

Digital Historic Preservation: Further Preserving Patterson-Altman's Mill with the Use of 3-D Scanning



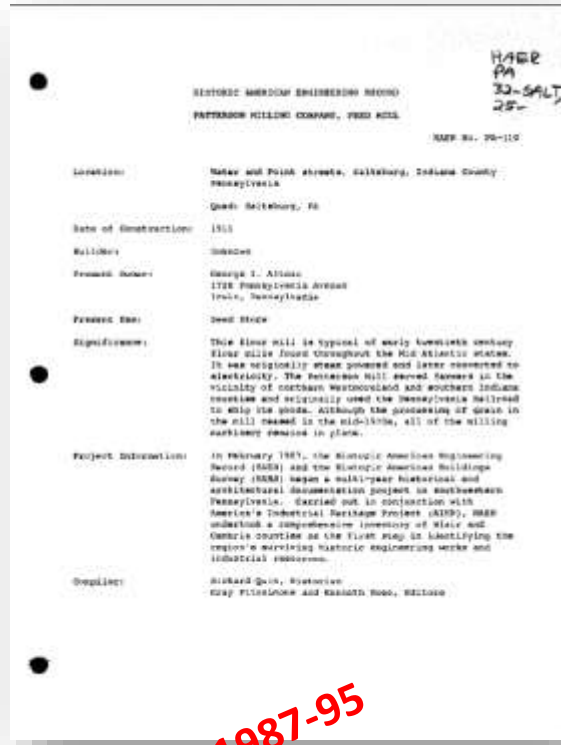
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About: Patterson – Altman Mill

- Built in 1912 the Patterson Mill has produced flour and animal feed for the Pittsburg Area. (Via Canals/rails)
 - Produced 125 Barrels of flour a day
 - Ran off electricity, and machinery is original wood and metal
- Purchased by Altman family in 1940 until officially closing in 1995
- HAER documentation in 1985



Previous Awareness:



Winter 2014

1987-95

Winter 2013

Research

- Questions:
 - Is 3-D Scanning as a possible preservation method?
 - Documenting the milling process
 - Compare 3-D scanning Vs. 2-D scale on effectiveness

