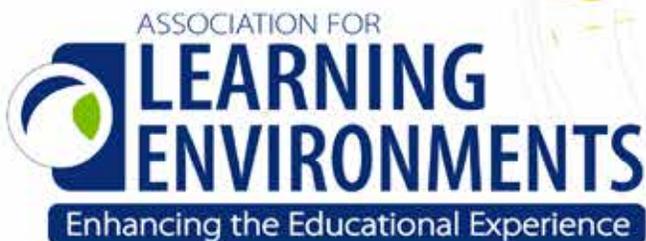


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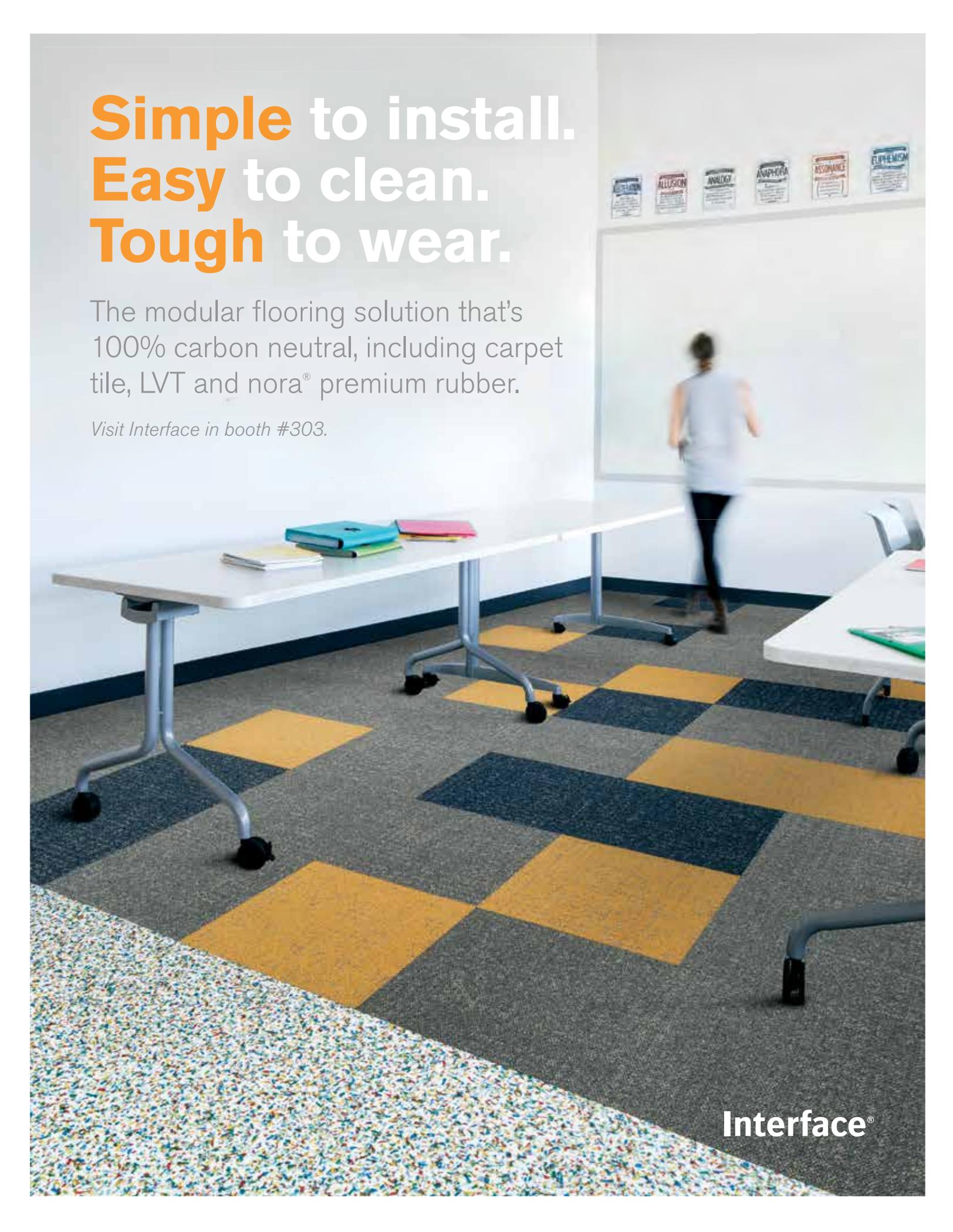
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LearningSCAPES 2019

Welcome to California! Internationally renowned for its creative arts, high-tech innovations, amazing weather and entertainment, it is a fitting location to join fellow professionals in continuing your learning journey at the Association for Learning Environments.

On behalf of the International Board of Directors, we invite you to experience all of these wonderful features at LearningSCAPES 2019 and embrace the learning tours, be challenged by our keynote speakers, immerse yourself in the multitude of learning sessions, engage with our many sponsors and vendors, and feel empowered to make a difference at the intersection of learning and place.

LearningSCAPES this year focuses on Co-Creation: how our combined knowledge, accumulated wisdom and collaborative experiences work together to contribute to the creation of exemplary learning environments for people all over the world. This is what our Association proudly celebrates – professionals who embrace Co-Creation as it drives the planning, design, construction, teaching pedagogies and operations of our places of learning.

Understanding the world around us comes not just from historical precedent, but also from a desire to explore the creativity, curiosity, imagination, and processes of discovery that move our societies forward. Learning environments, whether they be at schools, colleges, universities, early learning centres, technical schools, museums, art galleries or corporate training facilities, provide places for human engagement and stimulating learning.

We are thrilled to present Sarah Williams Goldhagen and David Thornburg as our keynote speakers. How we experience and interact with our built environments, promote effective learning experiences and understand human behavior will be explored through our keynotes, and further developed in both collaborative sessions and informal dialogue.

The learning tours provide a diverse selection of learning environments to experience while offering time to share your own knowledge with colleagues as you traverse the greater Los Angeles region. How we work together to achieve successful outcomes will be recognized through our different awards programs, celebrating how our members are making a difference.

As a growing, global Association, we invite you to build a collegiality around our diverse membership, engage with those visiting from across the world and build a dialogue that can bring excitement to your learning experiences at LearningSCAPES.

Enjoy your time in California and embrace the spirit of co-creation as we shape our visions of places for learning.

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KEYNOTE SPEAKERS



Sarah Williams Goldhagen

One of the nation's chief architecture critics reveals how the environments we build profoundly shape our feelings, memories, and well-being, and argues that we must harness this knowledge to construct a world better suited to human experience.

Taking us on a fascinating journey through some of the world's best and worst landscapes, buildings, and cityscapes, Sarah Williams Goldhagen draws from recent research in cognitive neuroscience and psychology to demonstrate how people's experiences of the places they build are central to their well-being, their physical health, their communal and social lives, and even their very sense of themselves. From this foundation, Goldhagen presents a powerful case that societies must use this knowledge to rethink what and how they build: the world needs better-designed, healthier environments that address the complex range of human individual and social needs.

By 2050 America's population is projected to increase by nearly seventy million people. This will necessitate a vast amount of new construction—almost all in urban areas—that will dramatically transform our existing landscapes, infrastructure, and urban areas. Going forward, we must do everything we can to prevent the construction of exhausting, overstimulating environments and enervating, understimulating ones. Buildings, landscapes, and cities must both contain and spark associations of natural light, greenery, and other ways of being in landscapes that humans have evolved to need and expect. Fancy exteriors and dramatic forms are never enough, and may not even be necessary; authentic textures and surfaces, and careful, well-executed construction details are just as important.

[Read more about Sarah](#)

KEYNOTE SPEAKERS



David Thornburg

David is an award-winning futurist, author and consultant whose clients range across the public and private sector, both in the United States and in Brazil. His razor-sharp focus on the fast-paced world of modern computing and communication media, project-based learning, 21st century skills, and open source software has placed him in constant demand as a keynote speaker and workshop leader for schools, foundations, and governments.

As the founder and Director of Global Operations for the Thornburg Center he conducts research and provides staff development in the several area. He helps clients to think intelligently about the future and is active in exploring ways that telecommunications and multimedia will change the face of learning, both at home and in the classroom.

His educational philosophy is based on the idea that students learn best when they are constructors of their own knowledge. He also believes that students who are taught in ways that honor their learning styles and dominant intelligences retain the native engagement with learning with which they entered school. A central theme of his work is that we must prepare students for their future, not for our past.

In addition to his work at the state and local level, he is also involved at the Federal level in helping to shape telecommunications and education policy for the benefit of all learners. David has shared his perspectives with policy makers in several countries.

He has written numerous books. His latest book, "When the Best is Free," explores the world of free open source software in education, with special emphasis on tools for use by students. Reviewers have declared this to be the definitive book on the topic.

In addition to his consulting, speaking, and writing, David also has served on several non-profit boards. Dr. Thornburg is the recipient of several awards for product design and is the recipient of both the Golden and Platinum Disk awards from CUE (Computer Using Educators, Inc.) for his contributions to the advancement of learning and learning technologies. In 1999 he was selected as one of twenty "pioneers" in the field of educational technology by ISTE, the premiere organization devoted to the advancement of technology in learning, and was named by Technology and Learning magazine as one of the top ten most influential people in the field of educational technology in the past twenty years.

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SUPERSESSION

What is co-creation and why would I want to do it?

Jess Rimington, Researcher, Stanford University Global Project Center

Steven Bingler, REFP, Principal In Charge, Concordia LLC

Jeffrey Vincent, Researcher, Center for Cities and Schools; University of California, Berkeley

Friday, October 4, 2019 / 4:00 pm / Royal Ballroom

AIA CEU: 1.0 LU

Creativity, curiosity, imagination, discovery – our visions of learning emerge from our combined knowledge, our accumulated wisdom and our collaborative experiences. Understanding the world around us comes not just from historical precedent, but also from our processes of co-creation. Join us at LearningScapes 2019 as we discover how ‘Co-Creation’ runs through the planning, design, construction, teaching pedagogies and operations of our learning environments across the world.”

What are some of the game changing advantages of co-creation in school design? How can collaboration among key institutions and stakeholders provide more powerful and sustainable learning environments, while at the same time saving boatloads of money for the taxpayers who have to foot the bill? What does it look like when school boards join forces with city councils and county commissions to co-create educational and community services – all at the same time? Join us for a lively dialogue about key policies and practices, along with exciting examples of how some creative city and school leaders are already making it happen.

Learning Objectives

OBJ#1 - Define and outline two advantages of community co-design: How the combination of education with other cultural and recreational community programs can be both more economical and more effective for whole child teaching and learning.

OBJ#2 - How a diverse group of community stakeholders can be authentically engaged in the co-design process in a way that adds value to the final product. Case studies of co-designed projects that include educational, cultural, educational, and sometimes even affordable housing, all on a single site.

OBJ#3 - Demonstrate the value of working pro-actively and authentically with the community in the planning and design of educational facilities, along with some of the costs of not engaging stakeholders early in the process.

OBJ#4 - Articulate five research based principles of authentic community engagement and demonstrate how these principles can be applied.

SUPERSESSION

Welcome to your School: The Application of Environmental Psychology to K-12 School Planning and Design

Brian Carter, ALEP, Principal, Integrus Architecture

Edward Peters, ALEP, Capital Projects Director, Edmonds School District

Sarah Williams Goldhagen, Writer and Critic; Contributing Editor, Architectural Record; Scott Alterator, PhD., PhD, IDE (Innovation = Design + Education)

Margaret Parsons, AIA, ALEP, LEED AP BD+C, Principal Architect, Cuningham Group Architecture, Inc.

Saturday, October 5, 2019 / 10:00 am / Royal Ballroom

AIA CEU: 1.0 LU HSW

“Welcome to your World: How the Built Environment Shapes Our Lives” has been one of the most influential architectural publications in recent years. This session will present a brief history of the psychology of the architecture of learning, contrasting mid-20th century behaviorism with environmental psychology. We will use author Sarah Williams Goldhagen’s observations as a launch point to explore and apply principles of environmental psychology to the effectiveness of K12 learning environments. Particularly, we will explore the following three themes in Ms. Goldhagen’s book: 1. Social, Emotional and Cognitive Consonance 2. Action Settings 3. Understanding a Vernacular through Shapes, Materials and Textures Attendees will participate in a series of exercises to research and report on these topics. There will be opportunities to continue the conversation beyond the seminar and the conference.

Learning Objectives

OBJ#1 As environmental psychology is an interdisciplinary field that focuses on the interplay between individuals and their surroundings, participants will gain insight into how the natural and built school environments we create shape the development of our students.

OBJ#2 Participants will be able to identify the role school design plays in developing social, cognitive, emotional consonance.

OBJ#3 Participants will be able to understand how shaping space and surfaces can address security and life safety while engaging students’ imagination.

OBJ#4 Participants will understand the impact enigmatic aesthetic qualities such as beauty, wellness, and meaning have on student achievement and cognitive understanding.

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Date: TBD
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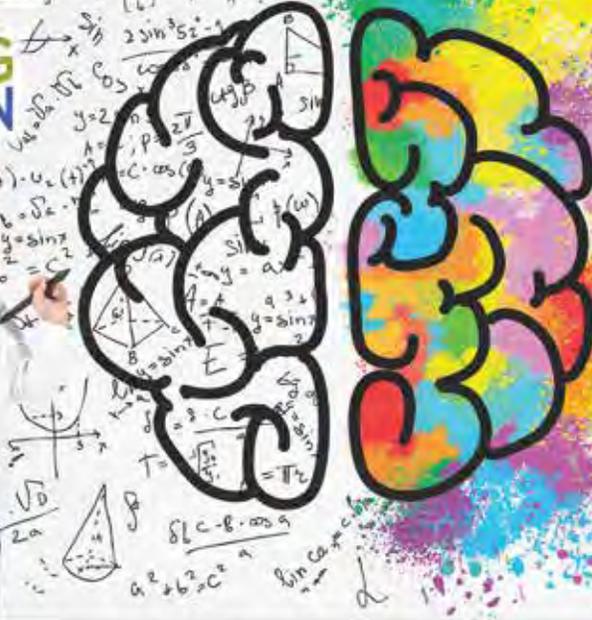


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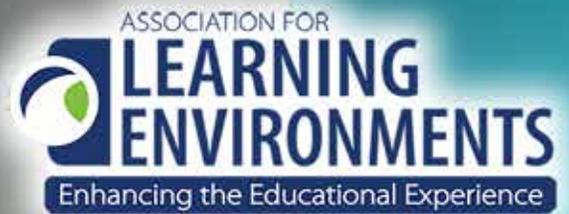
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Springfield, MA

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Folsom, CA



**SchoolsNEXT Presentation by
Neal Middle School, Durham, NC
General Session – Saturday, October
5–8:30 am – 11:00 am**

2019 LE AWARDS

James D. MacConnell Finalists



**Canyon View
High School**

Agua Fria Union High School District #216
Waddell, AZ - DLR Group
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Davis School District
Farmington, Utah - VCBO Architecture
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**Farmington
High School**



**Pathfinder
Kindergarten Center**

Mukilteo School District
Everett, WA - DLR Group
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2019 AWARDS continued...

2019 LEsolutions

Planning and Design Award Submissions

Aedis Architects
Brownell Middle School Replacement Campus
Gilroy Unified
Gilroy, CA

ATS&R Planners/Architects/Engineers
Rushford-Peterson New Early Childhood-12 School
Rushford-Peterson Public Schools
Rushford, MN

BakerNowicki Design Studio/Richard Nowicki
Santa Ana High School
Santa Ana Unified School District

Logan/Memorial Education Center
San Diego Unified School District
San Diego, CA

Innovations Academy
San Diego Unified School District
San Diego, CA

Bassetti Architects
Roosevelt High School
Portland Public Schools
Portland, OR

Bora Architects
Learning Innovation Center
Oregon State University
Corvallis, OR

Fielding Nair International
YCIS Ronghua Campus
Yew Chung International Schools
Shanghai, China

Strathcona-Tweedsmuir School
Private IB School
Okotoks, Alberta, Canada

Texas Tech University Costa Rica
Texas Tech University
San Jose, Costa Rica

Hayball (NSW)
Domremy College, Solais Sandpit
Five Dock, NSW
Sydney, Australia

HMC Architects
New Comprehensive High School #19
Kern High School District
Bakersfield California

Hord Coplan Macht
Legacy Peak Elementary School + Center for Modern Learning
Academy 20 School District
Colorado Springs, CO

Thunder Vista PK8
Adam 12 Five-Star School District
Broomfield, CO

Murch Elementary School
District of Columbia Public Schools
Washington D.C.

HPLE Inc.
Cactus STEM Magnet Academy
Palmdale School District



2019 AWARDS continued...

2019 LEsolutions

Planning and Design Award Submissions

Huckabee
Hammerlun Center for Leadership and Learning
Georgetown ISD
Georgetown, TX

Integrus Architecture, P.S.
Enatai Elementary School
Bellevue School District
Bellevue, WA

Sartori Elementary School
Renton School District
Renton, WA

Alderwood Middle School
Edmonds School District
Lynnwood, WA

KoningEizenberg Architecture
Geffen Academy at UCLA
Westwood
Los Angeles, CA

LPA
Eastwood Elementary School
Irvine USD
Irvine, CA

Tarbut V'Torah Expansion
Tarbut V'Torah
Irvine, CA

LPA Irvine Design Studio
LPA
Irvine, CA

NAC Architecture
Wonderful College Prep Academy
Kern County Office of Education
Delano, CA

number TEN architectural group
École Connaught Community School
Regina Public Schools
Regina, SK, Canada

Perkins Eastman | Dougherty
Monroe Creative Arts Center
Betsey Olenick Dougherty
Orange County, CA

Brooklyn Navy Yard: STEAM
Brooklyn, NY

RB+B Architects, Inc.
Natrona County School District
Kelly Walsh High School
Casper, WY

Boulder Jewish Community Center
Early Childhood Center at the Boulder JCC
Boulder, CO

SCHRADERGROUP Architecture
Upper Merion Area High School
Upper Merion Area School District
King of Prussia, PA

Vanir Construction Management, Inc.
El Camino Fundamental High School Center for the Arts
San Juan Unified School District
Sacramento, CA

2019 AWARDS continued...

2019 LEsolutions Planning and Design Award Submissions

VMDO Architects, PC
Bluestone Elementary School
Harrisonburg City Public Schools
Harrisonburg, VA

Y2 Architecture
Marist College Bendigo
Bendigo, Victoria, Australia

Wold Architects and Engineers
Shakopee High School
Shakopee Public Schools
Shakopee, MN

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2019 AWARDS continued...

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Melanie E. Drerup
LEED AP, ALEP, CPM, LE Fellow
Ohio Facilities Construction Commission



Dillon Brady
ALEP
Prime Contractors



Roger Richardson
AIA, REFP
Quinn Evans Architects



Edward J. Peters
ALEP
Edmonds School District

2019 AWARDS continued...

2019 LE Fellows



Rob Pillar
ALEP, LE Fellow, AIA



Roy Sprague
ALEP, LE Fellow, AIA, CSI

2019 AWARDS continued...

2019 Solution Provider Finalists

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2019 AWARDS continued...

