

2009-2010 Steel Design Student Competition

10th Annual ACSA / AISC Student Competition



CATEGORY I

**RE-LIGARE INSTITUTE:
Reconnecting Mind And Body**

CATEGORY II

OPEN

INTRODUCTION

The Association of Collegiate Schools of Architecture (ACSA) is pleased to announce the tenth annual steel design student competition for the 2009-2010 academic year. Administered by the Association of Collegiate Schools of Architecture (ACSA) and sponsored by the American Institute of Steel Construction (AISC), the program is intended to challenge students, working individually or in teams, to explore a variety of design issues related to the use of steel in design and construction.

THE CHALLENGE

The 2009-2010 Steel Design Student Competition will offer architecture students the opportunity to compete in two separate categories.

CATEGORY I RE-LIGARE INSTITUTE: Reconnecting Mind And Body (re-ligare: re “again” + ligare “to connect”) challenges architecture students to design a public urban center dedicated to reconnecting people with their authentic selves, others, and nature. This new institution aims at stopping the enslaving cycles of unchecked production and consumption dominating our lives, by turning the attention and practice to “being” in its entirety and in all its rich dimensionalities. The project will encourage students to consider ethic, aesthetic, and critical issues facing contemporary civilization, vis-à-vis novel programmatic, technological, environmental, spatial, and phenomenological issues. Steel construction offers students great benefits in this endeavor, as it is ideal for multi-story buildings, quick delivery and assembly in congested urban environments, covering long spans without sacrificing flexibility and aesthetic lightness.

CATEGORY II OPEN with limited restrictions. This open submission design option will permit the greatest amount of flexibility.

CRITERIA FOR JUDGING

Criteria for the judging of submissions will include: creative use of structural steel in the design solution, successful response of the design to its surrounding context, and successful response to basic architectural concepts such as human activity needs, structural integrity, and coherence of architectural vocabulary.

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COMPETITION ORGANIZERS



ADMINISTRATIVE ORGANIZATION

The Association of Collegiate Schools of Architecture is a nonprofit, membership association founded in 1912 to advance the quality of architectural education. The school membership in ACSA has grown from 10 charter members to over 250 schools in several membership categories. These include full membership for all accredited programs in the United States and government-sanctioned schools in Canada, candidate membership for schools seeking accreditation, and affiliate membership for schools for two-year and international programs. Through these schools, over 5,000 architecture faculty are represented. In addition, over 500 supporting members composed of architecture firms, product associations and individuals add to the breadth of interest and support of ACSA goals. ACSA provides a major forum for ideas on the leading edge of architectural thought. Issues that will affect the architectural profession in the future are being examined today in ACSA member schools.



SPONSOR

AISC, headquartered in Chicago, is a non-profit technical institute and trade association established in 1921 to serve the structural steel design community and construction industry in the United States. AISC's mission is to make structural steel the material of choice by being the leader in structural-steel-related technical and market-building activities, including: specification and code development, research, education, technical assistance, quality certification, standardization, and market development. AISC has a long tradition of more than 80 years of service to the steel construction industry providing timely and reliable information.

STRUCTURAL STEEL

Steel should be used as the primary structural material with special emphasis placed on innovation in steel design. Structural steel offers a number of strengths in building design including high resiliency and performance under harsh and difficult conditions, (e.g., earthquakes and hurricanes) and offers the ability to span great distances with slenderness and grace. Steel can be shaped to achieve curved forms and can be erected quickly to meet tough construction schedules under almost any weather condition. Steel can be easily modified to satisfy the life cycle of a building including changing occupant requirements. Steel is the most recycled material in the world. Today structural steel is 97% recycled with the primary source of material being automobiles. It is the environmentally sound choice for a building material.

There are three fundamental directions in which our life may advance: doing, having, and being.

