TRIS METCALF AIA WINS wins International Design Award for ion propulsion project; ‘sky suits’ would allow people to fly

WMAIA member architect Tristram W. Metcalfe III and a fellow scientist-inventor were awarded a silver medal from the International Design Awards for their Atmospheric Ion Propulsion Project. The project includes “sky suits” that, when donned, would allow people to fly. You can read more about this on masslive.com (search Metcalfe Award). We asked Tris to provide some more details:

To really understand the technical potential one must visit our website charged-motion.com now in beta testing where we show both the strong potential of how it will work and the benefits it will bring to civilization. The published article emphasized the sky suit - which would be a lot of fun to have - but it is the I-Jet that is the real story here.

Computer simulations have shown that our patented breakthrough in “Atmospheric Ion Propulsion” (AIP) will result in a transportation system that can be used by anyone at any age. This is an old technology first patented by Dr Robert Goddard and although it has been used successfully in the vacuum of space, it has found no success in the atmosphere - until my my partner Dr. Cardwell found a way around a “brickwall” that has forever kept it useless and misunderstood in the Earth’s atmosphere.

This transport technology will enable travel 10 times faster than an automobile or get 10 times the gas mileage. It emits no pollution, as it uses solar hydrogen fuel cells, and will not require a pilot’s license because the vehicle navigates itself. It uses an electro static force field that drives charged air through a no moving parts jet engine for the needed reaction thrust propulsion.

When fully adopted it could save the lives of the one million people who die in traffic related accidents each year as well as the one billion animals killed on the highways. It will greatly reduce travel time increasing connections the world over - with door to door quick access that will open up markets from and to people world wide, since it requires no ground infrastructure apart from hydrogen refueling stations hundreds to thousands of miles apart.
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THE WESTERN MASSACHUSETTS CHAPTER OF THE AMERICAN INSTITUTE OF ARCHITECTS

The WMAIA Newsletter is published four times a year.
It is circulated to all members, advertisers and subscribers.
Please direct all newsletter correspondence to
Rachael Chase Associate AIA, at editor@wmaia.org
Articles, photos, notices of events and other information are welcome.
Opinions expressed in the newsletter are not necessarily those of the WMAIA.
The editor reserves the right to reject or revise material as space and subjective opinion permit.

COVER PHOTO: MICHAEL LAVIN FLOWER

WMAIA NEWS
JASON PETTIGREW AWARDED TO JASON NEWMAN, ASSOCIATE AIA

Congratulations to Jason Newman Associate AIA of Dietz & Company Architects, and one of WMAIA’s IDP Coordinators for bringing home the Jason Pettigrew Award for achievement and all around excellence by an intern architect. The American Institute of Architects selected ten recipients to receive the 2014 Jason Pettigrew Memorial ARE Scholarship.

The recipients will receive compensation for the entire cost of the Architect Registration Examination (ARE) and a full set of study guides provided by Kaplan Architecture Education.

Jason Newman, Associate AIA
This summer we took a 10-day family trip to Paris and Barcelona where we explored a mix of contemporary and classic sites from the architectural canon. Here are a few photos from Paris: Catedral de Notre Dame, Centre Georges Pompidou (Rogers and Piano), Musee de quai Branly (Jean Nouvel).
We spent almost as much time exploring city streets, sampling the crepes and tapas, and watching World Cup soccer as we did visiting famous buildings. Barcelona photos: Barcelona Pavillion (Mies Van de Rohe), La Sagrada Familia (Antoni Gaudi), Mercat Ste. Caterina (Enrique Miralles and Benedetta Tagliabue)
The University of Massachusetts Amherst Department of Architecture was one of three architecture programs selected as a recipient of the 2013 NCARB Award.

The school’s proposal, “Voices from the Field: From Design Concept to Reality,” was awarded $25,000 for developing innovative curricula that merge practice and education. The NCARB Award is meaningful to us as we continue to develop our young program. We were first accredited in 2005, so we are still honing and shaping our unique approach to education.

Through the NCARB Award, we’re developing a new experiential seminar entitled “Voices from the Field.” The project is a response to the 2012 Practice Analysis of Architecture, which strongly recommended integrating fieldwork into the academic curriculum to establish an early understanding of construction sequences. This integration gains additional immediacy with NCARB’s recently announced changes regarding the relationship between internship, the academy, and licensure.

