6.0 THE TREES AND SHRUBS

6.1 HISTORIC SIGNIFICANCE

Despite the inevitable changes in land use over the last 250 years, there are still some notable trees on the site. One English Oak (T56) is probably the sole survivor from the mid-18th century plantings associated with the creation of the house from 1749 onward. This is a magnificent tree in its prime on the edge of the eastern screen behind a more recent 20th century group planting (see photo 1).

The current tree belts on the southern and eastern boundaries of the garden have their origins in the 18th century, being on the original footprint of the serpentine walk created by Walpole. There is still a walkway running through these belts, but the trees within them – with the exception of Oak T56 – are of Victorian origin. Oak T9 and T46 were probably planted between 1820 an 1850, while Sweet Chestnut T32 in the southern screen and a fine Stone Pine (T75 – see photo 2) in the eastern screen are other significant Victorian specimens

It is interesting that Stone Pine is mentioned in correspondence by Walpole, and may have been planted by him at Strawberry Hill. However, the ring count on the existing tree dates it to around 1860, a legacy of the Lady Waldegrave era. It is possible that mature Stone Pine were already present in 1860 and like-for-like replacement planting was carried out.

The current understorey layer is dominated by Yew and Holly with some Rhododendron, an evergreen mix typical in Victorian plantings. It is likely that such dense evergreens were favoured as screening to give greater privacy.

There is another layer of planting dating from the mid-20th century, resulting from new landscaping by the Vincentian Community. Of particular note are the False Acacia spread over the gardens, good examples being the group in the centre of the car park to the west of the Waldegrave wing and the cluster in the north-east corner of the Serpentine Walk (T78-80, 82-84), and the tree groups in the Open Grove.

Over the last 20 years, there has been some ornamental underplanting ; Snake-bark Maple (T13), Snowy Mespilus (T15), Sargent's Rowan (T22), Bhutan and Red Pine (T41), Coast Redwood (T45) and Giant Redwood (T62) have all been planted along the Serpentine Walk. Various small trees and shrubs have also been planted around the car park west of the Waldegrave ring.

So, although much of the original 18th century planting has now gone, there are still important trees and shrubs on the site which reflect the garden's evolution over the last 250 years. The preservation of Walpole's basic structure of a large part of the garden creates the opportunity to restore areas using the tree and shrub species he originally planted.

Photo 1 – The Fine Oak of Mid-18th Century Origin (T56)

