CONNECTION

THE ARCHITECTURE AND DESIGN JOURNAL OF **THE YOUNG ARCHITECTS FORUM**

This issue focuses on the topic of
EVOLVING BUSINESS MODELS

Featuring architects, designers and emerging professionals who are fundamentally changing how we conduct business, strategy and structure our firms. We will explore how the state of practice has evolved, what the key resources are and how it will change in the future.

STATE OF PRACTICE

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THE AMERICAN INSTITUTE OF ARCHITECTS
1735 New York Ave, NW
Washington, DC 20006-5292

P 800-AIA-3837
www.aia.org

STATE OF PRACTICE

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We live in an exciting time for creative professionals. The business world has taken notice of the power of design. It's become a necessary part of creating brands and crafting information, especially when simplicity is desired. Architects, by virtue of our creative mindset, are guilty by association; however, we haven't fully taken part in the revolution. The Design that some of the hottest start ups and established companies utilize is typically reserved to graphics, UX (user experience) or products. All items that architects have the capacity and baseline education to perform or produce, but is tangential to our base offerings. Still others, like UX, have a kindred service that is provided as a core deliverable (think evidence based design). Disruption is happening in many industries and not surprisingly, the profession of architecture has been slow to adapt. But it doesn't have to be that way. It's not too late. Throughout this issue, you will see direct and indirect examples of architecture firms and programs that are providing innovative ways to advance the state of practice.

Creating a new revenue generating, self-sustaining business model is not an easy or universally accepted practice. In many mature markets, it is usually taken as a direct threat to competitors and becomes as easy target. Take Uber for example. Most of us are familiar with their crusade against a stubborn and resistant taxi coalition, in just about every major city in the United States. There is a lot backstory to this issue, but one of the simple takeaways is that the taxi companies' first reaction was to eliminate an innovative solution to an inefficient problem, instead of embracing the rising tide. The tide in this case is a product or service that makes it easier to use a paid ride service. In theory, that unlocks a larger market that didn't exist before because more riders equal greater demand. Architecture hasn't had its official Uber moment yet, but we should be encouraging it. After all, our advocacy and outreach efforts are to encourage the public to consider using an architect on their next project. If we make services more accessible and provide a value add, we become the cornerstone, instead of a line item, of any development team.

Relying solely on new ways to generate cash flow isn't enough by itself. Primarily because it can take years or decades before these best practices are adopted and only after they have faced scrutiny from clients and colleagues alike. Luckily, we have a few other tools in our bag that advance our profession. One of which is technology. Technology in architecture is typically thought of as software, but architects have the ability to harness more than just the automation of drawing or the quickness an idea can become 3D. BIM, for example, is a powerful tool, but only provides a conceptual model of the expected performance outcome or gets us to the built work in a collaborative and efficient manner. The next step can be helping with ongoing operations, creating intelligent buildings or closing the feedback loop for future designs.

The other weapon in our arsenal is a positive firm culture. It is inherently good for the firms that have concocted a secret sauce to attract, retain and improve their employees. But as a profession, these private incubators have a dramatic trickle down affect to the current profession and those aspiring to enter it. Take for example the typical AIA Firm Award recipient. They tend to provide a culture that evokes a family atmosphere, caters to those who want to design world-class buildings, and who can rally around a great charcuterie plate. They essentially create a place that attracts top-notch talent and retains them. Without having to actually advertise it, they are announcing to others within their geographic vicinity and market sectors that they have to compete for with them on design merit with clients and on the happiness factor for employees. This is good for the profession because firms must be cognizant of good business and cultural practices to stay competitive. Necessity may be the mother of invention, but competition breeds innovation.

There are direct and indirect ways to cultivate innovation in architecture and we are on the cusp of an industry poised to break out. The evolution of business models show there is direct potential to provide additional services than in traditional delivery. The advancement of technology can be both direct and indirect. It can directly change the status quo of architecture (think the adoption of CAD or BIM), but indirectly, can go beyond software by integrating technology that makes workflow more efficient. Finally, firm culture is the ultimate tide. It has an immediate benefit to the employer, but trickles down and has the power to influence the public perception. When the next generation of talented, creative professionals has their choice between a career in tech, strategy, design (general), or marketing, etc., architecture should be right there with them. We don't just want to compete with ourselves, we want to compete with Google or Facebook or Uber. The money and perks may never be as good, but just maybe we can convince our future emerging professionals that working for an AIA Firm Award recipient is just as cool.

Jeff Pastva, AIA

Jeff is the 2015-2016 Communications Director of the Young Architects National Advisory Committee of the AIA, the Editor-in-Chief of YAF CONNECTION and a Project Architect with JDavis in Philadelphia.

ADVOCACY
BROKEN MIRRORS

Every so often, the Institute is presented with an opportunity to provide a vision to its membership by leading by example. When we speak of advocacy, all too often we focus on the external possibilities. In today's political climate, success is only gained by inches. Now is a fantastic environment to advocate internally. NCARB has initiated constructive discussions and actions surrounding redefinition of the infamous "I" word. The AIA can seize the opportunity of this climate to its emerging professionals and employers alike, by providing clarity on the continually devolving issue of the unpaid I^+@nhip. If we are to ask others to value our profession, we should convincingly value ourselves.

Many become architects alongside the temptation to choose alternative, financially lucrative careers. More often than not, it has become hard to make financial sense of the path that includes obtaining the proper education, experience, and examination to become an architect. This is especially true in the first 10 years of being an architecture professional. For this reason, the relationship of employee to employer changes from a provided opportunity to the employee by the employer, to a choice of the employee to benefit the employer's business needs. The emerging professional has made a serious choice to work in the profession with an unprecedented level of conviction. Young architects and emerging professionals see the innate value of the profession, including their own self-guided professional development, and find it worth more than the financial and time cost, afforded by the depth of knowledge obtained in the process.

The AIA and AIAS's actions over the past few decades share the value of advancement to the title of architect. In 1993, the AIAS Board of Directors adopted a "Public Policy on Uncompensated Interns" as identified within the Institute's policy form titled "Policy on Internship Compensation" following subsequent review by the Board of Directors. For professionals, the policy states, "I hereby state that I do not use unpaid architectural interns in my professional practice and properly compensate all employees (including students) in compliance with federal wage laws."

Over the course of the next 2 years, the AIA Board of Directors debated the issue of unpaid internships and directed the Institute's Executive Vice President/CEO "to fully investigate… the legal and other ramifications of the AIA a mechanism to ensure that the Institute is not promoting or allowing itself to be promoted by architects who do not practice in compliance with Federal Wage and Hour laws."

Consequently, the Rules of the Board were amended to require candidates for Fellowship, candidates for national AIA office, and persons appointed to office by the Institute's President to sign a declaration that neither they nor their firms employed unpaid intern architects, including working students. Similar declarations are required from recipients of various AIA awards, including the Gold Medal and the Firm Architecture Award. Additional amendments clarify the term "unpaid intern architects" to include "working students." So that means we're mostly good, right? Almost.

As reported recently in a July 2015 New York Times article, "Ruling on Unpaid Interns May Raise Bar for Claims", a federal appeals court ruled against a lower court decision that provided employers a higher ability to use unpaid interns legally when the work serves an educational purpose (Refer to Glatt v. Fox Searchlight Pictures, Inc.). This ruling moves in the opposite direction of the past intent of the AIA's and AIAS's long standing actions. To rely solely on compliance with Federal Wage and Hour laws may no longer be sufficient to defend the Institute's intent, assuming the advancement to architect status is intended to be a fair process.

What can we do as members of the Institute? Complacency on a dynamic matter that begs for rehabilitation does not align with repositioning our profession for higher success. I know we can do better and see near immediate results. To begin, a call for the AIA's position on this issue is deserving for our emerging professionals and fair employers. Meeting the degenerating status quo should not be acceptable to AIA members.

I would like to see the AIA's Code of Ethics and Professional Conduct specifically show that all aspects of the advancement to architect status is of a higher value to the employer than the employee. The time has passed where those who unfairly benefit from the ambitions of emerging professionals should no longer have room at the Institute.

Career advancement and demonstrating member value are core ambitions that reside in the heart of the AIA. By advocating for direct clarity in the text of our Code of Ethics and Professional Conduct, we demonstrate the value of our profession's emerging professionals. In turn, the public and our clients will clearly understand, as they contemplate business relationships, that employers as members of the AIA hold this standard to one another. The American Institute of Architects' value of its own members will be shown as an example for value expected between practitioners, our clients, and the public.

Rob Anderson, AIA, LEED AP
is an Architect at EWR Associates located in the Metro East Illinois region near St. Louis. Since 2001, he has been involved in nearly every stage of project development from pre-planning to post occupancy evaluations at EWR Associates.
He is currently serving a second term as YAF's Illinois Region Director and past service includes President of the AIA Southern Illinois Chapter.

observed [special edition]

Angela Finney, Senior Designer at SHoP Architects, takes us on a concise journey of her many sources of inspiration, not to mention important catalysts for her creative design process.

THROUGH THE LENS OF MY iPHONE

I am consistently inspired by documenting my sightings with one of my favorite tools, my iPhone camera. Collected images are constantly referenced for design projects from graphics to interiors. From a font on a sign to the color combinations of a mountain range, I always have my phone there to capture. Using original imagery for inspiration jump-starts a concept with more individuality and freshness.

MATERIALS AND OBJECTS UNITE

Collecting objects that bring an interactive quality into the design process is key. Flea markets have changed significantly, yet they still prove successful for acquiring inspiring oddities. At SHoP I have been compiling materials and objects to build visual narratives for our clients. While pitching an interior concept, I compose vignettes of "visual ingredients"--a table spread of materials that convey the look and feel for the project.

VISUAL REFERENCE CARDS

I keep the felt pin up walls in our office filled with groupings and studies of visual reference cards. This helps bring the narrative together and creates a great tool to meet and interact with the design teams. Pinterest is my go-to for categorizing and filing imagery, either by project or content. There are a few guidelines I follow to choose imagery. For example, architecture and interior references should be historical and not of current work. Art, sculpture, fashion, and nature, are just a few sources from which I draw from as visual references.

PRINTED MATTER

Tactility is important. I prefer physical books and magazines around me.
New York offers a wealth of options of resources and unexpected happenings, such as stumbling across a well curated collector on a Soho sidewalk. Nelson Harst of antifurniture.com offers well edited, rare and intriguing vintage books and magazines on fashion, art and design. The best way to keep up to date with his current stock is to follow him on pinterest @anitfurniture. The book that lured me in was *Presage a Parisian, a* quarterly fashion look book printed from 1962 to 1987.

"Presage was designed as a working object, deploying photography, fabric samples and illustration to create visual and tactile clues in fashion trends such as color, material and silhouette. Techniques borrowed from artist books created experimental interactions between photography and textile: a die cut page overlaid with translucent fabric partially reveals a model's picture, allowing the material to dress the photograph." -Harper's Books

NATURE –
Did I mention rocks, gems and minerals?

Rocks, Gems and Minerals have always been an integral start to my design process. Many of their qualities from color, texture, sheen, and overall shape directly transcribe into the materiality of a space or object. You could literally mass a tower based off of a pyrite cube.
I often attend the Denver Gem and Mineral show, and always leave full of inspiration.
Another favorite is visiting natural history museums. The Harvard Museum of Natural History's gem and mineral collection to the glass flower collection is one of the best places for me to recharge creatively.

hmnh.harvard.edu/exhibitions/ | denvermineralshow.com/

iPHONE INSPIRATION

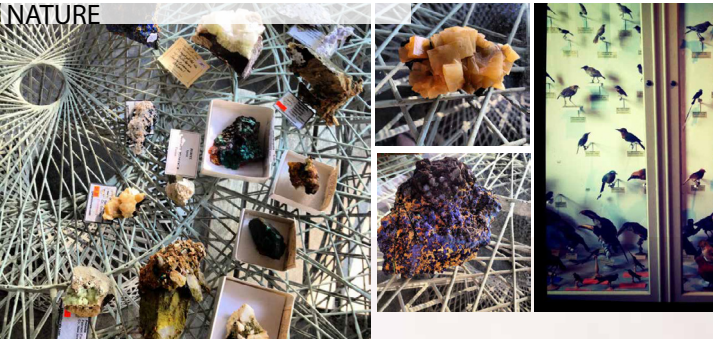VISUAL REFERENCE CARDS

PRINTED MATTER

All images curated and created by Angela Finney, 2015

> *NATURE--Did I mention rocks and minerals? ...You could literally mass a tower based off of a pyrite cube.*

featured

NATURE

Daniel Joseph Chenin, AIA, NCARB, LEED AP shares insights regarding gaining well-rounded experience, teaching, starting his own firm, and addressing one's weaknesses in order to create more opportunities as a young professional...

Angela Finney is a Senior Designer at SHoP architects, where she focuses on building and maintaining the concept and narrative for interior projects. Because both the craft and the technology are highly important factors in all SHoP projects, the process starts with 3 dimensional studies fueled by objects and materials from antique relics to in-house 3d-printed studies. Angela started to feed her curiosity for materiality by designing and building with an array of materials from wood to textiles at VCU in Richmond, VA. Angela was part of Holly Hunt's product design team, then ventured to open her own design shop and studio in Chicago, Post 27. Post 27 offered edgy curated vignettes of vintage and locally made home furnishings and accessories. She now lives in New York, as she longed to make New York City a part of her daily life.

What organizations are you involved in as an emerging professional?

I am an active member and have served multiple times as a member on the Board of Directors of the AIA Las Vegas chapter. I have been active with the National Council of Architecture Registration Boards (NCARB) for the past 4 years in conjunction with AIA Nevada. I dually serve as an Executive Committee Board member for the AIA while representing NCARB as the State Architect Licensing Advisor (formerly Intern Development Program - IDP State Coordinator) for Nevada. I have also served the AIA at the national level as a Young Architect Regional Director and as a volunteer. I was also heavily involved with my alma mater, teaching architectural students as an adjunct faculty member of the UNLV School of Architecture from 2002-2012.

What are some of the important issues that Young Architects face in today's industry?

One of the greatest challenges for Young Architects is gaining well-rounded experience, but more importantly, the experience of taking an entire project from start to finish and doing everything in-between.

I was fortunate enough to start my career as an intern for a sole practitioner in an office of three people. I went on to work as a designer for a medium-sized firm, and then later as a senior designer for a corporation with hundreds of employees across multiple offices. For several years now, I have been working in interiors at a director level for a firm of roughly twenty-five, while simultaneously running my own architecture practice. While each experience has offered up something different, the commonality in my early years was that as the firms got larger, whether in terms of their structure, workload, overhead, etc., the experience became more compartmentalized and did not involve working on projects from beginning to end. It was not until later in my career that I was given the opportunity to work on projects from start to finish (from negotiating fees and contracts to hanging art and installing furniture to complete the project), which is what really gave me the experience and confidence needed to run my own business.

What advice would you give to Young Architects looking to get involved in their design community beyond working at a firm?

I would encourage Young Architects to understand their weaknesses and expand their experience through organizations such as their local AIA or through their alma maters to help strengthen and grow their skill sets while contributing to a greater cause. I was shy and mediocre at best at public speaking, but I embraced my weaknesses and wanted to do something about them. I put myself in the spotlight through teaching and by serving on my local AIA board. Not only did these experiences sharpen my public speaking abilities, but I also learned how to effectively communicate and execute my ideas as a board member. Even more satisfying though, has been the opportunity to help develop and shape the lives of hundreds of students and making a measurable impact on my local AIA chapter. The point is to get involved and you will benefit from it in more ways than you can ever imagine.

alternative practice

Klimek, 2015

As a 2015-2017 Enterprise Rose Architectural Fellow and Community Design Coordinator with the Cornerstone Group in Minneapolis, **Stephen Klimek** is boldly pursuing his passion for public policy through the powerful medium of design.

by Beth R. Mosenthal

BM: *What is your background (academically and professionally) and how did it get you to where you are now?*

SK: For as long as I can remember I was interested in the urban and global systems that surround us, how they were made, and how they impact not only our day-to-day, but the values we hold collectively.

This is what lead me to undergraduate school at Syracuse University in the Bachelor of Architecture program. I quickly coupled my work in the School of Architecture with a major in Public Policy at the Maxwell School of Citizenship. In any given semester I was in a design studio addressing unique urban and community challenges while simultaneously interning for a housing agency, writing grants, and crafting policy papers. There was no precedent for it, and was often seen as conflicting work, but to me both fields were just different approaches to the same issue of how we shape our built environment.

As a result I was able to provide a unique approach to all of my work by using the lens of one program on the other. The way I understood the creation of space evolved to include community needs, resources, and stakeholders while policy became a tool to rethink the traditional approaches to housing and urban development. I was able to apply and refine this approach through an engaged Masters of Architecture public scholarship project and the Imagining America Engagement Fellowship at Syracuse University.

BM: *Post-architecture school, much of the work you have sought out professionally has been focused on community-based design. How did you identify these opportunities, including your current position as a Community Design Coordinator for the Cornerstone Group?*

SK: I am deeply honored to have been selected for the 2015-2017 Enterprise Rose Architectural Fellowship with The Cornerstone Group in Minneapolis. The fellowship is one of the best opportunities for emerging architects to practice community design in a sustained and supported way and my work with Cornerstone and Enterprise is one and the same.

Because this field engages with so many disciplines I have always sought out every opportunity to work with faculty who inspire me, volunteer with community organizations that make a difference, intern with studios and design centers that I was able to learn from and contribute to their work. As a result I not only gained exposure to various approaches and models for community design and development, but most importantly I formed relationships with community members, organizers, designers, researchers, developers, policy leaders, and a myriad of others who play a role in shaping the built environment.

BM: *What are your responsibilities as an "Enterprise Rose Architectural Fellow?" How does this relate to your current position as a Community Design Coordinator?*

SK: The Enterprise Rose Architectural Fellowship partners early-career architects with local community development organizations for three year fellowships, where they facilitate an inclusive approach to development that brings all stakeholders together to create green, sustainable, affordable communities.

As a Fellow, I have access to the wealth of knowledge and resources within Enterprise Community Partners but also have a peer network of fellows working on similar projects in communities across the country. Together this becomes a sort of innovation network with information sharing, resource development, critiques, and a supportive culture to move our work on the ground forward while contributing to the larger movement of community design.

As Cornerstone's Community Design Coordinator my workplan centered on two collaborative community-oriented initiatives. In Prospect North, I am working with a large number of partners and technical teams to develop district systems – stormwater management, heating and cooling, public green space, and street networks, to create the foundation for a 370 acre Urban Innovation District adjacent to the University of Minnesota. In Richfield we are building a Community Health Initiative to maximize the impact of our design and development decisions, not only for our residents but the surrounding neighborhood as a whole. In each, we are breaking down the traditional role of architects and developers to trace our work both inside and outside the property line in a more systematic way.

Enterprise Rose Fellows in Santa Fe, photo courtesy of Harry Connolly

BM: *Your work requires you to exercise a wide range of skills including community engagement, research, and implementing "best practices" in community development. Does the traditional idea of "design" as a linear process apply to your day-to-today work? Or is there perhaps a new definition related to process or outcomes of your work that might be interpreted as "design" work?*

SK: Design is a process that delivers new opportunities – a practice without which these new ideas would have never been envisioned. Community design and development can often be a two step forward – one step backward field of work.

By taking on such large social, economic, and cultural equity issues every day is different. One of the interesting challenges I am working on is better connecting the various projects we often take on – pop-ups, parklets, festivals and events – urban infrastructure projects and real-estate developments – to creating models for community health and toolkits for district system development.

I still see all of this work as design – from planning a harvest festival or community build day to an artist in residence studio or streetscape. Each one is a critical part of an iterative process. Good community design is a process with feedback loops and indicators, which leverages small and large-scale work against one another to make each better.

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BM: *You recently relocated from New York to Minnesota to pursue this opportunity. How has this change in location impacted the way you think about architecture and community design?*

SK: Moving to Minneapolis has been one of the most interesting challenges and opportunities for my work. Community design and architecture are most successful when built on relationships and their unique context, but there are also fairly similar strategies used across the world to achieve radically different results. I am developing some projects on the ground here in Minnesota which I used in New York just to compare the results and see if there are strategies and tactics which can be distilled.

BM: *Do you have any advice for recent graduates that might be interested in a more research and community-based career path?*

SK: Recent graduates ask me about my work more often than I expect. It is encouraging to see so much interest in community design, but it also highlights the challenge we have in building this as a sustainable career path. Because community design is so contextual and relies on so much entrepreneurial spirit – which is often not integrated with architectural curricula – breaking into the field can often seem a bit mysterious.

First and foremost it has to be work you are passionate about. Sustaining relationships and addressing deeply systemic issues which takes years to make a dent in becomes a very personal investment. My best advice from there is to put yourself out into the conditions that are interesting and available to you. Find a community design organization or neighborhood group to intern and contribute to. If you see a problem-opportunity, don't wait for someone else to start addressing it. You may not be able to solve vacancy or abandonment, high-crime, or street noise but designers are uniquely positioned to intervene, provoke, and highlight – if nothing else. Start small and grow from there, learning along the way from everyone you are able to meet with honest communication.

Many people from various disciplines are looking very closely at this work and they want to figure out the next steps forward as much as the rest of us do. The more recent graduates who can demonstrate spirit and insight into the strategies and tactics of community design the more likely they are to find meaningful work in surprising places.

Thanks Stephen!
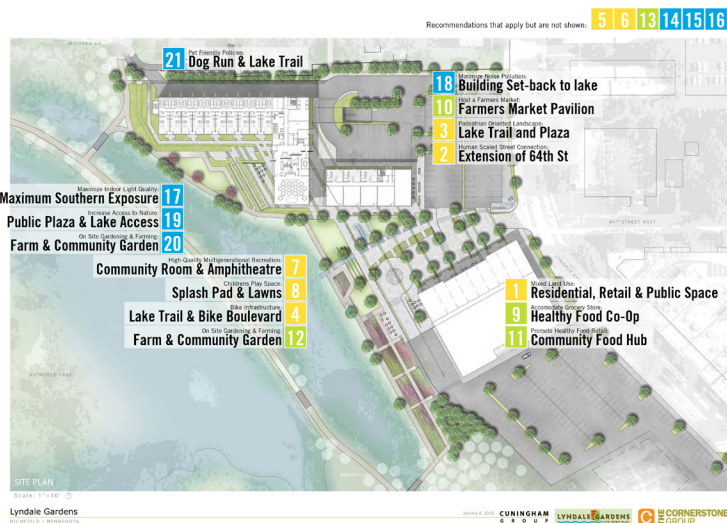
TCG Lyndale Gardens ULI Health Recommendations, courtesy of Klimek and the Cornerstone Group

MARKETING YOUR FIRM ACROSS SPACE AND TIME

Historically, architectural marketing faced significant geographic constraints. Much of the industry's marketing activities were confined to locations for meeting a potential client for a meal, or the postal addresses where meticulously handcrafted mailers would be sent.

But then Al Gore helped commercialize the internet, Thomas Friedman proclaimed that the world was flat, and geographic distance stopped being a major barrier to successful marketing efforts. It is important to note that this shift toward globalization coincided with another transformation in contemporary business culture: the rise of a flexible work schedule, and the fall of workers (including architectural professionals) being so fully on or off the clock at a given time.

Framed in this context, global marketing efforts are those that can effectively engage clients regardless of location AND regardless of time. And this means that global marketing strategies apply whether a firm aspires to work internationally or locally. Even if a potential client works in a 9-5 setting, and their offices are just around the corner, their search for an architect could happen on any day of the week, at any hour of the day. In today's increasingly competitive business climate, it is critical for firms to make themselves as available as possible to relevant clients, within the bounds of their resources.

A great way of achieving such a ubiquitous level of availability is to be an enthusiastic and strategic participant of the internet. The development of a strong and multifaceted online presence is one of the few marketing strategies that results in a firm being accessible in almost any place at any time; and it is a far easier strategy to maintain than, say, staffing storefronts 24/7 in all of the major cities throughout the world. (That said, every organization is unique! So maybe the "24 Hour Fitness" model is one that would work for your firm.)

For firms that elect to pound the internet's many information superhighways, in addition to the pavement, here are a few key ways to strengthen an online presence - and to therefore maximize global marketing efforts:

Your online presence is one of the few areas of marketing that can represent a firm in almost any place at any time.

