

Tree Supported Structures - Zip Lines/Canopy Tours and Treehouses - Understanding The Arborists' Role

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This talk will explore roles and opportunities for Arborists working with people building structures in trees. As we arborists know, people have been building structures in trees for a very long time. Many of us have encountered a tree house, hunting stand, or "Ropes Course" that attempted to use a tree or trees as a foundation for the structure. The outcomes for trees used this way vary but, as I have been saying for thirty years about treehouses, "generally the tree wrecks the tree house or, the tree house wrecks the tree or both!"

Over the last twenty years there has been a worldwide surge in interest in treehouses along with Ropes Courses, which are now commonly called Challenge Courses and, Canopy Tours or, Zip Line Tours which are popular attractions often built using living trees.

Challenge Courses that are open to the general public for an admission fee are now commonly called "Adventure Courses" and, they are becoming very popular. I understand from a European designer builder that there are over one thousand of these Adventure Courses in France alone and, they are popping up everywhere! Canopy Tours here in the US are attracting up to thirty thousand visitors per site per year and more are being designed and built.

I have been giving talks on Tree Biology and Tree Structural Adaptation to builders utilizing trees at the World Treehouse Symposium for over 15 years. Since 1997 I have helped with the development of new engineered fittings and methods for building with minimal impacts to trees used for structural support. Many commercially built treehouses have been constructed and interest continues to grow.

More recently, in 2012 and 2013 I spoke at the Association of Challenge Course Technology (ACCT) conferences. This group now has an American National Standards Institute Standard (ANSI) and have also embraced the Society for Testing and Materials International (ASTM). They now have a published International Technical Standard. The response to my talks was overwhelming. These people understand that they need to have a better understanding of trees used for supporting structures. I am hopeful that we arborists can influence these developing standards and help make sure that the trees and the ecosystems that support them are addressed.

The new and developing technologies that we arborists are using in our work are going to be vital to the long term success of these tree supported structures. Highly skilled arborists have the knowledge and ability to collect the information to support engineers who are working to help builders using living trees build safely and meet current standards.

My talk will cover: the methods currently used for attaching structures to trees, design considerations, examples of installations that are up and running and, what arborists need to know to help these people preserve the trees that *are their most important and fragile infrastructure*.

This will be an interesting and eye opening talk that will engage the audience and introduce them to this rapidly growing tree management challenge. I have now been to see installations or, sites where they are planned, all over the US and Alaska. My colleagues in the US and overseas are also encountering these types of projects. My friend and colleague Andreas Detter has been studying the bio-mechanical issues and potential impacts that these structures may entail and his presentation, immediately following, will expand on this session. I encourage you to attend both sessions!



Cedar Creek Stairway and Bridge, Washington



THP Treehouse