As the period of internship increasingly becomes embedded in the academic curriculum, identifying methods to navigate the relationship between theory, design, construction, and practice becomes ever more compelling. The course is structured to provide an opportunity for students to learn about the relationship between concept and technical design, to develop an understanding of construction processes, and to become familiar with the architect’s role from design to construction and maintenance. Through the course, students gain unique exposure to the nuances of the construction process by first reviewing project documentation and then going on a series of construction site visits.

The course examines active building projects in our region, Western Massachusetts, and on the UMass Amherst campus. The course got off to a strong start during this past spring 2014 semester. We went on seven construction site visits to five different high-performance building projects, including two university sports facilities, an academic classroom building, an environmental center, and a multi-family housing complex.

Touring the construction sites and discussing the projects with architects, contractors, engineers, and facilities managers demonstrated to students how architects make decisions regarding sustainable design issues including building materials and construction processes.

Students wrote culminating essays synthesizing their experiences. Yi Wang wrote of visiting the Bechtel Environmental Classroom project with Bruce Coldham, “Without exaggeration I would claim that Bechtel exerts the greatest influence on my plans for my future career. From the drawings we can see that Bruce and his team members devoted a lot of energy and care to this project, which causes me to reflect on the responsibility of the architect. To create a healthy interior environment, they have spent a lot of time looking for...
appropriate substitutes and taking them into account in this design.”

A primary goal of the Award is to increase meaningful interaction between students and non-faculty architect practitioners. While the WMAIA has always maintained strong relationships with the Department of Architecture, the course has enabled students to get out in the field and see the incredible variety of work being built in the region.

The non-faculty practitioners included those practicing at small firms, large firms, and university facilities departments. They ranged from a recent graduate, who is now an intern, to deeply experienced architects. Engaging a diverse group of non-faculty practitioners demonstrated different practice models and offered insights into the professional conduct issues that arise in manifold professional situations.

Additionally, these site visits offered the 15 advanced graduate students an opportunity to see the breadth of the field, enabling them to envision the different types of roles they could imagine for themselves when they graduate and go off to practice.

“Clearly, there is an incredible difference between the schematic design process typical in architecture studio courses compared to the actual depth and rigor that is required to execute design and construction of a real-world project,” wrote 2015 Master of Architecture student Rachel Beesen. “Before taking this course, I did not fully understand the relationship and transitions between design and construction. I now see that these relationships and transitions are vital parts of the process of creating a building, just as important as design.”

The award is continuing to bring attention to our program nationally. This summer, a video documenting the project was shown at the NCARB National Meeting in Philadelphia and the IDP Coordinator’s Conference in Miami. In addition it is featured on NCARB’s website and blog. We’re incredibly grateful to our non-faculty practitioner supporters who enabled us to garner this award and who are partnering with us to share their projects and experience with students. During the Spring and Fall semesters of 2014, this includes Doug Marshall AIA from UMass Campus Planning, Bruce Coldham FAIA and Thomas RC Hartman AIA from Coldham & Hartman Architects, Alec Zebrowski from Perkins + Will Boston, Rich Halm RA from JCJ Architecture, Kristian Whitsett AIA from Jones Whitsett Architects, Inc, Marc Sternick AIA from Dietz and Company Architects and Kris Kennedy and Lindsay Schnarr Associate AIA from Steffan Bradley Architects.

We hope that other WMAIA members will partner with us in future semesters.

- Caryn Brause AIA, Assistant Professor of Architecture + Kathleen Lugosch FAIA, Professor & Master of Architecture Program Director, Co-PI’s 2013 NCARB Award

All Photos: Caryn Brause / Rachel Beeson
On October 1st, WMAIA took a tour of the newly finished renovation and addition to the Clark Art Museum designed by Japanese architect and Pritzker Prize winner Tadao Ando. After 14 years of planning, designing, and building, the museum reopened this past July. WMAIA members were ready to see the work and appreciate the design.