1. Google yourself, and not just on Google. It is important to regularly type a firm's name and the names of key leadership into search engines, as well as the into the search features in other sites such as Facebook or Architizer, to see what results appear. Marketers may be surprised by what they find: results show up multiple times, rank surprisingly low in comparison to competitors, or sometimes don't appear at all. Fortunately, when the results are not ideal, there are plenty of ways to adjust the variables to increase prevalence and consistency.

In a recent audit of my firm's online presence, I noticed that one of our partners' names was spelled formally in some instances and informally in others. This has been a concern for almost every marketer I know, since everyone has at one point promoted a Philip who also goes by Phil, or an Elizabeth who also goes by Liz. In my case, after the firm's partner and I selected one version of her name to use going forward, I shot a few quick emails to the websites that had the name listed the alternate way. The sites had no problem doing the update, and the whole effort only took a couple of days.

There will be other times when the reasons for poor search result performance might be less obvious than this to unpack. In those situations, I recommend Googling some competitors and drawing some inferences about what makes the most visible ones so successful.

2. Meet potential clients on their turf. Corporate clients seem to flock to LinkedIn, and some of them even participate on the platform regularly. In contrast, institutional clients seem more comfortable with industry-specific forums and listservs. Of course, in all cases there are notable exceptions.

After I have identified the most relevant marketing "turf" for a client type, I adopt trackable communication tactics whenever possible. For example, by using an email marketing service that provides details on the number of people who have opened an email or what percentage clicked on a specific link, marketers are able to draw clear conclusions about the effectiveness of their efforts. The data will either give me confidence that I have found the right "turf," or it will clarify that I have not yet found the right platform for this particular client.

3. Meet relevant influencers of potential clients on the chosen platform. I personally believe that online social media platforms can be very helpful for reinforcing or even building relevant business relationships. But I have had more than a handful of architects challenge me by asking, "are our clients even using these platforms?" Their doubts are well-founded. Plenty of decision makers do not participate in social media, or they only do so for personal reasons.

However, there are plenty of people who influence clients regularly, and many of those individuals do participate in online social media. Real estate agents, especially celebrity ones, tend to be very active on Instagram. Journalists and editors seem to be most comfortable with Twitter, and even use the platform to find story leads or sources for articles. Last year, my firm became one of the first bloggers for 5Boros, the new lifestyle publication of Crain's New York Business, because of a few tweets between the managing editor and myself. This is just one of many similar experiences that I have had as an architectural marketer.

4. If you have nothing nice to say on a regular basis, then don't say it all. Triteness aside, it can be energizing to sign up for a bunch of online marketing services, create several social media accounts, and start a new blog. For firms that have the resources to participate in all of these channels on a regular basis with consistent quality, I encourage that rigorous investment. That said, most marketing teams do not have a small army of professionals at their disposal, and will have to thoughtfully prioritize.

In my opinion, regularly maintaining the website that represents the firm or the person that is being marketed (assuming that there is a website in place) should always come first. In most cases, a website is the front door to a dynamic online presence, and it is important

that it makes a great impression. AIA New York's Design for Risk and Reconstruction Committee (DfRR) recently came to this conclusion themselves. After all, having an active Twitter account has much less value if the website, the home base of organizational information, is out of date.

As a result, the committee's website is currently going through an exciting redesign. The end result probably will not seem that different to visitors at a quick glance, but the various resources and news items that my committee members and I supply are going to be restructured so that they are more focused and more regularly updated. This adjustment to the website's backend will allow the site's public-facing content to be more current and more relevant, aligning with the committee's goal of addressing the most urgent disaster-related issues of today. By being thoughtful about the committee's capacity for participating in online marketing efforts, the group has been able to prioritize those efforts, which will make DfRR available in a more appealing way to potential partners.

Right now is an incredible moment for online marketing. According to a 2014 survey by Nielsen, a leading global information and measurement company, American adults spend an average of 60 hours each week consuming media on a variety of digital devices. Nielsen also found that each month, an average of 34 hours were spent accessing the internet specifically through smartphones. A slightly more recent survey by the British digital analytics firm Tecsmart concluded that adults in the UK were interacting with their smartphones, on average, from 7:31 in the morning until 11:21 at night. It is clear that decisions of all kinds, including decisions about which architects to hire, are being influenced by what clients can discover online. By providing a strong online presence for an increasingly internet-centered client base, marketers can expand their firm's opportunities for meaningful engagement, regardless of space or time. ∎

Gisela Garrett *is the Communications Director of BKSK Architects, and frequently writes about the evolving practice of public interest design. Follow her on Twitter at @giselataylor.*

LOCALLY GROWN
AIA COMMITTEE ON DESIGN CONFERENCE IN NORWAY

In June 2015, under the theme Locally Grown*, AIA Committee on Design's one hundred or so attendees explored architecture and design in Oslo, Bergen, and Stavanger, Norway. We focused on meeting architects and seeing their projects that illustrate how they create inspiring new architecture that remains deeply rooted in a place.*

I solicited thoughts about the Norway conference from a few of the attendees (COD conferences are open to everyone). These responses reflect the individual focus that the authors brought to the conference, but also describe the consistent perception of the value in a COD conference: the unique access to projects; the exceptional opportunity to hear the back story of a project directly from the designer; and the camaraderie of one's colleagues.

Brian Caldwell, AIA. Thinktank Design Group. Bozeman, Montana

"What's better than walking the white marble slopes of the Oslo Opera House that climb out of the waterfront of Oslo and overlook the city? Talking and drinking a beer with architect James Dodson, understanding how a guy from Texas can be a project manager on the Opera House, one of the most ambitious waterfront projects of the 21st century.

What's more fitting than creating a memorial to the children killed in the 2011 mass shooting on Utoya Island? Designing it in such a way as to bring together the victims' families to help with their grieving. We listened to Sixten Rahlff and the design team at 3RW Arkitekter in Bergen explain how they intentionally designed the memorial simply enough so family members of the victims could participate in the construction and share stories, tears and laughs. Do you think 3D printing is cool? I met Oslo-based Israeli architect Dan Zohar, who explained how he and others collaborated with designers from Tokyo and South Africa to find the perfect sandal design. They scanned the birthplace of Barack Obama's mother, and incorporated the topography into the sole of the sandal. That's just a few examples of things that remind you how architects can inspire ideas across the world.

We saw how architects, who started off their careers with bathroom commissions, had developed into the architects of record for projects that most certainly will become some of best works of our century. Atelier Oslo is one example of practitioners whom we met who started off small, but have persisted and now can say they won the competition for the new Deichman main library in Oslo.

Ever wonder how you could make glass merge with a boulder? Architect Børre Skodvin of Oslo's Jensen & Skodvin will tell you with a smile. His delightful way of explaining it to COD attendees nevertheless conveyed the complexity and precariousness of the endeavor. It's also outlined in a page-by-page book about the project, including construction drawings, which many of us bought immediately after the presentation at the Oslo School of Architecture and Design. The series of books, twelve published to date, are aimed to inspire more open sharing of how a project is detailed and constructed.

In addition to the 57 projects we saw in nine days, we traveled under tunnels ranging from 2 to 25 km long-- including the Lærdal Tunnel, the world's longest road tunnel. We had the chance to see the Hedmark Museum designed by Sverre Fehn, a bucket-list item for some attendees, as well as some of the coolest highway attractions overlooking the fjords. It's the people. That's how you understand the culture of the place one travels to. You can always take a picture and check a box and say you were there. It's understanding the who and the why that carries your experiences of architecture abroad into your own practice and makes your work better for taking the time to participate in the Committee on Design."

Magdalena Glen-Schieneman, AIA, LEED AP. MGS Architecture. Marina Del Rey, California

"Nothing will ever replace entering the architecture as a site experience. In our interconnected world, this still means boarding a plane and traveling to the realization. My personal favorites from Norway were:
•   Hedmark Museum in Hamar by Sverre Fehn- where a modern architectural intervention meets an archeological site-all

Above: Sixten Rahlff presents the Utoya Memorial at the Bergen pecha kucha. Image courtesy of Ann Thompson.

Above: After a presentation by its architect Stein Halvorsen, Bergen firemen lead tours of Bergen's central fire station. Image courtesy of Ann Thompson.

Top: Aurland Overlook: The COD group gathered on Todd Saunder's and Tommy Wilhemsen's National Tourist Route project.
Image courtesy of Tom Rossiter, FAIA
Bottom Left: Oslo Architect Børre Skodvin presents the Mortensrud Church. Image Courtesy of Ann Thompson.
Bottom Right: The Knarvik Church, in a suburb outside Bergen, designed by Reiulf Ramstad. Image courtesy of Ann Thompson.

> *What's better than walking the white marble slopes of the Oslo Opera House climbing out of the waterfront of Oslo overlooking the city? Talking and drinking a beer with [the] architect...*

done through purposeful, but brilliant spaces and details.

• 12th century wood Borgund Stave Church-a testimony to humanity: aspirations, life and history, located in a green valley of steep, tall slopes; and a nearby contemporary visitor center by Askim/ Lantto Arkitekter which continues the humankind story.

• The lectures and PechaKucha presentations with our Norwegian counterparts sharing their projects, ideas, challenges-nothing can replace the personal conversations on professional matters over great food."

John Myefski, AIA. Myefski Architects, Inc. Evanston, Illinois
"Touring the back rooms of the Oslo Opera house was the ultimate highlight of the conference. Out of the public eye, this space truly demonstrated the inner workings of the building. Architects appreciate any opportunity to experience projects and spaces first hand, when they are being occupied and used as intended. This year, the trip to Norway proved to be the perfect mix of architecture and culture. To maximize the learning opportunity, the designers for each respective project led the tours shared intricate details about the design process and answered questions. This gave a unique background and insight that would be impossible to achieve through a photo, article or basic architectural tour. Exposure to how design professionals work across the globe helps break down borders and expand opportunities for everyone. "

John C. Guenther, FAIA, LEED AP. John C. Guenther Architect LLC. Wildwood, Missouri
"I was moved by the talk given by Børre Skodvin at the Oslo School of Architecture. He not only shared his beautiful designs, but the process behind them, noting it was most important to advance Architecture by openly sharing lessons learned between colleagues. Experiencing his poetic design for the Mortensrud Church was equally moving and enhanced by his shared insights during our site visit.

Jaya Kader, AIA. KZ Architecture. Miami, Florida
"Understanding different mindsets and cultures is sometimes the best way to come out of our pre-conceived notions of standard practices, consider new and better ways to approach our work, to find new solutions for our projects, to rethink the relationship of our buildings to place and nature and to discover better building methods that have been tested and proven in other parts of the world. As America lags behind in sustainable practices, we can certainly benefit from lessons learned abroad and hopefully apply them in our hometowns."

Nathan Murray, AIA. tsa architects. Salt Lake City, Utah
"Soul and meaning enter in when our work is born of the mission, vision and values of people. I see the COD as an ambassador and seeker of a meaningful architecture—taking us to the memorable places, where inspired planning and design thinking has made a difference in humanity and built communities. And to meet the minds and souls who created them within their subtle and varied contexts can only be understood in these face-to-face vignettes."

It's been said that the opportunities at a COD conference to share a conversation over a meal with whomever you happen to land next to can be as rewarding as the architecture that is seen. This is especially true for emerging professionals who are routinely elbow-to-elbow with the designers and principals of major firms. Opportunities like that are rare indeed but can play a critical role in exchanging wisdom down the line.

One of our contributors above mentioned Børre Skodvin's smile-it translates his delight in crafting solutions to design problems regardless of the language he's speaking. He captivated COD attendees with his two presentations--one on-site at the Mortensrud Church and one the next day, a 1/2 hour talk at the Oslo School of Architecture and Design. Skodvin is exceptionally articulate; he quietly commands attention with his thoughtful equations of how, and why, one goes about designing a project. A telling example of the respect he garnered was nearly everyone poured out of his talk to purchase the book of the project's construction details and drawings mentioned in the presentation from the School's bookstore and found other purchase options once those were depleted.

Every COD conference offers both tangible and intangible benefits. The value of hearing directly from acknowledged and respected leaders in design, the irreplaceable aspects and moments of walking in and around a project, the camaraderie and fellowship of one's peers hatched from shared experiences. Those are tangible benefits and come with a fixed cost-the price of registration and travel. The intangible benefits? The inspiration, innovation, energy, ideas, friendship, and memories derived from joining in. Priceless.

The Committee on Design will explore its Locally Grown theme in Providence, Rhode Island on October 1-4, 2015. In 2016, COD is planning conferences in Cuba and Portland, Oregon. ∎

Ann Thompson, MLA
has served on the AIA Committee on Design Advisory Group for five years and is currently the COD Communications Chair. Also a librarian, she is the Head of Adult Services at the Essex Library Association in Essex, Connecticut.

UNDERSTANDING THE REGULATIONS AND RISKS OF DRONES

Unmanned aerial systems (more commonly known as drones) are soon to be an integral part of the design and construction industry. The U.S. Federal Aviation Authority (FAA) is moving forward on setting up general requirements and granting permits so that commercial entities can tap into the potential of drones for a broad range of observation and exploration purposes. The hesitancy of the FAA to authorize general drone use is based on safety and privacy concerns. Interference with manned aircraft and the dangers to people and property from accidents are primary concerns. Popular opposition to both the invasion of privacy aspects of drone use and the noise is also influential in forcing the FAA to proceed cautiously.

The FAA's Release of Proposed Rules

The FAA has worked on rules for commercial use of drones for several years and recently published long-awaited interim rules and proposed final rules on the commercial use of small drones. The release of proposed rules only begins a period of public comment and possible revision that could take as long as two years before rules for the commercial use of drones take full effect. Among the major provisions are these:

•	A commercial drone must not weight more than 55 pounds and can only be flown within line of sight of the operator or assigned observer. The drone must only be flown in daylight and cannot operate over any persons not directly involved in the operation. The draft also limits flying speed to 100 miles per hour and no higher than 500 feet above ground level.

•	Pilots of drones are considered "operators" who will be required to pass an aeronautical knowledge test and be vetted by the Transportation Security Administration. Upon passing, they would receive a permit that would have to be renewed every two years as well as an operator's certificate with a rating for small drone control.

Although drones appear to be inexpensive machines, it is obvious that the price of a drone will probably be the least significant cost factor in the commercial use of drones. Permitting and personnel expenses are likely to move the feasibility of commercial drone options out of casual or limited business operations. The FAA estimates that it would cost $300 to become certified, including fees and preparation costs.

Drone Operators Must Have Risk Controls and Insurance Coverage

Until the FAA released the proposed rules, only specific drone uses by specific users were allowed. Now, many companies—including architecture and other design firms—are ready to put drones into use.

Certainly, any legal drone use for design and construction will have to meet the commercial restrictions. Whether an architecture firm owns and operates the drone or subcontracts for its use with a commercial provider, the entity operating the drone will have to have appropriate risk controls and insurance coverages.

The insurance industry is moving forward on preparing coverage for drone use. The issue is not one of professional liability insurance coverage; for instance, the Schinnerer program covers the professional liability of firms using drones as a tool to allow them to perform their professional obligations. Professional liability coverage, however, only applies if the underlying cause of action was based on a wrongful act or omission in the performance of professional services and not on a wrongful act or omission in the operation of a business that happens to provide professional services. And professional liability insurance never covers a criminal activity which could result from unpermitted drone operations.

The insurance industry, however, has been concerned with general liability exposure intrinsic in the commercial use of unmanned aircraft and has reacted. Now, the Insurance Services Office (ISO), the private organization that develops coverage standards for the insurance industry, recently developed and filed a variety of general liability insurance endorsements addressing drone exposures to allow for maximum flexibility with this newly emerging exposure.

Firms that are anticipating the legal use of drones should check with their brokers about their general liability coverage and the new ISO endorsements. Firms that subcontract for drone operation services should make sure that the firm operating the drone has appropriate coverage for the physical damages a drone could cause, coverage for personal injury claims such as invasion of privacy, and contractually agrees to stand behind its services. Also, the firm should check its general liability coverage and its management liability coverage so that it is not held responsible for imputed negligence or negligence in the selection and management of a drone operator who does not have appropriate coverage.

Architecture Firms Have to Recognize Professional and Business Exposures

There are many scenarios where an architecture firm operating a drone or directing its use by a subcontractor could find itself liable for harm. In some cases, this liability would be considered a professional liability risk, but in many situations the liability is a business risk.

• If a firm uses a drone to photograph what the sightlines from the 20th story apartment planned for construction will be, and the view is improperly selected so the tenant sues the developer for false advertising and the developer sues the architect who misdirected the drone's camera, a professional liability exposure could result. If that same drone invades the privacy of an apartment dweller in a near-by building while attempting to photograph the site line, such a personal injury to the apartment dweller probably would not be considered a professional exposure.

• If a drone is used to assist in performing an inspection of a project and the firm misdirects the drone so that it does not capture detailed information on one part of the project, thus not providing an appropriate view for the interpretation and evaluation, that missing detail could be a professional liability exposure. If the camera fails to operate properly and information is missing or is the drone crashes into a pedestrian causing a bodily injury, those technological failings are not wrongful acts in the performance of professional services and should not trigger professional liability insurance coverage.

• If an architect using a drone to evaluate construction on a project and fails to recognize improper placement of flashing, broken beer bottles on a roof membrane, or a missing insulation application, that could be professional negligence because of the negligent interpretation of the information provided by the observation tool—the drone.

Unless the firm is either directly or vicariously liable for the actual operation of the drone, the risk can be limited—but it certainly does not disappear. Obviously, an architect directing the flight of the drone (even if not operating the drone) could result in direct liability for problems ranging from invasion of privacy to collisions. But not all of the direct liability is within the scope of professional liability insurance coverage so firms need to assess their ranges of exposures depending on the project conditions, the actual operation of the drone, and the interpretation or use of the information provided by the drone.

Firms Need to Manage the Risk of "Too Much Information"

The greatest source of professional liability exposure could be the contractual exposure of the architecture firm for monitoring or evaluating the live or recorded images produced by the drone. A real-time feed or a recording of a fly-over is likely to result in additional exposure because of an inferred duty to examine in detail all the information available from the drone.

Firms must be specific in their contracts as to their scope of responsibilities in any preliminary study or site-monitoring effort. If the drone is being used to gather information for the planning of a project or other survey uses, such as the identification of site conditions or the creation of documentation of an existing structure, the firm should agree with the client as to appropriate use and detrimental reliance on the drone-obtained information. Still photos from video feeds might be a prudent limitation on the scope of risk that could be created by the drone's omnipresence.

Unless a firm has the necessary staffing and skill set and is being compensated for real-time or other monitoring of the drone video feed, the firm needs to clearly outline, and usually disclaim, any responsibility to determine if the drone indicates whether or not the project is being constructed in conformance with the contract documents for the project. And, in compliance with a firm's document retention policy, unrequested or unused information, such as the recording of a video feed, could then be discarded to avoid future attempts to place responsibility on the design firm beyond its contractual obligations.

Drone usage will not change the professional liability of firms unless the standard of care evolves to require the use of drones and the evaluation of the abundance of information captured by them. Firms can increase their contractual liability to a client or to others if the firms affirmatively take on responsibility, can set up unrealistic expectations from their use of drone information, or ignore contractual provisions that spread or shift liability to others requiring drone use or actually conducting the drone flights. ■

The AIA Trust serves as the risk management resource for AIA members; visit www.TheAIATrust.com for information about member benefit programs and a wide range of free resources to help your practice.

BUSINESS MODELS

CREATING THE NEXT BUSINESS MODEL

"Architecture is measured against the past; you build in the future, and you try to imagine the future." Richard Rogers, Rogers Stirk Harbour + Partners

Architecture, and specifically the practice of architecture, is often studied by looking at historic precedents—how things were built, their context, and their meaning in culture. While having a good understanding of past influences is important to a successful architectural project, the ability to look forward—to understand future trends and influences, and to cultivate flexibility in anticipation of the new thing we can't yet imagine—is equally essential.

In the twenty years since my first job in an architectural office, I have seen waves of technological disruption from 2D CAD to BIM and SMS to online video collaboration. Who could imagine that smelly blueprints would give way to futuristic mobile, paperless studios? While technology has changed the way we communicate with each other and our designs have become simultaneously more complex and accessible, I find it curious that many contemporary architectural firms are still rooted in a traditional professional services model structure—focusing on delivering design services only within the conceptual design to construction administration spectrum. How is it that architects can be so expressive and innovative in design, and frankly so limited in how they design the structure of their firms?

To best position architects for the future of practice, I ask you to consider four things:

Architects who best understand and communicate their value proposition will lead the profession to develop innovative ways of thinking.

Architects must become savvy adapters to cultural and technological change to stay relevant.

Architects who become more involved in the front-end and back-end of the process of creating a building (e.g. visioning, financing, development, life-cycle analysis, and data collection) will be less reactionary and more proactive in both crafting the problem and the solutions they solve.

Architects will need to understand global dynamics, even in regional markets. Technology has changed our transactional distance; therefore architects must adopt broader thinking beyond regional limits.

Value proposition

Every successful business hinges on the fundamental *customer value proposition*—an offering to solve a problem or fulfil a need for the customer—defined by both **what** service is provided and **how**

it is provided. Architecture's value proposition is unique in that it can be enhanced through finding new ways to innovate *inside the profession* by changing our in-house design process and expanding the range of services offered, but also in the *larger demand for services* through new delivery channels connecting architects to clients and creating new strategic collaborations and enterprise demand for services. Financial and creative success will come to architectural firms that take a critical look at how they do what they do, how they connect to the demand for their services, and how and when those services are accessed.

In exploring value proposition, key questions architects should explore are:

What other ways can I make money though a product or a service?

Can I provide allied services for different constituencies?

What other partnerships or collaborations could I develop?

How might it add value to what I do?

How could my organization change considering talent, management, and access to key resources?

How can I effectively leverage my unique capabilities to differentiate myself in the marketplace?

The future is now

Architects who develop the ability to anticipate cultural and technological changes will successfully lead the profession and differentiate themselves from their colleagues who are slow to change. The profession has already seen consolidation of steps in the design and delivery process through the introduction of new technology and shifts in client expectations. Just as client-architect contract documents are be reviewed for each new venture, the process and delivery of services should also be assessed, updated and improved. Current trends in the profession creating disruptive innovation include the sophistication of design and management technologies; integration of design and fabrication processes; marketplace globalization; increased project complexity requiring greater levels of collaboration; scale shift in large firms doing small projects and small firms doing large projects; technology-enhanced virtual offices; flexibility in access of services; emphasis on workplace diversity; data-based design; acceleration of value

THE VALUE PROPOSITION FORMULA

HOW DO YOU MAXIMIZE VALUE IN ARCHITECTURAL SERVICES?	Identify an important challenge that is not currently being addressed by traditional practice	Create a way to solve the challenge better than alternative means
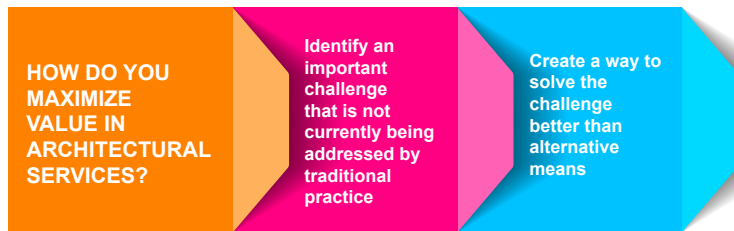
delivery; and architects positioned to be experts in the sustainability and resilience conversation. While brainstorming future trends can be quick and exciting, adapting a business model can be an iterative process that will require tweaks along the way. Architects who provide vision-driven services that solve the problem of how to make the process of doing something more efficient or better fulfilling the anticipated needs of their clients will lead the marketplace in both creating a vision of the future and providing unique value for their services.

In exploring future trends and disruptions, key questions architects should explore are:

How can I expand the features of my design services?

How are my client's requirements changing and what improvements can I offer?

How can I provide complementary or additional services?

What packages of services will clients need?

How can I enhance what I do with new functionality, interactions, resources, promises, or connections?

How can I continue to see change as an opportunity and not as a disruption?

