



PRIVATE UNIVERSITY PRODUCTS AND NEWS

**APRIL 2022
PUPNMAG.COM**

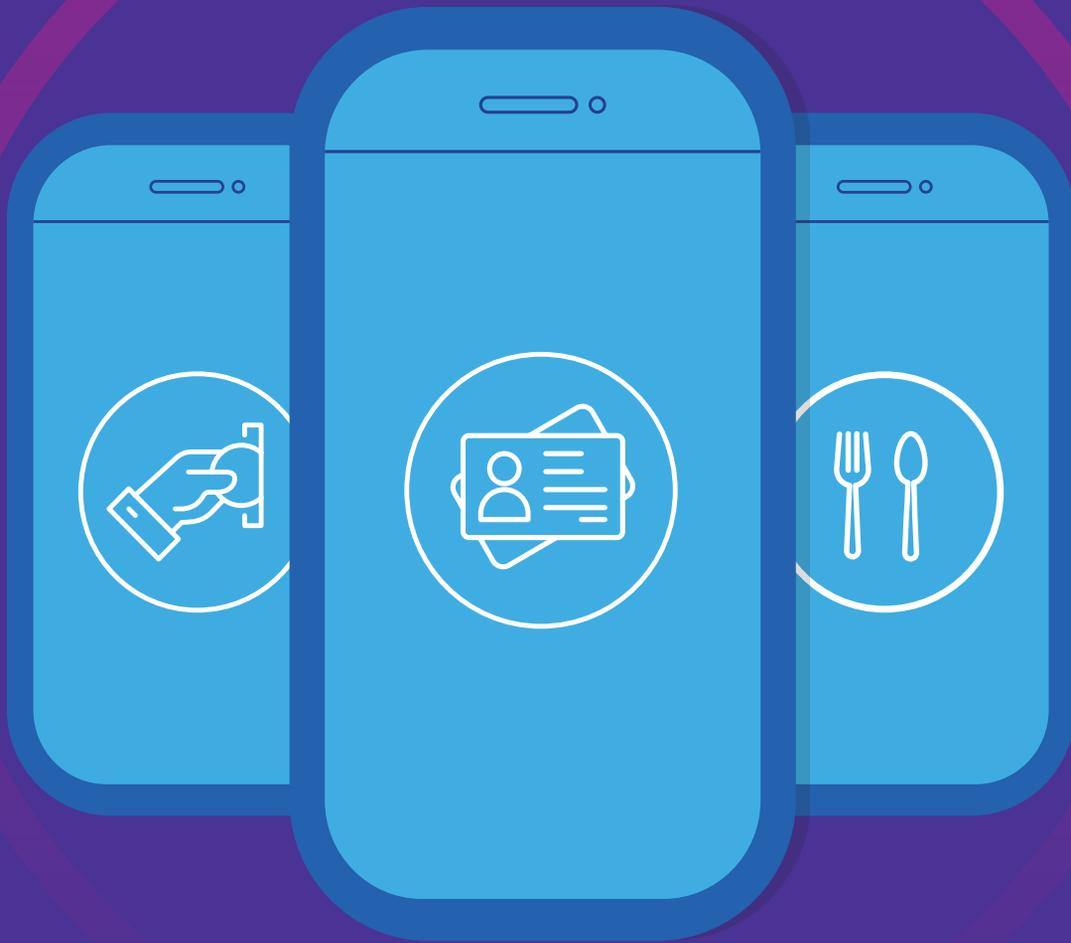
**MORE THAN
JUST A CHAIR:
LABORATORY
SEATING**

**EYE-CATCHING
EXHIBITIONS**

**AUTOMATED
AND GREEN
MAINTENANCE
TECH**

**NATATORIUM
INDOOR AIR
QUALITY**

Sharing East Asian History VIA HUMAN EXPERIENCE AT ALBION COLLEGE



360U

MANAGE THE ENTIRE CAMPUS EXPERIENCE RIGHT FROM YOUR PHONE WITH 360U.

With the 360u mobile app from TouchNet, you can improve the student experience. The app syncs with campus systems to enable management of the broad range of permissions, privileges, and financial authorizations required on campus – all with a single sign-on.

touchnet

A Global Payments Company

MEAN GREEN ELECTRIC ZTR MOWERS

**COMMERCIAL GRADE.
ALL DAY BATTERY POWER.**



Commercial Grade



All Day Power



User Friendly



Planet Friendly

MEANGREEN
ELECTRIC MOWERS

Find a Dealer at:
meangreenproducts.com

★ **USA**
ENGINEERED AND BUILT

Assembled in the USA
using domestic and
foreign parts.

KALWALL®

high performance translucent building systems

translucent daylighting
makes light bulbs go off

Today's LEDs may last up to 50,000 hours, but then again, Kalwall will be harvesting sunlight into museum-quality daylighting™ without using any energy for a lot longer than that. The fact that it also boosts student productivity, while improving learning outcomes and reducing absenteeism, is just extra credit.

FACADES | SKYROOFS® | SKYLIGHTS | CANOPIES

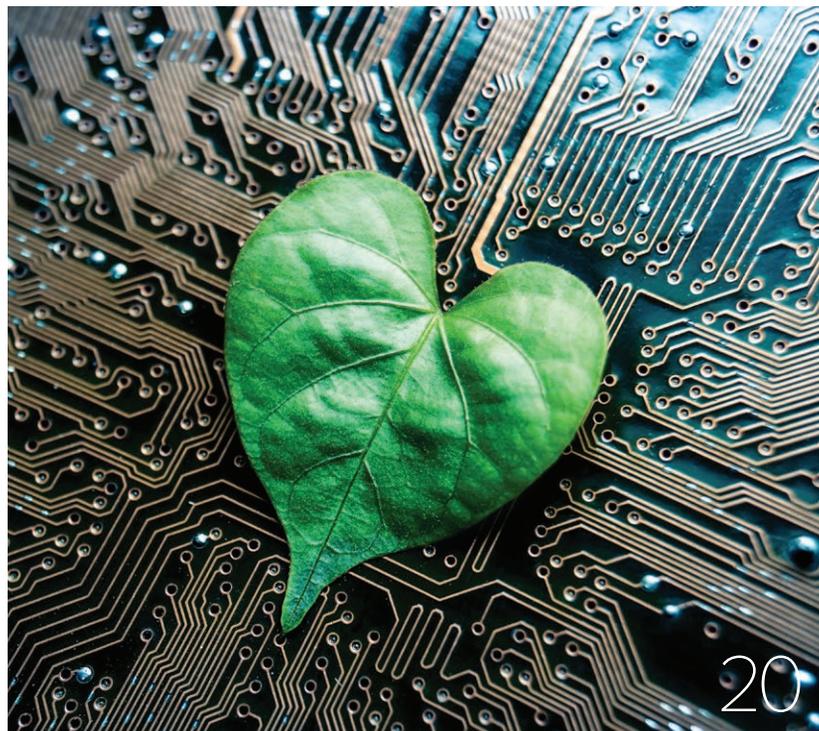
schedule a virtual consultation at [KALWALL.COM](https://www.kalwall.com)

FEATURES

20

Campus-Based Green Maintenance and Automated Maintenance Technologies (part 2)

As concerns over climate change continue to shape our core principles at the institutional level, colleges and universities have taken steps towards transforming our campuses into hubs that model the virtues of sustainability and green living.



20

28

Eye-Catching Exhibitions at Campus Fairs

As colleges and universities aim to recruit students at events, they must employ creativity and skill to design attractive booths to draw prospects into their exhibit spaces.



28

36

More Than Just a Chair: Today's Laboratory Seating

When selecting seating for laboratory environments, decision-makers should prioritize discipline-focused design, quality construction, and style. Ergonomic support and enhanced user well-being should always top the list of criteria.



36

COLUMNS



Cover and above photo courtesy Albion College

SPOTLIGHT / ON OUR COVER

08

SHARING EAST ASIAN HISTORY VIA HUMAN EXPERIENCE AT ALBION COLLEGE

Joseph W. Ho, Assistant Professor of History at Albion College, weaves East Asian history, photography, and his boundless creativity into both his teaching and his scholarship, and he far exceeds expectations in his service to students and the campus community. More than his extensive accomplishments, however, his students and colleagues value his enduring kindness and remarkable ability to make and sustain human connections.

FACILITIES & MAINTENANCE

16

NATATORIUM INDOOR AIR QUALITY

Most people may not realize the "pool smell, which is commonly mistaken for chlorine, is actually a symptom of a larger air quality issue in indoor pools. Pool indoor air quality is largely driven by off-gassing disinfection byproducts such as chloramines and chloroform, which form when the pool disinfects dirt and organics in the water.

