2022 ACSA/AISCDESIGN COMPETITION

CATEGORY I

TOWARDS A NEW MONUMENTALITY 21st Century Democratic Public Space

CATEGORY II



2022 ACSA/AISC STEEL DESIGN STUDENT COMPETITION

Category I: TOWARDS A NEW MONUMENTALITY

Category II: OPEN

21st Century Democratic Public Space

Competition Overview

The Association of Collegiate Schools of Architecture (ACSA) is pleased to announce the 22nd Annual Steel Design Student Competition for the 2021-2022 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 undergraduate and graduate students, working individually or in teams, to explore a variety of design issues related to the use of steel in design and construction. Steel must be used as the primary structural material and contain at least one space that requires long-span steel structure, with special emphasis placed on innovation in steel design.

The Opportunities

The 2022 Steel Design Student Competition will offer architecture students the opportunity to compete in two separate categories:

Category I: TOWARDS A NEW MONUMENTALITY

21st Century Democratic Public Space

In recent years, imperative discussions over the significance of legacies, memories, and the meaning of public monuments and memorials are taking place throughout the world. While memories can differ, and historical facts can be emphasized (and/or obscured), many institutions, monuments, memorials and public spaces have become much more 'visible' than ever before. Politics and the political can evolve — hopefully towards a more just society — and marches, protests and actions against racism, violence and injustice continue to re-affirm that the democratic public space is indeed a space for assertion of political and cultural rights. This category asks students to creatively and critically consider novel approaches towards a new monumentality and the conception and creation of democratic public spaces for the twenty-first century. Students are invited to submit design proposals that will address a plurality of publics and generations, and that, as agents for culture and dialogue, can serve to question, illuminate and encourage new kinds of public engagement, aiming to make the world a better place.

The questions which one asks oneself begin, at least, to illuminate the world, and become one's key to the experience of others. – James Baldwin

Category II: Open

Offers architecture students the opportunity to select a site and building program using steel as the primary material. This competition category permits the greatest amount of flexibility for any building type.

Students may not enter both categories of the competition.

Criteria for Judging

Criteria for the judging of submissions will include the following:

- Creative use of structural steel in the design solution;
- Clear visionary positions & creative design approaches that envision a new monumentality and democratic public spaces for the twenty-first century;
- Successful response of the design to its surrounding context;
- Successful response to basic architectural concepts such as human activity needs, structural integrity, and coherence of architectural vocabulary.

The competition allows students to explore the many functional and aesthetic uses for steel as a building material and structural system. Steel is an ideal material for multi-story building because it offers the greatest strength-to-weight ratio. In addition, steel can be constructed quickly and for all project site types with the use of labor-saving prefabrication methods such as kit-of-parts, panelization, and modular construction. A building built with steel is potentially more flexible and adaptable to allow for a change in program, occupancy, and loading needs over time.

Advantages of Steel

Structural steel offers a number of benefits in building design including the capacity to bear great loads in tension and compression, high resiliency and performance under harsh and difficult conditions, such as earthquakes and hurricanes, and the ability to span great distances with minimal material. Steel can be shaped by many processes, ranging from standard rolled sections to custom castings and digitally generated components. It can be prefabricated and delivered for site assembly, and it can be erected quickly under almost any weather condition to meet tight construction schedules.

Steel can be easily modified during the life cycle of a building to accommodate changing occupant requirements. As the most recycled material in the world, steel is an environmentally sound building material choice. Today, structural steel is 97% recycled with the primary source being automobiles. Architects praise the natural beauty of steel and are excited about exposing it in the design of their structures to emphasize grace, slenderness and strength, and in their building envelopes to enhance environmental performance and aesthetic character.

Curved steel is an art, providing endless possibilities for architectural expression. Curved steel enhances the visibility of any building project – from the largest monumental project to that building down your street. Curved steel is a unique way to increase the design creativity of your next building project. And most importantly, curved steel is readily available nationally from a number of qualified AISC Associate Member Bender-Rollers. AISC information on curved steel: aisc.org/curvedsteel.

