



NH forum

AIA New Hampshire

For those who shape the built environment



November 2's 2030 & Beyond Session included interactive activities in the afternoon, which were a big hit. The theoretical lessons learned in the morning were put to the test in real world settings.

Dec. 1 Education Day to Feature Building Codes, Universal Design, and Accessibility



AIA New Hampshire's 2016 Catch-Up Education Day includes two programs, a morning session on 2015 Building Codes and an afternoon session on Age-Friendly Cities, Universal Design, and Accessibility. Be sure to take advantage of these timely presentations on December 1 at the McLane Audubon Center, Concord, NH. Up to 6 AIA LU/HSW are available. You may register for the full day or a half day.

The morning seminar by **Jerry Tepe FAIA** will be on "Transitioning from the 2009 to the 2015 Building Codes in New Hampshire." Jerry will focus on significant changes to the IBC and IRC from the current 2009 to the 2015 editions. NH currently enforces the 2009 editions, but there is pending legislation to adopt the 2015 editions. You'll learn about significant

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The editors of the NH Forum seek to encourage a lively discussion of design and other topics of concern to designers. Opinions and proposals presented in the newsletter are those of the writers to whom they are attributed and are not a statement of official policy by AIANH, unless so stated.

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Perspective

Point of view from the President of AIANH

Jay L. Purcell AIA



Recently I ventured over to Keene State College to help out with a mid-semester design review for one of Bart Sapeta's studio classes. Many of you may know Bart, but for those of you who don't, he has been an Associate Professor at Keene State for about eight years now. He is also currently an AIA New Hampshire Board director, and has been nominated to become our chapter's Vice President next year. I always enjoy his passion for design and his ability to spark that passion among his students in the Keene State Architecture program.

Now in addition to helping out a few times before with these design reviews, I had also joined Bart a couple of years ago to assist him in teaching a rather large studio class for that semester. So by this time, I was familiar with the syllabus for the class and the usual scale of project. But this semester Bart had set the students up with an even more ambitious project on a real site located on the Mediterranean coast in Spain.

On the floor of the studio was a large context model that the students had built, with quite a few buildings on the seashore site, and there were many photographs of the actual site and these surrounding structures, all keyed to the model. Posted on the review wall was the first student's colorful bubble diagram, analyzing the building program of almost 10,000 sf. Yes, these are timeless methods still alive in today's architecture programs. It was going to be interesting to see just how many students would rise to the occasion on this one.

I am happy to say that the group of students I met that day really impressed me. As each went through their description of the parti that was guiding them in their thought process about the design, they explained (and in a few cases rationalized, but hey, they're students) the connection between their 'big idea' and their evolving building. As in any academic exercise of this nature, the goal is generally first to get them flexing their imagination with regard to form and imagery, and then seeing if the program spaces and flow have been integrated with that idea. It is

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Bart Sapeta AIA, second from left, with Keene State College students attending our 2030 & Beyond Session with Peter Yost: Emily Orell, Shannon Haley, and Senada Dushaj. Photo by John Hession

Emerging Professionals Network

Point of view from the AIANH Associate Director & EPN Chair
Tony Nazaka



10 Things Everyone Can Do to Become a Better Architect

Architecture is an interesting profession to be involved in. As we all know, remaining current in the field requires constant learning, updating, knowledge, and different ways of thinking. Becoming a good or great architect requires much more. Over my somewhat short (relatively speaking) career in the architecture world, there are many things I think can, and should, help you develop from “just” an architect, to something that might evolve into much more.

Sketch

Sketching in recent years has taken a back seat to the computer rendering. These days, computer generated models might be just as easy, and gives you something tangible in your computer to progress a project, but for the fluid articulation of ideas and the communication of concepts to clients, nothing beats a good, old-fashioned sketch.

Become Vernacular with Materials

Personally, I think all architecture should, at least in some sort, incorporate local materials into design. With the amount of new materials and technologies in the field, it's always tempting to design around one of these ideas, rather than what a building “needs.” And while having a vernacular concept towards a

design might now always be in the cards, one should still be true to their materials. Some of the very best projects to emerge in recent years prove that the textured qualities and structural properties of raw materials still produce timeless results.

Listen Carefully

This is pretty self-explanatory; I may have mentioned in a past article that listening is one of the most important factors in the architecture world. Architects retain their relevance by taking all viewpoints into account; opinions count no matter where they come from, and every firm will do well to keep an open ear.

Be a Social Promoter

And, no, this isn't in the Facebook or Instagram sense. An emphasis on socially conscious design is surely one of the greatest strengths of good architecture. We as architects and designers should look to get more involved in surrounding scale social solutions when designing.

Read More

Another instance I have mentioned in the past, but am guilty of not following. While it may be tough with the hours that architects tend to keep, reading anything on architecture and design will at a minimum strengthens your mental toolbox. If you can allocate only ten minutes of quiet time to flick through a few pages at the end of each day, there is a

Continued on page 13

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To submit an ad, please email ad text to office@aianh.org. Job opportunity listings are free for AIANH members and \$320 for four months for non-members. Listings for Positions Sought are free for everyone. Please include your contact information with your ad listing.