CAMPUS UPDATES

42

EDITOR'S LETTER



Happy Spring!

This season is my favorite—well, really number two if football season counts! Since I grew up in Ohio and live in Alabama, a love of football is pretty much a given. However, I love the focus this season brings on the new start that we all get to enjoy this time of year. What a great time to be alive and to see the beauty that nature puts on display for all of us.

Prospective student visitation is in full swing, and graduation is right around the corner. At this time, your campuses shine like nowhere else. I was reminded of this fact when my daughter told me that she and her boyfriend went back to her alma mater last week to enjoy the beauty of the campus again. Her experience definitely demonstrates the appreciation each campus's beauty gets from students, faculty, staff—and alums.

When I have been privileged to walk campuses across the country, I am always impressed with the care that every one of you takes in providing a wonderful manicured and designed campus that allows visitors to appreciate their beauty. I have heard many times from former students about the memories that these special outdoor spaces have provided.

We all seem to get something ineffable from this season—maybe it is the pure joy of optimism that we all draw strength from. Many times, we forget that we can enjoy new beginnings every day and do not have to wait for a special season, but nature is kind enough to help us remember. When people grasp the beauty of all that they see, they begin to perceive all the possibilities that life has for each and every one of us.

Let every one of us take advantage of this new day and give ourselves permission to begin anew, realizing that today is called the present because it is a gift, and we get to open it every day!

I look forward to enjoying the beauty of the season, and I hope you do as well—

Ed Bauer
Publisher/Editor-in-Chief
Private University Products and News Magazine
ed@pupnmag.com

Ed Bauer
Publisher/Editor-in-Chief
ed@pupnmag.com

Lawrence Provenzano
Associate Publisher

Cynthia Mwenja, PhD
Copyeditor

Hilary Moreno
Creative Director

Lisa Gibbs, EdD
Cynthia Mwenja, PhD
Staff Writers

Jim Connell
Katelyn Forster
Eric Knight
David Vinson, PhD
Contributing Writers

Cassidy Clevenger
Circulation
circulation@pupnmag.com



PUBLISHED BY FLAHERTY MEDIA
PO Box 1903, Pelham, AL 35124
Toll Free: 800-705-5280
Fax: 855-239-8093

No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording, or any information storage-and-retrieval system without permission in writing from the publisher. The views expressed by those not on the staff of PUPN magazine, or who are not specifically employed by Flaherty Media, LLC, are purely their own. Comments and submissions are welcome, and can be sent to ed@pupnmag.com.

EXPAND YOUR BRAND REACH



Create a branded event space with ease! Shop these custom printed solutions & more online at PostUpStand.com/BrandedEvent

POST  STAND
YOUR MESSAGE IS OUR MISSION

SCAN TO SHOP



FIND US
ON SOCIAL!





Sharing East Asian History via Human Experience at Albion College

by Cynthia Mwenja, PhD

Joseph W. Ho, Assistant Professor of History at Albion College, weaves East Asian history, photography, and his boundless creativity into both his teaching and his scholarship, and he far exceeds expectations in his service to students and the campus community. More than his extensive accomplishments, however, his students and colleagues value his enduring kindness and remarkable ability to make and sustain human connections.

“Professor Magic”

On her first day of her first college term, Kaylee Peterson, now a junior at Albion majoring in biology, entered Ho’s “American Encounters with China” class. “He knew everyone’s names—all of his classes, every name. I saw that this guy cares.” At that moment, she says, she “knew college would be okay.” As she has gotten to know Ho, she has grown to admire his talent for re-phrasing and re-packaging students’ half-formed ideas to show their relevance and importance; she calls this gift of Ho’s “professor magic.”

In his office hours, Ho provides tea and snacks; he has dubbed these sessions “Tea Hours,” and they are quite popular with current students as well as student researchers in history and the Honors program. Rachel Goldner, an Albion senior majoring in history and sociology—and minoring in psychology—appreciates the time he is willing to take with students. According to Peterson, Ho reinforces the idea that he is available to his students for whatever they may need. Aislinn Meszaros, Albion senior and current student teacher, met Ho when she

was employed at Albion prior to becoming a student; she says that he “still treated her as one of his own, inviting her to lectures” and discussing her future plans. She notes that recent semesters have been tough, and Ho offers his support to every student; his “tea hours” exemplify the warm welcome he gives to everyone.

Ho helps his students connect with others, as well. Lydia Gilbert, who has taken three classes with Ho, is currently an Albion senior, double majoring in English and Social Studies, with a concentration in secondary education. She says that Ho knows many people, and he helps students contact those who can “help students reach their goals.” He put her in touch with a professor who works on historical responses to epidemics and pandemics. As Ho serves on her thesis committee, Gilbert values his “open door policy,” noting that he “always finds ways to connect emotionally and tangibly” with his students. As one example, Gilbert recalls that Ho sent World War II postcards to each student at the completion of the term; hers was a postcard from a soldier, and she treasures this artifact.

Courses

Ho has developed a wide array of courses that center on—and often combine—his array of interests. His most ambitious class in terms of time span and geography is “East Asia: Culture and Civilization.” This survey course covers a time span of 2000 BCE to the current day, across East Asia. “So many dynasties!” Meszaros laughs.

In “Visualizing East Asia,” students examine image-making in China, Japan, Korea, and Taiwan. In this class, Ho lets students use his collection of historical cameras to capture images. Chris Riedel, Assistant Professor of History at Albion, says that Ho’s camera collection—with some representatives from the 19th century—represents Ho’s niche, bringing together East Asian history, visual cultures behind photography and filmmaking, and attention to the mechanical aspects of the devices. Riedel says that Ho has his students use the cameras so that they really think more about how specific technologies guide the photographer to interact differently with the environment. Noah Simmons, Albion 2021 graduate, remains deeply impressed with the



PHOTO COURTESY OF JOSEPH W. HO

experience of taking these cameras outside, snapping pictures, then being able to use a darkroom to develop the images. He says that this sort of experience demonstrates Ho's habit of going "above and beyond to connect [students] further to the material."

Ho employs his trademark style of hands-on and compelling instruction in teaching "Modern China," "STEM in East Asian History," "Saints and Sinners: Histories of Christianity in China," "World War II in the Pacific," along with directed study sections. As Associate Director of the Prentiss M. Brown Honors Program, he teaches "American Encounters with China: Cross-Cultural Histories and Global Dynamics"; Peterson says this class remains one of her favorite Honors classes.

Engaged Teaching

Ho shines as a professor, due to his lively and creative class activities. Ho says that

"history is a process to experience. It involves technology and devices that preserve imaginations." He strives to offer his students a sort of "hands-on time travel." Marcy Sacks, Julian S. Rammelkamp Professor of History and History Department Chair at Albion College, attributes his teaching success to his "Extraordinary patience in ... trying to find ways to help students learn, not just teaching content of his classes but teaching ways of seeing and moving in the world." In one class she sat in on, Sacks says, Ho shared images to bring the content to life; one image was of his toddler son dressed in historical costume. Ho was discussing elements of culture and history, but this moment made the "exotic and foreign seem real and present," along with humanizing Ho even further to his students. Sacks notes the courage required for a professor to become part of the lesson.

Joseph W. Ho shines as a professor, due to his lively and creative class activities. Ho says that "history is a process to experience.

It involves technology and devices that preserve imaginations." He strives to offer his students a sort of "hands-on time travel."



PHOTO COURTESY OF JOSEPH W. HO

Laura Brade, Assistant Professor of History at Albion, admires the array of resources Ho brings to the classroom. She recalls one activity in particular, in which he dresses as a time-traveling Chinese professor from the mid-1930s, then has the students interview him. Meszaros adds that the class also told the “visitor” about innovations since that time, especially as he—in character—struggled to understand the existence of iPhones and the internet. Goldner says that Ho incorporates many different teaching styles to appeal to students in a variety of ways: “Notes, videos, creative activities.” In teaching about timekeeping in premodern Japan, she says, Ho had students make their own water clocks. Sometimes, she says, he will hold class debates in which he will play the part of the judge or the opposition. She is sad to have missed the day that Ho had students “map [Albion’s] campus using tools” from European missionary surveying teams in 18th century China.

Simmons says that he “always thoroughly enjoyed attending Dr. Ho’s lectures as the detailed descriptions he gave painted truly vivid pictures, like opening a

Be. Overly. Protected.