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Keith Henry
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PROGRAM GUIDE

THURSDAY, OCTOBER 3

7:00 am	ALEP Interviews
8:00 am	International Board Meeting
10:00 am	Tour - Anaheim Story
10:30 am	Steering Committee Meetings
10:45 am	Tour - Irvine
1:00 pm	Leadership Meeting
3:00 pm	Registration - Self Check in
6:00 pm	Opening Networking Reception - Hosted by Extron Electronics

FRIDAY, OCTOBER 4

7:30am	Registration Opens
8:00 am	Tour - LA City
8:30 am	Tour - Cal Poly
8:45 am	Tour - Santa Ana SD
9:00 am	(3) Breakout sessions (60 minutes)
9:10 am	Tour - RCCD
10:15 am	(3) Breakout sessions (60 minutes)
11:30 am	(3) Breakout sessions (60 minutes)
12:30 pm	Lunch on your own
1:30 pm	(3) Breakout sessions (60 minutes)
2:45 pm	(3) Breakout sessions (60 minutes)
4:00 pm	(3) Breakout sessions (60 minutes)
5:00 pm	Super Session
6:00 pm	Grand Opening (Award Ceremony)
7:30 pm	Offsite Dine Around (sign up req.)
7:30 pm	Pacific Northwest Region Meeting

SATURDAY, OCTOBER 5

6:30 am	Complimentary Yoga
7:30 am	Registration Opens
8:00 am	Opening General Session - SchoolsNEXT, Keynote- Sarah Williams Goldhagen Super Session
11:00 am	LEmarketplace Grand Opening (lunch)
1:00 pm	(6) Breakout sessions (60 minutes)
2:15 pm	(6) Breakout sessions (60 minutes)
3:30 pm	(6) Breakout sessions (60 minutes)
4:45 pm	(6) Breakout sessions (60 minutes)
6:00 pm	Midwest Great Lakes / Northeast / Southeast / Southwest /Southern Region Meeting

SUNDAY, OCTOBER 6

6:30 am	Complimentary Yoga
8:00 am	Registration Opens
8:30 am	LEmarketplace Speed Sessions
9:45 am	(6) Breakout sessions (60 minutes)
11:30 am	Closing Keynote Luncheon Keynote- David Thornburg
2:30 pm	Post Conference Kayaking

DAILY SCHEDULE

THURSDAY, OCTOBER 3

- 7:00 am ALEP Interviews Salon III
8:00 am International Board Meeting Salon VII
10:00 am Tour-Anaheim Story Grand Patio
10:30 am Steering Committee Meetings Pacific
10:45 am Tour- Irvine Grand Patio
1:00 pm Leadership Meeting Pacific
3:00 pm Registration- Self Check in Grand Foyer
6:00 pm Opening Networking Reception-Hosted by Extron Electronics

FRIDAY, OCTOBER 4

- 7:30am Registration Opens Grand Foyer
8:00 am Tour- LA City Grand Patio
8:30 am Tour -Cal Poly Grand Patio
8:45 am Tour- Santa Ana SD Grand Patio
9:00 am (3) Breakout sessions (60 minutes)
Co-creation, Exploration and Connectivity: A Library Transformation Story at Shanghai American School Garden 3
How Do We Get There From Here? Master Planning Best Practices for Existing Schools Garden 1
Schools as Community Catalyst Terrace
9:10 am Tour- RCCD Grand Patio
10:15 am (3) Breakout sessions (60 minutes)
Educational Commissioning: Harnessing the Power of Teacher Hacks Terrace
Making the Grade: How IEQ in Schools Affects Student Performance Garden 3
Societal Benefits of Managing Facility Cost of Ownership Garden 1
11:30 am (3) Breakout sessions (60 minutes)
Capturing the essence and intent of a school through pre-design co-creation sessions Garden 3
Culture + History, School and Community Terrace
From Flexible Seating to Agile Space: Facilitating Student Agency Garden 1
12:30 pm Lunch on your own
1:30 pm (3) Breakout sessions (60 minutes)
Embracing Diversity and Promoting Community: How One School Risked Conformity for Inclusivity Terrace

DAILY SCHEDULE continued...

FRIDAY, OCTOBER 4 con't

- Innovate, Iterate, Prototype: How failing fast can generate engaging and effective learning environments **Garden 1**
- Transforming the Existing Schools of Los Angeles - Los Angeles Unified School District's Comprehensive Modernization Program **Garden 3**
- 2:45 pm (3) Breakout sessions (60 minutes)
- Engineering Physical Activity and Well Being Into the Playground **Terrace**
- Immersive LearningSCAPE 3.0: The Good, the Bad, and the Data. A Post-Occupancy Evaluation Story at Fulton County Schools **Garden 3**
- The Samueli Academy Story **Garden 1**
- 4:00 pm (3) Breakout sessions (60 minutes)
- Brand-new & shiny! Now what? Educators' "Spatial Commissioning" Workshops & Results **Terrace**
- Crafted in Community: Co-Creating the Next Generation of CTE **Garden 3**
- Cutting Edge Scandinavian Schools: A Design Research Mission **Garden 1**
- 5:00 pm Super Session- What is co-creation and why would I want to do it? **Royal Ballroom**
- 6:00 pm Grand Opening (Award Ceremony) **Royal Ballroom**
- Fellow Designation Acknowledgement
- Lifetime Achievement Winner announced
- Solution Provider Winner announced
- LEsolutions Awards
- ALEP Recognition
- James D. MacConnell Award presentation
- 7:30 pm Offsite Dine Around (sign up req.)
- 7:30 pm Pacific Northwest Region Meeting **Terrace**

***Please note: This schedule is subject to change. For the most up to date information, changes and notifications, please download our Event App. Instructions are in the front of this program.**

SATURDAY, OCTOBER 5

- 6:30 am Complimentary Yoga **3rd Floor Pool- Sport Court**
- 7:30 am Registration Opens **Grand Foyer**
- 8:00 am Opening General Session **Royal Ballroom**
- SchoolsNEXT- The Multicultural Advanced Learning Academy (MALA)
- Keynote- Sarah Williams Goldhagen
- Super Session- Welcome to your School: The Application of Environmental Psychology to K-12 School Planning and Design

DAILY SCHEDULE continued...

SATURDAY, OCTOBER 5 con't

- 11:00 am LEmarketplace Grand Opening (lunch)
- 1:00 pm (6) Breakout sessions (60 minutes)
“Hack” Your School: An Innovators Guide to Future-Focused Facilities! [Garden 3](#)
Architects and Designers can have a greater impact on student engagement than teachers
[Terrace](#)
From Gastronome to Iron Chef: Reshaping and Transforming the Culinary Experience
[Pacific](#)
How School Facilities can Support the Challenges of Student Homelessness [Garden 4](#)
How to CHANGE your PARADIGM. Edmonton Public Schools’ Journey to 21st Century
Learning Environments [Garden 1](#)
Opening the Conversation: Closer Collaboration among Educators and Architects [Terrace](#)
- 2:15 pm (6) Breakout sessions (60 minutes)
Champions and Challenges [Pacific](#)
Design for Unique Learners: Innovative Learning Environments and their Post-Occupancy
Evaluation for Students with Developmental, Cognitive, & Multiple Disabilities [Harbor](#)
Designing Creative Learning Experiences Through Outdoor Innovation [Terrace](#)
Growing Pains: Community Engagement and the Impact of Unique Pedagogy During
Planning and Design Development [Garden 4](#)
Reengaging a Campus Community Through Facilities and Instructional Transformation
[Garden 3](#)
Schools as Professional Workplace [Garden 1](#)
- 3:30 pm (6) Breakout sessions (60 minutes)
“Are you sitting down for this?!” Critical Research Should Guide Interior Design [Harbor](#)
Learning from Learning Spaces: Informing Collaboration Space Design Through a Multi-
Site Post-Occupancy Evaluation and Workshops [Garden 1](#)
Place Versus Space [Garden 3](#)
School Safety: What Can Schools Learn from America’s Busiest Airports [Garden 4](#)
The Great Outdoors: Environmental Stewardship in Urban Landscapes [Terrace](#)
Biophilic Design for Learning [Pacific](#)
- 4:45 pm (6) Breakout sessions (60 minutes)
Future Ready Facilities Master Planning & Ed Specs: An Interactive Web-Based Format
[Garden 3](#)
A Day at the Museum Part II: Executing elements of children’s museum design within PK-
12 learning environments [Pacific](#)
A District’s Journey in Project-Based Learning [Harbor](#)

DAILY SCHEDULE continued...

SATURDAY, OCTOBER 5 con't

- Co-creation: What does it mean and how can we leverage it to plan and design better schools? [Garden 4](#)
- From Large Scale to Human Scale: Learning from Neuroscience to Enhance School Experiences for all Users [Garden 1](#)
- Safe, Secure, and Supportive Schools: Creating learning environments that address the well-being of students and staff [Terrace](#)
- 6:00 pm Regional Meetings
- Midwest Great Lakes [Garden 1](#)
- Northeast [Harbor](#)
- Southeast [Terrace](#)
- Southwest [Garden 3](#)
- Southern [Garden 4](#)

SUNDAY, OCTOBER 6

- 6:30 am Complimentary Yoga [3rd Floor Pool- Sport Court](#)
- 8:00 am Registration Opens [Grand Foyer](#)
- 8:30 am LMarketplace Speed Sessions - [LEmarketplace](#)
- MINI SESSION 1: Together We Rise: Turning Tragedy into Triumph at Minnehaha Academy
- MINI SESSION 2: Building Trust: Mindfulness and Movement
- MINI SESSION 3: Post-Occupancy Results from Students and Teachers on the Saskatchewan Joint-use School Bundles
- MINI SESSION 4: Architects and Designers can have a greater impact on student engagement than teachers
- MINI SESSION 5: Viable disruption. Lessons from a visioning process for a start-up school in Saudi Arabia
- MINI SESSION 6: Blurring the Lines between Teaching and Learning
- MINI SESSION 7: Connecting the 5 Domains of School Security
- MINI SESSION 8: Makerspaces: From Elementary Schools to College Campuses
- MINI SESSION 9: A Bold Commitment to Reshape a Top Performing District; The Why, the What and the How
- 9:45 am (6) Breakout sessions (60 minutes)
- Flex and Flexibility [Garden 1](#)



DAILY SCHEDULE continued...

SUNDAY, OCTOBER 6 con't

Make It Real: Utilizing Building Information Modeling and 3-D Virtual Reality Visualization to Improve and Enhance the School Design Experience [Garden 3](#)

Post-occupancy Results from Students and Teachers on the Saskatchewan Joint-use School Bundles [Garden 4](#)

Telling our Story: Gardiner Middle School Dual Immersion Program SchoolsNEXT Competition [Harbor](#)

The Power of Passion, Purpose and Perspective: The Story of Anaheim City Elementary vs. Disney [Pacific](#)

The Core Competencies of School Planning: Essential skills of an ALEP [Terrace](#)

11:30 am Closing Keynote Luncheon [Royal Ballroom](#)

Keynote- David Thornburg

2:30 pm Post Conference Kayaking [Newport Aquatic Center 1](#)

***Please note:** This schedule is subject to change. For the most up to date information, changes and notifications, please download our Event App. Instructions are in the front of this program.

SESSION ABSTRACTS

FRIDAY, OCTOBER 4 9:00 am - 10:00 am

How Do We Get There From Here? Master Planning Best Practices for Existing Schools

Laura Knauss, AIA, ALEP, Principal, Lionakis /Garden 1 /AIA CEU: 1. 0 LU

Primary Core Competencies: Educational Visioning / Secondary Core Competencies: Community Engagement

As public school districts contemplate local bond campaigns to address changing pedagogy, growth and aging infrastructure, a master plan is the right place to start. The process, however, can be daunting. The reality of existing buildings, complex and phased implementation and budget must be balanced with the needs of 21st Century, active learning, evolving technology needs and community vision. Join us in an interactive session that shares the process, pitfalls and best practices for master planning. How do you customize a plan to meet the specific needs of your community? What are the best practices and plan components on the menu of services. How do you get there from here? Exercise: Tools for Community Engagement This breakout session will model some of the exercises that design teams use to engage community members and district stakeholders. The tools are designed to help stakeholders express their priorities, educate the community on planning parameters such as budget and schedule, and inspire the participants in a way that is both useful and fun.

Learning Objectives

OBJ #1 Allow participants to understand the unique possibilities when a single educational specification is applied to distinct existing schools.

OBJ #2 Engage participants in a mock “research” program to understand the flexible layouts applicable to 21st century learning environments.

OBJ #3 Demonstrate community engagement strategies, including participants as stakeholders in the process.

OBJ #4 Understand the perspective of school district leaders as they leverage the momentum of the planning process into a bond campaign.

Co-creation, Exploration and Connectivity: A Library Transformation Story at Shanghai American School

Aimee Eckmann, FAIA, ALEP, LEED AP BD+C, Practice Leader, Principal, Perkins+Will / Steven Turckes, FAIA, ALEP, LEED AP, PreK-12 Global Practice Leader, Principal, Perkins+Will / Garden 3 /AIA CEU: 1. 0 LU

Primary Core Competencies: Design of Educational Facilities / Secondary Core Competencies: Educational Visioning

In today’s creative economy, the role of the traditional library needs to transform from a place where one consumes content and information to a place for creative endeavors.. Schools around the world are seeing an increased need for environments that support active engagement where students can investigate, synthesize, and develop the skills needed to thrive in today’s economy. Considering the competitive market of international schools and while working hand in hand with the librarians and marketing director, the renovation of the school’s library at Shanghai American School was co-created from the diverse view-points of educators, designers and marketers. Together with this diverse group of stakeholders, the project was envisioned from start to finish, as student-centric. The updated space is dedicated to how today’s students learn best and includes cafes, small group rooms, tech help desks, virtual learning

SESSION ABSTRACTS continued...

areas, and cozy individual learning nooks. This unique and in-depth process, involving a wide array of stakeholders informed the transformation, creating a space that supports student innovation, comfort and collaboration.

Learning Objectives

- OBJ #1 Explore the iterative visioning and design process of redesigning library spaces, with diverse stakeholder groups, to support future-ready learning
- OBJ #2 Hear from media specialists about the changing landscape of media centers, and the risks and rewards of re-envisioning a media center
- OBJ #3 In the competitive market of international education, the marketing and communications team will tell you how their point of view shaped the design of the new media center at Shanghai American School
- OBJ #4 See a case study of how Shanghai American School is creating a new media center model to support student innovation and collaboration

Schools as Community Catalyst

Rebecca Baibak, AIA, NCARB, REFP, LEED AP, Principal, Integrus Architecture / Matthew Feldmeyer, R.A., Capital Projects Manager, Renton School District / Brianne Tomlin, AIA, NCARB, LEED AP, Senior Associate, Integrus Architecture / Terrace / AIA CEU: 1.0 LU

Primary Core Competencies: Educational Facility Pre-Design Planning / Secondary Core Competencies: Design of Educational Facilities

As the density in cities grows, so do the needs for civic facilities that serve the population throughout the year. Restrictive sites, needs for year round community spaces, and city's need to create a cohesive and identifiable urban center. This session will explore how in Renton, Washington (just outside Seattle) the new downtown Sartori Elementary School is serving as a new prototype for school campuses to support high-density development, eliminating the need for a larger project site. In addition, the vertical design creates more open space available to students and the surrounding community for recreational use. It is located in a designated Regional Growth Center, that will collaboratively serve 650 students, combining a community based elementary school with a magnet STEM program. Through a highly collaborative process the functions on the site, and within the facility step in the right direction toward achieving the city's vision, so that the city center and downtown become "a cohesive, identifiable urban center where people live, work, learn, play and visit."

Learning Objectives

- OBJ #1 Understand how a city's growth plan are symbiotic with development of an urban school.
- OBJ #2 Explore the varying considerations, challenging the status quo, in elementary school design to better support collaborative use of spaces as the lines between a community center and elementary school blur.
- OBJ #3 Explore how schools and communities can create stronger ties through experiential learning curriculum.
- OBJ #4 Develop critical analysis through the evaluation of a real world example where the opportunities and challenges in bringing forward innovative ideas in site design, curriculum, and shared use overlap.

SESSION ABSTRACTS continued...

FRIDAY, OCTOBER 4 10:15 am - 11:15 am

Societal Benefits of Managing Facility Cost of Ownership

Monte Hunter, Principal, Parkhill Smith & Cooper / Garden 1 / AIA CEU: 1.0 LU

Primary Core Competencies: Design of Educational Facilities / Secondary Core Competencies: Educational Visioning

Learn how managing facility total cost of ownership (TCO) can positively impact society. Preserving funds for education, preserving resources, saving energy, reducing carbon footprints, reducing landfill impact and facility equality are a few ways TCO management can benefit society. Case studies with proven results will be provided. Attendees will learn how to build an Excel template to manage TCO.

Learning Objectives

OBJ #1 Components of TCO.

OBJ #2 Estimating TCO on a regional basis.

OBJ #3 Preserving resources and education funding with TCO management

OBJ #4 Improving facility equity with TCO

Making the Grade: How IEQ in Schools Affects Student Performance

Patrick Davis, Chief Operating Officer, District of Columbia Public Schools (DCPS) / Garden 3 / AIA CEU: 1.0 LU

HSW / Primary Core Competencies: Assessment of the School Facility Secondary Core Competencies: Design of Educational Facilities

What is the most important factor in a successful school? When renovating or building a new school, what do school districts care about the most? Student achievement. This session will explore how high-performance design strategies can have a direct positive impact on student performance, and consequently how this information can be used to justify the value of high-performance design to clients moving forward. The session will present the content of a recent research report that studied schools across the District of Columbia, including recently modernized as well as non-modernized schools constructed across the 20th Century. This study explores both qualitative and quantitative data of each school's Indoor Environmental Quality (IEQ) including daylight, thermal comfort, acoustics, and air quality. These data points are then cross compared with various performance metrics from each school to determine which factors did and did not affect student performance. All the sensors used for the study will be available during this session, and live readings will be occurring for attendees to test the Indoor Environmental Quality of the room themselves. Ultimately this study provides the much-needed justification for high-performance schools, showcasing that modernization can have a significant impact on student performance.

Learning Objectives

OBJ #1 Explain how indoor environmental quality can affect student and teacher performance.

OBJ #2 Gain awareness of tools that can be used to measure indoor environmental quality quantitatively and qualitatively.

OBJ #3 Analyze how modernized and non-modernized schools can impact indoor environmental quality and student performance

OBJ #4 Apply this information to improve and measure the IEQ in your educational projects moving forward

SESSION ABSTRACTS continued...

Educational Commissioning: Harnessing the Power of Teacher Hacks

Cassandra Bennett Porter, Director of Elementary/K-8, San Juan Unified School District / Aaron Buehring, Director of Educational Environments, Lionakis / Terrace / AIA CEU: 1.0 LU

Primary Core Competencies: Design of Educational Facilities / Secondary Core Competencies: Educational Visioning

Are you commissioning all the systems you should be? We're all familiar with commissioning related to the efficiency and functionality of a building's HVAC / energy management system: we set up a basis of design, work during the design process to meet those goals, and then, when construction is complete, train the staff on how the building works, measure whether the system is functioning properly, and fine tune it as needed until it meets the design requirements. We'd like to encourage more design teams and clients to fully embrace the concept of Educational Commissioning—that is fine tuning the building for its performance as an educational environment. We see that as having the same steps as “regular” commissioning: observing current teacher “hacks” (all those upside down buckets with seat cushions, laundry baskets turned into cozy reading seats, weekend paint jobs, and dad-built backpack carts that teachers add to classrooms to better accommodate the activities they're engaging students in) to understand the rationale behind them, refining the basis of design, and then working during the design process to support those teaching methodologies. But too many design teams (and school district administrators) stop there. The components that would make educational facility design a true product of co-creation—training the staff on how the building features work, measuring whether the educational elements are functioning as desired, and then fine tuning them as needed until they meet the design requirements—get shortchanged, leaving teachers to hack even brand new facilities. Through examples from school districts and teachers, we will share how implementing the fine tuning and feedback loop changes the design process from a linear model to a circular co-creation model, which helps harnesses the power of the hack to improve facility design and enhance educational outcomes.

Learning Objectives

OBJ #1 Define the Educational Commissioning process

OBJ #2 Understand how commissioning design and furniture solutions bring value to the overall design of educational facilities

OBJ #3 Share real world examples of teacher hacks translated into architectural design that have improved educational outcome

OBJ #4 Learn tools for improved and more-informed user engagement

FRIDAY, OCTOBER 4 11:30 am - 12:30 pm

From Flexible Seating to Agile Space: Facilitating Student Agency

Bryan Dean, Space Futurist, NorvaNivel / Garden 1/ Primary Core Competencies: Educational Facility Pre-Design Planning
Secondary Core Competencies: Educational Visioning

As the Exponential Age of innovation unfolds around us, learning environments are changing to meet the new needs of learners and educators. Flexible classrooms have been introduced to allow educators flexibility to facilitate the varied pedagogical practices. Yet as industry and society have created demands for deeper collaboration, critical thinking, and creative confidence for the future workforce, we need to consider how to further empower students in learning environments. One of the key ways of achieving this is through agile space design. Agile spaces encourage students to take control over their spaces, leading to self-mastery and executive functioning.

SESSION ABSTRACTS continued...