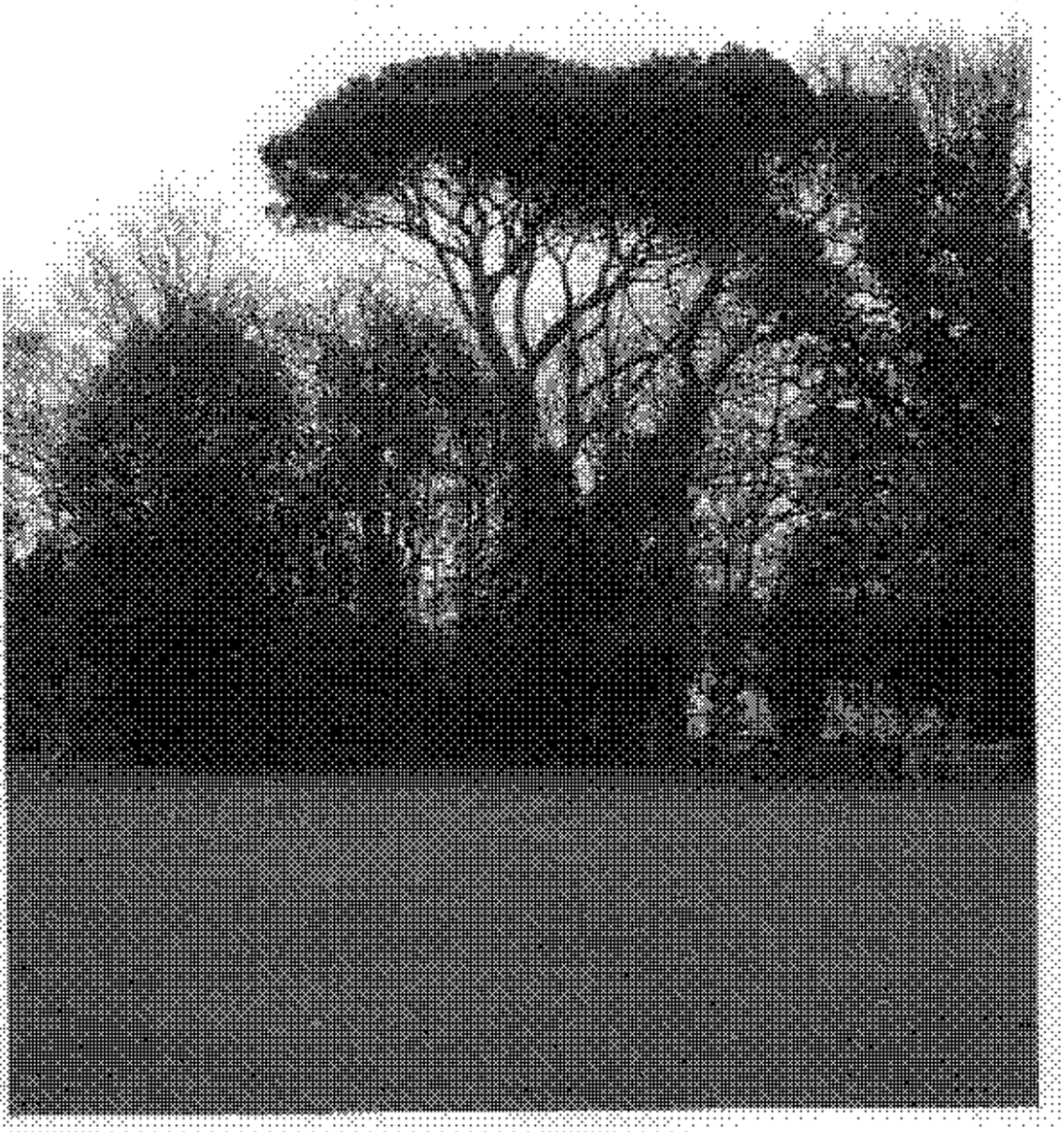

Photo 2 – The Stone Pine Planted Around 1860 (T75)

6.2 CONDITION APPRAISAL OF TREES AND SHRUBS

For the purposes of this appraisal, the garden in divided into 4 areas:

6.2.1 The Serpentine Walk and Adjacent Belt Planting

The understorey layer in both belts still has a good network of evergreen plants, particularly Holly with some Yew, Common Laurel and Rhododendron (see photo 3): these provide good screening from the athletics track and private houses in Michelham Gardens. The north end of the east belt is a little sparse; 4 Leyland Cypress (T87) have been planted to give short-term screening, but those are inappropriate as a long-term component of the species mix. Ongoing management to preserve and replace the existing Holly and Yew in the understorey – and to plant new clumps where necessary - is essential.

There has clearly been a lack of maintenance in these belts, and hence the condition of the remaining understorey is poor. Bramble is extensive, and there are several patches of dead or dying Elm and of Elder encroachment (see photo 4). In the eastern belt, a lot of young Sycamore has self-seeded, and there are fallen trees or parts of trees lying on the ground.

Ad hoc underplanting has occurred, both to diversify the understorey and to replace the overstorey trees; species used include Snake-bark Maple, Hornbeam, Snowy Mespilus, Coast and Giant Redwood, and there are a few young Oak.

Some tree surgery has been carried out in the past, mainly to remove deadwood and reshape the crowns in mature Oak, Lime and Sweet Chestnut suffering from dieback. The quality of this work has been variable, and the finish cuts and choice of final cut position are poor in some cases (e.g. Oak T46 and 54, Copper Beech T59).

Overall, ground work is urgently required to remove unwanted species (Bramble, Elm, Sycamore, Elder) and to replant historically-appropriate trees and shrub species. This restoration work needs to address the issues of providing the next generation of overstorey trees, as well as diversifying and enriching the understorey and midstorey layers. Remedial tree surgery will also benefit the existing young and mature trees which are desirable to retain.

Sycamore, Elder, Elm and Bramble will have to be removed and appropriate understorey and overstorey tree and shrub species replanted if the historic integrity and landscape quality of the Serpentine Walk is to be preserved.

The top end of the east screen has also been used as a fire site and tipping area for grass cuttings. One False Acacia has been damaged (T82), and a defined area for fires and garden waste needs to be created.

The overstorey in the southern belt is comprised of Oak, Sweet Chestnut and Limes. These are in variable condition, with crown dieback in some trees.

The east belt has a lower density of mature trees, with scattered Oak, Lime and Sycamore in the southern half, and a cluster of False Acacia along the boundary in the northern half. There is also a large Black Poplar (T88) overhanging the path near the False Acacia. The trees are generally in reasonable or good condition, although some of the Acacia (T77-80, 82-84) are poor and need felling to favour the best specimens.

Photo 3 – Holly / Yew / Rhododendron Understorey

Photo 4 – Sycamore / Elm / Elder / Bramble Encroachment

6.2.2 The Northern Screen and Forecourt

The northern screen understorey is more open than that along the Serpentine Walk, with some Holly and a lot of Bramble. The area has been used for tipping garden waste, and again a formal area needs to be created.

The overstorey trees, comprised of several mature Horse Chestnut (e.g. T90, 94, 100, 105, 107) and Common Lime (e.g. T101, 130) with one Turkey Oak in the forecourt (T137), are in moderate or poor condition. This has resulted in heavy reductions of certain roadside trees to ensure their safety. Regular inspection and future tree surgery will be necessary to enable them to be preserved in a safe condition for as long as possible.

There has been some underplanting in the northern screen to create the next generation of overstorey trees, and there is still scope for more in the canopy gaps. Some of the young trees that have been planted require ivy removal and releasing by branch reduction on adjacent trees.