Acoustic Doors

Metal



- Metal Swinging Doors
- Fixed Window Systems
- STC ratings from 43 to 57
- Available with up to 3-hour fire labels

Wood Finish



- STC ratings of 43 through 50
- Dual-glazed Vision Lights
- Wood veneers and plastic laminates
- 3/4 hour and 20 minute fire labels

Bullet-Resistant Doors

Metal



- Weapon Protection Levels 1-8
- UL Standard for Safety 752
- Fixed and Teller Window Systems
- Pass-Throughs, Gun and Voice Ports

Wood Finished



- UL Standard for Safety 752
- Weapon Protection Levels 1-8
- Single or pair configurations
- Wood veneers and plastic laminates

OVERLY
DOOR COMPANY

Phone: 1-800-979-7300 • Fax: 724-830-2871 • E-mail: overly@overly.com • Web: www.overly.com



AT THE THRESHOLD OF SAFETY AND SECURITY

American Direct is uniquely positioned to provide access control technology, surveillance, credentials and mechanical door, frame and hardware products.

We own the door so you can focus on the things that matter most.

accessNsite.com/PUPN2022

AccessNsite[®]
by American Direct

window and looking directly into the past.” Gilbert says that, due to Ho’s instruction, she has a “much greater understanding of relationships between countries” and that her understanding extends far “beyond the Silk Road and gunpowder” surface perceptions

that many people have of East Asia. She says that Ho makes his classes as “immersive as possible”—not just “dates and dead people.”

Ho also takes his students on field trips. Simmons remembers a class visit to Albion’s Bobbit Visual Arts Center to study Japanese

woodblock prints, and Meszaros recounts a trip to the University of Michigan to see pottery from Japan, Korea, and China. Most recently, Ho’s Honors class worked with artifacts that had been sent from China to the 1884 World’s Industrial and Cotton Centennial Exposition in New Orleans; these items are now preserved by the University of Michigan’s Museum of Anthropological Archeology. He uses this collection to ask students to create narratives from the point of view of a material object.

Meszaros appreciates the variety of teaching strategies that Ho uses, saying that “It’s not always lecture and notes; there’s also group project work and interactive activities.” She says that, during Covid times, Ho found ways to replicate his teaching approaches in the online classes. She is impressed with the ways that Ho brings to life a “subject that is often thought of as boring,” saying that “he wants students to experience, not just to learn.” Meszaros is currently working with fourth graders as a student teacher, and she has gone to Ho for advice about “how to bring dull topics to life in a way they can enjoy.” Goldner says that she was randomly assigned to Ho’s class in her first term. She enjoyed that class so much that she ended up taking a class with him almost every semester, ending up with a history major. Through all of his classroom approaches, Goldner says, Ho really “opened my eyes to perspectives of people from other countries; he opened my mind to issues that others face.”

Even Ho’s finals are engaging, Peterson says. In his seminar classes, students can pick any topic of interest covered during the term and talk about its history in depth; the final presentation must include a creative aspect, as well. Peterson, who aims to become a chiropractor, mapped the acupuncture meridians and gave a speech on acupuncture. She says that all of the student final presentations were interesting—they all enjoyed learning more from each other.

Scholarship

In his first single-authored book, *Developing Mission: Photography, Filmmaking, and American Missionaries in Modern China*, published by Cornell University Press in



Modern Receptacles: Anodized Aluminum, No Paint or Powdercoating to fail

DeepStreamDesign.com 305-857-0466

SportsArt

INSPIRED
PERFORMANCE.
UNPRECEDENTED
SUSTAINABILITY.

G660 Treadmill

SERVE TODAY'S GREEN-MINDED STUDENTS.

SportsArt and ECO-POWR™ offer something no other brand can—the ability to capture human exertion and turn it into usable electricity. Now your athletic center can align campus sustainability goals with student lifestyle and fitness expectations. Student-run environmental initiatives could even help offset the cost, making it easier and more affordable to bring innovative, reliable ECO-POWR™ equipment to your campus.



Discover how ECO-POWR™ and SportsArt can work for your university at gospportsart.com/university.

2021, Ho examines photographs and movies produced by American missionaries across the first half of the twentieth century. His forthcoming book will focus more closely on Catholic missionary photography in China's late imperial and republican eras. For these projects, he found photos, films, and writings stored in private residences. He says that the people he worked with to secure the materials—often the descendants of missionaries and Chinese Christians—felt his work validated their personal histories, breaking stereotypes frequently associated with missionaries; he tells a much more complicated, nuanced, and human story.

In discussing *War and Occupation in China: The Letters of an American Missionary from Hangzhou*, a collection of missionary letters that Ho co-edited, published by Lehigh University Press in 2017, Riedel notes the importance of “getting the scholarship out there.” These missionary artifacts that Ho

has worked with—both letters and images—provide unique perspectives on China's history, offering a view on ordinary people that can otherwise be difficult to access. Additionally, Riedel says, the missionaries had a different agenda than Chinese political groups, so the missionaries' materials provide a “fascinating resource.”

Ho is currently working on a chapter on missionary filmmaking technologies, part of an edited volume on the one hundredth anniversary of sixteen-millimeter film. According to Ho, many missionaries used the film and helped to popularize the medium. Riedel says that this sort of project is important because there's a real risk of losing the history of non-professional photography and film.

Collegiality

Brade says that she feels “incredibly lucky to have Joe as a colleague” because of his

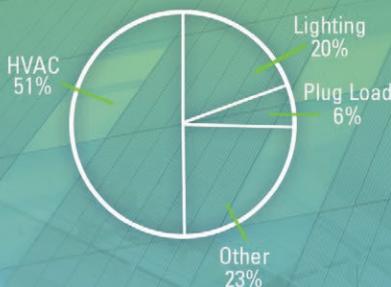
innovative teaching strategies and thoughtfulness as a coworker. While she is not currently on campus, she says that in a normal term, they have offices across the hall from each other and routinely share strategies and advice. She says that they have been able to discuss interesting ways in which their research intersects; she has studied Czech refugees who ended up in Shanghai during World War II. Even Brade's young son loves Ho, drawing pictures of him and often asking when they will see him next.

Riedel says that Ho is a “warm, giving colleague” who “steps up,” volunteering to pick up extra tasks as needed; Riedel admires the “aplomb” with which Ho performs college and department service. The two joined the department at the same time, and Riedel appreciates the warm support he has experienced from Ho in their time together at Albion, saying that Ho is the ideal “colleague you want to have working with you.”

Nothing else compares to the Dynamic V8®

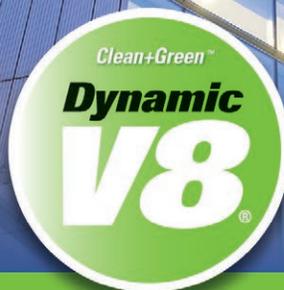
Energy costs are hitting the fan.

Over 20% of energy consumption in commercial buildings is HVAC supply and return fan usage – more than lighting in most buildings.



- We can cut fan energy in half
- 2/3 less fan energy than MERV 14 filters
- Extends filter service intervals from months to YEARS
- Better IAQ with MERV 15 performance
 - Removes ultrafine particles, VOCs odors, and airborne pathogens

MERV 15 air filtration and ideal for retrofits



Show Video



Visit DynamicAQS.com or ask us about a free Life Cycle Cost Analysis to find out how much you can save on fan energy and maintenance costs.



Even with Ho’s teaching strengths and academic accomplishments, his human strengths are most often noted. Sacks says that “He is a wonderful person—kind, good, caring, thoughtful; a marvelous colleague.” She also says that Ho “does not compartmentalize his life—research, family, teaching” blend seamlessly. In keeping with his habit of synthesizing his interests and experiences, Ho would encourage administrators of higher education to robustly support the humanities—these inter-related disciplines “equip students to understand the world” because they “reflect the complexity of human experience throughout time.” Students, Ho says, need these experiences. We all do.



PHOTO COURTESY ALBION COLLEGE



ABOUT THE AUTHOR: Dr. Cynthia

Mwenja teaches Composition and

Rhetoric at the University of Montevallo.



Modern Benches: Ergonomic, Maintenance Free, Anodized Aluminum, No Paint or Powdercoating to fail

DeepStreamDesign.com

Lifetime Structural Warranty

305-857-0466



Natatorium Indoor Air Quality

by Eric Knight

Most people may not realize the "pool smell," which is commonly mistaken for chlorine, is actually a symptom of a larger air quality issue in indoor pools. Pool indoor air quality (IAQ) is largely driven by off-gassing disinfection byproducts (DBP's) such as chloramines and chloroform, which form when the pool disinfects dirt and organics in the water.

These airborne pollutants are not only unhealthy, but they can also damage and destroy the building and virtually every metal component in it. In other words, poor IAQ is beyond a health problem; it's a financial problem, and it's a problem that continues to grow over time.