Expanding the spectrum

Architects are in the business of solving problems, or as Art Gensler, FAIA states, "architects sell solutions to our client's problems." Unlike a business that just sells goods, architects sell their stories, ideas and the product of what they design, but their

UNDERSTAND AND COMMUNICATE YOUR VALUE PROPOSITION	01 BECOME A SAVVY ADAPTER TO CULTURE AND TECHNOLOGY CHANGES

02 BECOME MORE INVOLVED IN THE FRONT-END AND BACK-END PROCESS OF CREATING A BUILDING	03 GLOBAL DYNAMICS CAN HAVE REGIONAL IMPACT 04

value proposition is also tied to the outcomes of the process of design. This distinction is important because it provides a unique opportunity for architects to expand their range of services addressing both pre-design conceptualization but also evidence-based outcomes of architecture. In my research, I have found that many of the emerging non-traditional business models share a focus on either the front-end (e.g. community organizing, development, visioning) or the back end of the design process (e.g. commissioning, management, life-cycle analysis, outcome-based feedback, data collection). These examples present unique opportunities for architects to expand and distinguish themselves as experts in the built environment and society. Other benefits to focusing on pre-design services include better engagement and utilization of design thinking towards solving problems outside of the scope of traditional architectural services; while benefits towards focusing on post-occupancy services include continued contact with the client, capitalizing on existing relationships and trust. Understanding that the influence of an architect extends beyond the buildings we conceive, architects must grasp the opportunity to influence patterns of thought, action, and collaboration in practice beyond their current involvement.

In exploring how to extend the experience and range of services, key questions architects should explore are:

What alternative means can I use to reach different groups or deliver services?

How do clients currently perceive my brand? What activities could differentiate, expand, or improve upon my brand?

What new modes of engagement could I use to interact with clients or different parts of the client's organization?

Embracing the architecture firm of the future will require architects to ignore the status quo and use their ability to design their business just as creatively as they approach designs for the built environment. Keeping in mind that change is an opportunity, architects have both the skills and the vision to lead cultural and environmental change, one business at a time. ■

Firms that have created new business models

Social Impact Design: MASS Design Group (massdesigngroup.com)
Design Build Fabrication: SHoP Architects (shoparc.com)
Global Practice: OLI Architecture (oliarchitecture.com)
Architect Developer: Alloy Development (alloyllc.com)
Virtual Office: Fivecat Studio Architecture (fivecat.com)
Entrepreneurial Venture: Charrette Ventures (charrettevg.com)

Emily Grandstaff-Rice, AIA
is an associate at Cambridge Seven Associates in Cambridge, MA. Emily served as 2014 President of the Boston Society of Architects/AIA and received the AIA Young Architects Award in 2008.

ARCHITECT AS DEVELOPER
AN INTERVIEW WITH RON VRILAKAS, AIA

Ron Vrilakas founded his firm in 1995, after five years in Boston and San Francisco doing hands-on design/build work. Ron's interest in urban places was shaped by studies in Copenhagen, Denmark, and by a life-long affinity for both cities and clean air. Ron eventually returned to Sacramento, his hometown, intent on helping evolve the city core into a dynamic place.

Ron Vrilakas, AIA lives and practices in Sacramento, California. Ron's motivation for being an architect as developer stems from an "appreciation for the pleasures of a healthy urban place". As for Sacramento, he feels,"…we just don't offer that here…yet." For a city that has dwelled quietly in the shadow of its neighbors' unique and diverse urban environments, Ron's development work in the Sacramento area has helped to break out of that shadow, creating a more vibrant community.

Many architects that enter the development world do so not purely as a source of income, but because of the design freedom it offers. Ron's sentiment as to why he's a developer is no different. "I have an interest in urban projects and place-making. There was a time when my client base did not share that interest."

Before opening his practice in Sacramento, Ron worked for five years with design-build companies in San Francisco and Boston, where he gained valuable hands-on construction experience. His first foray into development as a young architect was to design and build his own home. He built his home along with the help of friends and family (and a personal loan from his mother). "It was a forty foot by fifty foot lot, one that nobody else wanted." He made the most of the land, building a three story house with a basement- about as big as you can go without plan variances. He chose a site in an urban area close to mass transit, employment centers, and plenty of opportunities for new projects. The area around his home is now one of the most successful redevelopment areas in Sacramento. Ron intends to continue that influence in all of his projects.

"I ratcheted up from there. My next project was a duplex on a small lot." Ron believes in what he calls the "Christopher Alexander tradition" of building (Alexander is a professor at UC Berkeley that taught a pattern language to empower anyone to build at any scale). "The process is to start small and not over-reach." Ron is currently in construction on a $13 million four-phase mixed use residential, retail and live-work project in a low income community close to downtown.

It was a project that was one of the last recipients of California State funding for redevelopment, just before redevelopment agencies were eliminated due to budget cuts. "I found that redevelopment projects provided a lower risk that works for me." Since the budget is relatively small on redevelopment projects, developers tend to reduce the architect's fee as much as possible. When the architect is the developer, the return on investment is one and the same.

Above: Before photo of the historic Arnold Bros. building, built as an automotive showroom, circa 2001.
Below: After photo. The retail space has been adapted as a popular restaurant and Vrilakas Groen occupies a loft space above, circa 2004. Photos courtesy of Vrilakas Groen

> *I considered the building of my house as my Masters' program. Spend a year doing hands-on work. If you're serious about development, maybe find a job as a project manager with a development company first. Get interested in the craft of building.*

Starting small is a sensible solution for the risk-averse architect. Project development requires outside entities, such as banks or insurance, and the parties involved get more complicated on larger projects. Ron prefers to be able to run the project completely in-house. "It's more about being an agent of change and not riding on someone else's efforts." He only recently brought an associate on staff with pure development experience, after twenty years of having his own practice.

Ron considers his firm, Vrilakas | Groen to be a traditional architecture practice, but with development on the side. There is a balance of the fee-based business model with the high risk/high reward development side. "[Architects] are willing to balance profits with quality, making money and doing good work." When the prospect of a good client and a good project comes along, Ron is not willing to let that go. No matter the project type, Ron's projects are marked by a consistent level of attention to design.

To become a successful Architect as Developer, training received from various college programs or seminars cannot compare with real life experience. Ron noted "I considered the building of my house as my Masters' program. Spend a year doing hands-on work. If you're serious about development, maybe find a job as a project manager with a development company first. Get interested in the craft of building." ∎

Above and Right: Project images of the Broadway Triangle development. Photos courtesy of Vrilakas Groen

Ian Merker, AIA, LEED AP BD+C
is an architect at Rainforth Grau Architects in Sacramento, CA, specializing in the education sector. He is Film Curator for AIA Central Valley and a former YAF Regional Director.

RENAISSANCE MEN
THE VERTICALLY INTEGRATED FIRM

In our continued effort to focus on different business models that Emerging Professionals can get involved with, YAF Connection Editor, Jeff Pastva, sat down with Tim McDonald, one of the founding members of Philadelphia firm, Onion Flats. *Tim is an Associate Professor of Practice in Architecture at Temple University, a Registered Architect in Pennsylvania and New Jersey, LEED AP, Certified Passive House Consultant and Tradesman (CPHC) and President of Onion Flats LLC, an award winning development/design/build collective centered in Philadelphia. He has been teaching and practicing for over 20 years with a focus on community development, multidisciplinary thinking and making, high-performance building technologies and alternative construction methodologies. Through his research and practice, Tim, along with his partners at Onion Flats, has developed, designed and built some of the first LEED Gold and Platinum projects in the country and the First Certified Passive House, Net-Zero-Energy-Capable project in Pennsylvania.*

JP: Onion Flats doesn't exactly fit any of the typical design/build, architect led design build, or architect as developer models. Can you describe what you call yourselves (builders, developers, architects, designers, etc.)?

TM: The "Onion Flats" that you're asking about is really understood by us to be a "Development/Design/Build Collective." That said, "PLUMBOB" --soon to be renamed as Onion Flats Architecture-- is a more traditional architectural practice with clients, and our company "GRASS" is a green roof company that is doing hundreds of thousands of square feet of green roofs for clients up and down the East Coast.

JP: How do you typically offer your services? Is it always vertically integrated (acquire land and/or financing, design, build, lease, etc.) or do you break out specific services depending on the client? If the latter, do you ever act as developer and solicit bids from outside architects?

TM: We only "offer services" within our architecture and green roof businesses. In our typical process, we purchase land, design a project for that land, go through entitlements, price it out and build it. Sometimes we contract with another GC, but most often we build it ourselves. We go after architecture and/or development RFPs, but we do not solicit bids from other architects.

JP: How do you classify competitors? Are you competing primarily with other developers for desirable land and/or potential tenants, other design/build firms, other design firms, etc?

TM: Competition is not often discussed in our office because we don't really look at it from the perspective of "competition" except for RFPs. All the land we've actually developed, we have found, purchased, and developed ourselves.

JP: As a developer, what restrictions do you have on the amount of projects you can take on? Do you have company assets that act as collateral?

TM: This is about cash and capacity. We like to do projects where we come in with all of the equity. We've had partners in the past and prefer not having them. We use our assets as collateral, but "cash is king". You have to have liquid equity in the bank to do most development projects. Capacity is another related issue. We are all doing many things. Development requires focus. We've broadened our client-based work in recent years and taken on other interesting teaching and research projects. This has taken us away from focusing on development, but this focus is returning.

JP: I've heard from some other design/build firms that their lack of bonding capacity limits their ability to build to a certain size. Is that something you've been able to circumvent, or is it a standard issue that firms need to grow out of in order to scale up?

TM: Firms need to grow in order to scale up, but more importantly firms need to want to scale up and therefore want to grow. We've dabbled with "growing" and much larger projects, with many more players. Frankly, bigger is not better! Bonding capacity is definitely an issue, but as we approach our 20th year of being in business, we'd rather stay small, focused and in control of the work. This allows us to align our interests with our bonding and equity capacities.

JP: When architects move from a traditional architecture role to development, they tend to acknowledge that the "value engineering" process is standard practice. What are the core values you hold on the development side that allow your design team to be more integrated with the process start to finish?

> *Firms need to grow in order to scale up, but more importantly firms need to want to scale up and therefore want to grow.*

TM: It's less about "core values" than how we "approach" architecture. It makes sense that architects who come into being a "developer" after being an "architect" get disillusioned, but that's because they're "approaching" architecture as an architect, i.e. their "ideas" need to be envisioned. We do the same thing, but it isn't linear for us. We don't "design" a building, then go price it. We know what the costs are before we put pen to paper, which becomes a lens through which to design. We never feel like we're "compromising" our ideas because of the numbers. We always think from the position that if we had $100 to do something, we'd do something inspiring. Or for that matter, if we had $50 to do something, we'd do something inspiring. The biggest problem with the structure of the design/building industry is the "design, bid, build" mentality, because it invariably introduces the very idea of "value engineering" into the process. We've always seen "value engineering" as a kind way of letting the architect of the hook for designing something that didn't meet the budget.

JP: What skillsets do you look for when adding to your team? Are you hiring someone with a hybrid background in architecture, construction and/or development? Or are there transferable skills you take into consideration?

TM: Passion, humor and the ability to do everything. Literally. Ideally, they will have stellar digital skills, construction skills, experience in cost effective detailing and most importantly someone who has a really great eye, hand and ability to both think outside the box but be simultaneously grounded.

JP: How do you see the model changing in the future? Is there additional risk that you are taking on as a business? Are there other markets that you can parlay your expertise into in order to take advantage of an interdisciplinary structure?

TM: No clue, I don't like to predict the future. I just believe that if architects don't find a way to take a much more direct role in the construction and development process (ability to understand proformas and how they drive design from day-one; ability to speak the language of builders, not their own; ability to be creative at every single level of the process so that the concept of "value engineering" is eliminated; ability to make economic sense of design decisions and inspire developers to "think otherwise".) then the role of the architect will continue to slip further into the margins. Yes, this may include massive risk, but of course that is another really big problem with the industry. Everyone knows with risk comes either reward or failure, but if you don't take the risk, you'll never know. I have no interest in sitting around calculating risk all day long. If a project makes sense, you will know it. The question is, will you act on it. At its base, "fear" is the enemy of innovation and change. What I'm talking about above is no different for the tech industry than it is for the building industry. Architects, just like every other creative industry, need to be constantly rethinking itself, constantly pushing multi-disciplinary thinking. Silos are a thing of the past. ■

Jeff Pastva, AIA
is the 2015-2016 Communications Director of the Young Architects National Advisory Committee of the AIA, the Editor-in-Chief of YAF CONNECTION and a Project Architect with JDavis in Philadelphia.

ARCHITECT-US:

AN INNOVATIVE INTERNATIONAL ARCHITECTURAL TRAINING PROGRAM CALLING FOR HOST FIRMS ACROSS THE US

In a globalized market, it is increasingly important for design firms to have the human resources, skills and cultural sensitivity to work across borders. There are global issues that affect the architectural profession and the industry is in need of platforms that encourage global dialogues, break down bureaucracy and immigration barriers, and promote cross-pollination. A new model of networked international practice is proliferating and the system has to accommodate new ways to facilitate professional exchange and cross-fertilization. Aiming to reduce these hurdles, a groundbreaking international program is born: Architect-US Professional Career Training Program.

Conceived as a liaison between rising global architectural talents and U.S.-based firms, Architect-US sponsors highly qualified, multi-lingual international architects and engineers to work in the U.S. as part of the U.S. Government's J-1 Exchange Visitor Program. The program offers US firms a valuable opportunity to connect and strengthen ties with designers in emerging and established markets and provides access to young professionals who hail from Europe, South America, Asia and the Middle East that are eager to learn from American techniques and methodologies.
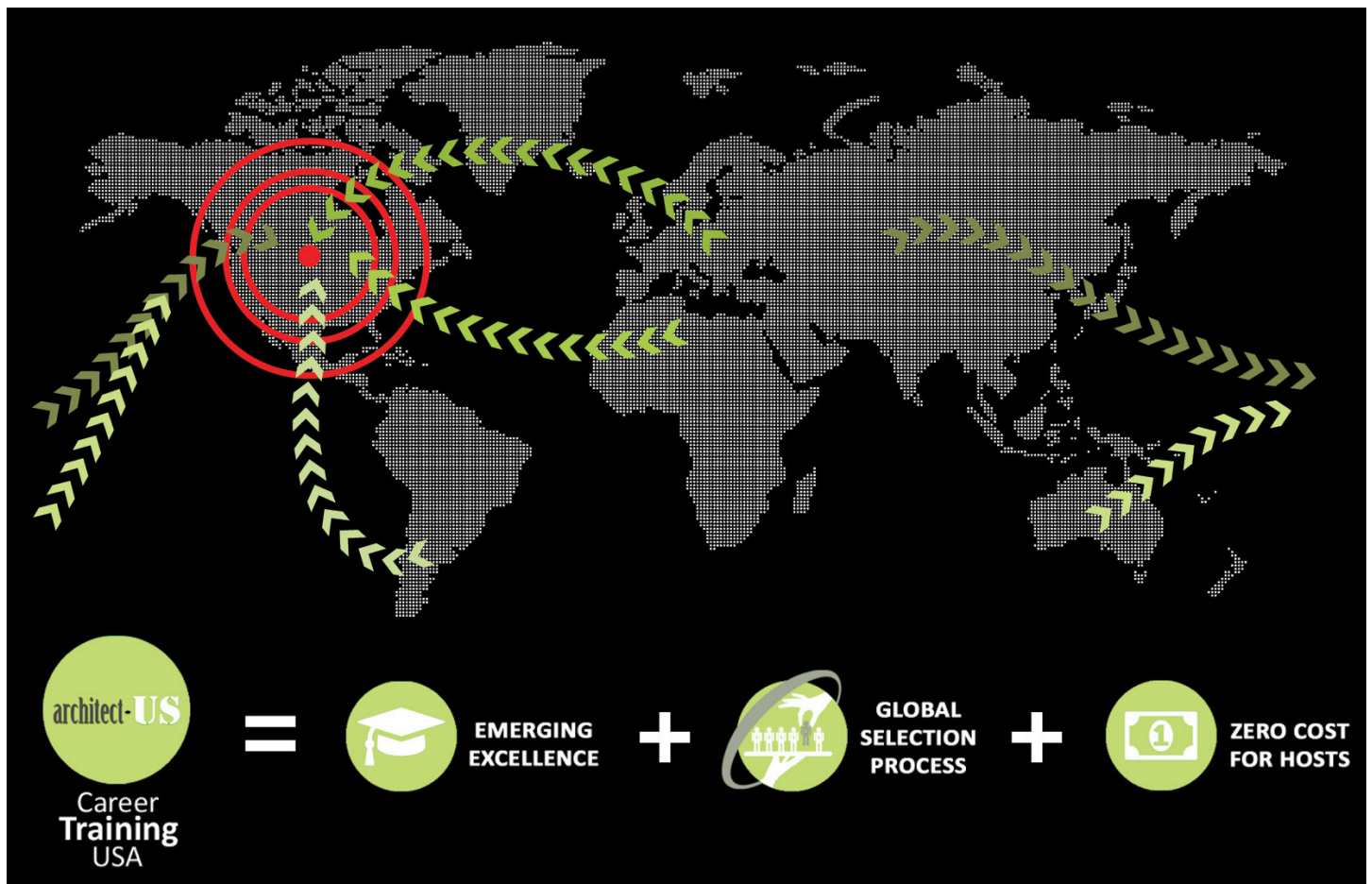
Above: Architect-US Professional Career Training Program Assets. Image courtesy of Architect-US.

> *The aim of Architect-US's outreach is to offer students and young professionals, who have exemplary academic background and outstanding talent, the chance to pursue an internship or professional training in the U.S. regardless of their economic means.*

The most common way Internationals make it to the States is through enrollment in a graduate or post-graduate school. However, not all Internationals can afford the academic track. The aim of Architect-US's outreach is to offer students and young professionals, who have exemplary academic background and outstanding talent, the chance to pursue an internship or professional training in the U.S. regardless of their economic means. The program provides structured and guided on-site training for up to 18 months and sponsors candidates' J-1 visa. This frees their hosts from costs and paperwork and facilitates a speedy bureaucratic process. Architect-US works closely with firms by either administering the J-1 visa to employees already selected or matching the most promising international talents based on their needs.

In order to ensure a successful match, candidates aged 20 to 35 are selected through an intensive process that evaluates portfolios, communication skills, academic backgrounds, and fundamental compatibility with participating host firms while promoting the value of cross-cultural exchange. Unlike many U.S. college interns, participants in the Architect-US program can stay with hosts beyond the length of a single semester and can start at any time. Interns are eligible to stay for an entire year, while professional trainees can remain at host companies for up to 18 months.

Beyond an educational training service, the Architect-US program offers host companies the ability to promote diversity, expand business opportunities, and test potential workers without the long-term commitment of a working visa. Kenneth Drucker, Design Principal at HOK's NY Office, one of the Architect-US's first U.S. based hosts, had this to say about the program: "In Europe, there are different issues of scale, urban design and architectural technologies. Trading that information is a great opportunity for HOK, as both sides of this process can learn from each other. Creating a culture of communication between different countries allows us to create global experiences and global opportunities. We've already had one successful trainee and are ready to open our doors to other talents." See Kenneth Drucker full interview in here.

Another Architect-US supporter is English architectural icon, Sir Peter Cook, Crab Studio Co-Founder, who says, "I find that in recent years, particularly speaking from London, we are dependent upon the cross-fertilization of our own cultural stream...we've become more global. I think any office in England with only English people are A, extremely boring and B, not really reflective of the cultures we exist within." See Peter Cook full interview in here.

The Architect-US platform officially launched on June 25th, 2015 at the AIA NY Center for Architecture with an exhibition and panel discussion on the benefits of hosting international talent. The panel featured a number of industry leaders, including Claire Weisz, FAIA, WXY Principal, Jorge Mastropietro, AIA, JMAPC Principal, Gustavo Rodriguez, FXFowle Design Principal, Carol Shapiro, BWAF Director and Kenneth Drucker, FAIA, HOK Design Principal.

Gustavo Rodriguez and Jorge Mastroprieto, who both embody talent migration themselves, highlighted the value of diversity. Gustavo Rodriguez stated "People from other cultures bring diversity; not just cultural diversity, but also diversity of education, points of views, and insights". Jorge Mastropietro underlined "They really enrich the practice product". Gustavo Rodriguez also explained the difficulty in finding the right candidates in the profession adding, "One interesting focus of the Architect-US program is that it helps firms find the right people, both students and professionals. In FXFowle for instance, there is a huge challenge for us to find architects with 6 to 8 years of experience, who know how to design and put drawings together. That's due to the 2008 recession that left the profession with a big gap".

Following up on the theme, Carol Weisz affirmed, "We've had people working for us from all over the world and we really rely on them to bring their fresh ideas, perspective and their energy." And Kenneth Drucker set forth, "There is so much talent out there and we recognize that it makes our work much better. You can't be a global practitioner without transfusion experiences between different cultures. This program is great because it simplifies the process."

Firms interested in participating in the Architect-US program should register here. More information about the outreach is available on our website, on Facebook, Twitter and LinkedIn or you can contact training@architect-us.com. ■

Patricia Garcia Chimeno
is a registered Spanish Architect, LEED AP BD+C with 8 years of experience in award-winning design firms such as HOK, James Carpenter Design Associates, Herzog & de Meuron, Sir Peter Cook CRAB Studio and Aedas. Her experience has been enriched from a variety of academic design tutorsand from the variety of design methodologies within the offices she's worked in, in Madrid, Paris, London and New York.

SASAKI
A MODEL FOR BLENDED PRACTICE

Mary Anne Ocampo is an Urban Design Principal at Sasaki Associates and head of the Urban Design Group in Sasaki's institutional campus planning practice. She collaborates with and leads interdisciplinary teams on a range of national and international projects focused on the formal relationships among people, programs, and nature in ways that require strategic thinking, effective planning, and design excellence. Mary Anne's recent work spans from a complex campus framework plan for Syracuse, to an urban design vision for the Texas State Capitol District, to resiliency work with the World Bank addressing informality in the Philippines. Mary Anne's design work has been recognized with awards from the Boston Society of Architecture, Society of College and University Planning, and the Boston Society of Landscape Architecture. She currently holds an academic appointment in Urban Design at MIT.

Stephen Gray has practiced as an urban designer in Boston for almost a decade, working at Chan Krieger Sieniewicz (now NBBJ) and Sasaki Associates, and teaching urban design studios and seminars at Northeastern University, MIT, and Harvard Graduate School of Design where he currently holds an appointment as Assistant Professor of Urban Design. He is Associate Director on the Board of the Boston Society of Architects (BSA) and serves frequently on Urban Land Insitutue (ULI) advisory panels addressing urban challenges around the country. Stephen's stated interests center of the intersection of design and engagement as tools for empowerment and as drivers for the production of progressive urbanism, and he received the 2015 AIA National Honor Award for Associates for his contributions to urban design thinking in the United States.

Research and Development or R&D, is a term commonly used in product-based industries to describe how companies prepare for their next product line launch. During this process, corporations may devote millions of dollars to ensuring that they can bring products to market that will add to their bottom line for years to come. Architecture and planning, being primarily service-based industries, do not have the same access to capital. Despite this reality, the blending of research and practice is making headway into a number of larger firms. To be sure, it is not a totally new concept. OMA/AMO is one of the original design think-tanks and has been around for decades. But even still, they need to find a balance between research, practice, and the billable hour. The SOM Prize and Travel Fellowship Awards in Architecture, Design & Urban Design are more traditional examples of sponsored research by a larger firm, and other offices are gradually moving in a similar direction. As the architecture and planning disciplines attempt to play catch up with other industries, there is one firm that is ahead of the curve. Sasaki Associates, an international multi-disciplinary firm based in Boston, actively encourages employees to balance time spent on project work with research-based inquiry and to take advantage of the unrestrained thinking and exploration that this perspective can afford. In addition to office-sponsored research, Sasaki also promotes independent research through academic inquiry at institutions of higher education. A number of early and mid-career employees regularly teach topic-based studios and seminars at Harvard, MIT, Northeastern, Boston Architectural College, RISD, and Roger Williams, among others. Sasaki sees many benefits to establishing a strong research agenda including encouraging collective problem solving, incorporating external perspectives, increasing connections among complementary areas of expertise, and contributing to a collective knowledge base.

