University of Washington • Department of **A R C H I T E C T U R E**

Master of Architecture Independent Thesis Option Guidelines

(Part 1: selecting the independent thesis option)

INTRODUCTION

The independent thesis option for the Master of Architecture degree gives students an opportunity to undertake work in close collaboration with faculty who share an interest in the topic of study. Students may pursue their thesis investigations primarily through design or through research.

A thesis is a "useful, well-written work, supported by evidence" (Mauch & Park, 2003, p. 60). It objectively reports an investigation, building upon existing knowledge and following specific rules of style. The Graduate School at the University of Washington suggests that the master's thesis should demonstrate the student's ability to propose, pursue, and defend a thesis; it "should be evidence of the graduate student's ability to carry out independent investigation and to present the results in clear and systematic form." Irrespective of which thesis option the student pursues, a Master of Architecture thesis must address a topic pertinent to the discipline of architecture. The thesis investigation results in a clear and systematic document, presented at a public defense in the Department of Architecture and submitted to the Graduate School.

PREPARING TO ELECT THE INDEPENDENT OPTION

Students interested in pursuing the independent option must first consider the topic they wish to investigate and then ask themselves whether it should be studied through design or through research. If the thesis will primarily involve design, it may be best to choose the studio option, which allows students to work in a structured situation with a cohort of peers under the guidance of several faculty members and consultants specifically assigned to the studio. If the topic requires a more independent investigation, students can elect to work with a small committee of faculty advisors (usually two) over the course of several quarters.

Typically, the steps for electing the independent option include: identifying a thesis topic, recruiting a Supervisory Committee, writing a prospectus, and submitting a Thesis Option form.

Identifying a Thesis Topic

Thesis topics may vary in scope and depth, limited only by the need to focus on an area that has relevance to the practice or theory of architecture. Because architecture is a broad field, the range of appropriate topics is broad. Likewise the methods of investigation are broad, sometimes utilizing design approaches within the field, sometimes borrowing from other academic or professional disciplines to generate systematic knowledge about the chosen topic. The best theses often build upon and develop some aspect of the student's graduate studies. For instance, a thesis may be an empirical or theoretical investigation of some aspect of previous course work, or it may be an outgrowth of a particularly challenging studio. Interdisciplinary studies are also appropriate. Because a thesis is the capstone of advanced study, students are advised to identify a topic that draws upon their prior preparation and experience; ideally, it reflects the student's long-term interest, utilizes that person's unique technical competencies (e.g., computer modeling, photography, or interviewing) and serves to advance a future

career direction (ibid.). Faculty interests and capabilities, as well as available resources, can also be considerations in selecting a topic.

In order to select an appropriate thesis topic, students should conduct a broad scan of the literature related to their area of interest. The goal of the scan is to establish a preliminary knowledge base in an area, including an understanding of the methods others have used to explore the area (Glatthorn, 1998). Once students have a identified a topic area and specified the words or phrases that describe its key concepts, the AUP librarians can provide assistance in identifying databases to search, and in finding published bibliographies, book reviews, and image banks. (Recent issues of scholarly journals in architecture, such as the *Journal of Architecture and Urban Planning*, *Journal of the Society of Architectural Historians*, or the *Journal of Architectural Education*, or the homepages of various faculty members can be helpful in identifying issues of significance in the field.)

As students begin to retrieve and review books, journals, monographs, archival records, and images, they should make a list of possible topics and problems to investigate, for example a student whose interests center around hands-on interactions with communities might list:

Possible Topic	*Possible Problem*
Participatory design	Effects of participation on the design of community centers
Design build	Involving users in designing and building a play structure
Community design	Integrating local knowledge into the design of an urban waterfront
Daylighting	The impact of daylight in the design of assisted living facilities for the elderly

Concurrent with conducting the scan, students should also review other masters theses to gain an idea of how arguments are constructed and presented. Theses completed in the Department of Architecture, particularly ones that have been identified as exemplary, or other units of the College of Architecture and Urban Planning can be particularly helpful. *Dissertation Abstracts Online* can provide a broader understanding of thesis work. This file offers a definitive collection of every dissertation accepted at accredited US universities since 1861, including selected masters theses completed since 1962 (Mauch & Park, 2003).

Armed with a list of possible topics and problems of significance in architecture, and a good understanding of thesis work, students can then seek out potential faculty mentors who will help them formulate a specific thesis topic and problem, including the questions or issues they will investigate.

