Strang's

Sync MAGAZINE

always aligned with our clients in mind

®

S.T.E.A.M. Camp Returns

For The Third Successful Year

Educate. Elevate. Celebrate. Building Confidence Towards

Science ▪ Technology ▪ Engineering ▪ Arts ▪ Mathematics

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Jens Hanson | A Juilliard-Trained Designer

8.2018
VOLUME THREE
ISSUE THREE

STRANG

Madison ▪ Waukesha

SYNCHRONICITY

DESIGN

Say Hello To

SyncMAGAZINE

In the spirit of continual improvement, welcome to the latest issue of our e-Zine, SyncMAGAZINE.

Previously entitled alliance, we have updated our e-Zine for better content, coverage and information. However, our goal remains; provide readers with enhanced news-you-can-use, valuable professional insights and updates on happenings around Strang.

Thank you for taking a moment to review SyncMAGAZINE.

DESIGN SYNCHRONICITY

For Your Review

Page 4: Strang's **STEAM Camp** hits the road with 50 of the brightest middle school youth you'll ever meet. Learn why this program checks all the boxes for discovering educational pathways towards STEAM careers.

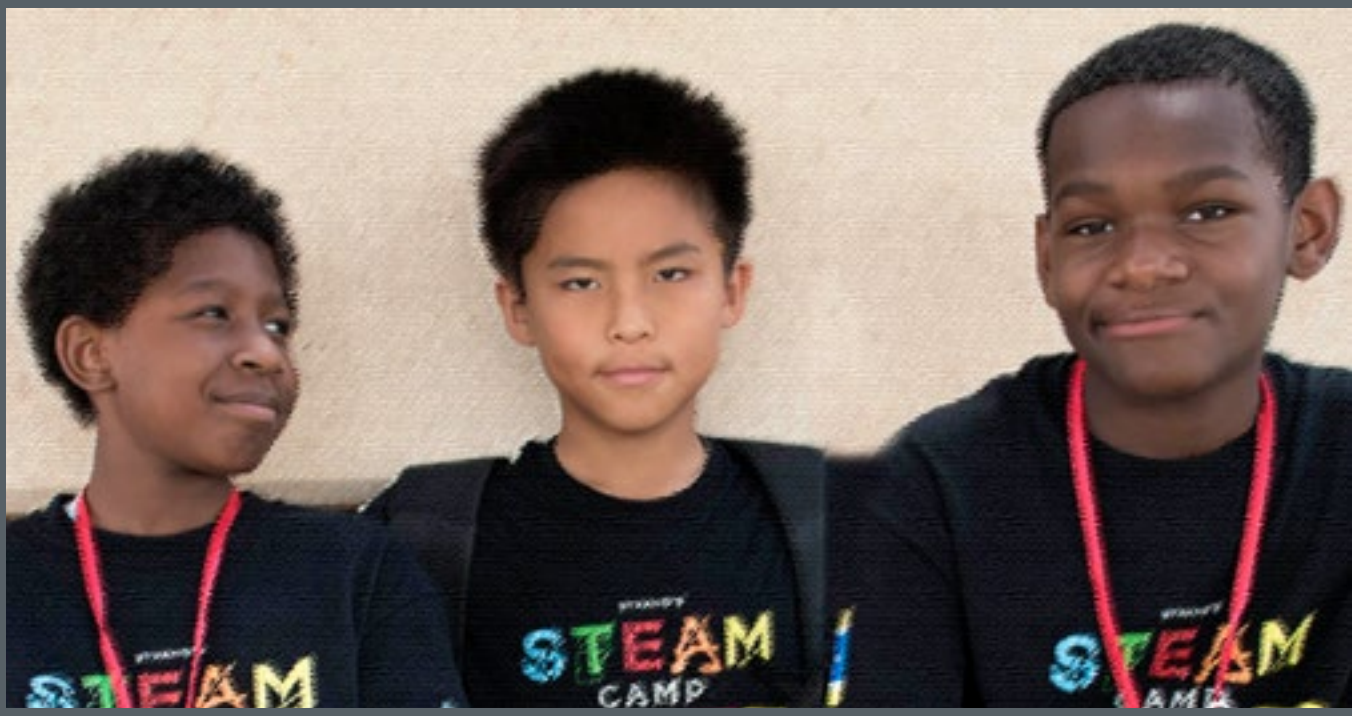
Page 12: Is an **Open Office** layout right for your organization? In this article, we share critical considerations necessary for a successful layout.

Page 18: There's so much more to **optimizing your energy** costs than simply shading from the sun. There are endless solutions, but in all of them the strategy is the same: start considering them at the earliest stages of planning and design.

Page 22: We are rigorously applying our skills to several new projects. **From chemistry to choirs to conference rooms,** let's look at what we've been up to lately.

Page 28: Meet Jens Hanson. **Classically-trained at the Juilliard School,** Jens applies his unique approach to **blended creativity** on every one of his projects.