Sea Change : Boston. An exhibition and symposium on sea level rise in the Boston region

In supporting research, Sasaki aims to:

- Deepen the knowledge base as planners, designers, and implementers,
- Promote a model for innovation in thinking and design that advances the profession,
- Energize teams, consultants, and clients through rigorous, investigative, and conclusive processes, and
- Fill the gaps that exist between research and practice at local, regional, national, and international scales

In the same spirit of the firm's founder, Hideo Sasaki, a landscape architect, planner, and educator, Sasaki continues its legacy of mixing practice and teaching. Cross-pollinating between practice and academia provides opportunities for research in action. Many design studios taught by those at Sasaki, focus on real-world issues that creatively address challenges with new approaches.

ACADEMIA & PRACTICE

Global climate change is an increasingly local—and regular—reality. Hurricane Irene and Superstorm Sandy left many communities traumatized and exposed much vulnerability in the coastal Northeast. In parallel to Sasaki's work with the NY State's New York Rising Community Reconstruction Program, graduate planning students at MIT Department of Urban Studies and Planning were asked to imagine alternative futures for south shore Long Island. Students focused on the Massapequas, a community southeast of Levittown, New York, that is characterized by dense single-family suburban development. Students were challenged to consider the site not only as a physical location, but also as a dynamic construct influenced by natural, cultural, economic, political, and morphological forces. Through an intensive semester, students balanced their responses to environmental forces, economic realities, and the community feedback accumulated during the parallel NY Rising engagement process. Students asked:

- What does an ecologically sustainable, economically robust, and socially diverse Long Island community look like in the future?
- What is the long-term viability of homogenous, single-family dwellings in the context of changing demographics?
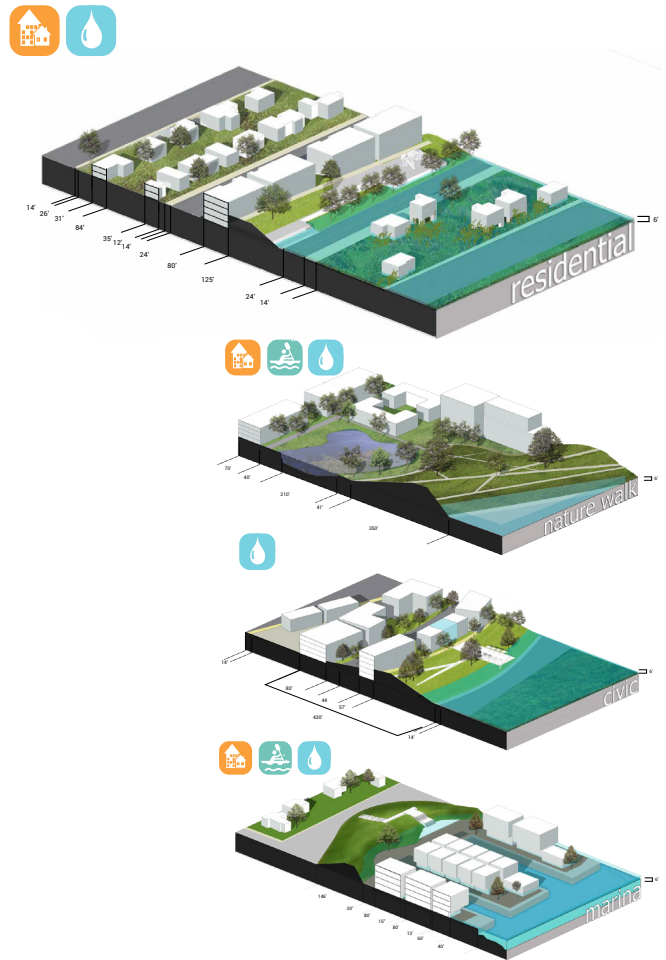
Strategies for phased retreat and prototypes for new ecologically-derived patterns positioning infrastructure as open space, a community resource, and protection for new and dense inland residential developments (Rendering: Kara Elliott-Ortega, MIT)

Unsustainable Rebuilding on South Shore Long Island (photo credit: MA Ocampo)

In 2013, Typhoon Haiyan, the strongest tropical storm recorded at landfall in the Philippines, cost thousands of lives, displaced millions, caused large-scale destruction, and amplified the urgent need for environmental and social resilience planning in the region. The environmental changes and increasing frequency and severity of natural disasters in the region are being further compounded by a combination of population growth and rapid rural-to-urban migration. This rapid urban growth in recent years has led to a marked increase in urban poverty with an influx of Informal Settler Families (ISFs) seeking refuge and jobs within the city. Collaborating with the World Bank and the University of the Philippines, a MIT studio and practicum built upon the World Bank's Citywide Development Approach to develop replicable resettlement and upgrade strategies for residents living along the lakeshore of Laguna de Bay in Muntinlupa City, located at the southern edge of the Metro Manila region. Working within the context of one of the world's most densely populated and largest mega cities, and taking on the realities of an increasingly vulnerable low-income urban population, the studio explored the following questions:

- How can Metro Manila be better prepared for future storm events?
- Where should future development and redevelopment occur and where should it not?
- How can integrated resettlement strategies for Informal Settler Families balance considerations for natural systems, city form, and socio-cultural dynamics?
- What are the benefits to public, private, and non-profit sector collaborations?

The MIT studio explored planning and design thinking with recommendations given to city officials, community leaders, local NGOs, and the World Bank. Lessons learned from this studio research and process influenced resiliency planning and design strategies for urban development work with an ongoing Sasaki project in the Philippines.

Vulnerable Informal Settler Families on the Lakeshore of Laguna de Bay (photo credit: Adriana Akers)
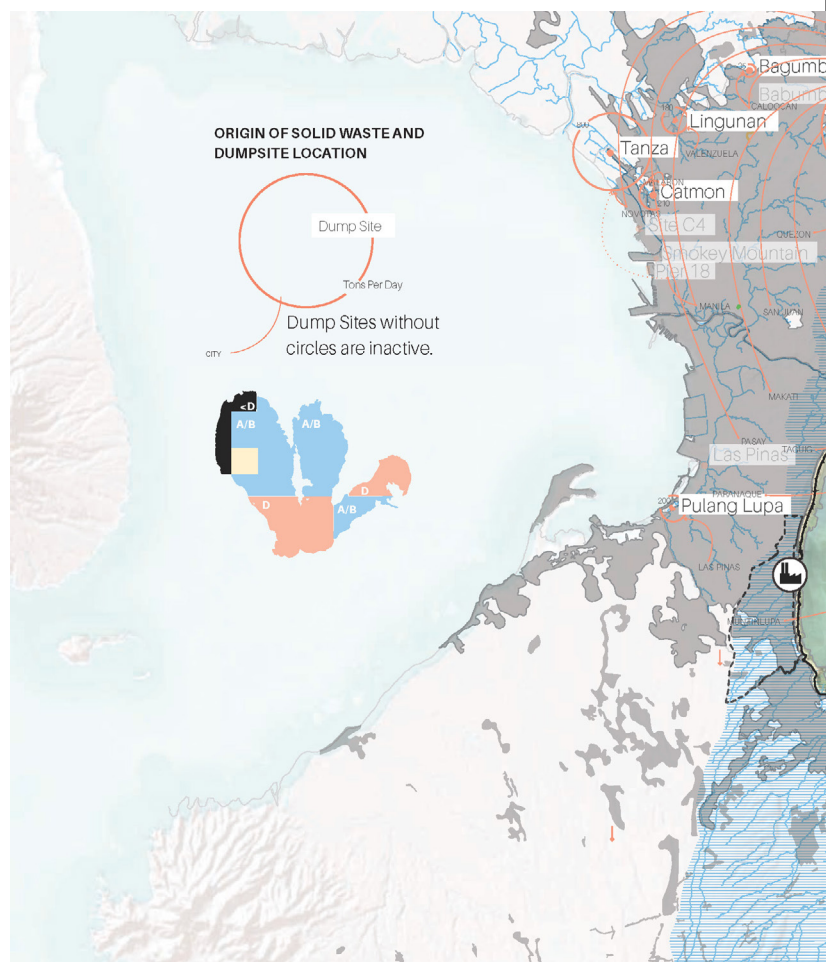
> It is rare that practitioners have an opportunity to reflect critically and question long-standing development patterns, nostalgic lifestyles, and economically, socially, and environmentally unsustainable norms. This is especially true in the context of tight budgets, limited scopes, and the deeply ingrained habits of governments, developers, and the public.
>
> Sasaki has emerged as an industry leader in civic engagement, technology, planning, and design with the belief that advancing design methodologies begins with proactive research and meaningful connections to academia.

Metro Manila and Laguna de Bay Lake analytical mapping of urban development, hydrology, and pollution (Rendering: Adriana Akers and Lilly High Perkins, MIT)

SASAKI RESEARCH INITIATIVES

In 2014, the inaugural year of the Sasaki formal research grant, a firm-wide request for ideas was issued and a significant budget allocation of $100,000 dollars was established to codify and formalize a commitment to intellectual inquiry. After conducting a rigorous review of various proposals, four were selected and funded. Project time frames, determined at the outset based on the goals and budget of the primary investigator, typically range between 6 to 12 months. Research can be conducted during working hours as long as project responsibilities are met. The titles, principal investigators and descriptions of each project are as follows:

Water Farming - Chris Horne
This research will explore innovative methods for leveraging water through large, landscape interventions. Through strategic planning and design, we can harness the natural functions of landscape ecology to provide low-cost flooding mitigation, pollutant reduction, groundwater recharge, habitat restoration, and a host of other benefits.

Pre-fab Lab - Thomas Simister, AIA
The goal is to rethink how buildings can be renewed for science by imagining prefabricated components and lab modules. We hope to discover a prototypical kit that makes scientific research space more affordable, faster to deliver and indefinitely adaptable.

Quantifying Environmental Improvements of Design - Tao Zhang
The research aim is to make sustainability and ecology less vague and more tangible with measurable outcomes. Jiading is one of the largest built landscape projects in Sasaki's history. We will scientifically and systematically assess the environmental performance of our design upon its completion. The study will test water quality, soil quality, biodiversity and biomass, microclimate, and social impact.

Street Smarts - Stephen Gray
The cultural, social, economic, and religious diversity of the U.S. is expanding. Cities are also shifting physically. Convening cross-sector urban actors, this project will examine key challenges to broad-based engagement, highlight successes, and advance a new paradigm for urban design, development, and democracy in the future city.

A few of past research initiatives, exhibitions , and symposia include:
*   SeaChange Exhibition
*   Designing With Water Report
*   Emerald Networks: Reviving the Legacy of City Parks
*   Zero Net Energy on Campus
*   The State of the City Experience Report
*   Reinvention in the Urban Midwest Exhibition
*   Urban Fabric Exhibition and Lecture Series

For more information on Sasaki Research, please visit their website: www.sasaki.com. ∎
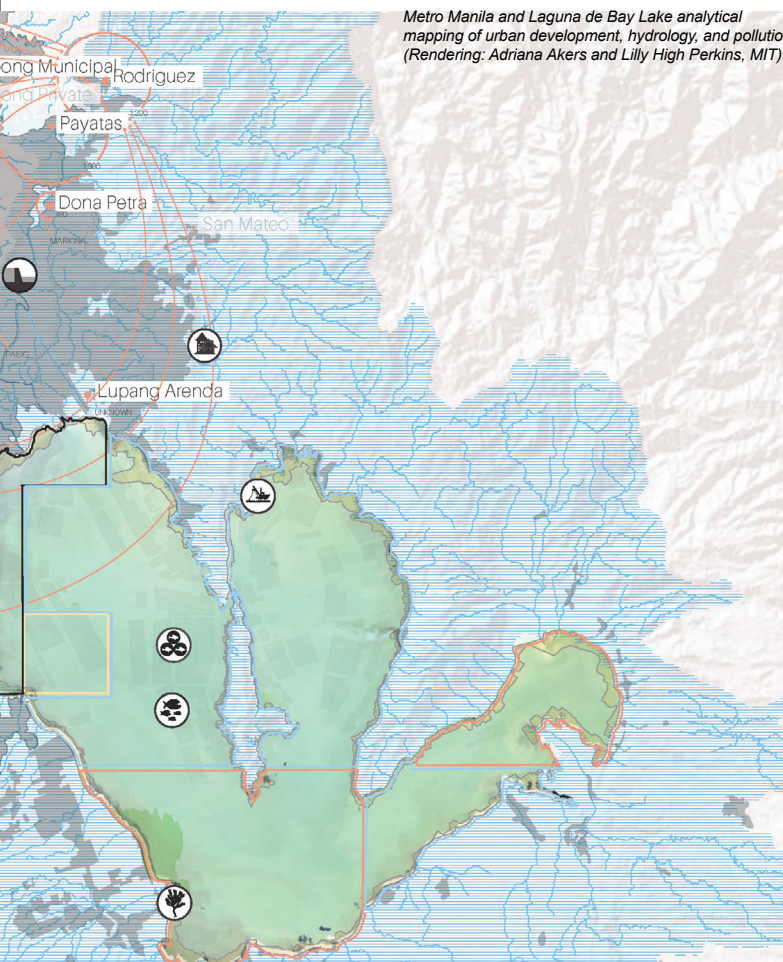
IMPACTFUL BUSINESS MODELS IN ARCHITECTURE
HOW AN ONLINE MAP IS HELPING TO CREATE THRIVING SOCIAL IMPACT DESIGN FIRMS

I distinctly remember discovering the missing piece in the architectural practice puzzle. It was 2012 and I was setting up a small practice focused on community projects while simultaneously studying for my final architectural licensing exam in California. The study material was focused on choosing a business structure. It named four legal options for architectural businesses: Sole Proprietorship, Partnership, Limited Liability Partnership (LLP), and Corporation. But what about architects who wanted to set up a business with a social mission? This was important to our fledgling practice, but the options outlined did not incorporate this thinking. My business partner and I were stumped.

Matthew Manos, founder of the Los Angeles-based design and strategy firm verynice, had a similar conundrum a few years before I discovered this gap. In 2008, Matthew was establishing his firm and discovered a dearth of resources on the social sector. He picked up a copy of Nonprofits for Dummies to understand the nonprofit mentality, but this was only half the equation. He was seeking guidance on how for-profits were making social impact, yet none of the existing resources outlined how businesses were doing just that. This put him on a quest to collect, synthesize, map and eventually publicly disseminate his findings on the different social impact business models that exist.

Last year, Matthew and his colleagues at verynice launched the Models of Impact (ModelsOfImpact.co) website to share their findings and help more social entrepreneurs and designers understand the variety of social impact business models out there. The interactive map highlights over 100 brands and documents 45 thriving business models in both product- and service-oriented industries.

How Architects Can Use Models of Impact

Although it has attracted primarily startup incubation programs, coworking communities, academic institutions, social entrepreneurs, and nonprofit directors, Models of Impact can easily be applied to the architecture field in two ways: for architectural practices and for their client work and projects.

Designed to inspire business leaders and individuals into integrating impact into their daily practice, any architect or firm can browse the map and glossary to familiarize themselves with the models out there and even find one or a few to test. Currently, verynice is working with the Architecture for Humanity Chapter Network to discover appropriate models to relaunch the global organization and support individual chapters. Using the Models of Impact map, Matthew has been able to help them understand the variety of options available through positioning them on various quadrants of the map and talking through the implications of each model.

The Models of Impact map can also assist with teaching "business model first" thinking. "Many projects brought to architects and designers are dreamt up, designed and executed only to lack long-term impact on the community it was originally developed for," wrote Matthew. When approached with socially-focused projects, architects can use Models of Impact to find examples of sustainable models that have the potential to organically fit into the client's project lifecycle. In this way, architects can work with clients to create solutions that have the ability to leave a lasting legacy.

Three Thriving Firms Demonstrate Impactful Business Models

There are currently five different architecture and design business models mapped on Models of Impact, and they are looking to add more to it. The most well-known model is The 1% Program (TheOnePercent.org) developed by Public Architecture. Architecture, interior, and design firms can pledge to dedicate one percent of their time and resources to pro-bono services for people and clients who cannot otherwise afford their services. With over 1,400 firms committed to providing $40 million in pro bono services each year, The 1% Program has attracted small firms like 2-person Ballantyne Design Associates in Montana to large, international firms like Gensler, which has 30 offices in the US alone. The graphic [below right, next page] shows where this model lies in the grand scheme of business models available.

Another model that many design firms use is Products or Services for Markets-in-Need, which can be showcased by Berkeley-based Project H Design. Led by Emily Pilloton, the small organization focuses energy and efforts on communities and markets that need special attention due to existing in low-income regions or in developing countries. One of their current programs, Camp H,

3] Hybrid Model: Hug It Forward

Product for Service/Access: Products that subsidize access to important services for individuals/communities/organizations in need. Example Brands: Stone + Cloth, re:char

Jobs for developing countries: Products and/or services that are manufactured/offered in a manner that allows the business to create jobs in developing countries. Example Brands: SHE, Apolis

Local jobs: Products and/or services that are manufactured/offered in a manner that allows the business to create jobs in local communities. Example Brand: Caduceus Cellars

Recycle/Upcycle: Products that are created from recycled materials OR products that are created from previously discarded materials. Example Brands: Terracycle, Hipcycle, KEEN, Atayne
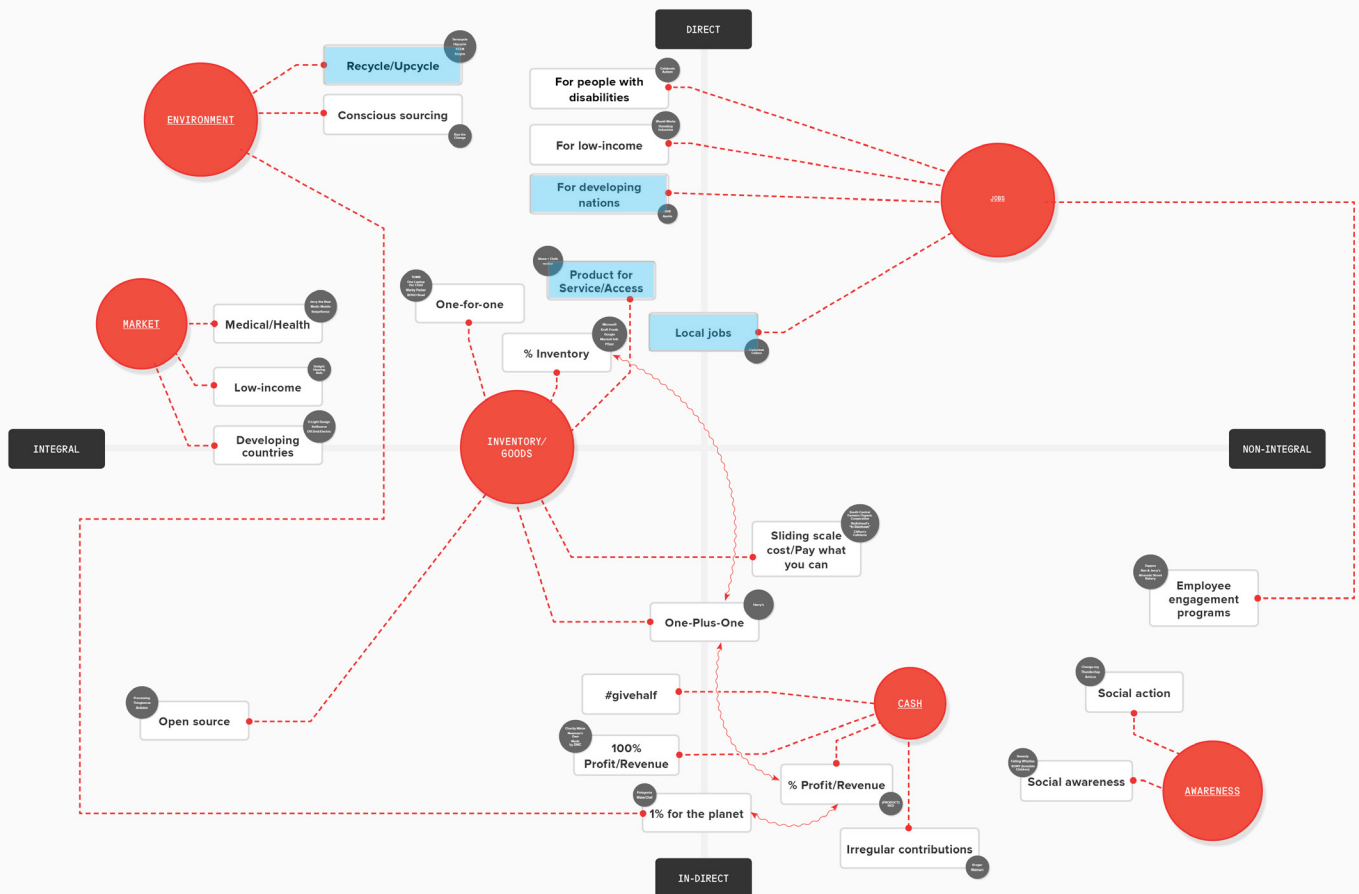
Model of Impact - Product

Model of Impact - Service

DIRECT

The 100% Model

Social impact bonds

Micro-lending

Crowd-funding

Impact investing

Open source services

SERVICES

Civic/social incubator

Sharing economy

For people with disabilities

For low-income

For developing nations

Local jobs

Non skills-based volunteer

JOBS

INTEGRAL

PRO-BONO

#givehalf

Give some

Crowd-source/ Intermediary

Marathons

Loaned employee

The 1% Program

Sliding scale engagements

ENVIRONMENT

MARKET

Non-Profit clientele

Low-income clientele

#givehalf

100% Profit/Revenue

1% for the planet

% Profit/Revenue

CASH

Irregular contributions

Social

Social awareness

IN-DIRECT

2] Services for Markets-In-Need: Project H Design

(Service Oriented Business)
Non-Profit Clientele: A business in the service-oriented business space that focuses its efforts on clients in the social sector. Example Brands: Hershey Cause Communications, Firebelly Design, Made by We, Blue Garnet
Low-Income Clientele: A business in the service-oriented business space that focuses its efforts on clients in low-income communities. Example Brands: OneJustice, US Department of Housing Urban Development

1] The 1% Program: Ballantyne

The 1% Program (pro-bono) in the architecture discipline in wh donate 1% of all time/resources t the community. Example Brand Ballantyne Design Associates
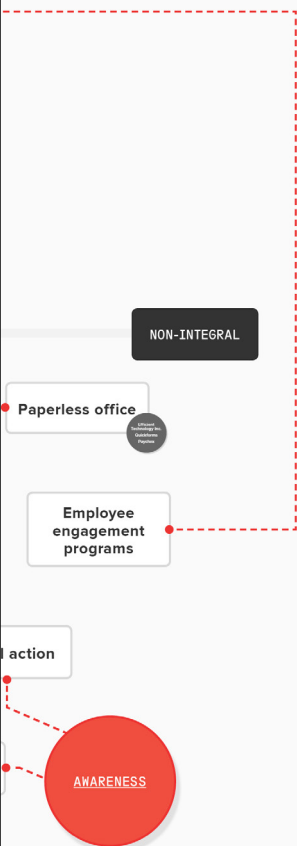
focuses on youth education through design and construction training. Students in the program are primarily girls aged 9 to 12 who work on projects with community partners in Oakland and Berkeley. As seen in the graphic [below left, opposite page], there are a plethora of design-focused companies providing products and services for a multitude of underserved markets.

Other design organizations are using a hybrid of several models to create sustainable businesses. Focused on raising awareness about education and consumption, international nonprofit Hug It Forward rallies large communities of skilled and unskilled workers to build schools out of recycled bottles. As seen in the graphic [above left, previous page], the organization transcends several models of impact to do meaningful work.

Opportunities for Architects to Implement New Models

Matthew has identified three relevant impact spaces that are primed for the architecture field: pro-bono, sustainable design, and unique markets of interest or focus. The word pro-bono can conjure up connotations of spending too much time on "free" work. However, in the past three years, the dialogue around pro-bono has shifted away from this. Now many companies are seeing pro-bono work not as a gift, but instead as an exchange, paralleling discussions around the definition of 'value' and 'ownership' in the sharing economy. Architects can see pro-bono as an opportunity to exchange services and making long-lasting client

relationships that can lead to future paid work. Similar to The 1% Program, this would put firms in the Services, Non-Integral + In-Direct area of the map.