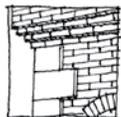
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Send us the information and we'll print it in our "Details..." columns. Email to office@aianh.org. Photographs can also be used (300 ppi).

2030 & Beyond Session 2: Retrofitting Buildings: Mass Buildings vs. Frame Buildings

by David Ely AIA



The second in this year's three-part 2030 & Beyond series was given by Joe Lstiburek of Building Science Corporation on October 5. His informative, often witty, narrative focused on moisture, air and thermal control in existing wood frame and mass masonry buildings. After going over basic physics his advice is to lose the Psychrometric chart. Ya, you heard me – we as professionals should have a good understanding of the laws of thermodynamics – how heat and moisture behave; and by using proven building science, observation, and common sense be able to design robust well-insulated buildings which manage moisture appropriately without having to do arduous calculations.

A point to remember – vapor diffusion is slow, air transport is fast and takes moisture with it. Therefore air barriers are more important than vapor barriers; better to not have a vapor barrier than to have it in the wrong place.

Many examples of successful masonry buildings exist; they typically have deep cornice and window sill overhangs to reduce rain wetting of walls. In Europe and other places when brick masonry starts to deteriorate the stages of remediation include cleaning, pointing, painting, and finally stucco. Many historic boards do not understand this sequence and reduce the longevity of a building by requiring the brick to remain exposed.

Existing mass wall masonry buildings are damaged by freeze thaw cycles; salt accumulates in the masonry and moisture is attracted to it. When it freezes the water fills the cavities and expands to break the masonry. Capillary action in wood will carry water up maximum 380' but in masonry it can literally be carried up miles. It is of utmost importance to provide a capillary break where masonry or concrete are in ground contact. Flashing on deep overhangs and drip edges directs water away from walls and reduces absorption.

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Joe Lstiburek PhD, PE, second from left, with Environmental Guild members and 2030 & Beyond Planners – AIANH President-Elect Sheldon Pennoyer AIA, David Ely AIA, and Dana Mosher.

2030 & Beyond Session 3:

Topics in High Performance Design, Specifications, and Construction

by David Ely AIA



Peter Yost, LEED AP of BuildingGreen, Inc. gave another very informative session on November 2, which again touched on the basics of high performance light frame building envelopes, hygrothermics, moisture and air movements within and around building elements, and moisture accumulation. He reiterated that we must manage energy and moisture with equal intensity.

Water gets into buildings by rain, wicking, air transport and diffusion. Building inspectors typically make sure we have satisfied the interior vapor retarder requirement, but overlook the more important issues of proper flashing, capillary breaks, and air sealing. The “Pen Test”: in section view you should be able to trace the air/moisture/weather barriers completely around the building without lifting the pen. It must be continuous. All flashings should be integral with the moisture barrier.

Permeability of all building elements must be understood to ensure proper drying poten-

tial. Interesting tidbit – OSB has a low perm rating regardless of its moisture content. Plywood, on the other hand, has a higher perm rating when it has high moisture content.

Moisture in building elements varies with the seasons, highest in March, lowest at end of summer. WUFI modeling can predict moisture accumulation to ensure the wetting cycle doesn’t exceed mold growth threshold, and that over years moisture levels don’t continue to increase. The US Forest Service Forest Products Lab has valuable tables and information on wood/moisture behavior. Various wood frame scenarios were modeled and it was evident that rainscreen cladding and a “smart” interior vapor retarder is a good combination. A “smart” vapor retarder has a higher perm rating when wet, lower when dry.

Peter brought real-world test cases including one home in Vermont and two of Sheldon Pennoyer’s projects in which moisture tests were performed to determine how well the

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Peter Yost, second from left, with AIANH Board members Bart Sapeta AIA, Sheldon Pennoyer AIA and Environmental Guild members Kate Hartnett, Dana Mosher, and David Ely AIA.

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Eckman Construction has completed extensive renovations and a large addition at Mascoma Valley Regional High School in Canaan, NH, which were done in time for students to return to school this fall. The new addition to the school features a 500-seat auditorium and performing arts theater, band room, new media center and a new art room, all which support the school's mission to foster a creative learning environment. The auditorium and performing arts theater is also a great resource for the community as it will also be used to hold public events and performances. Renovations to the original building, which opened in 1963, included a new, handicap-accessible main entrance, classrooms, a new main office and administrative area, and energy-efficient upgrades throughout the facility.

Marinace Architects provided architectural services on this project.



