



# REFLEXION

AIA UTAH MAGAZINE



What Structural Engineers Want Architects to Know

Page 18

# IS THIS A FAMILIAR FEELING WHEN DEALING WITH THE CONTRACTOR?



**IF SO,  
YOU NEED TO WORK WITH**



CONSTRUCTION MANAGER • GENERAL CONTRACTOR

Current industry challenges threaten budgets, schedules, quality, safety, and relationships more than ever.

Honed from 75 years of experience, Hogan Construction's philosophy of partnering with architects and clients aims to provide a collaborative team experience—meaning we understand your goals and help reach them. It's not just about us.

We support this approach through our industry-leading ability to self-perform the first 40 percent of a project. Hogan looks at the project as a builder, not a broker, and provides you and your team numerous solutions in planning and design, as well as during construction because our team has the trade and field experience many do not.

Call us at 801-951-7000 and let's talk frankly about how we can help you, and your project, succeed.

# ASPIRE

ARCHITECTURAL SOFTWARE TOOLS



## features

- on-the-fly building requirements window validation
- real-time window price budget estimations
- real-time window specifications validations

**for more info**

[architectinfo@amscowindows.com](mailto:architectinfo@amscowindows.com)

[amscowindows.com](http://amscowindows.com)



**President**  
Robert Pinon, AIA,  
NCARB, LEED AP

**President-Elect**  
Jessica Hoffman, AIA ,  
NCARB

**Secretary**  
Jared Anzures, AIA

**Treasurer**  
Roger Phillips, AIA

**Editor**  
Frances Pruy, CPSM

**Staff:**

**Michael Smith, CAE**  
Executive Director

**Jennifer MacGillvray**  
Staff

# CONTENTS

President’s Message..... 5

Executive Director’s Message..... 6

Benefits of AIA Utah Membership..... 8

Interviews with Local Legends: Michael J. Stransky, FAIA..... 10

Interviews with Local Legends: Niels Valentiner, AIA.....14

AIA Utah YAF Social Mixer.....17

What Structural Engineers Want Architects to Know.....18

How Architects Can Make The Most Of Mobile Devices To Transform Their Productivity.....20

Total Recall: Cognitive Biophilia and the Restorative Impact of Perceived Open Space, Part 1.....22

Interview Insights.....26

Thank you Allied Members.....29



Reflexion is a publication of the Utah Chapter of the American Institute of Architects.  
[www.aia.org/utah](http://www.aia.org/utah)

AIA Utah  
280 S 400 W, Suite 150  
Salt Lake City, Utah 84101

©2022 AIA UT | The newsLINK Group, LLC. All rights reserved. Reflexion is published quarterly by The newsLINK Group, LLC for AIA Utah and is the official publication for this association. The information contained in this publication is intended to provide general information for review, consideration and education. The contents do not constitute legal advice and should not be relied on as such. If you need legal advice or assistance, it is strongly recommended that you contact an attorney as to your circumstances.

The statements and opinions expressed in this publication are those of the individual authors and do not necessarily represent the views of the AIA UT, its board of directors, or the publisher. Likewise, the appearance of advertisements within this publication does not constitute an endorsement or recommendation of any product or service advertised. Reflexion is a collective work, and as such, some articles are submitted by authors who are independent of the AIA UT. While AIA Utah encourages a first-print policy, in cases where this is not possible, every effort has been made to comply with any known reprint guidelines or restrictions. Content may not be reproduced or reprinted without prior written permission. For further information, please contact the publisher at 855.747.4003.



## PRESIDENT'S MESSAGE

BY ROBERT PINON, AIA, NCARB, LEEDAP  
AIA UTAH PRESIDENT



On a recent trip to Denver, I found myself standing between Studio Libeskind's Denver Art Museum and Michael Graves Denver Library and enjoying the contrast between the two distinct styles

**W**hat do you strive for? As architects, we have a unique opportunity to serve our community by adding to the existing fabric, creating spaces and buildings that provide an impact on those who occupy the space. As architects, we find ourselves building upon yesterday's lessons, sharing the space we practice in with the next generation while perfecting what drives us. In a world of ever-challenging issues, we find comfort in doing the best we can with all we have. So, to that point, what do we strive for, and how can we stay focused on becoming better architects?

In February, the AIA Utah Board met for a Strategic Planning Session. Our efforts led us to a simple Core Purpose: AIA Utah helps Utah Architects be better Architects! As simple as that sounds, we are here to support each other and our careers by combining our efforts to protect our profession. Within each of our committees, we focus on bringing value to the members — and if you find yourself wondering what that means, please visit our website and find a committee that interests you.

In 2022, we have already had several committees re-engage the members in this endemic phase of COVID-19. The YAF held a mixer along with the young Structural Engineers (SEAU) at Kiitos Brewing, with an attendance of almost 50. The Urban Design committee held a Sustainable Symposium

in April with two days' worth of virtual presentations — these were recorded and will be available for viewing. The topics presented were very relevant to today's practice of sustainable techniques. Additionally, the AIAS had a virtual panel regarding licensure and the Government Affairs held their yearly Day on the Hill in-person during the session. These events provided different ways to engage with members and inspired what we do every day.

With all the turmoil happening in the world and our ever-busy schedule, it is important to take a moment to reflect on what we are engaged in. Can we provide a little reprieve in what we do to re-energize and hone in on what makes us happy? Where can we turn to inspiration? On a recent trip to Denver, I found myself standing between Studio Libeskind's Denver Art Museum and Michael Graves Denver Library and enjoying the contrast between the two distinct styles. I asked my family if they found inspiration in the architecture and a fun dialogue ensued. Needless to say, the pointy edges of the Museum won out!

As a new Board, we have focused on making our promises. We are constantly asking ourselves how we can bring value to your membership within the Institute. As we continue to program out the year, please watch for opportunities to engage and participate, become inspired and driven, and finally identify what you strive for! 🌟



# EXECUTIVE DIRECTOR'S MESSAGE

BY MICHAEL SMITH, CAE

**H**ello to the Utah Architectural community! My name is Michael Smith; I am AIA Utah's new executive director. I represent a local association management company the AIA Utah Board has engaged to operate the Utah chapter. I know the Utah A/E/C industry well; I have worked with associations in the Utah-built environment for almost twenty years. Before working in the association world, I served on the staff of Governor Michael Leavitt and Governor Olene Walker. During the past couple of decades, I had the opportunity to collaborate with both Heather Wilson and Elizabeth Mitchell on joint A/E/C industry events and legislative issues for the design community. AIA Utah, last year, celebrated its 100th anniversary, which is a milestone few businesses and fewer associations reach. I am delighted to join an organization with such a notable history and abundant possibilities for the future.

We have been working with the AIA Utah Board on a new strategic plan focused on refreshing the membership proposition as we look to the next hundred years of AIA Utah. You may have seen one of the recent membership surveys asking questions about what aspects of AIA membership bring the most value to you. If you have not had a chance to share feedback with me or the 2022 AIA Utah Board, we would like to hear from you. What benefits do you find most beneficial to your work in the architectural community; what events engage you and inspire you to hone your craft? Are there things that you would like to see AIA drop, or are initiatives you want your association to focus on? Drop me an email and share your thoughts about how AIA Utah can better serve you; I can be reached at [msmith@aiautah.org](mailto:msmith@aiautah.org).

As we continue to feel our way out of the recent pandemic, I recognize that many facets of the marketplace have changed. We have new ways to meet and interact, new options to work remotely, and new ways to learn and gather information. As we look at how AIA Utah interacts and engages with the Utah membership, I want to know what your preference is? Do you prefer virtual or in-person training, email, text, video, or social media to stay up to date with the current fluid business environment, and what about networking with peers? Do you miss it, or are you not ready to engage with a large group? These are some of the questions we are looking at with the 2022 Board of Directors. Our mission is to bring value to you, our members, and help you be a better architect.

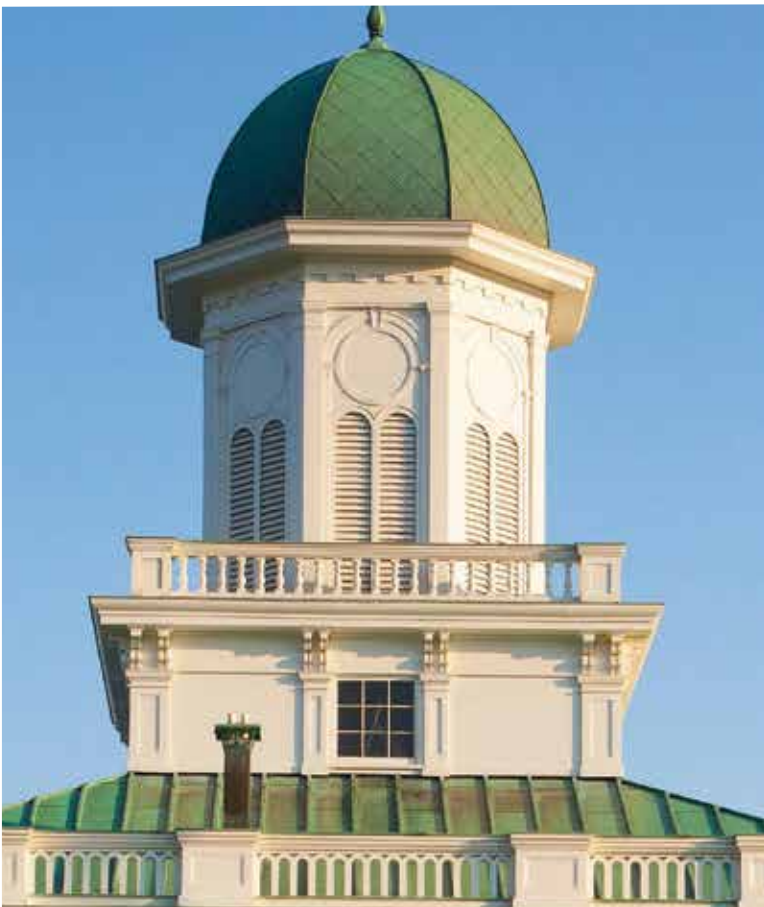
We are excited to be back in person for the national convention in Chicago A'22; if you have not registered yet, there is still time to join your peers in the windy city at the



**It is an exciting time to be in the A/E/C industry! Utah leads the nation in growth and in economic outlook, which has led to unprecedented project opportunities to chase.**

end of June. Please plan to join AIA Utah for our annual scholarship fundraising golf tournament; the 2022 tournament will be held on August 22nd at Jeremy Ranch Golf and Country Club. It is the only Arnold Palmer signature course in Utah, so do not delay; we expect the event to sell out. Finally plan to join AIA for our annual conference in late September that will feature two great buildings, engaging professional development, and recognition of the 2022 Design Competition winners. Along with these major events, you will see new opportunities, both at a state and section level, to network with peers, tour exciting projects and participate in some great continuing education events.