6.2.3 Car Park West of Waldegrave Wing

There is a mix of shrubby understorey and small to large trees in the narrow beds and green spaces bordering the car park and buildings.

Some of the shrub borders have reasonable amenity value with a mix of species, but lack regular maintenance.

The most notable trees are the False Acacia group in the middle of the car park (T158), the Holm Oak (T161) and the Copper Beech (T164); there are also several Trees of Heaven (T144, 155-157, 162, 163). The latter and the Acacia are in variable condition, and need either remedial work or felling, as detailed in appendix 2.

Careful thought is required on the best means of replanting these beds given the limited space available adjacent to the car park, buildings and perimeter wall.

6.2.4 The Open Grove

The Open Grove has a scattering of individual trees (T14-4, 165-177, G15-16) and some large groups (G4, 7), the largest specimen being the Lebanon Cedar (T170) in the centre of the lawn. It has undergone heavy tree surgery recently, and its condition is reasonable.

The mature Lime (T173-175), which have been reduced in height in the past, and the Horse Chestnut (T176) next to it have a safe useful life expectancy of 50 years or more, assuming any necessary tree surgery is carried out in the future.

The younger trees planted as replacements – Common Lime (T167, 168, 171, 172) and an Oak (T177) – need regular maintenance work and protection from mower damage to ensure their future potential is maximised.

6.3 FUTURE MANAGEMENT STRATEGY

Clearly, a lot of landscape restoration work is necessary at Strawberry Hill, and the precise detail of this needs to be informed by the long-term vision and aims for the treescape.

Thus, the desired composition of the tree cover in the Open Grove, the balance of screening and ornamental plants along the Serpentine Walk and the nature of tree and shrub planting bordering the car park will dictate future management actions – in particular, the extent of

scrub removal, the underplanting tactics, and the amount of thinning and felling of the mature overstorey trees.

It is important that the long-term vision and the future work programmes are properly synchronised.

6.4 CURRENT WORK REQUIREMENTS

The survey schedule (see appendix 2) details all the information collected for individual and groups of trees. In particular the column headed 'recommendations' lists the remedial work requirements for the existing trees surveyed. The estimated time to carry out the work, and the priority for this, are given in the adjacent columns.

The key categories of work are:

- Remedial tree surgery, including crown or branch reduction, and crown lifting to a given height above ground level.
- Pollarding, involving the removal of all branches back to the 'knuckle' or 'bolling', repeating a process which has been done regularly in the past.
- Sever / strip ivy: severance and stripping of ivy to enable full inspection of the trunk, major stems and branches.
- Deadwood reduction or removal: removal or length reduction of unstable deadwood above 2.5cms diameter at source.
- Felling: complete removal of trees to ground level.
- Felling to leave a 'monolith': felling of tree to leave a clean trunk or 'monolith' with all branches removed up to a defined height above ground level.
- Formative pruning: pruning of a young tree to optimise its form and structure for the long-term (e.g. removal of double leaders, stems with weak unions, crossing and competing branches).
- Basal sucker / epicormic shoot removal: removal of shoots arising from the lower trunk or root buttresses of a tree.
- Selective felling or thinning: selective removal of trees standing too close together to leave the best long-term specimens, and hence improve their form and stability.

The work prioritisation is based on all work being carried out within a three year period, and hence the following timescales apply:

Very High:	Carry out within 3 months from the date of this report.
High:	Carry out work within 1 year from of the date of this report.
Medium:	Carry out work within 2 years of the date of this report, or before the recommended reinspection date for the tree in question, whichever is sooner.
Low:	Carry out within the reinspection period recommended for the tree or group in question.

Further explanation of the data and information in the remaining columns of the survey schedule is given in the Tree Survey Criteria (appendix 1).

6.5 REINSPECTION PROGRAMME

The right-hand column of the tree survey schedule (appendix 2) shows the recommended reinspection period for each tree. This is the maximum period from the date of this report until the next inspection of the tree should occur, assuming the proposed works have been carried out within the timescale given.

It is important that a regular inspection programme is put in place in order to assess regularly the tree and shrub condition, and the potential for hazardous trees to fail.

As a result of this, remedial measures can be recommended to improve plant condition or to bring the risk of failure of hazardous trees within acceptable limits.

6.6 ONGOING MAINTENANCE

It is important to remember that restoration is not a one-off process, although much can be achieved to lay the foundations for the future in a 5-year period. Hence, regular maintenance will be necessary to ensure the long-term success of the initial work.

For example, shoot regrowth from cut points may need thinning or removal on rotation to maintain reduced branch end-weight or crown shape of certain trees.

Groups of trees and shrubs may regular intervention to maintain plant health and vitality, e.g. removal of invasive plants such as elder and sycamore, thinning or containment pruning to reduce competition and crown suppression.

Newly-planted and young trees need regular aftercare, such as weed control, watering, vermin protection, stake removal and formative pruning, to ensure their successful establishment.

A tree and shrub maintenance schedule should be drawn up to be included in the future work programme of the grounds staff.