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Mosteiro dos Jerónimos

Text & Photos by Bruce Hamilton AIA



Lisbon, Portugal's capital city, is a ramshackle but charming mix of now and then. Vintage trolleys shiver up and down hills, bird-stained statues mark grand squares, taxis rattle and screech through cobbled lanes while the locals and tourists sip cappuccino in Art Nouveau cafes. It's a city of faded iron work balconies, multicolored tiles and mosaic sidewalks of bougainvillea, and red tile roofs with antique TV antennas. Here at the far western edge of Europe prices are reasonable, the people are warm, and the pace of life slows. The grand Belém District offers a look to Lisbon's historic architecture and seafaring glory.... from the 16th Century Monastery of Jerónimos to the many museums throughout Lisbon.

The Mosteiro dos Jerónimos, also known as the Jerónimos Monastery, is a UNESCO world Heritage site located in Lisbon's Belém district. Exemplifying Portugal's Manueline style – a highly ornate style of architecture – the monastery was built during the Age of Discoveries.

The monastery's south portal is a stunning example of Manueline architecture at its most exuberant. The richly decorated 32-meter



South Portal

door is the visual center of the façade facing the River Tagus. According to our local tour guide, the design was created by master builder, João de Castillio, the author of the “side door” as it became known. Carved like filigree, the ornate stonework is brought to life by an elaborate collection of 40-odd statues set into the pillars that flank the door, figurines that include Henry the Navigator, St. Jerome, and Our Lady of the Three



Partial View of Mosteiro dos Jerónimos

Nights. The twelve apostles can be identified within this extraordinary sculptural grouping, as well as a pair of miniature lions' heads positioned at the foot of the door. Crowning the whole composition is a stature of the Archangel Michael. For all its sumptuous embellishments, the south portal is one of the richest pieces of Portuguese Late Gothic architecture.

After passing through the South Portal, we entered the Belém Church which displays a remarkable monumentality – designed as a Hull Church, it has six isolated columns, three for each nave and two recessed and embedded into the body of the High Choir. The columns are covered with carved plateresque motifs. The side and central naves clearly merge together, placing the public in a single unified space. Interestingly, the nave vault, as seen from the choir, shows a “Gothic” elevation that does not match the depressed vault profile. This interplay of volumes and simultaneous and complex fittings is one of the aspects that confers more structural and morphological originality to the roofing.

As we viewed the nave's vaulting, the single central “core” formed by a star becomes



Vaulted ceiling

clear. Sheaves of ribs spring from the star which extends the stone vaults' support to the walls. The ribbing becomes ever thinner and its combined design no longer forms the usual fireirons but rather a web tracery. It is like an articulated "spring" system in which the vault keystones serve as hinges. The crossing vault is even more impressive. The entire bulge of the vault is sustained by huge and extremely heavy bronze keystone cores, joined by sleeves of straight ribs. These are reinforced in the central core by "fans," round rings of curved ribs.

Inextricably linked to Portugal's gold Age of Discovery, Vasco da Gama and Luis de Camoes are two of the country's most important and influential historical figure-heads. Their highly ornate tombs bear all the features of Manueline Architecture – carved ropes, spheres, and other seafaring motifs. Based on our observation, it would appear that they are among the most admired and photographed of the chapel's historic artifacts.

Upon leaving the church, the gloriously gilded Chapel of Senhor dos Passos – the ancient Chapel of St. Anthony – is immediately to the right of the main entrance. We were able to peer through an iron grille to appreciate the exquisite 17th Century paneled wood carvings, which are outstanding in their detail and craftsmanship.

Our tour group traveled all the way to Lisbon to enjoy differences – to become tem-



Tomb of Luis Vaz de Camões



Central Nave

porary locals. If your idea of travel includes welcoming locals (who speak a bit of English), exotic architecture, windswept castles, and fresh seafood with chilled wine – this is the perfect destination. With its characteristic hills, trolleys, famous suspension bridge, and rolling fog, Lisbon has a San Francisco feel. I thoroughly enjoyed this world class city, from its elegant outdoor cafés, exciting art and architecture, along with stunning vistas ...Lisbon heritage endures.

Thoughtful travel engages us with the world. In tough economic times, it reminds us what truly is important. By brooding perspectives, travel has taught me new ways to measure the quality of life. ■

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Energy Matters Invitation from the Environmental Guild

by David Ely AIA



The AIA New Hampshire Environmental Guild is the NH chapter of AIA Committee on the Environment (COTE).

We might differ from other COTE chapters because we are not just architects; we welcome anybody who has an interest in and can contribute to environmental issues. Participants have included architects, a geographer, graphic artist, photographer/cinematographer, landscape architect, educator, bankers, brokers, engineers and more. Our goal is to promote sustainable values in the built environment through education and good examples.