Challenging the Traditional Paradigm for Indoor Pools

We need to challenge the way people think about indoor pools and challenge the paradigm of how they have been traditionally designed for decades. Recent technologies and a new

design philosophy for ventilation has proven that IAQ problems can be reduced—if not prevented—by looking at indoor pools from a different perspective.

This article challenges three traditional natatorium design philosophies. Of course, decision-makers should do further research to inform their decisions because design problems have many right answers. Our intent is to share a new way of thinking which will lead to improved natatorium IAQ.

Traditional Natatorium Design Philosophy #1

"The solution to pollution is dilution."

Until the market accepted dehumidification systems for indoor pools, pool ventilation was usually achieved using dedicated outside air systems in some form or another. These systems resulted in decent IAQ but came with high (sometimes extraordinarily high) energy and operating costs.

Beyond costs, dedicated outside air systems are not the most effective for indoor pools, given the realities of indoor pool conditions. Humidity and temperature needs are different in an indoor pool environment than a typical commercial building, as evidenced by thousands of indoor pools suffering from condensation problems and corrosion when they lacked proper dehumidification.

Part of the reason for using dedicated outside air systems was the theory of "solution by dilution," which basically means introducing more outside air to dilute the pollution inside the pool room. Many modern day pool dehumidifiers include a function called "purge," which allows for large amounts of outside air to be brought in and exhausted out. More outside air may make breathing easier, but this approach comes at a high cost. In other words, while the air quality can be better when pollution is diluted, the consequences and high costs tend to outweigh

the benefits. The costs were so high that the market demanded a way to close the energy loop, recycle the heat and save on operating costs.

While pool dehumidifiers have a higher front-end cost, the energy efficiency offer brings about a swift ROI when compared to traditional air handling systems. Pool dehumidifiers recirculate air through a dehumidification loop which can reclaim energy to operate efficiently.

The problem is this: depending on how the system is designed, corrosive chloramine-laden air can recirculate too, which wreaks havoc on the entire mechanical system and threatens its useful life expectancy.

The reality is that “solution by dilution” does not remove pollution from the natatorium; it just dilutes it. Diluted chloramines are still harmful and corrosive, and they are still in the room. A better way to have good IAQ is to focus on capturing pollution and removing it

from the space, rather than introducing more fresh air. Doing so addresses the pollution problem directly at its source and reduces the need for excess outside air. The concept is known as “sourcecapture” ventilation.

Traditional Natatorium Design Philosophy #2

“Exhaust from the ceiling.”

Heat and humidity rise. For that reason, it makes sense that the vast majority of pools in North America have exhausts in the ceiling. The problem with high exhausts is that chloramines and other DBPs do not rise because their atomic weight is heavier than oxygen. Exhausting warm, humid air from the ceiling makes sense for heat and humidity but does almost nothing to reduce pollution in the space. In effect, it’s throwing away the cleanest air in the room.

Since the worst air in the natatorium stays low, low exhaust is more appropriate for

indoor pools. Decision-makers should take care, however: there is a crucial difference between “low exhaust” and proper source-capture ventilation. Those who are considering making changes to natatorium ventilation systems should do more research to make the best decisions for their spaces.

Traditional Natatorium Design Philosophy #3

“Return low air to improve circulation.”

Many pools are designed with low return grilles, because their designers understood the need to have air movement in the breathing zone (lowest air in the room). Locating HVAC returns low to the pool deck does improve recirculation in most cases, and certainly is better than high returns when it comes to moving air down low.

The problem is that low returns can recirculate chloramine-laden air through the

Moisture Meters you can count on.



Reliable - Accurate - Easy-to-Use
Your best choice:

◀ Pin - Pinless - RH Kit: V-24K

- Ligno-VersaTec Meter
- Depth Electrode
- Inspector Electrode

- Optional: add RH Probe
- RH Thermo-Hygro Probe

Check out Lignomat's full Line of Moisture Meters



Call 800-227-2105

www.Lignomat.com

HVAC system, which compounds an IAQ problem very quickly. Chloramines are also very corrosive, and they are known to cause rust and damage to the internals of an HVAC system faster than normal, which can shorten the life of the equipment. Replacement parts for pool dehumidifiers are not inexpensive, protecting that equipment should be a priority for pool operators and owners.

There are two general types of IAQ problems in pools: stratification and recirculation. Stratification is when there is poor air flow in certain parts of the room that need it, and recirculation is when bad air recirculates through the HVAC system. It is possible to have both, though such a situation is rare.

A different way to improve circulation in a pool is to relieve the room of bad air with proper source-capture ventilation, so that the HVAC system recirculates nothing but clean air. That way, all air being supplied to the room is chloramine free, and the “chloramine

bubble” above the pool is broken. This strategy reduces the risk of stratification problems in the breathing zone: it also reduces the risk of chloramine recirculation and corrosion to the HVAC system, therefore potentially extending the system’s useful life.

Caring about the User Experience

A good way to design a natatorium is to start with the end users in mind, not just calculations and design guidelines. Planners should start by thinking about the user experience—a swim team breathing hard for two hours at full exertion; the lifeguards sitting on deck, rotating from stand to stand for hours every day; the coaches and spectators during a swim meet.

Designers need to think about those people and how important it is that they can breathe healthy air. Fortunately, the technology and expertise exists today to help natatoriums achieve great IAQ, whether for a new pool or existing pool that has been struggling with a chloramine IAQ problem.

Campus planners should conduct careful research regarding chloramine source-capture ventilation for indoor pools, discovering for themselves the benefits of removing this harmful pollution from the room. Making improvements to the ventilation system can extend the life of the building and equipment, make the environment healthier and more enjoyable, and alleviate a big problem that costs pool owners a lot of money over time.

Every pool user deserves to breathe healthy air, and the aquatics and HVAC industries have a moral imperative to deliver healthy air to them.



Eric Knight is a swimmer and former American Record Holder who developed asthma from training in indoor pools. He has represented Paddock EvacuatorR Technology since 2012, after experiencing it for himself and recognizing the incredible difference it makes to indoor air quality.

So, you think you know movement?

Furniture specifiers make hard choices every day. Selecting a chair that moves, synchronizes and performs the way students, scientists and healthcare workers do shouldn't be one of them. That's why we want to reintroduce you to MVMT® seating – the award-winning ergonomic design that's positively impacting user comfort and well-being at some of today's most recognized scientific and medical facilities.

So if you've heard of MVMT seating but haven't experienced it for yourself, it's time you reconsider. Contact us to schedule a demonstration and ask about our on-site sample program.

reMeet MVMT seating.



biofit.com

© 2022 BioFit Engineered Products. All rights reserved. MVMT is a registered trademark of BioFit.



LET'S BUILD

YOUR IDEAL STRUCTURE



SUPERIOR
BUILDING
SOLUTIONS
FOR OVER
40 YEARS

INDUSTRY-LEADING WARRANTIES

ClearSpan structures are built to last decades into the future.

ENERGY-EFFICIENT DESIGNS

Save money on a monthly basis and maximize profitability.