It is an exciting time to be in the A/E/C industry! Utah leads the nation in growth and in economic outlook, which has led to unprecedented project opportunities to chase. In addition to a strong state economy, your association is starting the second hundred years with a refreshed focus on bringing value to you as a member of AIA Utah. I hope you will engage with one of our committees and some of the upcoming events. It is a pleasure to work with this association; I hope to meet each of you soon. 🌟



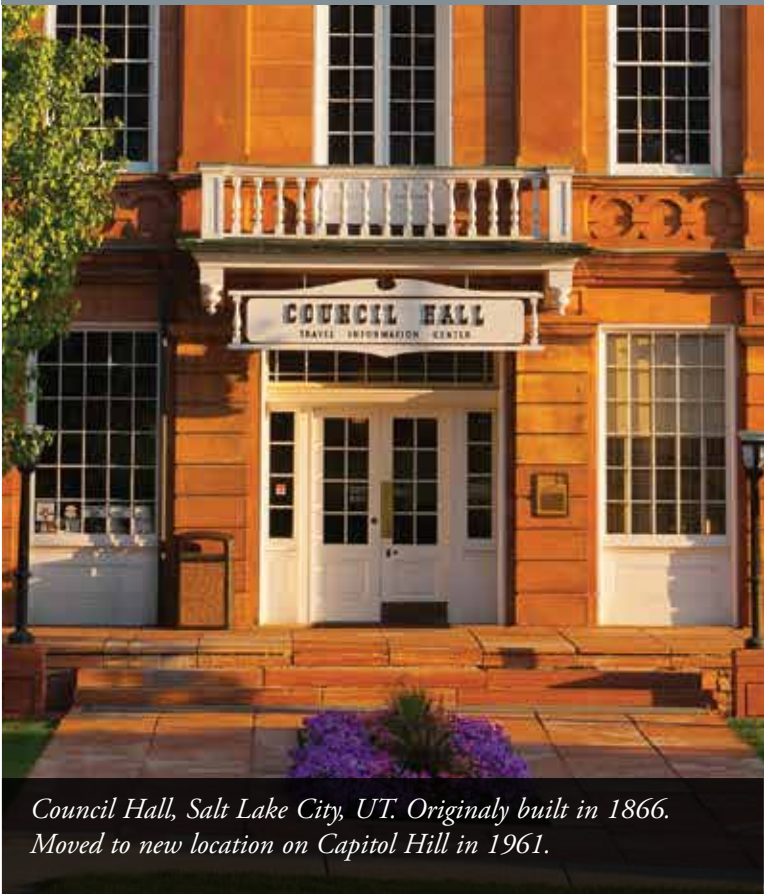
## Council Hall, Salt Lake City, UT.

Crafted from beautiful sandstone from Red Butte Canyon under the direction of William H. Folsom in 1866. Originally Salt Lake City Hall and home to the Mayor's offices and the seat of Salt Lake City Government and meeting place for the Utah Territorial legislature. The Rose Room on the second floor served both as a general courtroom and the legislative floor.

To make way for the new courthouse, the building's exterior was dismantled into 325 sandstone slabs. They were numbered and reassembling around all-new woodwork on Capitol Hill. Restoration was done under the direction of Edward O. Anderson and renamed "Council Hall."

As your preferred insurance provider, we make the proper adjustments to protect your business and cover its liability. We are leaders in insurance products and services for architects and engineers with over 60 years of specialized experience. From loss prevention to risk management, we strive to build long-term relationships with a foundation built on trust and commitment.

Insure your architectural heritage.  
Brick by brick. Stone by stone.



*Council Hall, Salt Lake City, UT. Originally built in 1866.  
Moved to new location on Capitol Hill in 1961.*



Salt Lake City Office  
(801) 364-3434 | (800) 736-3436

Las Vegas Office  
(702) 877-1760 | (877) 806-5317

[www.american-ins.com](http://www.american-ins.com)

Professional & General Liability • Disability • Group Life  
Commercial Auto • Workers' Comp • Property & Equipment  
Group Health • Personal Home • Personal Auto • Life

# Benefits of AIA Utah Membership

BY KATJA PETERSON, ASSOCIATE AIA



**W**hat is the benefit of being an AIA Utah member? We all grapple with this question at some point in our careers. Many professions have an organization supporting the people working in their industry; the American Institute of Architects is ours. The top items most professional organizations promote include professional development, networking, advocacy and education. AIA has all these benefits and more. How can AIA member resources enhance your career, and how can you apply benefits to your day-to-day work?

This article jumps into the main categories of AIA Utah Member benefits: professional development, networking, education, advocacy, equity by design, sustainability and stewardship, and conferences. The value of each benefit may vary from person to person and over time, depending on where you are in your career. Good thing there are a variety of benefits for everyone at every stage!

## Professional Development

Let's start from the beginning. Are you thinking about, or do you have staff who would like to get licensed? AIA Utah provides PPI resources to be checked out. As a member, the AIA space is open for you to use for yourself or with a group for studying, coffee breaks, or simply another space to work. The AIA Utah space can be used as a pop-in space during business hours or can be reserved free of charge for AIA Utah Members. In addition to assisting with licensure, AIA Utah promotes the growth of individuals and firms through Honor Awards, professional recognition and accomplishments, and providing platforms for local and international design competitions.

## Networking

AIA Utah provides community connection with other architects and supporting allies of the architecture community through awards, social hours and panels. AIA Utah works to connect with supporting groups of the AIA, such as the Utah Center

for Architecture, the School of Architecture, and Urban Design Utah. The AIA also has 21 Knowledge Communities where members can connect across one or multiple shared interests. In addition to personal networking, AIA Utah provides free job postings for AIA Members and firms in Utah. This is a wonderful community resource as many postings require heavy fees.

## Education

To keep your license current in Utah, you need a total of 12 HSW per calendar year. AIA Utah works to actively promote new continuing education credits through its committees, local lecture series, and conferences. If there are educational topics you would like to see, contact the committee closely associated. In addition to contacting your local committees, there are several highly rated on-demand courses for free or at a discounted rate through AIAU and AIA's Course Catalog. The AIA Continuing Education System online tracks your continuing education record, making it a breeze to keep up licensure.

## Advocacy

AIA Utah advocates for architects. One of the AIA's key initiatives is to advocate for architects to the Utah State Legislature and regulatory agencies. This is done through the Government Affairs Committee by creating relationships and lobbying government officials. The Government Affairs Committee tracks bills and initiatives that impact the design industry, providing important professional perspectives to elected officials.

## Business Resources

At a micro level, though equally important, the AIA provides individuals and firms with business practice resources such as contract documents, master specs, and salary calculators. Being an AIA member also lends to resources from the AIA Trust that provides risk management and insurance programs.



AIA Utah works to actively promote new continuing education credits through its committees, local lecture series, and conferences. If there are educational topics you would like to see, contact the committee closely associated. In addition to contacting your local committees, there are several highly rated on-demand courses for free or at a discounted rate through AIAU and AIA's Course Catalog. The AIA Continuing Education System online tracks your continuing education record, making it a breeze to keep up licensure.



### **Equity by Design**

At AIA Utah, we strive to educate and promote equitable practice through design. AIA Utah has resources to educate and take action around race, equity and inclusion. The Equity by Design committee is committed to keeping the conversation current and inviting all to the table.

### **Sustainability & Stewardship**

The AIA provides valuable resources for firms striving to attain the 2030 Commitment. AIA Utah is committed to providing Building Envelope education to its Utah Members through panels and podcasts. Don't forget to listen to the more current podcast on building resilience.

### **Conferences**

AIA Members receive discounts for AIA National Conference and AIA Grassroots. The nice thing about the AIA Utah conference is that there is room to get involved. Conference planning is happening NOW. If there is something you would

like to see, get involved. Involvement can vary – from an email, a phone call or joining one of our eight committees to express what you want to see at the AIA Utah Conference. All AIA Utah committees work to incorporate professional development, networking, conferences, education, and advocacy through the lens of diversity, inclusion, and sustainability.

