DUE: 5th Week

5 Unique Case Studies comprised of drawings, digital graphics, and text exploring project data, programmatic layout, economic and site factors, which help to synthesize your research problem. Provide a conclusive written analysis as to how these cases may inform your project.

2. Typological Analysis and Comparative Organization

CASE STUDIES:
Develop and use a consistent format throughout the Research Document. Provide references and document sources for all information cited using the American Psychological Association (APA) format...

INTENT:
Case Studies, or Typological Analysis in the case of buildings, identifies, documents, and analyzes comparative design characteristics considered unique to the building type selected based on formal organizational patterns ("Ordering Principles" handout). This analysis recognizes precedents or formative patterns that can reveal archetypal concepts that designers can learn from and refer back to in similar conditions.

This project relies on both text and graphics to communicate research data. Graphic images, in the form of original drawings and analytical diagrams, as well as a conclusive written analysis of what exactly is being evidenced, are crucial to any successful case study. They represent both creative and analytical expressions of the insights and observations resulting from your research.

DESCRIPTION:
With the instructor’s approval select three buildings, consistent with the programmatic functions of your selected thesis (tectonic, social, environmental, economic, etc) for use as case studies to inform the design process and help you better understand the nature of the problem you are investigating. NOTE: One building should be contextual, that is, located in the same geographic region as your project. Your other two case studies must include issues related to built environment exemplar of your research problem as an architectural concern. In certain cases it may be prudent to select subject matter other than the aforementioned to better understand issues relevant to your thesis. Please discuss this with your instructor to determine what is deemed acceptable subject matter for a case study.

CONTENT:
Prepare a graphic analysis for each building or subject selected and provide the following information as outlined below. Each case study should flow logically allowing one to “walk” through the project understanding the environmental, spatial as well as formal development of the building. Although each building will be analyzed independently, a comparative analysis outlining similarities and differences between buildings is also required.

FORMAT:
At minimum the following must be included:

Project Data:
Project Name / Architect / Location / Latitude / Climate Zone / Year Completed

Written Rationale:
Indicate why each building represents an appropriate subject for study

Program Description:
Hierarchy of Uses / Size / Area / Architectural Style / Design Parti / Spatial Organization / Physical Context / Key Site Factors

Graphic Data:
Vicinity Map / Site Plan / Floor Plan(s), Elevation(s), Building Section(s) / Descriptive Photographs / Sketches Interior and Exterior

*Provide a series of sketch models and or hybrid drawings as necessary to convey your understanding of how the following systems inform your knowledge of architecture after analyzing the selected buildings. Express the following systems:

Ordering Systems:
Context, Geometry / Massing

Other Analytical Diagrams:
Program / Spatial Organization / Structure / Service Systems / Circulation / Enclosure / Materials
USEFUL SOURCES:

- Thinking About Typology (Supplement)
- Ordering Principles (Handout)
- Visual Explanations: Images and Quantities, Evidence and Narrative
  Edward R. Tufte
- Envisioning Information
  Edward R. Tufte
- Precedents in Architecture
  Roger H. Claitt & Michael Pause
- Idea, Form, and Architecture: Design Principles in Architecture
  Egon Schirmeck
- Elements of Architecture: From Form to Place
  Pierre von Masi
- Design & Analysis
  Berhard Leupen
- Design Strategies in Architecture: An Approach to the Analysis of Form
  Geoffrey Baker
- An Architectural Notebook
  Simon Unwin
- AIA website for Case Study Initiatives

USC website for Research Computing Facility www.rcf.usc.edu
Go to Kim Coleman then to Student Precedent Studies
Thinking About Typology: (supplement)

“One of these things is not like the others, one of these things doesn’t belong…” Sesame Street Song

TYPE: A kind, class or group distinguished by some particular characteristic . . .
The general form, structure, style or character common to a particular class . . .

TYPOLOGY: The systematic classification of types distinguishing the similar from the dissimilar.

Why investigate typology?
Although things may be different, we recognize similarity and understand what we see through the classification of differences. Typology embodies design principles considered unvarying. Types allow a comparative examination of how architects addressed problems similar to those you will face in developing your specific thesis project.

Design is (a) decision-making (process), and the key to successful projects lies not only in the final form but also in the process leading up to it. Poor design decisions can be costly to correct or have lasting social implications. The design of the process must be as carefully considered as the design of the form.

Architecture is a working product that we live and work in and use in everyday life. It is important to experience architecture as a process, not just as a series of one-off individual buildings, which however dramatic, sharp edged and gestural they may be, do not form the common currency of our environment or culture.

We do not create an infinite variety of spaces…we structure environments through categories of space. Typing space is a spatial practice that structures society and is structured by society. Our spatial practices elaborate systems of place types that impose distinctions and separations between activities, people and place itself. These spatial practices are codified into regulations and codes.

Spatial types are a social construction we take for granted…they further certain values and interests while restricting others and enforcing patterns of domination and destruction yet they allow us to see what is and provide insight into what can be thus empowering us and liberating design.

Examination of types through case study analysis allows you to transform past knowledge into practical use. Type may be used to study buildings, building components or organizational principles allowing us to apply knowledge about past solutions to current architectural problems.

Lou Kahn, when asked what the most important thing to know was, responded “to know what is important.” And then qualified knowing as a matter of experience and gray hairs.

“It is in making of worlds that we learn to reinvent the world and in the creation of new places, both good and bad, that we consciously and unconsciously draw upon our knowledge of the places that already exist. In making places, as in all of art and culture, we make plans for the future, for what is not yet in existence, and always with only knowledge of the past and what is. In truth, all that we can know is memory. The rest is imagination.” - Laurie Olin

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1 The Design Process, Ellen Shoshkes
2 University of Nottingham Institute of Architecture
3 Ordering Space: Types in Architecture and Design, Karen Frenz / Lynda Schneekloth
4 Ibid.
Thinking About Ordering Principles: (handout)

Architecture does not exist... an act of architecture created through the process of design and construction is an offering to the spirit of architecture. - Kahn

Ordering systems provide a methodology for examining fundamental characteristics that assist the design process and shape buildings. They inform how we come to understand buildings based on how they work (perform) and how we use them. Ordering systems provide a basis from which to discuss the design process and how the circumstantial act of design extends these characteristics beyond shear necessity, shelter, or safety to “touch the heart” allowing buildings to become “an offering to the spirit of architecture.”

Buildings gain significance only as these characteristics are assembled and expressed through the act of design. While the following characteristics provide formal devices for assembling buildings they do not, in themselves, provide conceptualizations or ideas about how architecture is made. Buildings can be deconstructed into eight fundamental physical characteristics or systems as follows:

CONTEXT  micro and macro site conditions
PROGRAM  spatial, environmental, perceptual requirements
SPACE  essence of architectural habitation
CIRCULATION  means of moving through space
GEOMETRY  formal arrangements of space
ENCLOSURE  walls, floors, roofs, and openings defining space
SERVICES  building systems supporting human occupancy
STRUCTURE  order of construction through force resolution

Ordering Systems act as building blocks that can be used to shape an emerging idea or conceptualization about architecture and how that idea speaks to larger issues such as:

CLIENTS  USERS
ENVIRONMENT  RESOURCES
BUDGET  REGULATIONS
CULTURE  LAWS OF NATURE

The construction of buildings is both creative and destructive in relation to the natural and cultural world. Something must be lost in order for something to be gained. The buildings we design will modify our relationship with the:

PHYSICAL  impacting  NATURAL
CLIMATE  IMPACTING  RESOURCES
CULTURAL  HUMAN
CLIMATE  impacting  BEHAVIOR