EXPERT CONSULTATION

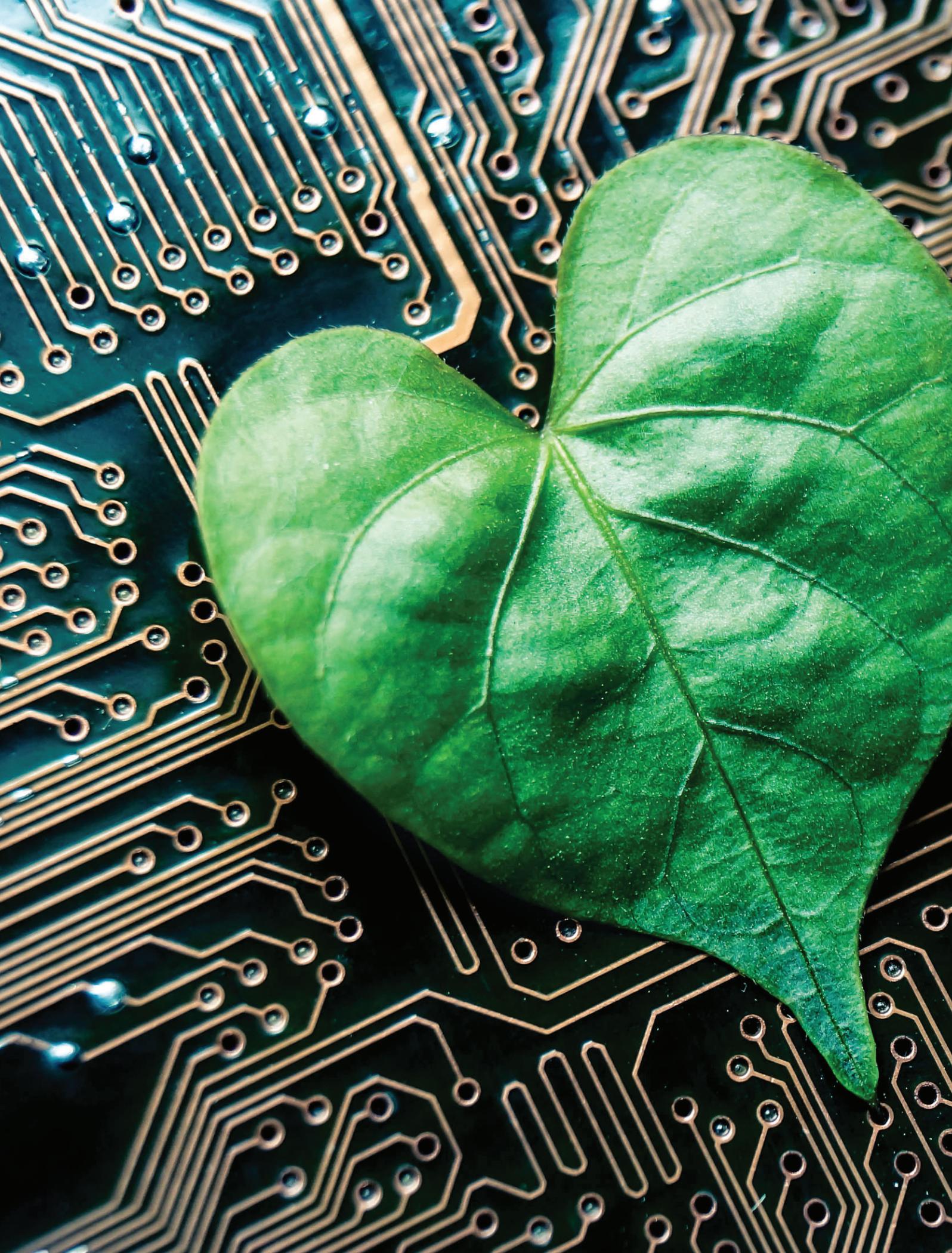
Industry experts are on staff to provide invaluable advice.

METAL AND FABRIC BUILDINGS

Building solutions for any application in any industry.



www.clearspan.com
1.866.643.1010





CAMPUS-BASED
**GREEN
MAINTENANCE**

AND AUTOMATED MAINTENANCE TECHNOLOGIES

PART TWO

by David Vinson, PhD

The concept of a “hub” is central to the character and design of college campuses. In such an environment—whether imagined as an architectural space intended for collaboration or skill-building or in broader terms, as a culture for which we strive to achieve campus-wide—a hub encapsulates the intersection of wisdom and work, theory and operation, as well as the power of knowledge, experience, and innovation. Moreover, as concerns over climate change continue to shape our core principles at the institutional level, colleges and universities have taken steps towards transforming our campuses into hubs that model the virtues of sustainability and green living.

The benefits are multi-faceted, both immediate and long-lasting: a cleaner on-campus environment; controlled spaces that are healthier for the bodies and minds of students, faculty, and staff; and raising awareness about the environmental impact of wasted energy. These elements work together to cultivate a campus culture committed to a clean energy future. The economic benefits are considerable as well—and as we invest in cutting energy costs, we can use the generated savings as we see fit, whether by constructing new facilities, remodeling on-site living or learning spaces, or rehabilitating our most historic buildings; or perhaps we see an opportunity to enhance campus grounds by making them more navigable and attractive. The options are as exciting as they are wide-ranging.

Over two-thirds of the energy we currently consume in the U.S. is wasted, and our campuses are no exception. Campus buildings consume more than four-fifths of the energy used by private colleges and universities, and

improved energy efficiency can cut overall energy use by 60% or higher. Adopting energy efficiency measures are the most economical way of meeting energy needs that reduce associated emissions. Building energy efficiency is essential to transforming our campuses into the hubs of sustainability and green living for which we aspire.

Energy Efficiency and Historic Buildings

Many campuses are home to historic buildings that embody the character of the institution. Our graduates take photographs in their cap and gowns in front these buildings; they are local tourist destinations; prospective students and their parents marvel at the scale of the architecture, and perhaps they imagine what the world was like when the buildings were fresh and new. That the same buildings were not designed for energy efficiency, and that many still rely on outdated equipment—neither should be deterrents from modernizing

interiors with innovative, energy efficient technologies. Our most valued buildings can be updated without worry of compromising the integrity of their history and beauty.

In the case of updating the energy efficiency of such buildings, the existing energy-efficient components of the building should be assessed, not least of all because buildings are more than the sum of their individual parts. The design, materials, type of construction, size, shape, site orientation, surrounding landscape, as well as climate all play a role in how buildings perform. Historic building construction methods and materials often maximized natural sources of heat, light, and ventilation in order to respond to local climatic conditions. A successful rehabilitation project demands an understanding of the existing energy-efficient aspects of the building and how they function. Whether rehabilitated for a new or continuing use, the building's original sustainable qualities must be utilized as they were intended. To do so ensures that they function seamlessly with any

NAC Flooring Essentials

Professional Installation Isn't Complete Without These NAC Products



Sound Control



Crack Isolation



Waterproofing



NAC innovations are the foundation of world-class flooring solutions that will protect you and your building from the ground up.

800-633-4622 • nacproducts.com



We're Still Listening.

Water professionals know that swimmers demand clear and clean water. That's why we continue to work hard to make your job easier. Make chlorination easy with the **ACF Series** Calcium Hypochlorite Feeders.

Clarify with Vantage Poly-A Clarifying Tablets. This unique and powerful tablet water clarifier is not just to clear up cloudy water after a long weekend. As a maintenance product, it works with your filtration system to remove organic and inorganic compounds to prevent dull and cloudy water.

SANITIZE with the **ACF Series** Calcium Hypochlorite Tablet Feeders

- ⌘ Safer than liquid systems
- ⌘ Runs "Clean" - Less Maintenance!
- ⌘ Simple, Efficient, and Durable
- ⌘ Systems available for ANY size pool
- ⌘ NSF/ANSI Standard 50 Certified

CLARIFY with the **VPF-20** Poly-A Tablet Feeder

- ⌘ Unique tablet clarifier
- ⌘ Easier than liquid systems
- ⌘ Removes organic and inorganic compounds
- ⌘ Increases filter effectiveness
- ⌘ Proven cryptosporidium removal



AllChem Performance Products, Inc.
Phone: 352.378.9696
FAX: 866.343.1216
email: vantage@allchem.com
www.vantagewatercare.com

VANTAGE®

Copyright 2015
VANTAGE is a registered trademark of
AllChem Performance Products, Inc.

When implementing energy upgrades, efforts should be concentrated on improvements that will provide the most payback for costs expended as well as the least compromise to the historic character of the building.

treatments added for the improvement of energy efficiency. Operable windows, interior courtyards, clerestories, skylights, rooftop ventilators, cupolas, and many other features that provide natural ventilation and light can reduce energy consumption, thereby reducing the need to rely on mechanical systems and interior artificial lighting.

When implementing energy upgrades, efforts should be concentrated on improvements that will provide the most payback for costs expended as well as the least compromise to the historic character of the building. Some treatments should be avoided, such as replacing repairable windows or replacing historic siding to introduce insulation into the wall cavity of a frame building. A common misconception is that replacing windows alone will result in major energy savings. The U.S. Department of Energy (DOE), for instance, has documented that air loss attributable to windows in most buildings is only about 10% of total air loss. Not only are there ways to improve window performance without replacing them, but historic windows can usually be repaired and are therefore sustainable. On the

other hand, most new windows cannot be repaired or even recycled. Reducing infiltration around existing windows and doors, sealing penetrations in the building envelope, and adding insulation—particularly in the attic where it has little impact on historic fabric—can result in significant improvements at relatively little cost. Updating mechanical systems or changing the way in which they operate can also be cost-effective interventions.

Recognizing User Behavior and Maximizing Green Technologies

One of the most profound effects on energy use is user behavior. Once an energy audit has uncovered a baseline for a building's current energy use, therein lies the need to adopt operational changes that lead to minimizing the use of energy-consuming equipment. These changes may entail simple measures like the regular maintenance of mechanical equipment, or they may require installing sophisticated controls that cycle equipment on and off in determined intervals for optimal performance.

A GREEN OUTDOOR STAIR TREAD



- Black color - green construction
- Made from 100% recycled tires
- Fibers embedded in rubber for long lasting, heavy duty wear
- Excellent traction in wet conditions



MUSSON RUBBER CO.

