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TREE CONSULTANCY

The Methodology employed to assess the condition of three trees within the grounds of the Palace of Versailles

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TREE ASSESSMENT BY THE BRITISH TEAM
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Introduction

The main requirement of this study was to carry out a detailed safety inspection of three pre-selected trees, an Austrian pine (*Pinus nigra* subsp. *nigra),* a pedunculate oak *(Quercus robur),* and a small-leaved lime *(Tilia cordata).* The criteria on which these trees were selected had not been stated, but it is usual in consultancy practice to carry out detailed inspections only on trees that have previously been found to show certain signs or symptoms which give cause for concern (Table 1). Such symptoms are usually noted in routine general inspections of parkland and street trees, or sometimes by chance observation.

The objective of a detailed safety inspection should be to determine whether the tree poses a significant danger to persons or property, and therefore requires remedial action. The recommended options for remedial action or for future inspection should be stated, taking into account the overall requirements for managing the site.

The inspection procedure for the present study was based on the principle that a visual assessment of external signs and symptoms (Table 1) should be done in the first instance so as to help decide whether there should be any further investigations to the tree's internal condition. In this way the unnecessary use of time-consuming and possibly damaging techniques can be avoided. Even if internal assessments are required, it is possible to use the least damaging techniques first, so that more damaging techniques involving, for example, the extraction of increment cores, are·used only where strictly necessary. It was also regarded as important to focus any internal assessments on particular zones, identified as suspect by interpreting the visual assessment in the light of knowledge of tree decay biology and tree biomechanics. This overall approach is illustrated in Figure 1.

Management recommendations

Principles

Urban tree is primarily concerned with amenity. Tree amenity encompasses all the pleasures and benefits that trees can provide for the people near them. Those pleasures and benefits include provision of habitat for wildlife, improving the aesthetics of the landscape, reducing particulate pollution, etc. In a production forest, sustaining the yield is a primary principle of management. It is important and useful to manage forest trees so the flow of wood products from·the forest is regular and predictable. In an urban situation the product is tree amenity and the job of the urban tree manager is to ensure that this yield of amenity from the tree resource is sustainable. An essential element of sustaining amenity is the establishment of an uneven age class structure throughout the tree population to ensure that when the oldest need to be removed there are young trees of variable ages emerging to replace the lost amenity. To be effective, urban tree management must be dynamic; that means having the foresight to remove trees in order to provide space for new trees other than simply retaining trees for the maximum length of time.

As we bring trees closer into our urban environment the requirements of management become more specific; the closer trees are to people the more important become the considerations of safety, living space and aesthetics. Their management is dictated by this closeness; the closer they are the more intense and careful the attention needed to making sure they are safe, not a nuisance and look good. Effective management will primarily seek to meet the present requirements of a situation and place a high priority on minimising future conflicts with these requirements.

Defining Objectives

Before any management decisions can be made it is necessary to establish what the objectives of management are and what priority they have over each other. In our situation the trees are located in a parkland surrounded by city suburbs. There is a high level of access by the public throughout the day and there are well used paths close to all the trees. Quite clearly, safety is very important and will have to be the primary consideration in any management proposals. There are no buildings or busy roads close to the trees and so the space used by them is not an important issue. This is a and a very natural setting for trees; natural form is quite acceptable and there is little need for pruning to achieve any formal tree architecture. It is noticeable that there are many mature and over mature trees in the park and relatively few young and maturing individuals. If future amenity is to be sustained effectively then it is important to place a high priority on establishing an uneven age class structure. Where appropriate, trees that have little potential for contributing to future amenity *or* are beginning to interfere

with better individuals should be removed to make space for new trees. Amenity also means helping wildlife; it is too easy to that removing dead wood and stumps removes habitat and reduces ecological diversity. Within appropriate guidelines, the dead parts of trees should be left on site. In the light of the above discussions, we consider that the following objectives of management, in numerical order of priority are appropriate for this situation:

- A high level of safety needs to be observed.
- Trees that have a low potential for to future amenity or are interfering with the development of better individuals should be considered for removal to provide space for new planting.
- Where it can be accommodated within the above objectives, dead parts of trees should be left on site.
- A low priority should be placed on pruning trees· to attain a formal appearance.

Specific Management Recommendations

With this set of objectives clearly defined we feel the appropriate recommendations for the immediate and future management of each tree are as follows:

Tree 1 (oak)	
Immediate	Remove dead wood and any broken or weak branches
Future	Monitor regularly with a view to retention in the long term
Tree 2 (pine)	
Immediate	Remove dead wood and any broken or weak branches
Future	Monitor regularly with a view to removal in the shor term if condition deteriorates
Tree 3 (lime)	
Immediate	Remove leaving stump cut to 4 m in height
Future	Plant a new tree nearby