

2009 CHAIR AFFAIR



**Design and Build a Chair...Out of
Corrugated Board**

AIAS/ICPF 2009 Student Design Competition

Sponsored by the
International Corrugated Packaging Foundation

Administered by the
American Institute of Architecture Students

SPONSOR



International Corrugated Packaging Foundation

The International Corrugated Packaging Foundation (ICPF) is an educational nonprofit organization working with AIAS in order to advance knowledge of structural design careers in the corrugated packaging and display industry among architecture students. These students are potential student interns and potential future employees of ICPF's partner companies. ICPF's overall mission is to generate a stream of increasingly qualified students to enter the corrugated packaging and display industry. ICPF is dedicated to the continued creation and building of partnerships within the education community, the granting of equipment and other resources to advance corrugated curriculum, the expansion of student internships within the industry and the promotion of corrugated packaging and display career opportunities for packaging, business management, accounting, engineering, environmental science, marketing, graphic design, architecture/structural design and tech graduates.

ICPF is funded by the corrugated industry and co-sponsored by the industry's two trade associations, the Association of Independent Corrugated Converters (AICC) and the Fiber Box Association (FBA). It is headquartered in Alexandria, VA, and organized in Canada as ICPF-Canada to promote corrugated education in Canadian schools.

International Corrugated Packaging Foundation
113 South West Street
Alexandria, VA 22314
703.549.8580
www.careersincorrugated.org

COOPERATING ORGANIZATION



American Institute of Architecture Students

The American Institute of Architecture Students (AIAS) is an independent, nonprofit, student-run organization dedicated to providing unmatched programs, information, and resources on issues critical to architecture. The mission of the AIAS is to promote excellence in architectural education, training, and practice; to foster an appreciation of architecture and related disciplines; to enrich communities in a spirit of collaboration; and to organize students and combine their efforts to advance the art and science of architecture.

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INTRODUCTION

The American Institute of Architecture Students (AIAS) is pleased to announce a student competition for the Spring 2009 academic semester. Judging will occur in two stages with the top six designs displayed and judged at the 2009 AIA National Convention and Design Exposition in San Francisco prior to determining the winning design.

Sponsored by the International Corrugated Packaging Foundation (ICPF) and administered by the AIAS, in addition to introducing architecture students to structural design careers in the corrugated packaging and display industry, the program is intended to challenge students, working individually or in teams, to explore a variety of issues related to the use of corrugated cardboard (a non-traditional building material) in design and construction and production.

"We must learn, or re-learn the habit of regarding waste material as potentially valuable resources. The world cannot afford the luxury of a throw-away society."

- Andrew Portegus, Recycling Resources Refuge, p.116

Corrugated board, made from a natural renewable resource, has the best environmental record in packaging and display. Corrugated is largely manufactured using high percentages of secondary fiber (including old corrugated containers, old newspapers and even straw), thereby diverting these materials from the municipal solid waste stream. Almost 77% (24.7 million tons) of all corrugated produced is recycled. The average package or display consists of 43% recycled fiber. Corrugated board has the best recycling rate of any packaging material used today. A hard look at every scrap of corrugated can lead the creative mind to see it as a valuable raw material with great versatility and flexibility for design. This is your opportunity to discover the potential of corrugated board and more about an exciting structural design career in corrugated packaging and display.

WHAT IS CORRUGATED BOARD?

Corrugated board is easy to recognize. It is made of an arched paper layer, called "fluting," between smooth sheets, called "liner." This rigid corrugated board composition, most commonly used to make packaging and displays, has one layer of fluting between two smooth sheets. But there are many types of corrugated available, each with different flute sizes and thicknesses.

Corrugated board is an extremely durable, versatile, innovative and lightweight material used for custom-manufactured shipping containers, packaging, and point-of-purchase (POP) displays, in addition to numerous non-traditional applications ranging from pallets to children's toys to furniture.

Structural designers create unique packages for customers that protect and display products in new and visually exciting ways. They support the sales staff by designing and producing box and display samples that can be used in client presentations. They also develop specifications to ensure production success of the approved design. For more information for architecture students on structural design careers in corrugated packaging and display, visit the listing of careers at www.careersincorrugated.org.

A "CHAIR"

Design a "chair." Chair Affair's definition of a chair is anything that elevates a user of undetermined size off of the ground, comfortably, for an extended period of time. The rest is up to you—our ambiguity is your design opportunity.

In addition to introducing architecture students to structural design careers in the corrugated packaging and display industry, the objectives of the competition are to encourage and reward excellence in design at a small-scale, which integrates function, aesthetics, structure, ergonomics, details and fun. Competition participants will have the opportunity to:

- Investigate an exciting career opportunity in corrugated packaging and display
- Investigate new construction materials with the possibility of a future in contributing to sustainability and making a greener planet.
- Investigate new building materials, systems, and methodologies.
- Understand the impacts of construction methods, joinery, and material choices on furniture function and aesthetics.
- Become familiar with the packaging and display elements of corrugated board.
- Develop an awareness of the abundance of leftover corrugated board and its potential for reuse.