Living in America today means one must be busy 24/7. Be it at work, in the market, or at school, we are asked to do more and more. Doing is the ticket to success: have you seen anybody progress by standing still? So, doing, getting-things-done, is the mantra running our lives. We accordingly pack our days from dawn to dusk with activities aimed at achieving maximum benefit. Not surprisingly, this attitude bleeds into our leisure time (i.e. we come back from vacation more tired than we left), physical exercise, and even social relationships.

But, the reach for doing is only one side of a coin. The other side is the simultaneous expectation and desire for consumption. Buying, getting, having, and using are socially legitimate ways in which to spend ones free time. An individual's value to society is in many ways measured by their capacity to conspicuously consume. In fact, consumption has taken on patriotic value: the best contribution a concerned citizen could do right after 9-11 was . . . to go shopping!

The message is clear and loud. If we are not busy doing, then we must be busy consuming, but the key is to be constantly busy. Don't stop! Just keep on going. Those people, practices, activities, or beliefs not fitting in this picture are quickly spotted and discredited. In this new puritan ethics people caught hanging-out, idling, and not doing are seen as parasitical, aberrant, if not plain subversive. And if the recent economic crisis had the potential to make us stop, it has de-facto only exacerbated our need to remain busy. Doing and consuming have won the day.

THE CHALLENGE

Faced with this state of affairs, a cooperative of individuals have decided to create a place to practice 'being': the Re-ligare Institute. By fostering and celebrating not-doing, not-having, stopping, and wholeness, the organization intends to give people a space to step back and become reconnected with themselves, others, and nature. Faculty, administration, and staff will support patrons to accomplish such goals and conduct research concerning the practice of being. Architecture is to become a sanctuary for finding, studying, enjoying, and developing being. As such the building will provide a necessary retreat from real world dis-eases, promote healing, and foster a re-connection at the individual and collective levels. Given its intense focus on being, the Re-ligare Institute demands a building of great quality that highlights phenomenological presence at all levels and scales.

Developing being means to offer pedagogies directed to the subjective (personal, individual self), intersubjective (social, collective self), and objective (environmental, no-self) dimensions of human experience. This translates into practices directed to observing, studying, exercising, and expressing being's mind, body, and connectivity to others and nature. And while these aspects of being do not occur in isolation, it is appropriate to focus on one or the other to foster particular developmental gains. Hence, the Re-ligare Institute demands programmatic separation and connection, that is, dedicated places to work on our physique or inner mental-scape as well as areas where we can come together in society and nature. For this reason, the Institute seeks to establish fluid yet carefully crafted relationships between urban and architectural spaces, exterior and interior, culture and nature, self and others, and so on. In the spirit of healing and growing being, the Institute professes sustainability understood in its widest and deepest sense: the affirmation, appreciation, and support of all life.

SITE

The Re-ligare Institute will be sited on an urban lot to be chosen by the Faculty Sponsor or the student. The locations of the ACSA member institutions are diverse, but all have some proximity to an urban context. The criteria for site selection include the following:

- Size: the site should be no larger than 1/2 acre
- Context: the surrounding buildings must be an average of 3-4 stories or 40-50 feet in height at the least
- Amenity: the site should be within a ¼ mile of urban amenities including functions such as libraries, retail, and housing
- Access: the site must have access to public transportation such as light rail, commuter rail, subway, or bus
- Street Presence: the site should have street level pedestrian activity or the potential for such as to promote the idea of the retreat in the city

PROGRAM

The Re-ligare Institute professes four principles of connection and healing toward a sense of being:

- Body
- Mind
- Social
- Nature

The program is thus to provide spaces that meet the functional criteria for each of these principles of being. The spaces are not meant to be discrete, but rather overlap, connect and be interdependent. It is the responsibility of the student designer and Faculty Sponsor to determine the degree to which the programmatic spaces engage or are separate based on their individual understanding and approach to the project.