STEAM Camp 2018



the Confidence factor

A STEAM-Powered Adventure

What do you get when you mix 50 middle school students, a major university, three non-profits and private enterprise? Opportunities for the future.

Strang's third annual STEAM Camp is designed to open educational pathways for children prior to entering high school. That effort starts by opening the children's eyes, minds and hearts to a variety of career choices, and doing so in settings outside of a traditional classroom.

> Watch their eyes grow wide, their smiles radiate, and their minds engage. How do you not love that?

For five days in July, campers got to see behind-the-scenes stuff that few in Madison ever see, including views from some of the highest buildings in the city and some of the coolest technology in the state. They met business leaders, college professors, doctors, helicopter pilots and soldiers with the U.S. Air Force. They learned how to make a family budget, design a video game and create a small wind turbine. They did so much more. The following pages tell their story.

I Never Thought Math Could Be Fun

On Monday, the kids visited the Madison Central Library for a financial literacy program hosted by Summit Credit Union. They worked on a simulated household budget complete with families and careers. They learned the challenges of staying within their budgets and handling the pressures of student loans, credit card debt and retirement savings. Some campers even said the program made them better appreciate their parents' financial responsibilities.

After a lunch donated by Ian's Pizza, the kids visited Filament Games, a developer of educational video games. Part of the Camp's mission is to create innovative ways to play, learn and interact in an expanding digital world. At Filament Games, they played a video game using a virtual reality headset and mapped-out a video game by using logic and creativity.

> Imagine if I could have a job like this someday. That would be cool! Yes, just imagine.

Oooh, Check Out This Stuff, Guys

On Tuesday, the kids split into two groups, with half the kids starting at the Discovery Town Center on the University of Wisconsin campus, and the rest going to UW's Biotechnology Center.

They toured the Discovery Center, experiencing modern technology marvels of light and sound and learning facts about science and history.

During their visit to the Biotechnology Center, campers learned about DNA then performed a few simple experiments to extract DNA from a sample liquid.

In the afternoon, campers the Space Science and Engineering Center on campus, learning how scientists use space, aircraft and ground-based instruments to analyze the atmosphere.

> The campers learned much more through experience. When they tried things out themselves, understanding was easy.

At the UW Physics Museum, the kids performed hands-on experiments with concepts from mechanics to modern physics. Finally, on this hot July afternoon, our campers finished with a serving of delicious ice cream from UW's Babcock Hall.

You'll Never Believe Where We Went!

Campers began Wednesday with a visit to Madison Gas and Electric, learning about the utility's wide network of people, places and equipment.

After donning hard hats and goggles, they toured the power plant to see how energy is produced and to learn about the professionals who keep the plant running. They stepped outside to inspect electric cars before heading to the rooftop where rows of solar panels pulled in energy from the sun.

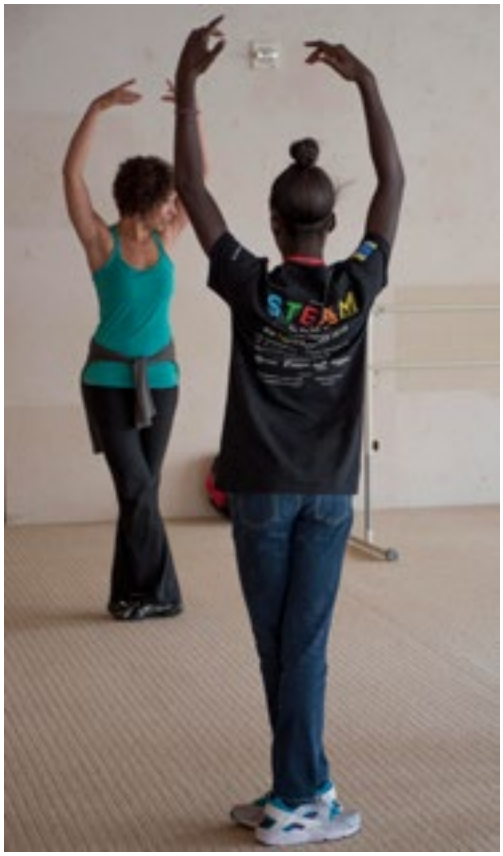
In the afternoon, we visited Truax Field, home to the 115th Fighter Wing of the Air National Guard. The campers marched alongside military personnel from building to building, touring everything on the base from the fire station to the photo studio and the hydraulic shop. They talked with soldiers working in a variety of professional roles from doctors to mechanics.

Each day brought something different. A power plant, an air force base, a chemistry lab? Hey, let's check it out!

“What’s Dance Got To Do With It?

> The more they participated, the more they became engaged. Hey, this is fun!

On this Thursday morning, our campers visited the University of Wisconsin Hospital and Clinics where groundbreaking medical procedures and lifesaving techniques are daily occurrences.



