

Architect/Builder Builder/Architect

by
John P. White, JR

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of the degree of Master of Architecture

Approved

Jaan Holt, Chairman

Marco Frascari

Susan Piedmont-Palladino

Joseph Wheeler

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a center for masons



"Detroit Industry" by: Diego Rivera



abstract

Throughout architectural history, the relationship between builder and architect has been ever-changing. Architects traditionally evolved from the building trades with a fundamental understanding of the principals behind construction. Architects have since evolved into a profession based in academics, not in actual tacit knowledge. The current relationship between architects and builders is complex. The Architect questions the ability of the builder. The builder questions the knowledge of the architect. Collaboration has become very difficult. These buildings are an attempt to use the built environment as a tool for both the architect and builder to gain a better understanding of what the other does.

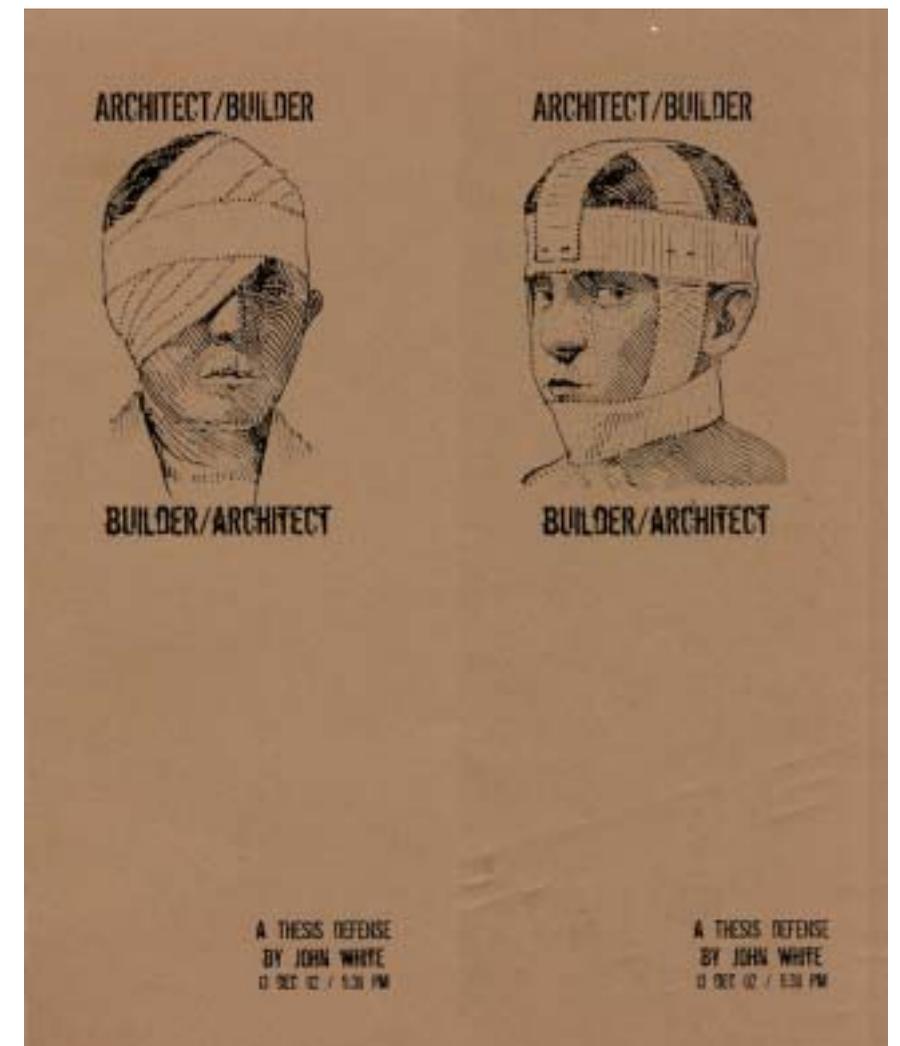
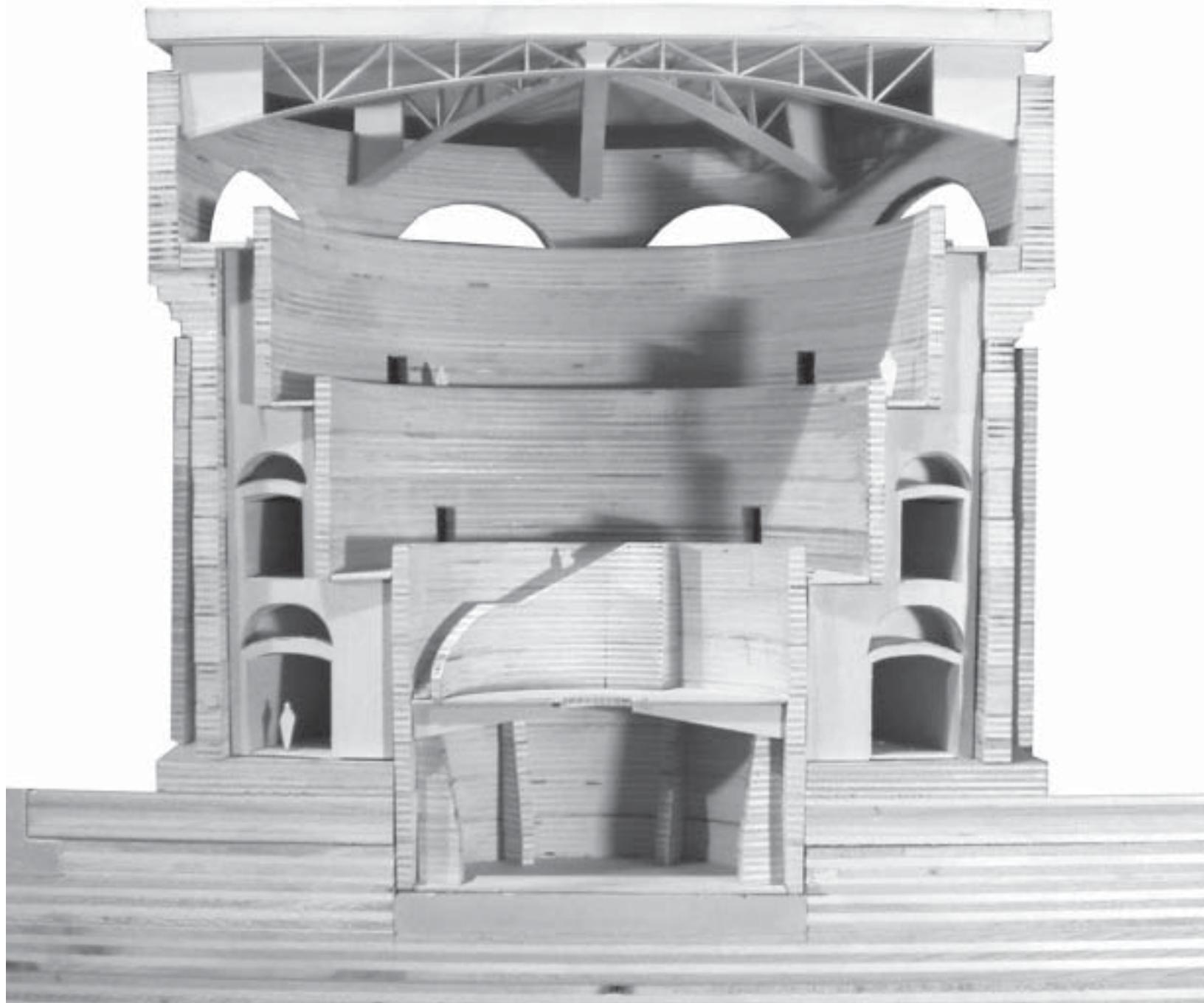


