

QAF IN QUBBA (ISLAMIC CENTRE DESIGN)

Cultural Integration, Climate-responsive design, Nordic-Islamic Synthesis
Civic Projects/Public and cultural

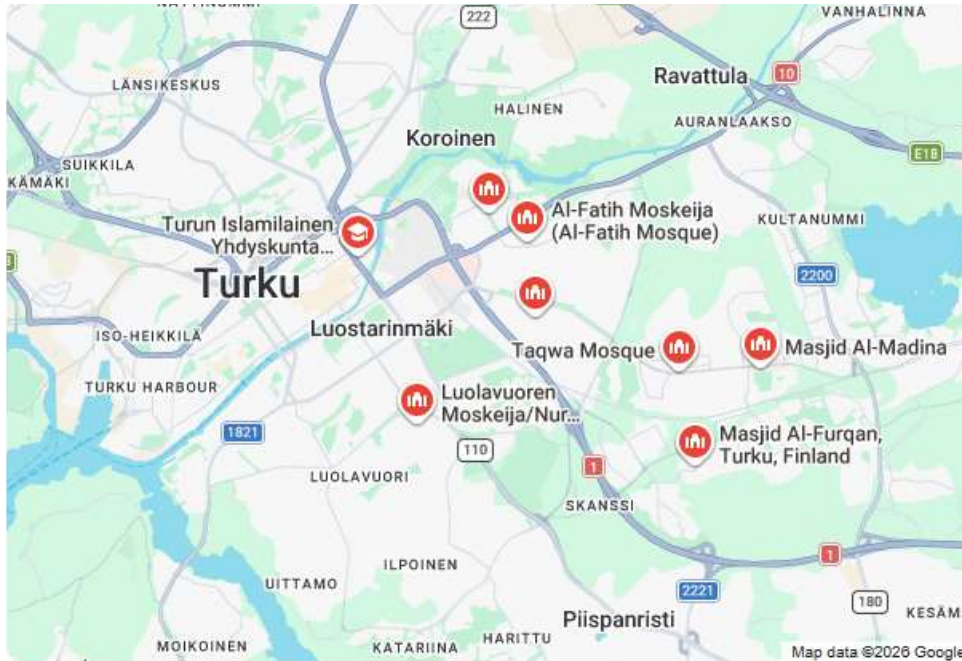
ARCH 301(Studio V)

ARCH 401 (Studio VII)

In the context of diaspora and global migration, an Islamic Center serves as a dual-purpose entity: a high-functioning facility for spiritual and educational needs, and a symbolic "anchor" for cultural integration and community stability. This project focuses on the construction of a comprehensive Islamic Center in Finland, moving beyond "converted commercial spaces" toward a permanent, culturally representative, and contextually integrated architectural intervention.

Designing a Cultural and Spiritual Facility (Mosque, library, and community center) in a Nordic context like Finland requires more than just functional layout; it demands a deep understanding of climate resilience, cultural synthesis, and inclusive community design.

*Qaf in Qubba is a design Studio that seeks to balance the **traditional spatial requirements of Islamic architecture with the environmental and socio-cultural sensitivities** needed to thrive in a Scandinavian landscape.*



CONTEXT / Finland is known for its extreme winter climate, profound connection to nature, and rich tradition of minimalist, timber-based architecture. It is currently facing a need for purpose-built religious and cultural infrastructure for its growing Muslim population.

- **Site Dynamics:** Integration with natural landscapes (forests/water), low-density urban fabric, and a need to respect the existing Nordic aesthetic.
- **Climatic Factors:** Extreme cold-climate conditions, heavy snow loads, and lack of natural daylight in winter. Requires extreme insulation, maximizing daylight (light catching), and winter-garden strategies to replace the traditional open "Sahn" (courtyard).
- **Infrastructure:** Highly developed infrastructure; the design must prioritize ecological sustainability utilizing local materials (like mass timber/CLT), geothermal heating, and energy efficiency.

CONTENT / Religious and cultural infrastructures for Muslims in Finland have historically been poor and badly distributed. The majority of prayer spaces currently exist in retrofitted industrial warehouses or basement commercial spaces, lacking the architectural identity and spatial dignity required to foster a healthy, integrated community.

Worldwide, there are many design competitions announced yearly for the architectural design of religious and cultural facilities, looking for the best ideas to design modern, cost-efficient, energy-efficient, and culturally sustainable centers. In this studio, we will participate in the **Abdullatif Al Fozan Award for Mosque Architecture - Student Category 2027** (the participation process will be explained in detail).

