



AIA New York State
An Organization of The American Institute of Architects



Architecture + Education Program



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AIA Buffalo / Western New York

Architecture + Education Program

Affiliated with AIA Buffalo/Western New York and the Buffalo Architecture Foundation

The award winning Architecture + Education (Buffalo/WNY) program brings over a decade of momentum and successful public outreach. The committee was founded in 2000 under the AIA Buffalo/WNY Chapter, and in 2011, joined the Buffalo Architecture Foundation as the forefront of the not-for-profit public charity's community outreach efforts.

Architecture + Education has been providing programs that foster collaborations between public school children, teachers, and architects. Running biennially since 2006, the Architecture + Education program uses architecture to teach students math, science, history, art, and technology within the New York State curriculum, while raising awareness and appreciation of the built environment. Children are introduced to the profession of architecture, local practicing professionals, and the distinctive way of viewing the world and tackling problems through the lens of architecture.

The project is kicked off with a day-long symposium for all participants, including architects, University at Buffalo students, and Buffalo Public School teachers. All participants become "students for the day" exploring architectural principles and concepts through a series of lessons and activities. Educators and architects partner on activities such as constructing the tallest geometric structures from marshmallows and toothpicks, drawing plans, sections and elevations of fruits and vegetables, and a variety of other architecture projects. The symposium concludes with the architect/teacher teams developing original lesson plans that will be implemented in the classroom over the next 8-10 weeks.

Some of the recent lessons developed in our 2011 program were:

- Developing re-use strategies for Buffalo's abandoned grain elevators: 4th grade
- Designing facades for common buildings found in a city: 4th grade
- Creating inhabitable spaces within alphabet letters: Kindergarten
- Developing shading devices for classroom windows: 1st grade
- Designing habitats for animals: 4th grade
- Developing new abstracted forms for the typical buffalo house: 9th-10th grade
- Building a geodesic dome: 1st grade
- Researching bridges/trusses/structural techniques: 5th grade

Each student participant completes pre- and post-surveys to collect data about the vocabulary and architectural knowledge of the students. Additionally, the teachers complete case studies of four students during the project. The case studies focus on participation, understanding, creativity and ability to transfer



learning to other areas by students of various achievement levels. The culmination of the program is a public exhibit of the students' work held at a local gallery. This has been a great source of pride for students, parents, teachers and architects alike. The students cannot help but be inspired by the enthusiasm and commitment of the Architecture + Education program's volunteers, participants, and partners. Buffalo Public Schools is a key partner and provides support for teachers to participate. Many local firms and businesses have also donated time, supplies, and financial resources.

Over the past twelve years, the program has been involved with 12 schools, 71 architects, and 62 classes. In 2007, the program received the Buffalo Alliance for Education Award and has been the recipient of grants from the New York State Council of the Arts, and Ronald McDonald House Charities Community Grants. The program has also started to collaborate with Young Audiences of Western New York to reach more schools and students throughout the area.

For more information, go to our website at: <http://www.buffaloarchitecture.org/>.

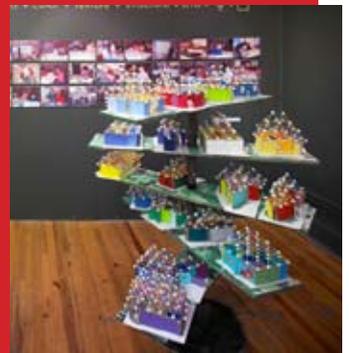
Credits

Buffalo Public Schools represented:

- PS #67 Discovery School
- PS #53 Community School
- PS #64 Fredrick Law Olmstead School
- PS #192 Buffalo Academy for the Visual and Performing Arts
- PS #198 International Preparatory School/Architecture and Design Academy
- PS #95 Waterfront Elementary School
- PS #304 Hutchinson Central Technical High School
- PS #43 Lovejoy Discovery School
- PS #89 Lydia T. Wright School of Excellence
- PS #81 School
- PS #59/90 Charles R. Drew Science Magnet
- Charter School for Applied Technologies