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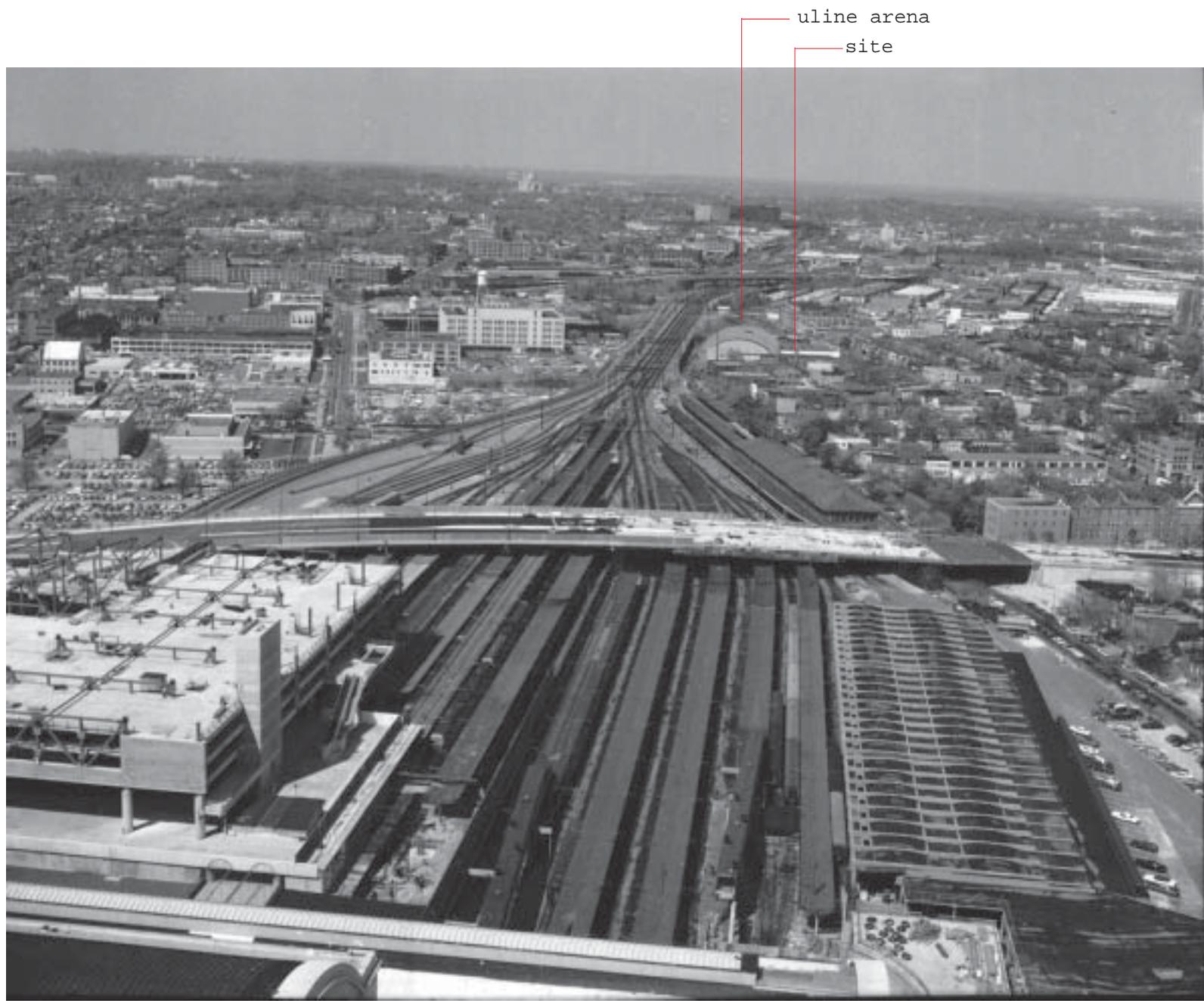
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introduction