Sustainable design has been a growing movement for many years, especially where physical goods and materials are in play. However, the concept of sustainability is beginning to shift away from using less materials for a product or project to interest in purchasing local materials and using local labor in order to benefit local economies. Architecture firm MASS Design Group is championing the local fabrication movement (dubbed "LoFab") to reintroduce a craftsperson mentality that combines locally-sourced materials with local labor. This approach would fall under the Services, In-Direct + Integral quadrant of the map.

The last impact space relevant to the architecture field is unique markets of interest or focus. Since the dawn of social enterprise, entrepreneurs, designers and architects from developed nations have taken their services and products to developing areas for short- or long-term stints. Although this is still common, many people and organizations are developing toolkits and easy-to-manufacture goods that allow local communities to build and iterate on solutions themselves. Design nonprofit IDEO.org's *Field Guide to Human-Centered Design* and the *Design Kit* website, both launched last year, are two resources that are doing just this. The 25-person firm has refocused their efforts on teaching more people through their online tools and courses, therefore widening the breadth of their impact rather than doing the work themselves. Through training and involving community members come more locally-based solutions that have the potential to last longer than drop-in ideas.

Help Expand Models of Impact

Not only can architects and designers see how other firms and organizations are building impactful businesses, they can add their own models to the map. In order to reach their goal of documenting every business model in social enterprise, Models of Impact is always open for submissions from architects, designers, and entrepreneurs who are discovering, testing and implementing new models.

Visit ModelsofImpact.co to discover more and submit a new business model or company to the map. ■

KATIE CREPEAU, RA
is the Editor in Chief of Impact Design Hub *and currently resides in London, UK. Crepeau is also the Founder of* DesignAffects.com *and Co-Lead on Mapping Impact, a research initiative on social impact assessment tools and resources for designers.*
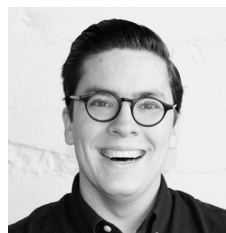
MATTHEW MANOS
is the Founder and Global Strategy Lead at verynice *in Los Angeles, California. Manos is also the author of* How to Give Half of Your Work Away for Free*, and the initiator of the* Models of Impact *project.*

TECHNOLOGY

ALGORITHMITECTURE
William Willoughby
OFFICE FOR POLITICAL INNOVATION
an interview with Andrés Jaque, by Jeff Pastva
A NEW LOOK AT WOOD
Joe Mayo
AGENTS OF CHANGE
Bill Schmalz & Yu-Ngok Lo

ALGORITHMITECTURE
ARCHITECTURE'S ALGORITHMIC DOMAINS

n 2013, Swedish artist Jonas Lund exhibited a set of works under the title *Fear Of Missing Out*. The works on exhibit were secondary to the overall premise of the exhibition which came from an algorithm developed by Lund. The algorithm proposes an artist's ideal work at specific stages in their career. Parameters like the artist's age, size of the space where the work will be exhibited, the expected price point for the work, and other data derived from trends set by top curators, current shows in galleries, other successful artists practicing today, and reviews of contemporary artworks. The algorithm generates a title and a set of instructions for making the most successful work of art for that artist. Lund produced 15 multimedia pieces with titles such as: "Trastevere Luck 221," "Cheerfully Hats Sander Selfish," and "Steve Ballmer, A Fridge and Six Crates Of Beer." The last title fit a piece that includes a depiction of Steve Ballmer and a commercial cooler partially filled with beer—literally. Pretty brilliant. Lund's subsequent works are no less provocative. What if this kind of algorithm could be applied to an architect's career? But even better, what if an algorithm could supplement expertise in a given project type or replace a designer in your practice? Would we still be having fun?

Without question, our lives are all watched over by algorithms. Today, they are employed everywhere; algorithms turbo-charge just about all global economics and markets. They regulate supply chains and assure that enough product gets to where and when appropriately. Algorithms predict weather, manage internet search engines, aggregate news stories on our smartphones, make SMS word predictors more accurate and personal, set our music playlists, target advertisements to individual consumers, and recommend books or products we're likely to purchase. Even auto insurance companies collect customer data by recording our driving habits in real time. Paraphrasing Shakespeare's Miranda, "O brave new world that has such algorithms in't."

1.1

The main goal of design has always been its outcome. Many times, the status of the thing designed obscures the process of its design. So often we move on to the next project and never take full stock of our strategy. One firm I worked for had the slogan, "Let's reinvent the wheel again," to describe how every design opportunity demanded reinvention through iterative work, critique, and applied intuition. But is this always the case?

Designers evaluate changes through a process that is seldom linear and many times looped and iterative. Designers are really designing the process of design—and design solutions emerge from a contrived, yet flexible set of procedures, operations, and decisions. In other words, design develops from a heuristic model, never fully consistent or closed, but never totally open and targetless.

There is a general flow to the design process that makes it very possible for design to be expressed algorithmically. Algorithms seek to clarify, quicken, and straighten the design process from the start. The decisions architects make, if arranged in successive sets, emulate the operations in an algorithm. Stripped bare of profitless tangents, accidental omissions, loose ends, and faulty first solutions proffered during intuition-guided design, the algorithm stands on its own as a relational system of inputs channeled by a computer model towards a solution.

Algorithms in architecture, like recipes in cooking, allow designers to systematize and vary their final results through parametric adjustment. This capability—whether scripted as computer code or created as a definition in Grasshopper (a graphical algorithm editor for Rhino), offers expanded domains for architecture. Just like a cookbook guides both the novice and the seasoned chef, an algorithm applied to design can be like a design partner offering alternative solutions.

1.2

Mario Carpo's *The Alphabet and the Algorithm* (2011) traced the roots of algorithmic design back to the Early Modern period in Western Europe. But most of today's algorithmic designers are creating footnotes on the works conjectured by 1960s -1970s digital design progenitors Christopher Alexander, Nicholas Negroponte, Yona Freidman, Cedric Price, and Jon Frazer. By tracing computational design from this period forward, I noticed three approaches: algorithms as ends in themselves, as tools for production, and as diagnostic design partners.

1.2.1: Algorithm as an end (in itself)

Some algorithms play out recursively, generatively, and as self-referencing systems. Scripted explorations like these produce morphogenetic or ontogenetic formations that take shape through processes of optimization, genetic algorithms, or as emergent

> *Algorithms in architecture, like recipes in cooking, allow designers to systematize and vary their final results through parametric adjustment.*

cellular automata. Many of the more academic leaning researchers and creative practitioners are exploring this speculative and posthuman vein of scripting culture in architecture. Firms and individuals that explore this include: algorithmicdesign.net (Ezio Blasetti), Architectural Association's DRL (Theodore Spyropoulos), Biothing (Alisa Andrasek), Kokkugia (Roland Snooks and Robert Stuart-Smith), and The Very Many (Marc Fornes).

With influences like Alan Turing, morphogenetic patterns, cellular automata and non-linear design strategies, Karl Chu's genetic architecture, speculative realism, and a lifetime of creative scripting, Ezio Blasetti's work surfs between patterns of organic growth, mathematics, and machinic production. His research connects algorithmic patterns with active agents found in climatic, organic, and social processes. Emergent systems of robots interacting with biota—the "cyborg" speculated on in sci-fi literature—is now a posthuman reality poised to replace the stodgy, static, and standardized anthropocentric model of architectural production.

Ezio Blasetti shares his algorithmic design research and teaching openly through scripts on his website algorithmicdesign.net, collects related ideas and speculations on his Tumblr site (ezioblasetti. tumblr.com), and conducts a digital scripting and fabrication workshop called apomechanes. Patterns of growth, materialization and metabolization, emergent systems, complex systems and unpredictability are terms that suggestively define Ezio Blasetti's work. Single images can't fully explain his work. His research is best represented in video demonstrating processes of unfolding, procedural mutations, and generative interactions.

1.2.2: Algorithm as a tool (for production)

Other digital processes manage customization or produce results that are parametric in nature—with data-driven inputs that account for variable outcomes guided by the user-supplied data and the logical flow of the algorithm. One of the earliest and most enduring examples of mass customization is the software for engineering
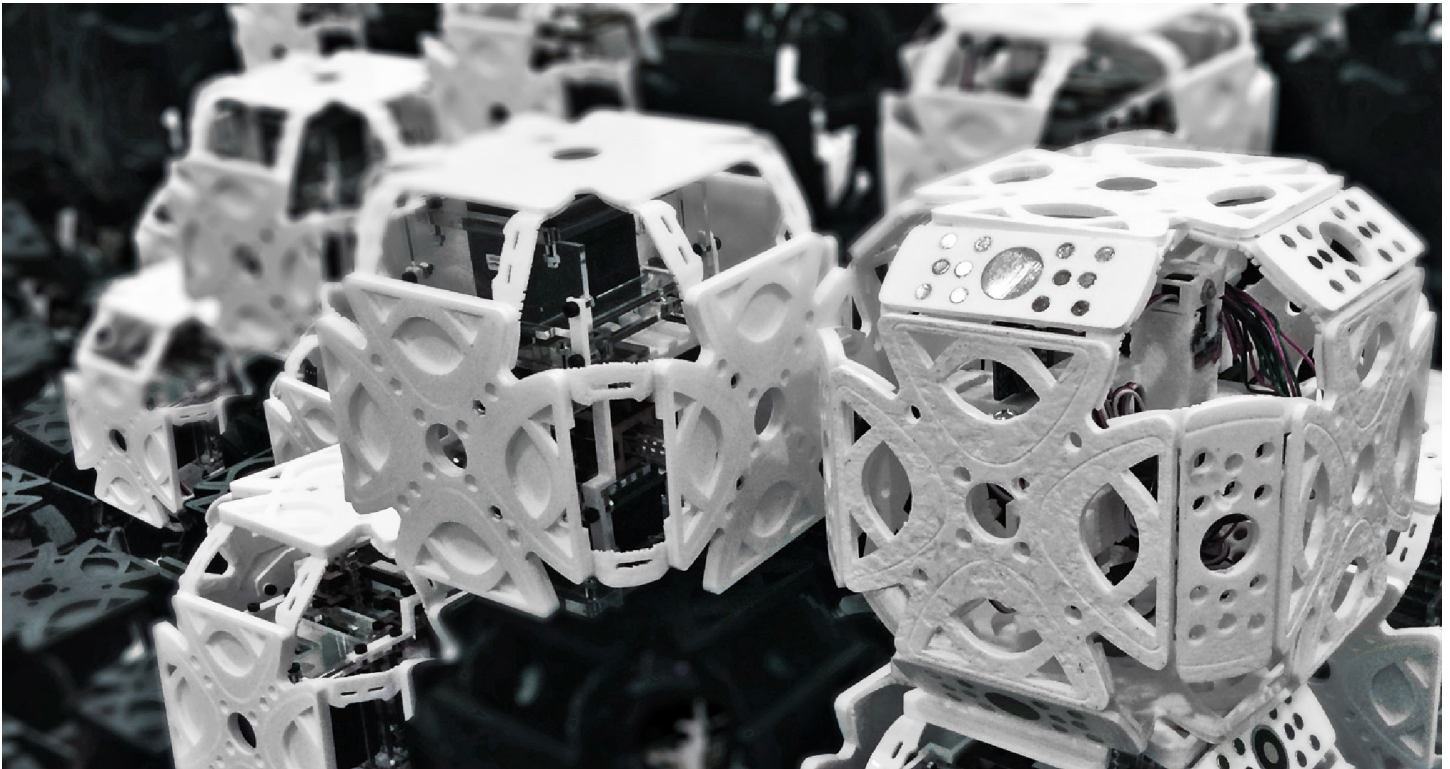
Above: Image courtesy of AADRL Spyropoulos Design Lab with the following credits:
Theodore Spyropoulos
Assistant: Mustafa El Sayed
Students: Pavlina Vardoulaki, Cosku Cinkilic, Houzhe Xu, Ahmed Moshen Shokir

and prefabricating residential wood trusses. Parameters such as loads, general plan layout, overhangs, bearing points, truss spacing, and slopes are set to generate instructions for fabricating custom trusses.

A. Zahner Co. uses algorithmic processes to produce mass customized components for responsive building facades. In 2014, A. Zahner launched ShopFloor—a suite of free web-based parametric tools for architects to use and create fully engineered and manufactured designs. To date, the suite includes CloudWall and ImageWall. A good example of a ShopFloor product, slated to be available August 2015, is Aluminum Bench designed by Jonathan Olivares—a parametric-controlled customizable bench that adapts to a the designer's demands for length, overall size, curvature, and cost. In other words, this initially shapeless bench gets shaped by manipulating parametric determinants.

1.2.3: Algorithm as a diagnostic design partner (that intakes data and outputs informed ideas)

KieranTimberlake's affiliate KT Innovations developed Tally, a life-cycle assessment (LCA) app for Autodesk Revit, which takes BIM models and allows designers to dynamically assess decisions based on life-cycle parameters derived from thinkstep's actively updated GaBi Database. Tally received a 2014 AIA Technology in Architectural Practice Award for BIM.

Another example is Milos Dimcic's eVe Rain, a parametric product from his company Programming Architecture. His company's mission is to join architectural design with engineering and programming in ways that enable designers to use parametric tools to bridge seamlessly between the phases of design and construction. Programming Architecture's eVe Rain allows designers to simulate the patterns rain will follow in order to find stoppages and flows as water collects on built surfaces. This diagnostic tool allows designers to make better decisions and resolve drainage problems in roof design.

I believe the next evolutionary step for algorithms in architecture is finding ways to acquire effective and architecturally specific data sets—derived from patterns of human behavior and urban microclimates—for use as inputs in building design algorithms. The Urban Center for Computation and Data's (UCCD) Array

of Things project (in partnership with the City of Chicago) and Chicago's Public Data Portal will soon enable designers access to data supplied from specially designed sensors attached to light poles throughout Chicago that collect real-time data sets on the activity, infrastructure, and environment in Chicago.

The pole units are designed to collect and measure environmental factors like temperature, humidity, light, precipitation, wind direction and speed, and air quality. A limited amount of human generated data will be collected including street noise level, pedestrian movement patterns through infrared sensors that capture heat signatures at street level, and sense the number of wireless devices in the vicinity of each sensor. None of the sensors serve as surveillance and won't collect personal or identifying data. Sensing and tracking the urban metabolism of Chicago, this array of devices capture data that gets shared openly and made accessible by mobile apps that enable citizens and visitors to Chicago to better understand and utilize the city.

If the real time data collected from the city was mapped and organized to the extent that algorithms could simulate the kinds of real behaviors and patterns occurring in Chicago, then script-savvy architects could extrapolate behaviorally responsive building designs. By developing algorithms that utilize pertinent public data from the city's urban systems, architects can better align architecture to the social, economic, energetic, and environmental forces at work.

Stated more simply, big data can be derived from the city in order to design a better city. The closer algorithms approximate a given building's raison d'être, then the better architecture will facilitate its social aim: to expressively and sustainably enhance human existence. I believe computational processes can be developed that generate a responsive architectural vision, derived from the social, climactic, and vital realities of the city. Architecture can respond cybernetically to the urban forces that underlie its performance. This vision replaces what Yona Freidman called "patriarchal architecture" with a socio-environmental architecture that responds directly to its public through participatory networks.
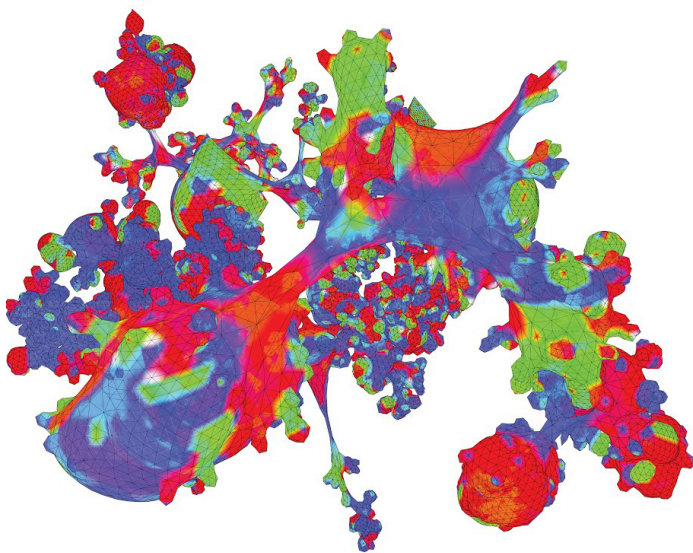
Above: Manifold Topological Growth combined with Tri-State Cellular Automaton. Figure-Ground Feedback.
Project Title: Bishi-Bashi
Student Team: Tadashi Kikuno, Jinglu Li & Ming-Chang Liu
Instructors: Cecil Balmond & Ezio Blasetti, University of Pennsylvania, PennDesign Spring 2014

Below: Image courtesy of AADRL Spyropoulos Design Lab with the following credits:
Theodore Spyropoulos
Assistant: Mustafa El Sayed
Students: Antonios Thodis, Camilla Degli Esposti, Ilya Pereyaslavtsev, Agata Banaszek

1.3

For the last two decades, architects have taken vast strides to decode architecture through experiments in computation. Buildings have been conceptualized as Deleuze-Guattarian abstract machines, designed to merge computational operations with climactic, organic, social and economic processes. With desktop digital fabrication and robotics at one end, and smart cities at the other end, algorithms span the entire scale of architectural production—from guiding design and fabrication to sensors installed during commissioning for collecting data during operation.

However, one of the sacrifices made with today's fixation on algorithms is the remission of the subjective in architectural design. This brings us back around to Jonas Lund's artistic quandary: can the systematization of logical frameworks that exploit collective behavioral data ever resolve into a fulfilling artistic experience that can touch us individually? There seem to be two diverging paths: architectural solutions arrived at through human intuition (what Louis Kahn spoke of as, "[O]ur most exacting sense. It is the most reliable sense. It is the most personal sense . . .") or a computational architecture derived through algorithmic systems that process data.

For the latter, optimal results mean that designers develop algorithms that not only fit their intended use, but also respond intelligently to change. Inputs must interact through the algorithm such that data sets are clearly defined and ordered into logic functions that achieve usable results. Hence the adage, "garbage in garbage out." But who decides if operations coded within the algorithm itself are garbage? Who's to say we're employing the best (or most effective) data sets? Ironically, in an age of spontaneous unpredictability, why do we have such unshakable faith in logical systems?

We must remind ourselves every so often that design has always been about the creation of practical beauty. Gio Ponti once defined architecture as a, "fantasy made of precisions." Let's hold on to the belief that architecture is the aesthetic result of constraints defined by the social and environmental forces conditioning those constraints. Only by designing with subtle and precise attunement to the socio-environmental forces that underpin architecture will building design acquire its rightful measure of intended and unexpected delight. ∎

WILLIAM T. WILLOUGHBY, AIA
is an architect, Associate Professor, and essayist who boomeranged back to Northeast Ohio to serve as Associate Dean for Kent State University's College of Architecture and Environmental Design. He writes about architecture and technology from a cultural studies perspective.

OFFICE FOR POLITICAL INNOVATION
AN INTERVIEW WITH ANDRÉS JAQUE

Andrés Jaque, architect by the ETSAM and Alfred Stiftung's Tessenow Stipendiat, is Professor of Advanced Architectural Design at the Columbia University GSAPP and Visiting Professor at Princeton University SoA. He is the founder of the Office for Political Innovation; a Madrid/ New York based architectural practice, author of awarded projects including COSMO, MoMA PS1, Plasencia Clergy House, House in Never Never Land, TUPPER HOME and ESCARAVOX. They have been awarded the SILVER LION to the Best Research Project at the 14th Venice Biennale, with the MoMA PS1 YAP 2015, the Dionisio Hernádez Gil Award, and selected as one of the ten designers of the year by Architectural Record*.*

Their project IKEA Disobedients is the first architectural performance ever included in the collection of the Museum of Modern Art, MoMA, and it is part of a series of architectural experiments intended to explore design from the perspective of post-foundational politics: Sweet Urbanism, MAK Vienna 2013, SUPERPOWERS OF TEN, Lisbon Architectural Triennale 2013, Different Kinds of Water Pouring into a Swimming Pool, RED CAT CalArts Center for Contemporary Arts, Los Angeles 2013, Hansel and Gretel's Arenas, La Casa Encendida, Madrid 2012, PHANTOM. Mies as Rendered Society, Mies van der Rohe Pavilion, Barcelona 2012, SWEET PARLIAMENT HOME, Gwangju Biennale, South Korea 2010, Skin Gardens, BAC Barcelona 2009 and FRAY HOME HOME, Biennale di Venezia 2010.

Our readership is primarily Young Architects, many of whom are aware of the MoMA PS1 YAP. Can you tell us what it means for you to win such a competition?

Architecture, as a collective pact and as a way for architects to intervene in societies, is changing. Experiments are required to rethink how architecture can bring new sensitivities to daily life that are growing everyday all around the world. For us, Cosmo has been an opportunity to make an experiment so that architecture can be part of society. PS1 brought the opportunity for that experiment to reach a broad public and that was important to us.

What are the main benefits or the key takeaways? i.e. notoriety, ability to experiment, research to further your practice?

Cosmo is not about producing an image--we did not even create renderings of it--but about rethinking the way we relate to water and how we design an architecture that could bring alternative into that discussion. In most cities, wastewater treatment infrastructure is hidden, centralized and fenced away from people's daily life. That relegates it to the realm of experts, where decisions seem to be inevitable. But there is a great opportunity to rethink the infrastructure we live by, as decentralized, local and community managed centers.

That is what we propose; to redesign wastewater treatment so it can be a feature imbricated in our lives, an enjoyable center of daily life that makes us aware of the material implications of our lives and enables us to make the best of them.

Things, like wastewater plants, that normally are perceived as ugly, inevitable parts of the city, could be the enjoyable parks or squares of the future. And we could grow a more political society that is better informed by developing our lives around such places.

COSMO performs a highly technical function, water purification. How much research was conducted by your office vs. the team as a whole? How is that knowledge integrated back into how you practice?

We represent a way of doing architecture that is growing everyday. As an office we do not need to grow in size, we need to grow in associability. In order to do Cosmo, we had to bring together more that 70 different professionals. From ecological engineers, such as Jochen Scheerer, hydraulic engineers from Arup, and structural engineers from BAC to activist institutions, such as the Department of Environmental Protection of NY or the Queens Botanical Garden. In my opinion architecture's power comes from its capacity to bring together diverse voices to make new ways of daily life possible.

It is not new for us. When we did the house Never Never Land in Ibiza, we decided to make it compatible to the hedonistic life envisioned by its owners with the environmental wealth of the volley where the house stands. We had to work with environmental experts, botanists or ethologists, to develop architectural strategies that would work both for humans and the vegetal and animal communities. The result was a house in which trees could grow through and that would allow water to permeate to the ground, but that would be also desirable for people looking to enjoy holidays.

Nuestros lectores son principalmente miembros del grupo Arquitectos Jóvenes, muchos de los cuales están al tanto de la iniciativa MoMa PS1 YAP. ¿Podrías describir lo que significa para ti el haber ganado este concurso?

La arquitectura, como pacto colectivo e intervención de arquitectos en las sociedades, está cambiando. A fin de reflexionar lo que la arquitectura significa para la vida cotidiana, en cuanto a la representación de sensibilidades que emergen mundialmente día a día se refiere, es necesario experimentar. Cosmo nos ha permitido crear un experimento que integra la arquitectura como parte de la sociedad. PS1 ha proporcionado la oportunidad para que este experimento tenga un alcance público significativo, lo cual es importante para nosotros.

¿Cuáles han sido los mayores beneficios o factores fundamentales de esta experiencia? Ej. Fama, habilidad de experimentar, investigación para promover tu pràctica?

Cosmos no se trata de producir una imagen (ni si quiera creamos una representación gráfica) si no en recapacitar de qué manera nos relacionamos al agua y en diseñar una arquitectura que promueve alternativas en la discusión. En la mayoría de ciudades, la infraestructura para el tratado de aguas residuales consiste en un sistema cubierto, centralizado, y escondido de la vida cotidiana; lo cual lo relega al ámbito de expertos en donde ciertas decisiones parecen inevitables. Sin embargo, existe una gran oportunidad de reconsiderar esto tipo de infraestructura como sistemas descentralizados y locales administrados por la comunidad.

Eso es los que nosotros proponemos; diseñar el sistema de tratado de aguas residuales de manera que se convierta en un distintivo imbricado de nuestras vidas; un centro ameno que nos concientice sobre las implicaciones materiales de la vida cotidiana y que nos permita hacer lo mejor de ellas.

