

Thesis Program Description

The School of Architecture at Taliesin

Overview

Thesis at SOAT is integrated with Taliesin's historic Student Shelter Program. While they are at Taliesin West in Scottsdale, Arizona throughout the fall and spring months, the vast majority of the School's students live in student-built shelters scattered in the Sonoran Desert around the campus (this also occurs at Taliesin in Wisconsin, but to a lesser extent, traditionally). These small structures, designed and built by students in response to the landscape and desert climate, have been a hallmark of the program since its inception in the 1930s. As the focus of the student Thesis Program, students will formulate the entirety of their shelter project themselves, from site selection through space and use programming through to design, construction and inhabitation (students are required to live in their shelters for a minimum of three months). The shelter project functions as a *proof-of-concept* for a thesis designed to be scalable and adaptable to how we live in our modern world, as the set of ideas that students develop in their thesis, first embodied and tested through the creation—or, more often, recreation of disused existing shelters— of these environmentally astute dwellings, might also form the foundation of a critical practice that students develop throughout their careers. The ability to initiate and execute a small comprehensive project while still at the School provides students a rare and rigorous platform to investigate architectural ideas in a holistic manner, solidly grounded in historical and cultural fact, circumstance, and context as informed by careful and penetrating research. It is intended to mark the culmination of the student's creative, intellectual, and technical development at the School.

The Thesis program is designed to extend over the two semesters of a student's third and final year in the program, broken roughly into two semester-long parts: ARC-731: Design/Construct and ARC-732: Construct/Inhabit. These two courses are preceded by ARC-689: Pre-Thesis Seminar in the preceding spring semester, where students receive guidance on research methodologies, are exposed to a range of disciplinary historical and cultural contexts and develop their initial Thesis Proposal, which gets revised and refined the next year. The thesis process is largely self-directed by the student under the guidance of their Thesis Advisor. In addition to meeting with their thesis advisor, thesis candidates will meet regularly with members of the Core Faculty to update progress, address problems, clarify direction, and participate in the collegial exchange of ideas. Other resource persons will join the meetings as needed.

Upon its completion, the Thesis Project will be presented and reviewed as part of the School's year-end Design Studio reviews.

The Thesis Project will:

- Through the design and construction of a student shelter, provide an architectural design response to a significant problem;
- Include a substantive, well-written, thoroughly researched and documented thesis that firmly establishes the relevant contextual basis for the problem and its solution;
- Demonstrate comprehensive design skills in its execution;
- Be cogently argued in both proposal and final presentation;
- Demonstrate an interdisciplinary approach to the solution of the problem and the presentation of the solution;
- Demonstrate major steps in the design process that inform design choices

relevant to the solution;

- Demonstrate comprehensive achievement of SOAT's program learning outcomes.

The Thesis Project comprises the following seven phases (though it is expected that shelter design and development of the written component will overlap):

Written Component

1. *Proposal* – the preparation and approval of the Thesis Proposal.
2. *Research* – encompassing all relevant aspects of the project – historical, social, cultural, environmental, architectural, etc.
3. *Proposition* – the analysis of the research together with the architectural proposition constitute the main written body of the Thesis.

Shelter Design

4. *Shelter Comprehensive Design* – including all required drawings, models, etc.
5. *Shelter Inhabitation* – Reflective inhabitation of the shelter.
6. *Reconsideration and Final Analysis* – a post-design revision of, or addition to, the Proposition.
7. *Public Juried Review*.

Sample Schedule

08.20.18: Fall Semester Begins

09.13.18 : Preliminary review (4 weeks)

Clear Formulation of the thesis argument; map out the trajectory of work for the project and present preliminary design experiments.

10.12.18: Mid-Review (5 weeks)

Written Component, Full Draft Complete.

Shelter Design, Drawings and Models to describe design project and how it supports your thesis argument; what are the stakes for the discipline? What are the architectural, urban, social or political consequences of your propositions?

10.22.18 Classes begin at Taliesin West

Site Planning & preparation begins

11.16.18: Interim Review (4 weeks)

Written component complete. Full Description of current state of project and a well-developed argument, clearly presented

Shelter Design Review, Construction Documents Complete, Construction Begins

12.07.18: Thesis Mid-Point Review (3 Weeks)

Thesis mid-point public presentation

01.07.19: Spring Semester Begins

02.01.19: Shelter Construction Interim Review (8 weeks)

03.01.19: Shelter Inhabitation Begins (4 weeks)

04.19.19: Internal Review (7 weeks)

Written addendum due including reflections on the construction and in-habitation of the shelter. Final Presentation draft including comprehensive representational strategy (drawings, models, animations, constructions).