This studio seeks to learn **How to design such buildings** taking into consideration the general criteria of:

1. **Navigate Complexity:** Manage the intricate circulation of worshipers, students, community visitors, and distinct zoning for different genders and functions.
2. **Contextual Integration:** Harmonize a spiritually significant building with a sensitive Nordic environment, balancing Islamic geometry with Scandinavian minimalism.
3. **Technical Proficiency:** Implement advanced structural systems adapted for heavy snow loads and sophisticated MEP (specifically advanced heating and artificial lighting/daylighting) coordination.
4. **Human-Centric Design:** Apply architecture to reduce seasonal affective disorder (SAD) through lighting, and create spaces that foster spiritual tranquility and community belonging.

While paying extra attention to the special technical consideration of designing gathering spaces, such as:

- **Balance between functionality and aesthetics:** Ensure the center is both culturally representative and visually appealing within its local context.
- **Integration with the Community:** Respect the identity of the minority while preserving the local architectural heritage of the Finnish urban center.
- **Sustainability features:** Environmental (wood construction), Energy (passive heating), Cultural, and economic sustainability.

AIMS

Studio V Designing an The Mosque with Islamic Cultural Library attached to the main center.

Studio VII Designing the Main Islamic Center (Mosque, Educational wings, Multipurpose Hall, approx. 500-800 capacity).

Both should integrate into the specific climatic and urban fabric of Finland while utilizing innovative construction methods.

Goals: Learning cultural integration and climate resilience achieved by the architecture of religious facilities.

Using local materials and traditional methods and styles by:

- Learning traditional Islamic spatial concepts (Qubba, Sahn, Riwaq) and how to reinterpret them for extreme cold climates.
- Learning how to design a resilient structural system (like Glulam/CLT) for large-span gathering spaces.
- Understanding both Islamic and Nordic traditional systems and how to be inspired by them for contemporary synthesis.

METHOD /

How to Circulate during this studio work:

After the presentation day, and if you choose to work in this studio (V or VII), we will define the suggested sites after an urban analysis and define for each student of the studio the project he/she will design (the detailed architectural program of each studio).

The phases to be followed throughout the process are given below.

Phase 1: Research and Analysis

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- Site analysis (Analyze the context of the chosen project, by understanding the site, extreme environment, Finnish tradition, and Islamic culture...)
 - Existing infrastructure and demographic assessment.
 - User needs, preferences, and cultural sensitivities.
 - Regulatory requirements (Finnish building codes for snow loads and insulation) which will lead you to define the required square meters areas of the functions and spaces required in the design program.

Phase 2: Site, accessibility and connectivity Design

- Schematic design: start designing the accessibility to the site (pedestrian, public transit, parking...) and defining site components and elements.
- Layout options: Design the project architecturally by distributing the functions and spaces using complex circulation methods (separating ablution, prayer, and secular educational zones) as the base of the design.
- Material exploration (Focus on timber and light-reflecting materials).
- Sustainability strategies (Thermal mass, winter sunlight harvesting).

Phase 3: Detailed Design

- Architectural drawings
- Structural engineering (Roof typologies for snow)
- Landscape design (Adapting to winter/summer extremes)

Learning Outcomes:

- 1- Design standards for accessibility and circulation in religious and community facilities.
- 2- Concept for cultural integration and Nordic-Islamic design in architecture.
- 3- How extreme climate conditions can define and affect traditional architectural typologies.
- 4- How to reflect the dynamic heritage of the diaspora and preserve the context, protecting dual identities.
- 5- Different presentation techniques of the design ideas.

DELIVERABLES:

Plans, sections, 1/100, sketches and renders posters of Portraits A2 size.
3D Physical model + VR accessible 3D model of the architectural design.

EVALUATION / The design should respond to the following requirements:

Does it integrate into the complex Nordic climatic and cultural context?
Does it respond to local community needs??
Does it reflect the identity of both the Islamic heritage and the Finnish region??
Are the architectural spaces and functions correctly distributed??
Does it enable future expansion??
Level of innovation???

Grading:

Assignment of context Analysis 10%
Quiz of zoning design 10%
Assignment of site planning 10%
Midterm Jury 20%
Final Jury 40%

Each Jury evaluation criteria are:

- **Context integration (20%):** Originality and response to the "Nordic/Climate" condition.
- **Functionality (35%):** Efficiency of the "Community Program" and zoning.
- **Technical Integration (15%):** Structural logic (timber/snow loads) and environmental systems (heating/light).
- **Representation (15%):** Clarity of plans, sections, and 3D visualizations.
- **Model (15%):** Physical Model.

Important Note: (This Studio contents/ facilities/ functions and grading scale are subject to modification through the studio time according to the progress and interaction of the students.)

Bibliography /

- Mosque Architecture: Form, Context and Design (Abdullatif Al Fozan Award Publications)
- Wood Architecture Today (Finnish Timber Construction Guidelines)
- VerSus Project: Heritage for Tomorrow, Vernacular Knowledge for Sustainable Architecture.

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