Learning Objectives

- OBJ #1 Understand the differences between agility and flexibility in learning spaces
- OBJ #2 Discuss the interconnection of agility and learner agency
- OBJ #3 Explore the impact of agile spaces through case studies
- OBJ #4 Learn how to apply the principles of an agile space to classrooms, libraries, and all learning spaces

Capturing the essence and intent of a school through pre-design co-creation sessions

Matthew Dwyer, Co-Director, IDE / Scott Alterator, PhD., PhD, IDE (Innovation = Design + Education) / Garden 3 / AIA CEU: 1.0 LU / Primary Core Competencies: Community Engagement AIA CEU: 1.0 LU Secondary Core Competencies: Educational Facility Pre-Design Planning

Participatory design harnesses the latent potential of all stakeholders: teachers, school leaders, parents, students and designers. Through an intensive participatory process a team of 8 teachers, two academics, 45 students and two architects developed a school design through a series of collaborative techniques. These included taking stock of ideas in current practice, existing space use, development through imagined practice, fertile possibilities, productive provocations, dream-school sessions, and finally a spatio-temporal mapping exercise. The importance of contributions was shaped by our model of participatory design emphasising development of voice at critical junctures across time. One case study is presented. The case study school is a subsequent stage of the recipient of the A4LE Australasian Award for individual facility (\$2.5 million) project of distinction (2016). This presentation focuses on an Australian K-4 elementary school stage. This project undertook a design process seeking to maximise the educational model centred on project based learning. This approach centres on the idea that students are active investigators of their world with knowledge generated through a series of individual and collective interactions with genuine experiences. We will present a model for participatory design that identifies key moments of collaboration. The presentation will share a series of insights framed by enablers and constraints that have emerged from the particular participatory design process employed at this site.

Learning Objectives

- OBJ #1 Participants will identify specific strategies for participatory design
- OBJ #2 Participants will understand the need for educators to be involved in the design process
- OBJ #3 Participants will identify enablers and constraints of participatory design
- OBJ #4 Participants will understand critical junctures for emphasizing educator voice

Culture + History, School and Community

Kedrick Wright, LEED® AP, Director, Planning and Construction, San Antonio ISD / Federico Cavazos, AIA, LEED AP BD+C, Project Architect, LPA, Inc. / Stephanie Matsuda-Strand, LEED AP BD+C, Project Designer, LPA, inc. / Julia Hawkinson, AIA, ALEP, LEED AP BD+C, O+M, WELL AP, Senior Facilities Development Manager, Los Angeles Unified School District / Terrace / AIA CEU: 1.0 LU HSW

Primary Core Competencies: Community Engagement Secondary Core Competencies: Ethics / Professionalism

This session will compare two urban areas – Los Angeles, CA and San Antonio, TX, and how two high schools are responding to community desires to maintain the important history and culture of the past while bringing the facilities up-to-date and changing the architecture to support next-generation teaching and learning. Community

SESSION ABSTRACTS continued...

engagement strategies and educational signage and graphics help communicate each site's special history in unique ways. Lanier HS of San Antonio, TX, is home to the Engineering Career Institute, a district magnet program offering students opportunity to focus in one of four different strands or majors. The 181,000 SF academic building, built in 1975, is the focus of major renovation work on the 1700 student campus. Roosevelt HS in Los Angeles, CA is a large, comprehensive high school with a rich history of immigrant groups in the area with artwork and murals being preserved while new construction replaces demolition.

Learning Objectives

- OBJ #1 Recognize broad community engagement strategies and the importance to the success of a public project.
- OBJ #2 Understand how to approach stakeholders who have a personal connection to historical components of a site.
- OBJ #3 Communicate the objective of an "interpretive program" in the form of signage and graphics.
- OBJ #4 Become familiar with principles of historic preservation and when to engage an expert.

FRIDAY, OCTOBER 4 1:30 pm - 2:30 pm

Innovate, Iterate, Prototype: How failing fast can generate engaging and effective learning environments.

Gregory Monberg, AIA, ALEP, Director of Architecture, Wightman / David Eichberg, Superintendent, Berrien Springs Public Schools / Tony Lieninger, President, CARMI Design / Carl Baxmeyer, REFP, AICP, Planning Department Manager, Wightman & Associates / Garden 1 / AIA CEU: 1.0 LU / Primary Core Competencies: Educational Visioning / Secondary Core Competencies: Community Engagement

Our multidisciplinary presentation team of a superintendent, a planner, and two architects will demonstrate a variety of techniques in design thinking with real world case studies of how these processes produced effective and engaging learning environments for a range of activities and ages; from early childhood through middle school and high school. The first case study will explain how design thinking led to a renovated early childhood center. The second will focus on the creation of a cutting-edge STREAM Lab within the confines of an outdated natatorium. The third will include the design process for visioning and community engagement for a new performing arts and indoor athletic facility for a middle school and high school.

Learning Objectives

- OBJ #1 Describe how design thinking can lead to improved engagement from a community visioning group.
- OBJ #2 Understand how rapid prototyping can streamline the design process and create unexpected solutions.
- OBJ #3 Define the steps needed for design thinking to be productive in creating an effective and engaging learning environment.
- OBJ #4 Contrast the different paths in design thinking to develop a successful outcome for varying age levels and differing educational programs.

SESSION ABSTRACTS continued...

Transforming the Existing Schools of Los Angeles - Los Angeles Unified School District's Comprehensive Modernization Program

Michael Pinto, AIA, Design Principal, NAC Architecture / Sandy Kate, LEED AP, Associate Principal, HMC Architects / Jorge de la Cal AIA, LEED AP BD+C, Principal, CO Architects / Julia Hawkinson, AIA, ALEP, LEED AP BD+C, O+M, WELL AP, Senior Facilities Development Manager, Los Angeles Unified School District / Garden 3 / AIA CEU: 1.0 LU / Primary Core Competencies: Educational Facility Pre-Design Planning / Secondary Core Competencies: Design of Educational Facilities

Los Angeles Unified School District has undertaken a major effort to upgrade, improve and transform its existing school sites. Following the completion of the new school construction program and the opening of 131 new schools, the District turned its attention to its more than 500 existing school sites. The average age of District schools, even including the new schools, is over 50 years old. The District's current bond program, the School Upgrade Program has the following goals:

- Schools Should be Physically Safe and Secure
- School Building Systems Should be Sound and Efficient
- School Facilities Should Align with Instructional Requirements and Vision

With these goals in mind, a data collection and prioritization effort led to the identification of 11 school sites with the greatest facilities needs in March of 2015 for the development of comprehensive modernization projects. A second group of 11 school sites was identified in December of 2016. These 22 projects represent an investment of approximately \$3.4 billion, and include the following scope:

- Retrofit or replacement of approximately 100 buildings requiring seismic upgrades
- Renovation of nearly 70 buildings of historic significance
- Removal of approximately 280 relocatable buildings
- Construction of approximately 680 new classrooms

The District developed a set of core principles to utilize in developing the project scopes, with safety and physical conditions as the primary drivers. Each school brought its specific and unique facility needs, educational program and community culture and presented challenges to the project teams. The District worked with the school sites and project teams to develop solutions that were appropriate to each school site while maintaining a consistent approach to structural analysis, programming and implementation of District design standards. A District representative and three of the architects supporting this effort will tell the story of the Comprehensive Modernization program from assessment and prioritization, through scoping and programming, to design and construction. Examples from first group of projects will be shared, including Venice High School, Jefferson High School, North Hollywood High School and Polytechnic High School. Additional examples will be presented from earlier precursor projects, Crenshaw High School and Foshay Learning Center, as well as an early look at the challenges and opportunities of the second group of projects, including Taft High School, Kennedy High School, and Lincoln High School. The Comprehensive Modernization projects, ranging in budget from \$70M to over \$200M bring much needed upgrades, improvements and new buildings to each campus and provide a multitude of transformational opportunities, including:

SESSION ABSTRACTS continued...

- Removal of relocatable buildings allowed most campuses to recapture additional outdoor space for learning and physical activity, so precious in our urban campuses.
- Replacement of aging and underutilized shop buildings at several high schools made way for new CTE facilities, to meet the educational needs of the current programs.
- At several schools, the replacement of inadequate and aging gymnasiums with updated facilities to support health, well-being and school activities.
- At several schools, the replacement or renovation of visual and performing arts spaces, including art, music, dance and drama classrooms and performance spaces
- Incorporation of appropriate special education learning spaces integrated into the campus.
- Improvements to campus accessibility allowing access for all learners.
- And overall, an improvement to the quality of learning environments.

The panel will share lessons learned from their effort, many of which are being incorporated into the development of the second group of 11 projects. Along the way, the project teams have had the opportunity to develop exciting designs that respond to the educational vision of each school and reflect the richness of the District's diverse communities and history.

Embracing Diversity and Promoting Community: How One School Risked Conformity for Inclusivity

Kelly Callahan, AIA, Principal, VMDO Architects / Anne Lintner, Principal, Bluestone Elementary School, Harrisonburg City Public Schools / Terrace / AIA CEU: 1.0 LU HSW / Primary Core Competencies: Design of Educational Facilities / Secondary Core Competencies: Educational Visioning

'Welcoming' was the first adjective that leadership offered when brainstorming the vision for a new elementary school in the diverse small city of Harrisonburg, Virginia. And it was one that stuck. Harrisonburg is a prosperous city in the beautiful Shenandoah Valley, and continues to earn its nickname 'the friendly city' by integrating newcomers from around the world into its growing community. As a refugee relocation area, Harrisonburg has experienced the highest school enrollment growth rate in Virginia over the past 7 years. 35% of Harrisonburg City Public Schools students are identified as English Learners, representing over 60 different countries and speaking 57 languages in addition to English. This diversity offers both cultural opportunities for learning and exposure as well as challenges in terms of ensuring appropriate levels of support and development are championed for this unique and growing population. This presentation will highlight how school design can effectively support educational pedagogy while promoting equity and inclusivity, especially for diverse and high need demographics. Finding the right balance between learning and equity is a challenge that affects all schools and communities. Using Harrisonburg's Bluestone Elementary School as one example among others, attendees will be able to visualize methodologies for developing vibrant, welcoming learning environments that effectively foster belonging, social engagement, and meaningful relationships. Results from a recent custom post-occupancy evaluation module, developed in conjunction with the Center for the Built Environment's standard K-12 post-occupancy survey, will be shared and reinforce lessons learned related to creating an inclusive, safe, and healthy learning environment for a diverse population of students.

Learning Objectives

OBJ #1 Discover educational design solutions for creating a sense of belonging, student autonomy, and inclusivity among diverse student populations.

SESSION ABSTRACTS continued...

OBJ #2 Understand how diversified learning spaces can better support personalized learning and individual learning needs.

OBJ #3 Analyze how the site planning of an elementary school can connect students to community assets and the native landscape as well as create ambassadors of the environment.

OBJ #4 Examine how state- and district-level leadership can better prepare teachers and administrators to balance educational outcomes with equity inside and outside of the classroom.

FRIDAY, OCTOBER 4 2:45 pm - 3:45 pm

The Samueli Academy Story

Lindsay Hayward, Project Designer, LPA, Inc. / Anthony Saba, Executive Director, Samueli Academy / Fred Wallitsch, Project Executive, Snyder Langston / Garden 1 / AIA CEU: 1.0 LU HSW / Primary Core Competencies: Educational Facility Pre-Design Planning / Secondary Core Competencies: Educational Facility Implementation, Project Management / Project Delivery

For over 30 years, the Orangewood Foundation has provided innovative services for abused and neglected children and at-risk families to end the cycle of child abuse one life at a time. The Samueli Academy is a pivotal part of this mission. The result of an extensive planning process was a Master Plan for 480 students with a 115,000 SF academic downtown focused on project-based learning featuring a student union, innovation and health center intertwined with studios, labs and collaborative learning commons. Creating a strong School community, with joint-use and industry partnerships was part of the educational mission for the school, most importantly providing a place to belong for these at-risk students.

Learning Objectives

OBJ #1 Recognize how social-emotional learning can be influenced by physical space.

OBJ #2 Discover how an intense planning process including a large committee of stakeholders and local business leaders can result in a successful project.

OBJ #3 Learn how the spatial environment can be transparent and welcoming while also extremely durable, cost-effective, and long-lasting.

OBJ #4 Become familiar with educational psychology of at-risk students and how to best support a strong school community and social climate.

Immersive LearningSCAPE 3.0: The Good, the Bad, and the Data. A Post-Occupancy Evaluation Story at Fulton County Schools

Anh Tran, Anthropologist & Measurements Specialist, LITTLE / Tomas Jimenez-Eliaeson, AIA, Design Principal, LITTLE / Garden 3 / AIA CEU: 1.0 LU / Primary Core Competencies: Assessment of the School Facility / Secondary Core Competencies: Community Engagement

In 2010, at the A4LE Conference in San Jose, we introduced the concept of the Immersive LearningSCAPE as an idea to transform Learning Environments to meet the needs of a 21st Century Education focusing on Personalization, Collaboration, addressing Multiple Modalities of Learning, incorporating Latest Technologies, and supporting

SESSION ABSTRACTS continued...

Wellness and a Brain-Based educational process. In 2013, at the A4LE conference in Indianapolis, we presented The Immersive Learningscape 2.0, where we went beyond the concept to show how we were implementing the concepts into real school projects at all levels, Elementary, Middle and High school and with multiple clients: Public, Private and Charter. Now in 2019, we are ready to present extensive Post Occupancy Evaluation Results and Data from one of the implementations of the immersive Learningscape: The Re-design of Fulton County Atlanta's Middle School Prototype. The implementation happened in one school as a full conversion, and in 4 other schools as additions. We will share wide-ranging data showing both quantitative and qualitative responses from 585 perspectives: • 27 district-level administrative staff • 47 school-specific administration and staff • 180 teachers • 28 special education teachers and staff • 303 students The Post-Occupancy survey was designed to address several metrics and gather feedback about how the spaces were performing from the subjective perspectives of students, faculty, and administrative staff for each school as well at the district level. The survey was open from May 22, 2018 through June 13, 2018. We will present to the audience the engaging process that the design team had with the district, the school metrics including program, cost, and square footage, the implementation of the goals, photography of the learning spaces, and the qualitative and quantitative data collected through the survey. We will present a realistic and truthful review of the data. We will highlight the great things happening in the schools, the current challenges they have, and the lessons learned by the team and the district from the Post-Occupancy evaluation survey.

Learning Objectives

OBJ #1 We will share the engaging process that the design team had with the district, the school metrics including program, cost, and square footage, the implementation of the goals, photography of the learning spaces, so the audience understands the project background

OBJ #2 We will share the Quantitative data from 585 responses ranging from District Leaders, to School administration, to teachers and students. We will analyze the data and present it in multiple formats to highlight results based on role, population, school, type of learning spaces, type of learning

OBJ #3 We will share the Qualitative commentary from 585 responses ranging from District Leaders, to School administration, to teachers and students. We will also share commentary from interviews with 3 school principals

OBJ #4 We will share a summary of findings, and discuss the how space, pedagogy, leadership, technology, furniture, teaching, learning and change management have been evaluated in both successes and challenges with the projects. We will share top recommendations.

FRIDAY, OCTOBER 4 2:45 pm - 3:45 pm

Engineering Physical Activity and Well Being Into the Playground

Marcella Raney, PhD, Associate Professor of Kinesiology, Occidental College / Susan Ward-Roncalli, Social Emotional Learning Facilitator, Division of Instruction, LAUSD / John Kruse, Physical Education Instruction Advisor, Los Angeles Unified School District Terrace / AIA CEU: 1.0 LU HSW /Primary Core Competencies: Educational Visioning / Secondary Core Competencies: Design of Educational Facilities

In urban low-income Los Angeles neighborhoods, children have very few opportunities to engage in safe physical activity outside of the school campus. Currently, in Los Angeles Unified School District (LAUSD) and in many other inner city school districts, playground surfaces are covered primarily by asphalt. In a recent survey, it was estimated

SESSION ABSTRACTS continued...

that the entire playground is paved without any tree canopy coverage at 20% of LAUSD schools. In addition, nearly 11% of L.A. County students are completely sedentary. Inactivity and obesity rates are disproportionately higher for girls, students from low-income families, and students from underrepresented populations. Fortunately, substantial green schoolyard programs which have been connected to reduction in the heat-island effect, increased physical activity, improved mental health, and social development for at-risk youth are underway and large-scale investments in school ground transformations are accelerating. In this panel, physical activity and physical education specialists as well as representatives from LAUSD Facilities Department will present evidence-based research demonstrating how to optimize the benefits of these investments during unstructured recess and curriculum-driven outdoor instruction.

Learning Objectives

OBJ #1 Participants will acquire new knowledge and skills in developing outdoor play spaces to enhance social and emotional development in elementary school children.

OBJ #2 Using case study examples, participants will identify design strategies to encourage movement and engagement with others.

OBJ #3 Participants will explore various types of materials to reduce heat island effect of asphalt playgrounds that result in physical and mental health benefits.

OBJ #4 Participants will examine the importance of physical activity to a child's ability to focus, learn, resolve conflict and build resilience to adverse experiences outside of school.

FRIDAY, OCTOBER 4 4:00 pm - 5:00 pm

Cutting Edge Scandinavian Schools: A Design Research Mission

Max McCloskey, Senior Associate, RATIO Architects / Garden 1/ AIA CEU: 1.0 LU HSW / Primary Core Competencies: Design of Educational Facilities / Secondary Core Competencies: Educational Visioning

How does the design of learning environments support the academic success of the student? In 2018 Max received a travel grant from the Colorado Chapter of the AIA to study ten contemporary schools throughout Finland, Sweden, and Denmark. Set in a rich history of design excellence, Scandinavian architects and educators are enabled to explore revolutionary concepts in learning environments that enhance the academic success of students. These countries have consistently ranked amongst the top 25 countries in the world based on data from the Program for International Student Assessment (PISA). Through conversations with Administrators, teachers, and designers Max sought to study the elements of contemporary school design that support such high achieving academics while creating beautiful, sustainable environments. The classroom that we grew up in has been replaced with flexible spaces that honor individual learning, embrace collaboration, and invite the community in. This session will take the audience on a tour of the best academic buildings in Scandinavia highlighting successful design strategies based on the following criteria:

- Innovative learning environments.
- Connection to the community.
- Integration of sustainability: environmental, social, or psychological

Learning Objectives

OBJ #1 At the end of this program, participants will be able to execute the design elements that contribute to highly effective learning environments.

SESSION ABSTRACTS continued...

OBJ #2 At the end of this program, participants will be able to illustrate to their clients security solutions in school design that are effective and aesthetically sophisticated.

OBJ #3 At the end of this program, participants will be able to measure the benefits indoor air quality and natural light have on the academic and emotional success of children.

OBJ #4 At the end of this program, participants will be able to lead the design of a school that is based on the clients pedagogy.

FRIDAY, OCTOBER 4 4:00 pm - 5:00 pm

Crafted in Community: Co-Creating the Next Generation of CTE

Chad Duwenhoegger, Principal, Alexandria Area High School / Margaret Parsons, AIA, ALEP, LEED AP BD+C, Principal Architect, Cuningham Group Architecture, Inc. / Janet Renden, Principal, Bollman Technical Education Center and CTE Director, Adams 12 Five Star Schools / Garden 3 / AIA CEU: 1.0 LU / Primary Core Competencies: Community Engagement / Secondary Core Competencies: Educational Visioning

Career Technical Education (CTE) programs have existed in American schools in some shape or form for decades. However, these CTE programs — a means of integrating traditional academic knowledge with career-oriented technical skills — are often unconnected to their surrounding communities. This lack of integration leaves CTE programs underutilized, undervalued, and ill-equipped for a rapidly changing future. This session will examine two models of next-generation CTE programs and discuss how they were developed through community efforts. The first model, a school located in central Minnesota, invited its community into the design process of its new high school, creating a dialogue about what local businesses were looking for. The result was a program with access to cutting-edge technology that integrated into the school's academies, as well as mentorships and internships with local businesses. The second model, located in Colorado, built on the success of an existing CTE facility and program. By looking at what the students wanted, what the parents wanted, and what the community needed, the school was able to create a CTE program with the flexibility — both physical and programmatic — to adapt to whatever future markets and economies may demand. Come hear the leaders of these schools discuss the process, challenges and rewards of working with a community to develop personalized, lasting, cutting-edge CTE programs.

Learning Objectives

OBJ #1 Participants will learn how community engagement is key to integrating academic learning and CTE skills.

