



**Mount Allison  
Dendrochronology Lab**

THE ANDERSON COTTAGE:  
DATING AN OLD BUILDING FROM BURNT CHURCH, NEW BRUNSWICK

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## Abstract

A cookie cut out of a beam from an old structure located in Burnt Church (eastern New Brunswick) was analyzed using dendrochronological methods. The wood was identified as white pine (*Pinus strobus*) and a cut date of 1843 was determined by comparing the sample to tree-ring patterns of a white pine regional master chronology for New Brunswick.

## Introduction

In early summer of 2007, Bill and Penny Anderson from Moncton brought to the attention of the Mount Allison Dendrochronology Lab (MAD Lab) a portion of a beam taken from an old structure that they own. The house, formerly a general store and now used as a cottage, is located in Burnt Church (eastern New Brunswick) and is said to be the oldest building in the community. A cookie was cut out from the beam and stored at the MAD Lab until further processing.

## Tree-ring analysis

The cookie was prepared for dendrochronological analysis. It was first sanded with increasingly finer-grained sandpaper to expose the annual rings. Then, the rings were measured using a 24 inch movable Velmex stage connected to a digital encoder which established measurements with an accuracy of 1/1000 mm. Three paths were measured on the cookie and a ring-width series was produced from those measurements. Importantly, bark remnants were also observed on one section of the cookie which insures that a cut date can be determined from it. The wood was also identified as white pine (*Pinus strobus*) and supports Mr. Anderson's assessment that the structural beams of the building are made of pine.

The series from the Anderson cookie was crossdated against a white pine master chronology from near Caribou Depot, north central New Brunswick (Pickard, Robichaud, and Laroque, 2007). Figure 1 shows a mean standardized ring-width curve from the Anderson sample compared to the master chronology. It demonstrates a strong correlation and suggests a cut date of 1843 for the Anderson wood.

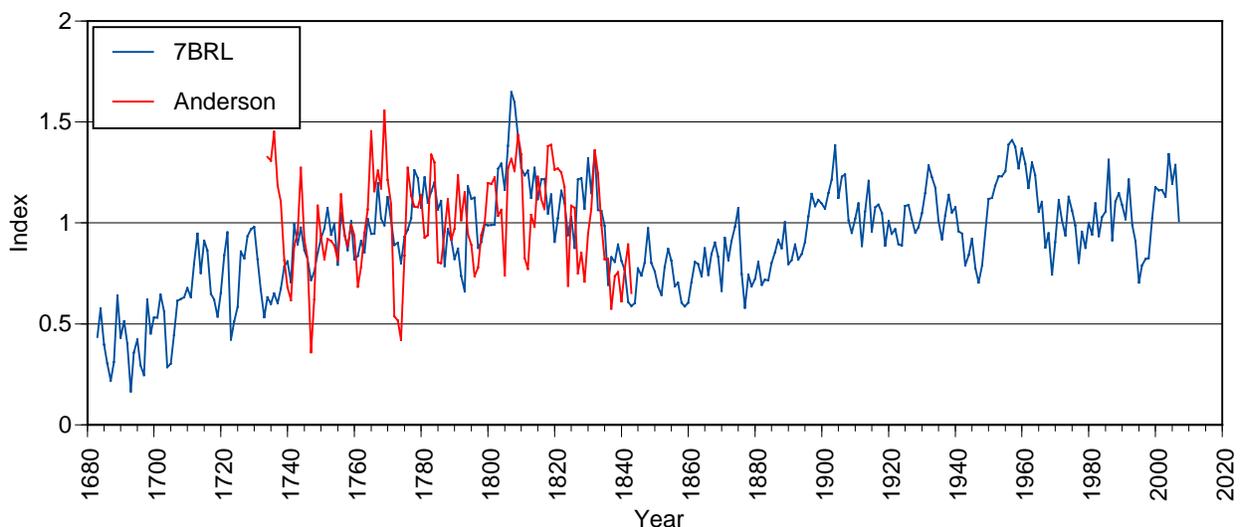


Figure 1: Mean standardized ring-width curve of the Anderson cookie (in red) compared to a white pine master chronology from north central New Brunswick. The end date of the Anderson sample is 1843.

## **Conclusion**

The wood analysis performed on the Anderson sample confirms that it is white pine. The cookie was successfully dated by dendrochronological means and indicates a cut date of 1843. Because wood is usually left to dry for some period of time (a season, a year) after it was felled, it is generally assumed that the structure is built a short while after the cutting of trees. Thus, the Anderson structure was probably built around 1844, or at least the individual sample from the existing structure was utilized at this time.

## **Bibliography**

Pickard, F., A. Robichaud, and C.P. Laroque (2007). *The Val Comeau canoe: construction date*; MAD Lab Report 2007-35, Mount Allison University, Department of Geography, 8 pp.