From the Boston Globe: The new Clark has been so radically revamped and enlarged that it feels like an entirely new place. It has grown by almost 100,000 square feet of space, and most of its old space has been or is being renovated. Once isolated and inward-looking, the Clark now reaches out like a new guest at the party to become an integral part of the great landscape of the Berkshires.
The AIA College of Fellows recently awarded the WMAIA Emerging Professionals in Architecture a $3600 grant to conduct four workshops on construction materials and assemblies. The grant will allow workshop participants to visit trade shops across the Valley for two-hour, hands-on sessions and conversations with skilled contractors.

“I feel pretty strongly that there is an overlooked social dimension to design where you need to learn to talk to contractors to understand how they fabricate and install the details we design. There aren’t a lot of opportunities to have open, unguarded conversations with skilled craftsmen. My hope for these workshops is that emerging architects will gain greater familiarity with building materials and greater insight on people who make these details real on the job site.” says Dorrie Brooks, Associate AIA, Coordinator, WMAIA Emerging Professionals + author of the Connecting-to-Craft Grant Application

Workshops will address material behaviors and principles of assembly as they relate to wood, glass and metal.
Each workshop will also be documented and archived on a pilot WMAIA/EP Detailing Toolkit website for future use as studio reference material. Registration material will be available soon.

For more information + to pre-register,
please contact Dorrie Brooks at db@joneswhitsett.com
Workshops are free to WMAIA associate members.
$10 for full AIA members.
$20 for non-members.
Advanced registration for the series is required.
Limited to 15 participants.

PROPOSED DATES + TOPICS:
PRINCIPAL + PROCESS OF WINDOW ASSEMBLY
NOVEMBER 20, 2014, 4PM – 6PM
Instructor: Jeremy McClain
Chandler Architectural Products

DETAILS IN STEEL
JANUARY 13, 2015, TIME TBD
Instructor: Salmon Studios

BRINGING IT ALL TOGETHER /
INTELLIGENT FRAMING + FINISH CARPENTRY
FEBRUARY 12, 2015, TIME TBD
Instructor: Specialized Construction Inc.

OLD + NEW TECHNOLOGY IN
ARCHITECTURAL WOORK
MARCH 12, 2015, TIME TBD
Instructor: Bruce Voltz, VCA

Chandler Architectural Products setting up a full size window mock up at the Conte School
DO YOU HAVE ANY TECHNOLOGY RELATED QUESTIONS?
EMAIL editor@wmaia.org

THINGS TO SEE + DO IN WESTERN MASSACHUSETTS

Fall 2014 Lecture Series
UMASS Amherst
Department of Architecture
All Lectures & Symposium at Gordon Hall / Room 303
418 North Pleasant Street, Amherst MA
Reception in Gordon Hall Atrium follows each lecture/event
FOR INFORMATION ON THE LECTURE SERIES CONTACT:
Joseph Krupczynski: jkrup@umass.edu
FOR INFO ON HISTORIC PRESERVATION SYMPOSIUM CONTACT:
Max Page: mpage@umass.edu

www.umass.edu/architecture

HERS RATER TRAININGS
Become a HERS Rater with the Northeast HERS Alliance.

Online Training:
September 29 - October 10
Weekdays 9am-12pm

4-Day Classroom/Field Training:
Choose between: October 27-30 -
Manchester, NH OR
November 3-6 - Berlin, CT

The Process of Making
With studios in Los Angeles and Beijing, architect
Michele Saeed believes that architecture is a part
of everyday life, and that the work of architecture
reflects our needs, our desires and our ability
to improve the quality of our relationships with
creativity and adventure.

Michele Saeed
Tuesday
October 7
5:30 PM

Futures for Historic Preservation
In anticipation of the 50th Anniversary of the
National Preservation Act of 1966, the UMass
topreservation program will begin a series of
discussions with leading scholars and practitioners.
This year's half-day workshop will include presentations
from Daniel Bluestone (Boston University), Sergio Kierman (Buenos Aires), Cinzia
Abbate (Rome), and Tom Mayes (National Trust for
Historic Preservation).

Friday
November 7
8:30 AM - 1:00 PM

 Preservation Symposium

The Diorama Show (Nov. 7-Dec. 7) will
include the disparate visions of 8 contemporary artists. Their various approaches
are conceptual, realistic, dreamlike, symbolic or reflective often with a strong vein
of wit. The dioramas range from small wall hung boxes to a store window-sized
scenario.