RULES

1. Used corrugated board is strongly encouraged... don't buy corrugated board, recycle it!
2. No mechanical fasteners will be permitted.
3. Glue of any type is accepted.

REGISTRATION

All information and materials needed to successfully participate in the competition are contained in this program document. There is no entry or submission fee required to participate in the competition for AIAS members. There is a \$10.00 submission fee for non-members.

ELEGIBILITY

The competition is open to architecture and design students in North America. Entries will be accepted for individuals as well as team solutions.

Entries may be submitted by individual undergraduate students (must not be graduating before December 2009) or teams consisting of any combination of undergraduate students in which 50% can not be graduating before December 2009.

Students in graduate programs may participate on a team, but the team must consist of at least 50% of undergraduate students that are not graduating before December 2009. No more than four students may comprise a team.

Submissions should be principally the product of work in a design studio, building materials class, design charrette, or a person's spare time.

Students should plan to attend the 2009 AIA Convention and Design Exposition in San Francisco (April 30 - May 2, 2009) with the built "chair" if selected as one of the top six submissions. If unable to attend the 2009 AIA National Convention and Design Exposition, finalists will be responsible for shipping the built "chair" to the convention. More information will be sent to the top six finalists.

EVALUATION CRITERIA

In addressing the specific issues of the design challenge, submissions must clearly demonstrate the design solution's response to the following requirements:

- Clear and easily comprehensible design.
- Originality.
- Ergonomically comfortable entry piece.
- Aesthetically pleasing entry piece.
- Cleverness of craft and details.
- Two well-written accompanying essays.

Award-winning entries will be selected in a two-tiered jury process. The initial jury will select six entries as finalists to move on to the second tier at the 2009 AIA National Convention and Design Exposition in San Francisco. In addition, the initial jury will determine four merit distinction awards in the following areas of focus: aesthetics, construction process, comfort and innovation. These awards are not limited to the finalists. Every entry will receive consideration for the merit awards.

TIER ONE

Each project's *mounted* presentation boards must be shipped to the AIAS office and accompanied by:

1. A completed project registration form (the last page of this document).
2. A 300-500 word descriptive essay that thoroughly describes the design concept (including the engineering of the chair).
3. A three-seven paragraph essay that provides input on the effectiveness of ICPF's Web site in describing the structural design careers for new architecture graduates and your evaluation of this alternative career opportunity (visit www.careersincorrugated.org and click on "Careers in Corrugated"). The essay should not appear on the presentation boards.
4. An electronic copy of the entire submission (on compact disc).

In order for a submission to be eligible, competitors must adhere to the following requirements regarding the entry board(s): one or two 25.5" x 33" board(s), oriented vertically. No other size of presentation boards will be accepted. No projections from the flat surface of the board(s) are permitted. All text and information must be in English at a minimum of 12pt. text size. The essay must appear on the board. It must be apparent in the board presentation that the chair has been built full size, not just digital or scale models. **Only presentations mounted on board will be accepted.**

In addition, six 8.5" x 11" (300 dpi) copies of each board are required. These will be used for displays and should be of a higher quality equal to the board. Photocopies are unacceptable. Mini boards must be high quality prints. Mini boards should not be mounted on foam core, corrugated plastic, etc. Only these materials, will be reviewed by the initial jury in Washington, D.C. Failure to meet these board requirements will disqualify an entry.

Shipped entries should be packed in cardboard boxes or sturdy wrapping. Wood crates and other excessive packaging materials are not permitted; do not tape trace paper or any other type or protective materials to individual boards; do not use excessive bubble wrap or shipping materials, such as packing "peanuts"; do not use excessive amounts of tape on interior or exterior wrappings. These requirements are designed specifically to reduce waste and energy and must be adhered to strictly.

The names of student participants, their schools, or faculty sponsors must not appear on the front of any board. An unsealed envelope holding a copy of the completed project submission form (see below) and design essay must be affixed to the back of each board. All boards should be numbered on the back in the order in which they should be viewed (i.e., 1 of 2).

All presentations must be suitable for black-and-white reproduction. Students may use color if desired, but must ensure that distinct colors will be readily distinguishable tones when photographed in black-and-white. Entries may be either originals or high-quality reproductions (if original drawings are submitted, please make sure that adequate reproductions are made before submission).

TIER TWO

The six finalists chosen must hand-deliver or ship the original, built, full-scale chair to the AIAS in Washington, DC or make additional arrangements for second tier judging. All six finalists will receive awards (first, second, third places, and three honorable mentions). Detailed shipping/delivery instructions will be sent to the six finalists upon notification, no later than **April 3, 2009**.

