

THE COMMERCIAL ARBORIST IN CENTRAL PARK

by Geraldine Weinstein

In January of 1980, the Central Park Conservancy, a not-for-profit corporation was formed to rebuild Central Park. The Conservancy's goal is to create the level of interest and funding needed to halt the landscape deterioration wrought by repeated cuts in Parks Department manpower and resources. Working with the Parks Department, the Central Park Conservancy is systematically restoring an urban park which is both an historic work of urban landscape design and a green sanctuary enjoyed by 15,000,000 people each year.

In undertaking the restoration of Central Park, the Conservancy is making tree care one of its major concerns. As Central Park horticulturist, I am the responsible urban tree manager. As plans for tree care are actually carried out, I realize that a partnership can exist between the urban tree manager and the commercial arborist and that this partnership is essential to the management and restoration process. The basis for this partnership, the guidelines that govern its mutually beneficial existence and the environment in which it can work are the subject of this discussion.

However, the trees in Central Park first deserve mention. The first tree was planted on October 17, 1859. Since that time, the Park's trees have been its dominant landscape feature. Throughout the 843 acres of Central Park, the trees outline the Park's design, reflect its scale and enable the park user to temporarily blot out the concrete forms of the urban environment. The Park's trees are a varied population and include in their number nearly 2000 elms, impressive stands of turkey oaks and European beeches, and several large and healthy specimens planted over a century ago.

The powerful impression made by the Park's urban forest is apparent to all who visit Central Park. Unfortunately, it is equally apparent that an overextended and greatly diminished trained work force has lost the capability to effectively manage and preserve these trees. Years of neglect are mirrored in the visible decline of many of the Parks older trees. In many sections of the Park, trees

40-80' tall, planted 50-75 years ago have never been pruned — understandable and defensible in the untrampled woodland, but a cause for concern in an extensively used urban park. In terms of public perception, Central Park is New York City's most needed and beloved piece of real estate. The impression left by dead limbs, broken branches and jagged scars communicates indifference and neglect towards the Park's future rather than management and concern.

Moreover, the large amount of dead wood, prominent throughout the Park and often at eye level, distracts visually from the Park itself and the work of landscape design it represents. The landscape experiences and feelings they provoke identify Central Park and are dependent on the level of care afforded its trees, shrubs, and groundcover.

With the above thoughts in mind, my goals as an urban tree manager become evident: 1) to initiate tree care operations that will communicate a new direction and level of urban tree management, 2) to implement a tree survey and classification system in order to establish the identity of each tree, its condition, and the maintenance practices it requires, 3) to use the information secured from the condition survey to establish an organized and preventative maintenance program, and 4) to establish a replanting program aimed at species diversity, landscape needs, and maintenance capacity.

In January and February of 1982, the first goal was achieved. Through private funds raised by the Conservancy, 800 trees were pruned by commercial arborists and the tree preservation process was begun. During that winter as the turn around in tree care occurred, the partnership between myself as the urban tree manager and the commercial arborist began.

While a concern for tree preservation can bring the urban tree manager and the commercial arborist together, the basis for the partnership is without doubt — need. If the Central Park Conservancy was going to make an appreciable difference in the level of tree care, if the direction of

on-going deterioration was going to be clearly reversed, then a significantly large number of trees previously uncared for would have to be pruned. Moreover, the pruning operations would have to take place at various sites throughout the Park, so that no matter which part of Central Park a community group or individual park user identified with, they would see care and improvement taking place. The extent and scale of the pruning operations made the use of in-house park department forces impossible. Although technically responsible for all street trees and park trees throughout the borough of Manhattan, the approximately 15 climbers and pruners assigned to Manhattan can in reality only handle immediate hazards and emergencies.

As urban tree manager of Central Park, I needed the commercial arborist, in fact, several working simultaneously in the Park, to help me convey to those who love and use the Park a sense of the commitment we are making to urban tree preservation and the kind of care we intend to provide.

While I needed a commercial arborist to get the required work done, I knew that he/she needed to get the work, especially in winter. For this reason, contracts for both tree removal and pruning were issued in early fall with work actually starting in late autumn and continuing through the winter. Scheduling tree care operations in late autumn and early winter provides the commercial arborist with a source of income more dependable than ice and wind storms. Lay-offs of trained personnel are avoided and equipment acquires year-round use. Meeting this seasonal need of the contractor benefits the Park as well, in terms of lower costs, easier scheduling and greater sensitivity on the part of the arborist towards the Central Park environment.

With the mutual need established, I next sought to create a favorable working environment so that the level of care and cooperation I wanted from the contractor would be more readily forthcoming. In showing concern for the working conditions in Central Park, as they affect the commercial arborist, I am recognizing the needs and operating requirements of another professional. The benefits and value of scheduling tree work in the winter surfaced again. The frozen ground made heavy vehicular use on lawn areas possible.

Moreover, while many park users ignored barriers and signs to stare mesmerized at the men working in the trees, there were nonetheless far fewer park visitors than in other seasons, enabling the tree contractor and his men to work relatively undisturbed by curious New Yorkers.

Consideration was also given to brush removal. The specifications indicated that it could not be left in the Park at the end of each working day, but the brush could be chipped and then left at designated areas or at the Central Park composting site. Either way, the contractor could start each working day with an already emptied truck.

Providing a designated and secure overnight parking area within the Park enabled the contractor to avoid the expense and time involved in bringing bucket trucks and/or chippers into the City on a daily basis. Although moving through the Park in winter is not a problem, once in the Park, the contractor did not have to spend virtually any time transporting men and equipment since the trees marked for pruning and removal in each contract were concentrated in one space.