Recruiting a Supervisory Committee

"Mentor refers to a person of competence who volunteers to instruct a junior or less experienced person in an area of mutual interest" (ibid, p. 43.). Choosing a mentor is linked to choosing a topic; students should initiate conversations with potential faculty mentors as soon as they have clarity on the possible topics and problems they would like to explore. Through preliminary study and discussion with members of the faculty and others, students will be able to refine their topic and make it manageable and accessible to investigation. It is helpful to begin this process as early as possible, certainly before deciding whether to pursue the independent or studio option. Not only will this help students refine their thesis topic, but it will help them determine how to investigate it and who on the faculty might be most helpful in the process.

The selection of the Supervisory Committee can be particularly important to the success of the thesis study. Once the Faculty Mentor has been identified, students should ascertain whether that person can also serve as Chair of the Supervisory Committee and get their suggestions on other committee members. Committee members who might challenge the student's assumptions and demand a high level of performance can aid in achieving fully developed thesis. Students are encouraged to consider faculty who can provide insight to resources pertaining to the thesis topic, as well as direction in preparing the written document. Students are also encouraged to consult local practitioners and faculty outside of the Department who may have experience or expertise not available from Departmental faculty. Generally, local practitioners should not serve on the Supervisory Committee, but they can contribute vital expertise.

Preparing a Prospectus

Although students and their faculty mentors may agree to skip this step of the process, it can be quite useful to write a preliminary overview of the Thesis Proposal. A prospectus not only helps students systematize their preliminary work, it helps them recruit the most appropriate Supervisory Committee. The prospectus can be a simple, one-page outline that evolves through discussions with potential mentors, peers, and others. It lists the proposed topic, problem, methodology, and schedule as follows:

Proposed Topic

After assembling a list of possible topics, students should assess each topic for feasibility and practicality. Some questions to ask include: "Is this a topic of interest in the field of architecture?" "Does a body of literature exist to support a scholarly investigation via design or research?" "Is it possible to focus on a small enough segment of the topic to make it doable as a master's thesis?" "Will it be possible to draw conclusions that other reasonable people can agree with?" "Does the methodology involve skills that I already have?" (adapted from Mauch & Park, 2003, p. 78).

An explicit and honest exploration of such questions at the outset will help the student in preparing to develop the proposal and subsequent thesis. Keep in mind that the thesis is a twelve-credit undertaking (three for preparing the proposal, nine for preparing the document) and limit the scope accordingly.

Proposed Problem

A problem in an architecture thesis is most likely stated as (1) the purpose of the thesis e.g., "to instigate, observe, describe, and analyze a participatory design process," (2) a single question e.g., "Does a participatory design process reduce the likelihood of vandalism in community centers?", or (3) a general question followed by more specific ones e.g., "This thesis will ask: does participation by users increase the value of the architectural product? Does it result in a more functional design? Does it increase the sense of ownership? Does it enhance appreciation of design?" (Adapted from Glatthorn, 1998).

It is important that the proposed problem be clear and specific in scope. In architecture, a thesis problem that might be demonstrated by virtually any approach to design, or any building program will not prove very significant. On the other hand, a problem that is dependent upon a single method of investigation, a unique design project, or specific building site is probably not appropriately framed.

Proposed Methodology

The methodology chosen, which must be appropriate to the problem under investigation, will have a profound effect on the process and the product of the thesis. In general terms, the methodology in an architecture thesis will most likely be *qualitative*, focusing on understanding a historical or contemporary situation, rather than *quantitative*, focusing on measurement and statistically significant relationships. The particular types of methods students might pursue (adapted from Mauch & Park, 2003) include *case study* (observing and analyzing a particular space or place), *comparative* (comparing and contrasting two or more spaces or places), *design and demonstration* (creating and describing a new space or place), *evaluation* (assessing the effectiveness of a design or policy), *developmental* (charting and reporting spatial changes over time), *exploratory* (investigating new directions in architecture), *historical* (studying the influences of an individual, genre, movement, etc.), or *methodological* (examining new approaches to design especially through digital technologies). No one methodology is better than another; rather the methodology follows from the nature of the problem. Students might elect to utilize multiple methods but care should be taken not to generate more information that can be rigorously analyzed and presented.