Can We Design for Social Change?
Gail Sullivan
Tuesday
October 28
5:30 PM

Tim Castillo is an associate professor at the School of Architecture and Planning at
the University of New Mexico and the Director of the
Art, Research, Technology and Science Digital Media Laboratory. His research
focuses on emerging technologies as they apply
to hybrid systems of design.

Tuesday
November 18
5:30 PM

Hybrid Worlds: Emerging Trajectories in Design
Tim Castillo

Building with Wood
Fall 2014 BCT Lecture Series

“Cross-Laminated Timber: A Revolution In Timber Construction”
Wed., October 15th, 9:30am-10:30am - Integrated Science Bldg., Room 145, UMass Amherst
BERND OSWALD, CEO, KLH Massivholz, Austria & NIC CLARK, Managing Director at KLH UK
KLH is the worldwide market-leading manufacturer of large-format glued laminated timber elements, especially
cross-laminated timber (CLT) panel products. KLH and its subsidiary KLH UK have been involved in the construction
of thousands of wood buildings, including the 8-story Stadthaus in London, UK and a recent 10-story apartment
building in Melbourne, Australia.

“Emerging Technologies in Wood and Bio-Based Building Products”
Fri., November 21st - 10am-11am - Integrated Science Bldg., Room 145, UMass Amherst
PEGGI CLOUSTON, Associate Professor, BCT, UMASS Amherst
Dr. Closton teaches courses in structural wood design, material mechanics and bio-based composites to students
of construction technology, architecture, and engineering. Her research focuses on modeling and characterizing the
probabilistic mechanical behavior of structural bio-based composite materials as well as innovative wood products
and systems.

All lectures are free and open to the public. These programs are not registered for continuing learning units but AIA
members are encouraged to self-report here: http://www.aia.org/education/credits/AIAS/07/0335
Make It New: Abstract Painting from the National Gallery of Art, 1950–1975 examines the different paths taken by abstract painting in the first quarter-century of the postwar period, cutting across geographies and narrow timeframes as it evocatively engages Tadao Ando’s architecture. The exhibition presents Abstract Expressionist and color field masterpieces alongside other canonical works organized by the formal categories of pattern, texture, and shape.

The installation in Ando’s expansive galleries makes it possible for visitors to see and consider multiple, contrasting works from a single vantage point, facilitating reflection on the unconventional arrangement of these works, and on the alternative narratives of postwar art.

Plastic Fantastic: Opening October 11, 2014
Lee Boroson creates large-scale immersive installations using inflatables, fabric, and light to create phenomenological experiences for his viewers, based on the elemental forces in nature, from air, fog, and smoke, to fire and the cosmos. Boroson’s installations are embodied and ephemeral within the space of the museum.

Sayler/Morris with Elizabeth Kolbert: Eclipse
Eclipse consists of a massive 100-foot video projection, screens on the walls and ceiling of MASS MoCA’s four-story atrium. The video loop shows a flock of passenger pigeons in reverse-negative silhouette lifting out of a life-sized tree, accompanied by sound design consisting of layers of digitally processed human voices.
JOHN F. GRANEY METAL DESIGN, INC. is a custom metal fabrication studio specializing in the most demanding site specific architectural and ornamental iron projects throughout Southern New England and New York. In collaboration with the client, contractor and design professionals, we produce work which fulfills the artistic and technical goals of the project. Our hallmarks are design flexibility, reliable engineering and uncompromising attention to detail and finish.

Our ability to fabricate in an appropriate style and within budget has earned the gratitude of a wide variety of clients.
Wrought metals heated in the fire and formed over the anvil are the root of our work. The traditional methods of repoussé, die forging, slit punching, riveting and collaring are interpreted in both contemporary and classic commissions. We join these timeless architectural blacksmith techniques with the changing technologies of modern metalworking.

The process from bar stock to finished installation involves ongoing client dialog and diligent attention to the specifics of location. Please see more of our work at www.graneymetaldesign.com and contact us at 413.528.6749.