The site selection for a building of this scale and program was challenging. The site needed to satisfy several major issues: First, the site needed to be rather large to encompass all of the various programmatic needs. It needed to be located in an urban area easily accessible by both car and mass transit. The context needed to be mixed-use in nature to respond to the various components. For the success of this type of project, the site was as important as the building type. Washington DC was chosen as the location for its rich history of masonry construction of buildings ranging from utilitarian to the monumental. The site selected is located approximately 8 blocks North East of Union Station. It houses an immense long span structure named the Uline Arena. It once was significant arena with uses ranging from dance hall to hockey arena. This structure was used both as inspiration and later as program for the complex. This site is significant to the area, because of its rich historical significance, and the Uline Arena is turned to the same angle as Union Station. This creates an interesting site composition with a railroad located to the West and the other 3 sides are aligning with the North-South city grid. The site is located approximately 1 block from a Metro Station, and is easily accessed by car from the Baltimore Washington Parkway. This is extremely significant to the final users of these structures.





03







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b



c



d

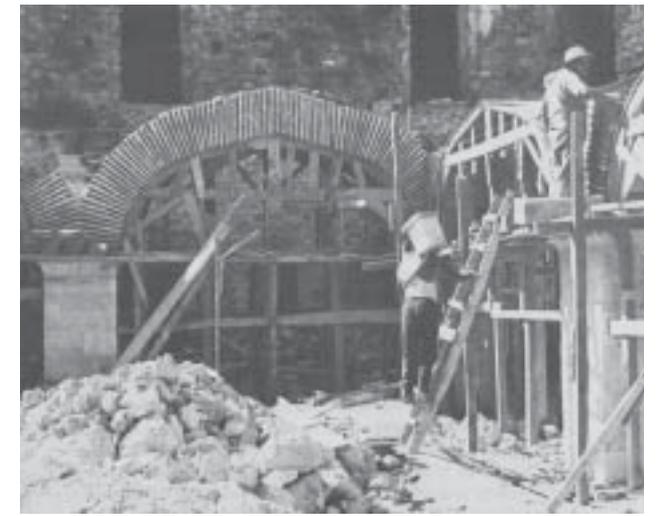
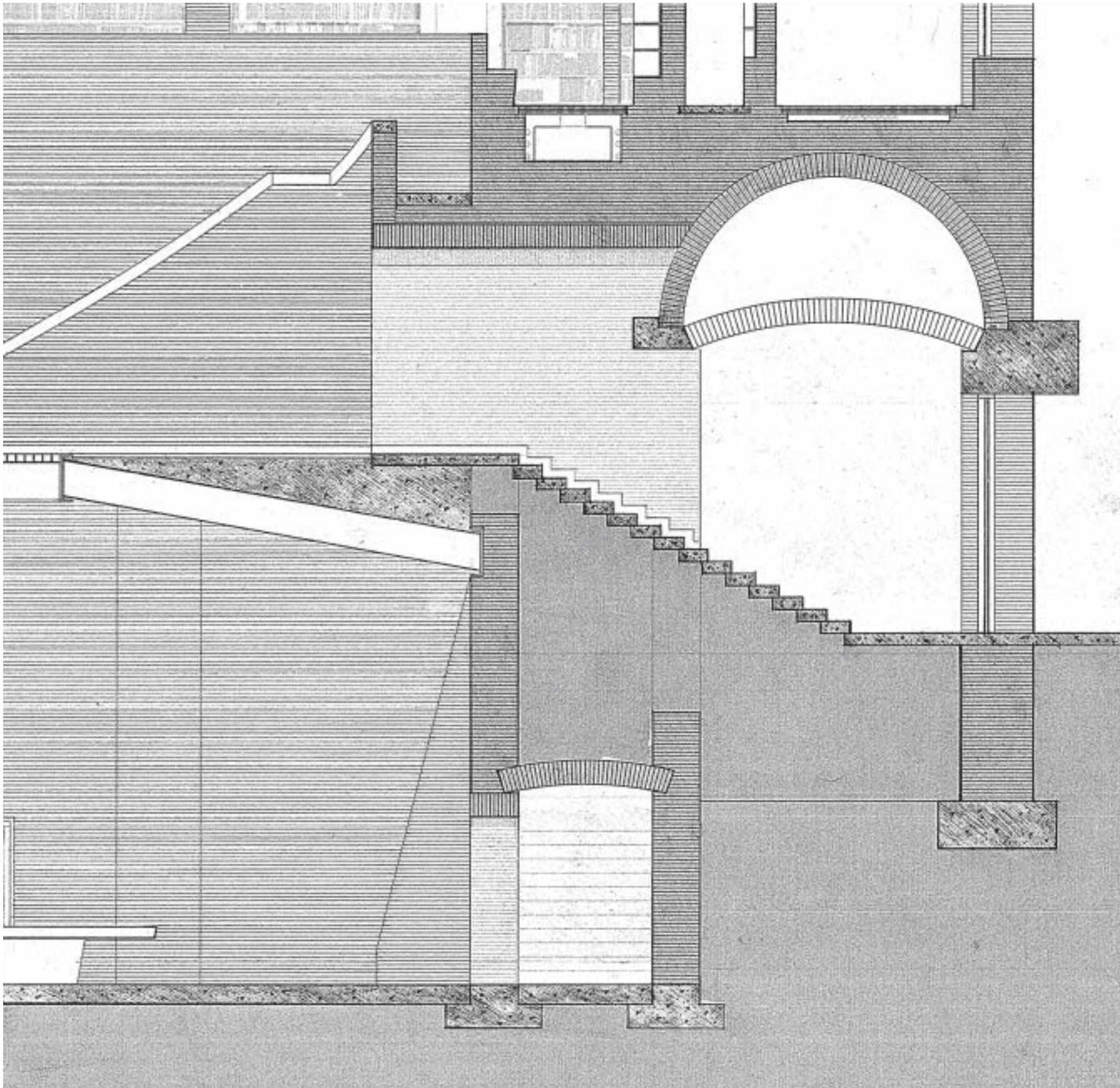


