



## **Stabilization of Landmark Kilns in Helena, Montana**

**A Partner Project with MPA  
UPenn, & ABF**



---

### **Proposal**

Montana Preservation Alliance (MPA) hope to complete the conservation work on Kiln 7, stabilize the surrounding kiln sheds and initiate a dialog about a future vision for the Archie Bray Foundation's Western Clay Manufacturing Co. (WCM) brickyard through ongoing partnership with the University of Pennsylvania Architectural Conservation Lab (UPenn), and Archie Bray Foundation (ABF). This model project is the culmination of a 6-year program to preserve outstanding, at-risk industrial heritage properties throughout the state.

### **Site Significance**

The Western Clay Manufacturing Company brickyard, located just outside of Helena, Montana, dates to 1905 and is a classic early 20<sup>th</sup> century manufacturing plant. Listed in the National Register of Historic Places in 1985, the entire complex -- pottery, tile works, drying sheds, warehouses, rail spurs and loading sheds -- appears most worthy of National Historic Landmark designation for industrial heritage and for its subsequent history as an internationally-acclaimed pottery studio born within the brickworks in 1951. While the brickyard and tileworks went dormant in 1961, the pottery has risen in prominence as a ceramic arts center with an international reputation for fostering the most notable artists working in clay today.

Once common upon the landscape, the ABF beehive kilns (and the infrastructure that accompanies them) were once the state-of-the-art means for manufacturing brick and terra cotta. By the 1950s, however, newer technologies for firing and production rendered older kilns obsolete. After a half century of abandonment, these old brickyards are deteriorated and being demolished across the nation. In fact, through our project UPenn students have discovered that the WCM is one of the last, and most complete historic brickyards in America.

Displaying a rare level of integrity, Western Clay Manufacturing retains an array of features original to the complex, including tools and equipment, machinery and fired ware along with 32 buildings within the 26-acre site. The icons of the complex are the five beehive kilns, constructed between 1905 – 1920, each encircled by brick walkways and interlocking post-and-beam loading sheds with corrugated tin roofs and brick chimneys that tower above them.

Nearby, the one-hundred year old, three-story masonry and post-and-beam tile production building is still fitted out with historic belt-driven equipment, drying room and large boilers connected by a conveyor system for moving materials and greenware through the plant. (Maps, photographs and drawings of the site provided separately, courtesy of UPenn ACL.)

The following teams will collaborate on this project:

### **Conservation Team**

#### **Montana Personnel**

MPA Project Manager & Curatorial Director, Patty Dean, thirty years in museums, public history & vernacular architecture; two years oversight of ABF kiln project.

MPA Project Administration, Chere Justo, Executive Director, thirty years in historic preservation; six years development & oversight MPA's Industrial Heritage Initiative.

ABF Technical Director, Chip Clawson, facilities & clay technician at ABF since 1979, expertise in kiln design, stewardship & restructuring; a key team member.

ABF Executive Director, Steven Young Lee, oversight of all programs for the Bray, guiding current efforts to improve educational facilities, preserve artistic traditions at the Bray and ensure longevity of its outstanding ceramics programs.

#### **UPenn Personnel**



Project Direction, Professor Frank Matero, UPenn will oversee conservation efforts, UPenn personnel and students.

Conservators John Hinchman and Joe Torres, extensive expertise in restructuring industrial sites, including the ABF project 2010 -2011.

UPenn students, onsite preservation crew-in-training, execute supervised kiln repairs.

#### **Trainers and Consultants**

Bob Valach, Historic Mason, will train UPenn kiln conservation team to repair masonry walls, stabilize kiln arches and openings.

Paul Mardikian, Metals Restoration Consultant

Historic Architecture, Jim McDonald, A&E Architects, oversight, historic architect and preservation specialist. He supervised drafting of kilnshed plans by 2012 intern Chris Taleff, The Cooper Union's Chanin School of Architecture, coordinating structural review by Beaudette Consulting Engineers.

### **Why Now?**

The Montana Preservation Alliance, the Archie Bray Foundation, and the UPenn Architectural Conservation Laboratory are eager to continue our momentum at the brickyard. The reasons not to delay are twofold: urgency and interest. There is an urgent need to stabilize these kilns while the interior dome structures are still intact and before the domes are breached by deflection, earthquake, or snow loads. Reinforcing the walls to contain downward pressure and outward thrust will protect them against such threats. The other key to this is to keep water out by repairing the kiln sheds and creating a moisture barrier so that water does not run down through the exterior kiln walls.



As a result of all of our work, people are mobilized. We have had statewide media, the project has shifted perceptions, and the Bray board and staff are most appreciative of assistance from the outside; they are eager to explore future concepts for the brickyard and to mothball other structures on the grounds, including the tile works.

Five years ago, no one would have dreamed it was possible to put the brickyard, kilns and sheds back into some kind of productive service. Meanwhile, MPA and UPenn have cultivated some expert partners, in-kind match that are leveraging support to continue moving forward.

Thank you very much for the opportunity to be considered for support and partnership.