Get Started (Not Get Stuck) With Architectural Research

Almost Basic To Almost Advanced Level

FOR ARCHITECTURE STUDENTS

SoA+D PRESS

Get Started (Not Get Stuck) With Architectural Research
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Get Started
(Not Get Stuck)
with
ARCHITECTURAL RESEARCH

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Valairatn Gasemsin

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PREFACE

Get Started with ARCHITECTURAL RESEARCH

This book aims to inspire architecture students and emerging designers not to rush to conclusions and design based solely on intuition. As a designer or creator, relying on intuition alone is insufficient. Your journey should commence with 'why?' or 'why not?' This entails comprehending, analyzing, and identifying gaps or deficiencies within a specific context. The goal is to bridge these gaps, solve problems, and offer practical, creative solutions.

Formulating precise and sharp questions is the crux of effective problem definition. Smart and skillful problem definition has the potential to enhance or redefine aspects of life, society, the environment, and aesthetics. It can ultimately elevate architectural education and paradigms.

From my own experience, the processes of problem definition, research, and data evaluation required for architectural design often pose challenges for students and young architects. Conducting research can be particularly frustrating for architecture students, as they lack a reliable framework for developing projects that truly resonate with the intended audience and purpose.

This book aims to assist students in navigating both the research and topic selection processes. By the time you've completed this book, or even just a few chapters, as an architecture student, you'll possess the necessary tools to conduct thorough and creative research, laying a strong foundation for your work.

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INTRODUCTION

Thesis Preparation

In architectural studies, "Thesis preparation" refers to the process of defining the criteria for architectural programming, strategy, and design guidelines. The information and methods in this book help you, as undergraduate architecture students, get ready for your thesis. It will stimulate you to discover how to create individual interests related to problem identification and problem-solving in a specific context and circumstance. By providing you with research methodologies, cognition, information-finding, analysis, and information-evaluating abilities, it will prepare you to think about and practice the thesis process. The book is designed to help you learn how to do your own projects while also improving your skills in architectural research methods and architectural programming.

Although the results of strong research cannot be physically shown, they are like the hidden, submerged part of the iceberg that can strongly support a successful physical design. The success of the architectural design is like the tip of the iceberg. It results from both the design effort and the strong foundation of architectural research. So the research is critical in that it can assist in indicating the programming and design direction that could respond to the needs of people, places, and project identity. However, in order to complete the task, you must be capable of translating abstract information and problem-solving concepts into physical design. The transferring process is also important since it keeps you on track while conveying the research outcomes to design execution. If you're interested in delving deeper into the world of architectural design, **"Get Started With Architectural Design,"** the sequel in this series, is an excellent option. So keep tuned; it'll be out soon.

What will you take away from this book?

This book provides valuable guidance for students in their journey from choosing a compelling thesis topic aligned with their interests to the research processes that can be used to form the project's design brief and requirements.

The content in Chapter 1 starts by helping readers grasp the fundamental essence of their thesis, develop a convincing argument, identify research problems and gaps, learn how to formulate a solid thesis question, and craft a well-defined thesis statement to kickstart their thesis exploration. By the end of Chapter 1, readers will be equipped with a clear understanding of their thesis's purpose, a well-defined research question, and a compelling thesis statement. This foundational knowledge sets the stage for the rest of their thesis journey, helping them approach their research with focus, purpose, and confidence in their architectural design exploration.

Chapter 2 of the book is dedicated to equipping readers with the essential tools and knowledge needed to conduct architectural research effectively. It focuses on logical tools for architectural reasoning, providing an overall understanding of the architectural research process, architectural programming, and research in architectural design strategy. By the end of Chapter 2, readers will be equipped with the necessary tools and knowledge to conduct architectural research confidently. They will understand the logical foundations of architectural reasoning and have a clear grasp of the research process. Furthermore, they will recognize the importance of research in shaping architectural design strategies, enabling themselves to develop well-informed and impactful design solutions. This comprehensive understanding sets the stage for the subsequent chapters, where readers will delve deeper into their research and design exploration.