Edificaciones como las plantas de tratado de aguas, que normalmente son percibidas como antiestéticas y partes inevitables de la ciudad, pueden convertirse en atractivos parques o plazas del futuro. Esto nos permitiría fomentar una sociedad más política e informada como consecuencia del desarrollo alrededor de este tipo de espacios.

COSMO realiza una función bastante técnica, como lo es la purificación del agua.¿Cuál fue el grado de investigación realizado por tu grupo comparado con la del resto del equipo? Como ha sido esa información integrada en tu empresa?

Representamos una tendencia de ejercer la arquitectura que está creciendo día a día. Como empresa no necesitamos crecer en tamaño, necesitamos crecer en la manera en la que nos asociamos con otros. Para crear Cosmo tuvimos que reunir a más de 70 profesionales desde ingenieros ecológicos, como Jochen Sheerer, ingenieros hidráulicos, como Arup, e ingenieros estructurales de BAC, hasta instituciones activistas como el Departamento de Protección Ambiental de Nueva York o el Jardín Botánico de Queens. En mi opinión, el poder de la arquitectura proviene de su capacidad en reunir diversas voces con el fin de hacer posible nuevas forma de vivir.

Este concepto no esnuevo para nosotros. Cuando diseñamos la casa de Never Never Land en Ibiza, decidimos hacerlo de manera que sea compatible con la vida hedonista que aspiraban sus dueños y la riqueza ambiental del valle donde se encuentra ubicada. Para esto tuvimos que trabajar con expertos ambientales, botanistas o etólogos a fin de desarrollar estrategias arquitectónicas que beneficien a humanos así como también a la flora y fauna del área. El resultado es un diseño que permite a los àrboles crecer a través de la casa, facilita la premiación del agua al suelo, y ofrece un espacio ameno para la gente que busca disfrutar de sus vacaciones.

Above: House in Never Never Land. Image courtesy of Office for Political Innovation.

COSMO has many goals: it performs a technical function, is interactive with the public, makes a political statement about water scarcity and could be a prototype for future installations. What do you see as the primary success of a project like COSMO?

To make Cosmo's way to deal with the reuse of water visible, and that it produces desirable and enjoyable situations. There are already people replicating Cosmo in different parts of the world; that is Cosmo's success.

Do you have other projects that are at the intersection of disciplines? If so, what is the primary driver of design and how do you provide a balance between factors?

Almost all our works are developed in an interdisciplinary frame. The Escaravox required us to collaborate with experts on community management, web design, and cultural programs. They have been operating now for 3 years with an average attendance of 800 people per night, something that beats the use of any other public infrastructure in the city. In the long run, the success of architecture depends on the capacity of design to pack diverse wisdom and sensitivities into a single architectural device.

COSMO tiene muchos objetivos: realiza una función técnica, es interactivo con el público, hace una declaración política sobre la escasez de agua, podría convertirse en un prototipo para futuras instalaciones. ¿Qué consideras tu es el éxito primordial de un proyecto como COSMO?

El que Cosmo sea la estrategia principal para revelar la reutilización del agua, y producir situaciones deseables y agradables. Hay gente que está replicando Cosmo es diferentes lugares del mundo; eso es el éxito de Cosmo.

¿Tienes otros proyectos que se encuentran a la intersección de varias disciplinas? Si es así ¿cuál es el motor principal del diseño y cómo mantienes un balance entre los factores que informan ese proceso?

Casi todas nuestras obras son desarrolladas en un cuadro interdisciplinario. El Escaravox exigió nuestra colaboración con expertos en gestión de comunidad, diseño de redes, y programas culturales. El proyecto ha estado en operación por 3 años con una asistencia de 800 personas por noche, lo que compite con el uso de otras infraestructuras públicas en la ciudad. A la larga, el éxito de la arquitectura depende de la habilidad del diseño en ceñir sabiduría diversa y sensibilidades en un solo mecanismo arquitectónico.

Above: Escaravox. Image courtesy of Office for Political Innovation.

What has been your strategy for seeking out international projects? Are projects, such as the MoMA PS1 YAP, a draw for publicity or opportunities of necessity?

We are now in the final stage of a competition to construct an apartment building in Paris, we are developing a project in Corpus Christi in Texas, an art museum in Madrid and a house in Lima. It is a moment in which developing a transnational practice is not an option, but a way of accepting the world as it is.

You have offices in Madrid and New York. What is the primary strategic advantage of the two locations and how do you balance the work between the two offices?

Madrid is the location of a number of valuable architectural traditions where designing stuff, and making it in a delicate and fun way is part of the culture. From that office we did projects, such as the Plasencia Clergy House and the Tupper Home, that helped us understand how we wanted to be part of architecture. But it is also true of projects such as PHANTOM, Mies as Rendered Society or Sales Oddity [Awarded with the Silver Lion to the Best Research Project in the 2014 Venice Biennale directed by Rem Koolhaas] that made us understand that the most politically effective contemporary urbanisms are not the ones that are confined in cities, but the ones that gain a transnational demarcation. Both hegemonic domains and the contestations to them, share the need to connect locations from different territorial realities. The capacity to act comes from the possibility to articulate interaction between diverse urban ecosystems. Our office aims to articulate the traditions of European architecture with the debate and urban capital that New York treasures.

What is your primary method of collaboration between the two?

We have different skills and capacities in each location. Our projects are developed with the interaction of both teams, and there are people travelling from one location to the other all the time. Normally our clients are also companies or organizations that operate transnationally and the projects need to respond to interurban requirements. The relationship between the two offices is as complex and adaptable as the commissions we deal with.

What are some of the challenges for setting up an office in New York as a non-US Citizen?

New York is a city where the term stranger does not make sense. New York is about constructing the city of our diversity. When discussing the city's potential with people from the Mayor's office or with NY investors, I was never asked where I come from, but how the city can evolve. Our challenge is to bring a relevant proposal for the city. Our proposal for the city is to maximize its capacity for inclusivity, to replace inequality with enjoyable diversity. ■

Cuál ha sido tu estrategia para buscar proyectos internacionales? Proyectos como Moma PS1 YAP, han sido un atractivo de publicidad u oportunidades de necesidad?

Estamos en la fase final de un concurso para construir una edificación de apartamentos en Paris, estamos desarrollando un proyecto en Corpus Christi, Texas, un museo de arte en Madrid, y una casa en Lima. Es el momento en el que desarrollar una práctica transnacional no es una opción, si no la manera de aceptar el mundo como lo es.

Tienes sede en Madrid y Nueva York. ¿Cuál es la principal ventaja estratégica de las dos ubicaciones y como mantienes un balance de trabajo entre las dos oficinas?

Madrid es la sede de un número de valiosas tradiciones arquitectónicas en donde diseñar y hacer cosas de forma delicada y divertida es parte de la cultura. Desde esa oficina ejecutamos proyectos, como la Plasencia Clergy House y Tupper Home, que nos ayudaron a entender de qué manera queríamos ser parte de la arquitectura. Pero también es verdad que proyectos como PHANTOM, Mies as Rendered Society, o Sales Oddity [Otorgado con el Silver Lion como el Mejor Proyecto de Investigación en la Bienal de Venecia de 2014 dirigido por Rem Koolhas} nos hicieron entender que los urbanismos contemporáneos más efectivos políticamente no son los que están recluidos en ciudades, si no los que consiguen demarcación transnacional.

Ambos esferas hegemónicas y sus controversias comparten la misma necesidad de conectar lugares de diversas realidades territoriales. La capacidad de actuar proviene de la posibilidad de articular la interacción entre distintos ecosistemas urbanos. Nuestra oficina pretende articular las tradiciones de la arquitectura Europea con el debate y capital urbano que Nueva York atesora.

¿Cuál es tu método principal de colaboración entre las dos?

Tenemos diferentes habilidades y capacidades en cada sede. Nuestros proyectos son desarrollados por medio de la interacción de ambos equipos, y hay personas que viajan de una ubicación a otra todo el tiempo. Normalmente, nuestros clientes so compañías y organizaciones que trabajan a nivel transnacional y los proyectos necesitan cumplir requisitos interurbanos. La relación entre las dos oficinas es compleja y adaptable como las comisiones con las que tratamos.

¿Cuáles han sido algunos de los desafíos de establecer una práctica en Nueva York sin ser ciudadanos de los Estados Unidos?

Nueva York es una ciudad donde el término "extranjero" no tiene sentido. Nueva York se trata de construir la ciudad de nuestra diversidad. Cuando hablamos sobre el potencial de la ciudad con gente de la Alcaldía y otros inversionistas de Nueva York, nadie me pregunto do donde provengo, si no, como la ciudad puede evolucionar. Nuestro desafío es resaltar una propuesta relevante para la ciudad. Nuestra propuesta es maximizar la capacidad e inclusión y remplazar la desigualdad con diversidad. ◼

Top Left: Tupper Home
Top Right: Plasencia Clergy House
Left: Cosmo at MoMA PS1
Images courtesy of Office for Political Innovation.

A NEW LOOK AT WOOD

Of our common structural building materials, no other has received as much attention lately as wood. While there are many reasons for this, principally it is wood's light environmental footprint coupled with its accessibility to prefabrication and rapid site erection that are driving the growth in interest. In many ways, timber is a last frontier in architecture and engineering. Building types that have long been dominated by steel and concrete are being re-envisioned as timber, thereby pushing the boundaries of sustainable design while also pushing timber vertically into high-rise construction. These new wood buildings are not being designed with traditional light wood stud framing, but instead with large timber elements in a system known as mass timber. While Europe has been designing and building with mass timber for a long time, the U.S. has very limited experience. The lack of information on mass timber design led me to travel to Europe in 2011, with the help of AIA Seattle, to research innovative timber design and eventually publish the first book devoted entirely to mass timber: *Solid Wood: Case Studies in Mass Timber Architecture, Technology and Design.*

Every year, the Seattle Chapter of the AIA offers a great opportunity to young professionals: the Emerging Professional Travel Scholarship. The Scholarship is set-up to expand the experiences and opportunities of young professionals, encourage cross-cultural dialogue in the profession, and share knowledge from architecture practice around the globe with members in the Puget Sound. Spurred by developments in cross-laminated timber (CLT) and other engineered wood products, my 2010 Travel Scholarship proposal was to investigate the innovative use of wood in Europe. This typology has the potential for carbon neutral construction as well as its ability to connect with and continue the architectural heritage of the Northwest, which has traditionally relied on heavy timber construction before more "modern" materials became the norm in the early 1900s. The Scholarship provided a platform for me to meet with many of the leading architects, engineers, educators and material manufacturers in several countries across Europe.

While the Travel Scholarship afforded a great trip and learning experience, it has also continued to offer a stream of new opportunities. After putting on a gallery show at AIA Seattle, detailing the research from the Travel Scholarship, the chapter connected me with members of the City Council where I presented (along with Hans-Erik Blomgren of Arup) portions of the research to Seattle's

Planning Land Use and Sustainability Committee. We discussed the environmental performance of mass timber architecture in urban applications and how this could support the City's goal of carbon neutrality and a more efficient, cleaner, quieter and quicker construction process. Council Members were intrigued and initiated a new advisory committee at the City of Seattle's Department of Planning and Development (DPD) to investigate the use of wood in applications that go beyond current code limitations. The Scholarship led to several other opportunities, such as giving lectures at a variety of universities and at national events like the AIA National Convention and Greenbuild. I served on design juries, and was even invited to a White House Rural Council meeting chaired by Secretary of Agriculture Tom Vilsack. All of these activities, spurred by AIA Seattle's Travel Scholarship, provided career growth opportunities, and demonstrated how issues of architecture can be intertwined with civic life.

In 2012, as interest in mass timber building systems was rapidly growing, little detailed documentation of successful buildings existed, especially in the English language. Because of this I decided to write a book on mass timber architectural case studies to help spread the knowledge that began with the AIA Seattle Travel Scholarship. The finished book highlights many of the most ambitious educational, hospitality, industrial, multi-family, and wood office buildings around the world, examining design strategies, construction details and cultural attitudes. Each case study, twenty-eight in all, offers a different way of thinking about wood use in large buildings, whether that be the palette of materials used, the building type, or the construction methodology; each project is unique with different lessons to teach.

Why Choose Wood?
Why would designers choose to use wood? While wood as a material has not changed, the way we assemble the pieces and build with it has. In some ways, mass timber architecture is paradoxically both a return to pre-industrial wood construction and post-industrial high-tech fabrication: customization and erection.

Before the advent and availability of saw mills, logs were a rough and ready construction material, sometimes hewn with only an axe, if at all. The use of stacked logs provided a simple construction method: thick walls for good thermal insulation, and ample protection against natural elements or unruly neighbors. Mass timber takes a similar

Above: 10-story CLT Forte. Photo courtesy of Lend Lease

Left: Interior of Graphite Apartments during construction. Photo courtesey of Will Pryce.
Top Right: Illustration of CLT Collaboration Hub at the Richard Woodcock Education Center. Image courtesy of Mahlum Architect
Bottom Right: View of 8-story Wood Innovation and Design Centre. Image courtesy of MGA.

approach by using thick dimensioned timber, a natural, renewable material, to create a very robust, thermally superior building. Rather than rough and ready, however, mass timber elements are highly engineered and accurate, typically down to the millimeter.

Mass timber includes a variety of structural composite timber materials, such as glue-laminated timber (GLT), laminated veneer lumber (LVL), parallel strand lumber (PSL), nail-laminated timber (NLT), dowel-laminated timber (DLT) and cross-laminated timber (CLT), among others. All of these materials can be manufactured in large sizes, some 70 feet or longer, over a foot thick and dimensionally stable.

Mass timber buildings can either be a fully panelized system, using CLT panels for the loadbearing floors, walls and roofs, for example, or post-and-beam where GLT or LVL can create a more open grid structure to emphasize views and daylight. Often, mass timber buildings use both a panelized approach for shear walls in combination with a post-and-beam system for increased openness where desired. The panelized approach can also be taken one step further in modular systems where entire rooms are factory prefabricated from mass timber into shippable boxes that are then stacked on top of each other in multi-story construction. Finally, mass timber elements have been demonstrated to work well with other structural materials such as concrete and steel to create hybrid buildings that utilize each material for its natural strengths.

In 2009 a panelized mass timber building in London broke through a commonly perceived timber ceiling (typically five to six stories) by rising nine stories tall with a full CLT timber structure on a one story concrete podium. Called the Graphite Apartments (also known as Murray Grove) the multi-family housing project was the tallest modern timber building in the world at the time of construction. A few years later in Australia, a ten story CLT building, Forté, was completed. This project was the country's first CLT building and also achieved a new height record in wood. As a panelized high-rise mass timber building, Forté again was instrumental in changing perceptions about the possibilities of using wood. Australia's building code, like our International Building Code (IBC), prohibits the use of wood as primary structural elements above mid-rise construction. However, after diligent fire testing and documentation, the Melbourne building code jurisdiction, where Forté is located, approved the use of CLT as meeting an equivalent safety level as other materials allowed in high-rise construction.

In North America, one of the first projects to exceed mid-rise code height limitations is the Wood Innovation and Design Centre (WIDC) designed by Michael Green Architecture and located in Prince George, Canada. The building is an eight-story (six stories plus mezzanine and penthouse), 97-foot tall structure built predominantly from GLT, LVL and CLT, utilizing both architecturally exposed panelized and post-and-beam construction. The project exceeds mid-rise height limits by more than 10 feet and pushes into the high-rise building code category. In a moderate risk seismic zone, the building also uses a mass timber elevator and stair cores for lateral stability, one of the first applications of its kind in North America.

> *...mass timber architecture is paradoxically both a return to pre-industrial wood construction and post-industrial high-tech fabrication: customization and erection.*

While to date there are few institutional projects in the U.S. to use CLT, Western Oregon University's new Richard Woodcock Education Center in Monmouth, Oregon (currently under construction) is one of the first. The two story Education Center, designed by Mahlum Architects, will use over twenty five-layer CLT panels for load bearing walls and ceilings and be left exposed in key student gathering areas called Collaboration Hubs. CLT also comprises the feature wall of the main stairs, the external wall and solid guardrail wall of the secondary stairs. The School of Education was one of only two projects selected by the prior Governor of Oregon to be a showcase for innovative timber design.

Because mass timber is in the early stages of adoption, a variety of stakeholders including engineers, architects, material manufacturers and building code officials will need to understand the differences and opportunities between mass timber design and other structural systems. While much research remains to be done, mass timber could be the right structural material to choose, whether for sustainability, aesthetics, or design and construction efficiencies. *Case studies in Solid Wood* highlights past successes that can be built-upon for continued innovation with wood.

Joe Mayo, Assoc. AIA
is an Architectural Designer at Mahlum Architects, based in Seattle, Wa., and recent author of "Solid Wood: Mass Timber Architecture, Technology and Design." He can be contacted at jmayo@MAHLUM.com.

AGENTS OF CHANGE:
HOW EMERGING PROFESSIONALS ARE CHANGING THE ARCHITECTURAL PROFESSION

When architects think about who creates innovation and drives change in their profession, they might benefit from looking at what happens in other fields. For example, linguists have put forward a theory that when languages change (and languages are changing all the time), it's not because a language's older speakers decide it's time for a change, but because young speakers are more willing to explore new ways of using the language to meet their needs. Young speakers are more likely to play with the language and change its grammar and vocabulary. Then, as these speakers grow older, they carry the language changes with them. Something similar has recently happened in the architectural profession. During the Great Recession, architectural firms were forced to make tough choices, including drastically reducing their staffs to survive. For those who lost their jobs, the effect was devastating. Many architects with 20+ years of experience were forced to either retire early or switch to another industry (e.g., construction management or cost estimating), never to practice architecture again.

But not all architects affected by the recession left the profession. Many emerging professionals who lost their jobs moved on to start their own firms. They distinguish themselves from the more established firms by being young, energetic, and creative. These young folks are adept at programs such as Rhino, Maya, Grasshopper, and Photoshop, which allow them to produce stunning presentation materials that are as good as or better than their more established competition. They are willing to take chances and explore new ways of creating architecture.

Many of the young architects who ventured to start their own firms work at home, and their business is primarily online. Their business expenses are the costs of the firm's website, software licenses, and marketing. Unlike the older practitioners, these youngsters often have no mortgages to pay or financial burdens from their families (i.e., no kids). They market themselves through blogs and social media. Many small firms start earning income by doing small projects, such as a small bedroom addition to a neighbor's house. They also participate in small competitions through crowdsourcing websites. Some of the firms with access to capital even do small residential developments on their own. Young professionals conduct business by responding to the digital age and the ever-changing architectural profession. Through innovative thinking and the use

> ❝ *The last recession was devastating; however, it gave many young professionals the opportunity to create innovative small businesses.*

*Above: Butaro Hospital. Image courtesy François Terrier.*

of digital technologies, they are pushing the industry to rethink the fundamentals of how architects conduct business.

An example of this is MASS (Model of Architecture Serving Society) Design Group, an international design practice based in Boston. Founded by Alan Ricks and Michael Murphy in 2008 when they were still studying at Harvard GSD, the firm has come up with a drastically different model for practicing architecture. Their business model is "to deliver fundamental services to communities that have been underserved." The company's mission is to redefine architecture as a tool to improve people's lives and the value of their communities. The company's success has been proven by the firm's numerous awards, including the Curry Stone Design Prize, the Zumtobel Prize, and Contract Magazine Designer of the Year. The Butaro District Hospital in Rwanda is one of the projects the firm completed in 2011. The design made use of local materials such as volcanic rock from the nearby Virunga Mountains to reduce the construction cost and maximize the project value. The project also stimulated the local economy through employment and provided women an opportunity to contribute to their own community (one of the chief masons was female). The hospital now serves a population of over 340,000. The firm survived the Great Recession and was able to sustain itself through humanitarian work and partnering with various charity organizations. Now with offices in Boston, Haiti, and Africa, MASS employs more than 40 full-time staff, and the number is growing.

Emerging professionals are also helping to reshape the documentation and construction processes of many established firms. These young architects are driving the profession toward a digital/paperless practice. Eskew+Dumez+Ripple, the recipient of the 2014 AIA Firm Award, is among the many young firms that embrace the digital age of architecture. An early adopter of the PDF software BlueBeam, which can accurately scale as-built drawings, Eskew+Dumez+Ripple is able to quickly analyze existing buildings, perform program comparisons, and create area takeoffs before any renovation design begins. The firm also developed digital markup tools in Bluebeam to effectively collaborate with consultants; by overlaying consultants' drawings and sketches on the architectural base drawings, conflicts and discrepancies immediately become apparent. Bluebeam generates "clash reports" in standard PDF formats, which can be easily shared with consultants. "The biggest

change is how our firm utilizes digital tools such as Bluebeam for the construction administration process," says Ian O'Cain, a young designer who pioneered the firm's use of various digital tools. "People no longer have paper sets covering their desks. Instead, up-to-date conformed PDF sets are being used which can be shared between multiple people and accessed remotely." Punch lists have also been simplified at Eskew+Dumez+Ripple. Instead of individual printed sheets of paper with handwritten notes and a camera full of pictures to sort through in the office, punch lists are now done on iPads with Bluebeam in the field. Each item, along with a photo of the condition, is linked to a plan location, and a complete punch list can be automatically generated. "Bluebeam is only a starting point of the digital revolution in our office. The most important thing is that now the more experienced people are exposed to these tools and see the immediate benefits," said O'Cain. "We are constantly looking for ways to improve the efficiency of our workflow, and our goal is to create a complete paperless construction administration process."

The last recession was devastating; however, it gave many young professionals the opportunity to create innovative small businesses. The ways these firms conduct business is truly remarkable. They are revolutionizing the way we think about the business models of architecture, and are pushing the industry into the digital era. They are also creating a ripple effect that is changing how architects and engineers interact. From business practice model to documentation to punch list process, emerging professionals today are serving as ambassadors connecting the profession of architecture with the new digital age. In architecture, as in all fields, it's the young who are the agents of change. ∎
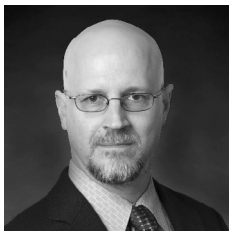
Bill Schmalz, FAIA
is a principal with Perkins+Will in Los Angeles. A former chair of the AIA CCA Knowledge Community and a member of its Advisory Group. His book, The Architect's Guide to Writing, was published in 2014, and is a contributing author for The Architect's Handbook of Professional Practice, 15th Edition.

Yu-Ngok Lo, AIA
is the principal of YNL Architects. He is an Advisory Group member of the AIA CCA Knowledge Community. He is also a member of the AIA California Council Committee On the Environment, Advocacy Advisory Committee, and a National Director of the American Institute of Building Design.

FIRM CULTURE

CONNECTION

THE CULTURE BEHIND MULTICULTURAL MODERNISM
Susan Kolber
DEAR DESIGN & CONSTRUCTION INDUSTRY
Ryan Abbott
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THE CULTURE BEHIND MULTICULTURAL MODERNISM
2015 AIA FIRM AWARD RECIPIENT EHRLICH ARCHITECTS

How does an architecture firm qualify for the prestigious annual national AIA Firm Award? The AIA will consider a firm where, "an individual or an organization of architects, in which the continuing collaboration among individuals of the firm has been the principal force in consistently producing distinguished architecture for a period of at least 10 years."[1] While no doubt intense rigor goes into the application and selection process, first and foremost the AIA asks for a legacy of great buildings. How can so many talented firms distinguish their exceptional work from each other? What makes one firm a more relevant leader in our field? This year the AIA recognized Culver City, CA based Ehrlich Architects as a model firm with a design methodology that has been named, "Multicultural Modernism." This philosophy embodies a deep respect for the culture of their clients, place and process. This empathetic design process matches their equal appreciation for the team that makes up Ehrlich Architects—partner Takashi Yanai says, "[our] most prized asset is our people."[2] There is no question that Ehrlich Architects was awarded not only for decades of exceptional homes, university centers, courthouses, libraries and more, but for their progressive, innovative and intensely connected and collaborative studio culture that brings humanness to their projects and daily life.