CODE INFORMATION

Refer to the International Building Code and the local zoning ordinance for information on parking requirements, height restrictions, set backs, easements, flood, egress, and fire containment. ADA is applicable for this competition.

CONSTRUCTION TYPE

The design project must be conceived in structural steel construction. A strategy should be considered that evaluates a method for taking advantage of steel's properties and characteristics in order to conceptualize and propose a critical evaluation of a mind and body center.

RE-LIGARE INSTITUTE EXTERIOR SPACES

NATURE SPACE

Silent Garden for Mind & Meditation	4000 S.F.
Social Garden for Body & Working	8000 S.F.
Music Garden	4000 S.F.

TOTAL NATURE SPACE **16,000 S.F.**

RE-LIGARE INSTITUTE INTERIOR SPACES

MAIN SPACES

Meditation / Worship	2500 S.F.
Classrooms (2)	750 S.F.
Library / Reference Room	1000 S.F.
Large Lecture / Performance Hall	2500 S.F.
Music Rooms (2)	750 S.F.
Dancing Room:	1500 S.F.
Yoga Room:	1500 S.F.
Spinning Room:	1500 S.F.
Weight Room:	1500 S.F.

Relaxation / Refection Spa:

Check-In, Lobby	500 S.F.
Sauna, cold plunge, hot pool, steam room	3000 S.F.
Bathroom / Locker / Shower (men)	500 S.F.
Bathroom / Locker / Shower (women)	500 S.F.
Massage (4 rooms)	1500 S.F.
Hydro Therapy Pool Room:	1500 S.F.
Laundry:	500 S.F.

Café / Juice Bar:	500 S.F.
Co-op Organic Food Restaurant	2000 S.F.

SERVICE SPACES

Re-ligare Institute Lobby	500 S.F.
Re-ligare Institute Director Office	150 S.F.
Re-ligare Institute Administrative Assistant	150 S.F.
Re-ligare Institute Records / Memberships	200 S.F.
Re-ligare Institute Retail Shop	1000 S.F.
Research Laboratories (2)	1500 S.F.
Nutritionist Staff	150 S.F.
Spiritual Staff	150 S.F.
Therapist / Counselor (2)	300 S.F.
Trainer (2)	300 S.F.
Doctor Staff	150 S.F.
Treatment Rooms (2)	300 S.F.
Staff Conference Room	300 S.F.

SUPPORT SPACES	15-20 % of total:
Mechanical/Services, Storage, Janitorial, Circulation, Elevators/Stairs, Loading Dock, & Shipping Room	

TOTAL INTERIOR SPACE **29,550 S.F.**

THE CHALLENGE

The ACSA/AISC 2009-2010 Steel Design Student Competition offers architecture students the opportunity to participate in an open competition category with limited restrictions. This category will allow the students (with the approval of a Faculty Sponsor) to select a site and building program.

The Category II program should be of equal complexity as the Category I program.

Faculty sponsoring students entering Category II must submit a written building program along with the submission.

RESTRICTIONS

To enter the open competition students may select any building occupancy other than a mind and body center. Students may not enter both categories of the competition.

CONSTRUCTION TYPE

The design project must be conceived in structural steel construction. A strategy should be considered that evaluates a method for taking advantage of steel's properties and characteristics in order to conceptualize and propose a critical evaluation of the design.

RESOURCES

Students are encouraged to research references that are related to both the topic of the competition, reconnecting mind and body and precedent projects that demonstrate innovative use of structural steel such as those listed below. An intention of all ACSA competitions is to make students aware that research is a fundamental element of any design solution.