The emphasis in Chapter 3 of the book is on providing readers with a thorough understanding of research methodology specific to architectural research. This chapter delves into the practical aspects of research, instructing readers on what information to gather and how to effectively gather it. The research outline and conceptual framework are two of the most important topics covered. A research outline defines the main sections and their content, whereas a conceptual framework assists in the establishment of the theoretical foundation of the research, including key concepts, theories, and models that will be explored and applied. Another important topic covered in this chapter is information-gathering techniques. Readers are introduced to various information-gathering techniques relevant to architectural research. Surveys, interviews, observations, case studies, and literature reviews are examples of these techniques. Each technique is thoroughly explained, emphasizing its advantages, disadvantages, and applicability to various research scenarios. This chapter also teaches readers about research methods. Chapter 3 delves deeper into the various research methods that can be used in architectural research. Readers are introduced to qualitative, quantitative, and mixed-method research approaches, each with unique benefits depending on the research objectives and data requirements. Readers will have a thorough understanding of the practical aspects of conducting architectural research by the end of Chapter 3. They will have the knowledge to develop a well-structured research outline and conceptual framework, and choose appropriate information-gathering techniques and research methods. This chapter prepares readers for their research journey by providing a solid methodological foundation that ensures the validity and reliability of their research findings and conclusions.

The focus of Chapter 4 of the book is on the process of analyzing the information gathered in architectural research. The significance of analyzing information gathered through various research methods in architectural design will become clear to readers. They will understand the importance of information analysis in refining design decisions and ensuring a well-informed and effective architectural outcome. Readers will also learn how to organize and categorize information into three critical factors: user analysis, location and site analysis, and project analysis. This categorization enables designers to evaluate various aspects of the design context in a systematic manner. Furthermore, readers will investigate the interconnections and relationships between the three factors of analysis. Understanding how user requirements, site conditions, and project characteristics interact will enable architects to create integrated and responsive design solutions. Most importantly, readers will learn how information analysis helps architects reach four common goals: functional, physical, economic, and technological. Readers will have a thorough understanding of the information analysis process in architectural research by the end of Chapter 4. They will be equipped with the necessary knowledge and tools to conduct a thorough analysis of architectural information. They will be confident and prepared to move on to the next stages of their research and design process, ensuring that their architectural projects are well-informed, innovative, and aligned with their goals and aspirations.

In Chapter 5, readers begin the process of synthesizing relevant information analysis into a cohesive project conclusion, laying the groundwork for the architectural design phase. This chapter walks readers through program analysis, allowing them to effectively define their program requirements. It shows how the data gathered and analyzed during the research process aligned with the four common goals of architectural design, resulting in well-informed and comprehensive program preparation. Program analysis, program preparation, and transferring programming to design embodiment are key components and highlights of Chapter 5.

Program Analysis: Readers are guided through the program analysis process, which involves consolidating and synthesizing information gathered from user analysis, location and site analysis, and project analysis. Program analysis involves extracting essential insights and patterns to inform the design of the program. Architects can better develop a clear and concise design program by understanding the requirements and expectations identified through analysis.

Program preparation entails taking into account both tangible and intangible architectural design requirements. The program includes intangible elements such as ambiance, user experience, and emotional response in addition to physical aspects. By addressing both tangible and intangible substances, architects can craft spaces that resonate with users on multiple levels.

The chapter also goes over how to translate a programming and design brief into a physical response. This is the stage on which abstract concepts and requirements take shape and become tangible design ideas. By the end of Chapter 5, readers will have fully grasped the process of program analysis and will be able to synthesize relevant information to create a comprehensive program for their architectural design. They will understand how the analysis findings align with the four common architectural design goals and how they serve, both tangible and intangible design requirements . Furthermore, readers will investigate the process of translating the program and design brief into a physical response, thereby taking the first steps toward materializing their design concepts. This chapter serves as the foundation for the subsequent book in which readers will further develop and refine their design concepts, eventually leading to the realization of their architectural projects.

“I’m
still
learning”
~ Michelangelo

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Chapter

01

INTRODUCTION AND THESIS BACKGROUND

ARCHITECTURAL
Thesis Preparation - meaning

Thesis preparation is the systematic process of conducting research and gathering methods for collecting relevant information, analyzing, evaluating, and summarizing each work. In order to provide an overview of the thesis topic and fully comprehend the project, we must collect all relevant knowledge through architectural research methods. The essence of architectural research methods is to provide the necessary knowledge to identify the gap, problem, potential for development-or potential to create performance specifications and create something new in both architectural programming and architectural design.