OBJ #2 Participants will learn how community partnerships are important for relevant learning and program sustainability.

OBJ #3 Participants will be able to compare two viable models of CTE delivery.

OBJ #4 Participants will learn about the challenges and successes of each model.

Brand-new & shiny! Now what? Educators' "Spatial Commissioning" Workshops & Results

Lennie Scott-Webber, PhD, NCIDQ, AIA Affiliate, AIA/CAE, Owner/Principal, INSYNC: Education Research + Design / Sheila Hammond, Principal, , Ecole Salish Secondary School, Surrey School District #36 / Noah Greenberg, AIA, LEED AP, Principal, DLR Group / Terrace / AIA CEU: 1.0 LU / Primary Core Competencies: Assessment of the School Facility / Secondary Core Competencies: Educational Visioning

SESSION ABSTRACTS continued...

The very first 21st century designed school, along with the 21st century learning place interiors were developed for this district (i.e., “learning pods” and their research-affirmed affordances). A new principal, and all newly hired educators experienced three workshop segments, or “spatial commissioning” - Pre, Just After and Post. First, a 1.5 day Critical Thinking Method Workshop was held Pre-turnover in mocked up spaces to begin to bridge the connections between: (a) each other, (b) educators and administrative team, (c) the idea of “space as a teaching tool” as these interiors were very different from what all were accustomed to, and (d) the development of a common language in which to work. Second, a half-day workshop was held a few weeks Just After the beginning of the opening semester. This workshop was timed in order to: (a) revisit what was affirmed in the pre-start workshop, (b) determine “how they were doing,” (c) determine and “shadow” or left over comfort zone behaviors, and (d) offer collective insights in terms of any struggles or challenges, or behaviors that educators found themselves falling back upon. The third workshop was near the end, or Post 1st Year’s term. This workshop asked: (a) for reflections on how the learning pods worked/didn’t, (b) what the educators learned about themselves and their students as they moved into this new type of learning and teaching methods, and (c) what were the lessons’ learned/what you would do differently next year to keep alive and honor the active learning vision growing. The workshop presenters will share the lessons learned after each of the workshops and valuable insights from a first year’s worth of work by the principal as a member of this presentation.

Learning Objectives

OBJ #1 Develop an appreciation for how the “commissioning” method works from a pedagogical perspective, and what each session worked to accomplish; How the method “implements a plan for educational commissioning that provides guidance on how to use and maximize the learning environment to meet the foundational vision established in the planning phase.”

OBJ #2 Interpret the “findings” from the sessions along with the presenters and have opportunities for discussion of the struggles identified through each phase; “Demonstrates the ability to articulate the impact of learning environments on learning and teaching and uses that ability to facilitate a dialogue that uncovers the unique needs and long-range goals of an educational institution and its stakeholders.”

OBJ #3 Recognize that change is no easy task, and all of these individuals were new to space being a tool for learning and teaching. See the results from the educators’ perspectives

OBJ #4 Examine how the method led to the results of building a 21st century community of learners that is still evolving.

SESSION ABSTRACTS continued...

SATURDAY, OCTOBER 5 1:00 pm - 2:00 pm

Opening the Conversation: Closer Collaboration among Educators and Architects

Natalie Owsley, English, Journalism & AVID Teacher, Homestead High School, Fremont Union High School District / Jill Goodman, Ph.D., Senior Lecturer in English Emerita, Santa Clara University / Gayatri Medury, AIA, Associate, Artik Art & Architecture Harbor / AIA CEU: 1.0 LU / Primary Core Competencies: Educational Visioning / Secondary Core Competencies: Design of Educational Facilities

Co-creation and collaboration -- this is the direction pedagogy has been heading for many years, from K-12 through higher education. While it is difficult to change the way we teach and organize our schools, this shift is happening, and it has profound implications for architects and planners who are responding with innovative designs of learning spaces for all kinds of classes, from science and art to history and English. The work done by students in English courses, for example, has traditionally been individual work, but in the last 20+ years, that model of writing studies has changed. Outside of the field, however, few people are aware of this -- or of how affective it can be. Because dynamic collaboration among architects and educators is essential, we want to use this opportunity (and this example from one discipline) to spark a conversation about pedagogical collaboration -- what it looks like and how it works, beginning with the educators' perspective. To start the conversation, we -- two teachers and an architect -- will share current examples of collaborative work in high school and university writing classes, with brief discussions of theory, course strategies, assignment design, and assessment tools. We will share student responses and short samples of their work as well as diagrams of how they use the spaces. Throughout the session, we will invite educators and architects in the room to join in with their ideas and experiences. The purpose is to launch a lively discussion that will ideally reveal the value for architects of partnering with educators, working and talking together -- thoughtfully -- as a way to truly understand some of the new collaborative methods and pedagogical goals of current teachers.

Learning Objectives

- OBJ #1 To familiarize architects and planners with theory and practice of collaborative pedagogy by using examples from high school and university writing courses
- OBJ #2 To illuminate specific ways students work together and use learning spaces (and technology) during collaborative lessons
- OBJ #3 To consider some of the ways that the design of learning spaces can enhance or impede such pedagogies
- OBJ #4 To experience a collaborative conversation, in seminar style, with other passionate professionals in education and architecture

Architects and Designers can have a greater impact on student engagement than teachers

Jon Moroney, Industrial Design Program Chair, Kendall College of Art and Design / Alan Rheault, Chief Furniture Designer, Fleetwood FurnitureTerrace / AIA CEU: 1.0 LU / Primary Core Competencies: Design of Educational Facilities / Secondary Core Competencies: Educational Visioning

Why is the discussion regarding student engagement so prevalent? What are the root causes of this growing concern? Are typical classroom environments contributing to this issue? We investigated these questions and found that there are key contributors outside of the school's control that make it challenging for students to focus and stay engaged during class. We will share how we used secondary research combined with video ethnography to understand

SESSION ABSTRACTS continued...

the physiological reasons why this is happening and to show how typical classroom design choices often add to the problem. We will present solutions that improve student engagement and create a more effective learning environment without changing teaching methods.

Learning Objectives

- OBJ #1 Understand key reasons why student engagement is such a challenging problem
- OBJ #2 Discover unintended consequences of a typical classroom design
- OBJ #3 Learn how video ethnography and other research methods are valuable tools of design
- OBJ #4 Learn ways to improve student engagement without changing teaching methods

How to CHANGE your PARADIGM. Edmonton Public Schools' Journey to 21st Century

Learning Environments

Greg Hasiuk MRAIC, MAA, SAA, OAA, AAA, LEED AP, Partner, Practice Leader, Number TEN Architectural Group / Terri Gosine, Director Infrastructure, Project Management Office, Edmonton Public School Board / Gabe Derksen, M.Arch, MAA, LEED AP, Associate, Education & Recreation Studio Lead, Number TEN Architectural Group / Garden 1 / AIA CEU: 1.0 LU / Primary Core Competencies: Educational Visioning / Secondary Core Competencies: Educational Facility Implementation, Project Management / Project Delivery

You're a public school division in a major city with 213 schools, 101,865 students, 9,225 staff, and an operating budget of \$1.23 billion. Your pedagogy is considered innovative, but your learning environments do not properly align or support much of that innovative thinking. How do you initiate change? Where do you start? How can large organizations begin to explore new ways of thinking about learning environments? This session tells the story of Edmonton Public Schools' journey to 21st Century Learning Environments. They undertook a process of discovery, co-creation, and implementation that let pedagogy drive the design process, resulting in the creation of several new learning environments that changed their paradigm. Representatives from Edmonton Public Schools and Number TEN Architectural Group will tell the story of their journey. **Discovery:** The session will describe the Innovation Matrix™; a tool used to help Edmonton Public Schools learn about the principles behind 21st century learning environments, examine their current and future pedagogical goals, and align them with the appropriate learning environments to support those goals. **Co-creation & Implementation:** The session will describe the Integrated Project Delivery (IPD) method used to co-create and implement their new paradigm. IPD creates a contractually integrated team of facility managers, educators, designers, contractors, and sub-trades who share and co-create the project vision, design innovations, lean construction techniques, and profit. Finally, the session will describe some of their new and renovated school design concepts.

Learning Objectives

- OBJ #1 Learn about the Innovation Matrix™ tool that helps teachers and administrators better understand the connection between pedagogy and learning environments and the different levels of innovation.
- OBJ #2 Learn about the importance of properly connecting the language of pedagogy to the language of design.
- OBJ #3 Learn about Integrated Project Delivery as a powerful method to co-create successful 21st Century Learning Environments from concept to completion.
- OBJ #4 Learn about the priorities & design solutions that came of out the process.

SESSION ABSTRACTS continued...

SATURDAY, OCTOBER 5 1:00 pm - 2:00 pm

“Hack” Your School: An Innovators Guide to Future-Focused Facilities!

Damien Schlitt, AIA, LEED AP, BLDD Architects / Shannon Creek, Principal, Mahomet-Seymour (IL) High School / Garden 3 / AIA CEU: 1.0 LU / Primary Core Competencies: Educational Visioning / Secondary Core Competencies: Design of Educational Facilities

As an innovator, it's clear to you how important forward-thinking schools are to support education in the future. But how do you get reluctant teachers and administration on board when their vision is firmly rooted in the past? Seeing is believing, and “hacking your school” can get everyone excited about new approaches by bringing them to life in your building before the design is ever finalized. This expanded co-creation design process (coined THINK BIG) used by Mahomet-Seymour SD and their architectural design team resulted in student outcomes that surpassed their wildest expectations, transforming spaces from irrelevant to indispensable. The key to the success of THINK BIG is full scale prototypes, created by “hacking” the existing space (tearing out a few walls and mocking up new ones, while staging the space with furnishings and technology) to cost effectively identify design preferences. Teachers and students test prototypes by holding class in the hacked space, to discover what works and what doesn't to discover an innovative design solution that will be put to use, by even the most reluctant team members!

Learning Objectives

- OBJ #1 uncover big ideas and new approaches
- OBJ #2 quickly explore user-designed solutions
- OBJ #3 test options with full-scale prototypes
- OBJ #4 empower teachers to be champions of change

How School Facilities can Support the Challenges of Student Homelessness

Kaylee & Christina Hayward / Elida Sanchez, Social Service Specialist, Santa Ana Unified School District / Letisia Alvarado, Licensed Clinical Social Worker; Lead Counselor, Los Angeles Unified School District / Helena Jubany, Principal, NAC Architecture / Garden 4 / AIA CEU: 1.0 LU HSW / Primary Core Competencies: Educational Visioning / Secondary Core Competencies: Design of Educational Facilities

In the midst of the housing crisis in California, the number of homeless children continues to rise. Currently, there are more than 202,300 homeless youth in the state, which equates to a 20% increase since 2014. This represents almost 4% of California's school population in general. In 2018, there were approximately 20,000 homeless students in the Los Angeles Unified School District; that's a 50% increase from the previous year. Schools need to be aware of the needs of homeless students, and how to support learning for kids with the social and emotional “baggage” that they often carry with them. It is common for these kids to exhibit introverted behaviors. Shelter children often change schools or school districts frequently, as a result of moving to a new shelter when their time in their previous facility is up, or because they are fleeing from abusive parents, or living with parents who are struggling with mental health issues. It is difficult for them to want to socialize and make friends knowing that they may have to move again. The physical school environment is very important for homeless students, and is often where they find stability and structure in their lives. Children living in shelters may rely on school facilities to provide a place to do homework, a place to shower, a place for clean laundry, a place to meet with social services, or even a place to receive basic medical care. In

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many cases, educators and school administrators serve as a homeless student's first line of defense. This session will explore some of the common needs of homeless students, and how a school facility can not only help mitigate some of these needs, but serve as a safe environment that encourages and motivates homeless students to succeed.

Learning Objectives

OBJ #1 Attendees will gain an understanding of the needs of homeless students

OBJ #2 Attendees will explore ways to address the challenges homeless students face

OBJ #3 Attendees will learn how the school environment can provide solutions to these challenges, engage and motivate homeless students

OBJ #4 Attendees will obtain resources and information that they can use to start the conversation about student homelessness in their own districts

From Gastronome to Iron Chef: Reshaping and Transforming the Culinary Experience

Wendy Watts, IIDA, Interior Designer, Wight & Company / Sean Carney, Assistant Superintendent for Business, Adlai Stevenson High School District 125 / Scott Reitano, Principal, Reitano Design Group / Craig Siepka, AIA, LEED AP BD+C, Design Principal, Vice President, Wight & Company / Pacific / AIA CEU: 1.0 LU / Primary Core Competencies: Design of Educational Facilities / Secondary Core Competencies: Educational Visioning

Expectations of the "Food Network generation" both in terms of their food preferences and their interest in the culinary arts are beginning to impact schools in unexpected ways. The Food Network generation has grown up with exposure to multicultural cuisines, non-traditional dining experiences, and food science. As a result, their perspectives on food are far more sophisticated than those of prior generations. What does this mean for high school food cafeterias, as well as culinary arts programs? Food service programs now have the opportunity to serve a greater purpose than simply providing lunch. Successful programs are featuring "eat-ertainment" components—putting food prep on display in a theater-like setting, adding made-to-order stations, and more which increases student participation and results in healthier food choices. Successful applied arts programs are capitalizing on the visibility of Food Network celebrity chefs to spur student interest in pursuing the culinary arts. Rethought culinary facilities capture the excitement of the facilities they see on television. This presentation will explore ways in which the design of both food service and culinary arts spaces can be aligned to deliver on both best/next practices and support future academic programming. Examples of facility changes and their outcomes at four major Chicago area high school districts will be shared. This session will include an in-depth analysis of the visioning process for food service spaces at several midwestern high schools. Results will include a programming analysis and the planning strategies specific to each school's unique goals.

Learning Objectives

OBJ #1 Gain and understanding of ways in which the latest approaches to food service design can impact nutrition, decrease waste, improve delivery speed and increase choice.

OBJ #2 Explore the financial benefits districts can realize by improving their healthy, sustainable cuisine offerings. Findings will include programs that do, as well as do not receive funding from the National School Lunch Program.

OBJ #3 Discover food service and culinary program planning/design strategies that provoke positive changes in student behavior.

OBJ #4 Become familiar, through a series of case studies, with programs that celebrate the culinary arts with the same excitement as other maker programs, incorporating ties to multiple subjects and entrepreneurial connections.

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SATURDAY, OCTOBER 5 2:15 pm - 3:15 pm

Growing Pains: Community Engagement and the Impact of Unique Pedagogy During Planning and Design Development

Sarah Gould, AIA, A4LE, Owner, KKT Architects, Inc. / Emily Hutton, Director, Tulsa Public Schools / Liz Rohrbacker, IIDA, ALEP, Principal, KKT Architects, Inc. /Garden 4 / AIA CEU: 1. 0 LU / Primary Core Competencies: Community Engagement / Secondary Core Competencies: Design of Educational Facilities

Pedagogy is critical to establishing the programming, planning, and design for any school project. When a pedagogy is unique within its district, additional research, focus groups, and discussions from the outset of design development ensure project priorities are established and all stakeholders' needs are included. Buy-in of the community, school personnel, and students is crucial to long-term project success. In this presentation, we explore several methodologies related to approaches and timing for engaging community stakeholders as well as integration of stakeholder priorities into project planning. Tulsa Public Schools (TPS) has implemented unique pedagogies for two elementary schools. One is the first public Montessori school in the state. The other is among the few language-immersion schools in the Tulsa area. Both were developed with thoughtful engagement with constituents but in two very different ways. Our presentation will explore methods of community engagement, using these two schools as case studies, and share the lessons we learned through the different approaches. Emerson Montessori, a gut and remodel of an existing building plus an addition, opened in August 2018 in an underserved community in North Tulsa. The architectural team and district worked together to include the community group—a highly-engaged staff, the neighborhood association, and parent groups—in planning the facility. Based on community feedback, TPS decided to phase in the Montessori training for the staff which meant the building planning and design had to work for the district's traditional standards as well as become the model for the district's new standards related to Montessori education. The neighborhood group prioritized building aesthetics (to fit within the neighborhood context) as well as the programming and services being offered (including aftercare and other partnerships). Eisenhower International School entailed a full gut and remodel of an existing unoccupied middle school which was repurposed for relocating the established and successful TPS elementary language-immersion magnet program. In addition to the customary programming and planning meetings with the administration and faculty, the design team engaged the highly-invested PTA, first, to address programming, then in the design process to visualize the remodel. For this project, meetings illuminated the differing priorities of the school and the PTA and established areas of tensions needing to be addressed as well as areas of common ground. KKT led the many stakeholders: school staff, School Community, neighborhood groups, and district leaders through a series of design meetings that brought all constituent voices to the table, and resulted in project success. The timing for engagement with stakeholders at both schools provide lessons learned for proactive communications.

Learning Objectives

OBJ #1 DISCUSS methods and timing of collaboration with your client (or school district) to IDENTIFY project stakeholders, both internal (teachers, administration, and students) and external (parents, neighborhood association groups, and the general public).

OBJ #2 EVALUATE and DEVELOP tools to engage effectively with various stakeholders.

OBJ #3 ABILITY to evaluate the best timing for engaged discussions with community stakeholders during the programming, planning, and interior design of a public school entity.

OBJ #4 DISCOVER examples of unique programming and planning opportunities that can be inspired by community-engagement stakeholder meetings during the design phase via case study examples.

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Design for Unique Learners: Innovative Learning Environments and their Post-Occupancy Evaluation for Students with Developmental, Cognitive, & Multiple Disabilities

Karen Alarid, RA, AIA, Executive Director Facilities Design and Construction, Albuquerque Public Schools / Kizito Wijenje, AICP, Executive Director, Albuquerque Public Schools / Lila Ramirez, Exceptional Student District Specialist for Comprehensive Services, Albuquerque Public Schools / Rupal Engineer, RA, Principal in Charge, Design Plus Architects / Harbor / AIA CEU: 1.0 LU HSW / Primary Core Competencies: Educational Visioning / Secondary Core Competencies: Assessment of the School Facility

The design of learning environments requires the synthesis of many factors in order to create spaces that are safe, functional, and comfortable. In addition, as architects we also strive to create environments that support and enhance the learning experience for students and teachers. This is especially true in the design of learning environments for students with Developmental, Cognitive, and Multiple Disabilities (MD) as well as Severe Sensory Processing Disorders (SPD). The number of students with these challenges continues to rise: In 2015–16, the number of children and youth receiving services was 6.7 million, corresponding to 13 percent of total public school enrollment (National Center for Education Statistics). 1 in 59 (1.7%) children are diagnosed with Autism Spectrum Disorder (CDC Autism and Developmental Disabilities Monitoring (ADDM) Network Data 2018). From 2014 to 2016, the prevalence of children ages 3-17 who had been diagnosed with Developmental Disabilities rose from 5.76% to 6.99%. Developmental Disabilities range from mild disabilities such as speech and language impairments to serious developmental disabilities, such as intellectual disabilities, cerebral palsy, and autism (CDC National Center for Health Statistics Data Brief, November 2017) 1 in 20 children are affected by a spectrum of Sensory Processing Disorder (per SPD Foundation study, 2004). For these unique learners with severe conditions, such as students who have medical and physical fragility or extreme sensitivity to large groups of people, lighting, noise levels, and visual distractions, etc., the physical environment can present additional challenges for learning. Evidence-based and innovatively designed learning spaces mitigate challenges presented by the physical learning environment and can become an integral part of a school district's education strategy, as well as the student's IEP needs. Further, there is opportunity to reduce stress and 'burn-out' experienced commonly by the teachers and staff working with these severe special needs students by creating physical environments that work towards reducing the daily challenges and enhance learning potentials/scenarios. This presentation will focus on the ongoing efforts by the Albuquerque Public School district (APS) and its Facilities, Design & Construction department and Special Education department. APS is the 28th largest school district in the country covering 1,200 square miles of geographical area serving over 90,000 public school students and 5,000 charter school students. It maintains over 14 million square feet of space in over 144 schools. Their population of unique learners includes: 13,000 students ages 3-22 with a range of specific disabilities including Autism, Medically Fragile, Other Health Impaired, Emotionally Disturbed, Specific Learning Disabled, Visually Impaired, Hearing Impaired and Speech Language Impaired. The district serves over 1100 students with ASD, out of which approximately 640 students are in very specialized programs. APS has been proactively addressing the needs of students through innovative design strategy for their learning environments for the last 10 years. The panel will showcase these approaches and the post-occupancy evaluation through 3 case study projects followed by a discussion session.