Architectural Firms represented:

- Architectural Resources
- Audrey Ross Sanders, Architect
- BHNT Archtiects
- Buffalo Public Schools
- Cannon Design
- Chaintreuil Jenson Stark Architects
- Harrington Sandberg
- HHL Architects
- Joy Kuebler Landscape Architect
- Roche & Co.
- Stieglitz Snyder Architecture
- Trautman Associates
- University at Buffalo School of Architecture and Planning
- Watts Architecture & Engineering,
- Wendel



Partners:

Construction Industry Education Foundation, Inc.
LPCiminelli
Buffalo Public Schools

Sponsors:

CEPA Gallery
Cannon Design
Ronald McDonald House Charities
Watts Architecture & Engineering
Kidney Architects
Stieglitz Snyder Architecture
Allstate General Contracting, Inc.
Morris Masonry Restoration, LLC
Ferguson Electric
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Grove Roofing Services, Inc.
William H. Prentice, Inc.
Wendel
Zaxis Architectural, P.C.
AIA New York State
AIA Buffalo/WNY Chapter



Center for Architecture Foundation (CFAF)

Affiliated with AIA New York

The Center for Architecture Foundation (CFAF) is a nonprofit organization that promotes public awareness and appreciation of the built environment through educational programs for children and adults at the Center for Architecture and in schools throughout the New York City area.

Initiated as the Learning By Design: NY Committee of the AIA NY Chapter in 1990, LBD:NY soon outgrew its volunteer committee structure with school programs and partnerships with cultural institutions reaching over 1500 children annually. In 1998, LBD:NY became a program of the AIANY's non-profit affiliate, the New York Foundation for Architecture. Since opening the Center for Architecture with the AIANY Chapter in 2003, we have been known as the Center for Architecture Foundation.

The Center for Architecture Foundation's K - 12 programs now reach over 5,000 students annually:

For K-12 Schools

Our hands-on, project-based approach to teaching supports core subject learning both inside and outside of the classroom. Activities include guided neighborhood walks, discussions, drawing, 2-D design challenges, and 3-D model-making. Presentations and reflection encourage students to communicate and refine their design ideas.

- **Learning By Design: NY** • In-school multi-visit residencies taught by our experienced design educators in collaboration with classroom teachers integrate the study of architecture and design with the classroom curriculum. Classroom sessions are 90-minutes and programs vary from 4-session units to year-long collaborations. Programs are customized to support and extend existing classroom studies or to provide after-school enrichment.
- **StudentDay@theCenter** • Two-hour programs for school groups visiting the Center for Architecture that include hands-on architecture workshops and interactive gallery talks. Topics include: The Language of Architecture, Structures & Strength: Skyscrapers or Bridges, Scale Model Building, Neighborhood Design, Green Buildings, Build a Geodesic Dome, Skyscraper Museum Dual Visit Program, and varied Center for Architecture Exhibition Programs.
- **Professional Development** • Full and half day workshops for classroom teachers and administrators on built environment education teaching strategies, activities, and curricula.

For K - 12 Families

Programs@theCenter workshops teach youth and families about the built environment through fun, hands-on art and design projects at the Center for Architecture.

- **FamilyDay@theCenter** • Two-hour design workshops for children ages 5-13 and their adult companions. Offered once a month on Saturdays, families learn about architectural topics through engaging hands-on activities that vary from art-making to walking tours to design challenges. Past program topics: School



Design, Lighting Design, Active Design in Your Community, Building Stories, Skyscrapers, Building Bridges, Mobile Architecture, Rooftop Hats.

