

WORKSHOP OUTLINE

Title: Tree Anatomy Workshop

Venue: As scheduled on the QTRA website (www.qtra.co.uk)

Date: Various dates as scheduled on the QTRA website

Trainers: Australian arborist Mark Hartley, assisted by Catherine Russo and Danni Austin has delivered this workshop many

times to arborists in Australia and the United States. Mark has developed the workshop based on a program used

by Dr Alex Shigo in the 1980s and 90s, which inspired many of our current leaders in arboriculture.

Learning Workshop participants will:

• develop an insight into the differences between woody and absorbing roots and will start to gain an understanding of how this knowledge can be used diagnostically;

- gain an understanding of the anisotropic nature of wood and how examining the structure of woody parts from 3 different planes aids in the process of identification and diagnosis;
- discover and identify many of the common cells found in the stems, branches and roots by preparing cross-sections and with the aid of pre-prepared slides and images;
- develop an understanding of how large woody monocotyledons grow and see how trees apply an identical process thousands and even millions of times, but on a much smaller scale, to apical meristems;
- observe that the cambium, bark cambium and xylem usually start as strips and not rings;
- observe at a cellular level, the differences between woody stems above ground and woody roots below ground;
- develop an understanding of how these differences between roots and stem allow optimum efficiency in the environment and how we can take advantage of this knowledge in better caring for trees;
- observe how vessels interact around the branch collar and discover why good and bad pruning cuts result
 indifferent shaped growth responses, and why, in comparison to pruning cuts, stem injuries form very
 regular shaped wounds,
- If you diagnose tree problems, assess development impact on trees, or if you prune trees, understanding their inner workings will help you to make better decisions

Indoor & outdoor

sessions: The training will include fieldwork, deskwork, dissection and preparation of samples, and microscopy