

TREES ACROSS THE POND

Story and Photos by Andy McCutcheon, Principal Arboricultural Officer, States of Guernsey, Environment Department, England

What's the point of an Exchange Programme? I am sure this was the question going through my colleagues' perhaps jealous minds when I was lucky enough to visit Rhode Island under the SMA's Arborist Exchange Programme. It's a fair question.

Well I'll tell you the point. You get to see the same things, the same problems, but from a different perspective, through the eyes of someone doing the same job as you. For me it gave me a sense of detachment—a sort of arborist out-of-body experience, from which I could observe and learn. When I returned to my home island of Guernsey in the British Channel Islands, I was energised and excited about the prospect of making a difference based on what I had seen on my visit to Newport, Rhode Island.

Scott Wheeler, Trees & Parks Supervisor for the Newport Parks Department, was my host for the week's stay. Scott has held this job for 11 years. He manages and administers the maintenance and capital projects for all the City's 50 parks of various sizes and their trees. A tall order for anyone, and that doesn't include the 7,000 street trees!

The first thing that struck me about Newport when I arrived was (and this will seem blindingly obvious)... the trees! They are big and beautiful and there are plenty of them. Of particular note was their array of European beech (*Fagus sylvatica*) trees, including fern leafed and weeping forms. Trees certainly have the room to grow in Newport, and they convey a sense of time and history growing as they do amongst the impressive buildings, many of which date back to the 1800s.

The Luxury of Space, the Challenges of Pests

Space is something which America is not exactly short of. Owing to a temperate climate and a higher rainfall than here in Guernsey (around 45 inches/114 cm annually compared to our 33 inches/84 cm), the trees in Newport are large and lush. Although Newport is on an "island," it has the mainland U.S. to the west affording some shelter. The result is spectacular trees of grace and stature. Many of the trees grow close to the largely wood-constructed dwellings, and residents seem very happy to live right along side them. That's something I wish I could show to those who complain to me about trees being too close to their property!

Like anywhere it is not all roses; many trees are aged, there's the ongoing threat of new pests and diseases, and the influence of humans, whether deliberate (vandalism) or through ignorance (construction injury). Travelling around with Scott and seeing the damage inflicted by pests and diseases in some areas was quite disturbing to me. Many in Guernsey remember how the combination of disease, pests, and weather conditions accounted for the death of all 150,000 mature Guernsey elms in less than 2,000 days to Dutch elm disease.

Newport is so concerned about the emerald ash borer that they have stopped planting all species of ash (*Fraxinus* spp). Some pests have already made their presence felt. I was shown many large dead "sticks" in the ground which were at one time Japanese black pine (*Pinus thunbergii*). All had been killed by the turpentine beetle, and hemlock woolly adelgid has had a serious impact on populations of the native Eastern hemlock (*Tsuga canadensis*).



Newport is considering introducing laws to control the incursion of vegetation into sidewalks.



In Newport, stone dust is used to substitute for load-bearing paving slabs that often get displaced by tree roots.

Planting Schemes

What impressed me was that despite the high proportion of tree cover (over 50%), Newport still considers an ongoing tree planting programme essential. In contrast Guernsey has barely 4% woodland cover.

When Scott first arrived in Newport in 1994, he discovered that 15% of the tree population was identified for removal and half the available planting space lacked trees. Almost 30% of trees were Norway maple and most of these had been topped. In Scott's own words, "It was clear that the only way to meet the aesthetic demands of a community based on tourism while managing a declining population of trees was to establish an aggressive sustainable tree planting programme..."

Lilian Dick, President of the Newport Tree Society, shares Scott's vision and has been instrumental in gaining community support for tree planting and management initiatives. Through a combination of enabling legislation and voluntary community action, Newport now plants around 200 new trees a year of mainly bare root trees of 1-3/4" (4.5 cm) caliper.

All funding to purchase trees in Newport comes from grants, citizen sponsors, and insurance claims. Under the City's mostly bare root planting programme, a tree can be bought and planted for just \$65. The tree is planted by the City Parks team provided it is planted no further than 20 feet (6 m) from a public right-of-way.

Strategies to combat the effect of pest and disease in urban areas rely on sustainable planting of a diverse range of tree species. To achieve this, Scott is encouraging people to plant in their front gardens rather than in roadside verges, thus avoiding problems with compaction and road salt.

Trees & Development

The impact of new development on trees is of increasing concern to both Scott and myself, and we discussed this issue with Professor David Brown of the Rhode Island Tree Commission.

He was particularly interested in Guernsey's planning laws and the extent to which our laws control both the built environment and the landscaped and natural environment. We talked about Guernsey's own laws to control vegetation to prevent obstruction to pavements (sidewalks) and roads; Scott was keen on introducing a similar law in Newport to help control some of the wayward hedge growth.

A shared problem among urban foresters is the challenge of working with specialists in other disciplines—particularly construction, surveying, planning, and even landscaping—who lack even a basic understanding of a tree's needs. A good example of this is tree planting beds which are often specified by architects, engineers, or landscapers who fail to allow for the growth and establishment of trees in the long term. Urban design often restricts the space available for trees to less than 12-foot-wide (4-m-wide) interconnected beds that Scott would regard as the bare minimum requirement.