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Learning Objectives

OBJ #1 Understanding of the demographic shift in particular categories of special education students and its impact on school facility design.

OBJ #2 How the built environment can help reduce the health and safety risk to special education students.

OBJ #3 How innovative evidence-based design strategies can help support learning objectives and Individual Education Plan (IEP) of ASD, MD, and SD special education students.

OBJ #4 How evidence-based innovative design strategies can help mitigate teacher 'burn out' and attrition in ASD, MD, and SD special education programs.

Designing Creative Learning Experiences Through Outdoor Innovation

Ryan Kalis, Ed.S. , Principal, Sunflower Elementary , Shawnee Mission School District / Michelle Chavey, AIA, ALEP, Partner | Educational Design Director, Hollis + Miller Architects / Terrace / AIA CEU: 1.0 LU HSW / Primary Core Competencies: Educational Visioning / Secondary Core Competencies: Assessment of the School Facility

Innovation in learning environments is rooted in the co-creation of experiences that allow for synergy between instruction and design, both inside and out. As the boundaries of the traditional classroom are challenged, leveraging experiences beyond the walls of the school building can provide unique ways to bring immersive learning to students, enriching both physical and emotional development. Valuable to both educators and designers, the consideration of unique perspectives of various stakeholder groups exposes powerful insight into opportunities for instruction and learning. We'll share a holistic research effort that includes preconceived educator views on what outdoor learning brings to the educational landscape, observational research of student experiences and follow-up findings from the educator's perspective. An important discussion point will be the inclusion of community resources to provide an additional layer of instructional support to educators and students. By establishing a process that emphasizes learning at all phases of a project, we can build empathy in designers, incorporate students in a meaningful way and create environments that are flexible tools for educators. You'll journey with us as we explore multiple ways to create learning experiences during the implementation of an outdoor learning environment, as well the benefits educators can leverage during instructional design. We'll also share how working with sustainability and curriculum/instruction resources can frame sustainability challenges as project-based learning scenarios for students. Aligning these efforts with grade level and Next Generation Science Standards, we can jointly work toward a goal of personalizing learning and bolstering student achievement for life-long success.

Learning Objectives

OBJ #1 Participants will become familiar with opportunities to leverage school and community resources to create personalized and immersive learning opportunities for students.

OBJ #2 Participants will be able to identify the impact of educator awareness and training on the successful use of an outdoor learning environment by students and staff.

OBJ #3 Participants will be able to consider various implementation options of learning opportunities during the design, construction and use of an outdoor environment.

OBJ #4 Participants will learn how sustainability interests and science standards can be considered during design to bolster student engagement in outdoor learning experiences.

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Reengaging a Campus Community Through Facilities and Instructional Transformation

Alan Pantanini, Elementary Principal, Pomona Unified School District / Page Dettmann, PhD, ALEP, Chief Education Evangelist, MeTEOR Education / Jay Tittle, AIA, Schools Studio Principal, Little / Garden 3 / AIA CEU: 1.0 LU / Primary Core Competencies: Community Engagement / Secondary Core Competencies: Ethics / Professionalism

Traditional learning environments are leaving students and teachers disengaged from the learning process. Washington Elementary an underperforming, Title 1 elementary school nestled at the foothills of the San Gabriel mountains, 30 miles east of downtown Los Angeles was no exception to this trend. When Alan Pantanini walked onto the campus as the newly appointed Principal, he encountered a disengaged campus community and severely outdated campus facilities. Determined to transform his school into a beacon of hope, that offers Next Gen learning spaces to its community, Alan teamed with local architect Jay Tittle, AIA in an inspiring journey of transformation. From the outset, experience had told them that utilizing a traditional design approach to campus transformation would not automatically result in academic success. They identified that creating an Immersive Learning space with flexible furniture and technology to deliver Project Based Learning would require an approach that incorporated teacher training and coaching that would lead to a shift in instructional mindset and knit together the physical environment with instructional delivery allowing for learning to take place anywhere.

Achieving this transformation required a two-fold approach of:

1. the physical space
2. support of the new indoor learning environments to ensure successful outcomes

The physical transformation of the windowless box building started with pulling inspiration from the surrounding neighborhood and bringing it into the building's interior. Additionally, the need to replace interior walls of the original campus buildings with new acoustically sound walls provided the opportunity to reconfigure the buildings to accomplish key Next Gen Learning elements, such as:

- Visual transparency
- Classrooms that utilize flexible furniture allowing for multiple learning modalities to take place
- Collaborative pull-out spaces for small group work
- Formal presentation areas for students to share and interact
- Maker Spaces that provide special project areas that are interactive and engaging
- A Learning Commons that supports learning, research and socialization

The second approach was achieved through engaging Page Dettman, Ph.D with MeTEOR Minds Consulting to lead special teacher training on how to best utilize these new Next Gen Learning Environments for student success. This approach ensured that students are provided with the skills, tools, and resources to support college and career readiness. We hope you will join us to learn how effective leadership, purpose, vision, and dedicated professionals transformed the culture, climate and learning environment of a low performing elementary school into a beacon of possibilities that provides students 21st-century opportunities. Today, students engage in flexible learning environments with 1:1 technology tools, and resources that promote and address individual instructional needs. Teachers facilitate blended learning opportunities that integrate common core instructional standards with STEM, Robotics, Coding, Multi-media production, and Inquiry-based learning in maker-spaces to develop technologically

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literate learners. This workshop will include lessons learned from teachers and their coaches on delivering education differently, along with first hand accounts from 5th grade Washington Elementary students on their perspectives of the before, during and after the campus transformation. This will give participants and understanding of the impact this approach has had on academic outcomes and community engagement.

Learning Objectives

OBJ #1 Develop an approach to pedagogical transformation, in a condensed timeline, through a guided learning demonstration that was utilized in the Washington ES transformation.

OBJ #2 Gain understanding of new approaches to learning via a brief hands-on activity.

OBJ #3 At the end of this workshop participants will be able to adapt WELL building approaches to an interior transformation project using the story and outcomes of Washington Elementary school as an example.

OBJ #4 Understand best practices in training teachers in embracing new instructional techniques for flexible classrooms.

Champions and Challenges

Sarah Grobbel, Executive Director Career & Innovation, Cherry Creek School District / Alan Moore, Project Manager, Jacobs / Jackie Squires, Project Architect, Cuningham Group / Pacific / AIA CEU: 1.0 LU / Primary Core Competencies: Educational Visioning / Secondary Core Competencies: Assessment of the School Facility

Any time a school decides to embark on a renovation or new construction, there will be change – and change can be hard. Part of the process of change involves a vision at a project's beginning. In this session, you will learn about change management, visioning, and how professional development and leadership is a key factor in facing the challenges of change. This session will examine a case study of Cherry Creek Schools in Colorado that is undergoing the monumental task of implementing staff development and physical space change and new furnishings across 52 elementary schools with four design teams over two summers.

Learning Objectives

OBJ #1 Gain an understanding of the theory of change management.

OBJ #2 Gain an understanding of the role of leadership during change.

OBJ #3 Learn about a process of site-based design engagement and concurrent staff development.

OBJ #4 Gain a practical understanding of how to introduce change across one district and 52 elementary schools.

Schools as Professional Workplace

Brian Donnelly, AIA, LEED AP, Associate Principal, Perkins Eastman / Garden 1 / AIA CEU: 1.0 LU HSW / Primary Core Competencies: Educational Visioning / Secondary Core Competencies: Educational Facility Pre-Design Planning

A growing body of research is clarifying the relationship between built educational environments and student success. Responsive design professionals are using this data to develop educational facilities better suited to support the health, well-being and cognitive performance of students at all levels. Innovations in teaching strategies and a growing adoption of student-centered pedagogies have generated new space typologies and organizational models, challenging conventional school design and recalibrating our understanding of successful design. Yet the correlation

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between design and student success is incremental at best, and causality is nearly impossible to isolate. On the other hand, there is a single factor that has historically and consistently been demonstrated as determinative in student success: faculty and staff stability. Generations of studies have noted the strong correlations between positive student outcomes and high levels of teacher support, low rates of faculty turn-over, positive community engagement and effective mentoring. Teachers regularly survey among the most purpose-driven and mission-dedicated professionals in the workforce. Yet they also report among the least respected and most stressed. Beyond the academy, our commercial workplaces are being redefined by increased attention on the needs and desires of young and capricious generations, steeped in technology, globalism and commoditized social media. If educational environments were to respond to these forces the way the commercial workplace has, what would be the impact on teacher recruitment and retention? Is that, ultimately, the key to consistently positive student outcomes? This session will present a survey of contemporary workplace expectations and assess the state of educational facility design against those expectations. The discussion will address individual teacher's health and wellness, and the impact that building conditions have both physically and emotionally. We will also address the unique characteristics of Professional Learning Communities and how facilities can best support collaborative team models and peer mentoring. We will explore the premise that an enhanced workplace for faculty and staff is the most direct route to positive student outcomes.

Learning Objectives

- OBJ #1 Identify the environmental conditions in the commercial workplace that contribute to emotional well-being and employee satisfaction.
- OBJ #2 Develop evidence-based design criteria to support faculty and staff wellness in educational facilities.
- OBJ #3 Describe the critical relationship between faculty stability and student success.
- OBJ #4 Evaluate design strategies to support effective faculty collaboration and mentoring.

SATURDAY, OCTOBER 5 3:30 pm - 4:30 pm

The Great Outdoors: Environmental Stewardship in Urban Landscapes

Leona Ketterl, AIA, ALEP, LEED AP BD+C, Senior Design Manager, LAUSD / Gary Lai, RLA, ASLA, LEED AP BD+C, Principal, AHBE Landscape Architects / Gerardo (Jerry) Salazar, Outdoor and Environmental Education Administrator, Los Angeles Unified School District / Terrace / IA CEU: 1.0 LU HSW /Primary Core Competencies: Design of Educational FacilitiesA / Secondary Core Competencies: Ethics / Professionalism

“It’s so important to raise a generation of young people who have a relationship with nature, because then they will want to protect it.” Laurel Chor, Conservationist and National Geographic Explorer. Increasingly, individuals and communities are becoming aware of the relationship between quality of life and environmental literacy. Research has shown the importance of introducing children to nature and land stewardship at an early age, especially under-served, inner city children with less opportunities to access natural settings. Following a pedagogy of culturally relevant and responsive teaching, LAUSD’s Office of Outdoor and Environmental Education offers students real world field studies at their outdoor education centers. High academic rigor, excellent instructional practice and a deliberately executed human relations and team building curriculum lead to expected the outcome: creating an emotional connection to learning and the outdoors. In partnership with community-based organizations, such as the NASA Armstrong Flight Research Center, the Office of Outdoor and Environmental Education increased student participation in outdoor education programs from 4,800 to 18,700 in the last 5 years. The goal of the program is to provide every LAUSD

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fourth and fifth grader the opportunity to experience quality, natural world-based science at no cost to schools or families. Enhancing the outdoor environment has long been the practice of Landscape Architecture firm AHBE. Their practice explores the latest challenges and opportunities in implementing drought tolerant and native plants in high pedestrian areas such as school campuses. We will cover resiliency, maintenance and operations, and promoting healthy plant growth. We'll look at the challenges faced by facility maintenance staff and administrators on the paradigm shift to native and drought-tolerant planting from historical ornamental planting. We will discuss how we can make our schools more resilient for future generations by instilling the value of water conservation throughout the school district; from the district office administrators to the maintenance gardener. We will present examples from our projects-- Playa Vista Elementary, Jordan High School and Mount San Antonio College-- on the impact of how design maintenance operations affect the long-term success on the planting design and how it can be improved through education and better communication.

Learning Objectives

- OBJ #1 Participants will learn strategies to utilize nature in culturally relevant and responsive teaching pedagogues.
- OBJ #2 Using two Outdoor Education Center programs as case study examples, participants will identify inclusive education strategies to encourage positive attitudes toward science and to foster communication and collaboration skills.
- OBJ #3 Participants will explore various methods to employ, and educate users on how to care for, native and drought resistant plants in their landscape designs.
- OBJ #4 Participants will examine techniques of incorporating sustainability into school site design and the importance of instilling students with the value of water conservation.

Biophilic Design for Learning

Bill Browning, AIA, LEED AP, Founding Partner, Green Development Services at the Rocky Mountain Institute / Pacific / AIA CEU: 1.0 LU HSW / Primary Core Competencies: Educational Facility Pre-Design Planning / Secondary Core Competencies: Design of Educational Facilities

Biophilic Design for Learning. Connecting people to experiences of nature in the built environment can lower stress and improve cognitive function-- this is biophilic design. This presentation will include the science, elements and case studies. It will highlight the results of a recently completed study of the impacts of biophilic design on learning outcomes and biometric stress measurements among middle school students.

Learning Objectives

- OBJ#1 Hear how to incorporate specific biophilic design strategies that will produce a positive impact on learning space user's well-being and academic success.
- OBJ#2 Learn to techniques to access the performance of the spaces you design with testing and biometric measurements.
- OBJ#3 Become inspired to replicate the methodology, and create your own practitioner-academic research partnership and studies.
- OBJ#4 Apply the principles of neuroscience theory of function, perception, and biophilic design and access a compressive list of precedent research.

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SATURDAY, OCTOBER 5 3:30 pm - 4:30 pm

Learning from Learning Spaces: Informing Collaboration Space Design Through a Multi-Site Post-Occupancy Evaluation and Workshops

Kimari Phillips, EDAC, Senior Research Analyst, LPA, inc. / Emily Koch, ALEP, Project Designer, LPA, inc. / Garden 1 / AIA CEU: 1.0 LU / Primary Core Competencies: Assessment of the School Facility / Secondary Core Competencies: Design of Educational Facilities

Collaboration is key to innovative learning environments, but how have they been performing and what can we improve moving forward now that many schools have been operating in them? What types of spaces & features facilitate or support collaboration? We studied 4 schools from elementary to high school level that implemented different collaborative spaces and will share findings from Post-occupancy surveys, educator workshops/focus groups, and observation.

Learning Objectives

- OBJ #1 Illustrate the value of a post-occupancy evaluation (POE) to inform future project designs.
- OBJ #2 Understand the components of a post-occupancy evaluation process and how to perform a POE.
- OBJ #3 Describe the ways in which specific spatial design features can encourage or inhibit collaborative behavior.
- OBJ #4 Compare and Contrast collaborative learning spaces and apply POE lessons learned based on goals specific to your project.

School Safety: What Can Schools Learn from America's Busiest Airports

Beverly Fornof, Senior Associate, Project Manager, Corgan Education / John Mares, AIA RIBA LEED AP BD+C DBIA CASp, Associate Principal, Los Angeles Studio Leader, Corgan Aviation / Garden 4 / AIA CEU: 1.0 LU HSW / Primary Core Competencies: Design of Educational Facilities / Secondary Core Competencies: Educational Facility Implementation, Project Management / Project Delivery

In airports, heading off small and large security threats while easing the experience for tens of thousands of passengers in a complex environment, aviation designers are charged with leading the continual evolution of public safety. Passengers demand seamless measures that don't further intrude on the stressful travel experience. Similarly, schools face a growing responsibility to address heightened security issues while providing solutions that are all but invisible and preserve a welcoming, nurturing campus community. Corgan's Education studio have partnered with the designers of the nation's busiest airports in compiling best practices / future trends that can be expected and implemented in school setting. Design considerations will prioritize the mental, physical and emotional health of the occupants, providing security without compromising the educational environment.

Learning Objectives

- OBJ #1 Discuss what schools can learn from airport security design.
- OBJ #2 Explore ways to incorporate seamless, unobtrusive security design measures, prioritizing the mental, physical and emotional health of the occupants
- OBJ #3 Hear testimonials from various aviation and education clients on their challenges and ideas for the future of security implementation.
- OBJ #4 Come away with a set of tools and discussion strategies to bring to the table during the visioning and design of educational facilities.

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SATURDAY, OCTOBER 5 3:30 pm - 4:30 pm

Place Versus Space

Richard Berliner, AIA, ALEP, LEED AP, NCARB, Principal, Berliner Architects / Garden 3 / AIA CEU: 1.0 LU / Primary Core Competencies: Design of Educational Facilities / Secondary Core Competencies: Educational Visioning

We often spend our time designing schools focused on the Space requirements specified by District standards and guidelines that were created in a time of different needs, greater funding, and different pedagogies. It's time to shift our focus and create learning environments that reflect today's goals and empower students and teachers to create their own learning Places. Faced with ever more demanding code requirements, District standards and declining funding, designers must reevaluate what makes for a successful learning environment using less square footage, simplified systems, and simplified methods of construction. By carefully studying the needs of students, evolving pedagogy and technology, and market demands [traditional public schools competing with public charter schools], we examine the trade offs that must be made to optimize the use of district capital investments. By reallocating needs, clients have the opportunity to free up funds for operational needs and increase teacher and staff salaries that are essential for better outcomes for students. We all see that students come to school with ever growing social and emotional needs that the school is called upon to address, especially in underserved communities. This is mainly done through social services provided at the school. However the school building itself can play a vital role in creating a safe nurturing environment that make students feel safe and cared for, allowing them to open up to the support systems within their day to day environment. Many design strategies come into play creating this emotionally safe space including connection to the outdoors, use of natural materials, and creating Places that are spatially supportive for a small learning community. In addition to the addressing the emotional impact of creating a healthy learning Place, a hard look at building systems and costs can lead to a dramatic savings in construction costs without significantly reducing functionality or long term durability. More cost effective structural systems such as the use of wood need to be considered when evaluating the cost benefit of new construction. MEP systems need to be carefully considered as well as natural and electric lighting with a focus on the capital investment. Through a detailed evaluation of Space, we emerge with an understanding of Place. Together we'll engage in an interactive, 90-minute workshop with the end goal of helping you and your team implement strategies to take back home and find Place within your educational community.

Learning Objectives

- OBJ #1 How to create a place that promotes social and emotional security.
- OBJ #2 How to create a sense of ownership and comfort to transition a space into a place.
- OBJ #3 How to reduce facility costs through efficiencies in planning and reduced square footage.
- OBJ #4 How to enhance the sense of Place with connections to the outdoors.

“Are you sitting down for this?!” Critical Research Should Guide Interior Design

Lennie Scott-Webber, PhD, NCIDQ, AIA Affiliate, AIA/CAE, Owner/Principal, INSYNC: Education Research + Design / Sheila Hammond, Principal, , Ecole Salish Secondary School, Surrey School District #36 / Noah Greenberg, AIA, LEED AP, Principal, DLR Group / Rick Deck, SCMP, Manager of Corporate Services, Surrey School District / Harbor / IA CEU: 1.0 LU / Primary Core Competencies: Assessment of the School FacilityA / Secondary Core Competencies: Educational Visioning

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In 2017, a large Canadian school district saw a conference presentation on research which caused them to pause and consider a large secondary school project at the last hour. The team's big picture goals were in motion and construction was almost complete – yet they saw a vision based on this new knowledge and had the courage to stop and change course with their furniture selection and interior design methodology. How often does that happen and how could interiors better support our vision of Next Generation Learning? This story and how it unfolded involves the school district team members (new principal, director of capital projects, and director of procurement) and their partnership with an architecture and interior design firm and research consultant to rethink and thus redesign the experience for the educators and the students. A panel discussion will: (a) tell the story, (b) share the process and the research insights guiding that process, (c) the design outcomes and reflections on timeline implications, (d) the challenges and lessons learned when working across the border, and (e) the next steps working towards a Research-Guided Design Principles protocol.

Learning Objectives

OBJ #1 Develop an appreciation for how the research shared impacted the decision-making process and established a new vision.

OBJ #2 Understand the risks taken by the school team's leadership to change course at the last minute when they saw a new vision impacted by research, and the recognize how the implications at varying steps of the design and construction timeline could impact the final learning environment.

OBJ #3 Recognize how a fast-paced solutions were identified and executed by a fully integrated team with one goal: to make the learning experience for students and educators fit the realities of a Next Generation Learning Environment.

OBJ #4 Holistically articulate the impact of interior design, research, and FF&E on teaching and learning in order to facilitate a dialogue that uncovers the unique needs and long-range goals of an educational institution and its stakeholders.