We recently organized the premier screening of “Net Zero in New England,” John Hession’s documentaries of two net zero buildings in New Hampshire and a follow-

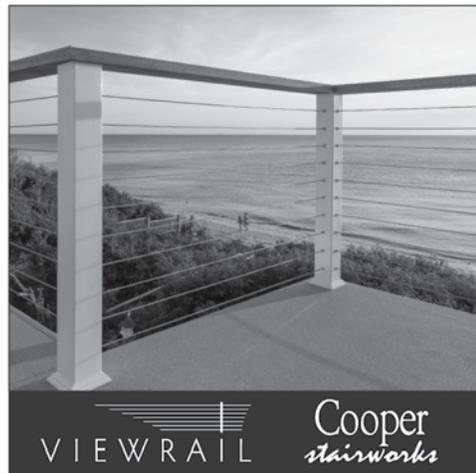
up panel discussion. We have also provided three “2030 & Beyond” sessions with notable presenters Marc Rosenbaum, Joe Lstiburek, and Peter Yost. We hope to continue these sessions in the future and develop other means of promoting this good cause. We also monitor code adoption and other legislative initiatives concerning energy such as RGGI, net metering, Property Assessed Clean Energy (PACE) and actively support sustainable legislation.

In the past we have organized six IDID (Integrated Design Integrated Development) conferences with speakers of note such as David Orr, Pliny Fisk, Steven Strong, Stefan Behnisch, Bill Reed AIA, John Todd, Ed Mazria FAIA, and Dayna Baumeister, PhD to name a few.

I encourage anybody with an interest in sustainability to attend a committee meeting. They’re held on the second Tuesday of each month at 4:00, usually at Pennoyer Architect’s office in Concord. The meetings are short, ad hoc, and light-hearted. Everybody is encouraged to bring a new topic to the table. Wine and chocolate are often present.

I’ve been chair of this auspicious group for 10 years; it has been a great honor and never a burden. It’s time for me to move on and allow someone else to take over. Because this is an AIA New Hampshire committee the chair must be AIA or Associate AIA member. Duties include a bit of meeting organization and event attendance. Perks include meeting national leaders in the sustainability movement, being included in COTE national communications and initiatives, networking with local organizations and attaching “NH Environmental Guild, Chair” on your resume. If you’re interested please come to the next meeting and see if this might be a good fit for you. Sheldon Pennoyer AIA is interim Chair.

We hope to see you at a meeting soon! You can email Sheldon, skp@spennoyerarchitects.com or Executive Director Bonnie Kastel, bkastel@aianh.org, to get on the mailing list for meeting notices and updates. ■



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Living Smaller in the Bigger Picture

by Caroline Corriveau Assoc. AIA, Warrenstreet Architects, Inc.



Counterpoint — we received this response to Tony Nazaka's Emerging Professionals Network column in the October NH Forum...

Don't worry – architecture is not to blame for the tiny house movement gaining momentum with cheesy reality TV shows and Pinterest posts. The movement has been gaining interest in the United States for the past 17 years and climbing, because it offers many Americans a solution to a number of moral, financial, ecological, and goal-driven problems. The resulting benefits are vast, including: more time, more money, a higher quality home, a smaller carbon footprint, a sense of pride and accomplishment, and in some cases solving homelessness.

But enough about the benefits. Those are the obvious reasons to jump onboard the tiny house train. So why do so many people gravitate toward this style of living while others view it as a passing fad? It is because our inherent yearning for a higher quality of life prevails. Some of us let the water flow through our faucets without knowing where it comes from or where it goes when it drains. Some of us are closely acquainted with the consequences of our consumption. Some of us know to conserve water and compost waste in order to preserve precious resources. For those who do not care to know where their water comes from or where their waste goes, just as long as it disappears when the toilet is flushed, tiny homes may not be the answer. For some folks, if it's out of sight – it's out of mind. For those who truly want to be connected to their environment, a tiny home is not a fad, but a conscious choice to strive for a higher quality of life.

Let's strip down to the fundamentals. Native Americans are one example of many nomadic peoples who would touch the earth lightly. They would migrate with the seasons in order to provide their own with the best quality life they knew possible. Native Americans learned to adapt to climate change because they were more

connected to the Earth than most of us could ever understand. Their shelters averaged 175 - 315 square feet of only essential living space, and accommodated 8-10 adults and children. Mother Nature was certainly an extension of that home, just as it would be to a small house on a foundation or a trailer.

Current-day suburbia, with its mass-produced houses that have little uniqueness, does not encourage interaction between the home-owner and their neighbors, family, and friends. We are disconnected from the environment, of which we could not live without. We are separated from the livelihood that surrounds us, as suburbia suggests we retreat to our homes. Each family member carries out his or her own agenda in separate rooms. This track that we Americans are on is not beneficial to our social development. We need community members who contribute to the prosperity of the town or village to which they belong. We need businesses and institutions to develop in town centers instead of on the outskirts. We need a new community plan – one that incorporates small and customized homes, personal connections, efficient land use, and a close proximity to places of work, play, and commerce. We then can collectively achieve a higher quality of life, health, prosperity, and therefore the ultimate goal of true happiness. If we could learn from our country's natives, then we could become more connected to our world.

Yes, we have significantly progressed

when design matters



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in building technologies since before the Industrial Revolution. However, the goal we strive for remains the same: to simply live and be happy. We could also be asking ourselves, "What do we contribute to this world?" With the time spent maintaining our large homes (along with our plethora of belongings) and working tirelessly to make sure we submit our bill payments on time, we all could give a little more energy to the Earth and to the people who have helped shape us.