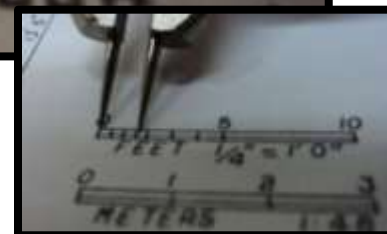
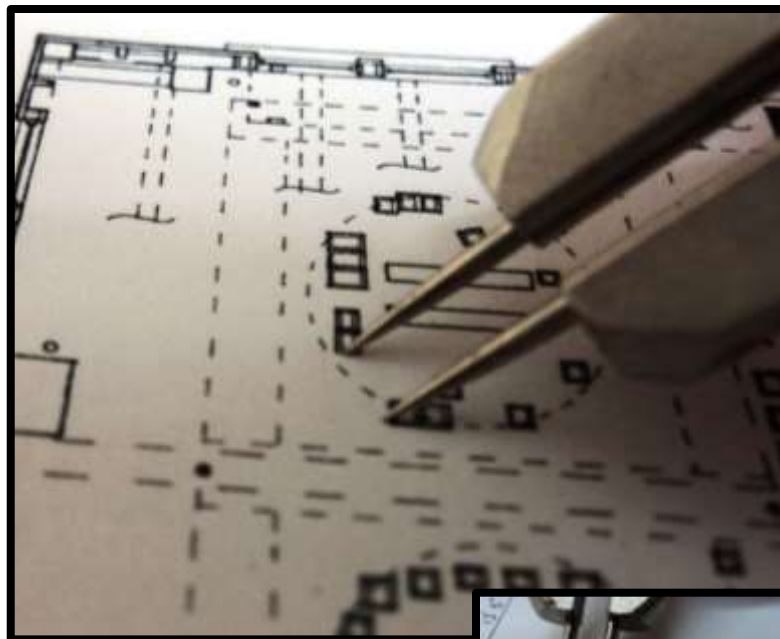
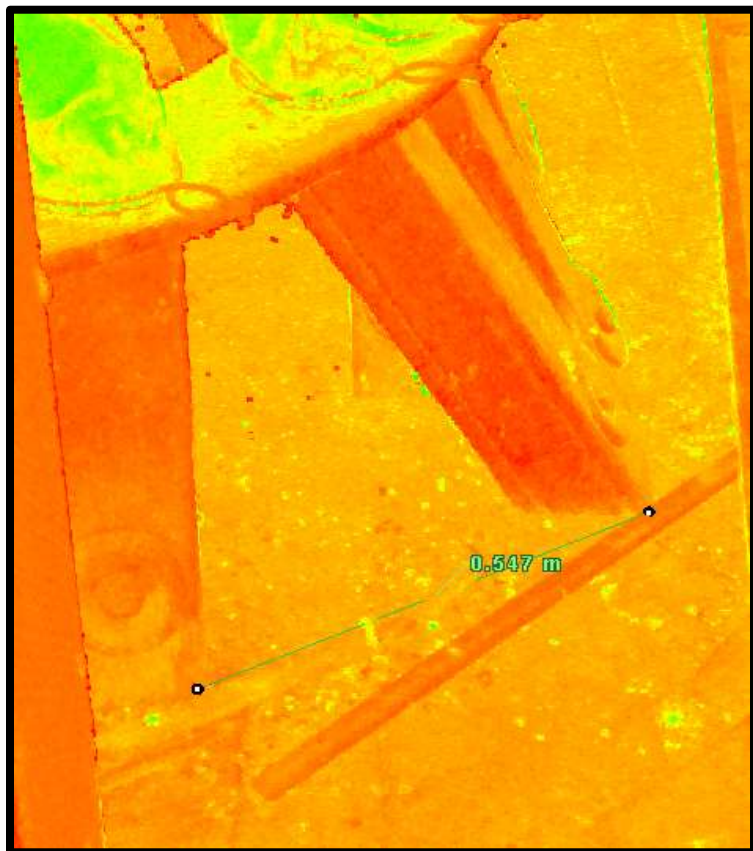


Methodology

- Leica C-10 Scan Station
 - 360 X 270 (500ft)
 - With Images
 - 40 scans
 - Completed in 2 days
 - Each took 14 minutes
- Results: High quality data but restrictive



3-D V.S HAER



Comparison of Studies:

- Measurement Accuracy
 - HAER documents are half the size of actual measurements
- Access to the Data
 - HAER: Public access online
 - Scans: True view, but data is located at IUP
- Usability of Studies and Equipment
 - HAER: Easy to use and portable, not detailed
 - Scans: Need prior knowledge of software, VERY detailed
- Time and Investment
 - HAER: 8 years to complete, government funded
 - Scans: 1 year, costly

Monday

TruView and Data

File Home Share View

Clipboard: Pin to Quick access, Copy, Paste, Cut, Copy path, Paste shortcut

Organize: Move to, Copy to, Delete, Rename

New: New folder

Open: Properties, Edit, History

Select: Select all, Select none, Invert selection

TruView and Data

Name	Date modified	Type	Size
TruView Install	5/3/2016 11:01 PM	File folder	
TruView Scans	5/3/2016 11:03 PM	File folder	
Patterson-AltmanMillResearchPaper_Sar...	5/4/2016 2:38 PM	PDF File	1,518 KB
TruView and Install Instructions.pdf	5/4/2016 12:21 AM	PDF File	1,073 KB

4 items

ARHI 321-001
2035 Class
2:25 pm-2:15 pm
PRWL 225

New Method

- Few instances where this is applied locally
- Final product
 - Full 3-D replica of the mill
 - Measurable
 - Detailed
 - Free to access

Thankful Resources

- Indiana County Historic Society
- Special collections, Indiana University of Pennsylvania
- Saint Vincent's Mill, Father Thomas, Miller
 - Working flour mill, 1885 [Smaller scale]
- Saltsburg Historical society
- HAER [1987]
- McNair
- Jonathan 😊

At the end of the day...



Thank You!