- **Studio@theCenter** • After-School and 3-day school vacation programs for 3rd - 12th graders. Young people explore architecture through design projects, field trips and building activities. Past program topics include: Green NYC, Design Your Own Island, Digital Design, House of the Future, From Books to Buildings, City Design, Theater Design.
- **Summer@theCenter** • Week-long studio programs for students entering 3rd - 12th grade. Students explore architecture through art and building activities, with trips and site visits complementing design activities. Past program topics include: Sustainable Cities, My Dream House, Summer at the Olympics, Architectural Drawing, Digital Design, Playground Design, Our City Neighborhood.



Credits

Center for Architecture Foundation Board of Directors (2012)

Michael Strauss, President
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Linda Yowell, FAIA
Rick Bell, FAIA, Ex Officio
Joe Aliotta, AIA, Ex Officio



CFAF Staff

Jaime Endreny, Executive Director
Catherine Teegarden, Director of Education
Tim Hayduk, Lead Design Educator
Eveline Chang, Program and Marketing Manager
Alice Stryker, Development and Operations Coordinator

Our programs are developed and taught by staff and a dedicated roster of freelance design educators.

2012 Design Educators:

Jane Cowan
Carol Gretter, RA, LEED
Ian Harris
Grace Hwang
Hae-In Kim
Eli King, RA
Jenny Lee, RLA
Rachel Miller
Yves Roger, RA
Howard Stern, RA

Sponsors

The Center for Architecture Foundation's programs are conducted in conjunction with public and private schools and home-school groups in NYC and the surrounding metropolitan area. Our K - 12 program sponsors include the New York City Department of Education, the New York State Council on the Arts, the New York City Department of Cultural Affairs, The National Endowment for the Arts, individual and corporate donors, individual schools and school support organizations such as PTA's. For a complete list of our current donors, please visit our website: www.cfafoundation.org.

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New York, NY 10012
(212) 358-6133 / info@cfafoundation.org
www.cfafoundation.org

AIA / ACEC Career Days

In January 2012, the AIA Rochester Chapter, in conjunction with the Rochester Chapter of the American Council of Engineering Companies of New York (ACEC), founded the first annual "Career Days". The objective of the program is to tour our local public high schools and present both architectural and engineering case studies. Through the use of multimedia presentations and hands-on activities, the students gain an understanding of not only what both architects and engineers do on a daily basis, but the level of coordination and collaboration that exists between the disciplines. Through the spring semester, we were able to visit five of our area's high schools covering several sessions within. The presentations were well received by the student body and respective faculty. Our volunteers did an excellent job in preparing their presentations and found the experience to be rewarding. Upon a successful completion of our fall tour, plans are now in the works to continue the program into next year.

Boy Scouts of America Explorers Program

The Explorers program is a twice annual, six week program sponsored by the Seneca Waterways Council of the Boy Scouts of America. Students range from freshmen to senior grade levels and come with a curiosity of the architectural field. The course is designed to establish a background in architectural history and design while focusing on the real world application of constructability and project execution. Classes include multimedia presentations, hands on activities, field trips, and guest lecturers. By the end of this architectural "crash course", students gain a familiarity of architectural design concepts, scale, construction drawing and methods, computer drafting / 3d modeling, and structural design. Above all, these high school students gain an appreciation for the complexity of the architectural field and an understanding of the hard work and dedication required to be successful, as well as the subsequent rewards and satisfaction of the profession.

As an integral aspect to the course, students are given a glimpse into what it's like to be an architect as well as what is involved to become one. They learn about the various degree programs, offered by universities, in addition to the rigorous Intern Development and licensing exams that are required along the way. This knowledge gives them the advantage of seeing the big picture of the road ahead and arms them to make an informed decision on what field to pursue and which university is the best fit for them.

The AIA Rochester Chapter is proud of our continued relationship with the Boy Scouts of America, having continued participation in the Explorers program for over 35 years.



