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Documentation and Conservation of the 1812-Era Saltpeter Works in Mammoth Cave, Kentucky

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Abstract

Approximately 500 objects and features relating to the saltpeter mining operation at Mammoth Cave have been identified in the cave. Many of these objects remain in their original location as first constructed and are historical features in the cave. This includes many of the saltpeter vats, portions of the pump tower and pipeline, and the extensive oxcart trail. However, many portions of the saltpeter works were disassembled, reused for other purposes in the cave, and then scattered about after use. In 2015, we undertook a comprehensive program to thoroughly clean and document all of the extant remains, treat those wooden remains that were not in an advanced state of deterioration with a preservative, and move the disassociated remains to designated areas within the cave where they can be monitored and are free of dripping water or other agents of deterioration. In total, 238 objects were carefully cleaned and documented, and 84 objects were treated with a borate mineral salt to kill any active fungi. Careful documentation has allowed us to virtually reconstruct those portions of the operation that have been disassembled, and, while many sections of the operation were dismantled, a significant portion of those remains are still in the cave. Engineering details suggest that the works were constructed in at least two separate events with major design changes and improved construction techniques differentiating the two building episodes.