Benefits of an AIA Utah Membership have the potential to expand from metrics and resources to true connections. The more you put into the organization as an active participant, the more you get out of the organization. As one of our AIA legends, Mike Stransky, said elsewhere in this issue of REFLEXION, "I was an active member of AIA. I met hundreds of men and women across the country who I got to share my experience with and they with me, and a number of those we partnered with on work because we had mutual respect for one another, and they brought something to the table that we didn't have. I cherish that part of my career. That was a big part of my life. It was very rewarding." 🌟

# Interviews with Local Legends

BY FRAN PRUYN AND TRAVIS SHEPHERD

Mike Stransky is a Wyoming native with a big, open personality. Mike originally came to Utah to go to architecture school. After a nine-year stint with the Army Reserve and Don Panushka's firm, Mike joined Abe Gillies in a firm that would evolve to be GSBS, now one of the standard-bearers in the Utah architectural industry. Mike talked to Fran Pruyne and Travis Shephard, AIA, about his career in the industry.



## Michael J. Stransky, FAIA

### **When did you decide to become an architect?**

While I was in high school in Wyoming, I thought about petroleum engineering; Wyoming is full of oil and uranium. I also thought about a military career. I applied to the Merchant Marine Academy and took the physicals, and found out I was color blind. No academy would take you if you were color blind. So, my family encouraged me to consider architecture because I liked to draw and make things. I took drafting classes in high school and pretty much made the decision. I didn't know where to go; I didn't know a lot about architecture other than drawing and building involved with it.

### **So, where did you go from there?**

I went to a community college in Casper to get my university requirements. I had a teacher who lined me up with Mr. Wehrle, an architect. I found out he was at the University of Utah doing a doctorate in architectural psychology. I thought, well, Utah is good for him, Utah is good for me, so I applied, was accepted, and came to the University of Utah in 1964.

### **Clearly, you graduated then ...**

(Smiles) Not without a struggle. I got drafted in '67. So, to accommodate both careers, I opted to go into ROTC at the University, which gave me two years to finish. I graduated in '70, got my commission, and had to go into the Army.

### **Where were you stationed?**

I was in the Army Corps of Engineers, and the training is in Ft. Belvoir, Virginia. Carolyn and I had been married for two years. She put her career on hold because I didn't have an option. My option was to go to Ft. Belvoir and then to Vietnam, but they were cutting back, so I wasn't shipped out to Vietnam. I spent nine years in the Army Reserves in Utah. At the same time, I worked for Don Panushka before deciding to jump in with Abe Gillies.

### **Tell us about that.**

I knew Abe in school; he was one year ahead of me. He had a partner – Bob Brotherton. They had worked together at Enteleke and had decided to do it on their own. They incorporated in January of 1978. They were looking for help, and I was looking to move on. My firm wasn't considering longevity and transition. I said, "I am interested but not just in a job." Within a year, I had bought into the firm. Within two years, Bob wanted to stay in our office in Denver, so we split then. That is when it became Gillies Stransky. Outside of marrying Carolyn, it was the best action I ever took – to accept his invitation to join him in business. He is the best. He plowed the ground; I joined the team. Pretty soon, I found out that we both had a heckuva load of responsibilities.

### **How did you divide the responsibilities?**

We did everything. Abe had been involved in putting the corporation together, so he kept an eye on the books and the billings. I was largely involved with project management. There

**When you are starting your firm, having a strong financial basis is important. We mortgaged my house; we dipped into my savings to pay some bills.**

was a \$15 million job with Wheeler Machinery; a really good job for our little firm — incredible clients. As a result of that job, we picked up a very similar project in Denver, Wagner Equipment — another great client. That's when Bob decided to open an office in Denver doing interior finishes, largely.

We picked up similar jobs. I ran projects. Abe ran the business and ran projects too. I started doing the marketing; I was the outside guy. Abe said, "You be AIA for the firm; I'll take care of this. I'll be the ballast." Great person, great ballast. I can't imagine having a better partner.

A couple of years later, through AIA, I got to know David. I knew Steve before, a little bit; he was a neighbor of Abe's. We brought our firms and talents together. By 1986, we got all the initials in there.

#### **Talk about some of the struggles.**

When you are starting your firm, having a strong financial basis is important. We mortgaged my house; we dipped into my savings to pay some bills. I had a lot of cold showers. It was the kind of "the-head-against-the-wall" thinking, "We gotta get through this." But you still believe in yourself. And you believe in your partner. And my wife believed in me. She lived through that stuff; it was as tough a time for her as it was for me. But we knew we could do it. We never missed a payroll. Never. I am really proud of having done that. Never stepped on anyone to make that happen. No consultant ever went unpaid.

The work was never too hard. It was grueling at times, trying to get work done, trying to figure out how to get the new job to keep a flow of projects into the office. Those are struggles, but those are all just meaningful moments in your career. You just find a way and make it happen.

#### **When you look at your career, what are you most proud of — both in the practice and portfolio?**

Recently, I tried to figure out how many jobs I had worked on. I had over 800 projects that I was responsible for. Now that's a tenant finish, but it is also a big federal project. That is a pretty wide spectrum. When you do that, you meet those clients. Some of the joy of the projects was the clients, having a relationship with them, not necessarily the end result. People were always, to me, important.

I am proud of the Museum of Natural History that the firm did, but I didn't personally spend a lot of time on it. As a piece of architecture, it is unquestionably one of the best things our firm was involved in, teamed with Ennead.

I like St. Thomas More. That was a big struggle to get that built. The building committee, people from the east, west, south — all had their backgrounds that they brought to the table. Sorting that out you would think is relatively easy (but not); this is only a couple of million bucks. I am incredibly proud of that project. I think it is a landmark project for the Catholic Church. It was an aggressive look at what a church could be, not the repeat of a church in Indiana, or Savannah, or Upstate New York, or Tucson. It is Salt Lake City, Utah; it is very contextual.

I love the Public Safety Building. I think it was a progressive step for our firm, working with David and Kevin and Valerie and all of my great partners to get that done. I think we succeeded in a tremendous way.

#### **Abe said that you enjoy doing Maintenance Facilities because they are so technical and require so much thought.**

The first big job I worked on with Abe was Wheeler Machinery. I had just worked on the University Hospital for Don Panushka. All the details from the hospital — the radiation, the labs, the plumbing for gasses and air — everything was really technical, and I really got my head into that. Then it just fit it in to do Wheeler. There is infrastructure in there that I loved putting together, although the scale of that was monster, not microscopic. We grew that into doing work for the federal government, largely the Corps of Engineers in Sacramento.

I did a lot of work with them. I sought those as hard as any other job that we sought. It was very successful work. The Consolidated Maintenance Facility we did at Tooele Army Depot was a \$120 million fully rigged outbuilding for rehabbing military vehicles, engines. The heartbreaker was that within two years after that was finished, Tooele suffered from the base closures, and they sold it to a private client for ten cents on the dollar. But that's politics.

#### **Tell us about the evolution of the industry from the late sixties till now.**

There were firms that were emerging. Many of the old firms went away. Only a few of them had transition plans that allowed them to continue until today. There are only three or four that proceeded us — MHTN, EDA, FFKR — Bob Fowler had his own firm, and the Enteleke guys came over. Most of the other firms went away; they didn't put transition in place.

I remember my boss Don Panushka, calling when he finally retired, and he had a bunch of drafting boards and asked if we needed any. But we were already on our second or third generation of computers. We embraced that from the very beginning, and there were a number of jobs we got because we could demonstrate we had that technology. We were then pressed with making it work, literally forced to make that technology work for us.

► — continued on page 12

That is one thing that I personally didn't embrace. I never felt I had the time to dedicate. I have fifteen calls to make, and I am not going to sit here at this computer and learn how to draft. In retrospect, that doesn't bother me a bit. We have so many bright people who do that and far surpass anything I would do. Which is a bit counter to the way I looked at life. I always said, "If I have to drop back, if we have to lose every person in this firm, can I still do it?" Well, yeah, but I would have survived with pencil and paper or ink and paper.

In the last ten or fifteen years, I have watched dozens of firms do the same things we did, different ways and different people, and build excellent firms. I think we have an incredible community of architects that can meet any challenge. I am disappointed to see some of this work come to town being done by outside firms. The contractors who grew along with us are (mostly) able to build these. But they are not looking to our community for our design. There is plenty of work going on, everybody is busy, but when I see some of the tallest buildings downtown, I'd like to see that we are, or somebody else, is doing them, not some firm from somewhere else in the country.

### What do you think makes a good building, and can you name a few really good buildings in Utah?

- The **City and County Building**. I am glad we saved it. I was chair of the Landmark Committee when there were discussions about what was going to happen with that building. They had to come up with \$35 million, and many people said tear it down, build us a new building like the Church Office Building. There wasn't a lot of traction there, but this was presented. We finally grew as a community to say we are saving these treasures.
- And, of course, the **Capitol**; it has gone through a major renovation, and it is going to be here for a long, long time to come.
- In my own faith, the **Cathedral of the Madeleine** is a jewel of this community.
- One that always comes to mind is **Symphony Hall**. That one has stood the test of time. I think its context makes that a great building.
- The context of the **Natural History Museum** makes that a great building.
- A GSBS project, the **Speed Skating Oval**: I think that is world-class architecture. It fulfilled its mission in 2002.
- The **Public Safety Building** is a favorite of mine.

If I went back and asked what made them great, I think: how did the project go with the client and the people it represents? Did some of those get designed and built in spite of the client? I never believed in that.

## I think we have an incredible community of architects that can meet any challenge.

### What would you say to someone following in your footsteps quite literally and wants the class, style and composure you guys had?

It is time for you to make it your own. This profession changes, personalities change, our community changes, clients are changing.

