

## Wooster College Geology Professor Helps Date Log Post Office

**Pictured:** Bruce Stewart holds one of the wood samples from the log post office that the Wooster group studied.

So, you want to find out how old a building is, who do you call? A geology professor, naturally. And that geology prof would be specializing in climate change, right?

It may seem a bit strange, but that's what the Franklin Area Historical Society did when it wanted to verify the age of the town's Log Cabin Post Office.

The historic structure is owned by the society and sits on city land at the intersection of Fifth and River streets, and the organization's decision made perfect sense once you know a little about Kent State Professor Greg Wiles and his Wooster Tree Ring Lab.

Bruce Stewart, one of the owners of Architectural Reclamation (<http://www.archrec.com/>), a Franklin company that specializes in restoring historic buildings, suggested the society have Wiles' group study wood from the building if they had any doubt about the post office's age.

The historical society, using grant money, hired Architectural Reclamation to restore the building, which serves as a museum and a local history lab for school children. It is open to the public during special citywide events and by appointment.

Although historical society members were pretty sure the building has been in existence since 1805, Joyce Ehlert, a society member who has been instrumental in obtaining some of the grants to restore it, said some people have been skeptical about its exact age.

“I'm pretty good at estimating the age of buildings, based on how they're built, the type of wood used, etc.” Stewart told historical society members at a recent meeting, “but I've been off by several years. This was an opportunity to scientifically pin down its age. I also got permission for them to date other projects that we have worked on in the past.”

Wiles, who teaches at the College of Wooster in Wooster, Ohio, and several students study the rings on a tree to tell its age, and based on how far apart the rings are, what weather conditions were during that time. For instance, rings are further apart during years the tree received ample rain and closer together in times of drought. They can also reveal events like earthquakes and volcanoes.

“The ring-width date will be added to the northeastern Ohio database, thus expanding the database farther into southwestern Ohio,” Wiles said in his report to the historical society. “Data will contribute to the understanding of past climate variability over the past six centuries.”

As a sideline, their work dovetails nicely with groups like the Franklin Historical Society who want to pin down the dates on historical buildings.

Wiles and his group measured ring width series from four wood cross sections and six cores taken from the structure. One of the oaks yielded a true outer ring, which allowed the Wooster team to determine the year the tree, was cut down – 1805.

“We suggest that felling for the Franklin Post Office wood was in 1805. Furthermore, the wood was cut during late fall or winter after the 1805 growing season,” Wiles wrote in his report. The report says that the logs submitted for the study came from trees that started growing as early as 1611.

“The Franklin Post Office may not be the oldest structure in the Miami Valley, but it has the most original building fabric that I know of,” Stewart told the historical society. Wiles and his students also dated several other projects Architectural Reclamation has restored in the Miami Valley, including Miamisburg's Gebhart Tavern.

Stewart and his crew had saved some of the old half rotten white oak logs and timbers they had replaced in their various projects and gave them to the Wooster team to study.

“This is very important information for us to have,” said Ehlert. “We need it for documentation when we apply for future grants.”