They got to examine (while wearing gloves) human organs, experience walking with a simulated brain injury, and compete in a game of health Jeopardy. The kids also watched the Flight For Life helicopter take off from its rooftop perch.

They visited the Overture Center in the afternoon, taking a behind-the-scenes tour of this arts center, practicing ballet and acting out parts from a play. Finally, the group heard from a panel of people from a variety of art-related fields to get a better perspective on future careers.

Is It Over Already?

Friday, the last day of STEAM Camp, included a half-day program followed by a celebratory lunch at the Urban League including parents, family and friends.

The bus took the campers to the UW Department of Computer Sciences where they learned from Faculty Associate Tracy Lewis-Williams, the logic involved in programming computers. She led them in games that included working in teams while one child covered their eyes or ears to remove one sense and still figure out what the team was trying to communicate.

Students visited other areas of the department, watching a small robot perform a rap song and then sitting down at computer stations for hands-on computer science education.

> They formed teams, competed, helped each other out and laughed together. They became friends.

Back at the Urban League, where parents were waiting, campers received a certificate of achievement for their efforts. They finished the day off with lunch, cookies and – of course – a STEAM Camp cake.


OPEN
OFFICE
Collaboration
Or Chaos.
That's Why
Design Matters.

When It Comes To Open Office Design, Clients Find It Isn't A One-Size-Fits All Solution

Strang's interior design experts, from top to bottom: Erica Ostendorf-Mullins, Connie Nankee, Michelle Schildgen and Anna Rasmussen

Open office concepts are nothing new. They've been around for decades. What has changed in more recent years is the technology allowing more work options and an array of customized spaces designed for staff interaction, heads-down work and meeting rooms.

While open office designs have had their critics (no privacy, too noisy, disruptive), the concept takes too many forms to be scrutinized as a general category.

"We don't design generic open offices," said Erica Ostendorf-Mullins, Director of Interior Design at Strang. "There isn't a one-size-fits-all solution. We take into consideration our client's needs, study their unique working styles and create a customized space for them."

Any office space where most of the workers are sitting at tables or cubicles for their primary work space as opposed to private offices is considered open office design. Generally, these are less expensive to build and operate because there is less square footage per worker.

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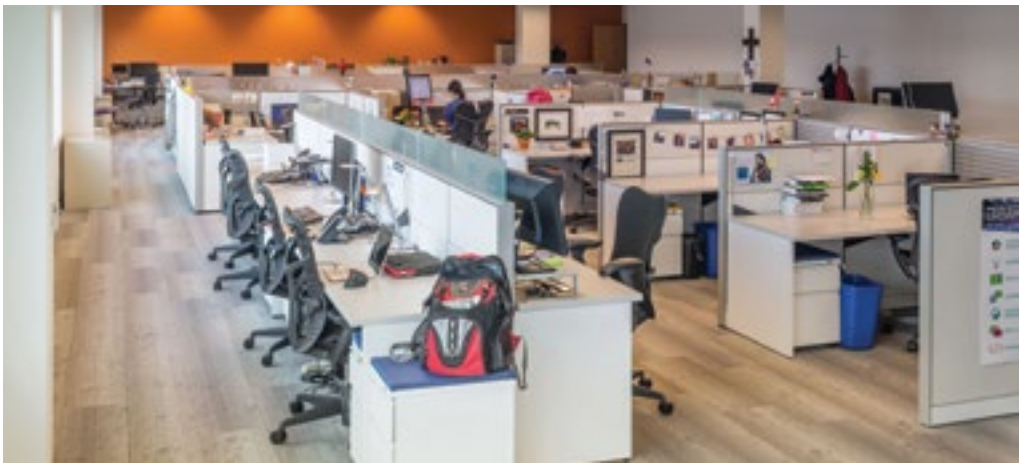
There are more options for where people work and more opportunity for interaction and collaboration.

“It’s really conducive to a lighter, happier, more open company culture,” Ostendorf-Mullins said.

Critics’ complaints that open office spaces lack privacy and tend to have visual and audio distractions are mitigated with a wide range of options. These include enclaves, work cafes, huddle rooms, reservable private offices, conference rooms, gather zones and even phone rooms.

In other words, just because people don’t reside in a private office doesn’t mean they don’t have access to such a room when needed.

“We often design different zones for different work styles, creating different types of environments and choices for workers. There will be a level of privacy and a matter of choice in the space,” Ostendorf-



Mullins said. “If you can offer employees a choice, the design will be successful.”

Of course, workers not accustomed to open offices will have to adjust. Having an open mindset and considering the advantages of the open design are part of the formula to success. The process is important as well. When ownership sets up a process to empower employees and offers suggestions for making the open office system work, the design is much more likely to succeed. When those things don’t happen, morale may suffer.