### Advice for a young architect?

Architecture is a tough profession, particularly as a young practitioner. You are going to school, you wonder how to apply what you have learned, is the economy going to accept you? Is there going to be anything left by the time I have put in my seven years? It is a profession that can leave you hanging for a year or two while the economy takes a dip.

You have to be ready to say, "This is what I want to do; I see my niche," and you give it everything you've got, because it will suck up everything you got – all your time, all your energy – if you let it. And then you will find that you have to balance that with your other life, your family: your partner, your spouse. And you have to find a way to keep that in balance. That will probably be the biggest struggle you'll have.

### Last thoughts?

My job was to go out and to create a presence in the community. I hadn't been a member of the AIA. So, I became an AIA member, an active one, and expanded that to some pretty healthy responsibilities within the AIA – the National Board, Board of NAAB, 18 years on the Documents Committee. And through that, I was able to help accomplish a lot for the profession on a national basis. While that was all happening, I met hundreds of men and women across the country with whom I got to share my experience and they with me. A number of those we partnered with on work because we had mutual respect for one another, and they brought something to the table that we didn't have. I cherish that part of my career. Very much. It was something that my wife shares with me, and she has friends within that circle of professionals that we still have today. It. That was a big part of my life. It was very rewarding. 🌟

To watch the full interview, please scan the QR Code.  
<https://www.youtube.com/watch?v=G0OrK1jKvKo>





**WE'RE  
IN  
THIS  
TOGETHER.**

**Join AIA** and let's show what  
design can do, together.

[aia.org/join](https://aia.org/join)

# Interviews with Local Legends

BY FRAN PRUYN AND PHIL HADERLIE

Niels Valentiner is the founding principal of VCBO Architects. A Denmark native, Niels immigrated to the U.S. in 1965, attended BYU, and after his mission in Denmark with the LDS Church, he transferred to the University of Utah, graduating in 1973. He started Valentiner Architects right out of university, and has grown his firm to ninety professionals in two offices, Salt Lake and St. George. Almost 50 years since Valentiner and Associates opened, Niels continues to work at his profession and avocation – Choice Humanitarian, a non-profit whose mission is to eliminate extreme poverty.



## Niels Valentiner, AIA

### **What prompted you to become an architect?**

I grew up in Denmark. I was in the last year of Gymnasium, and we were supposed to have some idea where we would go after that; we should interview a person in that profession. I had some interest in architecture, but more in art — I was studying painting and sculpture. I talked to an architect. As we were contemplating immigrating to the United States, I asked

him if he thought I should study at the Academy in Denmark or in the United States? He said he thought the United States would be a good experience. The path of architecture was set at that point.

I was planning to go to UC Berkeley, but Berkeley was a big (political) mess in 1965. So, as I had connections with the Mormon Church, I went to BYU for the first year and a half. In '67, I went back to Denmark on an LDS mission, then came back and transferred to the University of Utah. I finished my degree in art, then did a master's degree in architecture.

While I was in school, I worked for Don Panushka. I went to talk to him, and Don said, "Show me some of your work." Of course, I had nothing. I went home and asked a friend who was in school a year or two ahead of me to give me some plans I could copy over. I copied them over, then came back a week later and showed Don. (This was) very bad, but he needed someone to do drafting so I worked with him for a while. After that, I worked for Enteleke, as well as with a group of other architects.

### **When did you decide to form Valentiner Architects?**

After graduation in '73, I started the firm right out of school. I took the one-week exam and hung my shingle out on the door — Valentiner and Associates. I had to look important, so I put "Associates" after Valentiner. That's the problem when you start a firm: you have to look like somehow you know what you are doing.

### **How did you do it? How did you look like you knew what you were doing?**

I must admit I would not recommend starting out that way, right out of school. It would have been smarter if I had gotten more experience: five or ten years. I had two or three years working for architects that qualified me to get my license, so I had some of that background. I would not recommend that — but that is what I did. I had to learn very quickly how to put

drawings together. Back then, everything was by hand. We designed simple stuff.

### How did you find your clients?

I had some connections with developers and some others. One of my first real jobs was with a builder in Ogden who was doing a design-build credit union at Hill Air Force Base.

That became the first America First Credit Union, and the project turned into a relationship.

We went to planning meetings every month for over two years planning their new headquarters and hoping that they would give us the job. Well, we got it. It was our first major office building. It was mostly just connections with people.

### And then?

What Terracor did for realtors and developers is what Environmental Design Group did for architects. They started something that was way before its time and overly ambitious: Stansbury Park and Bloomingdale, and all those projects. That was the beginning of architecture and development on a large scale in Utah. Other firms spun off of that group.

Roger Boyer spun off and started his company. We started working together when he was doing his first little office buildings, and I was scrambling. We did projects for many years and still do.

That is how you start; bump into the right people at the right time, and hustle.

### What are you most proud of?

I don't look back. I look forward to doing a project, then I pass it along and move on. What intrigues me about architecture is the ability to put it all together: getting the client, getting financing, getting a site, come up with all the pieces that make it a project, then the design and everything comes into it, and then construction, then be done with it. It is very intriguing to me — the process of making architecture — that is probably what built the firm.

The smartest thing I did was hire and bring people to work with that were smarter than me. People with different backgrounds, different strengths, different abilities, that is really why VCBO is where we are.

### How did that all happen?

Back then, firms were very small. A firm of 30 was big. All of us were just scrambling to get little pieces of projects.

At a point, I got smart and said, how do I get strength, diversity? I was primarily involved in development, office buildings and commercial work, no institutional, no schools. Steve Crane and I had casually met each other. We went to lunch, and I said, "Steve, you have a little firm, and I have a firm, and we both need to grow if we are going to compete with the big guys out there." Over several months we decided that he would roll his firm into ours. We created a partnership:

me, Steve, Peter Brunjes and Sean Onyen, who were also working with me. Steve brought schools with him and some other clients. That was really the beginning of VCBO.

I kept 51%. I wanted to make sure that if I made mistakes, I could get rid of them. They knew that. We talked about it and said, "This is going to be a trial here." We did that for a year or two, but I soon realized that I shouldn't be a majority owner; it had to be all equal. We are now into our third generation of partners.

### What are some of the struggles you had to overcome?

Meeting the demands of clients, but that is always going to be there. The other side is keeping the firm growing. Growing a firm is not easy because of the way people interact with each other. Today all the major firms, I think, are struggling — moving from one generation to the next to the next.

You start a firm — you've got to have the fire. You have to know that there is no payroll tomorrow unless you get a project and you do well. In the beginning, our biggest problem was that we had no resume to speak of. Today, we can show thousands of projects, major projects.

Now, the problem is having the initiative to keep developing the company and making people in the firm see that. The biggest challenge is moving from us old-timers who just had to do it, to the new generation who wants a little more freedom. They have to have the fire in their belly and understand that to own a firm and grow it, you have to have sleepless nights, wondering if what we are doing is right or wrong.

### What have you seen in terms of the evolution of architecture in the fifty years you have been practicing?

There has been huge development. Everything we did back then was by hand, using colored pencils and markers, putting presentation drawings and models together. Model making was a big thing; I used to spend many hours up in East Canyon gathering yarrows — we used them for trees on our models. Nobody does that anymore now.

It was very hands-on. It was a lot simpler in the design and communication of drawings. Most firms were no larger than ten, twenty people. That has evolved with AutoCadd, with digital communication. How we deliver architecture, how we design, how we visualize, how we communicate, all those are entirely different than it was 30 or 40 years ago.

It has been a tremendous development: a very positive one, I think. We can communicate so much better. Just look at the drawings; we only had thirty pages, now we have three hundred pages for the same project. We have very sophisticated clients who are very focused on their particular sliver of a business. Clients think just because you can do an elementary school doesn't mean you can do a high school, and just because you can do a high school doesn't mean you can do elementary school. That is ridiculous, but it is getting that focused.

► — continued on page 16



Architecture needs to be relevant to where it is, what it is doing, what it is trying to achieve, and what it adds to that whole environment. A good building needs good clients — without a client that is able and willing to visualize with you can't go that next step; to create and design something that is relevant, that is in context to what you are doing.

► — continued from page 15

I think (as an architectural community) we have done very well. We are not over the top with iconic projects, but have developed the Wasatch Front very reasonably. I think altogether we have been very respectful as architects. We have respected the community, respected the mountains, respected the environment. And there has been a sense of preserving history. But we all have to do better. There is a lot more to do.

### What is a good building?

Architecture needs to be relevant to where it is, what it is doing, what it is trying to achieve, and what it adds to that whole environment. A good building needs good clients — without a client that is able and willing to visualize with you can't go that next step; to create and design something that is relevant, that is in context to what you are doing.

Salt Lake City Library was one of our very important projects, working with Moshe Safdie. The context was to create a living room for the community that everybody can come into and feel comfortable. One reason it was successful was Nancy Tessman, the library director. She got the board bought off on doing a unique building.

I said to her, we have to be careful, we have got to control this. We have so many homeless people we don't want to come in and have them take their morning shower and wash. Nancy said, "Niels, homeless people are part of our community; they belong here too. That was a real moment for me. I was like, "I want to keep this beautiful building away from people that might destroy it." Instead, she opened the door and said, "Come in." Guess what? Those homeless

people sitting on the carrels up along the wall are in there and sit there and read every day all day long, and they are more a part of that building than maybe other people. Now that is architecture to me; it is socially responsible, environmentally responsible; it is in context.