Category I - TOWARDS A NEW MONUMENTALITY

On Commemoration and Memory

Few words have been so used in contemporary culture as the word "memory." A key marker in diverse fields such as historiography, politics, psychoanalysis, visual and performative arts, information technology, and media studies, it also has impacted landscapes, architecture, public art, and public space. Memory is selective. Both personal and societal memories are always subject to construction, repression, and denial.

The construction of monuments, memorials, and museums all over the globe, as well as the significance that these sites of memory may have for affected communities, exemplify the unique lens through which the built environment can help us collectively process and experience memory. As a place of common remembrance, a monument or memorial is intended to be historically referential and direct attention to issues beyond itself.

The culture of memory may be found in the struggle for justice and human rights along with the remembrance of historical events, which are strongly linked to one another. Many communities and nations seek to create and to live in our modern society in the wake of mass exterminations, enslavement, apartheids, segregation, military dictatorships, and totalitarianism. In the past year alone, the way the Black Lives Matter movement transformed public streets into communal plazas has clearly illustrated the role that democratic public spaces in and of themselves can play in these fundamental conversations.

In recent years, significant discussions throughout US cities, and the globe, regarding the public significance of legacies and memories, and the meaning of public monuments and memorials, continue to take place. While memories can differ and historical facts can be emphasized (and/or obscured), many institutions, monuments, and public spaces have become much more 'visible' than ever before.

The Designer's Role

To determine the conception and design of memorial spaces and democratic public spaces requires a persistent attempt to work within (and to transform) the public sphere, demands, dialogue and committed attitudes towards design, techniques and materials, sites of memory, history, and the voices of others, while especially establishing clear critical-ethical frameworks to position ourselves as engaged witnesses. The designer's role entails practicing an art of ethical and purposeful transformation, while creating spaces that frame human experience, life,

and seek a better future. Consider the significance of crafting inventive new ways to approach memory and commemorative practices for our democratic societies. How do we position ourselves, when working on such projects involving the conception of memorial and democratic public spaces? As a result, we--architects, artists, public officials, public historians, public activists, and interested members of the community--find ourselves playing an important role in discourse about history, memory, ethics, politics, and the public domain

Steel Competition: Towards a New Monumentality

How can various forms of commemorative practices in the built environment help communities work through and shed light on difficult, sometimes controversial, memories while inviting the public to engage in the necessary conversations to move forward together? This category asks students and faculty to create a new monumentality through the conception and creation of democratic public spaces for the 21st century. We welcome proposals of all kinds, which may include the transformation of public spaces, the creation of new public forums, and/or the conception and design of monuments and memorials.

Consider how democratic spaces can commemorate the past, engage with the present, and facilitate a common vision of the future. Your concept must engage proactively and affirmatively with architecture's capacity to transform reality. It must include at least one space or element that requires a long-span steel structure and/or some form of structural investigation. It must also capitalize on steel's unique properties to resist loads.

The Steel Competition challenges you to use curated space to foster and encourage new kinds of public engagement and ultimately make the world a better place. What does that look like to you?

Program

Students are asked to formulate their programs based on their conceptual approach to the themes they will engage with. While we strive for maximum openness to all forms of ideas, these proposals will need to include some form of programmed spaces (indoor auditoriums, exhibition areas, classrooms, service areas, outdoor covered spaces, etc.). The size, scale and scope of these programs should be tailored to the concepts at stake and should be attentive to the use of steel as the primary structural material.

Requirements:

- Incorporate programmed spaces;
- Include at least one space or element that requires a long-span steel structure and/or some form of structural steel investigation;
- Apply steel in an innovative design to resist loads.

Steel can be used and deployed in many ways, including, but not limited to, its indicative qualities, its visible or non-visible structural capacity, and as an expressive surface. At the same time that they will contend with conceptual, spatial and structural ideas and design, students and faculty will be asked to creatively investigate processes of construction, fabrication and installation, from the extraction of raw materials to the finished product, including the labor needed to produce and construct these works.

