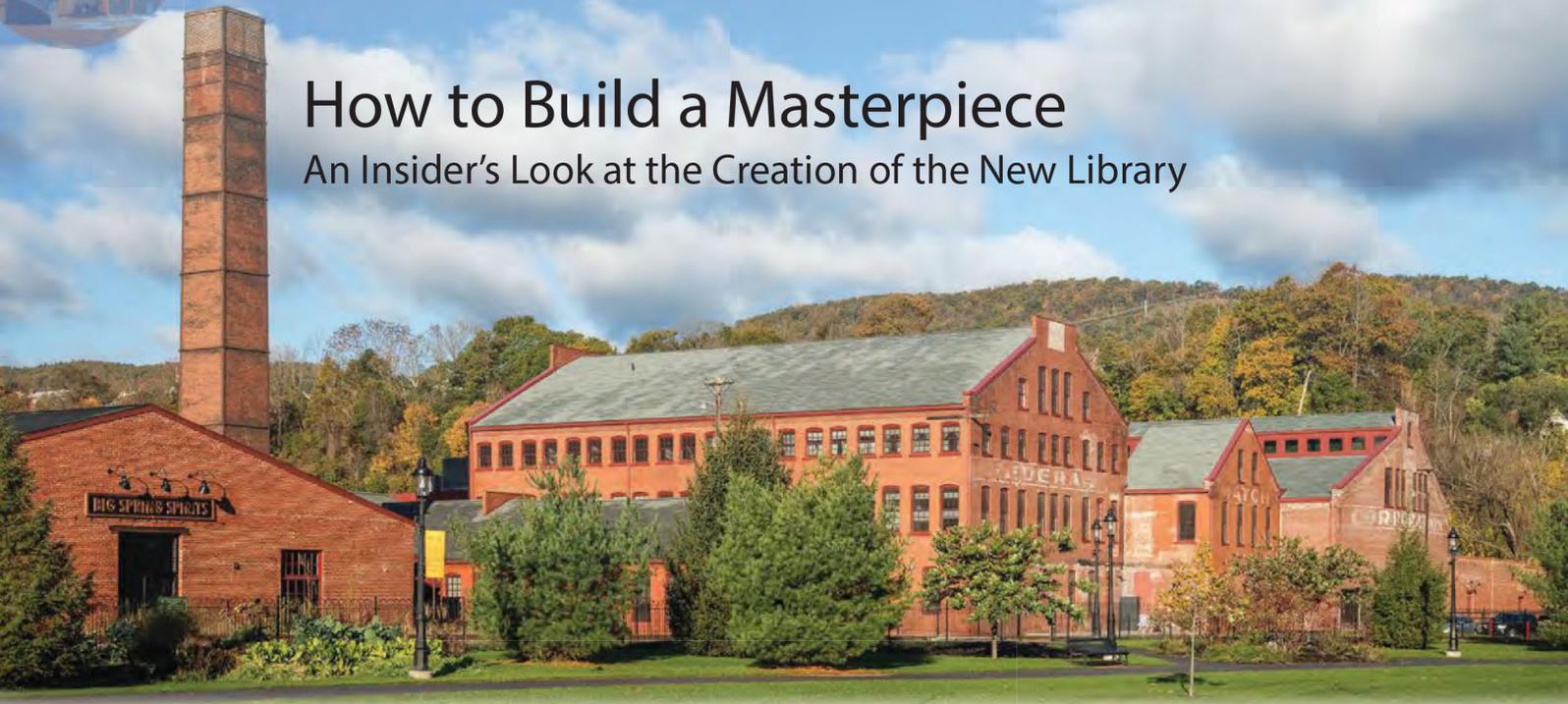


How to Build a Masterpiece

An Insider's Look at the Creation of the New Library



Match Factory Place is a large sprawling complex of nearly 20 adjacent buildings that is home to the American Philatelic Society, the American Philatelic Research Library — known collectively as the American Philatelic Center — and several other unaffiliated tenants in Bellefonte, Pennsylvania. The structure was originally constructed to manufacture wooden matches, a potentially dangerous process utilizing a lot of wood and chemicals such as red phosphorus and potassium chlorate.

The Pennsylvania Match Factory, founded in 1899, was one of the leading producers of wooden matches during the first half of the 20th century. The factory building opened in 1900, and within one year was the eighth-largest producer of wooden matches in the United States. The company was sold to the Federal Match Corporation in the 1930s. By World War II, the company had merged into the Universal Match



A numbered plan shows the American Philatelic Center's buildings and parking areas.

A current view of the back of the former match factory from adjacent Talleyrand Park. The library is within the brick structure at the right that features the faded word "Corporation" on it.