SATURDAY, OCTOBER 5 4:45 pm - 5:45 pm

From Large Scale to Human Scale: Learning from Neuroscience to Enhance School Experiences for all Users

Boris Srdar, FAIA, LEED AP, Design Principal, NAC Architecture / Page Dettmann, PhD, ALEP, Chief Education Evangelist, MeTEOR Education / Garden 1 / AIA CEU: 1.0 LU HSW /Primary Core Competencies: Design of Educational Facilities / Secondary Core Competencies: Educational Visioning

In many areas across the US, and especially in dense urban areas along the West Coast, we are seeing the pressure to build schools of a much larger scale than before. Fear of larger schools is appearing among many educators and community members alike. It has become a clear challenge of our times to seek a human scale architectural experience regardless of the overall size of a new building or campus. Of utmost importance is the teaching and learning process to authentically engage students and maximize the opportunities afforded by the environment.

To address this challenge we should use knowledge from other disciplines, notably from the neurosciences, about the way we learn and experience our environment. There is a growing body of research explaining our brain and bodily cognition of our surroundings. It is not our brain only that perceives everything but it is our body that reacts to the space and sends signals to our brain as well. As we treasure the value of a multi-sensory experience, we should renew our awareness of rich spatial organizations. In this day and age we should be more sensitive to the needs

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of quiet students as well, as they usually represent a more introspective part of the spectrum. We should integrate this knowledge with the most progressive educational philosophies in order to design holistic, engaging learning environments that can be effective for all students.

As we embark on educational visioning exercises that can set the ground for even more engaging learning outcomes, the challenge of increasing scales demands comprehensive vigor to connect the spatial implications throughout the building with the pedagogical intent of supporting varied learning modes. As key stakeholders discuss their vision for the future of learning in their school, it will be increasingly important to connect the words and notions with design solutions that can help those visions. As we have learned from neuroscience, a physical space is rarely a neutral factor; it can either support or hinder learning. Furthermore, to be successful, we need to achieve an emotional vision among the stakeholders that can be carried through, just as we need to engage a social brain on the students' part.

This presentation will open the conversation about the learning experiences that prepare students for their futures and the role of space in constructing memory and its retrieval. We will explore the impact of recent knowledge and research on the design of learning experiences and environments, and examine a few projects of various scales that have deliberately dealt with mitigating the large scale towards the human scale solutions, highlighting how active learning maximizes the design intent.

Learning Objectives

- OBJ #1 Participants will become aware of ways to address the challenges of urban density, and the importance of the experiential quality of both architecture and learning
- OBJ #2 Participants will gain knowledge of innovative learning experiences, the influence of the built environment on our overall learning experiences, and brain-body cognition in reacting to the environment
- OBJ #3 Participants will learn about the benefits of the relationship to nature for overall human health and wellness that present challenges and opportunities in learning environments
- OBJ #4 Participants will become familiar with the science of learning and the brain's reaction to its environment, and learn about different spatial strategies for mitigating the increasingly larger scales of new schools

Safe, Secure, and Supportive Schools: Creating learning environments that address the well-being of students and staff

Gary Armbruster, ALEP, Principal Architect/Partner, MA+ Architecture / Diego Barrera, AIA, NCARB, ALEP, LEED Green Assoc., Senior Design Architect | Senior Associate, Stantec Architecture / Molly Smith, REFP, AICP, Principal/Senior Planner, thinkSMART Planning Inc. / Terrace / AIA CEU: 1.0 LU HSW /Primary Core Competencies: Educational Facility Pre-Design Planning / Secondary Core Competencies: Design of Educational Facilities

School safety is a complex issue with many facets. Ensuring the safety of students and staff includes taking security measures and planning for disasters, as well as creating environments that provide students with comfortable places to share, collaborate, and explore. This session will offer attendees a sneak peek of the 6-week certificate course in development and review the essential components in creating safe and secure learning environments.

Learning Objectives

- OBJ #1 Learn the essentials of assessing vulnerabilities and threats of a school and/or district.
- OBJ #2 Understand countermeasures to mitigate the vulnerabilities and threats.
- OBJ #3 Review policies and procedures that address threats to schools.
- OBJ #4 Learn of the resources available to industry professionals

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SATURDAY, OCTOBER 5 4:45 pm - 5:45 pm

Co-creation: What does it mean and how can we leverage it to plan and design better schools?

Bill Bradley, PhD, AIA, Senior Associate, Stantec / Camilo Bearman, AIA, Senior Associate, Stantec / Derk Jeffrey, AIA, LEED AP, Senior Principal, Stantec / Garden 4 / AIA CEU: 1.0 LU / Primary Core Competencies: Community Engagement / Secondary Core Competencies: Educational Facility Pre-Design Planning

For more than a decade co-creation has been pushing innovation in the private sector by seeking to understand users' experiences before partnering with those same users to accelerate innovation, shift paradigms, and cultivate buy-in. This presentation will take a closer look at the principles of co-creation within the framework of school planning and design with an emphasis on the end-user. Attendees will explore a renewed process that seeks to recast expectations and put the needs of learners, educators, and the community at the forefront of process. Presenters will share lessons learned from projects in which students, educators, and members of communities were involved in developing new, innovative, shared outcomes leading to pioneering solutions in the communities they serve.

Learning Objectives

- OBJ #1 Understand what is meant by "co-creation."
- OBJ #2 Understand the guiding principles of co-creation within the framework of school planning and design.
- OBJ #3 Examine case-studies to understand when co-creation is applicable.
- OBJ #4 Develop new strategies for collaboration and facilitation.

A District's Journey in Project-Based Learning

Karen Montovino, AIA, ALEP, Principal, DLR Group / Tim Ganey, AIA, ALEP, LEED AP, Architect and Senior Designer, Principal, DLR Group / Jeff Snell, Ed.D., Superintendent, Camas School District / Aaron Smith, Principal, Discovery High School & Odyssey Middle School, Camas School District / Harbor / AIA CEU: 1.0 LU / Primary Core Competencies: Educational Visioning / Secondary Core Competencies: Design of Educational Facilities

How do you shape a vision for Project-Based Learning while simultaneously implementing it? This was the situation that Camas School District was in while taking steps to alleviate overcrowding through personalized, relevant learning. Located in a one-high school town in an urban suburb with high expectations for quality education, the District embarked on a path that would involve a new pedagogical model focused solely on project-based learning at the secondary level. This journey, in creating one of the nation's first ground-up project-based learning high schools, will be shared from the District perspective (including the student voice), and the architecture and planning firm who supported the District throughout the process. The response of the community, challenges of implanting new curriculum, and tips for other districts considering a shift will be shared in this insightful session. Initial results of this project-based pedagogy will be shared from the high school's first full year of school in a new facility, as well as the middle school's third year in a non-traditional facility adapted by a modest renovation.

Learning Objectives

- OBJ #1 Hearing a case study that embodies a district-wide exploration in pedagogy, attendees will be able to identify the steps it takes to shift learning and develop an implementation strategy.
- OBJ #2 Attendees will discover what level of community buy-in and participation is recommended to take a District in a new pedagogical direction, and how to anticipate potential pitfalls.

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OBJ #3 With examples shown in both new and existing facilities, attendees will be able to compare the advantages and disadvantages of providing a project-based learning environment in a new facility, as opposed to one that is renovated/existing.

OBJ #4 Understanding that programmatic elements can shift, and future-ready design is crucial in the current age, attendees will be able to differentiate between a modern “traditional” school and a modern “project-based learning” school.

A Day at the Museum Part II: Executing elements of children’s museum design within PK-12 learning environments

Bridget Supplitt, CannonDesign / Mike Corb, AIA, Pittsburgh Office Practice Leader, CannonDesign / Anne Fullenkamp, Associate AIA, MBA, MArch, BFA, Director of Design, Children’s Museum of Pittsburgh / Pacific / AIA CEU: 1.0 LU / Primary Core Competencies: Design of Educational Facilities / Secondary Core Competencies: Educational Visioning

As a follow-up to their engaging presentation at LearningSCAPES 2018, Mike Corb of CannonDesign and Anne Fullenkamp of the Children’s Museum of Pittsburgh will dive into the design execution of Seneca Valley School District’s new K-6 Building, which is utilizing elements of children’s museum design within its learning environments. Speakers will outline the strategies that can be used to de-silo various stakeholder groups during the design process to encourage real time engagement vs. having to create a consensus via separate user group meetings. They will also discuss the importance of focusing on the emotional and physical response to PK-12 learning environments, as well as how incorporating both mental and physical wellness elements are crucial to creating more responsive spaces. Finally, speakers will address lessons learned from the design execution thus far, specifically the realities of incorporating elements of interactive museums within PK-12 learning spaces.

Learning Objectives

OBJ #1 Audience members will be able to employ realistic, pragmatic design elements influenced by children’s museums within learning environments through utilizing a more emotional discovery process.

OBJ #2 Audience members will be able to de-silo key stakeholder groups to engage with each other and act as curators vs. consumers during the design process, resulting in a more cohesive understanding of project goals and experiences.

OBJ #3 Audience members will be able to demonstrate how projects can become learning and future work opportunities for the students utilizing the facilities.

OBJ #4 Audience members will be able to support and educate clients on properly utilizing their new learning environments.

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SATURDAY, OCTOBER 5 4:45 pm - 5:45 pm

Future Ready Facilities Master Planning & Ed Specs: An Interactive Web-Based Format

Anton Blewett, K12 Education Designer and Planner, Associate, DLR Group / Chris Dunne, Vice President/Program + Construction Management, Harris & Associates / Mariana Lavezzo, K12 Education Designer and Planner, Associate, DLR Group / Vanessa San-Martin, Office of Child Development Director, Culver City Unified School District / Garden 3 / AIA CEU: 1.0 LU / Primary Core Competencies: Educational Facility Pre-Design Planning / Secondary Core Competencies: Educational Visioning

For the past 25 years, districts have been working to transform outdated facilities to provide students and teachers with learning environments to support future ready learning thus empowering students to learn in different modalities simultaneously. This workshop will unveil techniques for a holistic planning process in which all stakeholders contribute meaningfully to the shaping of Master Plans and Educational Specifications. At Culver City Unified School District, this process led to the creation of fully interactive, web-based, digital master plans and Ed Specs linked to them which reflected their ethos and vision. The case study of CCUSD's new web-based Master Plans and Ed Specs will illustrate how to create a truly living document that allows unprecedented access to easily digestible content which has historically resided in binders on a shelf in the Facilities Office.

Learning Objectives

OBJ #1 See what a web-based master plan document looks like and how it assists in promoting district goals and "brand" message.

OBJ #2 Learn about the stakeholder outreach process to develop a fully interactive, web-based district wide facilities master plan.

OBJ #3 Learn how to navigate through the content of a web-based master plan, and how the transparency can build trust within the community.

OBJ #4 Hear from Ocean View School District how their web-based master plan has enhanced their ability to access and utilize content, implement projects, educate and enhance community relations through transparency of process and sharing the District's vision.

SUNDAY, OCTOBER 6 8:30 am - 9:30 am Speed Sessions

LEmarketplace Sessions - Speed Sessions

LEmarketplace (expo hall) / AIA CEU: 1.0 LU HSW

MINI SESSION 1: Together We Rise: Turning Tragedy into Triumph at Minnehaha Academy

On August 2, 2017, a natural gas explosion destroyed the upper campus of Minnehaha Academy in Minneapolis, Minnesota. The blast, which occurred at the heart of the school, claimed the lives of two of its long-standing employees, injured many others and destroyed its two academic wings that stood as icons of the community for over 100 years. When the Design and Construction Team was hired to get the students back "home" for the 2019 school year, they knew they had to delicately navigate a fast-tracked design timeline that would not only lead to a new school, but to the healing of a deeply-wounded community. Beginning construction just six months after being

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hired, the Design and Construction Team successfully completed the project using a “Together We Rise” mentality. By collaborating with everyone from students to alumni to community members, the Team was able to help Minnehaha Academy turn tragedy into triumph. Hear from the President of Minnehaha Academy, Donna Harris, a survivor of the explosion, along with members of the Design and Construction Team on the extraordinary collaborative approach they used to successfully navigate these challenges to co-create an environment that will propel learning at Minnehaha for the next 100 years! **SPEAKERS:** Judy Hoskens, REFP; Cuningham Group Architecture, Inc./Donna Harris, Ed. D.; Minnehaha Academy/ Kendall Griffith, Vice President; Mortenson Construction

MINI SESSION 2: Building Trust: Mindfulness and Movement

Last year (in our presentation Growth Mindset Incubators: A Case Study) we transported you into a unique learning environment where the possibilities were endless and explored how the Growth Mindset curriculum has enhanced both the learning and the physical space at the Greater Seattle Bureau of Fearless Ideas (BFI) in Seattle, WA. This year we take a deeper dive into two areas that are key in creating successful Learning Environments: Mindfulness and Movement. These subsets of Social Emotional Learning impact the development of the whole child. Faith Eakin, lead program manager at BFI, will share how she has incorporated ideas learned from her exposure to educational design and A4LE into BFI’s learning environment. Liz Katz, architect and planner at NAC, will follow up on how this long-term collaboration has impacted her own approach to design and community engagement, and influenced NAC’s projects as well as their work environment. The concept of Social Emotional Learning (SEL) is widely used in education among teachers and students, and is consistently being improved and applied in both educational theory and practice. The Greater Seattle Bureau of Fearless Ideas (BFI), an educational non-profit in Seattle, fosters an environment that gives students the confidence to be kind, creative and fearless. They are also striving to create a safe environment outside of school that builds trust through mindfulness and movement. Liz and Faith will guide the audience on an active reflection of their own learning and mindsets. You’ll be moving, talking and co-creating an experience similar to learning environments that promote SEL. You’ll also participate in thoughtful, engaging activities that promote mindfulness and movement. **SPEAKERS:** Liz Katz, AIA; NAC Architecture/Faith Eakin; Greater Seattle Bureau of Fearless Ideas

MINI SESSION 3: Post-Occupancy Results from Students and Teachers on the Saskatchewan Joint-use School Bundles

The Saskatchewan Joint-use School Bundles presented a unique opportunity to receive feedback from students and teachers on the daily use of new educational facility designs across multiple sites. The representatives of two school divisions and team lead for the conceptual designs will present the findings of post-occupancy reviews collected after one school year in action from over 150 teachers and 500 students ranging in ages seven through 13. The Saskatchewan Joint-use School Bundles included the design and construction of 18 schools on nine sites, across four municipalities with five school divisions and two provincial government ministries. Each site accommodates two Pre K to grade 8 schools, one public and one Catholic, a shared central space containing gymnasias, multi purpose rooms, a 90-seat child care centre and community resource centre. The learning environments include classrooms which open onto a variety of break out spaces including small meeting rooms, learning commons, art and science studios and presentation stairs. Each school division utilized a slightly different approach to learning environment flexibility based on the specific educational pedagogy of the division. This presentation is a follow up to the CEFPI 2014 workshop entitled ‘Empowering Educational Transformation with Lean’ in which the tools utilized to gain direct input from front-line educators, curriculum experts, facility representatives and students were shared with workshop

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participants. Those participants asked for a follow-up session upon completion, so here it is with data, photos and stories. **SPEAKERS:** Laura Plosz, SAA, AAA, MAA, OAA, MRAIC, LEED AP; Group2 Architecture Interior Design Ltd./Dan Van Buekenhout, ALEP, Dip Civil Eng.; Regina Public Schools/ Ryan Martin, Manager of Facilities and Capital Projects; Greater Saskatoon Catholic Schools

MINI SESSION 4: Architects and Designers can have a greater impact on student engagement than teachers

Why is the discussion regarding student engagement so prevalent? What are the root causes of this growing concern? Are typical classroom environments contributing to this issue? We investigated these questions and found that there are key contributors outside of the school's control that make it challenging for students to focus and stay engaged during class. We will share how we used secondary research combined with video ethnography to understand the physiological reasons why this is happening and to show how typical classroom design choices often add to the problem. We will present solutions that improve student engagement and create a more effective learning environment without changing teaching methods. **SPEAKERS:** Alan Rheault; Fleetwood Furniture/Jon Moroney; Kendall College of Art and Design

MINI SESSION 5: Viable disruption. Lessons from a visioning process for a start-up school in Saudi Arabia

This presentation will provide a best practice case study of educational visioning for a new school that will intentionally disrupt existing education provision. Each of the three presenters provides a different perspective and experience of the visioning process: education, architecture, and practitioner/end-user. The methodology underpinning our approach and presentation is one of integrating multiple perspectives, drawn from theory and practice, design and education. We will start by outlining our co-created construct of viable disruption. This concept incorporates two mutually dependent aims for a new school visioning: to ensure the facility is contextually and academically viable; and to disrupt current education provision through innovation. The concept of viable disruption is illustrated through a case study of the visioning process for a new school in Riyadh, Saudi Arabia. We will outline how new pedagogical concepts, including personalised, experiential and self-directed learning, were used as a basis for visioning new educational environments in Saudi Arabia, which tends to be bound in traditional forms of transmissive education. The presentation will outline the visioning processes for viable disruption to create an exemplar learning environment:

- Engaging with research evidence and multiple stakeholders and perspectives to create a pedagogical framework based on contemporary concepts of quality education.
- Strategic workshopping to develop an innovative spatial framework, while accounting for Arabic contextual, cultural and community influences.
- The drawing together of the above two elements into a spatio-pedagogical framework, with each pedagogical concept integrated research evidence; including practice and design implications and potential learning environment scenarios.