Site

The site for the competition is the choice of the student and/or faculty sponsor. However, the site should be accessible by alternative modes of transportation such as public transportation, biking, or walking. Submissions will be required to explain the site selection, strategy, and access graphically or otherwise.

Construction

The design project must be conceived in structural steel construction and must contain at least one space/element that requires a long-span structure and capitalize on steel's unique properties to resist loads instead of just using steel in non-structural elements and finishes. The most compelling proposals should integrate the steel into the design of the project at multiple levels, from primary structure (beams, columns, frames, trusses) to building envelope and tectonic details.

Code

Students should refer to the International Building Code and the local zoning ordinance for information on parking requirements, potential height restrictions, setbacks, easements, flood, egress, and fire containment. Challenges to conventional rules—parking requirements, for example— are encouraged but should be explained, made explicit and integral to the overall solution.

Students may not enter both categories of the competition.

Category II – OPEN

The ACSA/AISC 2022 Steel Design Student Competition also offers architecture students the opportunity to participate in an open competition with limited restrictions. With the approval of a sponsoring faculty member, students may select a site and building program.

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

Students entering Category II must submit a written building program, including a brief description of the building type, gross square footage, and project location, as part of the online submission in the Program Edits (copy/paste text box).

Restrictions

To enter the open competition students may select any building occupancy other than a memorial, monument or public space.

Construction

The design project must be conceived in structural steel construction and must contain at least one space/element that requires long-span steel structure, with special emphasis placed on innovation in steel design. The most compelling proposals will inevitably integrate the use of steel into the design of the project at multiple levels, from primary structure to building envelope and tectonic details.

Students may not enter both categories of the competition.

RULES

Awards

The design jury will meet in Summer 2022 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 and the AISC web site at <u>www.aisc.org</u>.

Winning students and their faculty sponsors will receive cash prizes totaling \$20,000 with distribution as follows:

Category I: Towards a	New Monumentali	<i>ity</i>
	Student	Faculty Sponsor
First Place	\$4,000	\$1,500
Second Place	\$2,000	\$1,000
Third Place	\$1,000	\$500
Category II: Open		
	Student	Faculty Sponsor
First Place	\$4,000	\$1,500
Second Place	\$2,000	\$1,000
Third Place	\$1,000	\$500

A limited number of honorable mentions may also be awarded at the jury's discretion. Prize-winning submissions will be exhibited at the 2023 ACSA Annual Meeting and the 2023 AIA National Convention as well as published in a competition summary publication.

Eligibility

Because the support of AISC is largely derived from steel companies whose markets are mainly in the U.S., the ACSA/AISC Steel Design Student Competition is open to students and/or student teams from ACSA Full and Candidate Member Schools, as well as ACSA Affiliate Members Schools from the U.S., Canada, and Mexico.

An ACSA member school, faculty sponsor is required to enroll students by completing an online registration form prior to registration by April 13, 2022. All student entrants are required to work under the direction of a faculty sponsor. Entries will be accepted for individuals as well as teams. 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

A faculty sponsor is required to enroll students online (available at <u>www.acsa-arch.org</u>) by April 13, 2022. Registration can be done for your entire studio or 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 registration. There is no entry or submission fee to participate in the competition. Each registered student and faculty sponsor will receive a confirmation email that will include information on how the student(s) will upload final submissions online. Please add the email address <u>competitions@acsa-arch.org</u> to your address book to ensure that you receive all emails regarding your submission.

During registration the faculty will have the ability to add students, add teams, assign students to teams, and add additional faculty sponsors. Registration is required by April 13, 2022, but can be changed, edited, and added to until a student starts a final submission; then the registration is no longer editable.