Credits

AIA/ACEC Career Days

Schools:

Palmyra Macedon High School
Williamson High School
Robert Brown High School
Byron/Bergen High School
Honeoye-Falls Lime High School

Volunteers:

Jay Saylor, ACEC Rochester Chapter; Herrick-Saylor Engineers, P.C.
Lorenzo Rotoli, ACEC Rochester Chapter; Fisher Associates
Linda Hewitt, Hon. AIANYS, AIA Rochester Chapter
Gerard DeRomanis, Assoc. AIA, AIA Rochester Chapter, Education Director;
LaBella Associates, P.C.
Penny Haley, AIA, Wegmans Design Services
Jason Streb, Assoc. AIA, Clark Patterson Lee
Richard Napoli, AIA, Bergmann Associates

Sponsors:

AIA Rochester Chapter
ACEC New York

Boy Scouts of America Explorers Program

Volunteers:

Gerard DeRomanis, Assoc. AIA, AIA Rochester Chapter, Education Director;
LaBella Associates, P.C.
Don Killaby, LaBella Associates, P.C.
Kellie Richer, Turner Construction
Cynthia Howk, Landmark Society of Western New York
Kathleen Connor, George Eastman House

Sponsors:

Seneca Waterways Council, Boy Scouts of America
AIA Rochester Chapter



Architecture Awareness

This is a student program, begun in 1995 by AIA Southern NY, geared for middle schoolers to give them an understanding of the career of architecture as well as other careers. Using local historic architecture, the students work as a team in determining an adaptive reuse for the structure. The program began in six schools in the Tioga School District and expanded to Western counties with the help of the Career Development Council, with presentations held each year at the Corning Glass Museum, and also to Broome County where BAE Corporation has sponsored the annual presentations for years.

Program Description

Instructors choose a group of students in early fall to participate. The students begin by doing research on existing structures in their immediate community, learning history in the process, and choosing one of those buildings to study in more depth. They then decide on how to redesign (adaptive reuse) the building for a current use. The students benefit from learning CAD, PowerPoint and model building. Their presentations, usually accompanied with music, are held in the spring. A CD is also commonly produced for those who may have missed the presentation.

Chapter Involvement

Chapter members are encouraged to assist in this learning process, including school visits to explain how architects approach the same kinds of problem solving. Nearly fifty architects and associates have participated in the program with special recognition to Hunt Architects & Engineers for encouraging many of their employees to participate.

Program Evaluation

Teachers, administrators and students have praised this program from its beginning. Many have indicated that it is the best hands-on program they have ever seen in their school. Prime reasons for its success has to do with how comprehensive the learning is for the students. Some of the benefits include team building skills, historical research, use of writing skills, public speaking, presentation and art techniques, applied math and science, photography, CAD skills, model building and, of course, they are exposed to a number of potential career choices.



AIA Westchester + Hudson Valley Chapter

Programs with the Yonkers Public School System (2008 to present)

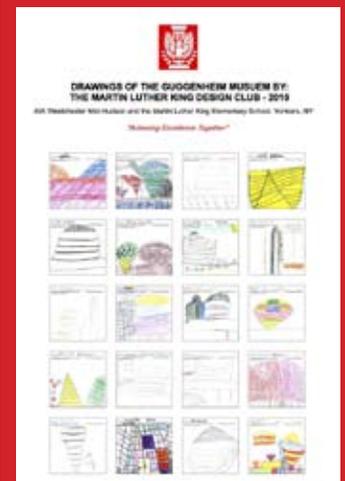
After-School “Design Club” at the Martin Luther King Jr. Elementary School:

In 2008, AIA Westchester + Hudson Valley Chapter founded a program to teach after-school enrichment classes to disadvantaged 3rd, 4th and 5th grade students in an urban Elementary School facing diminishing resources to run such programs on their own. A cold call to the District in the Fall of 2008 was enthusiastically received and subsequent meetings with the District’s Director of Occupational Studies and the School’s Principal established the program’s framework: weekly after-school classes focusing on architecture and design, running between 1 ½ hours and 2 hours and taught by volunteer Architects from our Chapter.