Have you worked with an Artisan we should know about? Nominate someone for ‘FEATURED ARTISAN’ by email at editor@wmaia.org.
The 79 South Pleasant project explores how a building can exist as both historic and modern concurrently. Through context-inspired materiality and juxtaposition of form, material, and texture, the project carefully establishes relationships between multiple contexts: campus/downtown, existing/new, traditional/modern, individual/group. The renovation and new addition reassert the building's historic prominence as one of the oldest extant buildings on the town common while making a clear statement that this is a modern building, designed for modern performance and use.

The project created spaces for the Five College Center for the Study of World Languages and for three non-academic Amherst College departments. A primary goal was to create a sense of connection with campus. The college community can access campus departments via the recessed entry between the old and new buildings. A new, narrower driving lane (without previous parking spots) maintains vehicular access while allowing the campus lawn to extend further toward the building, as it had prior to 1960. By opening-up sightlines from campus, the building now caps the end of the campus lawn.

The historic building’s location on the town common warranted that it also maintain a clear connection to downtown Amherst. Along the street, a widened plaza welcomes the public with benches, plantings, and a bus shelter. The many visitors to the languages department can access it directly through the street-facing east entry, whether arriving by car, bike, bus, or on-foot.

Very little detailing from the original building remained. The sanctuary’s original 12’ high windows had been replaced with pairs of double-hungs when a third floor was inserted into the sanctuary in the 1960s; the arch that stood behind the pulpit had been hacked away to make room for a staircase; and there were few traces of any original woodwork.

By removing the years of accretion, the fundamental features of the building could be on display: its original shape emerged from behind porches and bay windows, and the original double-height window openings—always visible but obscured by awkward infill—were revealed.
Using materials inspired by the surrounding context, the new addition quietly references the existing building while establishing its own identity. With its contrasting color, it becomes a backdrop against which the original building is displayed. These new materials—terracotta panels, anodized aluminum, and metal panel siding—suggest the historic qualities of adjacent buildings via color, texture, proportion, and shadow.

Partner in Charge: Charles Roberts AIA
Project Manager: Andy Grogan Associate AIA
Structural Engineer: GNCB
MEPFP Engineer: BVH Integrated Services
Site: Berkshire Design Group
Envelope Consultant: Wiss, Janney, Elstner Associates
Photography: Joshua Sugiyama
Save the Dates:
CURRENT TRENDS IN LED & DAYLIGHTING
When: October 7, 2014,
10 a.m. - 4:00 p.m.
Where: UMASS/Amherst
Campus Center, 10th floor
(Hadley Room), Amherst, MA
LUs: 5 HSW
Sponsored by: Reflex Lighting

UMASS HISTORIC PRESERVATION & SUSTAINABILITY
When: November 7, 2014
WMAIA ANNUAL MEETING & AWARDS
When: December 4, 2014
More information to come.

ARCHITECTURE THROUGH FILM FALL 2014

Excerpts from ARCHITECTURES, a documentary series produced by European public television channel, ARTE, which explores an eclectic mix of some of the world’s most renowned buildings.

OCTOBER 8: LIVE
Nemauses 1 - Jean Nouvel
Family Lodging in Guise - Andre Godin
Casa Mila - Antoni Gaudi
1.5 LUs

OCTOBER 22: LEARN
L’Ecole des Beaux Arts
Multimedia Library of Sendai - Toyo Ito
The Siza School - Alvaro Siza
1.5 LUs

NOVEMBER 5: RULE
Municipal Center of Saynatsalo - Alvar Aalto
Reception and Congress Building - Adalberto Libera
Citidel of Lille
1.5 LUs

NOVEMBER 19: WORSHIP
Convent of La Tourette - Le Corbusier
Abbey Church of Saint Fey
Cologne Cathedral
1.5 LUs

Presented by the Western Massachusetts Chapter of the American Institute of Architects
and the Five College Architectural Studies Program

Location: Room 117 @ Fayerweather Hall · Amherst College · 6:30 PM.
All films followed by discussion. Free and Open to the Public

DID YOU NOTICE WE ARE NOW (PARTIALLY) IN COLOR?
WHAT DO YOU THINK?
EMAIL EDITOR@WMAIA.ORG WITH FEEDBACK!