Registration Steps:

- 1. Faculty log into the ACSA website,
- 2. Click the "Register your Students NOW" button,
- 3. Select the 2022 Steel Competition (Category I or II) from the submission type dropdown menu & Click "Enter",
- 4. Select "Individual Registration" to add individual student. Click "Save and Continue". You will need to know each student's first & last names, email, & institution, which are all required fields for each student,
- 5. Select "Team Registration" if this is a team registration, you may add additional students by clicking "Add Student" to the same submission to this team, teams must be limited to a maximum of five students,
- 6. Once the individual student or team is complete, Click "Submit",
- 7. Repeat steps 3 6 for each individual or team.

Faculty Responsibility

The administration of the competition at each institution is left to the discretion of the faculty within the guidelines set forth in this document. Work on the competition should be structured over the course of one semester during the 2021-2022 academic year.

Each faculty sponsor is expected to develop a system to evaluate the students' work 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.

Digital Submission Format

Submissions must be presented on four 20" x 20" digital boards, no more than 20MB. All boards are required to be uploaded through the ACSA website as JPEG files. The names of student participants, their schools, or faculty sponsors, must NOT appear on the boards, or in the project title or project title file name(s).

Design Essay or Abstract

A brief essay, 500 words maximum, 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, 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. This abstract is included in the final online submission, completed by the student(s) in a simple copy/paste text box.

Program Summary

A program summary, 250 words maximum, diagram/text of spaces and areas is required as part of the submission. All interior and exterior spaces are to be included; total net and gross areas are required. The program summary is included in the final online submission, uploaded by the student(s) in a simple copy/paste text box.

Required Submission Documents

Submissions must include (but are not limited to) the following required drawings:

- Three-dimensional representations in the form of axonometrics, perspectives showing the proposal in its context, montages and/or physical model photographs to illustrate the character of the project;
- Site plan showing proposal in its context of surrounding buildings and topography, together with details of access/circulation;
- Building/site sections sufficient to show site context and major spatial and program elements;
- Floor plans to show program elements, spatial adjacencies and navigation strategies;
- Large scale drawing(s), either orthographic or three dimensional, illustrating:
 - the use and detailing of steel for building structure and/or envelope
 - integrated design

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. The site plan should include a north arrow.

Online Project Submission

After the faculty sponsor completes the online registration, each student will receive a confirmation email, which will include a link to complete the online submission. The student is required to submit the final entries that must be uploaded through the ACSA Competition website at <u>www.acsa-arch.org</u> by 11:59 pm, Pacific Time, on June 1, 2022. 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. You may "save" your submission and return to complete. Please note: The submission is not complete until the "complete this submission" button has been pressed. For team projects, each member of team projects may submit the final project, but each project should be submitted only once. Once the final submission is uploaded and submitted, each student will receive a confirmation email notification.

The final submission upload must contain the following:

- Completed online registration including all team members and faculty sponsors,
- Each of the four 20"x20" boards uploaded individually as high resolution JPEG files, no more than 20MB each,
- A design essay or abstract (500 words maximum)
- A program summary diagram/text of spaces and areas (250 words maximum).

The names of student participants, their schools and faculty sponsors must NOT appear on the boards, abstract, program summary, or in the file name.

Winning projects will be required to submit high-resolution original files/images for use in competition publications and exhibit materials. By uploading your files, you agree that the Association of Collegiate Schools of Architecture (ACSA) has the rights to use your winning submission, images and materials in a summary publication, online and in promotional and exhibition resources. ACSA will attribute authorship of the winning design to you, your team, faculty and affiliation. Additionally, you hereby warrant that the submission is original and that you are the author(s) of the submission.

SCHEDULE

April 13, 2022	Registration Deadline (free registration)
June 1, 2022	Submission Deadline
Summer 2022	Winners Announced
Fall 2022	Publication of Summary Book

RESOURCES

An intention of all ACSA competitions is to make students aware that research is a fundamental element of any design solution. Students are encouraged to research material properties and methods of steel construction, as well as precedent projects that demonstrate innovative use of structural steel.

