Utah Valley University | Department of Architecture and Engineering Design

PROJECT 04
Corinthian Monument to the Family
at Provo City Center Temple

ARC 1010 | Classical Architecture Workshop | Prof. Brandon Ro, AIA, NCARB

DESIGN BRIEF

See course website via Canvas for additional info

TOPIC

"Families are the compass that guides us. They are the inspiration to reach great heights, and our comfort when we occasionally falter."

– Brad Henry

"Live a life as a monument to your soul."

– Ayn Rand

"Call it a clan, call it a network, call it a tribe, call it a family: whatever you call it, whoever you are, you need one."

– Jane Howard

"Monuments are for the living, not the dead."

– Frank Wedekind

"A building without ornament is like the heaven without stars."

– George Santayana

"A happy family is but an earlier heaven."

– George Bernard Shaw

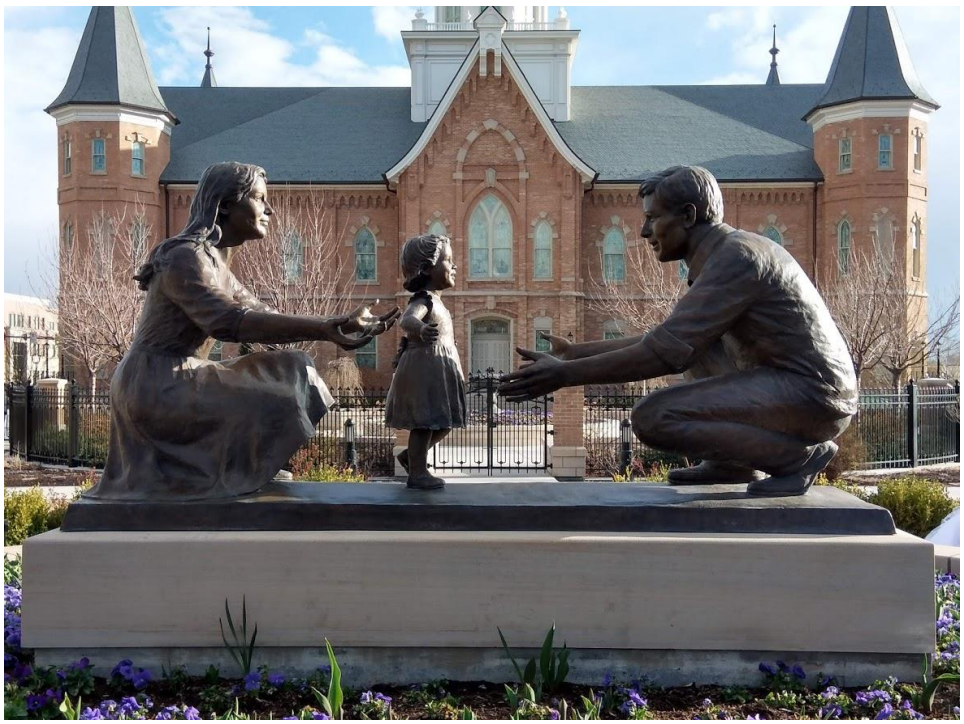
"What you leave behind is not what is engraved in stone monuments, but what is woven into the lives of others**."**

– Pericles

DESIGN CHALLENGE

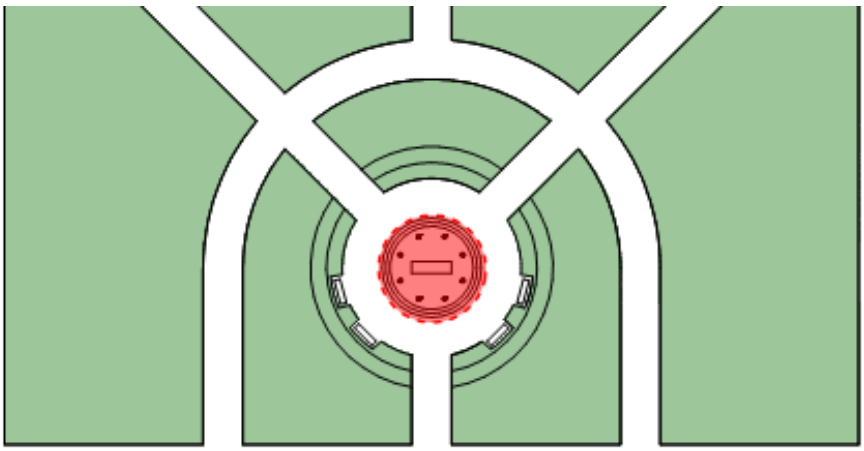
You have been commissioned to design a beautiful pavilion that will serve as a monument to the family. The structure's purpose is twofold. First, the structure will house a bronze statue by sculptor Dennis Smith titled "In the Family Circle." Second, the structure will serve as a backdrop for newly married couples or families when posing for photographs.