All decisions made by the juries and the AIAS are final.

REQUIRED MATERIALS FOR DESIGN BOARD(S)

It is required that each presentation must directly address criteria outlined in the design challenge and evaluation criteria (but not limited to) the following required material:

The dimensions of the “chair”.

Construction/assembly process must be illustrated.

Minimum of two photos of the entry piece being used (a different human subject per photo).

Descriptive essay about the chair’s design.

MORE ABOUT THE DESCRIPTIVE ESSAYS

You will provide two essays:

1. A 300-500 word essay should appear as part of the presentation boards describing the most important concepts of the design project. The essay should also explain what was learned by building a “chair” out of corrugated board, including how the structural elements of corrugated board shaped the project. Keep in mind that the presentation should graphically convey the design solution as much as possible, and therefore it should not rely on the design essay for a basic understanding of the project. An electronic version of the essay as a Word document (.doc) or rich-text format (.rtf) must be included on the submitted compact disc.
2. A three-seven paragraph essay that provides input on the effectiveness of ICPF’s Web site in describing the structural design careers for new architecture graduates and your evaluation of this alternative career opportunity (visit www.careersincorrugated.org and click on “Careers in Corrugated”). The essay should not appear on the presentation boards. This essay, while required, will not be incorporated into the jury’s evaluation of your chair’s design. An electronic version of the essay as a Word document (.doc) or rich-text format (.rtf) must be included on the submitted compact disc.

SUBMISSION FORM

Each project must be accompanied by a completed submission form in an unsealed envelope attached to the back of each board.

SUMMARY OF REQUIREMENTS

1. The design of the “chair” and the design submission must meet the following general requirements: The chair must elevate a user of undetermined size off of the ground comfortably for an undetermined length of time.
2. The chair must be built out of (recycled) corrugated board using no mechanical fasteners (only rigid corrugated board and glue).
3. Submissions must include:
 - One or two 25.5”x33” mounted design boards.
 - Descriptive essay about the chair’s design.
 - Descriptive evaluation of structural design careers in corrugated packaging & display as outlined on ICPF’s Web site.
 - The completed submission form in an unsealed envelope on back of each board.
 - Six (6) copies of each design board reduced to 8.5”x11” format.
 - A compact disc (CD) with electronic copies of the design boards (.pdf or .tiff format only), design essays (.doc or .rtf format only) and a 300 dpi image of only the chair with a white or transparent background (.pdf or .tiff format only).
 - Registration fee of \$10 (US) for non-members of the AIAS (check or money order made payable to the AIAS).

AWARDS

On **April 1, 2009** the six Finalists and the four Merit Awards will be announced. Merit award winners will receive a certificate from the AIAS. On **May 5, 2009**, the top three projects and three honorable mentions (from the six finalists) will be announced. These six finalists will be displayed throughout the 2009 AIA National Convention and Design Exposition, and a press release listing the winning projects will be sent to the schools of all participating students as well as posted on the AIAS Web site. Winning students/teams will receive cash prizes totaling up to \$4,500, with the distribution as follows:

First Prize: \$1,500
Second Prize: \$1,000
Third Prize: \$750
Three Honorable Mentions: \$350
Four Merit Awards: \$50

The winning entries will be published in the Fall 2009 issue of *Crit*, the journal of the AIAS. The International Corrugated Packaging Foundation and the AIAS reserve the right to publish photographs of all entries and names of student entrants without compensation.

A representative of the first and second place winners will be expected to travel to Las Vegas to receive their prizes during the annual meetings of the International Corrugated Packaging Foundation and Association of Independent Corrugated Converters on October 5-7 2009. All travel expenses (flight hotel and meals) will be paid by the ICPF and AICC.

SCHEDULE

March 12, 2009	Entry Submission Deadline (postmarked/late entries will not be accepted)
March 28, 2009	First Tier Jury, Washington, DC
April 1, 2009	Second Tier finalists will be notified.
April 30-May 2, 2009	Final Jury and display of project will take place at the AIA Convention and Exposition in San Francisco.
May 5, 2009	Winners announced via the AIAS Web site and the <i>AIASinfo</i> newsletter.
July 23, 2009	Winners displayed at the AIAS Grassroots Leadership Conference in Washington, DC.
October 5-7, 2009	First and second place winners attend ICPF and AICC National Meetings in Las Vegas.
November 2009	Winners published in <i>Crit.</i>

IMPORTANT NOTES

Entries cannot be returned to participants under any circumstances. Upon receipt they become the property of the AIAS and ICPF. Students submitting original material should ensure that they have adequate reproductions and documentation prior to sending their work. The AIAS and ICPF reserve the right to publish drawings, written descriptions, photographs, and the names of entrants, without compensation.