Exercise: participants will be provided with a scenario of pedagogical concepts and spatial affordances and constraints. They will be guided through our visioning process to co-create an integrated spatio-pedagogical framework that considers the action possibilities and constraints of viable disruption in a complex context. The presentation will conclude by outlining the lessons we learnt that enabled both creative and critical thinking and co-enactment of viable disruption. This includes:

- Aligning global educational and design concepts and related research evidence with the experience and practice of the Saudi socio-cultural context
- Identifying potential design outcomes and considering assumptions and criteria for a critical examination of these possibilities
- Capturing generative insights and questions that come the visioning process that challenges existing routines and conventions

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conclusions indicate that an effective visioning process is based on the integration of multiple perspectives, including design, education and end-user. We also highlight the pedagogical and design affordances and tensions that are likely to drive innovation; and comment on our own reflections about working in the dynamic and complex Middle Eastern context. **SPEAKERS:** Matthew Dwyer; i=D+E/Craig Deed;i=D+E/Mary McPherson, Interim Primary Principal; MiSK Schools

MINI SESSION 6: Blurring the Lines between Teaching and Learning

Teacher versus Environments has long been a topic of discussion concerning student performance. Is space a tool for learning? Should we be training teachers to use space to support new learning models? What role does culture play in implementing a shift towards innovative learning environments? Join a panel of experts who are looking to merge policy, funding, organization development, learning, and architecture in a way that offers to elevate learner and educator outcomes. The design of the 5th high school in the Agua Fria Union High School District is elevating the learning experience with the new Canyon View High School, a campus that fosters and enables innovation and measurable advancements in teaching and learning. DLR Group's design is comprised of forward-thinking spaces and places that allow teachers to advance their professional skills, and students to examine coursework more deeply and develop collaborative opportunities with peers globally. Unique elements of the school's design include: • **The Accelerator:** The campus is home to a first of its kind Teaching and Learning Accelerator, an open source incubator for the art of teaching and learning. • **The Agora:** The campus consists of a series of buildings that form an outdoor marketplace dubbed the Agora that gives students a place to gather and socialize. The Agora also includes outdoor project rooms, a learning stair, student dining, and an athletic training corridor that leverages the mild southwest climate through Computational Fluid Dynamic modelling to afford thermal comfort throughout the year. • **The Learning Suites:** The north edge of the Agora is formed by four learning suites, which are defined as a series of connected settings that can flexibly merge with one another in support of a "pedagogy of the moment." A blend of six primary learning settings is positioned around the perimeter of each suite with two labs and connections between. • And so much more...including a unique approach to curriculum and research through the installation of Bio PCM (Phase Change Materials) that simulates thermal mass and shifts heating and cooling cycles. The freshman physics class is conducting ongoing research in conjunction with ASU to track the ROI. Reflections after the opening of Canyon View High School in November of 2018 has led to a broadening of the dialogue to include representatives from ASU's colleges of education and from private non-for-profits. Join us as we explore the possibilities for a conversation that will shape an unusual leveraging of public and private funding, of architecture and education and everything in between. **SPEAKERS:** Dr. Dennis Runyan; Augua Fria Union High School District/Tom Huffman;Augua Fria Union High School District/Pam Loeffelman, Principal, Though Leader; DLR Group

MINI SESSION 7: Connecting the 5 Domains of School Security

School safety and discovery of security best practice remains an evolving process and will likely remain so for some time. Several inter-connecting domains are involved in creating schools that are safe and secure from the threat of violence. We will need to imagine desired outcomes and follow our curiosity to inform our practice. These inter-connected domains start with are physical improvements to the built environment known as Crime Prevention Through Environmental Design (CPTED). The next domain is made up of the security staffing and organizational design. Then comes the operational protocols: emergency operations plans, training, drills, exercises, daily routines and design of staff duties. The next domain is that of technology including alarm systems, security cameras, a variety of software, phone and desktop applications, notification systems and social media monitoring. Finally, and I think

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most important is the domain of school climate and culture. In most school districts the responsibility for each of these five domains is typically spread out among multiple departments and integration of all five into a cohesive, efficient and efficacious whole is challenging and difficult for a number of reasons. The overall effectiveness of any school safety and security system can be improved by thoughtful organization of the safety and security function in a unified manner that integrates the five domains. 1. CPTED 2. Staffing and organizational design 3. Plans and operational protocols 4. Technology 5. School climate and culture CPTED is typically primarily a function of the facilities department. Building principals, staff and students are the personnel who live and work in this domain, but design is largely a function of facilities professionals and consultant architects. Staffing and organizational design of the security function varies widely among school districts with everything from school district police departments with certified officers to ununiformed security officers and use of para-educators for student security. Where district police exist there is often a chief of police and a department staffed with state certified uniformed peace officers, trained detectives, sometimes with K9 units and full time dispatch center. In other districts there may be one or several security staff with or without uniforms, usually unarmed and often not part of a centralized department, but rather under the charge of individual school principals. In this circumstance the duties can vary widely school to school and there is typically little integration of this staff with other domains. Plans and operational protocols range from FEMA Complaint Comprehensive Emergency Operations Plans (EOP) to individual school Incident Management Plans that are not integrated into a district wide plan. Most schools have had relatively good incident plans for years. These often included contacts lists, basic response plans for different types of incidents ranging from weather to armed intruder. Operational protocols for security staff in schools have often been ad hoc and not highly refined, nor part of an integrated district wide EOP. Increasingly, the long standard fire drills, tornado sheltering and related established protocols are being integrated into comprehensive FEMA style EOP's that take the "all hazards" approach. The technology domain is rapidly evolving with the rapid increased in concern for, and response to, violence on school campuses. This domain has long included security cameras, fire and burglar alarms, intercom systems and notification trees. These are now supplemented with phone cell phone based notification apps, social media monitoring services, automated access controls (part technology and part CPTED). Much of the technology domain had been traditionally under direction of the IT department, but increasingly end users have more ownership of their device and the uses thereof. Traditionally, school climate and culture was exclusively the domain of the educational administrators, building principals and teachers. Building a culture and climate of safety and security, freedom from bullying and abuse and sense of safety on campus was not seen as a part of the physical plant or facilities staff. A sense of student well-being and a climate of security on campus has not always been understood to be derived from good safety and security protocols like fire drills or knowledge of where to shelter in severe weather. Increasingly, these are understood to be inter-related and inter-dependent. I will argue that the five domains I have cited are each necessary, but none are sufficient without comprehensive integration of all five, to establishing a comprehensive system of school safety and security. In order to do that, leaders in each domain have got to let go of organizational stove pipe behaviors and work for comprehensive integration of the efforts of all staff in each domain. I will posit that culture and climate are primary and a disciplined approach to integration of the other domains is required. All the physical measures, all the technology and staff, all the plans and protocols are insufficient by themselves without a disciplined and comprehensive approach to full integration of all five domains. This session will explore the five domains and the typical organizational architectures where they live and work. Participants will be provoked to engage their curiosity and create new ideas, to interactively explore existing conditions, to think creatively about overcoming organizational barriers to effectiveness, to discover new alternatives and imagine what could be. **SPEAKERS:** Mike Maloney, REFP; Davenport Community School District

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MINI SESSION 8: Makerspaces: From Elementary Schools to College Campuses

Once found primarily in schools of engineering, makerspaces are now a growing trend in all levels of educational facilities, from elementary to high schools and from technical schools to university libraries. Providing tools and materials, mentors and sponsors, they foster cross-pollination of disciplines, promote higher engagement with teams, and encourage the skills and abilities required for success in students' future careers: ideation, collaboration, and exploration. Highlighting a variety of makerspaces across the country, this course will reveal current trends, share the benefits to users, and demonstrate successful design strategies for these creative community spaces. **SPEAKERS:** Gretchen Diesel, Stantec; Gwen Morgan, Stantec; Allison Schneider, Stantec

MINI SESSION 9: A Bold Commitment to Reshape a Top Performing District; The Why, the What and the How

The Cherry Creek School District (CCSD) in Colorado made a bold commitment to reinvent its educational approach and prepare students differently for the workforce they'll enter by placing greater emphasis on innovation, critical thinking skills, and advanced career-based programs. To achieve this feat, the district partnered with DLR Group and with local industry partners guided by the Colorado Workforce Development Council's Colorado Talent Pipeline Report to create relevant career pathways for students and design the new Cherry Creek Innovation Campus (CCIC), a facility that expands college and career preparatory opportunities currently available to 11th and 12th grade students at the district's seven high schools. It will support learners at all levels. Students who plan to attend college can take dual enrollment courses to earn credit toward their college degree. Students who prefer to enter the workforce or military immediately can learn skills or trades that help prepare them for their careers. And students who have not decided on a career path can further explore interests and build skill sets that will give them a competitive advantage as they enter the workforce. Students also will have opportunities for off-site internships and apprenticeships for hands-on experience in a variety of potential career fields. DLR Group's design for the 117,000 SF CCIC comprises a variety of learning environments and social spaces from traditional classrooms for instruction, to more intense labs that provide hands on areas for a project-based curriculum that includes everything from health sciences + wellness, to artificial intelligence, to advanced manufacturing to transportation logistics to STEAM/IT. Industry-specific spaces support real-world training or trade certification programs, and high-bay labs provide flexible spaces for experimentation and exploration. The high bay labs for infrastructure, aviation, and transportation logistics have direct access to sheltered work areas for enhanced learning opportunities to create + explore in authentic outdoor environments. An 'i-commons' is also incorporated at the heart of the campus. It is a space designed to encourage intentional collisions and synergy between the interdisciplinary interactions, industry partners, and career-based programs by designing circulation and open break out areas that support collaborative activities outside of the specific "learning labs". The professional development and creation of appropriate curriculum that is both relevant and engaging was also an integral part of a process that links innovative learning environments with the teacher change necessary for the educators to leverage the magic of the Cherry Creek Innovation Campus. **SPEAKERS:** Sarah Grobbel, Cherry Creek School District; Greg Cromer, AIA, DLR Group

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SUNDAY, OCTOBER 6 9:45 am - 10:45 am

Flex and Flexibility

Wayne Hay, Associate, K2LD Architects & Interiors / Garden 1 / AIA CEU: 1.0 LU / Primary Core Competencies: Design of Educational Facilities / Secondary Core Competencies: Educational Visioning

Flex and flexibility are different things, though the words are often used synonymously. A classroom may be able to flex without being flexible. Flex relates more to how we use the space, flexibility to how it is designed for our use. Jane Austen, 1813 / Wayne Hay, 2018 The use of the term 'flexible' to describe education environments predates the design of flexible learning environments. In the 1960's, educators created the term to describe the spaces they wished to occupy. Architects have since been attempting to design those spaces. The results highlight a fundamental difference in the language educators and designers use to discuss flexible learning environments. For designers, flexibility occurs between spaces in the learning environment. They think of traditional classrooms functioning in one manner. That is a didactic or direct-instruction mode. For educators, flexibility between modes of learning can happen in any classroom. One word, but two different meanings. This presentation proposes the terms 'flex' and 'flexibility' to highlight these differences. 'Flex' is how teachers and students use education spaces. All classrooms are able to 'flex', but not all have (or need) to be 'flexible'. Flex occurs as a social contract between teachers and students on how the space is used. A teacher that limits students movements discourages flex. Similarly, introverted students may feel uncomfortable flexing within more open settings. Flex only happens when users allow or are allowed to freely occupy the environment. Flex is not about building. It is about how space is occupied. Designers use the terms 'agile' and 'fluid' when describing innovative learning environments. Both are attempts to describe 'flex' but as built form become synonyms for flexibility. The best designers can do is propose spaces for flexibility. This presentation reviews prevalent typologies of flexible learning environments, and how educators can better flex within them. Some flexible spaces provide more opportunities to flex than others. Even the most innovative learning environments can revert back to more traditional modes of learning. They can become inflexible. Without 'flex', flexibility cannot occur.

Learning Objectives

- OBJ #1 How teachers and students occupy education spaces
- OBJ #2 How designers plan learning spaces
- OBJ #3 Provide a common vocabulary for discussions between educators and designers
- OBJ #4 Review current typologies of learning environments

Make It Real: Utilizing Building Information Modeling and 3-D Virtual Reality Visualization to Improve and Enhance the School Design Experience

Philip Conte, AIA, NCARB, Principal, StudioJAED Architects / Richard Moretti, Ed.D., ALEP, LEED AP, Facility Planner, StudioJAED Architects / Garden 3 / AIA CEU: 1.0 LU / Primary Core Competencies: Design of Educational Facilities / Secondary Core Competencies: Educational Visioning

Many school end users are relatively inexperienced in understanding the design process, including the "reality" as depicted in 2-D drawings. 3-D renderings are significantly better but still lack a "real world" viewpoint. However, having the ability to "immerse" end users into various spaces via 3-D Virtual Reality (VR), where they can both

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“explore” and “change” the space, is an invaluable and effective tool in school design. This is especially helpful in the design of classrooms and other specialty spaces such as media centers, makerspaces, and learning commons. The end result may very well be better and more “user-friendly” space design that enhances both teaching and learning. In addition, utilizing VR as an integral component to the design process can provide an early “conclusion” to the design process that may significantly impact the cost of design changes. The efficacy of this VR tool will be explored in detail with practical demonstrations where participants can actually engage in interior and building design utilizing VR.

Learning Objectives

OBJ #1 Participants will understand the advantages of VR including engaging those not engaged, enhancing productivity, streamlining communication, saving time, and impacting cost and functional abilities.

OBJ #2 Participants will understand the various capabilities of VR technology in design, including walk-through and fly-through video production, and real-time VR collaboration.

OBJ #3 Participants will be able to understand how VR can provide invaluable assistance in allowing designers to run checks for vertical clearance issues and fall hazards, clash detection, lighting analysis, walking distance analysis, daylighting, and numerous o

OBJ #4 Participants will be able to actually experience VR tools in action by utilizing both projected video and Oculus Rift VR headset viewing.

Post-occupancy Results from Students and Teachers on the Saskatchewan Joint-use School Bundles

Laura Plosz, SAA, AAA, MAA, OAA, MRAIC, LEED AP, Principal, Group2 Architecture Interior Design Ltd. / Ryan Martin, Manager of Facilities and Capital Projects, Greater Saskatoon Catholic Schools / Dan Van Buekenhout, ALEP, Dip Civil Eng., Manager of Capital Planning, Regina Public Schools / Garden 4 / AIA CEU: 1.0 LU / Primary Core Competencies: Assessment of the School Facility / Secondary Core Competencies: Educational Visioning

The Saskatchewan Joint-use School Bundles presented a unique opportunity to receive feedback from students and teachers on the daily use of new educational facility designs across multiple sites. The representatives of two school divisions and team lead for the conceptual designs will present the findings of post-occupancy reviews collected after one school year in action from over 150 teachers and 500 students ranging in ages seven through 13. The Saskatchewan Joint-use School Bundles included the design and construction of 18 schools on nine sites, across four municipalities with five school divisions and two provincial government ministries. Each site accommodates two Pre K to grade 8 schools, one public and one Catholic, a shared central space containing gymnasias, multi purpose rooms, a 90-seat child care centre and community resource centre. The learning environments include classrooms which open onto a variety of break out spaces including small meeting rooms, learning commons, art and science studios and presentation stairs. Each school division utilized a slightly different approach to learning environment flexibility based on the specific educational pedagogy of the division. This presentation is a follow up to the CEFPI 2014 workshop entitled ‘Empowering Educational Transformation with Lean’ in which the tools utilized to gain direct input from front-line educators, curriculum experts, facility representatives and students were shared with workshop participants. Those participants asked for a follow-up session upon completion, so here it is with data, photos and stories.

SESSION ABSTRACTS continued...

SUNDAY, OCTOBER 6 9:45 am - 10:45 am

Learning Objectives

OBJ #1 At the end of the session, the participants will understand the criteria for a successful learning environment and break out space.

OBJ #2 At the end of the session, participants will be able to identify varying educational environment spatial responses to variations in educational pedagogy.

OBJ #3 At the completion of the session, participants will be able to understand the criteria for a successful learning environment from the perspective of a primary student.

OBJ #4 At the completion of the session, participants will be able to understand the criteria for a successful learning environment from the perspective of a primary teacher.

Telling our Story: Gardiner Middle School Dual Immersion Program SchoolsNEXT Competition

Keely Rock, 6th grade Dual Immersion Teacher, Oregon City School District, Gardiner Middle School / Michael Sweeten, Principal, Oregon City School District / Harbor / AIA CEU: 1.0 LU / Primary Core Competencies: Educational Visioning / Secondary Core Competencies: Design of Educational Facilities

This session will present the overarching experience of the 30 students from the 6th grade Dual Immersion Program at Gardiner Middle. Currently the Dual Immersion Program at Gardiner consists of 50% non native Spanish speakers and 50% native Spanish speakers. This 6th grade group has 49 total students, but only 30 students participated due to the AVID elective. The students range from low socioeconomic to medium socioeconomic, low academic levels in math and reading - to high academic levels, including 3 TAG students. The students competed in a SchoolsNext design competition and supported the Oregon City School District Design Committee through a new build of Gardiner Middle School. It will contain a more in-depth look at the project, will examine some of the specific features that engaged the students, increased school pride, and created sustainable projects for the future.

Learning Objectives

OBJ #1 Describe the process the students went through

OBJ #2 Analyze how the process and design of school facilities and campuses can impact community involvement and educational outcomes.

OBJ #3 Identify features and components of school facilities that contribute to student engagement and build community pride.

OBJ #4 Summarize design and program concepts of sustainable education facilities that build community resilience.

The Power of Passion, Purpose and Perspective: The Story of Anaheim City Elementary vs. Disney

Lynn Merrick, Owner / Lettie Boggs, CEO, Colbi Technologies / Pacific / AIA CEU: 1.0 LU / Primary Core Competencies: Ethics / Professionalism / Secondary Core Competencies: Community Engagement

In the 1990's the Anaheim City School District faced unprecedented challenges. They had grown from 7000 students

SESSION ABSTRACTS continued...

to over 21,000 and hadn't built any new schools. A complex storm of political and regulatory issues had prohibited the normal solutions. This workshop covers the reformation journey of this urban school district. This is a story of change: governmental, political, physical, instructional, business, and community change told through case studies by the personnel who made it happen. (Tours of some of the studied site will be available during conference tours.)

Learning Objectives

OBJ #1 Workshop participants will experience the journey of AESD's historical transformation through valiant efforts of persuasion and perseverance by sticking to a code of ethics

OBJ #2 Participants will have a chance to learn how to re-envision site design and building transformation can positively impact a student's ability to learn and feel safe in their surroundings

OBJ #3 Participants will learn that no crisis is ever over until all options have been explored and you work towards the YES – learn to ask the right questions

OBJ #4 Participants will have the chance to connect the WHY with the HOW and WHAT through case study and story form and then experience the transformation through site visits

The Core Competencies of School Planning: Essential skills of an ALEP

Terrace / AIA CEU: 1.0 LU /

The Accredited Learning Environment Planner (ALEP) is the professional designation of the Association and signifies excellence in the industry. It is designed to elevate professional standards, enhance individual performance, and identify those in the educational environment industry who demonstrate the core competencies essential to the practice of planning, designing, equipping and maintaining educational environments.

The Commission, an independent body that governs the accreditation, creates, sets policy for, and bestows the ALEP. The Commission has identified core competencies which the designation represents and defines an outstanding professional in the industry of planning, designing, equipping, and maintaining learning environments.

This session will review the skills necessary for becoming an ALEP and address the 7 core competencies of the designation. Each competency will be defined with examples to demonstrate the skills.

Learning Objectives

OBJ#1 Explain the designation and its importance to the industry

OBJ# 2 Review the 7 core competencies

OBJ#3 Demonstrate examples of the skills necessary in each competency

OBJ#4 Learn the process of becoming an ALEP

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As America's leading manufacturer and supplier of furniture and equipment for K-12 schools, Virco employs approximately 700 people nationwide. Our 560,000 square-foot Torrance, California headquarters features a state-of-the-art manufacturing facility, as does our Conway, Arkansas location, which has approximately 1,750,000 square feet of operational space. Large distribution centers in Torrance and Conway facilitate the quick, efficient shipment of Virco products.

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MiEN Environments was founded in 2012 in the heart of Furniture City - Grand Rapids, Michigan. Innovative design and creative furniture has since produced a growing brand with a loyal dealer network. We specialize in manufacturing classroom furniture, technology integration and modular lounge units to be specified within the K-12 and higher education markets. Our design philosophy is built around a new generation of student, faculty and staff, and the technology-driven collaborative environments that they require to be successful. With our global reach, we are constantly learning from the industry's best and we are excited to apply that knowledge by providing smart and customized design solutions for your future project needs.

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Global Furniture Group offers a broad range of furniture products + solutions designed for the workplace, hospitality, education and healthcare markets. Global delivers exceptional value, stylish design elements and superior reliability to our international network of dealers, designers and customers. Over 50 years of experience and innovation has allowed us to consistently expand our product offering, bringing the most innovative and ergonomic products to market using the latest cost saving technologies.

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Colbi Technologies provides software and support solutions that help districts manage their building programs well. Our team focuses on supporting you with internal controls and informed decision-making. Over the past 16 years, Colbi Technologies continues to develop software tools that aid both the facilities and fiscal services teams in effectively and efficiently managing their capital building programs. Our flagship program - Account-Ability - is a software designed by school district people to work the way you do. The program is designed to track and manage Multi-year, Multi-fund, Multi-project as a whole program. Account-Ability produces amazing reports that integrate both accounting and facilities spreadsheets into one reporting system - they work together rather than having multiple spreadsheets! Other highly effective programs include: ColbiDocs which is a cloud-based document processing and storage program that manages all the activities that occur in the construction trailer, such as: Automated routing, Document history, and Storage & retrieval. Quality Bidders provides a quick and easy web-based tool that scores and pre-qualifies contractors to work on public works construction projects. The services are free to contractor — attracts largest pool of qualified contractors for district projects. Highlights include: Districts view questionnaires, required documentation, and automated scoring on-line to quickly qualify or disqualify bidders; Dashboards provide quick review of qualified contractor pools by license — easily notify pre-qualified bidders of upcoming projects Automated email notifications keep pre-qualifications current; Augmented staff services to review financials, review submitted documents, and conduct reference checks Colbi employees love to get stuff done. They are humble, gracious, resourceful problem solvers, and highly motivated to walk in the shoes of our clients to not only gain their perspective, but to continuously learn how to improve the process and tools for each member of the client's team and Colbi user teams. Colbi employees are always helpful as they focus on finding solutions and aid our clients in using their genius. Our employees are active listeners that have disciplined thoughts and actions that allow clarity to surface in order to identify the real issues. Colbi retains highly competent people that quickly learn, take direction, and have the ability to clearly think through a challenger before offering solutions. Colbi has created a culture for people who thrive in finding value through being helpful and possess a deep sense of humility. All Colbi employees share the deep-rooted principle that we treat our client's money as our own. Colbi employees are stewards of both time and talents to increase the value of the services we provide to our clients.