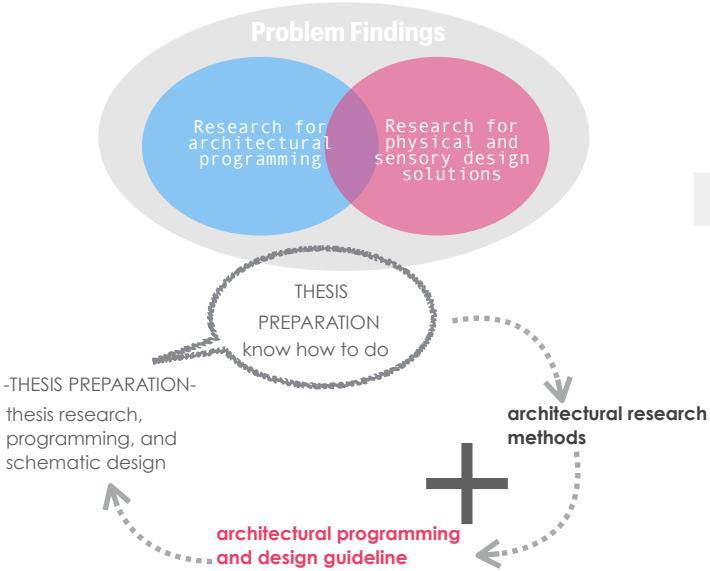
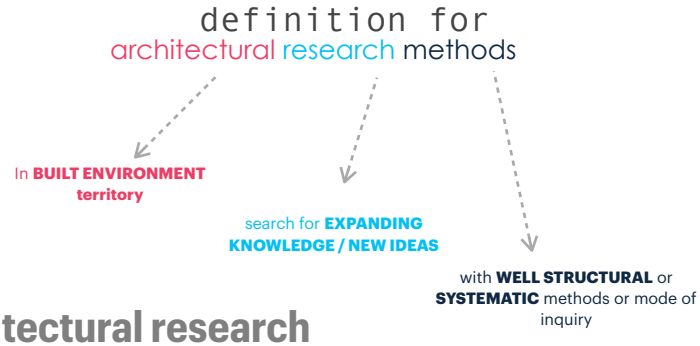


Figure 1.1.1 Components for architectural thesis preparation, Diagram by Valairatn Gasemsin

Figure 1.1.2 Definition for architectural research methods, Diagram by Valairatn Gasemsin



Architectural research

Architectural research methods is the journey of searching for new ideas, new processes or methods, new angles or perspectives on problem-finding and problem-solving in the built environment and its surrounding domain.. To begin the journey, we must first

1. Clearly define the objective, goals, scope, and central focus of the topic.

2. Establish appropriate and systematic modes of investigation.

3. Analyze and summarize the information gathered in order to create a proposal for solving problems or improving physical conditions in the research domain.

Architectural programming + Design strategy

One critical mission of architectural research is to generate architectural programming, design strategy, and design guidelines. Architectural programming generates criteria for architectural design. It is the search for sufficient information to clarify, understand, and state the problems, both objective and subjective, as well as the requirements to be met in offering a solution. The field of programming and design strategy is broad and necessitates an interdisciplinary approach, which could include sociology, human and social sciences, anthropology, and/or psychology.

HOW TO FIND A THESIS TOPIC THAT FITS YOU ?

AND HOW TO GET THROUGH ?