05.03.19: Shelters Final Public Review

Thesis Written Component

The student's detailed examination of a significant area of interest -- both to the student and to the field, the architectural proposition associated with it, and the design choices leading to the design solution, together with the documentation of the research effort, constitute the subject matter of the Thesis' written component. The thesis must present the student's ideas clearly and precisely, including illustrations, visualizations and design experiments. It should guide the reader to understand:

- The core thesis proposition;
- Why it is relevant to the field;
- How the student's shelter design explores the student's research question;
- What conclusions are reached.

Requirements of the Thesis:

A Master of Architecture student, as part of his or her Thesis Project presentation, is required to submit a Thesis that meets the objectives heretofore described *and* satisfies the following conditions:

Length: 5,000 words minimum, 12,500 words maximum. (This does not include captions, images, diagrams, footnotes, endnotes, bibliography.)

Stylebook: The Chicago Manual of Style, 16th Edition; The University of Chicago Press, 2010.

Format: On 8.5" x 11" white paper; 1" margins on top, bottom, and right side, 1.5" on left side; Times Roman, Palatino, or similar typeface, 12-point for main body text. Line spacing: 1.5

For all other **style** and **format** requirements, refer to Turabian, Kate L., *A Manual for Writers of Research Papers, Theses, and Dissertations*, 7th Edition; The University of Chicago Press, 2007. (See, especially, "Part II – Source Citation"; "Part III: Style"; and "Appendix: Paper Format and Submission")

Copies: One bound printed copy. Four unbound printed copies. One digital copy uploaded to

SOAT's oneDrive.

Preparation of the Library Manuscript

1. The Thesis Project will be archived in both Taliesin libraries (Spring Green and Taliesin West) within 90 days of a student's defense.
2. Single-sided, bound manuscripts should include, in addition to the complete Thesis:
 - A. A thesis abstract
 - B. Supporting images, architectural renderings, models (as practical)
 - C. Copyright in Student's Name

Thesis Shelter Construction

The Shelter Construction Program is a unique experiential learning opportunity for students to design, build, and live in a structure they have created while enrolled at SOAT. As part of the "learning by doing" educational approach advocated by Wright, the program forcefully demonstrates how climate, building materials, site orientation, and client needs and preferences all inform design choices based on the tenets of organic architecture. Constructing a shelter engages a student fully in a process of architectural discovery, where inspiration and hard work are joined with fellowship and commitment.

The Shelter Construction Program is rooted in the early years of the Taliesin Fellowship, a training program for architects founded in 1932 by Wright and his wife, Olgivanna. During the first years of residency apprentices lived in small shepherd's tents that were made of canvas, set on metal frames attached to a 10-foot square masonry base. As simple variations of tetrahedrons and pyramids these structures not only provided apprentices with housing, but also helped them understand the nature of the vast Sonoran Desert in which they lived. Although the Shelter Construction Program has evolved since its founding to include more design choices, all shelters have been built by students living closely with the natural environment, thereby better understanding what Wright envisioned when he wrote in his autobiography:

"To me an architect is a man who...knows the secrets of nature and studies them, is informed by them and comes out stronger with knowledge."

- *Frank Lloyd Wright An Autobiography*

Students need to submit their shelter building proposal according to the schedule above. This timing is critical toward insuring that a student completes the shelter and lives in it for a minimum of three (3) months before graduating and leaving the School, thereby enjoying and learning from the experience.

Designing and building a shelter in which to live requires a student to work closely with their thesis advisor and to follow the guidelines established by the Shelter Approval Committee. This exciting and creative opportunity can best be realized by working professionally with others who can contribute their

skills and talents to the effort. Although the shelter may initially be conceived of as a student's individual project, it will only be built through collective work, and ultimately will belong to the ever-changing elements of nature.

Building a shelter is a tremendous learning experience that challenges students to design a structure that protects them from the natural elements while maintaining a sustainable balance between survival and comfort. Although this building endeavor may appear to be simple at the onset, it is an opportunity for students to implement knowledge and skills that are central to becoming an architect.

Through first-hand experience students come to understand the forces of prevailing winds, positions of the summer and fall sun, average temperature, rainfall, the nature of materials, and other conditions that strongly influence their design choices. Additionally, students have the opportunity to be client, builder, and architect, thereby better understanding the needs and concerns of each. By working closely with their thesis advisor and with the Shelter Approval Committee this can be a unique and rewarding experience each step of the way.

Shelter Approval Committee

This committee includes: The Dean of SOAT, a member of the Facilities Committee of the FLLW Foundation, and two (2) Faculty members.

Site Approval & Required 'Shelter Site Approval Form'

At Taliesin-West, in the fragile Sonoran Desert, only previously developed sites are available for shelter construction. Available sites are indicated on the official Shelter Site Maps maintained by the Facilities Manager and the Shelter Approval Committee.

At Taliesin, in Spring Green, Wisconsin, students may apply for permission to build in the Prairie Shelter Zone.