- Classical columns in the Corinthian order will be used and likely encompass the entire structure. Typically, an even number of columns will accompany the design.
- The shape of the plan will be determined by each designer as they see proper with the existing landscape design. This can be square, circular, hexagon, octagonal, etc. Remember the lessons about sacred geometry. The overall footprint of the structure (including stairs/ramps) must fit within a 25 foot diameter circle.
- A minimum 8 foot sidewalk will surround the structure.
- The structure will sit on a platform 18 inches above the surrounding sidewalk. It will be accessed by three stairs and/or ramps.
- If any walls are used, they will be 24 inches thick and made of solid masonry.
- The sculpture is 3 feet long by 10 feet wide and 3 feet high and will sit on a pedestal.



SITE

The site is located just north of the Provo City Center Temple in a public park known as the north garden plaza. The project will replace the circular vegetated planter area that currently houses the sculpture in the existing plaza.

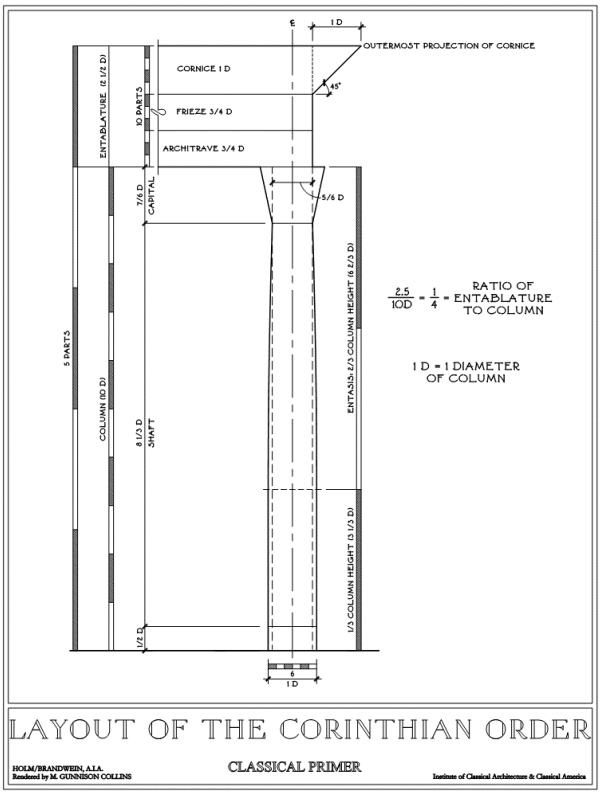


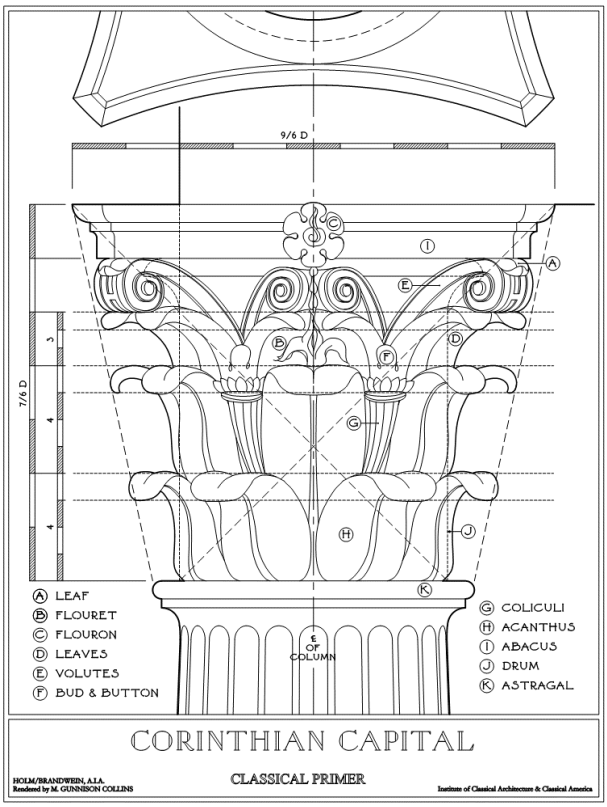
ASSESSMENT

The project will be broken down into eight sub-parts. The weight of each part of the project is broken down as follows:

PROJECT 04: Corinthian Monument to the Family	***25%***
Part A – Drawing of Corinthian Order	40 pts
Part B – Precedent Analysis – Ornament	10 pts
Part C – Esquisse (Concept Development)	10 pts
Part D.1 – Refinements (Schematic Design)	10 pts
Part D.2 – Final Drawings (Design Development)	50 pts
Part E.1 – Analytique Concepts (Sketches)	10 pts
Part E.2 – Analytique Rough Draft (Black & White)	20 pts
Part E.3 – Analytique Final Rendering (Shade & Shadow)	100 pts

