. Yet city dwellers cannot escape noticing such patterns casually, even subliminally, in the course of their everyday lives. Because a potentially vast flora is influenced by so many disparate environmental and cultural forces acting at different rates and intensities in the urban places of the earth, urban vegeta-