FOR MORE INFORMATION

Program updates, including information on the jury members as they are confirmed:

American Institute of Architecture Students
Attn: Chair Affair
1735 New York Avenue, NW
Washington, DC 20006-5292
Phone: 202.626.7472
Fax: 202.626.7414
Email: webmaster@aias.org
Web: www.aias.org/chairaffair

RESOURCES

Here are some web resources that might help to spur the imagination:

www.aias.org/chairaffair
www.careersincorrugated.org
www.andrewsenior.com/gallery/design/chair.html
www.gcbr.com/tips.html
www.rd.se/home.php
www.eco-furniture.com/docs/casual_ncbench.shtml

(These Web sites are provided for reference only and are not officially endorsed for this competition.)



chair affair

AIAS/ICPF 2009 CHAIR AFFAIR Registration Form

APPLICANT NAME(S):

Please neatly write in the fields.

1. _____
(main contact person) AIAS Member#

2. _____
AIAS Member#

3. _____
AIAS Member#

4. _____
AIAS Member#

APPLICANT SCHOOL: _____

PROJECT TITLE: _____

ADDRESS: _____

STREET: _____

CITY, STATE, ZIP: _____

PHONE NUMBER: _____

EMAIL ADDRESS: _____

YEAR IN SCHOOL: _____

GRADUATION DATE:

FACULTY ADVISOR: _____

FACUTLY ADVISOR EMAIL: _____

SEND ALL SUBMISSIONS TO:

American Institute of Architecture Students
Attn: Chair Affair Design Competition
1735 New York Avenue, NW
Washington, DC 20006-5292

QUESTIONS?

T 202.626.7472 or E webmaster@aias.org

For non-AIAS members, please include the \$10.00 registration fee (check/money order in USD made payable to the "AIAS").

2009 CHAIR AFFAIR

MORE FACTS ABOUT CORRUGATED BOARD AND THE RELATED INDUSTRY

- AN ALTERNATIVE CAREER CHOICE FOR ARCHITECTURE STUDENTS -

The industry is huge. Corrugated packaging and display is a \$25 billion a year industry. Over 90% of all products in North America are delivered or displayed in rigid corrugated board at some point in their life cycle. It is an industry that will be here well into the next century, and beyond. On an inflation-adjusted basis, the average cost of a corrugated container has decreased 11.7 percent from 1997 to 2007.

Employment opportunities are everywhere. There are over 1,550 corrugated manufacturing and design facilities, providing jobs and benefits to over 80,000 employees (promoting continuous innovation and competition). Potential job locations are a short commute in every US metropolitan area.

Corrugated is a "green" industry. Corrugated is the most planet-friendly packaging available. Almost 77% (24.7 million tons) of all corrugated produced is recycled. The average box consists of 43% recycled fiber. Corrugated has the best recycling rate of any packaging material used today. And that's what happens after the corrugated packaging has been used and reused time and time again to store and move items around the home, store and office. Old corrugated containers are bundled and sold back to the manufacturers to make the next generation of corrugated packages. The industry plants more trees than it cuts. Young, growing trees absorb more carbon dioxide than the older trees they replace, and younger trees offer a greater offset to greenhouse gas emissions.

Corrugated is the single most dominant force in the packaging world. It is vital to distribution systems in the U.S. It is sourced by businesses and is the most frequently used shipping material because it is cost-effective, lightweight, functional, and versatile.

The corrugated packaging and display industry offers diverse and challenging careers. With more than 1,550 facilities nationwide, job opportunities are within an easy commute for over 90 percent of the population. Positions are available for students graduating from architecture/structural design, accounting, marketing, business, engineering, environmental science, graphic design, packaging, and tech schools.

Universal Savings. One of the least expensive containers ever developed, the overall cost of corrugated shipping containers is usually between one percent and four percent of the value of the goods they carry.

The cost of labor and tools required to produce, fill, and move the container is low. The cost of shipping is low, due to lower weights and higher fill densities than alternative packaging. The trend toward lightweighting will continue to drive down shipping costs and save fuel resources. Low raw material

costs and mass production of corrugated containers makes them particularly cost-efficient.

The ultimate contribution to cost reduction is when corrugated is used as an all-in-one shipping, storage, advertising and display medium - a growing trend both in warehouse and other retail stores.

Less Is More. Manufacturers have learned to make stronger packaging using less raw material. Environmentalists call using less raw material, and generating less waste at the source, source reduction. Corrugated packaging also allows significant source reduction by eliminating the need for overwraps and secondary packaging.

The corrugated packaging industry practices continuous source reduction. From 1994 to 2005 the amount of corrugated used to ship a unit of domestic industrial production decreased by 19 percent. Corrugated manufacturers have contributed significantly to this reduction by designing more efficient packages, stronger papers and improving converting processes at the design and manufacturing facilities.

For more information on structural design careers, visit www.careersincorrugated.org.