PART A – CORINTHIAN ORDER DRAWING





PURPOSE

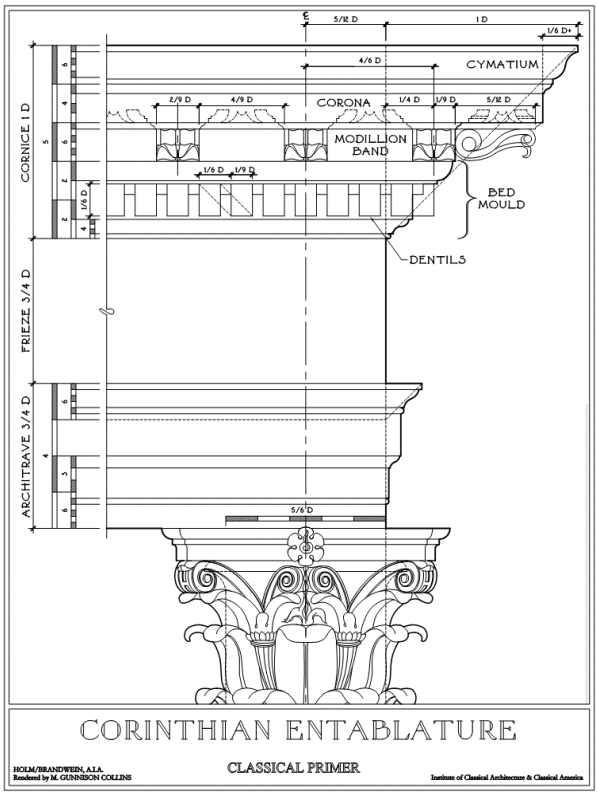
To achieve a successful design proposal, each student must first understand and gain mastery of the elements of architecture; for it is with the elements that we compose poetic and meaningful architecture. In order to familiarize oneself with the classical orders, however, it is important to draw each order with all its component parts.

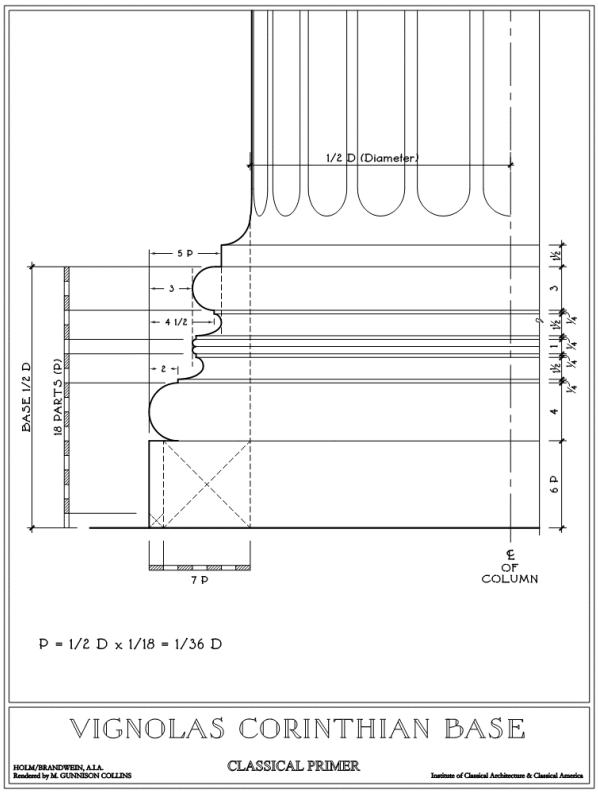
DELIVERABLES

In Part A of Project 4, each student will learn the parts of the Corinthian order through the process of study, analysis, and drawing. In order to construct the complete Corinthian order and its unique modillions and acanthus leaf capital, students will follow William Ware's *American Vignola* to produce the following drawings:

- A1 - Simplified overall block order
- A2 - Column base and capital
- A3 - Entablature

Each of these drawings will be produced in the student's sketchbook or on a separate sheet of paper. The drawings will be submitted as a color scan (150 dpi min) via Canvas.