### What advice would you have for a young architect starting out?

Not to do what I did. Find out about architecture. I think in many ways it is really to explore the world, maybe go somewhere else and practice: South America, Europe. Get your mind open — go out and get away from just the narrow scope we live in. If you live in Utah, you see Utah as the world. There are people on the other side of the mountain.

Then, find a niche where you are strong: a certain design, a certain direction, a certain social, psychological emphasis that you want to be involved in. It can be all parts of architecture — it can be design, it can be technical, it can be in spec writing, it can be whatever. Create and become an expert in that, because that is what architects in the world need. ☺

To watch the full interview, please scan the QR Code.  
<https://www.youtube.com/watch?v=gqKFVWHObp8>





# AIA Utah YAF Social Mixer



## YAF (Young Architects Forum)

Utah kicked off the year with a great event at Kiito Brewing! Many like-minded young professional architects and structural engineers got together for the first in-person YAF event in a couple of years. It was a huge success, as everyone was craving social interaction with peers after a long hiatus. There were drinks, mingling, and a new food truck with loaded Mexican hot dogs to top off the night. Afterward, the YAF committee high-fived each other for successfully pulling off yet another young architect social.

The YAF has plans for another social this summer (because who doesn't like free food and a good time with friends?). The current goal for the YAF is to get people together and re-connect the rising stars of

the Utah architect community. Creating a network where young professionals can meet and learn from each other in a non-formal environment is paramount for a thriving architectural profession. Not to mention, some of the millennials have mentioned they would like to learn how the new, more hip gen-z architects do things.

The YAF is also resurrecting the Meet the Masters series, with a couple planned for this year. This event has always been an enriching opportunity to hear from experienced professionals in our community.

Stay tuned for announcements of these events. All are welcome to join regardless of what level you are in the profession! (i.e., disregard the word "young" if you want to come) 🍷



## Envista®

Roof and Floor Deck  
Ceiling Systems

Envista FA Timberlok® provides the structural support and fire resistance of steel roof deck panels while providing the warm appearance of natural wood. Envista offers four wood grain finish options, superior acoustic properties, and long spans up to 36'.

**EPIC** METALS®

877-696-3742 toll-free  
epicmetals.com

Jackie Fuller Elementary School, Aubrey, Texas  
Products: Envista F7.5A, Colony Maple  
Architect: Huckabee, Austin, Texas

# What Structural Engineers Want Architects to Know

BY CHRIS HOFHEINS, SE



## When consulted from the beginning, your structural engineer can provide different building material options and cost-effective ways to structurally frame the building.

**T**here is a famous African proverb that reads: “It takes a village to raise a child.” It also takes a village to design and construct a building. The goal for all project team members is to work together to deliver a successful building for our clients. Here are four items architects can do to help their structural engineer deliver a winning project:

- Engage the structural engineer early
- Communicate what is important to you and the client
- Establish clear lines of communication
- Develop a schedule that maximizes design time and minimizes design changes

### Engage the structural engineer early

The best practice would be to consult with a structural engineer at project conception. When consulted from the beginning, your structural engineer can provide different building material options and cost-effective ways to structurally frame the building. Creating floor plans and building concepts prior to consulting with a structural engineer will limit the options a structural engineer can provide. Due to product lead times, many cost-effective solutions may no longer be an option for the project, which will increase project costs.

### Communicate what is important to you and the client

Structural engineers want architects to be successful in delivering their vision to clients. Occasionally, a structural engineer’s nature to please is misguided when we do not understand what is most important to the architect, contractor, and owner. Take column placement as an example. Without additional input from the architect, the structural engineer will provide a column layout that is most efficient for the building structure. This efficiency may be in contradiction with the architect’s goals. Frequent communication and feedback to your structural engineer will enable them to provide structural options that meet your vision, are cost-effective, and builder-friendly.

### Establish clear lines of communication

Structural engineers are problem solvers by nature. Communication comes fast and from all directions. Sometimes structural engineers unintentionally get the proverbial cart in front of the horse. A common example is when a contractor contacts the engineer directly seeking a solution to a problem. If your structural engineer knows the architect’s communication preferences, engineers can be more responsive to needs and questions without creating confusion in the process.

### Develop a schedule that maximizes design time and minimizes design changes

The most notable change in the industry I have seen over my career is the acceleration of the design process. Structural engineers are typically on the critical path to complete our design and deliver permit documents so the contractor can get in the ground as soon as possible. The need to start construction quickly is at odds with the structural engineer’s need to develop the most cost-effective design. The two most notable things architects can do to help structural engineers successfully overcome this challenge are building a schedule that maximizes our design time and minimizes changes. Go to bat for your structural engineer to help them establish a design timeline that enables the contractor to deliver the project on time while maximizing the structural engineer’s design timeline. Establish intermediate design deliverables, then hold owners and design team members accountable for hitting deliverables and making decisions. Late information and changes raise the hurdle and make it more difficult for your structural engineer to deliver a complete and cost-effective design on an accelerated schedule.

Nothing is more satisfying than being part of an effective team that works together to deliver a successful project despite the obstacles along the way. Engaging with your structural engineer early, sharing project goals with clear lines of communication, and developing a schedule that enables all team members to be successful are the necessary ingredients to a successful project. 🌟



**BHB STRUCTURAL**



*Chris Hofheins, SE is co-founder and President of BHB Structural. Over the course of 20 years, BHB has become one of the largest structural engineering firms in the Intermountain West by focusing on providing responsive, well-coordinated and creative structural engineering. Chris frequently gives AIA CES presentations on a variety of topics. He can be reached at [chris.hofheins@bhbenigneers.com](mailto:chris.hofheins@bhbenigneers.com) or 801.355.5656.*

# How Architects Can Make The Most of Mobile Devices To Transform Their Productivity

BY DELTEK



**A**rchitects spend so much of their time on the road, consistently communicating with clients and contractors, accessing designs, performing site inspections, taking notes during meetings, etc., and mobile devices can help accelerate all these processes. This article examines how mobile apps can help architects become more productive and save hours of valuable time across all parts of their day.

For example, saving a single hour on your site inspections and drafting field reports can add up to whole billable days saved over the course of a month or two. But field reports are just the beginning. The right mobile apps can help architects make all parts of their day more efficient and less stressful.

## **Before leaving for the office — transport work the easy way**

When architects get into the design and modeling work, they'll naturally turn to dedicated workstations and industry-standard CAD solutions. However, when they leave their office and workstation behind, they need a way to show clients the new designs or annotate models. Printing designs on paper and lugging them around is common to transport work, but it can be inefficient and prone to error. Mobile devices can strip out this traditional paper-intensive step, as many industry-standard tools offer handy mobile apps that let architects take their work with them.

For example, AutoCAD Mobile is a mobile app extension that helps architects review drawings and designs with clients on-site — bridging the gap between the design studio and the construction site.

## **During client meetings — work faster with a digital sketchbook and notepad**

Getting the most out of client meetings starts with capturing client feedback to implement it into your designs.

Tablets paired with a stylus and apps like Nebo, GoodNote, and OneDrive can make this process as simple as writing in a notebook. Unlike handwritten notes, this digital alternative offers the benefit of easier storage and organization in your

## Shapr3D, a 3D CAD app for iPads, lets architects sketch 2D concepts with the Apple Pencil. Once they've finished their concepts, the app can easily transform those concepts into 3D shapes.

systems versus having it written on a piece of paper that still needs to be typed up when you get back to the office.

If you want to quickly sketch a concept or idea, sketching apps — like Morpholio, Concepts and Procreate — combined with an accurate stylus give a great drawing experience on your tablet. Options like an “undo” button, while sketching or working with layers and even scaling tools, transform how architects sketch ideas and concepts.

This helps you capture ideas without waiting until you get back to the office, and it leads to more collaborative design and feedback sessions with your clients as they can see your ideas as you draw them on screen.

Shapr3D, a 3D CAD app for iPads, lets architects sketch 2D concepts with the Apple Pencil. Once they've finished their concepts, the app can easily transform those concepts into 3D shapes.

## While on-site, take the busywork out of site inspections and field reports

There's plenty to do while you're on-site, so it's all too easy to put off writing up field reports or punch lists till later. Not only does that slow you down, but it also means manually re-entering data the next time you're in the office — leading to the potential for human error, misunderstandings, and costly mistakes.

What if, instead, you could automatically generate field reports as you conduct site inspections? Apps like ArchiSnapper make that a reality. By helping you record text, take photos and annotate floor plans while on-site, you can avoid double keying information, struggling with the layout of your report in Word, or spending time transferring and arranging site photos.

And there are even more apps that can streamline other parts of your site visits. CamToPlan uses your device's camera to instantly take measurements and generate floor plans. And if you use a newer device with LiDAR technology, measuring apps like Polycam and Roomscan, LiDAR is even more accurate.

These apps make clever augmented reality technology to replace slow, error-prone measurements with a near-instant digital alternative. It's as easy as tapping the walls with your camera. The apps then do the rest, creating an accurate 3D model in minutes.

Did you know that many architects already use speech-to-text features to “write” text hands-free? All Android and iOS devices have speech-to-text features that let you dictate notes by voice, and your device will take care of the rest. This approach is already transforming the way your peers approach punch list meetings and other situations that demand rapid note-taking.

## Back at the office — cut out the manual copy/paste

Whether you're writing up meeting notes, to-do items, field reports, or plan annotations, by processing them digitally while on the go, you save a lot of time when you get back to the office. And that means you'll have more time for valuable tasks like design work or marketing. This also applies to administrative tasks like expense and time management.

