Beyond Blueprints:

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The 148 original architectural drawings of the 1880s Texas Capitol that survive in the Texas State Library and Archives collection are important to people for different reasons. Historians study them as valuable records of the past. Architects appreciate them as fascinating plans which document the design of a monumental nineteenth century public building. Artists see them as intricate and beautiful works of art. However, all agree that the drawings represent one of the finest remaining examples of what for some time has been a lost art form—the production of full-size, detailed, hand-drawn and hand-colored building plans—a process now accomplished through the use of computer-assisted drawing programs.
The drawings—ranging in size from 11" x 12" to 44" x 93"—are on linen drafting cloth which has been starched with gelatin. Linen was chosen as a support due to its durability, translucency for tracing and ability to withstand a great deal of handling. Architectural draftsmen produced the Texas Capitol drawings in the early 1880s using a wide variety of drawing instruments. Early technical pens, called stylographs, were designed specifically for drawing and fine writing. The A. T. Cross pen pictured was made in 1879. This type of pen preceded fountain pens. The stylograph employed a hollow glass tube instead of a nib to transport ink to the linen, and produced lines with incredibly consistent widths and saturations. These pens were among the first practical drawing instruments to contain internal ink reservoirs, freeing draftsmen from the constant dipping required by earlier models.

Dip pens also may have been used to render certain details requiring varied line widths. The drawings contain at least five different colors of ink. Colors other than black and red were highly unusual in the late nineteenth century.
On November 20, 1880, the two Capitol Building Commissioners announced a national design contest for a new Capitol in Austin. The winner's fee was $1,700. Eight architects, using such imaginative pseudonyms as Pay as You Go, Woglosnop and Lone Star submitted drawings for a total of eleven different designs. Famed New York City architect Napoleon Le Brun selected the design submitted by Tuebor, that is, Detroit architect Elijah E. Myers. The Commissioners agreed with Le Brun's choice of architect and his suggestions for a few design changes in May of 1881.

Born in 1832 in Philadelphia, Elijah E. Myers studied architecture and engineering at the Franklin Institute in Philadelphia. He designed many public buildings including the Michigan and Colorado capitol. He died March 5, 1909.
Myers had submitted 15 drawings as part of the design competition for the Texas Capitol. He envisioned a massive Renaissance Revival-style structure based on the architecture of 15th century Italy. One of the design changes required by the Capitol Building Commissioners was to change the dome from square to round. Upon Myers' arrival in Austin, the competition drawings and building specifications were revised to reflect these changes at no cost. E. E. Myers signed the agreement to produce the construction documents for the building for $12,000 on May 17, 1881. Although he helped to stake out the site of the building early in 1882 and eventually produced the documents, he failed to continue to revise them to the liking of the Commissioners. He spent much of the time at his architectural firm in Michigan, and his relationship with Texas officials deteriorated. Although he was never fired, his duties as architect were essentially over by the end of 1886.
Two factors led to the deterioration over time of this important collection: the cloth upon which they are drawn and the uneven care of the documents earlier in this century. Although the cloth is durable, it has organic sizing. This can provide a breeding ground for mold or vermin attack depending on storage conditions. Prior to their transfer to the custody of the Texas State Library and Archives Commission, the plans were handled and stored inappropriately and kept for many years in an environment that encouraged extensive mold growth, resulting in significant physical damage. During the several years of the 1990s Capitol Restoration Project, it was essential to study the drawings in detail. Although extreme caution and care was exercised, the unrolling and re-rolling exacted its toll on the drawings in terms of additional tearing.
In 1990, the State Preservation Board—in conjunction with the Texas State Library and Archives Commission—arranged for the drawings to be surveyed comprehensively by Cheryl Carrabba, a nationally-recognized, Austin-based paper conservator, who concluded that, "the drawings are threatened by eventual destruction due to their present condition." Through the generosity of the Texas Inaugural Endowment Fund Committee, Carrabba was hired to treat the collection in 1997-1998. Each drawing was flattened, cleaned, mended and reinforced. The conserved drawings were then placed in protective plastic sheeting called Mylar and archival folders in cabinets specially designed for flat storage. The conserved drawings were also photographically duplicated; both the originals and archival copies are stored at the Texas State Library and Archives; whenever possible, the copies are used for reference to decrease handling of the originals.
Myers originally planned to top the Texas Capitol with a square dome. Officials preferred a round dome like that of the nation's Capitol in Washington, D.C. and required the change. Some of the original design elements for the building also could not be completed. For example, the limestone chosen for the exterior of the building was not suitable. It developed rust-colored streaks when exposed to the weather. After a two-year construction delay, the owners of Granite Mountain near Marble Falls offered to give the state free of charge all the red granite it needed for the exterior walls of the Capitol. The original elaborate designs, including fluted-Corinthian pilasters and carved urns, eventually were removed from the plans.

The Myers drawings were in poor condition before conservation with deteriorated Scotch tape applied to tears and cracks in the linen over the years. In addition to the tape, Conservator Cheryl Carrabba, Assistant Kathryn Blount and Assistant Lysa Allen removed the stains from the original drawings using magnification to avoid changing the original inks. They applied light-weight mending tissue using a small amount of wheat starch paste to tears and breaks in the linen. Workers applied pressure using a bone folder to secure the mending tissue to the surface of the original drawings. They performed localized surface drycleaning to take off loose dust and debris from the drawings which accumulated during storage. They gently misted the surface of the original drawings to release folds created by inappropriate handling and storage. Humidifying the brittle linen allowed for the drawings to then be flattened using weights.

The original drawings were photographed once they were conserved. This process occurred at Accugraphics in Austin, carefully monitored by the conservators and the state. Because of their fragility, the drawings were placed behind Mylar and attached one by one to a board using a vacuum to hold them in place. The large camera photographed the drawings in their entirety. On the resulting negatives, Accugraphics staff members masked imperfections in the original drawings that were not able to be removed during the conservation process so that the resulting full-size Mylar archival copies were as clear as possible. A machine then transferred the image from the masked negative onto Mylar. Many of the future researchers of these drawings can use these full-size Mylar copies instead of the original drawings, thereby increasing the longevity of the originals.

Once the drawings were photographed, conservation staff members used a heat-sealing machine to encapsulate the original drawings individually in polyester film for their protection. They examined the finished seals in the Mylar for weaknesses and carefully loaded the delivery van for many trips to the Archives building loading dock. Conservation and Archives staff members unloaded the treated and encapsulated original drawings and Mylar archival copies, and gently placed the oversized items into the custom-made storage cabinet. The paint on the cabinet provides a stable environment for its contents and lockable cabinet doors provide additional security for these important Texas treasures.
Acknowledgements


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