Steel Video Resources

- What is AESS <u>VIDEO</u>
- Steel Coatings & Protection VIDEO
- Steel Connections <u>VIDEO</u>
- Custom Steel <u>VIDEO</u>
- Tension: Force Differentiated Structural Steel Design <u>VIDEO</u>
- Span: Exploiting the Tensile Strength of Steel <u>VIDEO</u>

Steel Construction References

- AISC website: <u>aisc.org</u>
- Modern Steel Construction: This authoritative monthly magazine is made available online free of charge. 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 <u>modernsteel.com</u> to view them.
- Terri Meyer Boake. Understanding Steel Design: An Architectural Design Manual. (Birkhäuser 2013)
- John Fernandez. Material Architecture. (Spon Press, 2006)
- Victoria Bell and Patrick Rand. Materials for Design 2. (Princeton Architectural Press, 2014)
- Shulitz, Habermann, Sobek. Steel Construction Manual. (Birkhäuser Basel 2000)
- Annette LeCuyer. Steel and Beyond. (Birkhäuser Basel 2003)
- Sutherland Lyall. Remarkable Structure: Engineering today's Innovative Buildings. (Princeton Architectural Press, 2002)

Monumentality References

- Craig Barton, Sites of Memory: Perspectives on Architecture and Race, Princeton Architectural Press, 2001
- Huyssen, Andreas, Present Pasts, Stanford 2003
- Young James E, At Memory Edge: After-Images of the Holocaust in Contemporary Art and Architecture, Yale University Press, 2000
- Lisa Findley, Building Change: Architecture, Politics and Cultural Agency, London; New York: Routledge, 2005
- Riegl Alois, "The Modern Cult of Monuments: Its Characters and Origins", in Oppositions# 25, Rizzoli, issue: Monument/ Memory, pp. 21-51
- Julian Bonder (2018) '<u>Ethics, Memory, Architecture (Memory-Works)</u>', 106th ACSA Annual Meeting Proceedings, The Ethical Imperative, (Paper Proceeding), pp. 403-408
- The Right to the City, David Harvey, New Left Review 53, 2008
- Kirk Savage, Monument Wars: Washington, D.C., the National Mall, and the Transformation of the Memorial Landscape
- Kirk Savage, The Past in the Present, Harvard Design Magazine, Fall '99
- Sommer, Richard: "Time Incorporated", Harvard Design Magazine, Fall '99
- "<u>Mitch Landrieu's Speech on the Removal of Confederate Monuments in New Orleans</u>." The New York Times, 23 May 2017
- Black Lives Matter A conversation with Tanehisi Coates, The Atlantic
- Serwer, Adam. "Protest Is the Highest Form of Patriotism'." The Atlantic, Atlantic Media Company, 18 June 2020
- Mario Gooden on Dark Space: Architecture, Representation, Black Identity, Columbia U. Press
- Wilson, Mabel, and Lonnie G. Bunch. Begin with the Past: Building the National Museum of African American History & Culture. Smithsonian Books, 2016.
- Race and Modern Architecture A Critical History from the Enlightenment to the Present Edited By Irene Cheng, Charles L. Davis II, Mabel O. Wilson, Univ of Pittsburgh Press
- Lawrence-Sanders, Ashleigh. "<u>Perspective | REMOVING Lost Cause Monuments Is the First Step</u> in <u>Dismantling White Supremacy.</u>" The Washington Post, WP Company, 19 June 2020
- Savage, Kirk. "<u>The Black Man at Lincoln's Feet: Archer Alexander and the Problem of</u> <u>Emancipation.</u>" Princeton University, The Trustees of Princeton University, 13 July 2020
- Arendt, Hannah, et al. The Human Condition. The University of Chicago Press, 2018
- Martin, Reinhold. "Public and Common(s)." Places Journal, 1 Jan. 2013
- Upton, Dell. <u>Confederate Monuments and Civic Values in the Wake of Charlottesville</u>, Society of Architectural Historians, 13 Sept. 2017

For More Information

Program updates, including information on jury members as they are confirmed, may be found on the ACSA web site at <u>www.acsa-arch.org/competitions</u>. Additional questions on the competition program and submissions should be addressed to:

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