Being / Phenomenology / Architecture

- Gaston Bachelard. *The Poetics of Space* (Boston, MA: Beacon Press, 1964) (Introduction and chapters 8 and 9)
- Michael Benedikt, *For an Architecture of Reality* (New York: Lumen Books, 1987)
- Martin Heidegger, *Poetry, Language, Thought* (New York Harper & Row Publishers, 1971) (Chapter: Building, Dwelling, Thinking)
- Steven Holl, Juhani Pallasmaa, and Alberto Perez-Gomez, *Questions of: Phenomenology of Architecture* (William K Stout Pub, 2007)
- Juhani Pallasmaa, *The Eyes of the Skin* (Chichester, UK: John Wiley & Sons Ltd., 2005)
- Peter Zumthor, *Thinking Architecture* (Basel: Lars Müller, 1998)

Websites that could be of interest:

- The Architecture, Culture and Spirituality Forum <http://faculty.arch.utah.edu/acs/>
- Center for Contemplative Mind in Society <http://www.contemplativemind.org/>
- The Society for the Arts, Religion, and Contemporary Culture <http://www.sarcc.org/>

Steel Construction

AISC website. — www.aisc.org — Link under educational tools to case studies and information on steel design.

Modern Steel Construction: This authoritative monthly magazine is made available for free of charge to architectural students taking steel design courses. Fifteen (15) copies of seven (7) issues of *Modern Steel Construction* are sent to all schools of architecture. This magazine covers the use of fabricated structural steel in the variety of structural types. It presents information on the newest and most advanced applications of structural steel in a wide range of structures.

Issues of *Modern Steel Construction* (1996 - Present) are available online.
Visit — www.modernsteel.com — web site to view them.

- John Fernandez. *Material Architecture*. (Spon Press, 2006)
- Victoria Bell and Patrick Rand. *Materials for Design*. (Princeton Architectural Press, 2006)
- Shulitz, Habermann, Sobek. *Steel Construction Manual*. (Birkhauser Basel 2000)
- Annette LeCuyer. *Steel and Beyond*. (Birkhauser Basel 2003)

COMPETITION GUIDELINES (Category I & Category II)

SCHEDULE

February 9, 2010	Registration Deadline (there is no fee for registration)
May 19, 2010	Submission Deadline
June 2010	Prize winners chosen by the design jury
Summer 2010	Competition Summary Publication

AWARDS

Winning students and their faculty sponsors will receive cash prizes totaling \$14,000. The design jury will meet in June 2010 to select winning projects and honorable mentions. Winners and their faculty sponsors will be notified of the competition results directly. A list of winning projects will be posted on the ACSA web site at www.acsa-arch.org and the AISC web site at www.aisc.org.

Winning students and their faculty sponsors will receive cash prizes totaling \$14,000 with distribution as follows:

CATEGORY I RE-LIGARE INSTITUTE		CATEGORY II OPEN	
FIRST PRIZE			
Student	\$2,500	Student	\$2,500
Faculty sponsor	\$1,000	Faculty sponsor	\$1,000
SECOND PRIZE			
Student	\$1,500	Student	\$1,500
Faculty sponsor	\$750	Faculty sponsor	\$750
THIRD PRIZE			
Student	\$750	Student	\$750
Faculty sponsor	\$500	Faculty sponsor	\$500

A limited number of honorable mentions may also be awarded at the jury's discretion.

Prize winning submissions will be exhibited at the 2011 ACSA Annual Meeting and at the 2011 AIA National Convention as well as published in a competition summary catalog.

ELIGIBILITY

Because the support of AISC is largely derived from steel organizations in the U.S., the competition is open to students from ACSA member schools in the U.S., Canada and Mexico only. The competition is open to upper level students (third year or above, including graduate students). All student entrants are required to work under the direction of a faculty sponsor. Entries will be accepted for individual as well as team solutions. Teams must be limited to a maximum of five students. Submissions should be principally the product of work in a design studio or related class.

REGISTRATION

Faculty who wish to enroll students must complete an online Registration Form (available at www.acsa-arch.org/competitions) by February 9, 2010. Complete a form for each individual student or team of students participating. Students or teams wishing to enter the competition on their own must have a faculty sponsor, who should complete the form. There is no entry or submission fee required to participate in the competition. Each registered student and faculty sponsor will receive a confirmation email that will include information on how to upload your final submission online.