It’s important not only to understand the advantages, but to understand the pitfalls and how to avoid them. For instance, respecting privacy when sitting next to a colleague may mean new ground rules are needed; lengthy phone conversations may need to be limited to private rooms or space outside of the open office.

Technology plays a huge part in making open office designs work. Laptops, i-pads and other mobile devices should be able to be connected in various areas of the office, from the work café to an enclave away from the work station area.

“Because of technology, workers have more opportunities than ever before to be flexible as to where they work. If people want heads-down work, they can take their devices into a private office. If they wish to collaborate with

others, they connect with a monitor in the work café or another collaborative space.

Other ways to avoid problems include adding acoustic ceiling panels to help reduce noise or pumping in white noise to mask other conversations going on in the office. Setting up a process for empowering employees, giving them choices and establishing ground rules for the work place are important factors in a successful design.

"People should stop thinking about the office in the traditional sense, as a series of private rooms. Consider your own home. It's not just a single room, it includes everything from your kitchen to your living room. In the same way, your desk shouldn't be your base for work – your entire office is."

The Key To
INTELLIGENT
Resource Conservation

GET AN EARLY START

Whole-Building Energy Modeling

This versatile tool is used for new buildings, retrofit design, code compliance, green certification, qualification for tax credits and real-time building control. You got this.

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Strang's Energy Experts: Russ Knudson (PE, LEED AP), Director | Energy Performance Engineering and Katie Lowery (WELL AP, LEED AP), Director | Integrated Control Systems.

Planning to optimize energy use in the built environment often revolves around the sun. Terms like daylighting, solar shading and thermal glazing are common when considering the design of a new space.

But at Strang, we look well beyond the impact of the sun to create an optimal energy plan for any building. We identify, analyze and select the most sustainable building forms, site orientations, materials, construction practices and engineering systems for a facility. We'll customize the plan based on the type of facility, size of the building and the site orientation.

Developers and building operators understand the impact of the environment on their facilities. Owners must maintain a balance between staff productivity and comfort and on-going energy utilities and maintenance costs. The analysis methods available today help architects and engineers find the best solutions early in the process, long before a building is designed.

Stake-holders consider life-cycle cost models that plan for the life of the facility. They may ask questions like: what is the highest energy

The Key To INTELLIGENT Resource Conservation

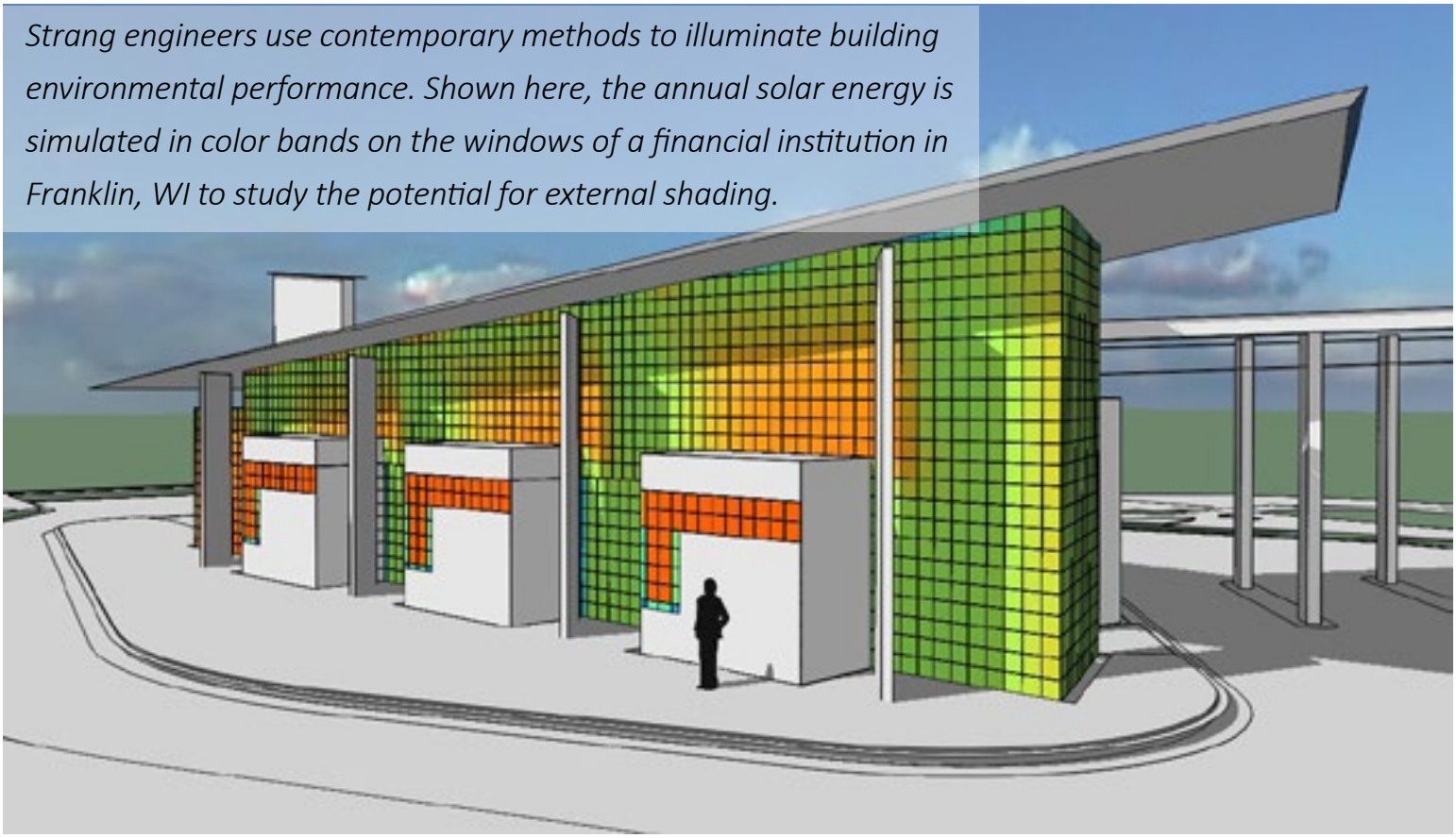
consuming function in my building? Or should I invest in higher quality windows to spend less on heating and cooling systems? Should I build now, or proceed with a phased-in approach?