If you're still holding onto paper receipts and logging time manually at the end of the timesheet period, you're missing out on significant time savings. Mobile apps like Expensify can help you take a streamlined, automated approach to file expenses. And if your firm uses a dedicated ERP solution, you may already have a mobile app available that offers time and expense management functionality on the go.

Many of the top ERP vendors (including Deltek) allow you to take photos of receipts, automate expense reports and simplify timesheets from anywhere.

## Make the most of your time, wherever you are

Time is one of the only things you can't get more of; it's our most valuable resource.

Mobile technology helps architects save time across their entire day by cutting down on low-value tasks like printing out floor plans, typing up hand-written notes and manually filling in timesheets.

By cutting out the humdrum tasks, architects can spend more of their time doing fulfilling, meaningful work. While it might be a few minutes saved here and there, these add up to multiple hours per week — and even entire weeks per year!

To learn more about how architects can transform their productivity, take a look at our white paper on how to make the most of your smartphone or tablet to give your productivity a boost. 📄



[https://info.deltek.com/archisnapper-mobiletech?sourceid=80&utm\\_source=blogs&utm\\_medium=website&utm\\_campaign=AE-Blog-US-how-architects-can-make-the-most-of-mobile-devices-20220104&partnerref=website\\_blogs\\_AE-Blog-US-how-architects-can-make-the-most-of-mobile-devices-20220104](https://info.deltek.com/archisnapper-mobiletech?sourceid=80&utm_source=blogs&utm_medium=website&utm_campaign=AE-Blog-US-how-architects-can-make-the-most-of-mobile-devices-20220104&partnerref=website_blogs_AE-Blog-US-how-architects-can-make-the-most-of-mobile-devices-20220104)

# Total Recall:

## Cognitive Biophilia and the Restorative Impact of Perceived Open Space, Part 1

BY DAVID A. NAVARRETE AND BILL WITHERSPOON

This paper has been divided into two parts, the first part of which appears below. It describes how growing evidence and research on the multidisciplinary realm of illusions of nature is giving weight to a new field of Cognitive Biophilia and Neuroaesthetics.

In the last few years, neuroscientists have come to a remarkable conclusion: the quantity and quality of open space around us — whether it's rows of cubicles in an open-floor matrix, four walls in a classroom with a view of the next building, or a windowless treatment area — are responsible for increasing the cognitive load on our analytical and affective faculties.

In other words, the nature of our thinking, whether it's reflective, creative, emotional, rational or intuitive, is deeply influenced by our spatial environment. Space, it turns out, impacts higher cognitive functions in ways we're just beginning to grasp.

Even more astonishing, because of the way our brains are wired when we're relaxed, our sense of "self" incorporates and absorbs our immediate surroundings into an extended sense of self-called the "body schema," referring to an integrated neural representation of the body.



*In nature, our sense of self becomes boundless, which is deeply restorative. Unattributed, Pixabay*

Our cognitive experience of body becomes one with the place we're in, which can, in turn, extend our sense of "self" into the environment at large. Because this neurobiology of sensory stimuli and cognitive perception gives rise to our sense of self and environment, such an extension of self is not a virtual simulation. It's a shifting neural assessment of who we are. This insight also reveals the hitherto hidden dynamics that formulate our experience of self in space, based on contextual or structural cues embedded in the places we inhabit.

Neuroscientists refer to this fluid cognitive process as "embodied perception." We spread out into our immediate surroundings, or recoil from them, by recalling and matching past spatial experiences that occurred under similar conditions. If our spatial memory in such spaces is pleasant, our sensory-motor cerebral regions incorporate these attributes as belonging to our body proper.

Architectural scholars such as Sarah Robinson have noted that our body schema is plastic, amenable to constant revision, and extends well beyond the envelope of the skin.<sup>1</sup> In fact, researchers concede that the border separating the body schema, peripersonal space (the space immediately surrounding our bodies), and extrapersonal space (the space outside the reach of an individual) is indeed arbitrary.



*The border between self and place shifts based on sensory cues. Photo by Jonny Crow on Unsplash.*

When nature is present in our environment, we can, and do, relax and become one with our immediate space. But when the environment is disconnected from nature, we become tense, anxious and feel distinctly disconnected from the world around us.

The far-reaching implications for how our brain perceives, interprets and modulates the environment have forced academics and practitioners alike to take a serious look at our

prevailing assumptions about Biophilia and the application of biophilic design principles to architectural design.

### Beyond Kinship — “I am nature”

Biophilia is defined as a love of or kinship with living systems. This definition presupposes an elemental separation between the observer and the object of observation, united by a complex and largely fragmented, cognitive process of observation. Yet, our high-level experience speaks of no such separation. In fact, elevated human experience has long been one of unity, a unity in which the individual and nature are experienced as synonymous.

*Therefore am I still*

*A lover of the meadows and the woods, And mountains; and of all that we behold*

*From this green earth; of all the mighty world  
Of eye and ear — both what they half create,  
And what perceive; well pleased to recognise In nature and  
the language of the sense,*

*The anchor of my purest thoughts, the nurse, The guide, the  
guardian of my heart, and soul Of all my moral being  
— William Wordsworth, Tintern Abbey (1798)*

*Shall I not have intelligence with the earth?  
Am I not partly leaves and vegetable mould myself?  
— Henry David Thoreau, Walden (1854)*

*Until now, these lyrical and deeply sincere confessions  
have often been interpreted as metaphor, the subjective  
experience, born of sensory and emotional phenomena,  
of a unique sensibility, exhorting our kinship with nature.  
Now, however, such eloquence can be understood, not  
as a subjective and embellished recollection, but as a  
multisensory, cognitive phenomenon, which is as real as the  
neural networks that gave rise to it.*

*What is life? It is the flash of a firefly in the night, It is the  
breath of the buffalo in the wintertime.*

*It is the little shadow which runs across the grass and loses  
itself in the sunset.  
— Chief Crowfoot, Alberta, Canada (1830-1890)*

The discovery of mirror mechanisms (MM) — a process that generates neural electrical activity in the brain whenever we initiate a motor action, or observe a similar motor action performed by someone else — has confirmed that observing the world is a complex, multisensory process. Researchers have discovered that specialized motor neurons encompass many more cerebral regions than just the visual brain proper. Italian scholars, Vittorio Gallese, a neuroscientist, and Alessandro Gattara, an architect, note that vision is remarkably multimodal, also incorporating motor, somatosensory and emotion-related brain networks.

In their contributing essay to the thought-provoking book, *Mind in Architecture*, edited by Sarah Robinson and Juhani Pallasmaa, Gallese and Gattara argue that five decades of research have shown that motor neurons — the nerve cells responsible for generating our body’s movement — also correspond to visual, tactile and auditory stimuli.

They note: “Any intentional relation we might entertain with the external world has an intrinsic pragmatic nature; hence it always bears a motor content. The same motor circuits that control the motor behaviour of individuals also map the space around them, thus defining and shaping in motor terms their representational content.”<sup>2</sup>

In other words, by design, our brain is an environmental simulation organ. Our brain models and emulates what we observe — whether it’s the undulating texture of a palm tree’s trunk or gravity’s pull on the body when we watch a rock climber inch toward a crevice on a vertiginous cliff. Our mind is a virtual reality chamber.



*Photo by Omid Armin (Unsplash)*

The same mirror mechanism that connects the frontal and posterior parietal cortex (the portion of the brain responsible for sensory integration) and its multimodal motor neurons (those neurons that incorporate various sensory inputs) are activated when we move through space or grasp objects in space. The same mechanisms are also stimulated when we observe the movement or actions of others. Our brain literally mirrors or performs the same motor actions we observe. As such, it’s more accurate to speak of cognitive perception not as an abstract function but as an action-oriented perception. Given that all cognitive function is wired to mirror or embody what we perceive, what does this reveal about our relationship to space?

In her book, *Making Space: How the Brain Knows Where Things Are*, Jennifer Groh, a professor at the Department of Psychology and Neuroscience and the Department of Neurobiology at the Center for Cognitive Neuroscience at Duke University, notes that higher cognitive faculties, such as focused attention, memory and planning, share the neural infrastructure that our sensory and motor faculties use to navigate

the shifting external environment.<sup>3</sup> Therefore, these shared neural pathways are two-way circuits that can be tapped to recall past experiences formed under similar conditions.

Exposure to this emerging neural framework gives architects cause to reassess. Rather than rate the wellness or “suitability” of the built environment by the assorted attributes that we incorporate into buildings (function or object-driven design), architectural design should explore how to generate and sustain cognitive experiences within defined environments (subject-driven). How can we imbue our interior architecture — in hospitals, classrooms and workspaces — with an essential quality that the observer will experience as an extension of himself? That is, how can we create places that invite the mind and body to encompass their surroundings through interconnected space?

Even Stephen Kellert, who laid the foundation of biophilic design by identifying the attributes of nature that the built environment should include, was a vocal critic of the U.S. Green Building Council’s LEED certification system, where buildings achieve sustainability ratings based on a checklist of discrete interior features. In a 2014 interview with The New York Times, Dr. Kellert said: “Good design has an atomic quality. When things are organised in a coherent and integrated way, you get these emergent properties, so the whole is better than the sum of its parts.”<sup>4</sup>

Considering that natural environments provide the ideal cognitive setting for our biology, largely because we automatically consider them cognitive extensions of our self, how can contemporary buildings come to elicit such a sublime experience: one where the whole is greater than the sum of its parts?

The cognitive properties of environmental context may hold the answer.