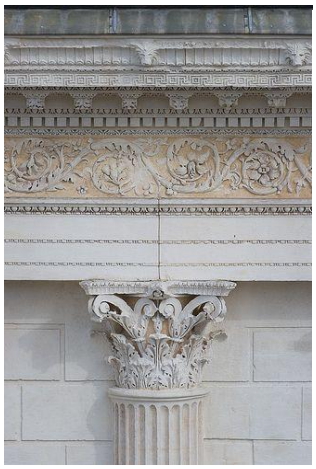


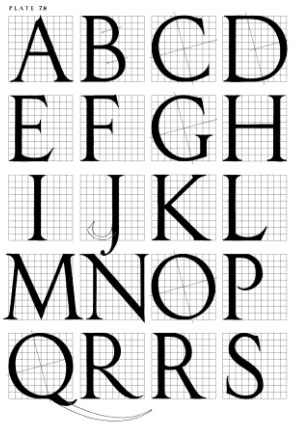


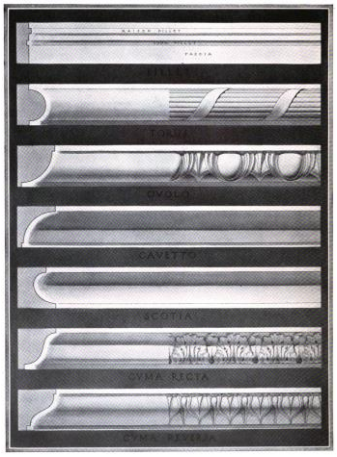
READING

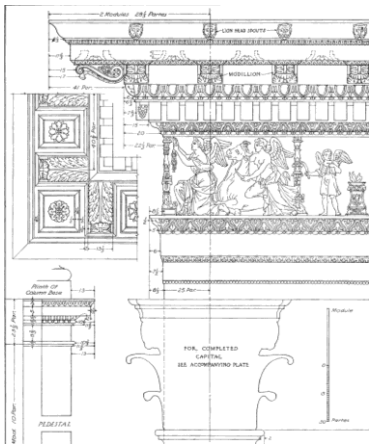
Ware, William R. *The American Vignola: A Guide to the Making of Classical Architecture*. New York: Dover, 1994. Older edition PDFs available online: (Book 1) https://archive.org/details/cu31924091026504/page/n1 (Book 2) https://archive.org/details/americanvignola00vigngoog/page/n5

PART B – PRECEDENT ANALYSIS – ORNAMENT









PURPOSE

For Part B of the project, each student will perform a type of precedent analysis that looks at architectural ornament. Students will learn how to draw three types of architectural ornament found in the frieze area of an entablature in preparation for their own design. The successful design and application of architectural ornament will be manifest particularly in the final analytique rendering.

Examples of classical frieze ornament can be viewed here: https://www.pinterest.com/brroarch/classical-frieze-ornament/

DELIVERABLES

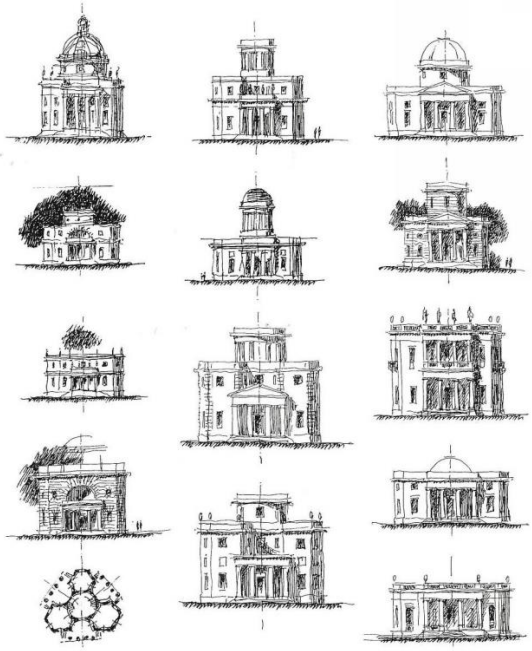
Students will select three types of architectural ornament to draw that are typically found in the frieze of an entablature. These categories can include any of the following:

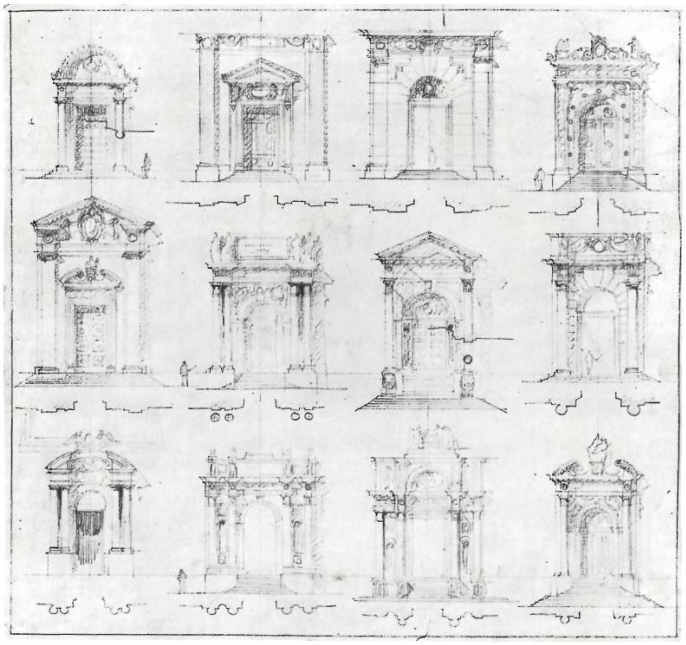
- vegetal
- geometric
- animal / human-form
- typography
- hybrid (combination of 2 or more of the above)

After selecting the examples from three categories, students will draw each ornamental pattern within a 2-inch-tall band representing a frieze. Shade and shadow must be applied. These will inform the final design of ornament for the monument.

Each of these three frieze band drawings will be produced in the student's sketchbook or on a separate sheet of paper. The drawings will be submitted as a color scan (150 dpi min) via Canvas.

PART C – ESQUISSE (CONCEPT DEVELOPMENT)





PURPOSE

Part C of the project is where you develop your design concepts. Embedded in the *Ecole des Beaux-Arts* curriculum was the *esquisse* – a French word for sketch. The esquisse can be defined as a preliminary sketch showing the main ideas of your solution to the design challenge. It is done in a short-fixed time, usually anywhere from a couple of hours to nine hours. Your final design for the project will be founded on your esquisse.