Within a particular type of method, students will elect certain procedures for collecting or creating data e.g., using computer models to design an energy efficient library, using time-lapse photography to evaluate the design of a public space, interviewing the users of a space you will design, observing interactions at a series of community design meetings, reviewing mainstream and community newspapers for reports of a particular project. As noted previously, the procedures selected should draw on the student's unique technical competencies.

Preliminary Calendar

Students should construct a calendar that has the university deadlines and all the tasks needed to complete the thesis. Given their working methods and likely rate of progress, the prospectus should indicate when *Arch 599: Thesis Preparation* will be undertaken and an expected date of completing and defending the thesis.

Submitting the Thesis Option Form

All Independent Thesis candidates are required to submit a *Thesis Option Form* to the Graduate Program Assistant, signed by the Faculty Mentor. Submission of this form allows students to enroll in *Arch 599: Thesis Preparation*, which is mandatory for students electing the independent option.

Assembling the Thesis Advisory Committee

After submitting the signed *Thesis Option Form* work with your Faculty Mentor to assemble a Supervisory Committee. You should have commitments from all proposed committee members before registering for *Arch 599: Thesis Preparation*. At least one member of the Supervisory Committee must be on the Graduate School faculty (See Attachment B). If the Faculty Mentor is on the Graduate Faculty, the Faculty Mentor also serves as the Chair of the Supervisory Committee, if not, the second member of the committee serves as its titular Chair.

CALENDAR FOR SELECTING THE THESIS OPTION

October 17   Introductory meeting with students. Thesis Options forms available.

October 31	Forms selecting the independent option due to potential faculty mentors
November 7	Earliest date for faculty to commit to becoming mentors for Independent Thesis Option candidates
November 21	Completed Thesis Options Forms (with signatures, if appropriate) due by 3:00 pm to the Graduate Program Assistant

Master of Architecture Independent Thesis Option Guidelines

(Part 2: preparing the thesis proposal)

THE THESIS PROPOSAL

The Thesis Proposal is an implicit contract between the Supervisory Committee, the student, and the Department of Architecture. Once approved by the Supervisory Committee (using the *Arch 700: Independent Thesis – Approval to Register for Thesis* form), the student agrees to complete the work described in the proposal within three quarters, and the Supervisory Committee agrees to accept that scope of work. After the Supervisory Committee accepts the Thesis Document, the Department agrees to award credit for *ARCH 700: Masters Thesis* as part of the requirements for the Master of Architecture degree.

An approved Thesis Proposal is required prior to registering for ARCH 700: Masters Thesis. Students must prepare the proposal during *Arch 599: Thesis Preparation*, undertaken with the faculty mentor, and submitted in accordance with the outline presented below. The components of a typical Thesis Proposal (introduction, problem statement, literature review, and methodology) comprise the first four sections of a typical Thesis Document. The proposal has a prescribed form and style, described below, yielding a first draft of the beginning chapters of the thesis.

Proposals should adhere to an academic style of writing, which has numerous conventions from setting up headings and pagination to constructing paragraphs and sentences, identifying sources, providing evidence for assertions, and projecting a tone that is neither too confident nor too tentative (Glatthorn, 1998). Being able to integrate text and images effectively offers a special challenge to architecture students. Students can develop an academic style of writing by reviewing the University of Washington's Policy and Style Manual <http://www.grad.washington.edu/area/currstuds.htm>, consulting other style or writing manuals (e.g., American Psychological Association (2001); Strunk & White, 1979), reviewing the guidelines specified by UMI Dissertation Services < http://www.umi.com/umi/dissertations>, or consulting online writing services (e.g., Purdue University's Online Writing Lab <http://owl.english.purdue.edu>). Developing an academic style within the context of the briefer Thesis Proposal will save time in completing the more complex Thesis Document.

Students will find a selection of recent Thesis Proposals that the Department considers well written on reserve in the AUP Library. Although none of those proposals were prepared according to the format the Department now suggests, they may nonetheless still be useful references. Students will also find on reserve (under ARCH 700) a number of recent thesis documents that have received awards or are otherwise considered exemplary. Reviewing these documents may also prove valuable in writing a Thesis Proposal.

Thesis Proposal Format

Students should write the Thesis Proposals in the future tense, converting the verbs to the past tense when the text is revised as the Thesis Document. Note that the proposal uses the term "section" rather than "chapter" (used in the Thesis Document) due to the less developed nature of a proposal. While some proposals (and documents) may require a different format, the following one is typical.

