Stage One

In 2018, the Texas General Land Office contracted with Preservation Design Partnership for the most comprehensive restoration and preservation program ever conducted on the Alamo Church and Long Barrack. Throughout 2019, the program rolled out a set of investigation tools in conducting **Stage One** of this program.

To investigate the historic architecture, present-day problems facing these structures, and determine both short- and long-term solutions for their stability, the preservation team utilized archeological investigations, geothermal radar to map heat, moisture, voids, and salination, nondestructive evaluations, and minor core samples of the five different stone types.
These five types of stone comprise the Alamo Church, which was constructed over five different building campaigns between 1740 and 1851. Varying types of mortar have also been used. All these stones are porous but deteriorate at different rates. Moisture collects in each stone to a different extent, based on its type, location, structural soundness, age. Salt collects and saturates the stones in a similar way. With the data gathered, preservation architects have proposed a comprehensive analytical program to understand the properties of the stone and the mortars to determine how they are performing and are impacting the long-term preservation of the Church. This work needs to be completed above and below grade to inform both the structural analysis and recommendations, as well as the conservation of the Church.
Previous preservation campaigns have been executed in good faith, but unfortunately produced negative results. In 1995, a Monel plate was installed near the base of the east wall at the back of the Church. At the time, however, excavations did not reach the true foundation of the building, and because of this the metal device has not prevented moisture rising and mold production in the ways it was intended to. Rather, it may have allowed excess moisture and rising mold to enter the stones. Similarly, layers of lime wash have been applied to the stones over the years. Each holds a different tint and collects dirt and debris differently. Dirt and debris can activate stone degradation, and also pose a challenge to preservationists in determining the true character of the stone. Finally, the concrete barrel vault roof installed on the Alamo Church in the 1920s is roughly 100 years old, and contains rebar and metal beams which are actively corroding. Heat mapping has allowed preservationists to target severe areas of corrosion, as well as places which could post a future threat. Archeological investigations are also aiding preservationists in a variety of ways. Pits placed in pairs throughout the Church and Long Barrack allow archeologists to find previous disturbances to the buildings, such as 20th century utility pipes, areas with kick out stones indicating prior reinforcement, conditions of structural stones avoiding direct environmental impacts, and in some cases the foundation of the building.

**Early Efforts**
These preservation investigations also yielded some exciting building history. While investigating data regarding the 1995 Monel Plate, preservation architects located the previous existence of the Church’s “Paseo de los Muertos,” or “Door of the Dead,” which was found on the far east side at the back of the church and would have been used during funerals. Fire and soot marks have been located along the stone pillars which would have stood at the corners of the cannon rampart used during battle, and the historic floor of the church building has been located.
At present, preservationists are still searching for answers to certain questions regarding church construction and materials used. Completion of the program, including additional excavation and structural analysis, will allow preservation and design engineers to provide the GLO with a comprehensive long-term care plan for the Alamo Church and Long Barrack so Texans and all their guests may continue to learn from and honor the story of the Alamo for another 300 years.