P.O. Box 7038 • Akron, Ohio 44306
 800-321-2381 • Fax 330-773-3254
info@mussonrubber.com • www.mussonrubber.com

Professional Edges Made EASY with the DR[®] Lawn & Garden Edger!

- Stable 4-wheel design
- Curb Hop straddles a curb to make stable, precise cuts
- Pivoting blade for bevel cuts around garden borders
- Six cutting depths



SALE!

**FREE
SHIPPING**

SOME LIMITATIONS APPLY

GoDRpower.com

Request your **FREE PRODUCT CATALOG**
Online or Toll-Free at 877-560-8902



Green technologies can transform our campuses, allowing for a real-time evaluation of space utilization, resource usage, air quality, and general building performance.

Several worthwhile options are currently on the market in terms of reducing heating and cooling costs. One such option is to install programmable thermostats, some of which are even voice controlled, contain app-enabled remote monitoring, and can track energy consumption. Many smart thermostats can also sense and regulate indoor humidity, can alert you if your HVAC is acting up or if pipes are in danger of bursting due to lower outdoor temperatures. Automated window shades and blinds are another excellent energy saving option. These can extend, retract, or tilt automatically, and can in turn save energy and boost security. Moreover, many are extremely quiet as well as compatible with smart technologies that require little more than a push of a button or a tap of a phone. Interior aesthetics also matter to our students, faculty, and staff, and automated window shades can a long way towards enhancing interior spaces. For buildings better suited to blinds rather than shades, smart blinds can adapt to the position of the sun throughout the day. The effect is remarkable. Not only can such a feature ensure

that any room always has the right amount of light, but such a process automatically enhances interior aesthetics. Motorized blinds and shades are also cordless—an added safety bonus—and they are ideal for hard-to-reach windows.

Green technologies can transform our campuses, allowing for a real-time evaluation of space utilization, resource usage, air quality, and general building performance. With the aid of green technologies, private universities and colleges across the country are much more than a hub of knowledge-making; our campuses also function as a model for how to simultaneously cut long-term costs while also positively impacting the environment.



ABOUT THE AUTHOR: Dr. David Vinson has a PhD in English with specializations in transatlantic literature and cultural studies. He is a committed scholar, teacher, and dad. If you ever meet David, avoid the subject of soccer. His fandom borders on the truly obnoxious.

SUPERIOR LOCKERS AMERICA'S MOST COMPLETE LOCKER LINE®
METAL • PLASTIC • WOOD • PHENOLIC

+MEDSAFE
ANTIMICROBIAL FINISHES
Our Metal Lockers are available with MedSafe™ antimicrobial finishes with Microban®, formulated to protect against bacteria, mold, yeast & mildew for up to 20 years! Very beneficial for educational, healthcare, food processing and other hygiene conscious environments.

MADE IN AMERICA SINCE 1936



WE ARE GREENGUARD GOLD CERTIFIED



CONTACT US FOR ALL YOUR LOCKER ROOM NEEDS
800-776-1342

✉ info@ListIndustries.com ListIndustries.com



HOPE'S[®]

For more than a century, Hope's has handcrafted the world's finest steel and bronze windows and doors, and we continue to refine the art that makes them the strongest, most sought-after and longest lasting windows and doors available. Hope's exclusive hot-rolled steel and solid bronze profiles replicate the traditional aesthetic of historic buildings while providing modern performance and efficiency. Hope's windows and doors are built to last a lifetime and beyond – sustaining their beauty and performance for generations. [HopesWindows.com](https://www.hopeswindows.com)

HOPE'S WINDOWS, INC. — EST. 1912 — JAMESTOWN, NEW YORK

NICHOLAS S. ZEPPOS COLLEGE, VANDERBILT UNIVERSITY
PRODUCTS SHOWN: University Series™ Series steel windows

ARCHITECT: David M. Schwarz Architects, Inc.
PHOTOGRAPHER: Steve Hall, Hall+Merrick Photographers





EYE-CATCHING EXHIBITIONS AT COLLEGE FAIRS

edited by Katelyn Forster

As colleges and universities aim to recruit students at events, they must employ creativity and skill to design attractive booths to draw prospects into their exhibit spaces. Recruiting gives colleges and universities the chance to meet face-to-face with and get to know potential candidates. To generate interest from prospective students, exhibits must be eye-catching. Full-color banners, flags, and other display options will help to attract candidates' attention.



A college recruitment display is like a blank canvas, and the creator is an artist who turns it in to a masterpiece. But what is needed to make that happen? This article provides tips for excellent recruiting experiences, addressing aspects to consider from the backdrop to the display accessories.

Design Stand-Out Recruitment Booths

College fair recruitment starts with eye-catching displays. No two displays look the same, giving each institution the opportunity to stand out from the crowd. Exhibits should be unique and reflective of the school and its message. Effectively selling a college's culture and benefits in a short period of time is a challenge. Brilliant images and text displayed on banners, backwalls, table covers, and other displays give people the information that they need in an easy-to-digest format. Some recruiters may consider keeping the display simple, using a banner stand paired with a printed table throw. Others might prefer something on a larger scale, like a

step-and-repeat backdrop featuring the school's logo. What ever layout works best is relative to each institution and the given exhibition.

Use Color Effectively

Displays should use vibrant colors to enhance the school's image and help its culture shine. A professional, visually exciting exhibit is the goal. Most schools have a color palette that represents them—an interesting color scheme draws people to the booth and helps them remember the school, long after the interaction is over. Recruiters should not be afraid to showcase their unique school brand throughout the event space.

Know the Space

Designers must plan displays around the space they are working with, keeping in mind the audience who is expected to attend. Planners should try to avoid squeezing too much into a small area, especially if one goal is to invite people into the space. Conversely, in large

spaces, display assets should not appear sparse; in such cases, designers need to make sure to have enough to fill the space. Either way, recruiters need to be able to draw prospects into the booth. Eye-catching displays can help recruiters accomplish their prospecting goals.

Provide a Visual Focus

Visual aids beyond banners, backdrops, and table throws are just as important as the display itself. Recruiters should ask themselves: What is it that my college has to offer? When creating displays, designers need to figure out where best to display each element in order to offer maximum visibility to each passerby. Recruiters should set up one or two tabletop displays to list social media, web, or contact information, along with suggested hashtags participants can use.

Make It Interactive

Planners should use technology to their advantage. In advance, designers must consider what devices they will use to show

Award-Winning Solutions from Billy Goat®!

- Aerators*
- Sod Cutters*
- Power Rakes
- Overseeders
- Brush Mowers
- Wheeled & Stand-On Blowers*
- Outdoor Vacuums
- Debris Loaders

*Call 800-776-7690 for demo.

Call 800-776-7690 or visit billygoat.com

KENYON CERAMIC GLASS COOKTOPS
Since 1931

SMART BUILT-IN SAFETY FOR THE USER AND FACILITY

- CHILD SAFETY LOCK-OUT WITH AUTO SHUT-OFF
- HEAT LIMITING COOKING SURFACE PROTECTORS
- MEETS ADA REQUIREMENTS INCLUDING CA & TX

CONTACT US FOR SPECIAL PRICING:
WWW.COOKWITHKENYON.COM | 860.664.4906

COLLECT.

SORT.

TRANSPORT.

ROYAL[®]
BASKET TRUCKS
www.royal-basket.com
800.426.6447



ORGANIZE YOUR FACILITIES WITH FUNCTIONAL CART SOLUTIONS FROM ROYAL[®]. OUR CARTS ARE DESIGNED TO REDUCE CLEAN UP TIME, TRANSPORT TOWELS AND LAUNDRY WITH EASE, AND KEEP YOUR FACILITIES LOOKING CLEAN AND PROFESSIONAL.



CHOOSE YOUR CART.

PICK YOUR COLOR.

ADD YOUR LOGO.

- 13 VINYL COLORS
- 7 MESH COLORS
- 9 POLY COLORS
- CUSTOM BRANDING & LABELING



CONTACT US TODAY!

WWW.ROYAL-BASKET.COM • 800.426.6447





Energy efficiency you can bank on.

With the need for energy efficiency ever increasing, finding a fume hood that meets your goals can be difficult. Why exhaust precious air when Labconco has the ideal ductless solution? Our newest Echo™ and Airo™ fume hoods pair the world's most advanced containment with Neutrodine® Unisorb filtration technology. Labconco. No duct, no doubt. labconco.com/echo



LABCONCO

presentations, planning for transport and set up of TV screens, iPads, or other digital displays. Planners also need to consider how to mount the devices, including one or more iPad mounts or digital assets to create a hands-on experience to showcase the school's information. These iPads or other digital displays can be incorporated through any of the following:

- A PowerPoint slide show that answers questions about the college
- Videos featuring the school's campus
- Current student testimonials
- Email signup list

Even if the booth won't be providing a presentation or there will be no products to display, designers can try adding visual interest to the exhibit by using literature displays; traffic can also be attracted with a charging station that features a promotional poster.

