Magic, myths and misconceptions

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Seminar of the Maryland Arborist Association. Approximately 20 arborists traveled to the Hubbard Brook Experimental Forest of the U.S. Forest Service in the White Mountains of New Hampshire to be with Dr. Alex L. Shigo and see first hand "CODIT:" Compartmentalization of decay in trees.

The group gathered on a Wednesday evening at a nearby resort motel and got an early start on Thursday with a sneak preview of a new Forest Service slide program that Shigo has put together on CODIT. (We understand this program and cassette narrative will be available in a few months.)

Most of Thursday and half a day on Friday was spent walking through the woods with Shigo and his trusty powersaw. Al would explain to the arborists that outward signs indicate the internal condition of the tree, the cambium could be "metered" for vigor, and the heart of the tree probed with the Shigometer. Finally, he would fell the tree and dissect it with his Homelite "scalpel" and conclusively prove his points.

It was obvious that the more vigorous a tree was, the quicker it would wall off an attack by decay after wounding. Particularly, at the top and the bottom of the wound to keep the decay out of the crown and the roots. Also, the year after wounding the cambium develops a new type of tissue called the "barrier zone" to seal off the decay on the inside and allow the tree, with the succeeding annual rings, to develop clear healthy wood.

Some of the magic myths that Shigo's work has exploded are:

1. Tree paint: Only cosmetic; it appears to be of no help in preventing decay and insect attack. However, wound "treatments" that look promising are now under study.

2. Once a fungus gets into a tree wound, it moves throughout the tree: Fungus only moves in the wounded compartment. The tree

needs to be rewounded before the fungus will spread further in the succeeding annual rings.

- 3. Heartwood fungus moves at will: Same rules apply.
- 4. Frost cracks caused by frost: Caused primarily by old basal wounds that have healed improperly and exert pressure from inside.
- 5. Thoroughly clean out old cavities before filling: Actually, thorough cleaning prior to filling a cavity breaks the compartment wall on the inside where it is most vulnerable and allows decay to spread.

These and many other myths have been perpetrated over the years due to theoretical "scholarly" analysis that was not based on factual studies. Shigo's work has revolutionized the tree-care industry and has also provided, in the Shigometer, the "X-Ray" machine arborists have needed for so long to read the vigor and itnernal condition of the trees under care.





A brief explanation of "CODIT" (compartmentalization of decay in trees) in the classroom before venturing into the research area.

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Remember that a tree walls-off and compartmentalizes its wounds. The following year the cambium puts up a barrier zone so that succeeding rings of new wood are clear and healthy.



One of the newer and probably best use of the Shigometer to the professional arborist is the way in which the cambium can be quickly metered and checked for vigor as Al Butler demonstrates



Any tree the arborists picked was fair game to be dissected and analyzed.



Cutting sections and then lining them up was the easiest way to demonstrate decay.