Tiny houses offer an opportunity for the average Joe/Joanne to become involved with the design (and in some cases construction) of his or her own home. The movement allows, even encourages, more people to become actual, proud homeowners, without the hefty bill. It is a movement that seeks to minimize our output and to furthermore enrich our lives. In the bigger picture, tiny homes are not just trendy novelties. Living intentionally within our means, with our direct needs and desires in play, just may be the key to recuperating some intimacy between the resident and residence.

Resources:

Archer, John. *Architecture and Suburbia: From English Villa to American Dream House, 1690-2000*. Minneapolis, MN: University of Minnesota Press, 2005.

Calthorpe, Peter. *Urbanism in the Age of Climate Change*. Washington D.C., USA: Island Press, 2010.

Laubin, Reginald, and Gladys Laubin. *The Indian Tipi: Its History, Construction, and Use*. Norman: University of Oklahoma Press, 1977.

Nelessen, Anton Clarence. *Visions for a New American Dream: Process, Principles, and an Ordinance to Plan and Design Small Communities*. Second Edition ed. Chicago, Illinois: The American Planning Association, 1994.

Salomon, Shay. *Little House on a Small Planet: Simple Homes, Cozy Retreats, and Energy Efficient Possibilities*. Guilford, Connecticut: Lyons Press, 2006. ■

Details...

PROCON has won multiple ABC Excellence in Construction awards for its projects.

Portwalk Phase III located in Portsmouth, NH, won three awards in the Design-Build category, Excellence in Construction, Sustainable Building and the Community Service Award. Totalling 290,000 SF, it spans a city block consisting of a hotel, apartment complex with ground floor retail spaces and a below-grade parking garage. It was the final phase of the Portwalk Place live-work-play complex, connecting major streets and introducing walkability to the downtown metropolis. The project was environmentally friendly from conception, recycling 98% of its construction waste and diverting 3,453 tons of debris away from landfills. Its LEED Silver designed apartments and hotel are energy and water efficient, use non-CFC refrigerants, Energy Star appliances and include electric car charging stations.

Fairfield Inn & Suites by Marriott in Cambridge, MA won the "Merit Design-Build Award" and the "Sustainable Building Award." It recently received a LEED Silver certification for its multiple green features including a white roof, over-sized windows, low-flow plumbing and LED lighting throughout the hotel's common spaces and parking lot.

Learning by Design Program at Grantham Village School

Text and photos by Nesreen T. Itani, Intl. Assoc. AIA



During the Winter of 2016, a group at Grantham Village School consisting of the school principal, the Chair of the AIANH Education Outreach Program, the Director of the Hawks After School Program (ASP), and a parent, all met to add the Shoe-Box Clubhouse Program to the After School Program enrichment of Grantham Village School, Hawks-ASP.

The flexibility of this AIANH Learning by Design program made it feasible for the team to modify its structure to fit the Hawks After School Program's needs. The team decided to introduce the program to all students attending the Hawks ASP in grades 3-6. With the help of local Grantham, NH architects Pam Hansen, Karolina Burt AIA, and Nesreen Itani, AIA Intl Assoc., plus Scott Vlasak AIA, chair of the AIANH Education Outreach Program, and ASP team member Marsha Googins, the program was successfully implemented in March 2016.

Students selected their own shoebox styles (Skyscraper, Futuristic House, Skating Club, Family Fun Clubhouse, Tree House, Sport Center, Factory, Fitness Center, Room

Clubhouse, or Mansion Clubhouse), and designed their own clubhouses. They loved the program and worked with passion and enthusiasm. The team was amazed by how much students learned and how they were able to transition within the design process of their dream clubhouse like little architects! They started by choosing a location, then



Futuristic House



Factory



A very young aspiring architect works on a Tree House

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drafting bubble diagrams, then creating blueprints and finally creating the models using shoeboxes, paints, paper, playdough, twigs, and other supplies.

The Shoebox Clubhouse Program was structured to give children an outlet for their imagination and to develop measuring, model building, and spatial skills. Children also learned about use of space, architecture, and the role of architects in our world. They learned that an architect is more than a designer, and architecture is more than buildings. An architect is someone who shapes our living spaces, working environments, outdoor spaces, and the overall economy. Architecture reflects history, the development of technology and science, and the culture of the society it exists within.

I believe that age is never a limit for educational outreach programs, even for those with little hands. ■



This young man is designing a Sport Center

The team was amazed by how much students learned and how they were able to transition within the design process of their dream clubhouse like little architects!

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PURCELL Continued from p. 2

also interesting to see how they have responded to the context (even when that is intentional contrast). As you can imagine it brings back either fond memories, or not, from one's own academic experience.

