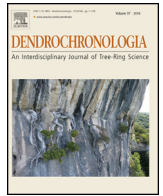




Contents lists available at ScienceDirect

Dendrochronologia

journal homepage: www.elsevier.com/locate/dendro



ORIGINAL ARTICLE

A dendrochronological evaluation of three historic pioneer cabins at Spring Mill Village, Indiana

Trevis J. Matheus^{a,*}, Justin T. Maxwell^a, Joshua Oliver^b, Michael Thornton^b,
Michael Hess^c, Grant L. Harley^b

^a Environmental Tree-Ring Laboratory, Department of Geography, Indiana University, Bloomington IN 47405, USA

^b Dendron Laboratory, Department of Geography and Geology, University of Southern Mississippi, Hattiesburg, MS 39406, USA

^c Brown County High School, Nashville, 47448, USA

ARTICLE INFO

Article history:

Received 23 August 2016
Received in revised form 20 October 2016
Accepted 7 November 2016
Available online xxx

Keywords:

Dendroarchaeology
Tree rings
Pioneer settlement
Midwest

ABSTRACT

Spring Mill was an important pioneer village in Lawrence County, Indiana during the 19th century, with its three-story gristmill serving much of the region. Due to the historical and regional importance of Spring Mill to pioneers, the state of Indiana recreated the original village in the 1930s. While most wooden structures were recreated using donated logs from historic structures around the state, three original nearby structures were relocated to the park. The history of Spring Mill is well documented, but less is known about the three original structures, which are the oldest wooden structures in the village. We used dendroarchaeological methods to determine the construction history of the three original pioneer structures. We found the cutting dates of logs from two of the structures (Granny White and Sheeks Houses) confirmed colloquial construction dates, while the Todd House was believed to be constructed fifteen years earlier than the cutting dates suggested. We also found the preferred wood for pioneer homes was *L. tulipifera*, as most of the logs used in the original construction of the homes were from this species. Using dendroarchaeological methods provided a means to determine the construction history of pioneer cabins in southern Indiana and our findings suggest that these methods can be used throughout the Midwest where reference chronologies are available.

© 2016 Elsevier GmbH. All rights reserved.

1. Introduction

Dendroarchaeology, a sub-field of dendrochronology, can provide insight on the construction dates of historic and prehistoric structures (Douglass, 1921; Grissino-Mayer, 2009). Dendroarchaeological research is becoming increasingly more common in its utility for verifying historic documentation and helping place structures on the National Park Service National Register of Historic Places (Grissino-Grissino-Mayer and van de Gevel, 2007; Harley et al., 2011). In the United States, dendroarchaeology originated in the Southwest and a large portion of the research in the field has been conducted in this region (Bekker and Heath, 2007; de Graauw et al., 2014; Dean, 1978; Douglass, 1921). In recent decades, dendroarchaeology studies have become more common in the eastern United States (Creasman et al., 2015; Grissino-Mayer, 2009; Harley et al., 2011; Martin-Benito et al., 2014; Taormina and Speer, 2016).

However, few studies have been conducted in the state of Indiana (Baas et al., 2013; Rubino, 2014; Rubino and Baas, 2014). Here, we use dendroarchaeological methods to evaluate and clarify the construction dates of three structures originally built in Lawrence County, Indiana and later relocated to Spring Mill State Park as a tourist attraction honoring the history of pioneer settlement of southern Indiana.

Spring Mill is a pioneer village founded in 1814 (Ansari, 1984) and is currently part of Spring Mill State Park located in Lawrence County, Indiana (Fig. 1). Indiana pioneers that settled here took advantage of nearby streams to power grist, wool, and saw mills, as well as a distillery (Ansari, 1984; Brooks and Mittino, 1985). The village quickly expanded into the surrounding forest as land was cleared to build cabins and places of business (e.g. apothecary, general store) with the timber from nearby forests. By the middle 19th century, the village occupied an area of roughly 0.5 km² (Ansari, 1984). At the heart of Spring Mill stands the large three-story grist mill for which the village is named. The mill was built in 1817 using imported quartz grinding stones (buhrs) from France (Ansari, 1984; Brooks and Mittino, 1985), which was considered one of the best minerals for milling. Between the precision buhrs

* Corresponding author at: 701 E. Kirkwood Ave, Bloomington IN 47405, USA.
E-mail addresses: tmatheus@indiana.edu, tjmatheus@hotmail.com
(T.J. Matheus).



Fig. 1. Map of the three original cabin locations that were relocated to Spring Mill State Park.

and Spring Mill's ideal location, the Mill serviced the entire region between Louisville, Kentucky and Indianapolis, Indiana from 1817 until the abandonment of the mill in the late 1800s (Brooks and Mittino, 1985).

In the year 1893, the village was abandoned as the result of being bypassed by the railroad and the grist mill closing (Ansari, 1984). In 1927, the state of Indiana took over the abandoned village as a state park and began the slow process of rebuilding and restoring the village (Ansari, 1984). By the time of state ownership, many of the original structures had collapsed or fallen into disrepair (Brooks and Mittino, 1985). In an attempt to recreate the original layout of the village, structures were either rebuilt with donated local timbers from other dilapidated historic cabins and barns (i.e. middle to late 1800s in age), or nearby historic structures were relocated and reconstructed at Spring Mill (Ansari, 1984; Brooks and Mittino, 1985). In the 1930s, Civilian Conservation Corps Company 1536 was assigned to and completed the restoration of the

village as part of the public works program initiated by President Franklin D. Roosevelt (Brooks and Mittino, 1985). There are currently 20 rebuilt and relocated structures in the village, making the site a unique location for a dendroarchaeological study. This study focuses on the three structures reported to be the oldest in the park: The Granny White, Sheeks, and Todd Houses. All three structures were dismantled and relocated from nearby properties to Spring Mill and reassembled (Ansari, 1984). Logs from the Granny White and Sheeks Houses were reassembled in the same order they were disassembled. Timbers from the Todd House were reworked to fit on the original foundation of the Munson House (Ansari, 1984). Despite relocation, these structures are purportedly the least modified and contain the most original timbers of all the structures in the park. Although these structures are not from the original village, determining the dates of construction through the use of dendroarchaeological methods can confirm the timeline and the prosperity of the region resulting from Spring Mill.

Download English Version:

<https://daneshyari.com/en/article/4759270>

Download Persian Version:

<https://daneshyari.com/article/4759270>

[Daneshyari.com](https://daneshyari.com)