FACULTY RESPONSIBILITY

The administration of the competition at each institution is left to the discretion of the faculty sponsor(s) within the guidelines set forth in this document. Work on the competition should be structured over the course of one semester during the 2009-2010 academic year.

EVALUATION CRITERIA

Each faculty sponsor is expected to develop a system to evaluate the work of the students using the criteria set forth in this program. The evaluation process should be an integral part of the design process, encouraging students to scrutinize their work in a manner similar to that of the jury. The final result of the design process will be a submission of up to four presentation boards describing the design solution. In addressing the specific issues of the design challenge, submissions must clearly demonstrate the design solution's response to the following requirements:

- A strength of the argument and the proposal's ability to support the concept for the design (Category I);
- An articulate mastery of formal concepts and aesthetic values;
- A mature awareness and innovative approach to environmental issues;
- An elegant expressive understanding of the material — Steel;
- A thorough appreciation of human needs and social responsibilities;
- A capability to integrate functional aspects of the problem in a architectural manner, and
- A capacity to derive the maximum potential afforded by the program.

REQUIRED DRAWINGS

Each presentation must directly address the criteria outlined in the Design Challenge and Criteria for Judging and must include (but are not limited to) the following required drawings: site plan showing the surrounding buildings, topography, and circulation patterns; floor plans; elevations and building sections sufficient to show site context and major program elements; large scale drawing(s), either orthographic or three dimensional, illustrating the use of structural steel; a three dimensional representation in the form of either an axonometric, perspective, or model photographs, one of which should illustrate the character of the project. Submission must include:

- 4 digital boards at 20" x 20";
- illustrate graphically or otherwise the use of steel construction;
- a Design Essay.

Submissions that do not adhere to the program criteria outlined must provide a Program Brief (required for all entrants in Category II — OPEN). Incomplete or undocumented entries will be disqualified. All drawings should be presented at a scale appropriate to the design solution and include a graphic scale and north arrow.

DIGITAL PRESENTATION FORMAT

Submissions must be designed on no more than four 20" x 20" digital boards. The names of student participants, their schools, or faculty sponsors, must NOT appear on the boards.

All boards are required to be uploaded through the ACSA website in Portable Document Format (PDF) or Image (JPEG) Files. Participants should keep in mind that, due to the large number of entries, preliminary review does not allow for the hanging end-to-end display of presentation boards. Accordingly, participants should not use text or graphics that cross over from board to board. The names of student participants, their schools, or faculty sponsors, must NOT appear on any of the submitted material.

DESIGN ESSAY

A brief essay, 500 words maximum, (in English) is required as part of the submission describing the most important concepts of the design project. Keep in mind that the presentation should graphically convey the design solution and context as much as possible, and not rely on the design essay to convey a basic understanding of the project. The names of student participants, their schools, or faculty sponsors, must NOT appear in the design essay.

ONLINE PROJECT SUBMISSION

Entries must be uploaded through the ACSA Competition website at www.acsa-arch.org/competitions by 5:00 pm, Eastern Time, on May 19, 2010. If the Submission is from a team of students all student team members will have the ability to upload the digital files. Once the final submit button is pressed no additional edits, uploads, or changes can be made. Once the final Submission is uploaded and submitted each student will receive a confirmation email notification.

A final Submission upload must contain the following:

- Completed online submission information including all Team Members and Faculty Sponsors;
- Each of the four 20"x20" boards uploaded individually as a high resolution Portable Document Format (PDF) or Image (JPEG) Files;
- A Design Essay.

Winning projects will be required to submit original files/images for use in competition publications and exhibit materials.

FOR MORE INFORMATION

Program updates, including information on jury members as they are confirmed, may be found on the ACSA web site at www.acsa-arch.org/competitions.

Additional questions on the competition program and submissions should be addressed to:

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