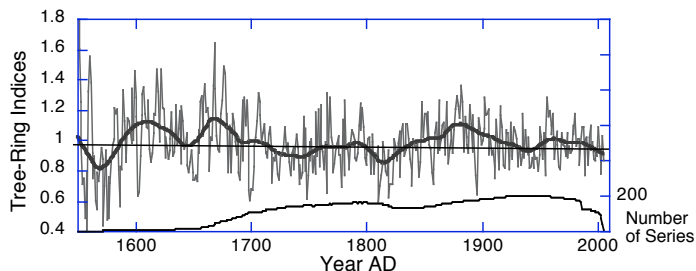


Relationship of work to climate change



Above is the tree-ring width master series from northeast Ohio. Sampling houses and barns, as well as living trees, can help to further tree-ring and Climate Change research.

The tree-ring data from each house or tree is added to the master chronology. In addition to its use in dating, tree-ring dates are used in modeling past drought in Ohio and the greater Midwest.



University of Akron's
Wayne College
Barrnet-Hoover Farmhouse
dating to 1818
Orrville, Ohio



Wayne County Historical Society's
Reasin Beall House
dating to 1816
Wooster, Ohio

About us

We are faculty and students from the Department of Geology at The College of Wooster who are interested in the geological and archaeological applications of tree-rings. We are skilled in sampling and retrieving data from wood and living trees. We calendar-date beams in structures of historical significance to the last year of growth.

Funding provided in part from The Center of Creative Innovation at the College of Wooster.

Tree Ring Lab

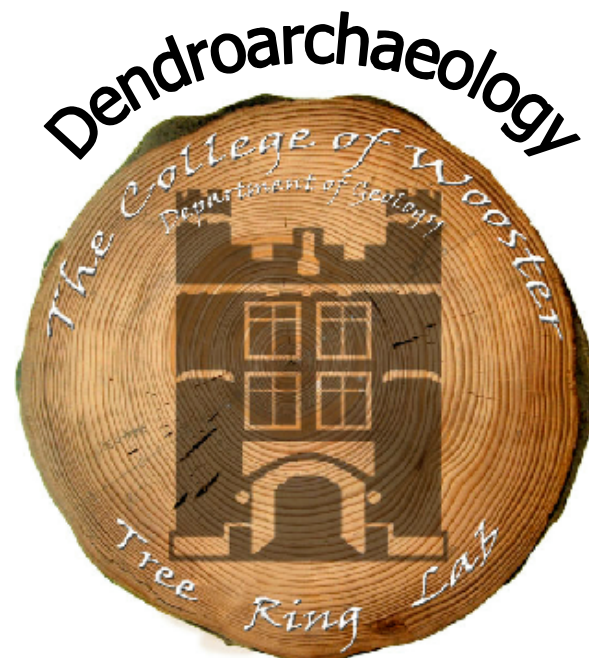
<http://www.wooster.edu/treering/dendrochronology/>

For more information on the services, procedures, prices, sample reports, and past projects contact:

Dr. Greg Wiles, Department of Geology
The College of Wooster, Wooster, OH
Phone: 330-263-2298
E-Mail: gwiles@wooster.edu

The College of Wooster

Department of Geology
1189 Beall Ave.
Wooster, Ohio 44691



Using Tree-Rings to Date Historical Structures

The Department of Geology
Wooster Tree Ring Lab
The College of Wooster

Dr. Greg Wiles, Caitlin Fetters,
Mike Krivicich, and Sophie Lehmann

<http://www.wooster.edu/treering/dendrochronology>

What we offer

Using tree-rings we are often able to determine the exact date a tree was cut. We are also able to determine the age of living trees.



Sampling from the exterior of the Sheller Cabin in Smithville, Ohio

After visiting a property and collecting samples, the wood cores are mounted, sanded, the rings are counted, and the ring widths are measured to determine the year of construction and age of tree.

What we will provide you

A written report of the findings will include:

- Statement of methods.
- Summary of the dates samples
- A list of references to learn more about tree-ring research.

Methods and Tools

This hollow drill bit cuts a 5 mm cylinder, wood core out of the tree or beam.



A drill or hand-operated corer is used for sampling historical structures; holes are plugged with wooden pegs.

How we determine dates

Our previous work in the region has allowed us to link together tree-ring width data from many sites across greater NE Ohio. We have created a 550 year tree-ring width chronology. The continuously growing databank allows us to correlate new samples with previous data, assigning for you exact calendar dates and even felling season of your samples.

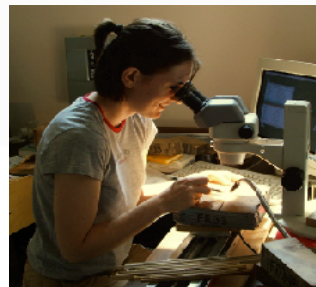
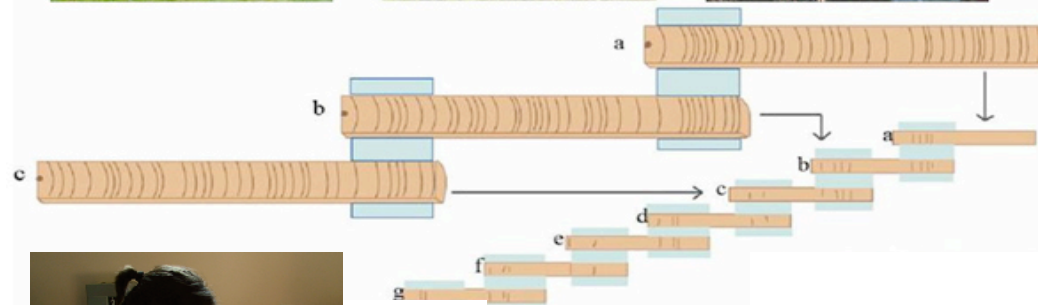
c. Long dead trees



b. Recently dead tree



a. Still living tree



Crossdating is used in all dendrochronological studies. The process matches ring patterns in samples to form a continuous record of tree-ring data.

Below are wood cores from the beams of the Beall House in Wooster, Ohio (Wayne County Historical Society). The house dates to 1815- 1816.