Origins and Philosophy

In the 1970s, Founding Partner Steven Ehrlich spent years in Morocco and Northern Nigeria in the Peace Corps and at Ahmadu Bello University teaching architecture.[3] Ehrlich's first built work in Zaria, Nigeria was an open air courtyard theatre at Ahmadu Bello University that incorporated a partnership with local bas-relief artists.[4] The courtyard, the use of mud construction, the collaboration with local artists all hint toward the ideas behind "Multicultural Modernism," that now infuse Ehrlich Architects' work. Ehrlich describes Multicultural Modernism as, "global and local at the same time… to really understand [the culture of a place] and be sensitive to it without being nostalgic."[5] Yanai describes Multicultural Modernism as, "being humble and observant, absorb what is in the built environment…understanding any place has deep vibrant culture that can be mined."[6]

Ehrlich Architects makes sure every project has the culture of people, place, and process emerge in surprising, subtle, sometimes obvious and always meaningful ways. The firm began primarily as a residential practice, and the meticulous process of designing their clients' homes has shaped their approach at all scales. Identifying culture becomes an intuitive habit when you understand a client's daily lives and values, "It's a deeply personal relationship when we work on these houses."[7] In California, Ehrlich Architects has the opportunity of blurring the lines between indoor and outdoor spaces, and they orient their homes towards gathering spaces and courtyards. Today the firm has a diverse portfolio; one third is residential and the rest is a mix of commercial, institutional, and educational.   Partner Mathew Chaney says, "That same intimacy that we bring to our residential clients we bring to our commercial clients too."[8] These observations of culture emerge directly and metaphorically in all of their work; at ASU's Cronkite School of Journalism and Mass Communication the color of the landscape inspired the warm tones of the exterior panels, at a biotech lab in Boston the pattern of the exterior terracotta cladding represents DNA structure (a detail mostly the scientists working there recognize), at ASU's School of Earth and Space Exploration, Ehrlich Architects created a montage of "crater" photographs printed on a large gathering area rug that uses images from the school's advanced telescope.

Studio Life

Leadership

As the now thirty seven person firm evolved from a primarily residential focus to a multi-project type firm over thirty years, the leadership team decided it was time to create a strategy that would keep the firm relevant and further their growth in the future. In 2013, Ehrlich Architects went from a sole proprietorship to a limited liability partnership that included Steven Ehrlich and three partners, Takashi Yanai, Patricia Rhee, and Mathew Chaney, whom have all been with the firm at least fourteen years. They are a dynamic group with complementary expertise that combine to create a powerful force for the firm's future.

Space

Studio life at Ehrlich Architects fully embraces Multicultural Modernism. Their studio space embodies the environments they create for their clients: a place to investigate, live and come together. They are an architecture family that brings the warmth of a home and the intensity of their passion for architecture together. Their team occupies a historic building in Culver City, CA that has been repurposed several times. There are cozy seating areas, a courtyard, an intimate work area, a fully outfitted model shop and a well used kitchen that cultivates their love of food and summer barbeques.

Above: Ehrlich Architects' studio space in Culver City, CA. Photo by Miranda Brackett

The Family

Their staff is made up of seasoned architects, a support team, and young energy. There are now four partners and four full-time auxiliary staff including a marketing director, graphic designer, controller and office manager. The financial crisis of 2008 caused many of the mid-level talent to leave architecture in general, and Ehrlich Architects has a gap in experience. Design teams are typically comprised of people who have been with the firm from fourteen to twenty years and a younger staff with two to eight years of experience. Often firms will label the passion of young architects as naivety that is un-jaded by the realities of design and building, but Yanai believes the firm fosters this intensity, "We depend on youth energy."[9] Since the partners teach at nearby universities, select students complete six month internships at Ehrlich Architects and have a chance to be hired full time. While mentorship is not a formalized program, it is a necessary aspect of the firm's culture. Junior staff are given a lot of responsibility and guidance. They also advocate that staff become licensed architects. Their office policy states that they will pay for study materials, exams and licensure fees. EJ Fernandez, a USC graduate who had studios with both Ehrlich and Yanai, now works at the firm and attributes his growth in architecture to his time at Ehrlich Architects,

"Ehrlich Architects is a family. We have strong leadership and young staff that collaborate together and learn from one another …Our experienced veterans take the time to teach the young staff rather than just assigning tasks. I have learned everything I know up to this point in architecture because of the leaders we have here at Ehrlich Architects." [10]

All experience levels are expected to participate in design, communicate issues, and share knowledge. Rhee explains,

"It always amazes me what the junior staff will come up with whether it's design solutions, a new or better way of using software or a different approach to social media—because they are engaged with these elements and see things in a way that the older generation may not—and that makes our group all the more educated and enlightened. We encourage everyone, regardless of experience level, to speak his or her mind and contribute on their projects and have the freedom to reach out to the rest of the office for advice and support." [11]

The firm hosts many office wide activities that promote collaboration between and mutual appreciation of all staff. To stay connected and informed between meetings and with staff not on the same team, there is an intranet interface where everyone can post events, share inspiration, articles, information etc. There are bi-monthly whole office meetings that update teams on each other's work. Every other week they have lunch and learns or happy hours, they have biannual office Pecha Kucha, and throughout the year they take the staff on field trips to construction sites and exhibitions. In addition to these experiences, staff form, "action committees,"

where they can research topics related to their work and share with the office or engage with the community.

"Our People, the greatest resource of Ehrlich Architects, are what make our firm culture. The varied personalities, backgrounds, histories, knowledge and experience are ever-changing yet we maintain constant threads of openness, humor, familial [appreciation] and of course, a love of food!" [12]

Ehrlich Architects has a balanced yet serious dedication to excellence. The equity within their design process, collaborative activities and flexible work-life schedules help maintain the rigor of their intense practice. While the typical hours are 9am-6pm employees are able to adjust their schedule by coming in earlier or later. Depending on projects and deadlines there are certainly long hours and weekend work. The staff is expected to check emails on weekends, perhaps respond to a few, or come into the office if necessary. It is understood that everyone will work the number of hours needed for the project, but if someone has to duck out for a doctor's appointment or a sick child, it's not frowned upon. As they grow, they will change their policies, but the culture of trusting their staff has allowed the firm to create a manageable work/life balance. The equality within the practice also appears in their gender ratio and support of family life. The firm is half women and men with both in leadership positions. Many members of the Ehrlich Architect team have families. Sigita Moran, the Marketing Director, was hired when she was six months pregnant. She took her desired maternity leave without question. Her husband Matthew Moran also works at Ehrlich Architects. Yanai and Rhee are married and have a family as well.

Innovation

The nature of Multicultural Modernism requires Ehrlich Architects to implement innovative approaches to technology, materials, building systems and business relationships. They began using BIM early on and their mastery of it has allowed them to take on challenging projects with confidence. Recently they brought on a new member of their team with extensive Grasshopper experience to begin exploring how to use it in their projects,

"We want to embrace all of the technologies at our disposal, but we want to do it intelligently so that it is completely integrated into the lexicon of the design." [13]

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ASU's Cronkite School of Journalism and Mass Communication perfectly demonstrates Ehrlich Architects' innovative flexibility. ASU needed a design build team that could create this building as nimbly as possible. Ehrlich Architects partnered with a contractor and structural engineer, and they proposed a tension concrete structure that could be built before schematic design was complete. ASU selected their team and a whirlwind of design and production began. Two Ehrlich Architect staff members were in Phoenix, AZ for the duration of the project, they used Revit and worked daily next to the contractors and engineers. The 220,000 square foot building was conceived and built in twenty two months. The project has led them to develop their design build portfolio, which they are excited about. They see the enormous benefits of bringing on contractors early and their design build projects, "show the ability to have a positive working relationship with contractors."[14]

While the AIA Firm Award focuses on distinguished architecture, success in the architecture field goes beyond the final product. In the Equity in Architecture 2014 Survey Report, they found that the architecture field defines success as, "working with a positive, talented, collaborative A-Team, working on projects of personal and professional significance and work/life flexibility."[15]

Ehrlich Architects' culture encompasses all of these aspects of success and their positive work culture flows into their buildings and relationships with clients, contractors, and the communities they serve. Ehrlich Architects is dynamic--they are growing, taking on new project types and business models, embracing new technology, and working under leadership with a strong identity that gives them the vision and flexibility to evolve.

"Justly acclaimed by the public and the Firm's professional peers for seamlessly weaving classic California modernist style with multicultural and vernacular design elements, creating something new, yet familiar to those communities served by their work. The firm, itself a tapestry of diverse talents and experiences, is leading the profession beyond the walls of the atelier out onto the street and countryside to solve contemporary problems by shaping a more inclusive, humanistic architecture that respects climate, culture, and the genius of place." [16]

- AIA President Elizabeth Chu Richter ■

Far Left: Ehrlich Architects brings the landscape into this LA home. Photo by Grey Crawford.
Middle Left: This home in Northern California provided an interior courtyard between the guest and main house-- a space to gather family and friends and shelter people from the cool Pacific breeze. The stairway is a gallery for the client's art collection from travels. Photo by Matthew Millman.
Right: ASU's Cronkite School of Journalism and Mass Communication was a design build project that Ehrlich Architects and partners conceived and built in 22 months. Photo by Bill Timmerman

Susan Kolber
is a San Francisco based designer at McGriff Architects. She currently serves as a blog editor for Equity by Design, an AIASF committee that promotes equitable practice in architecture through research and outreach.

DEAR DESIGN & CONSTRUCTION INDUSTRY
AN OPEN LETTER

This is an initiative that was started several years ago between the YAF (Young Architects Forum) and the CLC (Construction Leadership Forum) two organizations of the same supply chain. What they have in common is their unending commitment to cultivate the next generation of leaders in the design & construction industry.

Where they differ, the YAF is a program of the American Institute of Architects and is organized to address issues of particular importance to recently licensed architects. The YAF focuses on ideas, on Designers.

The CLC is that of the Association of General Contractors and is organized to act as a conduit for participants to network, exchange ideas about work and the construction industry, serve local communities and continuing education, which includes both professional development and leadership skills. The CLC focuses on implementation, on Builders.

The YAF and CLC are two sides of the same coin: the idea and implementation; so it is simple to conceive how this article came to be – one organization does not exist without the other. Designers need implementers, builders; and Builders need designs to implement, architects. How do we take what we inherited and make it something more. **How do we fix our reputation problem?** *The article that follows is the perspective of the YAF-CLC collaborating in a way that has never been accomplished prior.*

Imagine a giant fulcrum. On one side you have risk, on the other, reward. Between the two sides you have a thousand tiny threads: labeled insurance, contracts, technology, process, municipality, regulation, and certification. Each one is owned by a different specialization: architects, designers, engineers, developers, construction companies, subcontractors, furnishers and others. For the sake of this conversation we'll, focus on two of the many threads that parallel each other; an Architect hires a Civil, Structural, Mechanical, Electrical, Plumbing, Landscape, Elevator, Interior, Parking consultant; a Contractor hires a Site, Steel, Mechanical, Electrical, Plumbing, Landscape, Framing, Flooring, Painting subcontractor. All those points of connection is where our reputation falls victim to vagaries and inefficiencies of the traditional building industry. Project teams are large and complex, developed from dozens of independent specialized consultant firms, subcontractors, and suppliers, each focused on a limited area of expertise. A large project may have more than 100 independent companies contributing to the design, construction and manufacturing. Each player educated in the prescriptive rather than the analytical.

From the industry's backseat, young design and construction professionals see architects being marginalized and commoditized. We see contractors struggling with the same labor and process risk they have carried for centuries. We see critical design information being withheld until the submittal process; no viable and practical holistic risk management instrument; we see buildings still created one brick, one nail, one substrate at a time and the value proposition to owners rarely leaping forward. Thus sentencing us to be eternally locked in inefficient sequential thought, design and construction processes.

However, we also see an industry close to a profound and consuming change.

On Risk Aversion
To the architects among us that flamboyantly, yet blindly tap dance with the strident, risk-averse contention that they are the owner's advocate. To the contractors that waltz along, trying to step up and over an underlying conflict of interest that can't be resolved within traditional delivery methods. To the professional project managers that contentedly lead without risk or consistency, please know that risk aversion is undermining present day collaborations; it's preventing the reasonable and appropriate sharing of resources. We all know that risk can be predicted, understood, managed and even embraced.

We also know that our industry is a constantly changing set of problems and challenges and it is critical that we develop a framework for thinking about each project rather than applying a generic set of answers to risk. Let's change our answer when asked, "who should carry this risk?" from "someone else" to "that individual who is best suited to manage it", including ourselves. A great plan for a statistically improbable chain of events is not good business; it's a waste of time, resources, and intellectual capital.

On Diversity
As an industry, we do not seem to fully grasp that there is not a reason to hold anyone back. In order to be of service to the breadth of our society, to the betterment of our society, we need to represent our society. Simply put, our industry leadership is not nearly diverse enough. Look at the organization chart of any large design and construction firm and it will be completely evident that few women or minorities make it to the leadership level. The laws of economics and many studies of diversity tell us that if we tapped the entire pool of human resources and talent, our collective performance would improve. Legendary investor

Warren Buffett has stated generously that one of the reasons for his great success was that he was competing with only half of the population.

We've all heard the studies showing that the vast majority of us consider ourselves above average. In the psychology literature, this belief is known as a positive illusion. The design and construction industry has a positive illusion regarding the inclusion of women and minorities within its leadership ranks. After a recent argument I showed a friend that his company of 1,400+ has more Dave's than it does women in salaried positions.

On Adding Value
Every player in this fragmented industry tends to collect and record information differently. Transparency and consistency are not characteristics that are generally valued. Reinventing every design solution and constructing each building uniquely, one component at a time, our industry undervalues shared knowledge and the research effort required to acquire it. What's more, we haven't even come up with the vocabulary that defines built value beyond beauty and quality.

Where do we go from here?
Let's stop avoiding risk, embrace it, and assign it to those best suited to manage it. Let's dedicate ourselves to the breadth of our society, to the betterment of our society, let our businesses reflect who we are as a community and as a people. Let us celebrate value creation, not process and procedure.

Join the conversation on Twitter: #clcyaf

Ryan Abbott
believes that knowledge and communication are the best risk mitigation tools in the contractor's arsenal. His experience revolves around the CM-R, Design–Build and Integrated Project Delivery methods. At Sundt, he is responsible for managing a variety of complex projects throughout the country, with an emphasis on higher education and research laboratories.

THRIVING IN THE CONNECTION ECONOMY:
A PRIMER FOR A/E/C

For much of its history and development, the internet and A/E/C industry coexisted but rarely crossed paths. A firm had a website, but it wasn't the go-to place to get the pulse of the company. If you wanted to get a handle on the culture of a firm, to identify its values and its thought leaders, you called around; you connected with colleagues. But then, as if overnight, the internet asserted itself as the great equalizer it had the potential to be. And with the advent of social media platforms like Twitter, Facebook, Instagram and LinkedIn, anyone — or any firm — could make their voice heard or share their individual point of view. Anyone could position themselves as a thought leader. Talk about a game-changer.

Though digital-native emerging professionals may be setting social and digital media strategy, social media is not exclusively a "young person's game," as one colleague of mine recently postulated. The internet and social media are continually changing the way we all communicate with each other and the way we engage with the world. Now, when we attend a provocative speech, we can live-tweet our reactions. With a bit of cleverness (or, unfortunately, a gross misstep) any one person or company can rise from anonymity to the public eye. There are so many more opportunities to publish, comment and engage. For this reason, it has become essential to retain staff members with intimate knowledge of the firm and its goals. Most importantly for A/E/C, this means communications professionals can take control of how their firms are perceived within and outside of the industry, no matter their size or specialty. I've witnessed this transformation in my role at Payette. In the three years I've worked for the firm, we've published nearly 750 blog posts reflecting our project work and firm culture.

But beyond its immediacy, social media offers a new degree of transparency. A blog affords a previously unknown firm an opportunity to showcase areas of expertise in a more informal, behind-the-scenes kind of way. Google rewards web pages rich in content that meet users specific search criteria. Architects, notoriously misrepresented in popular culture, now have the opportunity to shape how they are seen.

We all search for content customized to our needs and interests. Social media, search engines and the digitization of documentation have opened up direct lines from companies to users. Platforms like Twitter and Instagram shape ongoing dialogues in entirely new ways. Facebook and LinkedIn encourage us to build communities around common interests or ideas. And in addition to idea sharing, all of these tools allow us to find the individuals and companies that care about the same things we do. This is indicative of the new connection economy.

Building relationships. Fostering connections. These are ways that the connection economy rewards value. The connection economy builds on whom you know, what you know and how that knowledge influences your connections. Social media supports and enhances this as it introduces expertise to those outside your immediate circle, upending the greater status quo.

Shifting value to knowledge sharing translates to shifting a firm's culture. But knowledge sharing is only valuable if the knowledge runs deep, and that only comes from harnessing the knowledge base of the entire firm. Where a company may have highly valued the participation of a select few in the past, the connection economy values the deepest knowledge and the best ideas, which may come from anyone.

I'll use my firm as an example. Payette values collaboration, innovation, creativity, excellence and voices from all levels. Our company blog represents our democratic attitude toward idea sharing — every employee has the opportunity to share his or her ideas, inspirations and work. For us, this is the embodiment of the collective intelligence concept. Individuals contribute to the ongoing dialogue, identifying unique ways of solving problems and bringing new perspectives into the conversation, whatever the topic.

As part of our digital media strategy, one goal was to help lead the conversation about design and the challenges facing architectural firms. With a goal of engaging clients, colleagues and the design community at large, and to increase internal engagement, our campaign has crystallized our voice as a firm, shaped our identity and allowed emerging in-house talent to rise to the top.

When the staff is actively engaged with our digital media, our message travels farther and carries more weight. As staff become more comfortable using social media to share, discuss and engage with their work, we've discovered new opportunities and

> *Determining a digital media campaign's success isn't always about one singular attention-grabbing event, but an ongoing cultivated effort that raises an organization's profile, elevates the staff and engages current and future clients.*

serendipitous connections that were not available to us 3-5 years ago. For example, the firm established a Building Science Group in 2011 to better integrate sustainable design strategies into our design process. Today, this group has established a strong presence both online and off — from the over 50 blog posts published by the group in 2014 to the creation of new building science, sustainability and research sections on our website.

Harnessing all that knowledge and organizing participation across the firm requires a particular skillset. One needs to demonstrate a comfort with the technology, but also an understanding for how to package the knowledge. Now, more than ever, firms need an internal channel through which to funnel all the content. That channel is responsible for establishing the firm's voice, guiding the firm's online presence and keeping the firm in touch with its mission.

When I joined Payette in 2012, the firm had dipped a toe in the social media waters. The firm had re-launched its website with a blog featured on the home page, but that was the extent of the commitment. Without a system in place to produce blog content regularly, or a method for sharing that content, the firm had not yet fully embraced social media tools. Since that tentative first step, we've built a culture of participation. I encourage colleagues to submit content to the blog – about their projects, their research and their careers. In three years we went from publishing a few voices to publishing many voices. That culture of publishing and participation did not exist before. It's become our standard of care. We see the success of our deep digital roots daily — in the anecdotal feedback we receive from colleagues about the client who felt like they already knew us based on our web content to the unexpected press inquiry because a Google search led them to our virtual front door.

Our approach to digital media is holistic. Determining a digital media campaign's success isn't always about one singular attention-grabbing event, but an ongoing cultivated effort that raises an organization's profile, elevates the staff and engages current and future clients. We've sought to establish a clear and identifiable voice through a consistently growing presence. We're highly engaged both inside and outside the firm. We want to give emerging professionals opportunities to have a voice, to speak up and speak as confidently as peers of those with 20 years of experience; to speak up in the community, to be activists in other places or to lead

at the local AIA level. The whole firm is deeper, bigger and better for that effort.

I'll say it again: The internet is a great equalizer. Embracing social media tools in an architecture firm does two very important and new things. First, it offers the staff a way to stay informed about what's going on at the firm and how all those goings on tie into the firm's larger goals and mission. When a colleague asks me about which conferences we've presented at, I can point them to the "conferences" section on our company blog. That's a rich, robust archive that didn't exist before the blog. Secondly, social media offers both current and potential future collaborators an entirely new level of transparency. Our firm's blog is a bit like a window into the soul of our company. Readers get a sense of our identity, what we care about and what we spend time exploring.

The internet is part of our daily life. Sharing on social media is almost second nature for our culture. And digital media, from email to websites to blogs to tweets, has changed how we communicate. Not just you and me, but our firms, too. Sure, we still call around. But those smartphones in our pockets might just be our most convenient and important gateways to the freshest ideas, advances, dialogues and thought leadership — the lifeblood of our industry — in A/E/C. ∎

Above: Payette embraced the AIA's "Look Up" campaign on their blog and the AIA reblogged a number of Payette posts, increasing the firm's online presence and reach.

Karen Robichaud *leads the online engagement, digital media and PR strategy at Payette. With previous experience in both marketing and design roles, Karen plays a critical role in the design and messaging of the firm's client-facing materials, award submissions and published content. She has spoken at the Boston Society of Architects, ArchitectureBoston Expo (ABX) and the 2015 AIA Convention.*

MULTIDISCIPLINARY PRACTICE

My career path might seem unusual in comparison to many of today's principal-level architects, but I know from experience that it is an increasingly common one among emerging design professionals. My education started with fine art and sculpture as an undergraduate and I went on to earn an MArch in what felt like a natural extension of my artistic interests. I currently work at the architecture firm BKSK, but I've been a part of organizations as diverse as XLXS, Urban Think Tank, Architizer (before it was known as Architizer), and Global Studio, a humanitarian effort initiated by the United Nations Millennium Project Task Force. I also lecture at institutions such as Parsons and NYIT. Suffice it to say, my professional interests include a mix of architecture, fine art, research, real estate, communications, education, and more; I want the way in which I make a living to reflect these many facets of the built environment.

Unfortunately, simply knowing that I am passionate about disciplinary diversity does not make it an inherent part of my professional life. While today's emerging architectural professionals seem to be more multidisciplinary than ever, and many architecture firms are intentionally recruiting such designers because of those talents, it remains unclear how to integrate these approaches with more established ones. In other words, multidisciplinary design is being celebrated in an ever-broadening manner, but obstacles still remain in the culture of daily professional practice.

This uncertainty can have unfortunate consequences at the individual level, such as leading a person to question their place within the architectural profession. Many of the multidisciplinary-minded colleagues that I know in architecture, despite being licensed and employed by well-established architecture firms, are still struggling to define their identity. Curiously, I also have colleagues who, despite their lack of participation in a robust accreditation process, have great confidence in their identities as designers.

My choice to pursue an architectural license coincided with the most recent economic recession, when work was slow and free time was abundant. (On a personal note, I've recently become a parent, and I'm very grateful that I pursued licensure before starting a family). Even early in my career, I understood that being a licensed architect would provide me with valuable professional credibility down the line; after all, the choices that we make today not only affect us in the moment, but also set the stage for our options in the future.

Above: GrowShelter. Image courtesy of XLXS

While many peers of mine were taking the ARE as well, several of them never started the licensure process at all. Some were convinced that being registered wouldn't improve their position professionally, or otherwise felt that the knowledge that they acquired through the ARE wouldn't be of much value to them. Many of these peers now practice spatial design, but with a very multidisciplinary approach, such as environmental graphic design or installation art. Others have veered onto a much more divergent career path, such as construction, real estate, product design, humanitarian work, teaching, or publishing. While many of these people earned graduate level degrees in architecture, their expectations seem to have always been that an architectural professional should be able to apply his or her talents beyond the traditional boundaries of building design. For those that wanted to go outside those boundaries, an architectural license didn't feel very relevant.

For example, a good friend of mine from Columbia graduated with an MArch, took a job with a prestigious international architecture firm with an intensely competitive work environment, and left two years later to refocus on his long-term love of research, writing, and editing. While he's now toying with the idea of teaming up with his wife, who is currently a practicing architect, I doubt that he will ever veer too far from the publication world again. Somewhat unsurprisingly, he also has yet to seriously consider licensure.

Personally, I had my own apprehensions about licensure as well. I knew that the requirements, particularly for IDP hours, were stringent and seemed to be getting more so by the year. In comparison to the array of professional fields that were available to me upon graduation, architecture was filled with relatively big hurdles from the outset. I also knew that I wanted to continue practicing design in a multidisciplinary manner, and I was concerned that the strict definitions of architecture, as put forth by the New York State Board of Architecture, might constrain me to a traditional model of practice long-term. In other words, by not acknowledging alternative forms of practice, the licensure process was giving me the impression that there were only a small handful of ways to be a successful architectural professional.