An innovation which is an old idea used to good effect in Newport is the air excavation tool, which uses compressed air to excavate around tree roots without damaging the coarser woody roots. The air excavation tool is used in two ways:

- 1) to relieve soil compaction and
- 2) to reduce damage to root systems by locating them and avoiding damage when installing underground utilities.

This would have great application in my home Island.

Providence and Beyond

Providence, Rhode Island is home to 180,000 people, and it's where we met Doug Still, City Forester. Doug told us about his ambitious programme to produce an inventory of the city's 25,000 trees using volunteers and Palm Pilots which could be used to record all the street trees by address. I was surprised that neither Providence Parks nor Newport's Parks Department yet has a functioning Geographical Information System (GIS) for street trees.



Bucket trucks are not seen in Guernsey, although mobile cherry pickers are used where access allows.



Left to right: Andy McCutcheon, Brian Kalter of Amereq Inc. (one of the sponsors of the exchange), and Scott Wheeler



Trees under overhead utility lines thankfully are not a problem in Guernsey where utilities run underground.

During our visit to Providence we met John Campanini Jr., Consulting Arborist and Technical Adviser to the Rhode Island Tree Council and former City Forester. We discussed the merits and downsides of tree grilles. John prefers barriers rather than grilles which have caused a lot of damage where they have been left. John and Doug are backing a “Tree Rescue” program in Providence that will remove life-threatening infrastructure from around trees, such as choking tree grates, tree guards, and sidewalk pavement.

My Personal Action List

- Develop and help set up privately sponsored tree planting schemes
- Seek greater engagement with professionals in the development and construction industry
- Work on an education programme for schools (addressing tree benefits and needs) and colleges (addressing protecting trees from development)
- Set up and launch a local Tree Stewardship (Warden) scheme
- Promote solutions such as air excavation and irrigation bags to the construction and landscaping industries
- Develop a GPS-based inventory of trees for management
- Trial an herbicide injection system such as I witnessed at the Arnold Arboretum for Japanese knotweed (*Polygonum cuspidatum*)

It’s a big list—but thanks to the SMA exchange programme, I have big dreams.

I learned a great deal in my once-in-a-lifetime visit which I hope to apply here in Guernsey. I would like to acknowledge the help and support of the SMA, the exchange sponsors—the City of Windsor, Amereq Inc., and Asplundh Tree Expert Company—and in particular Doug Still for organising the exchange. 🍃

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Passionate Correspondence = Results

The second example shows how I was freed from root pruning. In order to complete our sidewalk repairs, it had been necessary to practice an aggressive root-pruning program. I am fortunate that in my climate zone, I have been able to get away with more root pruning than MAs in most other parts of the country or world. Redwood City rarely has severe storms occur when the deciduous trees are in leaf, and the City has experienced a very low whole-tree failure rate (<2%). Additionally, most of the failures occurred during severe storms when non-root-pruned trees also failed.

Even with the favorable statistics, I have never been comfortable with the impacts of root pruning. However, an approved alternative sidewalk material was not yet available. Our site designs pushed to gain as much distance as possible between the tree and root pruning point (minimum target distance of 36 inches/91 cm), even obtaining easements to place sidewalks on private property when necessary.

Then, in 2005, I encountered a very passionate property owner who did not want his tree root-pruned. After several discussions, we reached an agreement that the City would use either asphalt or rubber over his root system and perform the sidewalk repair with very limited root pruning, if any. But during the repair process, some field decisions were made and/or directions missed that resulted in his tree’s root system being impacted during excavation. The property owner was very strident in his concerns, sent written volumes to my department head and City Council, requested a significant amount of public information documents, and challenged the City’s approach to root pruning.

The inquiry came to me from City Council: Can you perform the sidewalk repairs without root pruning? Fortunately, my staff had been experimenting with two-inch-thick rubber sidewalk panels that reduced the need for excavation by six inches (15 cm). The manufacturer provided a finished look that met the City’s needs. I worked with our city engineer to get approval to use the rubber sidewalk material. Also, fortunately, we had an excellent contractor to install the product.

Since we initiated the use of recycled rubber panels, we have reduced our root pruning by over 95%, and we have shifted from non-selective trencher-style root cutting to selective minimal-exposed root pruning. We have reduced health and stability risk concerns and avoided the cumbersome paperwork involved with securing easements and notarized signatures to relocate sidewalks onto private property.

In both my Redwood City examples, I had been prepared for opportunities by planning. In the first case, I planned for an increase in funding of the program, and in the second case, I investigated and tested out alternative sidewalk material. The opportunities for action came along much faster through another person’s influence than they would have through my own (or my boss’s) lobbying efforts.

I really want to emphasize how powerful the players in our communities or our own involvement in our own community can be. The learning for me has been to pay attention to the people that are doing things and see how I can influence them related to trees or provide them the key supporting information they need to make an excellent decision about trees. 🍃

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