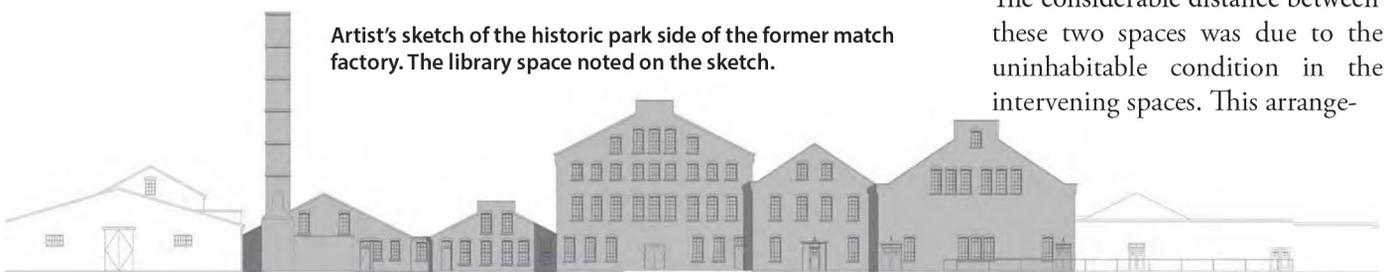
Corporation. The factory closed in 1947 because of competition from book matches and lighters. The faded Federal Match Corporation name can still be seen on the outside of the building. The Match Factory complex saw numerous other uses through the years, eventually leading to near abandonment.

This massive collection of buildings was partially restored when the APS purchased and moved into the facility from 2002 to 2004. But lack of funding stalled the renovation of the middle portion of the facility to a later date.

The American Philatelic Research Library was temporarily housed in two areas: the public library part in Building 1 and a behind-the-scenes archive area with staff-access only on the first floor of Building 5. (Early on, APS staffers learned their massive home by building numbers, 1 to 19.)

The considerable distance between these two spaces was due to the uninhabitable condition in the intervening spaces. This arrange-

Artist's sketch of the historic park side of the former match factory. The library space noted on the sketch.



Stacks/main library.

ment was far from ideal, but funding to rehab the preferred library spaces would not be available for several years. Still, the original dream was for the American Philatelic Research Library to be located in its permanent home, a potentially magnificent two-story space “hidden” from the public between the temporary library and its distant archives.

The design for the new library began in earnest in January 2010. My firm, Pieper O’Brien Herr Architects, was selected to provide architectural design services to the APS and APRL for the new library and for adjacent lease spaces. The architectural team from my firm, consisting of Chuck O’Brien IV, David Howell, Loren Wright and I, inspected the existing building where the new library was to be located. The building had fallen onto hard times during its abandonment. The roof membrane had passed its prime long ago, weathering its wood structure with harsh exposure to the elements and causing the structure itself to begin to collapse. On the day of our tour, there was fresh snowfall inside the building.

The architectural team produced the design using input from Ken Martin, chief operating officer for the APS, and APRL Librarian Tara Murray. It was a pleasure working with both of them, along with Controller Rick Banks, throughout the process. Together, we focused on the flow through the library, strategic locations for key staff and, of course, the shelving layout to optimize both the maximum quantity of books as well as the new column spacing. There are quite a few moving parts in a design as complex as this one and not enough space to write about the thousands of design decisions that were made. However, I will mention a few.

The architectural team felt it was important from the outset that the interior should look like it had always been this way. The existing brick walls were to remain exposed to view. The new wood trusses were designed to be reminiscent of the former structure in shape and form. The new steel columns were articulated with period details to mimic an iron column from a former era, possibly a style that could have been used when the original structure was built. We utilized other modern materials to further emulate the historic fabric. A wooden-floor-style finish for the area under the atrium was vitally important.

In addition, a special ceiling was needed. The pressed ceiling tiles have the visual appeal of vintage copper and also offer modern sound absorption characteristics. The tile flooring looks like wood, but has a permanent, easy-to-



The Match Factory space as it was in 2010 during demolition.

clean surface that will be longer lasting and more durable than actual wood. Both of these are replicated with modern high-tech materials. They offer the look and feel of the former materials full glory, but do so without cost and maintenance issues.

As the design progressed, the team produced two color perspective views of the library for the APS to use for fundraising. These made the APS summer and winter show circuits for several years. The architectural team also suggested a phased approach to the project that would allow the building to be stabilized and partially restored in several phases as funds became available.

Phase One: The first phase removed the collapsing wood floor and roof structure, but saved the surrounding brick walls. The existing wood structure was carefully dismantled by an Amish salvage contractor for recycling into wood furniture and flooring. The architectural team proposed a sensitively designed composite steel-and-wood structure for the new library space using historic references.

During our research, an early period postcard of the Match Factory exterior revealed a building with clerestory windows at the top of the roof line. Clerestory windows are a desirable feature and provide natural light to the new library space affording the patrons and staff a more pleasant experience. Unfortunately, this feature had been removed at some point in the past as none of the Match Factory buildings possessed clerestory windows. We did note that the existing building showed clear evidence of this former feature with

The clerestory roof, which provides light through small windows along the peak, was historically reconstructed.





