

***THE RESTORATION
OF THE WOOD FLOORS OF
JAMES MADISON'S MONTPELIER***



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Rosebud Co.
Atlanta, GA

Located in the rolling hills of Virginia's piedmont, Montpelier was the lifelong home of America's fourth president, James Madison. Originally built around 1760 by Madison's father, Montpelier went through three construction phases during James Madison's lifetime. The original structure built by his father was Georgian in style and in keeping with a gentleman farmer with the resources and responsibilities of running a large plantation. There were additional out buildings which included kitchen facilities and slave quarters.



In 1797 James Madison moved back to Montpelier with his wife Dolley after he retired from Congress. He immediately embarked upon a building campaign to enlarge the home into what was basically a duplex. While James and Dolley occupied the new rooms on the north side of the house, Madison's mother, Nelly had living quarters on the southern end of the home. This arrangement worked well but did pose some logistical issues as it required either party to go outside to visit the other living quarters. A large portico was added to the front of the home with four large columns to help provide a covered walk way between the two living sections.



The final construction phase during Madison's lifetime began in 1809. Significant additions were made to provide James and Dolley Madison with a home that reflected his status as the newly



elected president of the United States. Interior rooms were reconfigured to allow easier movement between the two living quarters, adequate formal rooms for entertaining the public and expand the living quarters. The work was done by Thomas Jefferson's favorite builders, James Dinsmore and John Neilson.

After James Madison died in 1836 Dolley sold the property and it changed hands several times until bought by William du Pont Sr. in 1901. Over the years, Montpelier went through substantial growth and expansion and bore little resemblance to its former self. Upon the death of du Pont's only daughter, Marion Scott in 1983, Montpelier was bequeathed to the National Trust for Historic Preservation with the understanding that it would be restored to the Madison era style and configuration. Lack of funds and legal entanglements hobbled the restoration efforts until 2000. At that time, the newly formed Montpelier Foundation under the leadership of Michael Quinn and National Trust President Richard Moe began discussions with the estate of Paul Mellon to provide funding for the monumental task confronting them. After an exhaustive architectural and archaeological investigation, restoration work began in December of 2003. Work is scheduled to be completed on September 17, 2008 in time for the Restoration Celebration.



Overview & Summary of the Wood Floor Restoration

As you would expect with any 200 year old structure, many demands were placed on the wood floors of Montpelier. Initial dialogue on the restoration of the wood floors between Rosebud Co. and the Montpelier Foundation began in September of 2005. An onsite visit was made in May of 2008 to determine if Passive Refinishing was a viable option for the aged floors. The floors in question are on the first and second floor levels and consist of all the remaining original wood flooring from each of the three construction phases during the Madison era. Total square footage for the two levels is in excess of 6000 square feet. All additions and reconfigurations since the Madison's occupancy have been removed. Rooms have been reconfigured to the 1809 construction. Wood that had sustained enough damage to compromise the structural integrity was removed and replaced with like specie. The wood throughout the first and second floor is aged yellow pine. The majority of the wood is flat sawed with

generous amounts of quarter sawn in various areas. The most noticeable concentration of quarter sawn wood was in the entry vestibule and drawing room.



For a 200 year old floor, the wood was in remarkably good condition. There were layers of a variety of clear coatings and paints of various ages throughout the home. There did not appear to be any logical sequence or repeating color scheme in the selection of surface coatings. A comprehensive paint and coatings analysis of the surface coatings was

collected and analyzed by Susan L. Buck, Ph.D. of Williamsburg, VA.

An onsite visit was made in May of 2008 for testing and sampling Passive Refinishing as a restoration option. The test site was on the second floor in a rear bedroom adjacent to the Madison's master bedroom. The following sequence shows the test area before (left) and after (right) the removal of the coatings.



The sample was allowed to dry overnight and had a much lighter color with the loss of moisture the next morning. Graining is clean and crisp and the pattern of face nailing with the cut nails is visible in the center of the sample and run horizontally. Neither of these details was visible prior to cleaning.