It was fun to see a dozen different approaches to the same site, program, and context – ah, the plurality of ideas. It was also refreshing to see a couple of very different architectural beginnings that were very expressive ideas, and had also integrated the program requirements. You may be wondering what tools and skills these students are using to produce their work, and I can say that Bart emphasizes some thoughtful hand sketching in plan and form before they dive in with any computer tools. Many of the students that day had used Sketchup to present a basic section and/or elevation view of the building. This was only the mid semester work, so I am really looking forward to seeing how their designs might evolve based on the engaging discussions we had that day.

So perhaps you have received one of these emails from Bart over the years asking if you could spare a morning or afternoon to join in the teaching/learning experience at Keene State. I can report that if you can manage to break away from the daily grind at the office, I think you will really enjoy the opportunity to encourage a few students who could benefit from



THE AIA NEW HAMPSHIRE BOARD OF DIRECTORS recently held its Annual Retreat at the summer home of Sheldon Pennoyer AIA on Squam Lake. Front, kneeling and seated: Immediate Past President Paul Bourbeau AIA, Liz LeBlanc, past Executive Director Carolyn Isaak Hon. AIANH, Alyssa Murphy AIA, Tracy Kozak AIA, President Jay Purcell AIA, incoming Associate Director Jon Allard Assoc. AIA. Standing from left: Associate Director Tony Nazaka, Bart Sapeta AIA, incoming Director Cris Salomon AIA, Nick Isaak AIA, President-Elect Sheldon Pennoyer AIA, Executive Director Bonnie Kastel, Susan Phillips Hungerford AIA, and incoming Affiliate Director Mark Goldstein. This photo was taken on a little foray to Church Island.

your experience in the profession.

If you are too far from Keene or just too buried in the day to day, there is another great way to help Architecture students at Keene State College round out their education and develop their passion. You could consider making a modest (or even beyond modest) donation to the “AIA

New Hampshire-Kahn Family Fund for the Advancement of Architecture,” created by Jay Kahn PhD, Hon. AIANH. If you attended the AIANH meeting this past April held at Keene State College, you may recall that Jay Kahn (former Vice President for Finance and Planning at KSC) made a short presentation about its mission, and started the ball rolling with the initial funding. It was also the topic of an article in the April edition of the Forum that you can access again with this link www.aianh.org/content/nh-forum-newsletter. One of the things the fund enables are traveling scholarships for students, allowing them to experience a broader view of Architecture, and participate in meaningful projects in less privileged countries. ■



Nearly 60 AIA New Hampshire and AIA Vermont Members attended the October 19 ARCHtoberfest at Harpoon Brewery in Windsor, VT. Emily Grandstaff-Rice FAIA lead us in an exercise to imagine, design, and create new models for architects' roles and the profession and how to broadly communicate these ideas to professionals worldwide. Photo by John Hession

NAZAKA Continued from p. 3

host of fresh architectural literature out there to inspire. This can be anything from books, to magazines, to online blogs. One of my favorite books is Corbusier's *Towards a New Architecture*, and one of my favorite blogs is *Life of an Architect*.

Have a Sense of Humor

I take umbrage to anyone who thinks architects are dull, boring, or dry people. More so, I find it frustrating when architects think they must hold themselves in this manner. Humor and approachability, I believe, can go a long way in this profession.

Talk More

The best architects let their designs do the talking, and will undoubtedly be the case in the architecture world. However, there is also great value to be found in conversation. Architects can communicate their value and promote great design by telling stories, encouraging people to ask questions about the built environment that surrounds them. Sometimes, it's good to talk.

Break With Programmatic Convention

Cross-programming is nothing new, especially today where functions try to activate

social spaces in buildings and their surroundings. The advantages of mixing typologies in urban and smaller city type settings have never been clearer. Changing technologies, world issues, climate change, ways of living, modes of transportation, etc. are all reasons that this is time to get radical (or at least simply thinking differently) about programming.

Enter a Competition, and (try to) Win

If your budget or time permits, I think all individuals and firms should do at least one competition per year. Some firms and individuals are propelled to success simply for winning a competition. When she was 21 and still an undergrad, Maya Lin beat over 1,400 other submissions to win the design for the Vietnam Veterans Memorial. Remember: you've got to be in it to win it!

Travel More

Whether it is a simple walk around the block or a plane ride to the other side of the world, travel more. In a world where buildings and new designs can be seen within an instant of a Google search, when it comes to subtle textures, atmospheric spaces, and beautiful details, there is no substitute for traveling to experience architecture in person. This is one I am guilty of not doing, and sure hope to do more of in the near future! ■

Details...

Milestone Engineering and Construction recently completed the Alec's Shoes facility in Nashua, NH. The project included the renovation of a former 40,000 square foot manufacturing and office building into a new retail outlet and warehouse. The construction included a new entrance to the building, exterior renovations, the retail store buildout, storage warehouse, shipping and receiving and a new landscaped entry. Working closely with the owner on a day to day basis, Milestone worked to develop the owner's vision of the store, utilizing architectural artifacts and displays. The facility presented an industrial ware-house feel with contemporary retail showrooms. The Building design was done by Prellwitz Chilinski Associates of Cambridge Massachusetts.