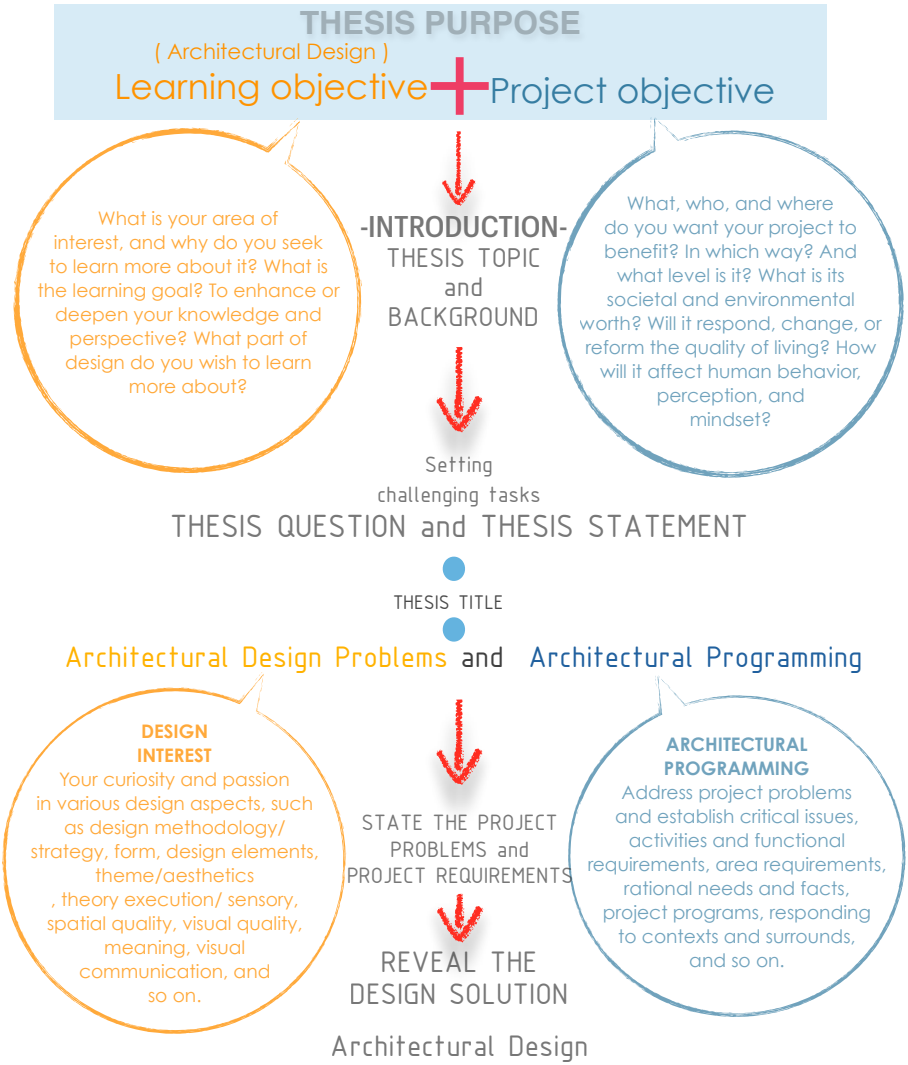


Figure 1.2.1 Finding and Succeeding in Your Thesis Topic, Diagram by Valairatn Gasemsin

Introduction & Thesis Background

The introduction and thesis background serve two purposes: first, to provide necessary information about the topic of interest, and second, to persuade the reader to realize the importance of your chosen topic and approach. The second step is to define the purpose, issues of interest, and objectives. The objective of the thesis project is to define the scope of information required as well as directions for searching, analyzing, and applying it to the design in order to successfully complete the thesis and meet expectations for expanding architectural knowledge. In addition, for project problems, questions such as who, where, and for what purpose must be

RATIONALE

"Why does this study make sense and deserve to be conducted?" A rationale is a brief explanation of why your research topic is worthy of investigation and has the potential to contribute significantly to people or creature, the environment, and/or design knowledge and theory. It is a critical component because it validates the study's significance and novelty.

PURPOSE

Purpose provides the reason for doing the thesis or more specifically, for justifying the desired results. It essentially represents intentions, idea or vision whereas an OBJECTIVE is the specific path you've decided to take to achieve that goal.

QUESTIONING

The thesis question is generally the question that reflects your interest in a particular subject.
Sharp questions concern the intent and aspirations of interacting with the topic. You may need to zoom in or out in terms of scope to develop the questions into thesis questions. A good thesis question allows you to highlight the key points of the relevant issues in a creative way while also expanding your knowledge and skill in seeking and questioning. Such questions should be pursued in order to define the problem. The thesis question must also reflect the issues of interest, purpose, and objectives that are expected to be achieved through architectural programming and design. Typically, the introduction concludes with a research question with quality that is

- Able to enhance your research goal and identify the gap.
- Focused
- Clear

LITERATURE REVIEW

Literature Review
A literature review is a summary of major issues from papers, books, and other sources related to your research topic. Your literature review should provide an overview of the key issues and information related to your topic, which will aid in contextualizing or framing your research. It will also give readers the context they require to understand your topic. The literature review should be focused on a specific issue and include a critical analysis of the relationship between various research or precedent studies, issues, and information, as well as how they relate to your work in order to provide a theoretical framework and rationale for a research study, as well as the critical questions that must be addressed.

Working on a literature review begins with

Understanding **"WHAT TO SEARCH?"**
By defining your areas of interest,
DEFINE the topic, the main and secondary issues, and then **KEYWORDS**. This method will assist you in quickly locating key information and avoiding becoming lost in a sea of data.

"WHERE SHOULD I SEARCH?"
BOOKS: reference books, monographs, text books, or JOURNALS, either academic or professional
REPORTS AND CONFERENCES
INTERNET: website - information about a company, an individual, an association, a government, or an organization - social media: blogs, Twitter, and podcasts
SPECIALIZED DATA is used to store information such as statistics, standards, regulatory law, and performance.

Don't forget about **PEOPLE**... You can get information from interviews and focus groups and get advice and support from peers, supervisors, and experts.