An original artist's rendering (left) and a real view (right) from the front looking back in the newly-renovated and fully-finished space for the American Philatelic Research Library in Bellefonte, Pennsylvania.

the shape of the existing brick walls.

The Match Factory complex is listed on the National Park Services Registry of Historic Places. Listing in the National Register of Historic Places provides formal recognition of a property's historical, architectural, or archeological significance based on national standards. The registry's mission is to protect America's historic and archeological resources. Any modifications made to the exterior had to be made with sensitivity and historic reference. The entire preservation plan was scrutinized by the Bellefonte's Historic Architectural Review Board. With evidence that the clerestory configuration existed on the original building, the team's plan was approved.

Phase One was completed. The bones of this new structure were available for tours but not for use. Completion of all remaining phases would be required before occupancy would be permitted.

Phase Two: The library's collection was rapidly outgrowing its existing space. This phase was planned to solve this issue by accelerating the design for the high density file room on the second floor of Building 4. A high-density file system is a rolling shelving system that creates an abundant amount of storage space through moving a couple of aisles where they are needed. This behind-the-scenes space is accessed only by the library's trained staff for obvious reasons. The considerable weight of these shelves is offset by a geared mechanism that rides on recessed tracks allowing minimal effort to accomplish movement. Obviously, the increased weight of this system was planned for in the initial phase. This phase also incorporated a study carrel space that has become a favorite perch for researchers, giving them a very nice work station with a view of adjacent Talleyrand Park.

Phase Three: The open central atrium was protected by temporary construction barriers from the initial project phase. Tem-

porary barriers are intended for a construction site, but not for the public or society members touring a space that the society wanted desperately to use. So, with safety in mind, this phase was devised for the design and construction of decorative safety railings around the atrium opening, a monumental stairway connecting the two levels and installation of the permanent concrete floor on the main level.

From the outset, it was important to have a highly visible connection to the two levels of the library, promoting ease of the library patrons to circulate to the stacks and to various study and research options. In order to have this stair completely open to view, the architectural team cleverly developed a design for a separate enclosed fire stair that was placed between buildings 4 and 5, serving both the library and the tenants in Building 5.

Phase Four: As we all could see the summit of the mountain ahead, the final phase was commenced. Our collective hope had been to chip away at the project reducing the impending cost impact to an amount that was achievable. Phases 1 through 3 had progressed us to this point. The li-



A look at the closed stacks area within the library space. Staff members can retrieve these materials whenever they are requested.

brary had done a remarkable effort of fund-raising through the years for the project, offering naming rights for various spaces. Unfortunately, many of the things remaining on the to-do list were plumbing, heating, air conditioning and electrical systems. These systems are vitally important. It's just they lack a certain appeal for fund-raising. Fortunately, this final funding was achieved.

The work in this phase included the finishes for the floors, walls, and ceilings, the elevator, new restrooms, heating and air conditioning, lighting, electrical, and fire protection. We selected a highly efficient radiant heating system that utilizes underfloor piping to distribute its warming effect. This has a much greater efficiency potential than simply blowing warm air into the tall two-story space. All of the heat from a forced air system would accumulate at the top of the building. Radiant heating warms surfaces and occupants. The other systems were chosen with equal thought.

The APRL's collections continue growing at a frenetic pace. It was determined that an additional high-density filing room would be needed on the first floor of Building 4, directly under the previously designated space. These filing systems are very efficient. Future growth for the collections will be accommodated on the nearly three miles of shelving in the new library, the high-density filing systems, and with additional growth space in the now adjacent, Building 5.

Conclusion

Finally, the library is complete. After nearly seven years of meetings, designing, drawing, specifying, permitting, and observing construction, we are very proud of the finished results.

Helping the American Philatelic Society and American Philatelic Research Library reach a successful conclusion of a permanent home for the new library is very satisfying. I give thanks to my architectural team (Chuck O'Brien IV, principal/designer; Chris Holley, senior associate/designer; David Howell, senior associate/senior project manager; Loren Wright, Pittsburgh office director; Scott Maritzer, project manager, Doug Postupack and Kerry Durel, graphic design manager) and our engineering consultants for their mighty efforts. My team worked efficiently and conscientiously on this project, especially our reliable and hard-working project manager, David Howell, who grew up in Bellefonte not far from the project. The architectural efforts from my firm alone tallied more than 1,500 hours to produce this library. I hope



The children's area (right) and a reading lounge are at the back of the main floor of the American Philatelic Research Library.

you will agree, it was time well spent!

The Author

Charles J. O'Brien III is a registered architect, principal designer and serves as president of Pieper O'Brien Herr Architects (www.poharchitects.com), a position he has held for more than 30 years. In addition, he is an APS Life Member. He is also president of the Southeast Federation of Stamp Clubs which annually stages the Southeastern Stamp Expo, a World Series of Philately show in Atlanta.

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