ARCHtoberfest: Gary Corey AIA, AIAVT President; Carol Miklos, AIAVT Executive Director; Bonnie Kastel, AIANH Executive Director, Sheldon Pennoyer AIA, AIANH President-Elect; Emily Grandstaff-Rice FAIA, guest speaker; AIANH Vice President Alyssa Murphy AIA, and Susan Phillips-Hungerford AIA, AIANH Board Director. Photo by John Hession

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EDUCATION DAY Continued from p. 1

changes to the International Building Code (IBC) and International Residential Code (IRC) and how they will affect your designs. NH amendments to these codes will also be discussed, as well as a review of common mistakes, errors, and omissions in building code applications.

After lunch there will be four presentations beginning with “Age Friendly Cities: Comprehensive Urban Architecture for All Ages,” presented by **Jim Warner FAIA, JSA Inc., BSA Committee on Aging.**

Jim will lead a discussion and a show a short documentary, “Celebrate the Voices,” showcasing the challenges and the benefits of aging in multi-generational cities. The film addresses what aging means for city residents and how we continue to contribute to the communities we love as our needs change. The BSA Design for Aging Committee, in conjunction with AARP and in support of Boston’s Age-Friendly Cities initiative, interviews a diverse range of seniors to begin the process of exploring these issues.

Following the documentary, **Todd Hanson AIA**, also of **JSA Inc.**, will give a presentation entitled “Waking up Disabled in an Able-Bodied World: Insights of a Disabled Architect.” He’ll share how his understandings and perceptions as an architect evolved as he slowly became physically impaired himself. In planning buildings and environments he had thought he fully appreciated the needs of the disabled, but over time, the reality of navigating our world with a walker and then a wheelchair became painfully clear. In this session, Todd shares his discoveries, and will challenge fellow architects to think about inclusive design, in terms of both function and aesthetics.

Jim and Todd will follow this segment with a discussion and Q&A on “Universal Design Strategies for the Aged and Disabled.”

The last portion of this workshop will address the “Principles of Universal Design.” **Valerie Fletcher, Executive Director of the institute for Human-Centered Design** will present an overview and talk about the human condition in the 21st Century in New England. She’ll cover demographics, the functional limitations including and beyond wheelchair usage, ie non-visible issues. Case studies will cover specific issues and building types: commercial, museums, healthcare facilities, and multi-family and single-family residences, including an ALS home with tech controls. The session will close with interactive group discussions: *What Would You Do?*

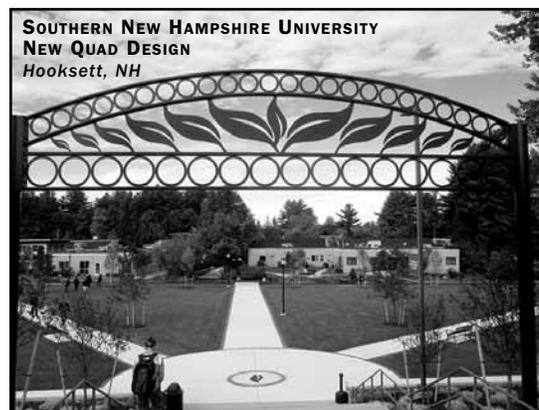
Sign up today so you don’t miss out on this important and timely information. More details and registration online: www.aianh.org/news/aianh-events.

Sponsorship is available: contact Bonnie Kastel, Executive Director, bkastel@aianh.org, 603-501-1881 or view the event listing on the website. ■



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2030: LSTIBUREK Cont'd from p. 4

Insulating old mass masonry walls must be done with care to prevent damage. Joe's favored approach for the inside is – after making sure the outside has appropriate overhangs, flashings, and drips – 2 lb. spray foam against the inside of the masonry and a frame wall with finishes. Alternately apply cementitious rendering to the interior masonry, fluid applied vapor semi-permeable control layer, wood studs and insulation, “smart vapor barrier” membrane (must be well air-sealed at all locations including between floors), horizontal strapping, and interior finish.

If the building is not architecturally significant the mass masonry walls can be insulated from the outside by going over the masonry with fluid applied moisture barrier, 2x4 strapping, rigid insulation and siding. Care must be taken at the windows either to replace them with “outies” on straps or “innies” with careful water barriers.

New England has many old rubble foundation walls. These are typically uninsulated and prone to leaking. They can be safely insulated from the inside by applying a sheet moisture barrier (continuous from outside under the sill to under slab) and applying spray foam. Don't forget to install an interior perimeter drain. The floor should get a moisture barrier, rigid under-slab insulation and floor slab.

Joe described a “diffusion vent” he is developing to prevent ridge-rot in a panel or insulated wood frame roof. There is evidence that moisture can accumulate at the ridge where it is warmest and cause moisture accumulation and rot. The vent looks like a traditional ridge vent but placed on an insulated, unvented roof. He also discussed ice dams and regards New Hampshire to be cold and snowy enough to require a vent over insulation roof.