Offer Promotional Items

Almost everyone loves free stuff, and planners can use this reality to their advantage. Recruiting efforts require good promo items with the logo or school information to get people to come over to the booth and to help them remember the school long after the show is over. These items could include standard items like pens, flash drives, mugs, magnets, or tote bags. Alternatively, those who looking for something a little different might consider multi-tools, first aid kits, reusable straws, or charge blocks. Countless promotional options are available.

Remember Supplies

A successful college fair experience starts with being prepared, which is why everyone who is exhibiting should pack a kit with necessary supplies. This kit should include pens, tape, rubber bands, stapler, paper clips, scissors, power strip and extension cords, zip ties, thread, and anything else that may come in handy at the event. This kit should also include refreshments for the booth staff in case they get too busy to take breaks. The supplies may even end up helping people at neighboring booths. In helping out fellow exhibitor, recruiters just might make great new connections.

Both experienced and first time college fair exhibitors need to know exactly what they need for each exhibit; such planning will put everyone on the path to an excellent experience. From the displays, graphics, and accessories to the exhibition supply kit, going into the event prepared will help each recruiter achieve their objectives and make a lasting impression on all event attendees. Each college fair presents an excellent opportunity to advance the institution's recruitment and growth objectives.



ABOUT THE AUTHOR: Katelyn Forster is a Marketing

Strategist with Post Up Stand with a ten-year background in marketing. She regularly contributes articles and guides to help Post Up Stand customers in their trade show and event success.

DON'T LET AN AUXILIARY DRAIN SINK YOUR SUPPLY CHAIN

YOUR PARKING GARAGE, SELF-STORAGE, AIRPORT, STADIUM, LOADING DOCK, GARDEN CENTER, ...



FLOODELIMINATOR

- Stops Flooding due to Frozen, Vandalized, or Improperly Maintained Fire Sprinkler System Auxiliary Drains
- For Dry and Pre-Action Fire Sprinkler Systems
- Compatible with Compressed Air and Nitrogen Systems
- No Power Required
- Automatically Resets
- Allows Condensation to be Drained Normally
- Retrofit onto Existing Auxiliary Drains
- Made in the USA



www.agfmfg.com

one place.
every space.



Everything education needs — and more

More design in a stacker. More comfort in a sit. More models to match the needs of any (and every) space for learning. The robust build of Orbix® features an ultra-supportive, extra-wide backrest for unmatched breathability and support to breeze through a day on campus. See more of this smart new collection today.

SitOnIt • Seating®

www.sitonit.net/orbix

Orbix

Ultra-supportive, extra-wide backrest provides lasting comfort

Hundreds of diamond-cut perforations offer unmatched breathability and visual transparency

Consistent, cohesive look with a broad statement of line offers options to fit any space



Upscale stacking chair with bold lines and striking detail



Plastic wire rod chair stacks 6 on the floor (25 on a cart); plastic bar stool stacks 6 on the floor

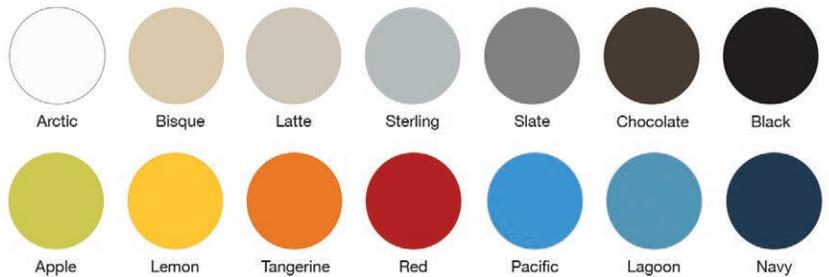
SitOnIt • Seating®

www.sitonit.net/orbix



Stack + store easily with optional cart

Shell colors





More Than Just a Chair

LABORATORY SEATING

by Jim Connell

When selecting seating for laboratory environments, decision-makers should prioritize discipline-focused design, quality construction, and style. Ergonomic support and enhanced user well-being should always top the list of criteria, however, considering the long hours and frequent relocation of scientists, technicians, and researchers between workstations. Given the direct nature of tasks unique to bioscience, biopharma, chemistry, clinical, R&D, and numerous other applications every chair, and stool must not only be up to the job; they must facilitate several jobs.



Here are a few considerations for decision-makers to discuss with prospective seating providers:

1. What kind of laboratory will be outfitted? This question helps to categorize seating in terms of componentry, finishes, and special options such as the need for bleachable or antimicrobial upholstery, easy-wipe-down configurations vs. higher rated clean room, and/or electrostatic performance packages, etc.
2. Specifically, what tasks are performed by researchers and technicians? Considerations may include whether work performed is precise and up-close, such as microscopy; if workers frequently move from station to station; and the surface height at which tasks are conducted—bench height, desktop, or somewhere in between.
3. Does the laboratory operate on single or multiple shifts? Seating durability can

vary greatly depending on the brand or model selected. Regardless of the choice, it will impact the bottom line.

4. Are custom applications a consideration? Workers with special needs or unique tasks can require a one-off solution.
5. Are specific code requirements mandated? Decision-makers must ensure that seating choices meet fire and safety codes.

Uniqueness, Adaptability and Commonalities

While adaptability is important—and every scenario has its own unique characteristics—there are some commonalities specific to lab work regardless of discipline. Unlike office work, laboratorians routinely perform experiments and conduct tasks from higher seated positions, in many instances while leaning forward. In addition to accommodating different working heights and task-related user postures, lab seating must comply with

pertinent government standards and industry specifications. Additionally—today more than ever—easy and effective cleanability, including withstanding frequent exposure to cleaners and disinfectants, is paramount.

The first things we look at when designing laboratory seating is the layout of the space where it will be used, the tasks to be performed by the users, and how the chair or stool will be expected to function in that context. It's also vital to have the right conversations with the right people at the right time. In large part, working with various stakeholders has meant reimagining the components of chairs from the top down. In real-world user research conducted by BioFit, many facility managers—particularly those overseeing multiple lab installations—demanded seating solutions that addressed organization-wide ergonomic concerns in one complete package, with advanced functionality and associated detailed adjustments to help workers stay comfortable, productive, alert, and on-task

NEW UPDATED CLAIMS

ALL LIFE STAGES OF BEDBUGS

SCORPIONS

FLIES

MOSQUITOES

STERIFAB®

MUCH MORE THAN A DISINFECTANT

800 359-4913 • STERIFAB.COM

Kay Park Recreation

1-800-553-2476
www.kaypark.com
sales@kaypark.com



Many Site Furnishings at www.kaypark.com



Enrich Student Experience

Enhance Your Campus with "America's Finest"



For Your Athletic Department



It Pays to Buy Kay's Since 1954!

throughout the workday. Nearly every specifier interviewed described a desire for seating that reflected the look and brand image found in their office counterparts.

Elevation, Posture, and Motion

When choosing laboratory seating, decision-makers must understand how the working postures and movements, as well as the primary responsibilities of users within numerous disciplines, can differ dramatically from those of staff in other, more conventional work environments. In contrast to office settings, where the typical desk working height is 29", working heights in laboratory applications can run 6-12" higher, and needs can change quickly according to task requirements. Working at the upper end of a high-bench seat height range also brings unit stability into question, especially with ergonomic controls that encourage tilting and reclining postures; for these reasons, it's

vital for seating to have a 5-star base with a diameter wide enough to alleviate concern over tipping mishaps.

Many tasks also require laboratorians to lean forward in their chairs to perform them as opposed to their office counterparts, who routinely sit at a roughly 90-degree angle on average to their keyboard and monitor. Conducting intensely focused activities in a forward-leaning seated posture shifts the weight of the upper torso and head directly over the thigh area, putting additional pressure on the lumbar region of the back and potentially cutting off blood circulation to the lower legs, even when using a chair with waterfall-front edge. Special attention should be taken to source lab seating that addresses forward-leaning postures to help enhance the well-being of users.

Selecting chairs with properly sized and adjustable backrests is vital to providing lumbar support and keeping users both comfortable and performing at their best.

Unlike office work, laboratorians routinely perform experiments and conduct tasks from higher seated positions, in many instances while leaning forward. In addition to accommodating different working heights and task-related user postures, lab seating must comply with pertinent government standards and industry specifications.