### Spatial Cognition — the measure of time and self

Research in neuroscience has uncovered a fascinating connection between our ability to map space and the way we form memories. This connection between space and memory is a fundamental building block that gives rise to environmental context, which, in turn, regulates the signal strength of sensory input, particularly visual input.



*Our memory is a living repository of spatial maps. Photo by Alejandro Alvarez on Unsplash*

This is why nature imagery staged in isolation on the walls results in two-dimensional décor that doesn’t alter the observer’s spatial assessment of interior space. On the other

hand, biophilic “Open Sky Compositions™” — multisensory images set within a virtual skylight framework — do encompass additional structural and contextual cues. These multimodal cues engage a part of the brain that effectively alters the observer’s visceral assessment of interior space. This area of the brain is the cerebellum, typically involved in spatial cognition and depth perception.

Neural research has long confirmed that the strength of the visual cortex’s signals is context-dependent, a highly flexible and dynamic process. According to neuroscientists Stephen L. Macknik and Susana Martinez-Conde, authors of the book *Sleights of Mind*, the intensity of visual signals is fluid, malleable, and highly responsive to contextual cues.<sup>5</sup> In other words, the environmental context in which sensory input takes place, shapes our perception of the input.

We already know that 50% of our neural tissue is directly or indirectly related to vision, revealing that our psychophysiological relationship to visual space is of far-reaching consequence. Humans’ cognitive representation of “space” is deeply embedded in our minds. Indeed, Dr. Jennifer Groh notes that the shared neural pathways in our brain that give rise to abstract thought, spatial cognition, and the way we map our sense of space, may also be responsible for the nature of human thought itself.<sup>6</sup>



*Making Space book cover © 2014 Belknap Press © 2015 Antonio Mora*

Far from philosophy or metaphysics, Dr. Groh’s scientific assessment of the interconnected nature of our neural networks reflects the plasticity inherent in the neurobiology of cognitive perception. Its implications for architectural design are vast — ranging from how enclosed interiors dampen cognitive restoration and emotional balance to how staging the proper spatial reference frames in windowless spaces can give rise to salutogenic perceived open space, thereby advancing the use of more therapeutic design principles in the built environment.

This observation is also echoed by environmental psychologists such as DeLong and Lubar, who have long suggested that humans perceive a strong relationship between the space that surrounds them and the passage of time. In their research, it has been shown that larger spaces slow down perceived time while smaller spaces speed it up.<sup>7</sup>



This insight echoes the scale proportions found in views to nature that offer prospect and refuge, where the observer enjoys unimpeded visual and spatial access from a small, safe spot such as a balcony, a secluded outlook, or a room overlooking a panorama.

Furthermore, a breathtaking view to nature is not only a poetic way of describing the swing of awareness that humans find intrinsically enticing and healing. It also aptly describes the physiological transformation that occurs during biophilic engagement. When the breath slows down or is momentarily suspended, it's the direct result of the quieting of the mind and reflects an experience of the deep connection between the observer and the observed. This visceral recognition and conscious amazement are further evidence of the innate kinship between living systems, humankind and nature, defined by Biophilia.



*Exposure to spatial polarity is restorative to cognitive function. Photo by Jenn Evelyn Ann, Unsplash.*

When we perceive a small relative scale (our body) in the context of a much larger relative scale (environment or geography), we recalibrate our sense of self, which creates an experience of expansion and wholeness — a perceptual experience conducive to contemplation, mental clarity, emotional balance and relaxation.

When we experience vastness, time appears to slow down. Time becomes abundant and feels infinite. In this experience of infinity, the mind finds much more than solace; it discovers its own unrestricted nature as the filtering process of observation itself dissolves, revealing the observer's "body schema" as both "self" and "environment."

On the other hand, smaller spaces, particularly enclosed artificial spaces, tend to crowd us. Our perceived sense of time speeds up, leading to the common experience of time pressure, task-related stress and anxiety. As a matter of fact, small, enclosed spaces make occupants feel like the walls are closing in, which might be understood as an accurate expression of their cognitive perception.

Furthermore, a body of research indicates that space-time interactions in human vision are asymmetrical. Spatial cognition has a larger effect on temporal cognition than the

other way around (Merritt et al., 2010 as cited in Homma and Ashida, 2015).<sup>8</sup> 🌐

*This is the end of part 1. The remainder of this paper will be printed in the next edition of REFLEXION.*

#### *References (Continued in Part 2)*

<sup>1</sup>Robinson, Sarah (2015). *Nestled Bodies*. In Robinson, S and Pallasmaa, J (eds.), *Mind in Architecture*. Ch. 7, p139.

<sup>2</sup>Gallese, V., and Alessandro Gattara (2015). *Embodied Simulation, Aesthetics, and Architecture: An Experimental Aesthetic Approach*. In Robinson, S and Pallasmaa, J (eds.), *Mind in Architecture*. Ch. 9, p164.

<sup>3</sup>Groh, J (2014). *Making Space, How the Brain Knows Where Things Are*. Cambridge, Massachusetts, The Belknap Press of Harvard University Press. Ch. 9, p189.

<sup>4</sup>Murphy, Kate (2014). *Stephen Kellert*. *The New York Times*. Retrieved Oct. 31, 2017, from <https://www.nytimes.com/2014/01/05/opinion/sunday/stephen-kellert.html>

<sup>5</sup>Macknik, SL and Martinez-Conde, S. (2011). *Sleights of Mind*. New York, Henry Holt & Company.

<sup>6</sup>Groh, J (2014). *Making Space, How the Brain Knows Where Things Are*. Cambridge, Massachusetts, The Belknap Press of Harvard University Press. Ch. 9, p190; p196.

<sup>7</sup>DeLong, AJ and Lubar, JF. (1979). 'Effect of environmental scale of subjects on spectral EEG output.' *Society for Neuroscience Abstracts* 5:203. In Kellert, S, Heerwagen, J and Mador, M (eds). (2008). *Biophilic Design: The Theory, Science and Practice of Bringing Buildings to Life*. Wiley & Sons, NJ.

<sup>8</sup>Merritt, DJ, Cassanto, D and Brannon, EM. (2010). *Do monkeys think in metaphors? Representations of space and time in monkeys and humans*. *Cognition* 117; 191-202. Retrieved Dec. 8, 2015, from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2952654/>

#### *Authors*

*David A. Navarrete is the director of research initiatives and accredited education at Sky Factory. He's a member of The Center for Education (ACE) at the Academy of Neuroscience for Architecture (ANFA) and a fellow at The Centre for Conscious Design. He and Bill have co-authored articles on Cognitive Biophilia to diverse publications, including Conscious Cities Journal and Conscious Cities Anthology (2018, 2020), Radiology Today, Salus Global Journal, and Work/Design magazine.*

*Bill Witherspoon is the founder and Chief Designer at Sky Factory, Inc. Sky Factory's published, peer-reviewed research has earned multiple awards, including the International Academy of Design & Health, Planetree International, and the Environmental Design Research Association (EDRA).*

# Interview Insights

BY FRAN PRUYN, CPSM



There is no foolproof way to be prepared for every question that a prospective client can throw at you. Still, you need to be prepared with a short answer to every question you can imagine.

“We won it in the Q&A.”

You can score big with a selection committee during the question and answer period and be awarded a project. You can also go down in flames when one team member appears arrogant, demonstrates how little s/he knows about the client’s project, or has lousy chemistry with the rest of the team.

So, yes, we rehearse and rehearse and rehearse a presentation only to mess it up in the Q&A. Remember to rehearse the Q&A, and be mindful that:

- **People ask questions to which they already have the answers.** It is a test. The challenge is not just answering the question intelligently but also providing the answer the questioner wants to hear. That means doing some homework about the project and the committee members.
- **EXAMPLE:** *Is there enough money in the budget?* Actually, probably not, or they wouldn’t be asking the question, but what are they really asking? Do they just want you to say yes, so they can hold you to it? Do they think you might want to “design the Taj Majal” and you don’t understand their need to be frugal? Or do they know there isn’t enough money in the budget and want to get validation in front of colleagues? The best answer is specific, “The Utah average cost for this building type is \$\_\_\_\_. Your budget is \$\_\_\_\_. That makes it tight, and we will have to set priorities (or we will have to be creative).”
- **Try not to over-answer questions.** Start with a brief, clear and direct response. After that, you can explain yourself but get to the point, don’t show off. Sometimes the answer is yes or no. Say that first. This does mean you have to have thought of an answer in advance. Try not to think and talk at the same time.
- **EXAMPLE:** *What is the biggest risk in this project?* Again, what does the person asking

the question think is the biggest risk in the project? Is it budget, schedule, or lack of communication? It is typically one of those three things, or items such as bad soils or a shortage of labor or a huge steering committee, that will impact the budget, schedule, or communication. Have a plan you can explain how to mitigate that risk in one sentence.

- **Assign questions to be answered by one person!** Then let that person answer the question, don’t pile on. The exception is if you are sure that the person answering the question misunderstood it. Then redirect the question back to the selection committee member: “Mr. Client, did you want to know if the budget is realistic, or how we will keep within the budget?” Once the question has been clarified, let the guy assigned to answer the question actually answer the question.
- **Stay on point.** It is easy to go down dirt roads when you start talking about complex subjects or about which you know a lot. Answer the question; don’t school the client.
- **Even if the question seems stupid, respect it with an intelligent answer.** If you want a selection committee member to vote for you, best not to embarrass them in front of their colleagues.

There is no foolproof way to be prepared for every question that a prospective client can throw at you. Still, you need to be prepared with a short answer to every question you can imagine.

