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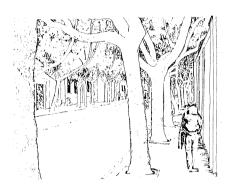
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### China's Street Trees

# John W. Hill and Catherine Mahan



One of the characteristic features of the landscape in contemporary China is the tree-lined road. Beginning with the trip from Beijing's airport to the city, the traveler constantly moves through pathways edged by closely spaced trees. It is a vivid image, contributing powerfully to the look of China's environment. Sometimes the allée is bordered with single rows of columnar evergreens or deciduous trees: sometimes, especially where wind erosion and airborne dust are problems, there are three or four rows. What is special about China's street trees is the closeness of their spacing and their constant presence along the roads throughout so much of the country. Not every road is treelined, but in the aggregate, the scale of this landscape enterprise is staggering. In the Beijing municipality alone, there are now more than 64,000 km of closely spaced street trees.1

On an exchange professorship to China a few years ago, we began wondering about the origins of this convention. In our consulting work, the subject of appropriate streettree spacing is often hotly debated. Baltimore, our home, has had a street-tree planting program for two decades, paralleling its urban revitalization efforts. Two opposing points of view frequently surface with regard to local street-tree spacing, especially in city Design Advisory Panel reviews of specific urban design proposals. One side argues the close spacing of trees as architectonic elements, the other, a wider spacing permitting individual trees to develop their full canopies.

This argument has been going on in professional circles for years. The prevalent opinion usually favors wide spacing and has its origins in the eighteenth-century work of Kent, Brown, and Repton. Their work was rooted in a "stewardship" concept of nature, drawing for inspiration on images of mythic natural landscapes. Groves were planted as birds and the winds might have planted them, and when individual trees were considered, they were usually displayed as landscape ornaments. In the eighteenth century, of course, this approach was applied with great artifice, in the service of picturesque composition. The resulting designs became fashionable, leading to a considerable relandscaping of England's country estates. The ultimate result was the "look" now associated with the English countryside. The theoretical point of view embodied in this English landscape tradition gained additional status in America in the nineteenth-century work of Frederick Law Olmsted.

In the American version of the English tradition, ornamental street trees are seen to possess a development potential that should be respected. Given this "horticultural" perspective, street trees are conceptualized as a series of individual specimens, not a single design composition created by their mass; their spacing should be sufficient to permit the full flowering of their canopies. If trees are regarded as design elements of an entire streetscape, however, tighter spacing is necessary to achieve visual closure.

Sketches based on the authors' photographs are by Shelly Rentsch.

Donald Wyman, horticulturist at the Arnold Arboretum in Boston from 1936 to 1969, was a major proponent of wide spacing for street trees. In Trees for American Gardens, an influential and widely used textbook, he argued that "street trees should not be planted opposite each other but should alternate, allowing for a greater development of the tops. Spacing should be at least 75 feet. . . . it is far better to plant fewer trees and take care of them properly, allowing them plenty of room for development, than to crowd them close together in order to make a 'show'. . . ." In the open countryside, Wyman recommended considerably greater intervals: "(highway trees) should be planted irregularly 75 to 300 feet apart. . . ."2

In practice, these points of view have produced streetscapes in America very different from those in China. In the twentieth century, our street trees have tended to be widely spaced, depending on their canopies rather than their trunks for visual effect. Given the observed differences between the two patterns of practice, and the power of either point of view to structure an entire landscape "look" and image, it is interesting to speculate on the ability of such design attitudes to survive and, over long periods of time, to form the environmental traditions that distinguish one part of the world from another. The Chinese landscape, framed by its tree-lined roads and streets, presents an inescapable lesson in the power of such traditions to affect the look of a whole country. Where

did China's street-lined planting convention get started?

We stumbled across a partial answer to this question after our return from China in 1982 in the course of reading The Travels of Marco Polo. In his memoirs of his travels between A.D. 1268 and 1295, Marco Polo devoted considerable attention to descriptions of the Great Khan's enlightened administration and practices. Having served as a kind of personal envoy of Kublai Khan for some seventeen years, Marco Polo had extensive opportunities to travel within the khan's empire, around what comprises modernday China. In The Travels, the following appears:

Of the trees which he causes to be planted at the sides of the roads, and of the order in which they are kept.

There is another regulation adopted by the grand khan, equally ornamental and useful. At both sides of the public roads he causes trees to be planted, of a kind that become large and tall, and being only two paces asunder, they serve (besides the advantage of their shade in summer) to point out the road (when the ground is covered with snow); which is of great assistance and affords much comfort to travellers. This is done along all the high roads, where the nature of the soil admits of plantation; but when the way lies through sandy deserts or over rocky mountains, where it is impossible to have trees, he



- I Residential street in Suzhou
- 2 Road to the Ming Tombs, Beijing



orders stones to be placed and columns to be erected, as marks for guidance. He also appoints officers of rank, whose duty it is to see that all these are properly arranged and the roads constantly kept in good order. Besides the motives that have been assigned for these plantations, it may be added that the grand khan is the more disposed to make them, from the circumstance of his diviners and astrologers having declared that those who plant trees are rewarded with long life.<sup>3</sup>

Whatever the provenance of his notion, the Grand Khan established by dictum not only the street-tree planting policy but the rules regarding its application throughout his empire in the late thirteenth century. It is unclear how the tumultuous events of the succeeding centuries threatened the paradigm or whether there was any substantial continuity in the program he initiated, but the khan's original principles have survived and continue to inform China's extensive tree-planting program, now directed to both environmental and ecological concerns. Though China varies greatly in its visual environmental character, the thematic character of modern-day Chinese roads is one source of a common "look" for the whole country, contributing an element of visual coherence to this disparate nation of a billion people. Kublai Khan established both the innovation and the conventions of street-tree planting in China over seven hundred years ago. His innovation evolved into a tradition

that has affected the environmental character of a large part of the modern world, suggesting the power of design attitudes to shape a national environment.

#### NOTES

- 1 Figure from the Beijing Landscape Architectural Bureau.
- 2 Donald Wyman, *Trees for American Gardens* (New York: Macmillan, 1974).
- 3 Marco Polo, *The Travels* (New York: Orion Press). This is a translation of a fourteenth-century manuscript in the collection of the Bibliothèque Nationale, Paris.

3 Covered walk, The Summer Palace, Beijing