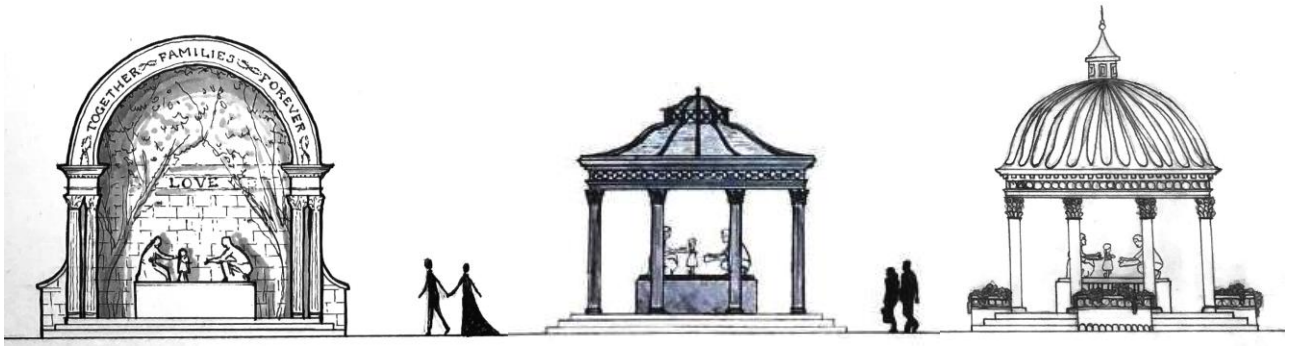
Examples of classical pavilions can be seen here: https://www.pinterest.com/brroarch/pavilion/

DELIVERABLES

Each student will create a total of three (3) quick sketch proposals for the project. Each sketch proposal will include both a plan and the main elevation at 1/16”=1-0” scale; this will result in six (6) drawings. The design decisions should be informed by the findings from each student’s precedent analysis.

Please submit your concepts on Canvas and indicate which option you would like to select to further develop. These will be reviewed by the instructor.

PART D.1 – REFINEMENTS (SCHEMATIC DESIGN)



PURPOSE

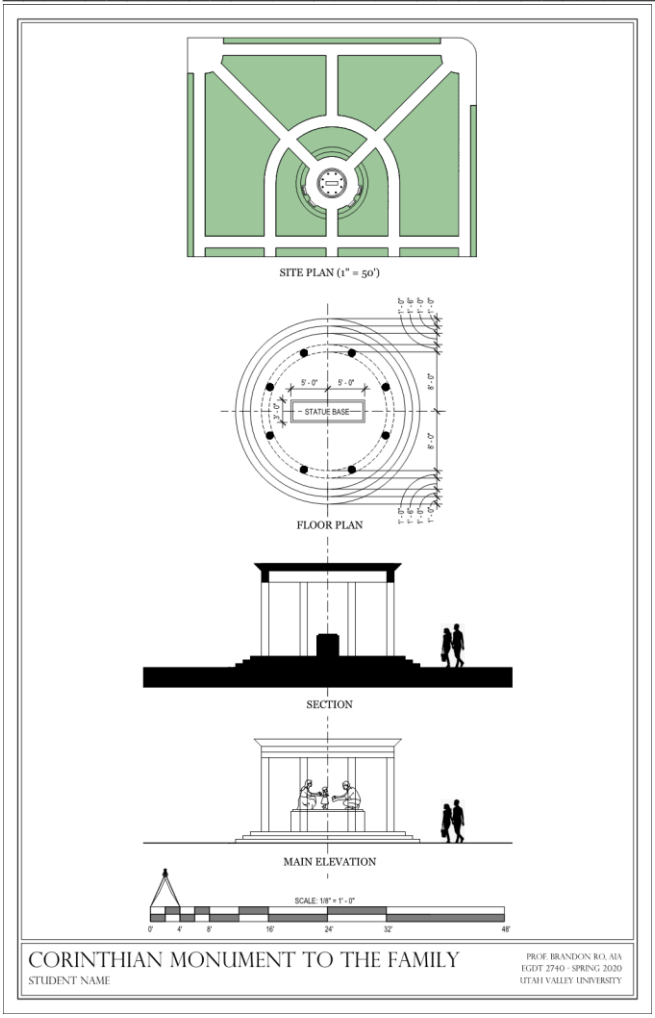
For Part D of the project, students will select one of the design concepts from Part C to further refine in the schematic design phase. In this phase, students will begin their new studies at a larger scale than before in order to fully develop the design proposal in floor plan, ceiling plan, section, and elevation. Each student will start designing details, such as the stone joint patterns, lines of molding profiles, marble floor patterns, ceiling patterns (coffers, beams, moldings), column capital details, etc. As a general rule of thumb, the design of the floor pattern should aim to echo the articulation of the ceiling.

