Urban Swim: Mission Pool
Like many cities in the United States, San Francisco experienced a significant population increase in the years following World War II. The Association of Bay Area Governments reports a 22.2% increase in the decade between 1940 and 1950. In response, there was a corresponding growth in the City-sponsored buildings necessary to support such growth. Many of the City’s fire stations, branch libraries, neighborhood parks, public schools, community college buildings, recreation centers and swimming pools date to this period, particularly in areas other than downtown or the older and more established residential neighborhoods that are located upon the hills.

Now approaching 60+ years, much of this ‘municipal infrastructure’ is in various states of decay and disrepair, as well as being deficient in terms of current codes related to issues of seismic performance, energy performance and accessibility. Over the past decade, a variety of bond measures have been approved by San Francisco voters that target funds for updating these valuable urban resources. In 2008, Proposition A was passed, allocating $185,000,000 to the improvement of local parks and associated recreation centers and swimming facilities. Once the money was approved, one of the first steps was to develop a priority list for where and how the funds would be used. Sites were rated and ranked, with the following results:

The focus of our work will take place at the second most ‘in-need’ site on the list, the Mission Playground. More specifically, the project for the semester will be a proposal for a new swimming facility to replace the existing Mission Pool, which is the only open-air public pool in the City. In addition to the pool, the project involves a small common use room ['clubhouse'], public restrooms that support the adjacent athletic courts, and a large urban mural wall. The size and program will be similar to the existing facility [±11,000 sf].

The conversation in the studio will center around the following issues and investigations: the role of municipal projects in manifesting larger civic ideals; the nature of long-span building design; the conditions of water and ground as formal instigators; the relationship of the project to the surrounding park and city. “Operability” will be a guiding interest, and will center our technical and environmental inquiries on strategies for a permeable/operable/pliant roof membrane.

Please note: the word ‘community’ is specifically and intentionally not listed above and will be generally discouraged; new work will be required for every class meeting; the majority of the studio will be taught via group pin-up sessions; you will be required to swim at least once, or at least paddle about; we will be traveling to the Mission, you will not be reimbursed for expenses.
NAAB Conditions for Accreditation For Professional Degree Programs in Architecture: The NAAB Conditions for Accreditation outlines the requirements that an accredited degree programs must satisfy. The following are selected excerpts that relate to and frame the 'Comprehensive Design' requirement as established by NAAB.

For the purpose of accreditation, graduating students must demonstrate understanding or ability as defined below in the Student Performance Criteria (SPC). The criteria encompass two levels of accomplishment:

- **Understanding** — The capacity to classify, compare, summarize, explain and/or interpret Information.
- **Ability** — Proficiency in using specific information to accomplish a task, correctly selecting the appropriate information, and accurately applying it to the solution of a specific problem, while also distinguishing the effects of its implementation.

STUDENT PERFORMANCE -- EDUCATIONAL REALMS & STUDENT PERFORMANCE CRITERIA

**Realm A: Critical Thinking and Representation:** Architects must have the ability to build abstract relationships and understand the impact of ideas based on research and analysis of multiple theoretical, social, political, economic, cultural and environmental contexts. This ability includes facility with the wider range of media used to think about architecture including writing, investigative skills, speaking, drawing and model making.

**Realm B: Integrated Building Practices, Technical Skills and Knowledge:** Architects 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.

**Realm C: Leadership and Practice:** Architects need to manage, advocate, and act legally, ethically and critically for the good of the client, society and the public. This includes collaboration, business, and leadership skills.

**Realm B: Integrated Building Practices, Technical Skills and Knowledge:**

B. 1. Pre-Design: **Ability** to prepare a comprehensive program for an architectural project, such as preparing an assessment of client and user needs, an inventory of space and equipment requirements, an 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.

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

B. 3. 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.

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

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

B. 6. 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 SPC:

- A.2. Design Thinking Skills
- A.4. Technical Documentation
- A.5. Investigative Skills
- A.8. Ordering Systems
- B.2. Accessibility
- B.3. Sustainability
- B.4. Site Design
- B.5. Life Safety
B. 7. Financial Considerations: **Understanding** of the fundamentals of building costs, such as acquisition costs, project financing and funding, financial feasibility, operational costs, and construction estimating with an emphasis on life-cycle cost accounting.

B. 8. 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.

B. 9. 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.

B. 10. 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.

B. 11. Building Service Systems: **Understanding** of the basic principles and appropriate application and performance of building service systems such as plumbing, electrical, vertical transportation, security, and fire protection systems.

B. 12. Building 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.


The stated goal of the studio is to produce a highly developed building proposal. Towards this end, there will be specific assignments and requirements related to the following aspects of design:

- development of programmed spaces
- structural and environmental systems
- building envelope systems
- life-safety requirements
- accessibility requirements
- wall sections and building assemblies
- principles of sustainability

Final note: remember, this is design. Everything herein should be understood as providing the potential and opportunity to design better.