

As a dual degree student in Architectural Design and Construction Management, I was surprised to find two disparate course series, one dedicated to the history of architecture, and the other to that of construction. Architectural history focuses on the evolution of design canons, and on the manifestation of society's values and priorities in its built landmarks. Credit for the finished work is attributed to the architects and the patrons. On the other hand, the history of construction focuses largely on the material and technological advancements that contributed to building endeavors. The bridge between the two fields of study is conspicuous by its absence. From my position at the interstice of two disciplines, I decided to compare two historical landmarks of 16th-century Europe: the Basilica of Saint Peter in Rome, and the Monastery of San Lorenzo de El Escorial near Madrid. Going beyond their design evolution or construction techniques, I focused instead on the management and execution of their construction. My research questions pondered the geopolitical contexts around the buildings' patrons, funding, and inception, the chronological sequence of construction and the challenges therein, and the living conditions and organizational hierarchy of the thousands of individuals laboring under the architects and patrons.

The comparative nature of my ten-week Honors Project required synthesis of a sizable amount of information from the coteremporary political histories of Spain and Italy to design changes and construction process milestones, to anything related to the procurement of labor and materials. Uneven quantities of research exist for each building. While the history of design at Saint Peter's is well documented, interest in its construction and key figures other than the architect is relatively new. The Catholic Church's construction company, the Fabbrica, undertook numerous construction projects throughout Rome, and sources often address the bulk of these projects rather than the basilica specifically. The Vatican Archives hold exhaustive records and construction ledgers, which anglophone and italophone scholars have mined for a long time. The Monastery of El Escorial has not attracted the same amount of international scholarly attention, but the corresponding literature does focus on the project alone, rather than as one of many royal commissions. Much of the original documentation about its construction, such as ledgers and royal decrees, remains in the 16th-century Archive of Simancas and the Royal Library of the Monastery, thus these records are only recently being analyzed. Due to the smaller volume of research and newer interest in construction of El Escorial, little archival material was available.

The onset of the pandemic hindered access to information, but these limitations opened alternative avenues of investigation. For example, I found a Catherine Wilkinson-Zerner review of a 1994 book by José Luis Cano de Gardoqui y García about the construction enterprise of El Escorial, identifying it as going beyond questions of architectural history addressed in another pivotal publication by George Kubler twelve years earlier. The publication contained critical information for my research about the organization and disposition of materials and workers. To my dismay, the physical book was not available at the UW Libraries, and the pandemic had shut down interlibrary loan. Nonetheless, name-searching the book and author led to three articles of key importance, one recounting the provenance of funds for the project, another the supply of wheat that fed the workers, and one about the working schedules of laborers. Following this lead revealed the same author in the bibliography of articles from as recently as 2017 and 2014, one detailing the use of models and scale drawings in construction, and another on the earthmoving required for the endeavor. My advisor recommended two articles on Saint Peter's. Following leads on their bibliographies, I found many more on online databases like JSTOR, or Dialnet. From these, it was easy to filter out which publications would address exclusively architectural topics rather than construction using their abstracts and keywords. The topics addressed included the machinery used at the jobsite, the hierarchy of workers, and studies on the lives of two key figures who

fulfilled novel roles that combined that of an architect, of a superintendent and of a general contractor. Specific information about one building project raised similarly specific questions about the other. In some cases, the parallel simply could not be established; for example, El Escorial required an on-site wheat supply due to its isolated location, but near the urban jobsite in Rome food was probably more readily available, and therefore has not been a topic of scholarly research. Other topics offered exciting comparisons: while funding for El Escorial came from colonies and taxes, the papacy funded Saint Peter's through indulgences, and much of the funding came from the Spanish crown. Often, the answer was not within reach, so the question remained open as a rhetorical point of comparison. In a similar way that my research represents a conversation between architecture and construction history, many guiding questions and findings surfaced thanks to the back-and-forth dialog between the available information on the Spanish monastery and on the Roman basilica.

An analogous conversation framed by my two disciplines of study allowed me to examine my research through a new lens: modern project management. The type of historical research I did was not at all part of my Construction Management curriculum, yet my own interest in that discipline and some of its key concepts, such as organizational hierarchy and construction procurement contracts, allowed me to process the literature in and create organizational charts reflecting the hierarchy of workers at both worksites. My bilingualism worked in my favor for the sources in Spanish and English, and three months of study abroad in Rome proved enough to get me through several sources in Italian. Perhaps the most difficult part was delimiting the scope of my paper, for it could easily devolve into a life-long project. In fact, after submitting the project and graduating, I returned to Spain and visited El Escorial. I also located print sources that would have been useful in my research, which to this day I would like to continue pursuing.