The Q&A period is when you can show real enthusiasm for a project and demonstrate your creativity, ability to listen, and compatibility with your team. The Q&A period is your opportunity to prove you can be trusted with their money, job, business, and dream. Be direct, sincere, honest, and disciplined, disciplined, disciplined, disciplined. 🌐

**AIA Utah**

# Please join us for our 2022 AIA Utah Conference



## September 27, 28 & 29

### **Tuesday 27 – Mid-Valley Performing Arts**

Opening Keynote  
Sponsor Booth  
In-Person Sessions

### **Wednesday 28 — Building Tours**

Online Sessions

### **Thursday 29 — Natural History Museum Utah**

Closing Keynote  
Sponsor Mixer  
Design Honors & Awards Presentation

### **Conference Fee**

\$350 Member  
\$500 Non-Member

# THANK YOU ALLIED MEMBERS!

Platinum Allied Member



**WADMAN CORPORATION**

2920 South 925 West  
Ogden, UT 84401  
801.621.4185  
www.wadman.com



**ALDER SALES CORPORATION**

6676 South 400 West  
Murray, Utah 84107  
801.262.9700  
www.alders.com



**BHB STRUCTURAL**

2766 South Main Street  
Salt Lake City, UT 84115  
801.355.5656  
bhb@bhbenigneers.com  
bhbenigneers.com



**CALDER RICHARDS CONSULTING ENGINEERS**

634 South 400 West, Suite 100  
Salt Lake City, Utah 84101  
801.466.1699  
crceng.com



**DORMAKABA**

www.dormakaba.com



**ENSIGN ENGINEERING**

45 West 10000 South  
Suite 500  
Sandy, UT 84070  
801.255.0529



**THE GRASSLI GROUP**

145 West 200 South  
Salt Lake City, UT 84041  
801.364.9696  
suelak@grassligroup.com  
mgba-studio.com



**HOGAN CONSTRUCTION**

940 North 1250 West  
Centerville, Utah 84014  
801.951.7000  
www.hoganconstruction.com  
See ad, page 2



**PCI MOUNTAIN STATES**

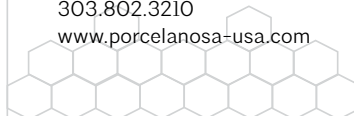
8770 W. Bryn Mawr Avenue  
Suite 1150  
Chicago, IL 60631  
312.786.0300  
www.pci.org



PORCELANOSA

**PORCELANOSA**

Denver Design District  
601 South Broadway  
Suite A  
Denver, CO 80209  
303.802.3210  
www.porcelanosa-usa.com



**REAVELEY ENGINEERS**

675 East 500 South #400  
Salt Lake City, UT 84102  
801.486.3883  
www.reaveley.com



**SPECTRUM ENGINEERS**

324 State Street, Suite 400  
Salt Lake City, UT 84111  
801.328.5151  
spectrum-engineers.com



**STO CORP.**

3800 Camp Creek Parkway SW  
Building 1400, Suite 120  
Atlanta, Georgia 30331  
800.221.2397  
www.stocorp.com



**TARKETT**

800.248.2878  
tarkettna.com



**WRIGHT ENGINEERS**

9176 South 300 West, Suite 12  
Sandy, UT 84070  
801.352.2001  
wrightengineers.com



**DUNN ASSOCIATES, INC.**

380 W. 800 S., #100  
Salt Lake City, UT 84101  
801.575.8877  
www.dunn-se.com



THINKING OF BECOMING AN ALLIED MEMBER?  
Visit our website [aiutah.org](http://aiutah.org) for applications and more information.

**AIA** Contract Documents

# Real projects start with the industry standard

Before they broke ground, HBG Design ensured the **Guest House at Graceland™ Resort** was protected with AIA contracts.

**AIA Contract Documents used:** B103–Owner/Architect Agreement for a Complex Project, C401–Architect/Consultant Agreement, E201–Digital Data Protocol Exhibit, plus associated administrative G-forms.

Learn more about the **Guest House at Graceland Resort** project at [aiacontracts.org/aiachapter](http://aiacontracts.org/aiachapter)

 **AIA**® Document B103  
Standard Form of Agreement Between Owner  
Project \_\_\_\_\_ day of \_\_\_\_\_  
AGREEMENT made as of the \_\_\_\_\_  
in the year \_\_\_\_\_  
(In words, indicate day, month and year.)  
BETWEEN the Architect's client identified as the Owner:  
(Name, legal status, address, and other information)

# Save the Date

AIA Utah Annual  
Scholarship Golf Tournament

August 22

Jeremy Ranch Golf Club



Register at [aiautah.org](http://aiautah.org)

Title Sponsor: Alder Sales Corporation



**CALDER RICHARDS**  
STRUCTURAL ENGINEERS



Building Connections

[crceng.com](http://crceng.com)

801-466-1699

## ONE LAST THING ...

Did you know that you  
can enjoy your association  
news anytime, anywhere?

The new online article  
build-outs allow you to:

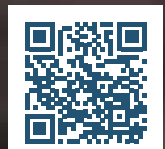
- Stay up to date with the latest association news
- Share your favorite articles to social channels
- Email articles to friends or colleagues

There is still a flipping  
book for those of you  
who prefer swiping and a  
downloadable PDF.



**Check it out!**

Scan the QR code or visit:  
[reflexion.thenewslinkgroup.org](http://reflexion.thenewslinkgroup.org)

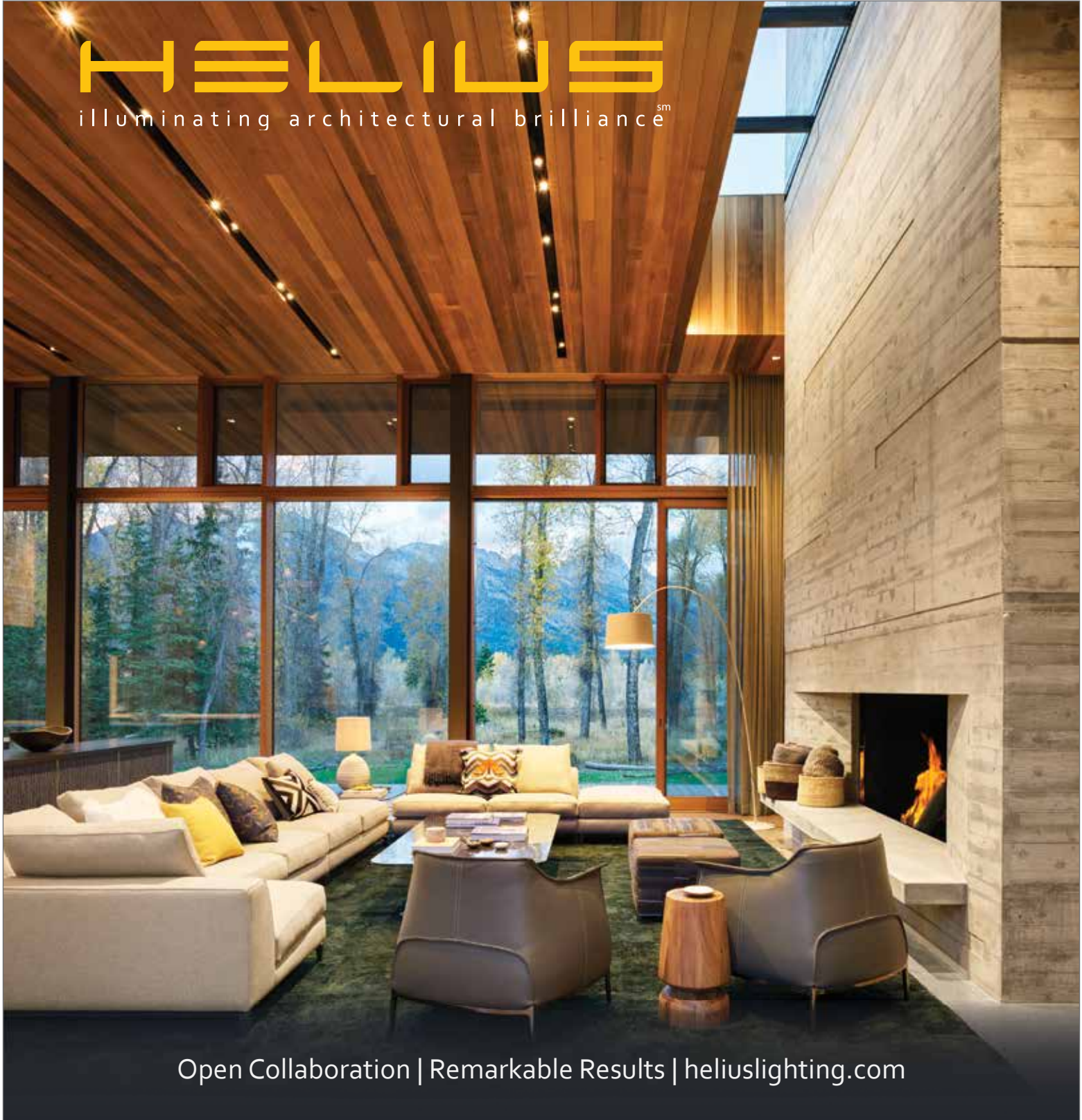




PRSR STD  
U.S. POSTAGE  
PAID  
SALT LAKE CITY, UT  
PERMIT NO. 508

AIA Utah  
280 S 400 W, Suite 150  
Salt Lake City, Utah 84101

This magazine is designed and published by The newsLINK Group, LLC | 855.746.4003



Open Collaboration | Remarkable Results | [heliuslighting.com](http://heliuslighting.com)