While mutual needs and a favorable working environment are essential in forming the partnership, the third underlying requirement holding the partnership together is the level of communication existing between the urban tree manager and the commercial arborist. I found that this communication happens in writing by means of clearly-written specifications and on-site through the presence of the urban tree manager and/or a staff member.

The Central Park Conservancy's specifications for tree pruning and/or removal are the guidelines and ground rules for the commercial arborist working in Central Park. As in many municipal specifications, the general items in the specifications deal with the contractor's responsibility for pedestrian and vehicular traffic and safety at the work site. The Park is there inviting people to enter and use it; therefore, the safety of park users is always of paramount concern. The specifications then deal with the level of workmanship, e.g., cuts are not to be made through the branch collar; stubbing back of branches is not permitted. The class of pruning — I, II, or III — is indicated and defined, the definition is based on standards established by the National Arborist Association. An understanding of the kind and

size of wood subject for removal is the one way a contractor can determine the time and manpower needed to get the job done.

Safety and workmanship are the essential elements of the specifications; however, other items are included which I have found have a great deal to do with the daily working relationship between myself and the commercial arborist. They include the following requirements:

1. A qualified foreman is to be on-site at all times.
2. The contractor must supply the number of men and the kind of equipment needed to get the job done *quickly and efficiently*.
3. The municipal tree manager is to receive three days notice before work begins. Likewise, he/she is to be notified 24 hours in advance if the contractor and/or his men will not be working in the Park.

With the specifications explained and in hand, each commercial arborist is shown examples of trees of different species that we feel are well pruned. These trees are of similar size, species and condition as the trees included in the pruning contract.

However, lapses in communication can still occur in the field once work is beginning. Written specifications are essential, but in a landscaped urban park, they are not enough. While they can discuss the level of workmanship in a tree, they cannot explain the use or aesthetics of the space the tree is in. In actuality, they are not site specific. They do not tell the contractor whether, from the point of view of design and/or public use, the dominant feeling of space should be one of openness or one of shade and dense woods. Moreover, of even more importance, the specifications do not discuss construction or topographical changes that may have occurred at the pruning site in the recent past, nor if the arboricultural practices that are consequently needed, actually will take place.

Written specifications cannot be tree specific, which is significant in view of the role trees play in Central Park. Unlike a row of street trees, which blend together to create the impression of one continuous canopy, trees in the Park call attention to themselves as individuals. They are landscape features with distinct identity and character. Wide

spreading branches sweeping the ground or an unusual growth habit may be the very characteristic that bring a park tree the admiration and attention normally given a straight trunk and symmetrically-branched street tree.

In the back of our minds are these and other considerations that have everything to do with the nature of Central Park. Moreover, even though the contractor is working under my direction and with my specifications, as another professional, he/she has his/her own standards and guidelines. To ensure that the work will be done as we want, and to maintain a professional level of communication with the arborist, my assistant for tree care operations assumes responsibility for monitoring the contractor's work through on-site supervision. Trained as an arborist and climber, he is involved in both scheduling and structuring the winter tree care operations. As each contractor begins work in the Park, he is on-site throughout the day to answer the contractor's questions and to make suggestions regarding provisions for pedestrian safety and the actual pruning being done. He will be there as each of the first 6-10 trees are pruned. Points of agreement and disagreement as to wood removed or left are discussed. The arborist should be willing to spend time at this point in discussion, or to have a climber go back up a tree, if necessary, because misunderstandings that will occur can be dealt with right at the beginning. Unexpected issues or requests should not arise as the work is going on or, worse, as it nears completion. Sources of conflict and ill-feeling should fizzle out as each side allots time for exploration and for listening.

After an initial period of close supervision, daily check-ups are all that is needed, as each arborist knows what is expected and will work his men accordingly.

During the spring and summer, a tree survey and classification system of all the trees in Central Park was completed. Data pertaining to identity, location, tree condition and condition of the growing environment are computerized and management programs are written. In scheduling tree care operations for the fall and winter of 1982, information from the survey will lead us to areas and problems needing immediate attention. I see the tree inventory as the key management tool for the

urban tree manager, and the commercial arborist as the key person needed to implement the tree preservation plan.

In Central Park, the partnership between the urban tree manager and the commercial arborist who is sensitive to landscape and park use as well as to trees is recognizable and a vital part of the

restoration process.

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SUMMER BRANCH DROP¹

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Abstract. Apparently sound limbs occasionally break out of mature trees during calm summer weather. Species of at least 19 genera are susceptible. This is particularly puzzling since normally limbs would be lighter in weight during times of high transpiration. High xylem pressure and/or weakening of the cell wall bonding in the xylem accompanied by increased limb weight may be responsible.

Seemingly healthy limbs up to a meter in diameter occasionally break out of mature trees during or following hot calm summer afternoons (Australia, South Africa, and the United States) (Harris 1972) or during calm weather following a heavy summer rain which terminates a period of increasing soil dryness (England) (Rushforth 1979). In California this type of limb failure occurs on both native and planted trees as well as in ir-

rigated and unirrigated landscapes. People have been seriously injured and property damaged by falling branches. The failure of the top forty feet of a mature *Eucalyptus globus* in Los Angeles in 1977 seriously crippled a child and resulted in a recent out-of-court settlement of \$1,625,000.

Trees Affected

Limb failure has been reported on species of 19 genera, Table 1. Kellogg (1882) first reported the phenomenon on *Quercus lobata* in the coastal mountain ranges of central California. Young and vigorous maturing trees of susceptible species seem to be less prone to branch failure while over-mature and senescent trees may shed branches repeatedly (Rushforth 1979).

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