AquaticAccess.com

Simpler is Smarter

Water flows in - the seat goes up
Water flows out - the seat goes down

No electricity, batteries, charging, remotes, actuators, contacts, solar cells, gears, motors, brushes, oils, pumps, or extensive maintenance schedules

800.325.LIFT
502.425.5817

*"Our students love our lift!
It's easy maintenance, actually no maintenance.
It's a wonderful product. Get one!"*

Karen Sato, Gavilan College, Gilroy, CA



ULINE

LAB SUPPLIES

OVER 2,850 SAFETY ITEMS ALWAYS IN STOCK

ORDER BY 6 PM FOR SAME DAY SHIPPING

COMPLETE CATALOG
1-800-295-5510 uline.com



PHOTO COURTESY BIOFIT

Optimally, like all ergonomic functions, backrest adjustments should require minimal effort.

Component Details

Other features that can prove invaluable to user comfort and productivity are sometimes only available as options on lab seating. Depending on the task and environment, specifiers should determine if the chairs they consider include the following:

1. Casework permitting, comfortable adjustable armrests that accommodate the physical characteristics of respective users and can be repositioned in multiple directions
2. Foot rings on models designed for bench or high-bench height applications that adjust easily and stay put once positioned
3. Casters that resist movement when the chair is unoccupied, aiding worker safety by helping ensure seating doesn't roll away when the user stands up

4. Control lock-out to prevent unintended motion while conducting precision tasks

Cleanability and Disinfectability

In non-technical workplaces--despite cleanliness standards not being as strictly mandated as in critical-performance environments—facility managers have always understood the strong correlation between workstation cleanliness and productivity. In laboratories, however, proper cleaning, sanitizing and disinfecting of furnishings and equipment can mean the difference between life and death, as well as affecting the outcome of tests and experiments. Because of these high stakes, decision-makers must look for seating that's easy to clean, including the following specifications: assemblies with minimal gaps, components engineered to prevent buildup of debris and microbes, and substructures that do not pose obstacles to effective cleaning. Seating materials should resist breaking down under cleaners, disinfectants, and frequent cleaning protocols, particularly in the face of the current pandemic.

Durability and ROI

In addition to checking warranty length and coverage when choosing laboratory seating, decision-makers should consider component construction, finishes, and upholstery durability. Things to keep in mind include ensuring that seat and backrest edges can withstand damage from inadvertent collisions with benches and case goods, that metal finishes stand up to wear and frequent cleaning, and confirming that selected upholsteries are resistant to chemicals and fluids and rated for the intended use and length of service.



ABOUT THE AUTHOR: Jim Connell is the president of BioFit Engineered Products, a trailblazer and innovator in the design

and manufacture of ergonomic seating for scientific and technical workspaces for over 75 years. For more information on their laboratory and educational seating solutions, contact BioFit at marketing@biofit.com.

TOUCH-FREE CALLING



E-30TF-IP



E-32TF-IP



E-20TF-IP

Goodbye germs, hello hands-free!

These Touch-Free VoIP Entry Phones are equipped with Viking's touchless motion sensor. A simple wave over the sensor will activate a call. Touch-free calling eliminates the exposure to germs and bacteria from typical push button switches.

The phones provide quick and reliable handsfree communication for SIP VoIP phone systems with PoE. They can be programmed from any touch tone phone, PC, or remotely using a static IP address.



Learn more about
**TOUCH-FREE
CALLING**

VIKING

DESIGNED, MANUFACTURED,
AND SUPPORTED IN THE USA



Start planning your installation!

715.386.8861

vikingelectronics.com

Residential Builder has Five Acres of NSU Campus Site Under Contract

Mill Creek Residential plans to build apartments at Nova Southeastern University's main campus in Davie. The project will be the next phase of the Academical Village, a mixed-use project the university has been working on for nearly twenty years. University Associates, a joint venture between NSU and Miami-based Brandon Co., own the 15-acre former shopping center at 3400 S. University Drive chosen for this project. The venture will sell five acres to the Boca Raton-based multifamily developer.

The first building to open at the Academical Village was HCA Florida University Hospital, built by Nashville, Tennessee-based HCA Healthcare. NSU President George Hanbury expects the 400-unit high-rise apartment complex with 20,000 square feet of retail to be the next phase by Mill Creek Residential. The plan is to build another 237 mid-rise apartments later. "The apartments are for those individuals who want to live in an academic setting, like faculty, staff, researchers, and hospital workers," Hanbury says. "Major universities across the country are having market-rate residential units built because people want to live on campus and enjoy the cultural and athletic opportunities."

The Broward County Commission will consider a plat note amendment for the Mill Creek Residential building, called Academical Village Modera, on March 15. The town of Davie has already approved a master plan for the site. Hanbury says that NSU is working on many more elements of its Academical Village, along with other improvements on campus. A hotel/conference center and a cancer center are also planned for the site.

NSU recently issued \$150 million in tax-exempt bonds for campus building programs, including doubling the size of its dental college and converting the former Miami Dolphins training facility into a simulation health care treatment center for students. The Dolphins moved their training facility to Hard Rock Stadium in Miami Gardens in 2021.

NSU is currently relocating a canal to pave the way for a walkway that will connect the hospital and the apartments to the rest of campus, Hanbury says. "All of it will be integrated so you can't tell whether you are on campus or off campus," Hanbury says. Officials with Mill Creek Residential couldn't be reached for comment.

ABOUT THE AUTHOR: Brian Bandell, Senior Reporter, South Florida Business Journal

Bard College's Levy Economics Institute Receives \$90,000 to Study Potential Impacts of Policies that Expand Care Services in Mexico



BLITHEWOOD, HOME TO THE LEVY ECONOMICS INSTITUTE OF BARD COLLEGE.

The Levy Institute has been awarded a \$90,000 contract by the United Nations Research Institute for Social Development and the Government of Mexico's Instituto Nacional de las Mujeres for the first phase of a project examining the potential impact of policies expanding care services in Mexico.

Levy Institute scholars Thomas Masterson, Rania Antonopoulos, Luiza Nassif-Pires, Fernando Rios-Avila, and Ajit Zacharias, along with Mónica E. Orozco Corona of Genders AC, will study the gendered impact of providing universal early childhood education in Mexico. Greater access to early childhood education can alleviate household production responsibilities—particularly for women, who do the bulk of unpaid care work. At the same time, investing in the care sector creates jobs, enhancing employment and earnings while also potentially increasing time spent in paid work. This project aims to provide a comprehensive evaluation of the impact on well-being of investing in early childhood education in Mexico by creating a framework that keeps track of all these simultaneous outcomes. Taking both time and income effects into consideration enables exploration of the multiple gendered economic outcomes of care services expansion—in terms of both employment creation and earnings generation, as well as the changes in the unpaid and paid workload of women versus men and the associated risk of time poverty.

"The responsibility for unpaid care work, which falls most heavily on women within households, is a major obstacle to women's labor force engagement. Relatively little research has directly examined the linkages between social provisioning of care, the expansion of employment opportunities for women, and growth. Even less attention has been paid to the potential impact of labor force engagement for women's time use and time poverty," says Levy Institute Research Scholar and Director of Applied Micromodeling Tom Masterson.

Later phases of the project envision including estimates of the extension of school hours for school-age children and provision of universal elder care in Mexico.

This work builds on related Levy Institute research conducted for Ghana and Tanzania (supported by The William and Flora Hewlett Foundation) and Turkey (in partnership with the International Labour Organization, United Nations Development Programme, and UN Women).

JOIN 100+ CAMPUSES IN DEPLOYING AWARD-WINNING

SELF-SERVICE DISPENSING KIOSKS



Space-Saving • Experience-Enhancing • Forever-Flexibility

Mix-N-Match Laptops And Now
110V Portable Power Outlets



For More Info Go To:
ChargersAnytime.com

A New Innovative Approach To Student Battery Access

OVER 4 MILLION
ANNUAL CHECKOUTS AND GROWING
4,000,000



Trusted Technology Branded to Your Local Look-n-Feel
LAPTOPSANYTIME™
Automated Checkout Kiosks
1-877-836-3727 • LaptopsAnytime.com



PO Box 1903
Pelham, AL 35124

PRSRTD STD
US POSTAGE
PAID
PERMIT 284
MIDLAND MI



Make hybrid learning easy with **SMARTDESKS®**

Active Learning



Classrooms



Multi-Media Podiums



Sit Stand Desks



**Create your own hybrid learning environment
with SMARTdesks.**

Our comprehensive services for classroom layouts, custom furniture,
and technology integration are here to support your organization's
mission of learning, no matter the challenges we face.

SMARTDESKS®
where design meets technologysm

800 770 7042 | www.smartdesks.com