These descriptions are simplified for this short article; I highly recommend consulting Joe's numerous books and articles for further information. Buildingscience.com is a wealth of information and practical rules for designing high efficiency buildings. ■

Construction Summary

Project Type: Nuclear Engineering & QA Training Areas
Cost: \$6,264,665
Location: Portsmouth Naval Shipyard, NH
Owner: US Dept. of Navy
Architect: Oak Point Associates
Gen. Cont.: Black Horse Group

Project Type: Roof (Liquor Commission Warehouse)
Cost: \$612,000
Location: Concord, NH
Owner: State of NH
Architect: Architechnology
Engineers: Integrated Engineered Systems, Fisher Engineering
Contractor: Rockwell Roofing

Project Type: Renovations to Dining Facility, Building 5
Cost: \$408,000
Location: Center Strafford, NH
Owner: State of NH
Architect: CMK Architects
Engineers: Engineered Building Systems, McGill Eng.
Gen. Cont.: CMGC Building Corp.

Project Type: Lebanon RC Roof Replacement & Kitchen Renovations
Cost: \$399,300
Location: Lebanon, NH
Owner: State of NH
Architect: Architechnology
Engineers: Reno Engineering, Integrated Engineered Systems
Contractor: DL King & Associates Inc.

Project Type: Ext. Upgrades (Granite State College)
Cost: (Base Bid) \$966,008
Location: Concord, NH
Owner: University System of NH
Architect: Warrenstreet Architects
Engineer: SFC Engineering Partnership
Gen. Cont.: TCD Construction Inc.

Project Type: Keene Public Library & Annex
Location: Keene, NH
Owner: Monadnock Economic Development Corp.
Architect: Tappe Associates, Boston MA
Owner's Representative: Steve Horton Consulting
Const. Mgr.: Engelberth Construction

Project Type: Franklin Mill Apartments Renovations, Former Franklin Light & Power Company Riverbend Mill Building
Cost: \$10,000,000
Location: Franklin, NH
Owner: CATCH Neighborhood Housing
Architect: Warrenstreet Architects
Engineers: Nobis Engineering, WV Engineers, TF Moran
Const. Mgr.: Bonnette Page&Stone

Project Type: Murphys Taproom Restaurant & Banquet Facility
Location: Bedford, NH
Owner: 393 Route 101 Associates LLC
Architect: Warrenstreet Architects
Engineers: TF Moran, Swiftcurrent Eng. Svcs., Design Day Mechanicals
Const. Mgr.: Northpoint Const. Mgmt.

2030: YOST Cont'd from p. 5

high-performance envelopes are drying. Sheldon will sleep well knowing his projects are performing well. Moisture can be monitored by meters permanently installed in assemblies, or via an access panel in removable baseboard. Moisture should be tested low on a north-side wall as this is normally the most problematic location.

The final part of the session was a hands-on exercise looking at current projects brought in by attendees to discuss what went right, what we'd do differently and what problematic areas could use more consideration. A lot of good thinking came from these discussions.

References:

- Building in Alaska – Permeability of Common Building Materials to Water Vapor
- Building Science Corp, Joe Lstiburek (and all their publications), buildingscience.com

- Spray Polyurethane Foam Alliance (SPFA) www.sprayfoam.org – the web site has several valuable design guides including one called, “Spray Polyurethane Foam for Hybrid Insulation Systems,” which helps to understand the ratio of impermeable to fibrous insulation to prevent moisture build up against the impermeable surface.

- GreenBuildingAdvisor.com – Contains articles, blogs, and lots of light frame insulation/air sealing/moisture details downloadable and editable. Available with subscription.

- Moisture modeling software downloads: NIST MOIST (free download at www.nist.gov); ORNL WUFI (free version – has great “help” section), <https://wufi.de/en/service/free-wufi-versions>

- HOBO Temperature/RH data logger, www.onsetcomp.com/

- OmniSense wireless data sensors ■

Calendar of Events

Nov 19 Local Energy Solutions (LES) Conference, Grappone Conference Center, Concord, NH. LES 2016 is co-hosted by NHSEA and the Local Energy Solutions Work Group. Info: www.nhenergy.org/les-conference.html

Dec 1 **AIANH Catch-Up Education Day**, Audubon Center, Concord, NH, 8:30 am-4:30 pm. Morning session on *Transitioning from the 2009 to 2016 Building Codes in NH* with Jerry Tepe FAIA. Afternoon presentations: *Waking up disabled in an able bodied world: Insights of a disabled architect*, by Todd Hanson AIA; *Age Friendly Cities*, by Jim Warner FAIA; and *Universal Design*, by Valerie Fletcher, Institute for Human Centered Design. **6 AIA LU/HSW total, 3 each session.** Info on page 1, register at www.aianh.org/news/aianh-events.

Jan 20, 2017 **AIANH Awards Gala**, Manchester Country Club, Bedford, NH, 6:00-9:45 pm. Watch for registration and People's Choice Awards voting on the www.aianh.org website.

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