The key is to answer these questions early so the design team can create a plan and analyze it.

Energy conservation can by optimized with a high-efficiency heating and cooling system coupled with an integrated controls strategy. And by using a Building Automation System (BAS) Strang can provide customized design solutions allowing the system to make intelligent decisions in reaction to real-time conditions in the building. The BAS makes big energy users like fans and pumps run more efficiently.

Energy Recovery Ventilators (ERVs) provide another sustainable HVAC solution by recovering and reusing energy lost through heating or cooling the building.

Strang engineers use contemporary methods to illuminate building environmental performance. Shown here, the annual solar energy is simulated in color bands on the windows of a financial institution in Franklin, WI to study the potential for external shading.



One common challenge is allowing sunlight into the interior, warming it in the winter, but not overheating in the summer. The solutions range from orientating the building footprint to optimize the positive effects of the sun; creating shade through an overhanging roof or window sunshades; and specifying various types of thermal glazing.

For a building owner looking to save money on energy costs through an up-front investment, there are several options. One solution recently employed by Strang is the design of an underfloor air distribution system (raised floor) for a 180,000-SF commercial office building.

The raised floor system in this example is expected to improve the energy distribution costs by $1.20 per square foot, a significant savings based on the size of the building.

Another sustainable solution Strang designers offered to one client is a ground-couple heat pump system, commonly known as geothermal. The system is designed to reduce water consumption for HVAC cooling by 99 percent on this multiple-building campus. This will amount to saving 12 million gallons of water per year compared to the amount used in a conventional cooling system.

The solutions are as diverse as the client's needs. But whatever the goal, Strang is ready to plan for the optimal energy use for any project, starting at the earliest stages of the design process.



Madison Reading Project provides quality books and literacy programming to underserved children and families via 60 partner agencies across south central Wisconsin.
For children living in poverty, two-thirds do not have books in their home. Our goal is to change that statistic by helping grow book ownership and literacy engagement.
#MadisonReadingProject
#InspireReading #AllChildrenDeserveToRead

MADISON READING PROJECT

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Project UPDATES

Strang designers have had a busy summer. At this time, some projects are just getting started while others are nearly complete. Take a look at what we've been up to lately.

"The Sylvee"

Madison-area music fans will get a chance to enjoy the latest and greatest music venue to come to town when "The Sylvee" opens this fall. The Sylvee is owned by Frank Productions, a family business and a cornerstone of the Madison community for more than 50 years. Designers worked closely with the family to assure The Sylvee accurately reflects the legacy of Herb and Sylvia Frank as they lay the cornerstone for this incredible new facility. The venue, which will reside in the Gebhardt Building, is a 45,000-SF 2,500-person music hall designed to meet the strong and lasting demand for world-class live music in Madison. The Sylvee will help to ensure that bands and artists of all types and all sizes will be able to entertain their fans right here in Madison for generations to come. This project will be seeking LEED certification.

Northern Sky Theater

Construction is currently underway on Northern Sky Theater's new campus featuring two buildings on a 39-acre parcel. It will give Northern Door County its only professionally equipped performance space.

The project will provide both new rehearsal space and an intimate 200-seat performance space, giving Northern Sky an indoor venue for fall and winter shows.

The multi-functional center will also serve to centralize its support operations with pre-production facilities and administrative offices. The project will increase efficiencies, expand its creative capacity and, most importantly, ensure the future of Northern Sky Theater.