Meteor Education

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Planning Learning Spaces

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Can school design help us realize a new vision for education that equips young people for life in a fast changing world. This is the big question at the heart of Planning Learning Spaces , a brand new guide for anyone involved in K-12 design. Come and meet Murray Hudson and Terry White the people behind the book.

Armstrong Flooring Inc

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Sheldon Laboratory Systems is the world's premier manufacturer and innovator in the science casework industry. Sheldon offers thousands of teacher designed products specifically for school laboratories and STEM/STEAM/STREAM classrooms. We work with our customers from initial planning through installation. We may manufacture products, but we never forget that we are in the education business.

Mohawk Group

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As the world's leading producer and distributor of quality commercial flooring, Mohawk Group believes that better floor coverings emerge from better design, innovation, sustainability, project solutions and operational excellence. Mohawk Group addresses the unique challenges and opportunities in contract interiors with a comprehensive carpet and hard surface portfolio of all types and price points. As the commercial division of Mohawk Industries, the company has a heritage of craftsmanship that spans more than 130 years. To learn more about our full line of flooring products, please visit MohawkGroup.com.

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Shaw Contract

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OnPoint Innovative Learning Environments

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OnPoint Innovative Learning Environments is an educational consulting company that cultivates, develops, and empowers teachers and administrators to transform school culture, enabling them to create lifelong learners.

SCHOOL TOURS

Anaheim Story Tour

In 1998, the Anaheim City Schools (K-6) had grown from 7,000 students to 21,000 and hadn't built any new schools. The crisis was unprecedented, even for California where rampant growth has challenged many districts at various times. The crisis meant that they had added portable classrooms until they had no more space, then went to Multi-Track Year Round Schedules, and then had moved to double session MTYE for K-3rd grade, with more grade levels to come.

The solution required several changes to legislation at the state level (as this district for decades had not qualified), working with Disney to not oppose a bond, and working with our own community, including our own board members, to vote yes on funding. Once funded, we had to move quickly and innovatively in an urban area where no land was available. It resulted in some very unusual projects.

Now, 20 years later, we know what worked and what hasn't. The district now named Anaheim Elementary School District will supply feedback on how the innovative schools are doing, what had to be changed, and what the future holds. This workshop will include a brief of the crisis and solutions, then will mainly focus on four of the innovative projects that became part of the answer.



1) Ponderosa Elementary

A joint use project with the City Parks, City Library, and Redevelopment Department. This project included acquisition of 19 apartment buildings adjacent to a park, a land swap with the park, a street closure with recommendation from the police department, and a library that is jointly City/School to serve a very challenging area with over 2200 K-6 students within walking distance, all were being bused elsewhere. The playgrounds are jointly used with the park. This school accommodates 1168 on MTRYE or 875 regular enrollment.

SCHOOL TOURS

Anaheim Story Tour continued



2) Westmont and Clara Barton Elementary Schools

Behind the existing Clara Barton School field was an unused 4 acre parking lot. By acquiring this lot and building a two story school, the district was able to accommodate an additional 1087 students who all lived in the immediate area but were being bused away. The fields between the two schools are joint use scheduled. This school accommodates 1087 on MTRYE or 815 regular enrollment.



3) Mann Elementary

This was a large parcel with a small school that fronted on an alley, using an adjacent church parking lot for pickup/dropoff. The church was purchased, then the new school was built on the fields, the old school was then demolished. The project includes a medically fragile/orthopedic special education facility and a PreK/K facility. The very unusual site shape resulted in allowing three separate drop off areas for this large population school. This project required legislation to facilitate inclusion in the state program. The new school accommodates 1275 on MTYRE or 950 regular enrollment.



4) Harbor Campus (now Orange Grove Elementary)

In order to facilitate expansions and modernizations the district constructed two all-relocatable campuses on this 10 acre campus for interim use. In the shadow of Disneyland, this campus needed to provide appropriate “resort area zoning” streetscape and not affect the flood control issues of one of the busiest intersections in the state, this was accomplished through resort area criteria frontage and on-site retention of storm water runoff. It has subsequently been used to house various schools thus speeding up their modernization timelines and optimizing safety during construction. This school accommodated two schools on a Harbor Campus North/Harbor Campus South arrangement with shared fields. It now functions as a regular school with its own identity.

SCHOOL TOURS continued...

Irvine Tour



1) Portola High School

Portola High the new comprehensive high school for the highly respected Irvine Unified School District was guided by an intensive strategic plan and educational specification process. The result is an innovative 21st Century learning community. The tour will include insights from campus leadership, district planning staff and students discussing their multi-year, interdisciplinary passion projects.

The visit includes the Student Union, Innovation Lab, Learning Commons, 700-seat theater, dedicated teacher collaboration rooms and multi-use Student Collaboration spaces.

Portola High School boasts a WiFi system capable of up to five devices per person across the entire campus indoors and out. Video monitors, projectors and a robust fiber optic system provide many ways to access and present information. Furniture is flexible and nestable throughout the campus, allowing each space to convert readily from one learner-centered arrangement to another.

The class schedule gives students flexibility and options in selecting their courses.

The 244,000 SF campus has fifteen one and two-story concrete block buildings that house 2,400 students on 43 acres that was formerly part of the-the El Toro Marine Corps Air station.

Sustainable features include low water, low maintenance landscape, a passive green roof system irrigated with captured HVAC condensate water, solar panels and electrochromic glass that darkens in response to the sun intensity and position to optimize daylighting.

SCHOOL TOURS

Irvine Tour continued



2) Mariners

With phase 1 completed, specifically:

- New CENTER FOR WORSHIP AND PERFORMING ARTS with adjacent PRE-FUNCTION area and ARTS

CONSERVATORY of classrooms

- New TK-KINDERGARTEN CENTER for EDUCATION
- New ROOFTOP GARDEN with outdoor agricultural science components
- Redesigned ATHLETIC CENTER to include 2nd story spectator viewing, fresh air accessibility, Athletic department offices suite, and premier hardwood flooring
- New MIDDLE SCHOOL COMMUNITY OUTDOOR PATIO upstairs and dedicated ELEMENTARY PATIO downstairs
- COVERED MIDDLE SCHOOL WALKWAY outdoor for quick access to Arts and electives wing

New WOODSHOP studio

- ELEVATOR to assist students with physical disabilities
- CAMPUS IMPROVEMENTS including new AC units, new security fencing, partial outdoor aesthetic facade, upgraded Admissions and front

SCHOOL TOURS

Irvine Tour continued



3) Tarbut V'Torah Community Day School

Tarbut V'Torah (TVT) is a private K-12 school in Irvine, California. TVT recently embarked on an effort to strengthen its curriculum to reflect 21st century learning concepts and provide programs geared towards science, engineering and arts, as well as spaces that support the whole child. The project results are spaces that foment critical thinking, creativity and interdisciplinary collaboration in the Maker building; and spaces that support the upper school's collaborative, integrated STEAM curriculum on a larger scale – with added specificity resulting from the school's unique needs, including a blackbox, digital media lab, and editing suites to support the school's robust film production program. Both buildings together total 25,000 square feet and are strategically located to complement the existing configuration, while reimagining previously underutilized outdoor areas into purposeful learning and social environments.

SCHOOL TOURS continued...

LA City Tour



1) Venice High School

Currently under construction, the \$138M Venice High School Comprehensive Modernization project will transform the campus and provide new buildings that meet the instructional and facility goals of the District. The project reinvents a historic campus from the inside out. The original PWA Modern buildings are preserved while the rest of the aging buildings are replaced in complementary, yet educationally contemporary new structures and landscapes. The new design leverages the open campus culture and temperate climate in conceiving a campus that exploits the potential for fluid relationships between indoor and outdoor learning. A concept of 'canals and islands' protect existing plantings in landscape islands while defining new canals of circulation and movement. Several quads are developed for their diverse program requirements of gathering, learning, and circulation.

The tour will go through two of the three primary new buildings that are currently in the final stages of construction. These new classroom buildings take advantage of their relationships to the landscape and leverage the design character of the historic structures. The Science and Engineering Building embraces a new Science Quad and fronts the Venice Community Garden with a patio space extending the lower level classrooms to the exterior while the upper level Chemistry labs access the quad directly via a dynamic exterior stair. The Arts and Shops Building has a number of shops on the ground level including Auto Shop and a unique Print Shop with exterior access to accessory learning areas and Arts Rooms on the upper level claim a long, glassy expanse on the north facade. Special Education programs are located in each of the new classroom buildings allowing for connections to adjacent programs.

2) Foshay Learning Center

HMC was hired by Los Angeles USD to do a master plan for an addition to the school. Foshay's main campus houses approximately 1,800 grade K-12 students. The goal for the project site development was to remove all portable buildings on the campus to free up more outdoor student gathering areas and open space. Foshay has

SCHOOL TOURS

LA City Tour *continued*

an interesting educational focus and a strong tie to USC. A number of Foshay classes are rigorous enough to be considered for college credit, and USC offers a scholarship to Foshay students who complete their program and stay at the school. After the master plan was approved, HMC continued with the first several phases of implementation.



3) Wiseburn USD & Da Vinci Schools

To meet the challenges of a rapidly changing world, educators are exploring a shift toward a more personalized learning experience. Wiseburn USD & Da Vinci Schools is designed to inspire 21st-century learning and to adapt with the change in pedagogy. A reimagined building is designed to be more like a creative workplace than a traditional high school, stacking three independent schools on top of ground-floor shared space. With the openness and flexibility typical of today's inventive work environments, the school underscores the idea that learning happens at many more places than just the desk.



SCHOOL TOURS continued...

Cal Poly Tour

1) Washington Elementary School, Pomona USD

Washington Elementary, a Title 1 elementary school nestled at the foothills of the San Gabriel mountains, 30 miles east of downtown Los Angeles had been under-performing years. When the newly appointed Principal, Alan Pantanini, arrived he quickly observed a broadly disengaged campus community and severely outdated campus facilities. Determined to transform his school into a beacon of hope, that offers Next Gen learning spaces to its community, Alan teamed with local architect Jay Tittle, AIA in an inspiring journey of transformation. From the outset, Alan and Jay recognized that a traditional design approach to campus transformation would not automatically result in academic success. They identified that creating and delivering a successful Immersive Learning space with flexible furniture and technology to deliver Project Based Learning needed to go beyond the built environment. It would require a change approach that incorporated thoughtful coaching and training for teachers that would lead to a shift in instructional mindset. A shift that was embraced by the front-line users, teachers, and allowed for the physical environment to be woven together with instructional delivery allowing for learning to take place anywhere. During this workshop you will hear from 5th grade Washington Elementary students present their perspectives of the before, during and after the campus transformation. Additionally, we will demonstrate how we changed teacher mindsets through a guided learning demonstration.



SCHOOL TOURS

Cal Poly Tour continued



2) Bronco Recreation & Intramural Complex

The 120,000-square-foot Bronco Recreation and Intramural Complex (BRIC) is a hub for student activity on campus. The complex was developed as a place where the University's 24,000 students could exercise and socialize, supporting student life on campus. The project was funded by student fees and designed after an extensive engagement program involving all the stakeholders. The center combines a wide variety of activities designed to promote health and wellness on campus, including a 6,500 square-foot pool, a three-court gymnasium, 16,000 square feet of weight and fitness space and a 51-foot-tall rock climbing wall—one of the largest on the western coast. The center also includes a multi-activity court, two racquetball courts, administration offices, locker rooms and shower facilities, and a juice store for a healthy food and drink options.

The design team was challenged by an awkward site, limited by existing easements, setbacks, topography and a less than optimal building orientation. To maximize the space, a dramatic, gravity-defying three-story steel structure was incorporated, including several substantial cantilevered floor areas, the largest of which extends nearly 60 feet. A running track on the top floor affords joggers a scenic view of the campus and surrounding areas.

The project earned LEED Gold certification, with a design that includes a high-performance stormwater management system, a "cool roof" design, maximized natural daylight, thermal displacement ventilation and passive solar protection through fritted glass fins and strategically-located shaded ribbon windows. Recycled or locally-manufactured materials were used throughout the project, which also includes low-flow plumbing fixtures, a solar water-heating system for the pool and the landscape maintained with greywater. The results are a testament that an informed design process can produce beneficial outcomes that have tangible and transformational impacts to support student success.

SCHOOL TOURS

Cal Poly Tour continued

3) Student Services Building

With its undulating roof and curving form, the Student Services Building makes a powerful visual statement, establishes a new landmark on the campus and in the region, and brands itself as the very symbol of the university and its long history in agriculture, science and technology. Striking in design, it marks a place of arrival and orientation for students, staff, alumni and visitors. The design draws its inspiration from the Southern California mountains and foothills that are articulated in the building's shape and the form of its standing-seam aluminum roof, uniting it with the landscape and demonstrating a commitment to sustainable operations and practices in a dramatic way.

The tour will take attendees around the site to explain the project's contextual role as a new landmark on campus and how overall building design developed. It will then enter the building to experience the new student service centers, approach to circulation, daylight, views and collaborative workspace. Along the way, the various sustainable strategies implemented to reduce energy and water use and support occupant wellness and productivity will be shown.

4) Student Housing

Student success is interwoven with one's ability to engage on campus. Student housing plays a pivotal role in this desired outcome. On this tour, participants will experience layered social spaces designed to promote engagement and socialization. We will walk through the planning, design and execution of two new mid-rise housing buildings and a new dining commons at the newly transformed front door to Cal Poly Pomona's campus.



SCHOOL TOURS continued...

Santa Anna USD Tour



1) Samueli Academy School for Foster Youth School

Learning Objectives:

Describe the design of the various learning spaces included in the OC School of the Arts project, including classrooms, science labs, culinary arts commercial teaching kitchen and performance facilities.

Discuss how the program spaces at OC School of the arts have supported the curriculum to make the school one of the premier arts schools in the nations.

Identify the sustainable design features of the Sameueli Academy project.

Illustrate the ways in which the design team created a “live and learn” urban village within the Academy campus.

2) Orange County School of the Arts (OCSA) School

Originally, this arts program began in 1983 as Los Al Players, a summer musical theatre camp for ages 4 – 16 founded by Terry Bigelow, Jean Parks, and Ralph Opacic in Los Alamitos, CA. Los Al Players grew into the Orange County High School of the Arts (OCHSA) in 1987 and reorganized as a public charter school on April 20, 2000. During that time the school was relocated from its primary facility at Los Alamitos High School to the Santa Ana Unified School District. In the summer of 2012, the name of the school was changed from OCHSA (Orange County High School of the Arts) to OCSA (Orange County School of the Arts). OCSA is a tuition-free, donation-dependent public charter school governed by a board of trustees representing parents, the community, educators and the Santa Ana Unified School District.

OCSA’s campus consists of a seven-story office tower, which was formerly a bank and four surrounding buildings, the Annex, the Tech Building, Symphony Hall, the Visual Arts Center, The Margaret A. Webb Theater, and the new Dance Music Science center. The main tower’s bank vault is still in use as a teacher work area and occasionally as an octagonal theater.

OCSA has two on-campus venues. Symphony Hall is a theater, which holds most of the school’s medium to larger performances and was originally a historic Church of Christian Science, (built in 1922) before being converted to a theater. The hall contains a theater, a side rehearsal room, separate practice rooms for instrumental musicians, a basement and library for the creative writers, a front of house audio booth with a Behringer X32 digital sound console, and a balcony overlooking the auditorium for the Production and Design students. This balcony houses an ETC lighting booth using the ION console and 2 Source Four follow spots.

SCHOOL TOURS

Santa Ana USD Tour continued

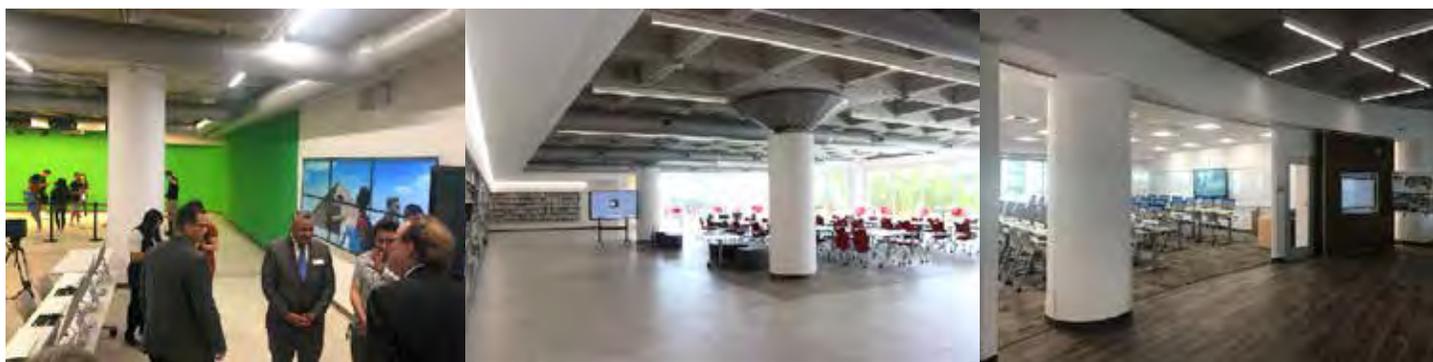
Communication throughout the theatre is done with a Clear-Com system. The former on-campus venue, the Black Box Theatre, was painted and floored entirely white, serving as a dance room until fall 2015, where the black box theatre returned to OCSA and has been renamed the Studio Theatre. It also is used as a classroom for Production & Design students to learn lighting. The lighting is controlled by an ETC Element console.

3) Santa Ana High School Edwards James Olmos School of Film and Cinematic Arts School

Santa Ana High School opened in 1889 as the first high school in Orange County. After 128 years, Santa Ana High School developed many pathways for educational success for the students who attend this flagship school. Several years ago, the campus began working with the Latino Film Institute and Mr. Olmos' Youth Cinema Project that fosters students dreams for big screen careers by bringing industry professionals to the school to work with the students studying Screen writing, Editing, Broadcasting, Special Effects and more.

In 2017, the District decided the success of the program warranted an investment to improve the facilities and create even greater opportunities for students to participate in the largest industry in Southern California. The Film and Cinematic Arts Pathway really begins at the adjacent Heninger K-8 School where students are using their voices and their stories to write, direct and produce films in the 4-7th grades. When in 8th grade, they walk across to the adjacent campus and work directly with the 9-12th grade students in Digital Media Arts class at the Santa Ana High School.

The Digital Media Arts class and other rooms associated with the SanArts program were spread across the campus. This project relocated the programs into one building by providing a film studio on the 2nd floor of this 3-story building. The existing Library, once 14,000SF of underutilized space. The entire floor was redesigned into a 5,400SF Library with the Film Studio components making up the remainder – including a large Studio outfitted for filming and instruction, two editing rooms, a Digital Broadcast suite with Control Room and Studio, a Digital Media Lab and a Flex Lab. The program at Santa Ana high school is flourishing and a desire to create a specific identity for the program culminated in the naming of the program as the Edward James Olmos School for Film and Cinematic Arts.



SCHOOL TOURS continued...

RCCD Tour



- 1) Riverside Community College District (RCCD) /2) Center for Social Justice & Civil Liberties
- 3) Culinary Academy / Coil School for the Arts

Centennial Plaza Block/ The Renaissance Block of the Arts is an urban arts and cultural hub that opened in 2016 in celebration Riverside City College's 100th anniversary. Each building on the block serves as an instructional program while expressing its purpose to the community. The four buildings within the block, include the Culinary Arts Academy and District Office, Coil School for the Arts, and the Center for Social Justice and Civil Liberties. This project is LEED Silver certified.

The Culinary Arts Academy and District Office is a three-story, 60,000sf building that will provide district and facilities offices and academic programs in a new, state-of-the-art facility. This project includes two levels of sub terrain parking located directly under the building. The first floor will house the Culinary Arts Academy. The second and third floors will provide new office space for facilities and district offices. The accessible roof provides kitchen support areas for the roof deck open air dining experience complete with an edible garden and views of downtown Riverside and the hills beyond.

The Center for Social Justice and Civil Liberties is a rehabilitation and addition of an existing two-story building, built circa 1930, to provide space for a new RCCD Art Gallery.

The Coil School for the Arts is a new 36,420sf school for the arts containing a 450-seat concert hall and specialized spaces for musical education. The specialized spaces include a state-of-the-art recording studio, a choir room, a orchestra/band room, a piano lab, a percussion room, practice rooms, classrooms and faculty office offices.

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