DRAWING DELIVERABLES

Each student will create a total of two (2) refined design options based on their selection from the esquisse. Each of these refined design options will include a floor plan, ceiling plan, elevation, and a building section at 1/8”=1-0” scale. This equates to a total of eight (8) drawings. You may consider drawing these on an 11”x17” tabloid sheet of paper or in your sketchbook.

A photo of these drawings will be uploaded to Canvas and reviewed by the instructor.

PART D.2 – FINAL DRAWINGS (DESIGN DEVELOPMENT)



DELIVERABLES

The final drawings will be compiled on an 11"x17" (tabloid) size sheet of velum or watercolor paper. A template titleblock will be provided. Below is a breakdown of the specific drawing requirements for the project. All cut portions should be a solid gray or black.

- Floor plan at 1/8"=1'-0" scale
- Reflected Ceiling plan at 1/8"=1'-0" scale
- Building section at 1/8"=1'-0" scale through stairs and sculpture base (include a silhouette person for scale)
- North building elevation at 1/8"=1'-0" scale (include a silhouette person for scale)
- Site plan at 1"=50'-0" – should include roof plan of monument and show general placement of trees, vegetation. Include shadows on large items. See example.
- Do NOT include dimensions on your final drawings

A digital color scan (150 dpi) of the final 11"x17" drawings will be uploaded to Canvas and the physical version will be turned in during class.

PART D.2 ASSESSMENT

Your design project will be graded based on the following criteria:

LEARNING OBJECTIVE	POINTS
DESIGN SOLUTION: Successful design solution to fundamental architectural problems that integrates concepts, formal/visual principles, creative inquiry, and techniques that address the functional and programmatic requirements of the project.	15
FORMAL & SPATIAL PRINCIPLES: Demonstrates fundamental understanding and application of formal, spatial, and aesthetic principles. (e.g., proportion, classical orders, geometry, user experience, human scale, beauty, hierarchy)	15
VISUAL/GRAPHIC COMMUNICATION: Communicates design solutions effectively using architectural presentation materials and techniques (e.g., line weights, level of detail for scale, level of craft, organized graphic presentation).	10
DESIGN PROCESS: Project demonstrates a rigorous and successful design process. This will be evident in the refinement of the selected concept sketch (*esquisse*) to the final design solution (e.g., development of plans, sections, elevations, etc.)	5
PROJECT REQUIREMENTS: All project requirements and criteria are met, such as deadlines, deliverables, format, etc.	5
TOTAL	**50 pts / 100%**

PART E – ANALYTIQUE RENDERING (FINAL PRESENTATION)

PURPOSE

Embedded in the *Ecole des Beaux-Arts* curriculum (which descended from the Academie royale d'Architecture in 1671 during the reign of Louis XIV) was *analytique rendu* (analytical rendering). An analytique was defined as a codified design problem that dealt with the elements of architectural design. It consisted of a single page composition of items such as a floor plan, ceiling plan, elevation, detail, ornament, perspective, etc.

The purpose of the analytique drawing was to demonstrate that a student had gained both an understanding and developed their skills in the following areas:

- Sensibility to proportion
- Feeling for composition
- Character in drawing
- Appreciation of ornament
- Knowledge of descriptive geometry in projections and in shades and shadows

The final presentation phase of the project for Part E further refines the drawings from Part D. Majority of the efforts for this stage will be devoted to producing the final analytique rendering (presentation drawing). The drawings will be created via analog means such as hand drafting. It is recommended that the drawings are first produced in pencil before pen is applied. Special note should be taken to use appropriate line weights and textures to show materials.