Click on the image to watch a video showing the construction site as it looked on August 30.

The Pablo Center at the Confluence

The Eau Claire community had good reason to celebrate when the Pablo held its grand opening in September. The space not only showcases and embraces Eau Claire's diverse performing arts community, but is flexible enough to host a variety of community events. This project was made possible by a new economic development paradigm that recognizes the interdependence of creative industries resulting in improved regional attractiveness and positive business impacts. Availability of cultural events and entertainment is just as important for the region's artists, citizens and visitors as it is for the venue. The project builds upon the distinctive nature of the Chippewa Valley. The Pablo Center includes a 1,129-seat main theater, a 397-seat mid-size theater and a gathering space that can be transformed for various types of performances.

The Hamel Music Center

The 63,300-SF Hamel Music Center on the UW-Madison campus, is designed to anchor the East Campus Arts Gateway and be a showcase for the Mead-Witter School of Music. The venue, by Strang in conjunction with Holzman Moss Bottino, will host more than 350 events annually, from symphony and chamber orchestras to soloists and choral performers. The facility will include a 315-seat recital hall, large rehearsal room and spacious lobby. The main concert hall inside the center features large holes – entryways for sound into two large reverberation chambers. These chambers, together with recessed panels, and other sound reflection points, comprise an integrated acoustical treatment system which will empower the Wisconsin Sound – achieving unrivaled acoustic performance on a worldwide level inspiring passion among artists and audiences alike.

University of Wisconsin Chemistry Building

The UW Chemistry Design Team.

An eight-story 188,000-SF addition and 57,000-SF renovation to the Chemistry Building on the University of Wisconsin campus is a huge undertaking that brings this vital educational facility up to date. The $100 million project serves approximately 7,000 undergraduates each semester and is an important part of this world-class research institution. New and remodeled space will house lecture halls, active learning classrooms, offices and instructional labs for undergraduate general, organic, inorganic, physical and analytical chemistry.