Title

Choose a brief, descriptive, and clear title that contains the keywords that will help readers locate the thesis. Avoid general descriptors like "an investigation of," or "a design for." Students may profit from discussing key words with the AUP librarians or experiment with conducting their own key word searches to see how the title affect accessibility of thesis. Keep in mind that many scholarly publications use a colon, which allows the author to specify both the general area of inquiry and the particular subject matter, the latter often stated as an action. Here are three examples:

Vague title: *Design for an Urban Environmental Learning Center*
Wordy title *Design for an Urban Environmental Learning Center that Helps Children Develop an Awareness of Nature*
Better title: *An Environmental Center: Helping Children Learn about Nature in an Urban Setting*

Introduction

This section provides a short explanation of what the study will be about and why the topic is important. It can also describe the larger context of the study e.g., "At the time of the study, a planning process was underway in the city of Seattle to explore alternative approaches to replacing an elevated highway that separated the downtown from the waterfront." Although it does not state the problem, the introduction lays the foundation for it.

Problem Statement

This section begins with a clear statement of the problem as described previously in "Proposed Problem," including an explanation of the key concepts or issues that comprise the problem. This statement is the most critical element in the proposal as it determines all that follows. The section continues with an explanation of the rationale, significance, or need for the study. Then it provides the theoretical framework, or "school of thought" that positions the thesis within the field of architecture. Some topics are pragmatic and do not have a clear relationship to theory; other topics might draw from a variety of theories; still others might challenge existing theory. The theoretical framework should mostly be drawn from the field of architecture, but may also be drawn from other fields. The theoretical framework has long term implications for the project. Consequently, students should carefully consider this section, and discuss it extensively with the Supervisory Committee. In the same spirit, students should anticipate re-visiting and possibly modifying this framework as the thesis develops.

The section ends with an explanation of the delimitations and limitations of the study. Delimitations are constraints imposed by the students. They are an integral part of the design, laying out beginning assumptions and explaining what will, and will not, be included. For example, does the thesis assume constraints and opportunities that apply today or does it anticipate ones that may apply 20 or 40 years in the future? If the thesis is on an urban site, to what extent will the context be explored? How much attention will be given to urban planning versus urban design and architecture? Will a design be explored in a hierarchical sequence (e.g. developing drawings of a large area to ones describing details)? Clearly stated delimitations will help the Supervisory Committee think through the design of the thesis and judge the feasibility of completing it in the time available. Limitations, instead, are factors beyond the control of the student, for example being able to access archival information, get individuals to participate, or raise funds for a building project. Every project has limitations that are best dealt with at the outset.

Literature Review

This section explores the problem statement by presenting a critical review of academic and/or professional literature related to each of the concepts or issues embedded within it (sometimes called descriptors, key words, or variables). "The term *literature* is employed to include anything appropriate to the topic, such as theories, letters, documents, historical records, photos and other images or objects, government reports, newspaper accounts, empirical studies, and so forth" (Mauch and Park, 2003, p. 117). Although the extent and depth of a literature review can vary, at a minimum it should demonstrate that the student possesses a good understanding of the topic and the methodologies others have used to explore it. Ideally, a literature review reinforces the significance of the thesis, pointing to gaps in knowledge, while helping the student narrow the investigation.

While preparing a prospectus requires only a scan of the literature that provides a sense of what is available, the proposal requires a more in-depth and critical review of the major sources for a particular topic. The literature review presents the evolution and present state of the topic, and shows how the proposed thesis will add to existing knowledge.

Methodology

This section describes the procedures that will be pursued in the thesis, as outlined above in "Proposed Methodology," including an explanation of its appropriateness to the topic. It should be brief but thorough enough to allow the Supervisory Committee to assess the feasibility of the proposal. Because the literature review provides an understanding of how others have investigated the topic, it typically suggests a methodology.

The methodology for a design thesis differs from that of a research thesis, the former exploring a problem statement through the hands-on generation of three-dimensional form, the latter exploring it by collecting and analyzing data. Yet, both methodologies require a systematic connection to a problem statement and are conceptually parallel, as indicated below.

Research Methodology	*Design Methodology*
Context for the study	Site selection
Study population	Programming
Data collection methods	Design methods
Data analysis methods	Presentation format

Research Methodology

Context for the study. This section indicates where and when the study will be conducted, and whether any permissions are needed to study the context.