The first year’s program had 11 volunteer Architect teachers and 16 class sessions, with each lesson plan developed by the lead teacher for that session. Typical classes have one lead teacher and two assistants, with a 15 to 20 minute presentation followed by a “hands-on” project relating to the theme of the lesson. Students are frequently asked to show their work and describe their ideas to the rest of the class at the end of each session. In the four years this program has run, we have taught approximately 40 classes with over 80 kids participating. Each year the culmination and high point of the program is a field trip to the Guggenheim Museum in New York City. Two sponsors are needed annually to support this effort and the typical budget is approximately \$750, covering the cost of supplies, snacks, T shirts and the field trip.

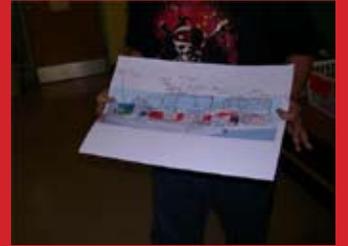
Design Club Class Topics/Curriculum:

- Introduction to design
- Measurement and scale
- What is a plan?
- What is habitat?
- All about mud (masonry)
- Building materials
- Architectural models Part 1
- Architectural models Part 2
- You’re my client
- The Strength of Shapes Part 1
- The Strength of Shapes Part 2
- Building with steel
- Build a geodesic dome project
- Geometry and pattern
- Frank Lloyd Wright and the Guggenheim Museum



“Shadow an Architect Day” with the Saunders Technical High School

A second program that our Chapter has run since 2008, also in conjunction with the Yonkers School District, is “Shadow an Architect Day” where High School Juniors studying Architecture at the Saunders Trades and Technical HS spend a morning in Architecture offices seeing what it’s like to work as an Architect. Typically, 5 or 6 firms will each host five students, with the kids then experiencing what the office environment is like, seeing projects on the boards and how projects are designed and documented. Some have even been able to see projects under construction and attend meetings with clients. The students are taken to the firms by bus and after the “Shadow” session, return to the school to have lunch with the volunteer Architects and discuss their experiences. Two sponsors are needed each year to support this program and the annual budget is approximately \$800, covering the cost of transportation and the lunch.



Credits

AIA Westchester + Hudson Valley and the Yonkers Public Schools

After-School Enrichment Course at the Martin Luther King Jr. Elementary School: "Design Club"

YONKERS PUBLIC SCHOOL SYSTEM LEADERS

- Leslie Grant, Principal MLK Jr. Elementary School
- Janice Cabbell, Director of Career Development and Occupational Studies
- Susan Naber, Director of Career Development and Occupational Studies

AIA WESTCHESTER + HUDSON VALLEY VOLUNTEER TEACHERS

- Raymond Beeler, AIA, Design Club Program Director
- Len Brandes, AIA
- Valerie Brown, Hon. AIANYS
- Carol Cioppa, AIA
- Julie Evans, AIA
- Jane Greenwood, AIA
- Jerome Kerner, AIA
- Carol Kurth, FAIA
- Bruce Levy, AIA
- Jim Miller, AIA
- Bill Pfaff, AIA
- Michael Piccirillo, AIA
- Mondana Rezania, AIA

SPONSORS

- The Westchester Bank
- Best Plumbing

AIA Westchester + Hudson Valley and the Yonkers Public Schools

"Shadow an Architect Day"

YONKERS PUBLIC SCHOOL SYSTEM LEADERS

- Michelle Brown, Saunders Trades and Technical High School Coordinator
- Janice Cabbell, Director of Career Development and Occupational Studies
- Susan Naber, Director of Career Development and Occupational Studies

AIA WESTCHESTER + HUDSON VALLEY VOLUNTEER FIRMS

- John Cotugno Architect
- Norman DiChiara Architects
- Ed Elliot Architect
- Peter F. Gaito & Associates
- Gallin Beeler Design Studio
- Lothrop Associates
- Dennis Noskin Architects
- Papp Architects
- Sullivan Architecture

SPONSOR

- Murphy Brothers Contracting