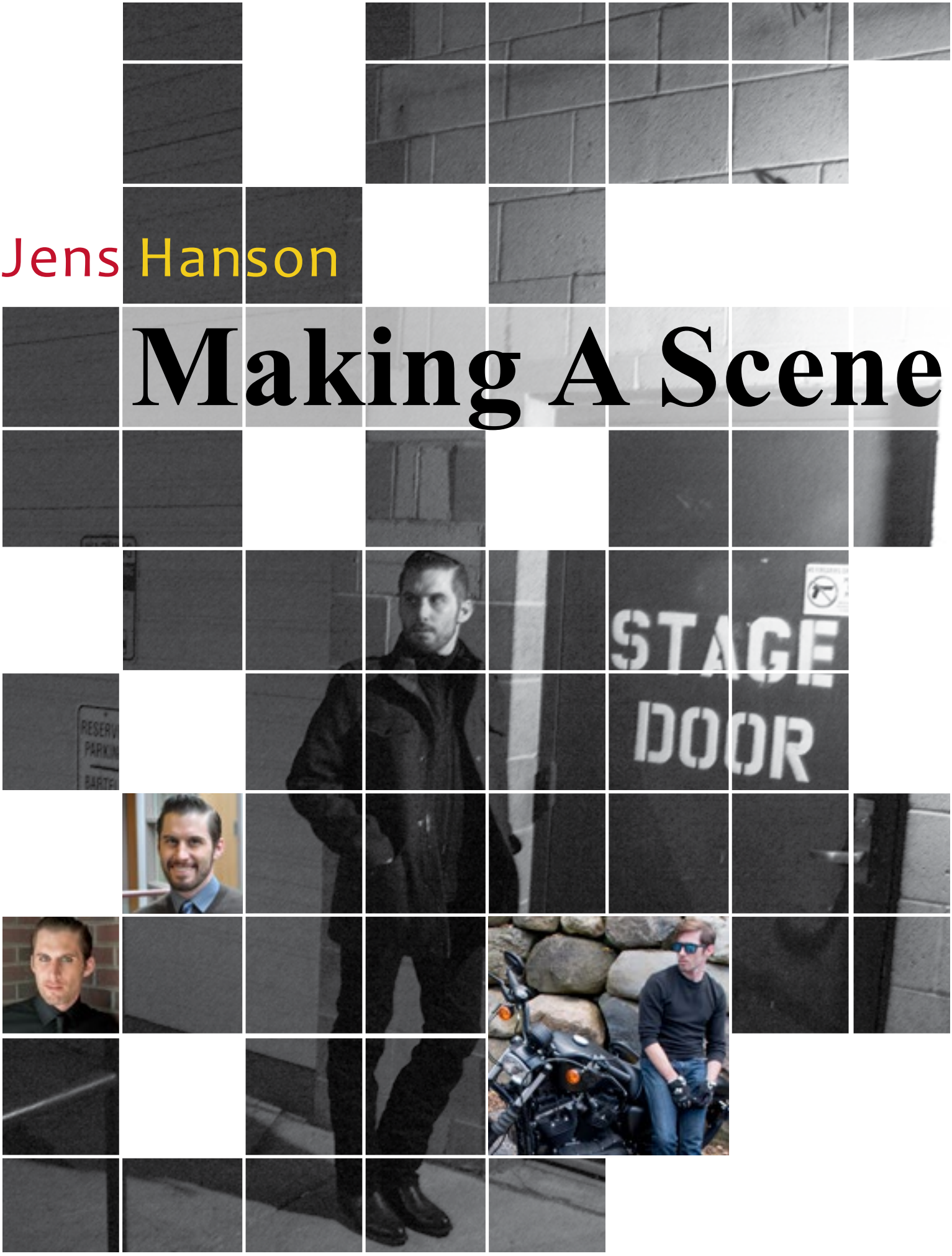
The Gebhardt

The Gebhardt Building, an eight-story high-rise housing retail and commercial office space, is part of the resurgence of Madison's Capitol East District corridor, long in need of economic progress. The 125,000-square foot building will open this fall with Strang as its first tenant. This building is seeking both LEED and WELL Building certification.

The design is unique because it houses both office space along Washington Avenue and a 45,000-SF entertainment venue for Frank Productions, a Madison-based family-owned music production company. The key to the design process was in working closely with clients to bring out the best of the entertainment space without impacting the quality of the offices.

Jens Hanson

Making A Scene



A graduate of the Juilliard School of Drama, Jens' formal and real-world experience ranges from acting to set design and construction

Include his design education and you have a synchronistic blend of the architectural and theatrical realms, ultimately helping our performing arts clients achieve their authentic artistic vision.

A truly unique blend of aptitude, attitude, approach.

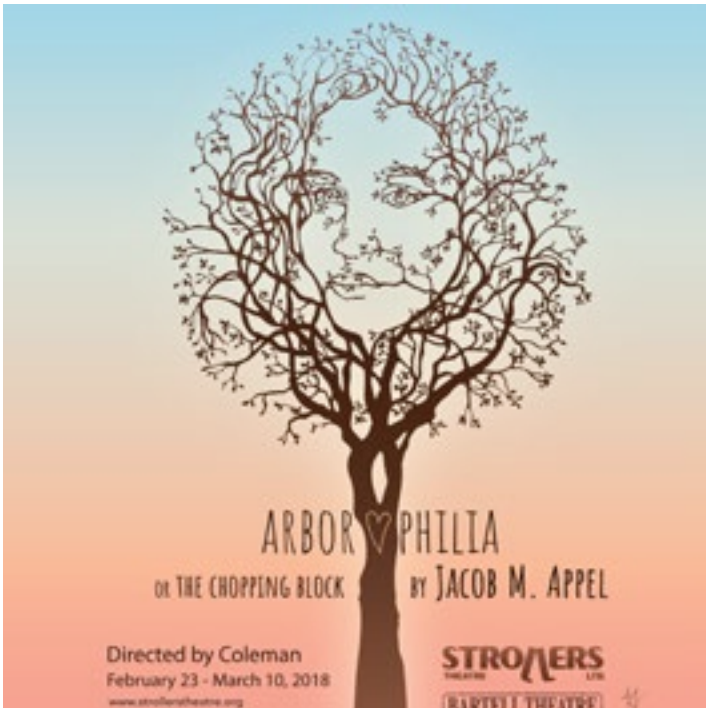
A graduate of the prestigious Juilliard School of Performing Arts – Drama Division, his experience in performing arts ranges from acting and dancing to set design and construction. He also holds Associate Degrees in Graphic Design and Architectural Technology from Madison Area Technical College and is currently a Lead Architectural BIM Specialist at Strang.

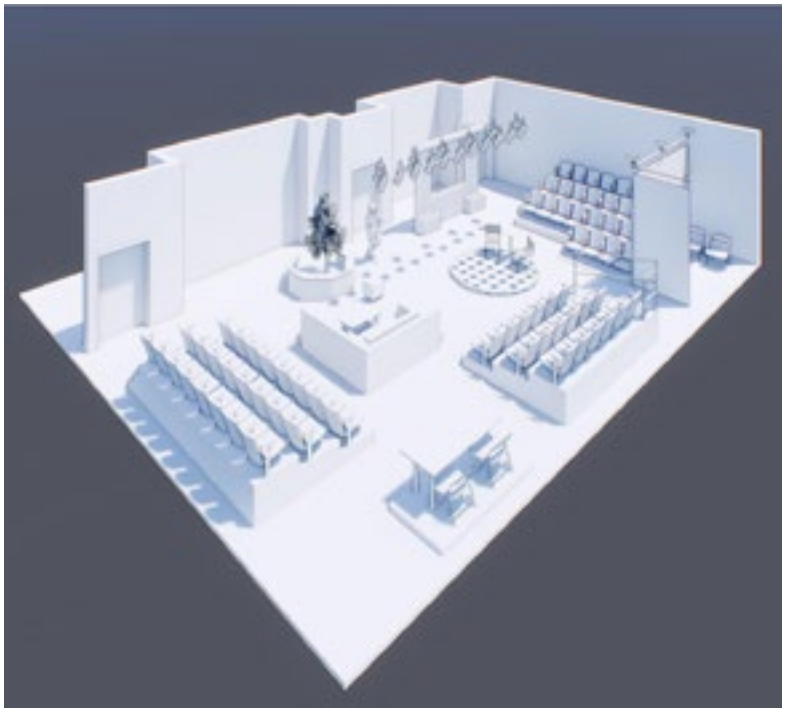
Better than anyone, Jens understands what architecture has in common with the performing arts. He recently exemplified that blend, volunteering his professional skills to design a set of a black box theater in Madison.