It turned out that my worries were not entirely unfounded. Because of my educational background and professional interests, my portfolio and resume include work in a variety of media. That

Above: GrowShelter. Image courtesy of XLXS

diversity, especially in regards to the companies for which I've worked, resulted in New York State denying my original application for licensure; the multidisciplinary design firm where I was employed at the time of my application didn't meet the state's definition of "an architectural firm" within the experience requirements. Fortunately, I was motivated enough to complete the licensure process and didn't let this obstacle deter me from my goal.

A stringent licensing process is important for maintaining high standards of professional practice, and in no way am I suggesting that we remove or relax the process. That said, multidisciplinary design is clearly of growing interest to design professionals, and recognition of multidisciplinary design excellence is popping up everywhere from competitions, like the MoMA's Young Architects Program, to magazines, like *Wallpaper*, to educational programs, like the New School's Transdisciplinary Design Program. The AIA already acknowledges alternative forms of practice later in an architectural career, for example through the different Objects within the Fellowship application; it may be time for the architectural licensing process to embrace a broader definition of architectural practice as well, to ensure that we don't alienate the best and brightest designers of tomorrow. ∎
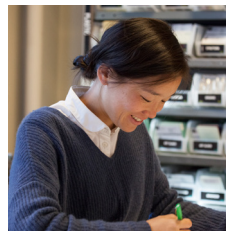
Taka Sarui, RA
is a registered architect working for BKSK Architects in New York City. She is passionate about multidisciplinary design approaches and deeply committed to humanitarian design efforts, resulting in a diverse portfolio of projects. She holds an MArch from Columbia, and lives in Brooklyn.

#yafchat

@AIAYAF [Moderator] Hello and welcome to this month's tweet chat where we will be discussing The Current and Future State of Architecture Practice. #yafchat

@AIAYAF [Moderator] I'll post questions with Q1, Q2, etc - tag your responses today with A1, A2, etc #yafchat Today we will be using the hashtag #yafchat

@AIAYAF [Moderator] **Q1:** What is your view on Traditional Practice? (old, cutting edge, unchanged) #yafchat

> **@_clinger_** (Clinger) A1 I think traditional practice is still viable, but firms that are more successful don't rely solely on that model. #yafchat
>
> **@IanMerker** (Ian Merker) A1 Traditional practice still has its place. It works for me #yafchat
>
> **@L2DesignLLC** (Lora Teagarden) A1 Mix. There will always be those that refuse to change, but increased innovation/entrepreneurship makes my heart happy. #yafchat
>
> **@ThisIsJLai** (Joseph Lai) A1 "traditional practice" can be improved, but should not be thrown away. It must, and has been, evolving. #yafchat
>
> **@StephSilkwood** (Stephanie Silkwood) A1: Traditional practice is still relevant for certain projects and firms. No need to reinvent the wheel! #yafchat
>
> **@egraia** (Emily Grandstaff-Rice) A1 Practice today (traditional or otherwise) is not what is was 10 or 20 years ago. The issue is the word traditional not practice #yafchat
>
> **@egraia** (Emily Grandstaff-Rice) A1 Change is the only constant, right? #yafchat
>
> **@morgangerdel** (Morgan Gerdel) A1: Traditional practice fits well for many projects, but limits a firm's potential and marketshare. #yafchat @AIAYAF

@AIAYAF [Moderator] **Q2.** What do you think drives the traditional practice model, are there others we should follow?

> **@ThisIsJLai** (Joseph Lai) A2 efficiency keeps traditional practice viable. ppl have done design/bid/build for years & know the roles. #yafchat
>
> **@L2DesignLLC** (Lora Teagarden) A2 Habit and fear. Two very big motivators, sadly, for all the wrong reasons. The best firms I know operate to always learn. #yafchat
>
> **@IanMerker** (Ian Merker) A2 Trad practice is driven by risk adverse corporations. We like our liability low and profits high #yafchat
>
> **@StephSilkwood** (Stephanie Silkwood) A2 There is a tendency to try something new, more efficient, etc. Sometimes the "traditional way" is the most efficient! #yafchat
>
> **@morgangerdel** (Morgan Gerdel) A2: Understandable roles for the process drive the trad. model. Experienced clients with specific needs want more #yafchat

@AIAYAF [Moderator] **Q3:** What comes to mind when people say "alternative practice"? #yafchat

> **@_clinger_** (Clinger) A3. I think of providing service outside of building design. Problem solving for our clients. #yafchat

Moderated by the 2014-2015 AIA YAF Public Relations Director
Evelyn Lee and hosted by the AIA **Young Architects Forum**
(YAF). The yafchat for the month of July focused on **The Current
and Future of Architecture Practice**

@L2DesignLLC (Lora Teagarden) A3 "Parallel careers" - not quite practicing in firm, but still architecture periphery. @DonnaSinkArch talked re: this at #AIACon15 #yafchat

@egraia (Emily Grandstaff-Rice) A3: A contemporary practice is one that uses technology (old and new) to best solve problems. New complexity needs innovative thinking. #yafchat

@StephSilkwood (Stephanie Silkwood) A3 Increased collaboration #yafchat

@morgangerdel (Morgan Gerdel) A3: "Alternative practice" = capabilities that offer clients value in ways they do not expect #yafchat #bethefuture

@egraia (Emily Grandstaff-Rice) A3 Alternative Practice - When innovation is judged against standard practice. Remember when a fax machine was alternative? #yafchat

@IanMerker (Ian Merker) A3 We're always paid to think, but maybe sometimes we pay ourselves or help others think #yafchat

@ThisIsJLai (Joseph Lai) A3 alternative practice: anything not designbidbuild, also like @_clinger_'s thought: providing design solutions outside of bldgs #yafchat

@jmatthewt (Jonathan M. Taylor) A3 #AlternativePractice not limited to outside of bldgs; includes services beyond a stamped permit deliverable or construction #yafchat

@AIAYAF [Moderator] **Q4.** "Multi-disciplinary" is often used to describe practice? Do you consider most practices to be Multi-Disciplinary? #yafchat

@ThisIsJLai (Joseph Lai) A4 all practices are multi-disciplinary! project mgmt is a completely diff skill set from design, & equally diff from detailing #yafchat

@CGerrity (Chris Gerrity) A4: Architects can only sell are our ideas and time; some firms can offer different ideas from their diff exp/edu #yafchat

@YAFNewEngland (YAF New England) A4: It depends. Some firms only focus on architecture and design, while others research, write, etc. #yafchat

@YAFNewEngland (YAF New England) A4: cont. - much of what architects do IS multi-disciplinary, so hard to draw a line #YAFChat

@L2DesignLLC (Lora Teagarden) A4 Not always, depends on size, but typically to some extent yes. We're taught a broad range, might as well possibly bill for it. #yafchat

@AIAYAF [Moderator] **Q5:** What is your definition of a Multi-disciplinary practice? #yafchat

@_clinger_ (Clinger) A5. I'd like to see it be more than just Architects, Landscape, Interiors, Engineers, etc. Add Entrepreneurs, Coders, Doctors, more #yafchat

@ThisIsJLai (Joseph Lai) A5 I think all firms are multidisciplinary practices, but firms that know how to sell all skills of architects are far ahead #yafchat

@YAFNewEngland (YAF New England) A5 Currently it's traditional in a sense that it's LA, MEP, PM, struct, CA, etc... I'd love to see it keep pushing to become more. #yafchat

@JamieMolina419 (Jamie Molina) A5 I guess I always thought of Multidisciplinary practices as including engineers. #yafchat

#yafchat

@funarchitect (Peter Exley) A5: Storyteller, community-builder, problem-solver = architect inter/multi disciplinary #YAFChat

@IanMerker (Ian Merker) A5 multidisciplinary is services beyond design- advocacy, forensics, investment partnerships #yafchat

@AIAYAF [Moderator] **Q6:** Are there other types of professional service firms or business practices that architects can learn from? #yafchat

@ThisIsJLai (Joseph Lai) A6 for biz, architecture firms should learn from @USGBC. thru marketing they made their services a pre-req, not a luxury#YAFchat

@IanMerker (Ian Merker) A6 tech services have interesting business models. It's how you share ideas and collaborate that makes the difference #yafchat

@L2DesignLLC (Lora Teagarden) A6 Look @ rest of creative world pushing the edge. Industrial design, marketing, furniture...all of those things go into a bldg. #yafchat

@AIAYAF [Moderator] **Q7:** In what ways do you think Practice has evolved and should evolve? #yafchat

@AIAdcEmergArch (AIADC Emerging Arch) A7: More firms moving toward collaborative leadership models as opposed to single name on the door #YAFchat

@IanMerker (Ian Merker) A7 we have become a monkey/non monkey species. Everyone should know how to manipulate the design or at least view the model #yafchat

@L2DesignLLC (Lora Teagarden) A7 The good ones always are. Hard to take a snapshot. Where's the start point? hand drawing, blueprints, cad, bim, collaboration... #yafchat

@ThisIsJLai (Joseph Lai) A7 architecture practice has become too focused on design only. take back leadership roles! owners rep / CM should be us! #YAFchat

@jmatthewt (Jonathan M. Taylor) A7 Implementation: Alt delivery methods, Special Inspections, more active A/E in CCA, commissioning, post occupancy evaluation #yafchat

@JamieMolina419 (Jamie Molina) A7 We need to demystify the world of design to the public to help evolve the practice #everybuildinghasanarchitect #yafchat

@jmatthewt (Jonathan M. Taylor) AA7 & #designimplementation & quality control/assurance of said design needs focus. Comes down to details #yafchat

@JamieMolina419 (Jamie Molina) A7 ...support public events, host public events, & invite the community in for studio visits... @EhrlichArch bit.ly/1LjkBHF #yafchat

@AIAYAF [Moderator] **Q8:** Any interesting firms that are constantly evolving worth following? #yafchat

@ThisIsJLai (Joseph Lai) A8 @realstreetsense in Bethesda, MD. architecture firm with inhouse brokers & developers. & @TortiGallas of course! arch/planning! #YAFchat

@design_voice (AIA Design Voice) A8: We really enjoy @MASSDesignLab - their public interest design approaches are revolutionary! #yafchat

@deane_madsen (Deane Madsen) A8: @AIAYAF Plenty at bit.ly/ARNextProg - to name a few, @SynthesisDNA @PARarchitects @ACREarchitects @BrillhartArch #YAFchat

@L2DesignLLC (Lora Teagarden) A8 This feels like the tip of the tongue thing... @_CPlusC_ @neonarch @isaphila @LATENT_DESIGN, Johnsen Schmaling... #yafchat

@AIAYAF [Moderator] **Q9:**What areas are you most interested in learning more about Architecture Practice? We will consider responses for AIA Convention. #yafchat

@ThisIsJLai (Joseph Lai) A9 fee structures of architecture practice, & how to stop firms from offering fees that set unrealistic expectations that hurt all! #yafchat

@L2DesignLLC (Lora Teagarden) A9 How to stand out among the masses, how to work with upper leadership to formulate continued forward movement... #yafchat

@IanMerker (Ian Merker) A9 Architect as developer. It should be easier, either as a collective or individual! #yafchat

@MeghanaIRA (Meghana Joshi) A9: More about the business and leadership than design. Contracts, negotiations. #yafchat

MARC KUSHNER, AIA

MARC KUSHNER, AIA, *is an architect with just one agenda - he wants you to love architecture. As partner at progressive New York architecture firm HWKN (Hollwich Kushner) and co-founder and CEO of Architizer, Marc is a celebrated designer and pioneer in the digital media industry.*

Architizer is the largest platform for professional architects online, and the most comprehensive database of the products and people behind the world's best buildings. Architizer has revolutionized the way architects communicate their work to the world and engage with the design industry since its launch in 2009.

With his business partner Matthias Hollwich, Marc also founded HWKN, one of the most dynamic architecture firms to come out of New York in recent years. HWKN's work is regularly published in publications such as Wallpaper* *and the* Wall Street Journal.

Marc presents at events such as TED, PSFK and GRID on topics surrounding architecture's intersection with digital media. He has taught at Columbia University's Graduate School of Architecture, Planning and Preservation and is a published author. His book 'The Future of Architecture in 100 Buildings' published by TED Books and Simon & Shuster in 2015 is #1 in Architecture Criticism, Architecture History and Buildings on Amazon. He also serves on the board of Plus Pool.

At the EP Summit in 2014, you proclaimed that architects need to embrace entrepreneurship in order to maintain relevancy. Can you define what it means to you and what are some examples you've used to set your firm apart?

MK: Somehow it became OK in the architecture profession to respond to industry challenges with one of two responses - endless complaining or appeals to the AIA to "do something". Neither of those will change the profession. The only way to respond to the myriad issues facing the industry is to unleash the potential and power of the individual architect. That means the AIA should work to simultaneously get out of the way and free up capital to empower architects to change the profession themselves.

When I started my firm in 2006 there was exactly one way to get our work seen by the public through media - begging editors to publish our projects. We rejected this, started Architizer and became a part of the great media revolution in our profession (since that time *Architectural Record* has been sold twice, *Domino* folded, and countless other publications disappeared).

We were able to start Architizer in New York because we had connections to capital and talent. If every architect had that access we would have no more crises in architectural education, licensure, liability, and even revenue.

Many EPs concede that the business model of traditional architecture is broken and possibly beyond repair. Issues such as deflationary pricing, free or low cost conceptual design and rolling fee into the "next job" are commonplace. In broad terms, do you have a strategy for staying competitive while maintaining a respectable billable rate?

Some jobs we take as loss leaders, some we take to pay the bills - it is a balance. Architecture is a service industry and these issues are not unique to architecture. It is always fun to think about different models, like the film industry, or taking a piece of a project's equity - but I genuinely believe that these are far off. In my firm we accept that we are in the service business and we try to optimize that model.

A feedback loop is important to internal experimentation and outward growth. In your TED talk, you mention that architects are able to close the loop much sooner than previous decades. How have you used this to your advantage and is there a strategy that could become standard practice for the profession in the future?

It is dangerous to deploy a feedback loop on individual projects, lest you fall victim to design-by-committee, but rather a good way to gauge the success of your work quickly and inform the next project.

In the same talk, you make the statement that media has accelerated the way in which the public consumes architecture. What have been the successful methods to date and how does the process stay iterative?

Architects have to stop talking to architects. We are trained in school to make architects happy with our architecture and then we become professionals and enter award programs judged by architects. The whole thing is backwards. What social media lets us do is speak directly to the public. We need to take that feedback seriously. We need to look at people like Bjarke Ingels who uses cartoons, and animations, and comic books and videos to question the tools that we use to communicate.

I believe people naturally love buildings - architects should make it easy for them to fall in love.

What future technologies has your firm adopted? Are there any that are currently underutilized that have the potential to become industry standard in the next 10, 25, 100 years?

My firm is using a tool that Architizer created for the sourcing of products that I am confident will revolutionize the industry. Besides that we are always eager to find the right tools to make our workflow better. What we have found is that there is almost no innovation in the architecture-focused technology world so we look to the tech world and learn from Architizer. We use Slack to communicate - GoogleDocs to share data - Greenhouse for hiring - Cater2Me for team lunch!!! On the production side we have yet to find better tools than industry standard AutoCAD, Rhino, Revit, etc.

In the past few years, we have seen different mechanisms for financing creative projects. Websites, such as Kickstarter and Fundrise, have provided opportunities to crowdsource funding and investment and organizations such as the Rockefeller Foundation have provided grants for projects in the built environment. But the impact of these projects have largely been outside mainstream architecture. Do you see these as viable solutions to funding in the future? If not, how can we break the mold of the single client as the primary source of projects?

I think their impact will be huge - but also not huge! These tools have compelled architects to dream in reality. The High Line in New York showed us the potential of our dreams to galvanize support around architecture - however this is not a panacea for the architectural profession. Fundrise and PRodigy Network - tools that look at architecture as a means to an end - profit - are really no different than a traditional developer/architect relationship despite the fact that the funding is coming from thousands of people.

Marc Kushner
Architect

CONNECTION

THE ARCHITECTURE AND DESIGN JOURNAL OF **THE YOUNG ARCHITECTS FORUM**

2015 EDITORIAL CALENDAR

FEBRUARY
RETROSPECTIVE

This issue focuses on the theme of LEADERSHIP.

Featuring architects, designers and emerging professionals who have made an impact on the profession early in their career in leadership roles. We will explore how their service has helped them to succeed and where their careers have taken them.

APRIL
EQUITY x DESIGN

This issue focuses on the theme of EQUITY IN ARCHITECTURE.

Featuring architects, designers, and emerging professionals who have made an impact on the profession in leadership roles. We will explore the data from the Missing 32% Project, the Equity by Design Conference and anecdotal stories of leaders who are advancing equity in the profession.

JUNE
AHEAD OF THE SURGE

This issue focuses on the theme of RESILIENCE.

Featuring architects, designers and emerging professionals that are changing the face of the profession. We will explore how architects and specifically emerging professionals are leading the effort in resilient design across the globe.

AUGUST
STATE OF PRACTICE

This issue focuses on the theme of EVOLVING BUSINESS MODELS.

Featuring architects, designers and emerging professionals who are fundamentally changing how we conduct business, strategy and structure our firms. We will explore how the state of practice has evolved, what the key resources are and how it will change in the future.

OCTOBER
TACTICIAN

This issue focuses on the theme of URBAN AND PRO BONO DESIGN.

Featuring architects, designers and emerging professionals who are affecting the built environment as a whole, while keeping an eye on socially conscious design. We will explore city design issues, including urbanity, demographics, affordability and the human condition.

DECEMBER
COLLATERAL CREATION

This issue focuses on the theme of GERMINATION.

Featuring architects, designers and emerging professionals acting as environmental stewards through initiatives in sustainability and the future of education. We will explore advancements in innovative programs aimed at creating a sustainable future and profession.

CALL FOR SUBMISSIONS

WE ARE CURRENTLY
SOLICITING CONTENT

CONNECTION welcomes the submission of ARTICLES, PROJECTS, PHOTOGRAPHY and other design content. Submitted materials are subject to editorial review and selected for publication in eMagazine format based on relevance to the theme of a particular issue.

If you are interested in contributing to CONNECTION, please contact the Editor-In-Chief at **jpastva@gmail.com**

CLICK HERE for past issues of
CONNECTION

SUBMISSION REQUIREMENTS

All submissions are required to have the attachments noted below.

Text
Submit the body of your text in a single, separate Word document with a total word count between 500-1000 words.

Format the file name as such:
[yourlastname_article title.doc]

Images
Submit all images in JPEG format at a minimum resolution of 300 dpi RGB mode. Include captions to all images in the body of your e-mail transmittal.

All images must be authentic to the person submitting. Do not submit images with which you do not hold the rights.

Format the file name(s), sequentially, as such:
[yourlastname_image1.jpg]

Author Bio
Submit a brief, two-sentence bio in the following format:

[yourlastname] [AIA or Associate AIA or RA] is a [your title] at [your company] in [city, state]. [yourlastname] is also [one sentence describing primary credentials or recent accomplishments].

Format the file name as such:
[yourlastname_article title.doc]

Author Photo
Submit a recent headshot in JPEG format at a minimum resolution of 300 dpi grayscale in RGB mode.

Format the file name as such:
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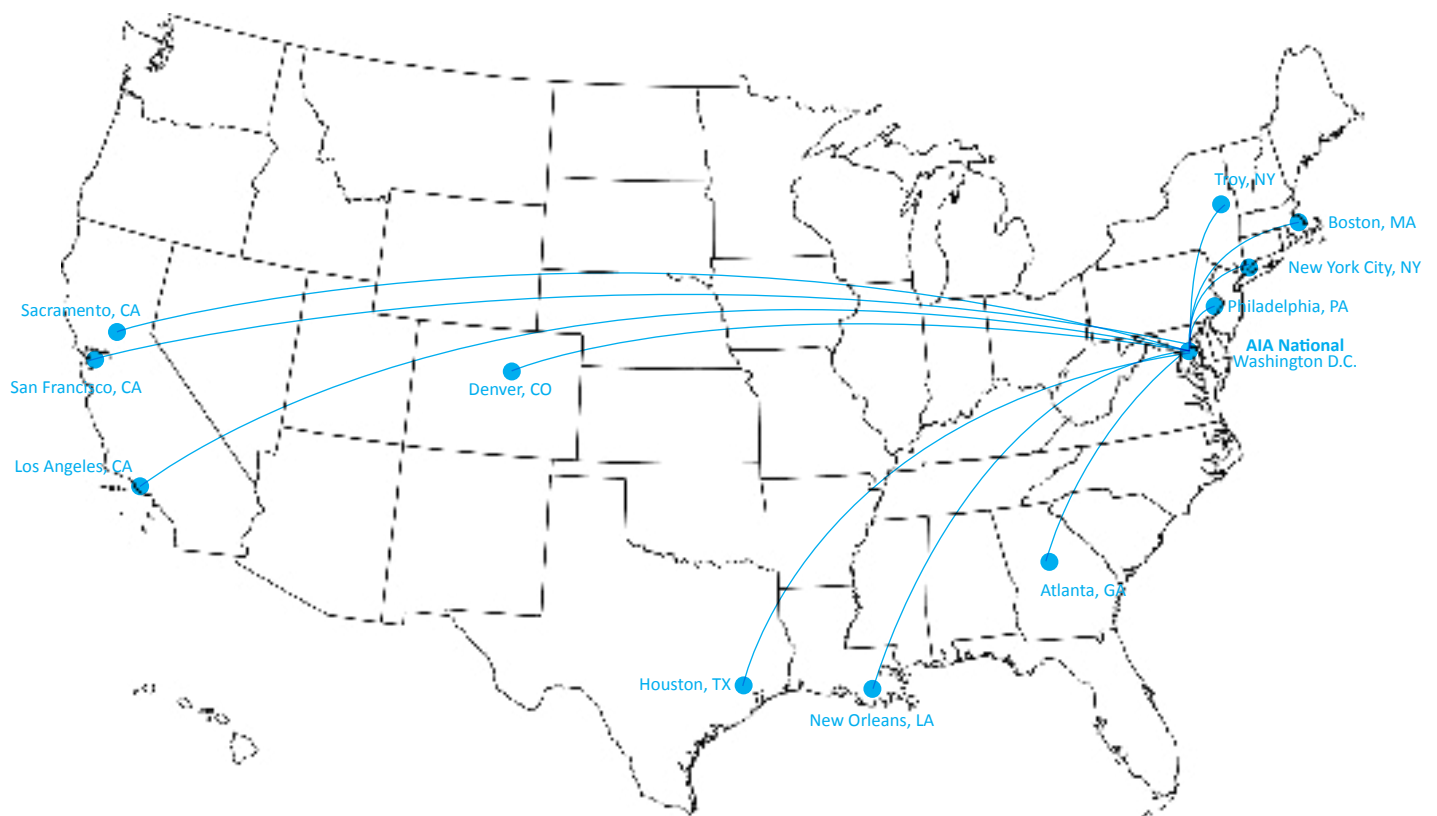## WHAT IS THE YOUNG ARCHITECTS FORUM?

The Young Architects Forum is the voice of architects in the early stages of their career and the catalyst for change within the profession and our communities. Working closely with the AIA College of Fellows and the American Institute of Architects as a whole, the YAF is leading the future of the profession with a focus on architects licensed less than 10 years. The national YAF Advisory Committee is charged with encouraging the development of national and regional programs of interest to young architects and supporting the creation of YAF groups within local chapters. Approximately 23,000 AIA members are represented by the YAF. YAF programs, activities, and resources serve young architects by providing information and leadership; promoting excellence through fellowship with other professionals; and encouraging mentoring to enhance individual, community, and professional development.

GOALS OF THE YOUNG ARCHITECTS FORUM

To encourage professional growth and leadership development among recently licensed architects through interaction and collaboration within the AIA and allied groups.

To build a national network and serve as a collective voice for young architects by working to ensure that issues of particular relevance to young architects are appropriately addressed by the Institute.

To make AIA membership valuable to young architects and to develop the future leadership of the profession.

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YOUNG ARCHITECTS FORUM
CELEBRATING 24 YEARS OF ADVANCING THE CAREERS OF YOUNG ARCHITECTS