A student must submit a written request to the Shelter Approval Committee seeking permission to build a shelter and designate a specific site, using the 'Shelter Site Approval Form.' The Committee may place additional restrictions on the height, footprint, materials, and character of the shelter based on the location of the proposed site.

Design Approval & 'Shelter Construction Approval Form'

Before a student begins working at a selected site a proposal must be submitted that includes the following: Site Selection, Concept Sketches of the Shelter Design, Building Plan, Faculty Mentor, Timeline, and Budget.

A completed 'Shelter Construction Approval Form' must accompany a student's proposal. Following the review of all materials the Shelter Approval Committee may approve the project or ask for revisions. These revisions must be reflected in the building plan submitted to the Committee for final approval.

Required Design Criteria

Building Foot Print

The total site, including landscaping, will be contained within a limit not to exceed thirty feet in diameter, 706 sq. ft. The enclosed shelter can be no larger in footprint than 144 sq. ft. The height of any shelter (structure) will not exceed 12'.0" Shelters adjoining a wash will be measured from the embankment.

Complete Construction Documents

including: Site plan, including all vegetation, Floor plan with sections and elevations, Structural plan with details. A model of the final shelter design is required. Additional documents may be required by the student's Thesis Advisor.

Site Improvements

Any hard-scape elements, patios, walkways, etc., will be considered part of the shelter and should be part of the construction document approval process. Upon completion the site must be re-vegetated to its natural state within a radius of 15'.0".

Heavy Equipment

Use of heavy equipment, such as a backhoe, small crane, materials trailer, or ready-mix delivery trucks, will be permitted on an individually approved basis but must be used with great care to avoid damage to the site.

Extent of Commercial Fabrication

The extent to which commercial fabrication of components is utilized is subject to review by the Shelter Approval Committee. All commercial involvement in the construction must be made known to the Committee. It is the intention of the Shelter Program that shelter creation be a learning experience by the student.

Protection from the Elements

In keeping with a major objective of the Shelter Program, student designs will offer shelter occupants protection from the elements, such as rain, wind, sun, and wildlife. Students submitting Shelter Construction Proposals must fully consider the comfort and good health of shelter occupants in relationship to the many challenges of nature.

Variance Hearing

Students who wish to propose a design that is outside the required design criteria may request a Variance Hearing from the Shelter Review Committee. Requests should be positive, persuasive, and supported by visual documentation. The Shelter Review Committee will approve or deny any variance requests. This will constitute a final decision.

Shelter Approval forms can be found at the SOAT website:

http://taliesin.edu/app/uploads/Shelter_Site_request.pdf

http://taliesin.edu/app/uploads/Shelter_Construction_request.pdf

Following Approval

After a student's design has been approved by the Shelter Approval Committee a student may petition the School for construction funds. The amount of financial support will not exceed \$3000, and may be subject to the funds available. In keeping with the constraints of the architectural profession it is important that a student design a shelter that is efficient and economical.

The payment of any funds will be made either 1) directly to a supplier, or 2) as reimbursement for actual shelter expenditures a student has documented in their budget. All other costs for shelter construction are the responsibility of the student.

A student building a shelter is encouraged to seek fundraising assistance and guidance from the Development Office of the School. The Development Office has a student shelter in-kind donation process to enable building materials suppliers to make tax-deductible contributions to the shelter program and to receive recognition for their donations.

Team Work

Learning to organize and lead a team of people in a project is an important educational component of shelter construction. Likewise, learning how to participate in a project as a co-worker is important. Students building a new shelter or modifying an existing one are expected to organize a working team using students as the labor force.

As stated above, under 'Design Approval,' students planning to build a new shelter will need to organize work teams accordingly. Students who are part of a working team and consistently commit their labor to a shelter project for an extended period of time may complete an Independent Study Plan (ISP), thereby receiving recognition and evaluation for their construction work. The ISP will be evaluated by the faculty mentor associated with the shelter project.

Intellectual Property Rights

Potential donors of funds and materials must be provided with the Official Intellectual Property Statement in advance of any solicitation of donations regardless of the form such donation may take. All students are required to familiarize themselves with the rules governing intellectual property rights.

Limitations

The School reserves the right to limit the number of shelters constructed or remodeled in any season at its sole discretion. Every student is expected to understand and respect the fragility of the desert landscape at Taliesin West. Any destruction of the desert biome and restoration plan must be approved in advance by the Shelter Approval Committee. These conditions also apply to the Taliesin Wisconsin Prairie Zone.

By participating in the program, the student acknowledges that the shelter and its design and images are the property of the SOAT. SOAT reserves all of its rights in this property. Occupancy of a shelter is acknowledged by a student as being at his/her own risk. Upon graduation, unless special permission from the Dean is granted, the

student must vacate his/ her shelter, removing all personal belongings from it.