Black Box Theater, by definition, doesn't have to be highly complex. In working with this size of space, Jens prefers to use a limited, yet flexible set design. This limited space demands that the sets be more highly coordinated and thoroughly thought-out.

Jens enjoying a rare quiet moment on the set he designed for ***Arborophilia.***

> **The stage and properties should be the canvas in which the actors work.**





"Economy of design is very important," Jens explained. "My method is designing a limited amount of set pieces without a lot of moving parts."

That doesn't mean the set can't be meaningful or useful. For the set of the play "Arborophilia," produced by Strollers Theatre, Jens used four geometric shapes to represent the four main characters and their four opposing viewpoints.

The challenge was taking charge of the set design while still being a good steward of the playwright's and director's visions. His minimal set design helped accommodate the director's needs. It also helped the actors who didn't have to be mindful of having so many set pieces all around them.

Jens takes his work with the theater seriously and brings to it the same level of professionalism he uses at Strang. He also employs

The most interesting part of *Arborophilia* is the set, designed by Jens Hanson, an architect with Strang Inc.

Review in ***The Isthmus***, Feb. 28, 2018

> **"Once they get on stage, there's a comfort level. They feel like they've been there before.**

many of the same skills and tools, such as using virtual reality to design the theater set.

He designed the set, created a virtual reality model and showed it to the cast and the production/tech staff. This process bridged the communication gaps between himself and the rest of the team.

"These are artistic, visual people, but it doesn't mean it's easy for them to read a two-dimensional design," he said. "I was able to show the carpenters exactly what I wanted – through VR. They could literally walk around the set and see it from every angle."

On stage with colleagues from Strang. *Shown L to R, Peter Tan, Jens Hanson, Wayne Whiting, Kathy Williams, Adam Stapleton and Jim Lambright.*

There were similar advantages in showing the VR model to the actors. Being able to move around in the virtual set helped show cast members where they needed to be in each scene and where the set pieces are located.

"Once they get on stage, there's a comfort level," Jens said. "They feel like they've been there before."

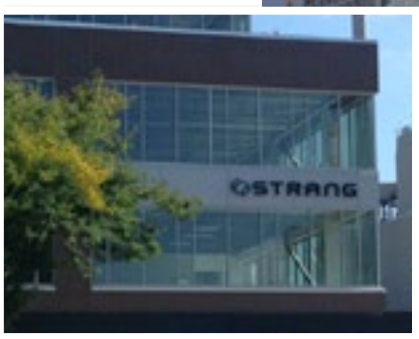
Loyal to Madison's local theater scene, Jens regularly gives back as a volunteer and advocates for the performing arts. During Strang's STEAM Camp in July, he sat on a panel of cultural and performing arts leaders at the ***Overture Center*** to explain to middle school children how the arts is connected to the disciplines of science, technology, engineering and mathematics.

He continues to help with various local and regional theatre groups, whether designing sets, acting or consulting. It's where he combines his vocation and his avocation.

We're Moving!

To 811 East Washington Avenue

Strang is moving to downtown Madison in October. We're excited to move into space we designed. Check up the write-up on page 27 of this issue for more about the Gebhardt Building.



What's With The Wheels?

When you visit our new office, you'll notice a couple of strange-looking wooden shapes on our wall. These round forms, used to create a world-class sound system at the Hamel Music Center on the University of Wisconsin campus, is a shout-out to our design team. The system centers on two reverberation chambers that act like an acoustic instrument, filling the hall with music exactly as it was intended. The round shapes were used to form the holes leading into these chambers. They will now serve as a reminder of creativity and ingenuity in design.

InBusiness Magazine readers
named Strang the top commercial
architectural firm in Madison
for the fifth consecutive year.

From Best Practices To Next Practices
www.strang-inc.com

Written, designed and produced by Strang's Creative Collaboratory

Questions or comments, please contact Randy Banks at RBanks@strang-inc.com