The testing confirmed that Passive Refinishing was a viable option and the Montpelier Foundation asked work be scheduled for early June. The restoration work began in earnest on Monday, June 2nd. The work started on the second floor in the original test room and moved from north to south through the rooms.

The condition of the floors in the master bedroom had created considerable concern as it appeared to have suffered the greatest loss of original material from an aggressive planing of the floor at some previous date. There is reason to believe that the floors had experienced water damage and were being leveled. The pictures below provide visual proof of the planing.



One of the most dramatic moments in the restoration work occurred on June 9th. Work had progressed to the second floor study. The study floors had one of the heaviest and darkest accumulations of surface coatings of any floor



in the entire home. A long rectangular room, it is centered behind the large front columns and provides a beautiful view of the Blue Ridge Mountains. Documents show that Madison spent considerable time in this room in his preparations for writing the Bill of Rights.



Work began along the long interior wall that interior wall stretched from a door going into the south second floor hallway and terminated into the fireplace that sits at an angle in the corner.

The first pass exposed staining in the floor that had the appearance of a liquid spill around the perimeter but did not appear to have a definitive pattern. As the work extended beyond the hearth by approximately 18 inches, there were numerous dark spots that have the unmistakable appearance and pattern of



drops of ink. Knowing the history of this room, the ink stains caused considerable excitement among workers and those managing the project. One cannot assume that the stains date to the Madison period but the use of the room and the presence of the stains only enhances the quality of the tour and interpretation. This discovery also set the stage for other revelations later in the project.

As the work progressed from the second floor to the downstairs rooms it became clear that Passive Refinishing was working as well or better than anticipated. Layers of old paint and varnish were being removed and the wood substrate was being left perfectly intact. This sequence of pictures shows the work in the Drawing Room and is typical of the progress we made and the results



achieved. You will notice a darker and shinier surface on the left of the photo. This is the cleaner after it is applied and before it is removed. The flooring to the right is the “before” condition we found when the protective covering was removed.

From the same vantage point we see the floor after the layers of old coatings have been removed. The amber color of the old finish is gone and the wood is exposed for the first time in many, many years.



A final comparison of the restored wood shows a more dramatic contrast of before and after. The stark color of the wood minus the build up of coatings is an excellent example of how wood ages in the interior of old homes. It is also very likely to have been the look that James and Dolley Madison would have seen.



As I mentioned earlier, the discovery of the ink stains in the second floor study created some excitement. As the work moved to the downstairs area, work began in the downstairs study. This was the room adjacent to the dining room and was where Madison spent much of his late life. Arthritis prevented his navigating the stairs so Dolley had him moved into that room. It was here that Madison spent his time reviewing his notes and editing his papers. His reasoning was that this would be the most valuable asset he could leave



Dolley. And this is where we found an even more impressive ink stain than the one in the second floor study. We now are confronted with a tantalizing theory. The two rooms where it is documented that James Madison spent most of his time reading and writing are the two rooms that now display the largest collection of ink stains in the entire house. I will leave it to the reader to draw their conclusion but in my mind it is not asking too much of the imagination to conclude that Madison himself is responsible for these stains. Perhaps some day that can be confirmed.

In keeping with the parameters and guidelines for the work, no sanding of the wood floors ever took place. Consequently there was no loss of original material from the wood floor surface. All products used to clean the old paint and coatings off the floor were VOC compliant, biodegradable and environmentally responsible. During the wood floor restoration Montpelier was open to the public and tours continued while our restoration work was in progress.

The wood floor restoration work began on June 2, 2008. All work was performed by Howard Purser, David Purser and Michael Purser. The Purser brothers are originally from Charlotte, NC and learned the trade from their late father William B. Purser. Approximately 485 labor hours were spent restoring the floors. All work was done using Passive Refinishing. Our intention has been to present as authentic a look for the wood floors and something that James and Dolley Madison would be familiar with if they were to walk through the doors. We would like to express our sincere thanks and appreciation to Michael Quinn, Director of the James Madison's Montpelier; John Jeannes, Director of Restoration and Mark Wenger, architectural historian with Mesick, Cohen, Baker Architects. Their guidance and leadership was the critical component for the successful completion of this daunting restoration project.

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