Cultivating the Community Commons – Climate, Culture, Craft

Scan l Design Master Studio, Autumn 2015 [Larch 501/Arch503]

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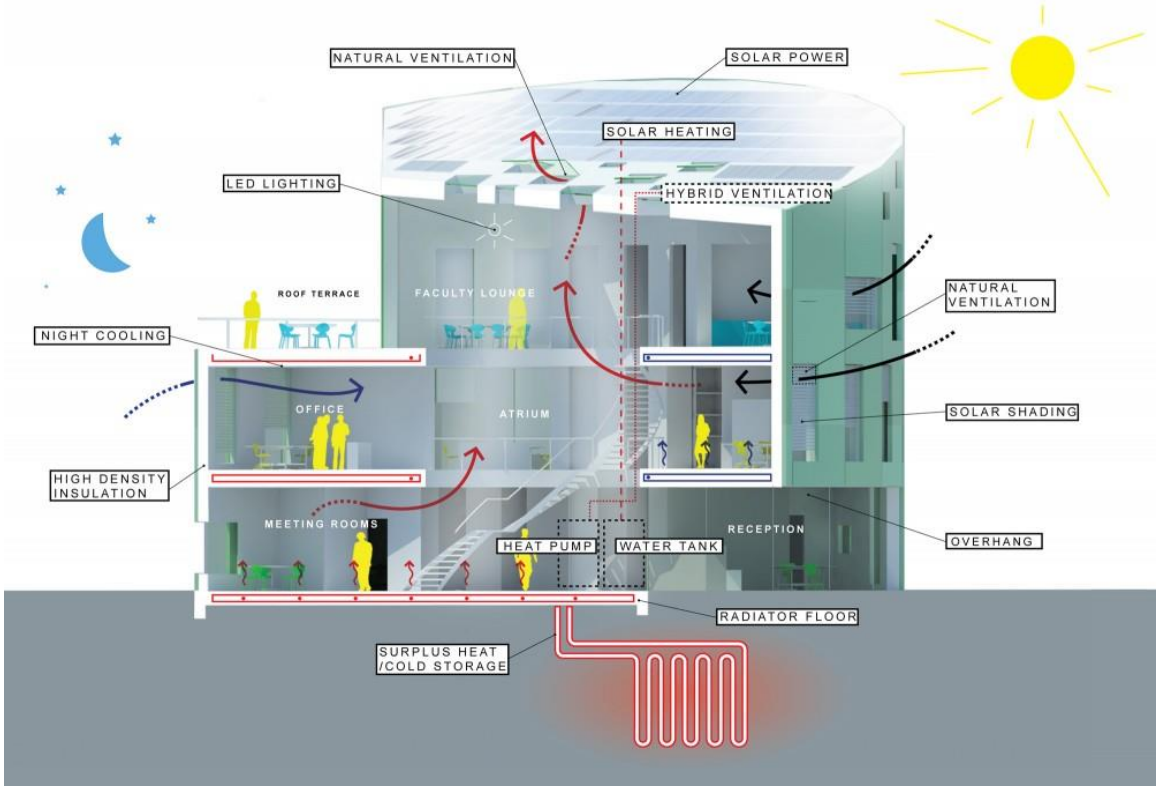

The Green Lighthouse, Copenhagen

Comprehensive Criteria

1: Demonstrate your skills and knowledge through the comprehensive design of a fully developed project. This project will be informed by a detailed program and will be carried out through a rigorous process of community programming, site analysis and district planning, schematic design, and design development, systems and life/species-safety analysis, construction assembly exploration and selection, and appropriate representation/presentation for communication.

2: Demonstrate the selection of and integration of structural, environmental, life/species-safety, construction assemblies, and infrastructure/service systems in the setting of a studio design project.

3: Respond to both natural and built site and context characteristics in the development of a program and in the design of a project.

4: Demonstrate an understanding of the codes, regulations, and standards applicable to a given site, landscape and building design. These standards should include, but are not limited

to, occupancy type, allowable building heights and areas, allowable construction types, separation requirements, occupancy requirements, means of egress, fire protection requirements, and structural system requirements.

5: Conceptualize and configure a thoughtful project, and thoroughly design and detail an integral part of that project. Select and design the appropriate combinations of materials, components, and assemblies to satisfy the requirements of the program and design intent.

6: Generate technically precise and readily communicable descriptions and documentation of the proposed design for the purpose of reviews.

7: Demonstrate the principles of sustainable community design through the successful integration of the issues of program response, context and site analysis, orientation, climate, materials, construction language, structure, environmental systems, day lighting, and code review in the design project of a public program.

8: Generate Energy. Harvest water. Grow crops. Prepare food. Share meals.

Integrated Building Practices, Technical Skills and Knowledge:

Designers are called upon to comprehend the technical aspects of design, systems and materials, and be able to apply that comprehension to their services. Additionally they must appreciate their role in the implementation of design decisions, and the impact of such decisions on the environment. Student's learning aspirations should include:

- Creating designs with well-integrated infrastructure.
- Comprehending constructability.
- Incorporating life/species support systems.
- Integrating inclusive accessibility.
- Applying principals of resilient design.

NAAB 1B Pre Design
"Ability to prepare a comprehensive program for a public project, such as preparing an assessment of client and user needs, an inventory of space and equipment requirements, analysis of site conditions (including existing buildings), a review of the relevant laws and standards and assessment of their implications for the project, and a definition of site selection and design assessment criteria."

NAAB 2B Accessibility
"Ability to design sites, facilities, and systems to provide independent and integrated use by individuals with physical (including mobility), sensory, and cognitive disabilities."

NAAB 3B Sustainability
"Ability to design projects that optimize, conserve, or reuse natural and built resources, provide healthful environments for occupants/users, and reduce the environmental impacts of building construction and operations on future generations through means such as carbon-neutral design, bioclimatic design, and energy efficiency.."

NAAB 4B Site Design
"Ability to respond to site characteristics such as soil, topography, vegetation, and watershed I the development of a project design."

NAAB 5B Life-Safety
"Ability to apply the basic principles of life-safety systems with an emphasis on egress."

NAAB 6B Comprehensive Design
"Ability to produce a comprehensive architectural project that demonstrates each student's capacity to make design decisions across scales while integrating the following:

2A Design Thinking Skills
4A Technical Documentation
5A Investigative Skills
8A Ordering Systems
9A Historical Traditions and Global Culture

2B Accessibility
3B Sustainability
4B Site Design
5B Life Safety
8B Environmental Systems
9B Structural Systems

NAAB 8B Environmental Systems
"Understanding the principles of environmental systems' design such as embodied energy, active and passive heating and cooling, indoor air quality, solar orientation, daylighting and artificial illumination, and acoustics; including the use of appropriate performance assessment tools."

NAAB 9B Structural Systems
"Understanding of the basic principles of structural behavior in withstanding gravity and lateral forces and the evolution, range, and appropriate application of contemporary structural systems"

NAAB 10B Building Envelope Systems
"Understanding of the basic principles involved in the appropriate application of building envelope systems and associated assemblies relative to fundamental performance, aesthetics, moisture, transfer, durability, and energy and material resources."

NAAB 11B Infrastructure Service Systems
"Understanding of the basic principles and appropriate application and performance of infrastructure service systems such as plumbing, electrical, vertical transportation, security, and fire protection systems. The project should generate energy and harvest water"

NAAB 12B Materials and Assemblies
"Understanding of the basic principles utilized in the appropriate selection of construction materials, products, components, and assemblies, based on their inherent characteristics and performance, including their environmental impact and reuse."