Columbia University GSAPP
A6853 Advanced Architecture Design Studio AAD
600 Avery: M, W & F (2:00-6:00pm) Summer 2013
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Conditioned Urbanism:

Air Design for an Urban Fitness Center

"There is a very specific kind of anxiety associated with the subjugation of air, an anxiety especially evident in responses to instances when air is commodified, privatized or militarized. At the core of this lies air's enduring role as a cipher for personal freedom…"

- *Mark Dorrian*

Objective:
The studio will research and investigate the role that "air design" has in forming our cities. "Air design" is the conditioning, or modification, of air engineered to fill the volumes within buildings. From the early technologies invented to modify temperature and humidity, building systems are now capable of modifying the air of pollution, mold, odors, noise, static electricity and even electromagnetic radiation levels. Conditioning this air is regarded as secondary to the occupiable spaces that it serves. The studio argues that the requirements of "air design" have become so extensive that it can no longer be considered in service to the architectural program. This conditioning of air has led to a parallel and invisible architectural program with extensive impact on the built environment.

"Air design" exists in our cities in a wide range of building types-- from shopping malls to boutique hotels and fitness centers. These programs are formed by the "designer air" that is provided for its occupants. The studio will replace traditional notions of architectural context with an air-based concept of conditioning. Instead of focusing on ground-based contextual relationships, conditioning creates an understanding of the city focused on the in-between spaces of buildings—both exterior and interior. The studio will ask the essential questions: if we actively design the conditioning of air, how will the architecture itself change? How can the new conditions modify architectural environments—both interior and exterior?

Project Description:
The studio will be a "research and design" format in which the conditioning—and the condition– of air will form the conceptual ground of an architecture project. It is suggested that students work in groups (individual work is also allowed). Each group or individual will propose radical scenarios in which their research will be tested in the design of an urban fitness center located in New York. The studio's design methodology will integrate "air design" into architectural practice.

The "air design" of an urban fitness center will address the process of commodifying indoor air for commercial programs of health, fitness, dining and recreation. This commodified air will condition the design of a new type of urban fitness center. The urban fitness center will combine conceptually based architectural methodologies with an understanding of exterior urban environments and interior air volumes. The studio will produce a set of proposals that radically rethinks the program of an urban fitness center through the design of the interior—as well as exterior– airs. Students will be required to design the spaces in-between architecture before designing the architecture itself.

History of Air Design:
The history of conditioning or modifying, air closely parallels the 20th century military history of outdoor weather modification. During World War I, German gas regiments employed chlorine gas in trench warfare, introducing the environment as a weapon for the first time. During World War II, weather modification was developed to dispel fog and create smokescreens. In the Cold War, methods to create rainstorms and control hurricanes were actively pursued by both U.S. and Soviet militaries. These efforts to weaponize the environment resulted in important civilian developments such as the daily weather report, a scientific understanding of the atmosphere and—most importantly– an early awareness of the impact of weather and climate on the earth's environment. It can be argued that the field of meteorology is the result of two world wars and a cold war.

Program:
The studio program is a new form of urban fitness center. Fitness centers have been undergoing a radical transformation based on social changes. Fitness centers no longer are just spaces for personal health and strength. The requirements of active urban lives have integrated traditional fitness programs with commercial activities such as dining, shopping, and entertainment. The fitness center typology is transforming into a privatized world in which the commodification of air design has become essential. The studio will research the existing Chelsea Piers fitness center and design a new Chelsea Piers. The new Chelsea Piers will be updated with the additional commercial programs as well as the design methodology of active air design.

Site:
There will be two different forms of site for the project. The physical site will be a waterfront property on the Brooklyn waterfront—the specific location will be assigned later in the semester. The other site is the studio's air-based site. This site is constituted by the air that surrounds the future project as well as fills its interior volumes. The conditioning—and conditions–of the air-based site will provide a set of properties that each project will modify. Examples of these properties are temperature, humidity, air movement, or static electricity. The modification of the air-based conditions will also provide a design methodology to address the physical site of the studio, as well as the program for an urban fitness center.

Schedule:

Project 01: Air Research (10%)

(Review on June 19th; 10 days)

Research in forms of "air design" will be initially conducted on an individual basis. Research of conditioning air will be in urban, infrastructural or architectural arenas. The research must be iteratively explored for their potentials in reformulating "air design."

Project 02: Mid-review (20%)

(Mid-review on July 10th, 3 weeks)

Each group will present at the mid-review their "air design" research and their iterative process for designing an urban fitness center. The iterations should clearly and precisely define the project's position relative to site and program.

Project 03A (15%)

(Pre-final review on July 31st, 3 weeks)

Project 03B (25%)

(Final review week of August 7th, 1 week)

Grading Policy:

In general, grading for the semester will proceed as follows:

30%	Material presented at the mid-review
40%	Material presented at final review
30%	Development of the work through the semester

Evaluation in this course will adhere to University guidelines as outlined in the student handbook. Grades will be given in relation to the student's ability to meet the course deadlines, deliverables and course objectives.

Students are entitled to one unexcused absence. A second unexcused absence will result in the lowering of your final grade one full letter. Three absences are grounds for unofficial withdrawal. Absences will be excused in accordance with university policy and will require a note from a physician. Please notify your instructor in advance if you know that you will not attend class for any reason.

Studio References:

1. Ackerman, Marsha. "Always Fair Weather" in Cool Comfort: America's Romance With Air Conditioning, Smithsonian Institution, 2002 (pgs. 77-102).
2. Dorrian, Mark. "Utopia on Ice" in Cabinet: Logistics, Fall 2012 (pgs. 25-32).
3. Fleming, James. "Pathological Science" in Fixing the Sky: America's Checkered History of Weather and Climate Control, Columbia University Press, 2010 (pgs. 137-164).
4. Knechtel, John ed. *Air,* The MIT Press, 2010.
5. Koolhas, Rem. "Definitive Instability: The Downtown Athletic Club" and "The Story of the Pool" in Delirious New York: A Retroactive Manifesto for Manhattan, 1997 (pgs. 152-159 and 307-310).