units



The masonry unit is a part of a whole. Its form and structure derives from the inherent properties. The architect then arranges these units as they need to be. Throughout history the detailing of masonry has slowly changed from that of utility to that of ornament. Where there was once a hole between courses used for a construction scaffold, now this void is left to exemplify a style. Arches are no longer made for structure. They are purely ornamental. So if masonry is to be true to its inherent properties, should the technological advances that have been made be disregarded? How can this material be used to satisfy both situations? Can modern buildings be detailed in order to stay true to the material, yet satisfy the technological advances in areas such as moisture control and temperature control?

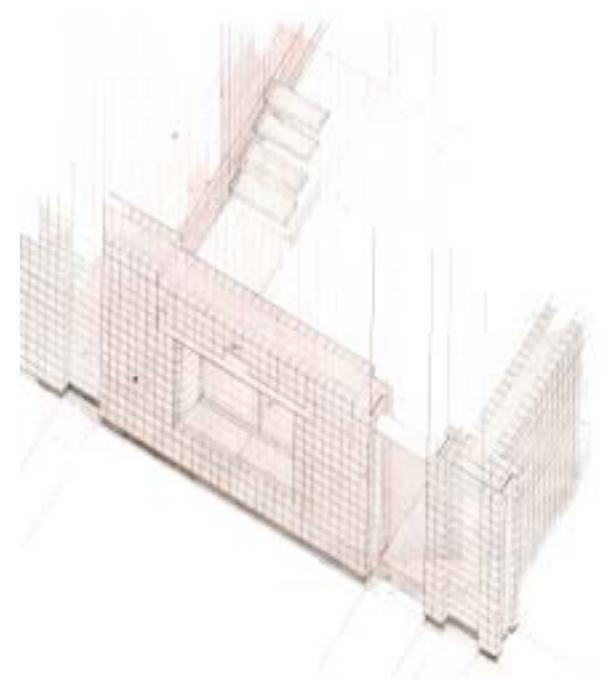


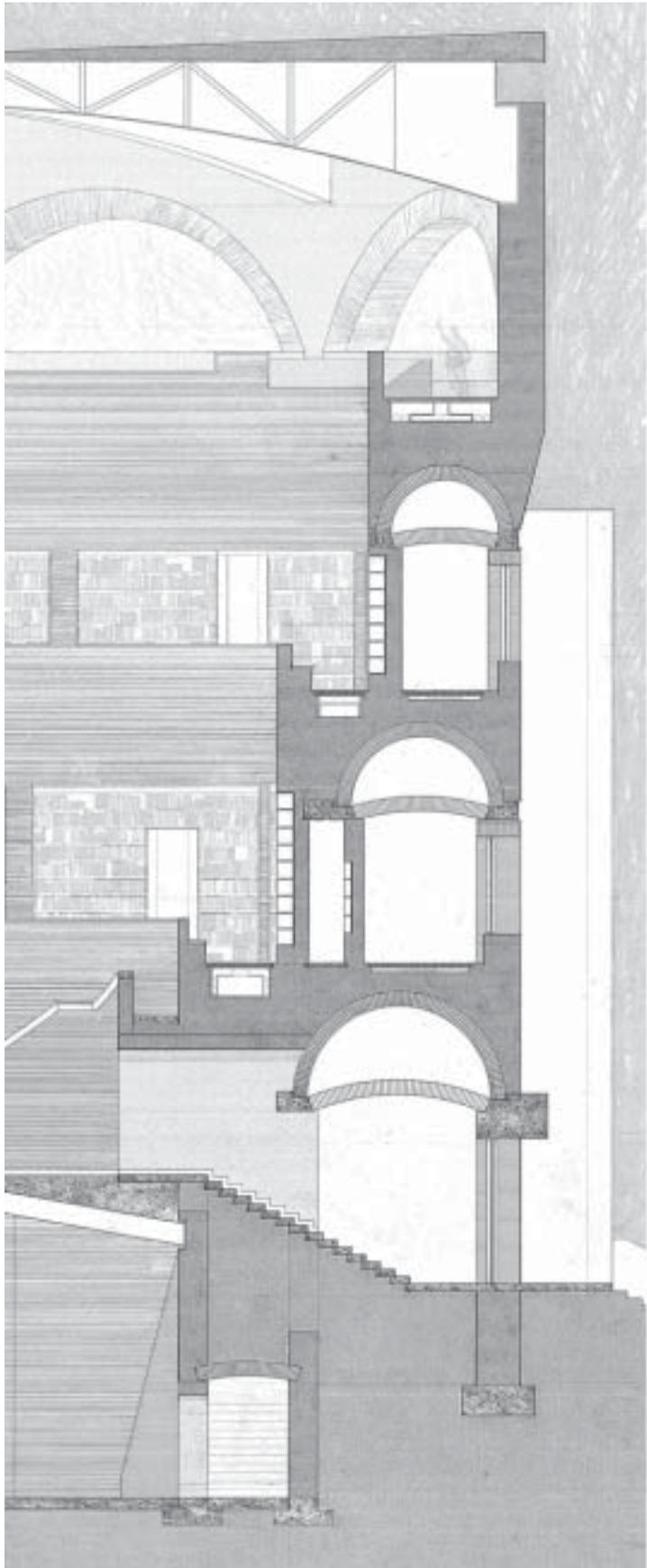


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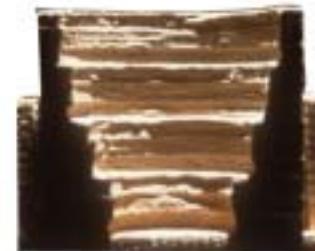
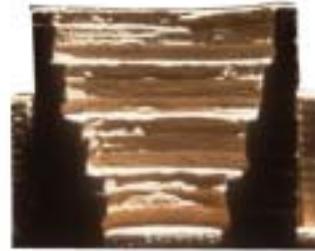
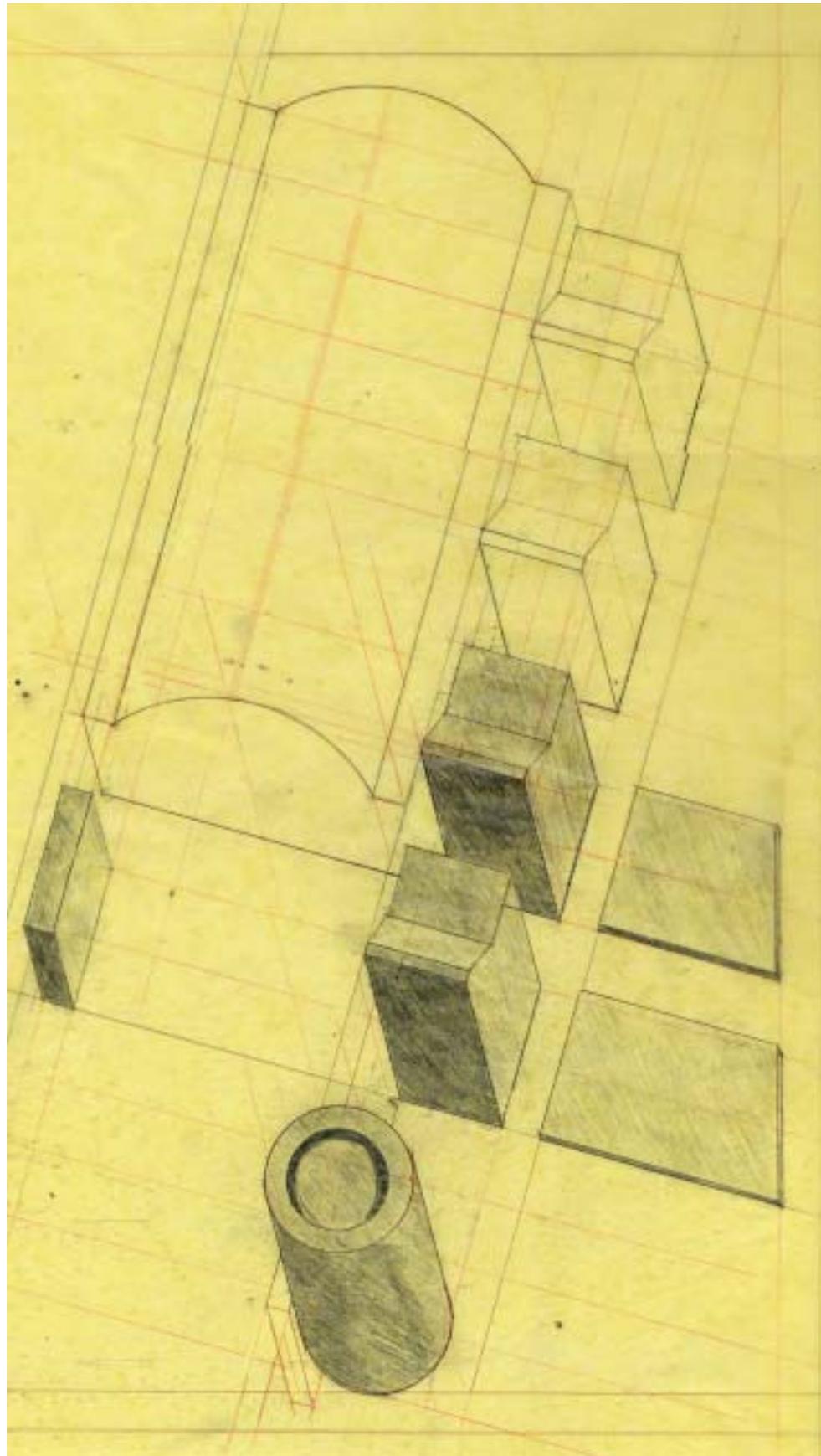


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design



The design of this complex was a two part exercise. The first was a basic master plan. The second was to design one specific building that would exemplify the main ideas behind the thesis. This building is the library. It is to be a place of gathering and learning for both the mason and the architect. Here the students will learn from the structure of their surroundings. The basic *parti* of the library is a circle in a square. The circle is a very important symbol to masons. A circles radii are all equidistant from the center. Masons believe that all members are equal. The square was derived from the surrounding grid of the area. The details were derived form the principals of masonry as a load bearing material, yet not shunning the modern day construction practices that trades people practice.