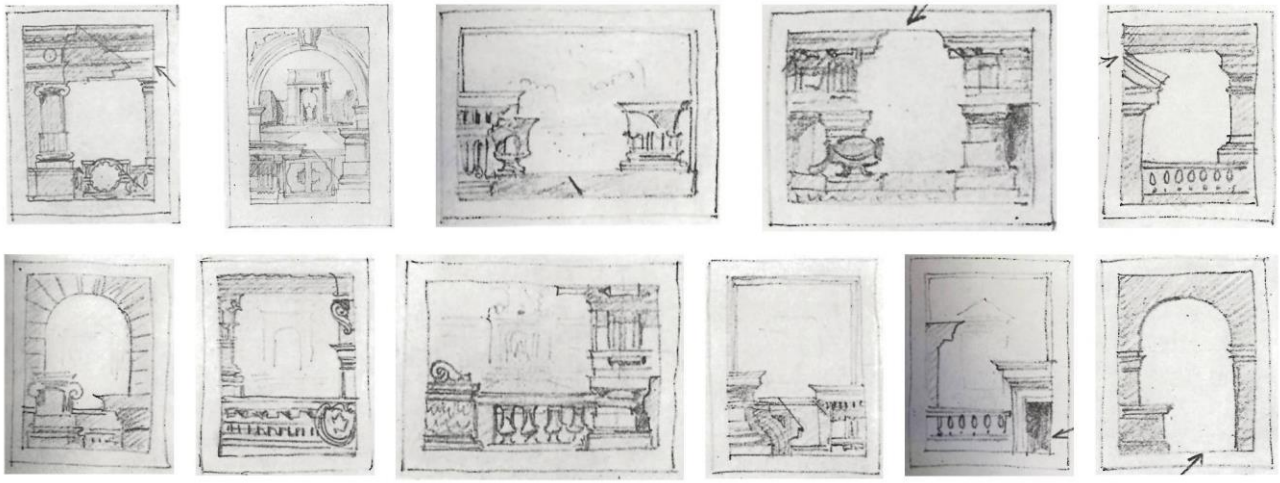
DELIVERABLES

The final analytique drawing will be compiled on an 11"x17" (tabloid) size sheet of velum or watercolor paper. Below is a breakdown of the specific drawing requirements for the project. Each of these items will be compiled into a single composition (see examples below). Unlike Part D of the project, the scales for the following drawings can vary based on each student's layout.

- Floor plan at 1/8"=1'-0" scale – cut portions should be a solid gray or black
- Reflected Ceiling plan at 1/8"=1'-0" scale – cut portions should be a solid gray or black
- Building section at 1/8"=1'-0" scale through stairs and sculpture base (include a silhouette person for scale) – cut portions should be a solid gray or black
- North building elevation at 1/8"=1'-0" scale (include a silhouette person for scale) – should include shade and shadow.
- Site plan at 1"=50'-0" – should include roof plan of monument and show general placement of trees, vegetation. Include shadows on large items. See example.
- Enlarged full order drawing at 1"=1'-0" or as appropriate for design (should include column base, shaft, capital, entablature)
- Ornament design will be included in the frieze of the full order drawing
- As with previous projects, a title block should be provided and include: a border, project name, student name, instructor name, class number (ARC 1010), semester-year (e.g., Fall 2020), Utah Valley University

In order to create the final analytique rendering for Part E, each student will follow three steps.

E.1 – ANALYTIQUE CONCEPTS



STEP 1 - Create Thumbnail Concepts for Analytique Composition
Each student should compose three (3) thumbnail concepts for their analytique composition. Each thumbnail can be created on trace paper or in their sketchbook and will be a minimum of 3"x5" in size. Each composition must have an arrangement of the following items:

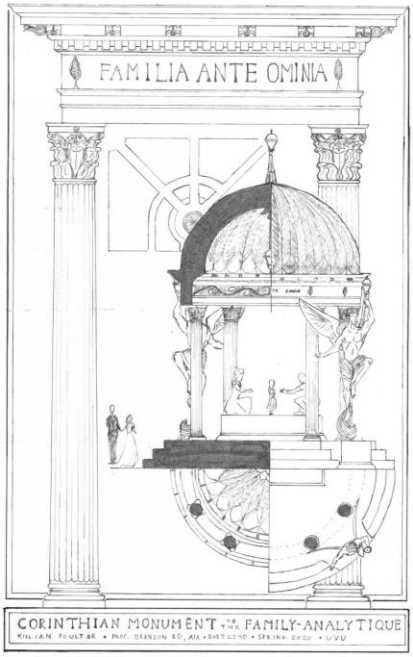
- floor plan
- ceiling plan
- elevation
- site plan
- building section
- full column order showing frieze ornament details

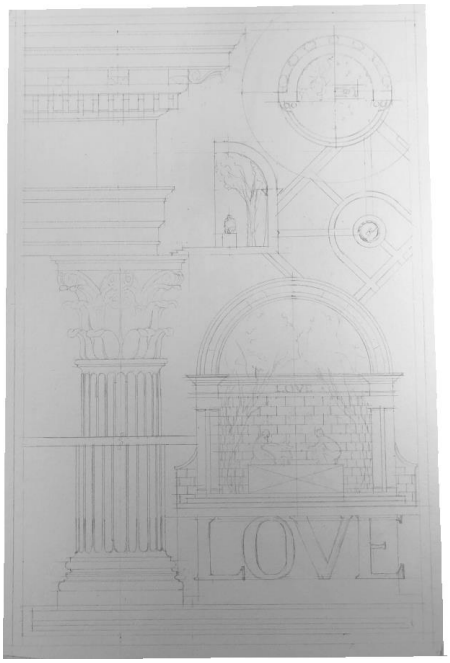
Some of the items above may be combined as illustrated in the analytique examples at the end of this document (plan/ceiling; section/elevation).