Study population. This section indicates who or what will be involved in exploring the problem identified. A "population" might be a single person or group of people, a building or group of buildings, a type of place, a publication or group of publications, and so forth. Indicate whether the study population includes everyone or everything, or whether it is a sample of a larger group. If it is a sample, indicate how the sample will be selected.

Data collection methods. This section explains how data will be collection, which might include such processes as examining drawings or other archival records, conducting interviews or observations, or photographing or videotaping the study context. Indicate any specific instruments (e.g., a questionnaire or site plan) that will be used to collect or record data (the instruments

should be included in the appendices). Indicate whether data collection methods involve human subjects and, if so, whether an application has been, or will be, submitted to the university's Human Subjects Division.

Data analysis methods. This section explains how the data will be organized, analyzed, and displayed. Although strict standards of replicability (i.e., that others using the same methods would be able to produce the same outcomes) do not apply, the analysis must be systematic and transparent.

Design Methodology

Site selection. This section identifies the project site (a map or site plan should be included in the appendices), and indicates the appropriateness of the site to the problem under study. Site selection may be part of the thesis work itself, in which case the proposal must provide detailed site selection criteria indicating the specific process for choosing the site.

Programming. This section provides a summary of the project program (a complete program should be included in the appendices) and addresses such issues as: How was the program generated? Is the program fully established or will it be tested or altered as part of the thesis work? Programming may be part of the thesis work itself, in which case the proposal must include a detailed description of the process for developing the program.

Design methods

Although the creative process itself is probably not susceptible to analysis, the evaluative and transformative methodologies that structure the creative process must be subject to critical examination; such an examination is integral to the successful defense of a design thesis. Design methods, like theoretical/conceptual positions, are often habitual or assumed rather than stated, but a thesis requires that the student examine these assumptions.

This section addresses such questions as: Will the design methodology to be based upon precedent, convention, or architectural typology; on functional analysis, original research, or systematic investigation of design parameters; or on some combination? Will the mode of design inquiry to be more cultural or scientific? Will it be more linear and rational or more iterative and intuitive? Will it be more programmatic and realistic, or more speculative and exploratory? How much weight will be given to topics such as site, users, program, climate, community, history, context, tectonics or budget? By what criteria will success be determined? How will provisional design solutions or alternatives be evaluated? Not all of these questions need be answered, but they are the type of questions that must be addressed.

Presentation format. This section explains how the designs that are developed will be displayed in the written document. Although this plan will need to be revisited as the design develops, it should provide beginning intentions that indicate an awareness of the special challenges of presenting drawings and models within an 8 ½" x 11" format.

Space Support

This section indicates if and when space will be needed to prepare the thesis. The Department will attempt to provide thesis space for each thesis student for a period of two quarters. Space will be allocated via a lottery held the first day of each quarter and organized by the Graduate Program Assistant. Only those students who have approved Thesis Proposals can participate in the lottery.

Annotated Bibliography

An annotated bibliography lists only the literature that have been reviewed or will likely to be reviewed and actively referred to in the thesis. It should be organized in sections that relate to the major concepts under study. The annotation must provide a brief summary of the citation and state its relevance to the thesis.

Appendices

The appendices must include a calendar that charts out each step of the thesis work, as indicated in the methodology section, and the points of interaction with the Supervisory Committee. They may also include as appropriate data collection instruments, a map or site plan, or a program.

Defense of the Thesis Proposal

When the Thesis Proposal is complete, the chair should call a meeting of the Supervisory Committee. The meeting provides the student with an opportunity to present the work orally and benefit from the committee's collective advice on unresolved issues. If possible, the student should have made revisions requested by the chair or mentor so that a successful outcome is assured. However, the defense should be scheduled so that the student has at least two weeks prior to the defense to make revisions, should they be required. At the end of the defense, the Supervisory Committee signs the thesis proposal cover sheet (entitled *ARCH 700: INDEPENDENT THESIS — Approval to Register for Thesis*).

Process issues to discuss in this meeting include: the procedures committee members would like the student to follow in circulating chapters and/or having desk crits, the style manual to use, and the scope of the literature review. If the mentor is not the Chair, the committee should agree on, and communicate to the student, a clear definition of each person's respective role.

Approval to Register For Thesis

In order for students to register for thesis, students must submit a completed *ARCH 700: INDEPENDENT THESIS — Approval to Register for Thesis* form and a copy of the thesis proposal for approval by the Graduate Program Coordinator. This form includes the thesis title and signatures of the committee members, as well as a credit review with the signature of the Graduate Program Advisor.