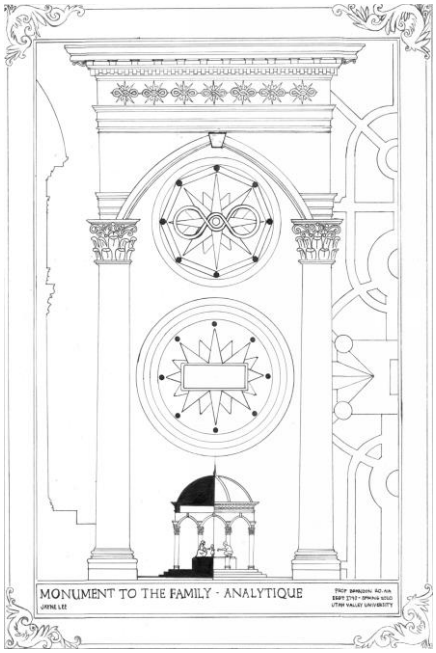
Examples of analytiques can be viewed here:
https://www.pinterest.com/brroarch/analytique/

Please submit your concepts on Canvas and indicate which option you would like to select to further develop. This will be reviewed with the instructor for final approval to move onto step 2.

E.2 – ANALYTIQUE ROUGH DRAFT (BLACK & WHITE)



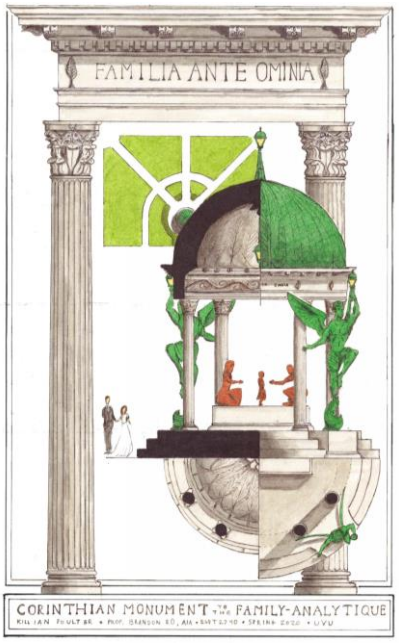


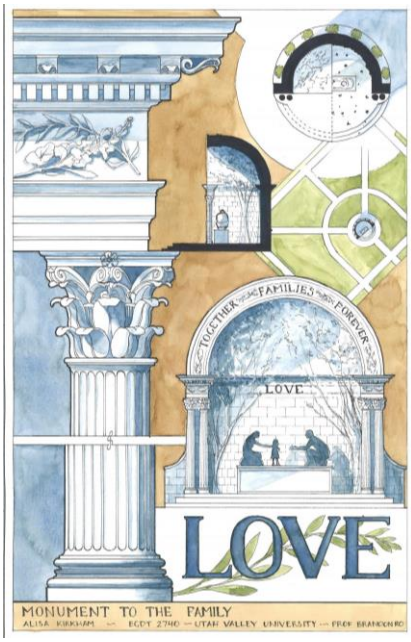


STEP 2 - Draw your Analytique Composition in Pencil/Pen
In the next step you will draw the composition of your choice, after reviewing them with the instructor, in pencil / pen. This composition will be part of your final drawing and will be drawn on a large format sheet of watercolor paper or vellum (11"x17" min). The orientation of your drawing (landscape or portrait) will be determined based on your composition.

Submit a digital color scan (150 dpi) of Step 2 by uploading a PDF to Canvas.

E.3 –ANALYTIQUE FINAL RENDERING (SHADE & SHADOW)





STEP 3 - Apply color, shade and shadow to the Final Analytique Rendering

In the final step, you will apply color, shade, and shadow to the elements in your drawing to demonstrate materiality, depth, and character for your project. This can be accomplished through a number of mediums such as watercolor, graphite, charcoal, and marker.

Submit a digital color scan (150 dpi) of the final 11"x17" presentation and upload the PDF to Canvas. The physical version of the drawing will be turned into the instructor's office on campus.

FINAL ASSESSMENT

Your design project will be graded based on the following criteria:

LEARNING OBJECTIVE	POINTS
COMPOSITION: Successful graphic design solution that demonstrates layering techniques. The composition of the analytique will also convey a well-balanced layout of required elements that reinforces the central design concept.	15
PROPORTION: The analytique demonstrates an overall sensibility to proportion as well as a fundamental understanding and application of classical ordering principles. (e.g., classical orders, geometry, beauty, hierarchy)	15
DESCRIPTIVE GEOMETRY: Successful analytique rendering demonstrating a knowledge and application of descriptive geometry in projections and orthographic drawings (e.g., molding profiles, floor plan, section, elevation, reflected ceiling plan, etc.).	15

VISUAL/GRAPHIC COMMUNICATION: The analytique rendering demonstrates character in drawing. It also communicates design solutions effectively using architectural presentation materials and techniques (e.g., line weights, level of detail for scale, level of craft, organized graphic presentation).	15
ORNAMENT: Project demonstrates an appreciation of ornament through a series of well-designed architectural details and motifs. At a minimum, the frieze ornament should reinforce the symbolism and purpose of the structure.	15
SHADE / SHADOW: Project demonstrates a knowledge and application of the principles of light, shade, and shadow. Analytique rendering conveys a sense of depth through layering techniques as well as an accurate display of how shadows would be cast onto the architectural elements to reveal its form.	15
PROJECT REQUIREMENTS: All project requirements and criteria are met, such as deadlines, deliverables, format, etc.	10
TOTAL	**100 pts / 100%**