

AIA Practice Management Digest - July 2023

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Paths in the profession

What does it look like to use your expertise outside of the traditional architecture firm setting? Three architects reflect on their career paths.

Letter from the editor

By Karen Courtney, FSMPS, AIA



The architecture profession is one of creative problem solving in designing aesthetic and comfortable environments for human endeavors. Although most architects use their training in traditional practice settings to fulfill this purpose, the skill set developed as an architect can be applied to many other careers. In this issue of the Practice Management Digest, three less traditional paths in the profession are examined to highlight the diverse and important ways architects are contributing to the built environment.

Our first story explores the career of Steven Grant, AIA, who parlayed his early love of theater and architecture training into a 28-year career as an Imagineer for Disney. Now in his encore career, Steve is applying this experience to teach the next generation of theme park professionals as the Program Director for the graduate program in themed environments at the University of Florida's City Lab in Orlando.

College and university work represents a major market for many firms and often the client is another architect. The second feature shares the career of Kathryn Horne, FAIA, who went from 25 years of working on educational projects in a traditional practice to becoming the director of planning design and construction at the fast-growing University of North Carolina at Charlotte.

Lastly, the 25-year career of Randall Vaughn, FAIA, is explored. Randall is the Vice President of Professional Services at Gray of Lexington, Kentucky, a fully integrated construction, engineering, design and real estate firm and a pioneer in design-build delivery and construction for complex projects.

With this issue, my editorship of the Practice Management Digest comes to a close. Having also taken a different career path - as an architect turned marketing and business development professional for over 30 years - it seemed fitting to explore the diversity of architectural career paths for my last issue. Taking over as editor is Rebecca Edmunds, AIA, who segued her career in textile fiber research and technical development to architecture and now has her own communications practice devoted to advancing the voice of architects for awards, articles, strategic visioning and project pursuits. Rebecca has many new ideas in store for the PM Digest and is anxious to share them with our readership in future issues.

Features

From Imagineer to professor

By Steven Grant, AIA

How does one become a Disney Imagineer? A licensed architect shares his career path, including his 28-year career as an Imagineer, requiring collaboration with a broad range of disciplines beyond typical architectural practice.

The university architect

By Kathryn Horne, FAIA

Transitioning from work in a firm to become a university architect allows for a deep understanding of the institution while maintaining a long-range vision. It brings unique challenges, but offers rewards unique to the long-term relationship.

Construction-side design

By Randall Vaughn, FAIA

How does your work change when you do construction-side design? For this architect, it presented an opportunity to bring creativity and design-thinking to the business, while providing greater insight into contractor constraints and potential barriers within the pre-construction efforts, leading to optimized building designs, costs, and schedules.

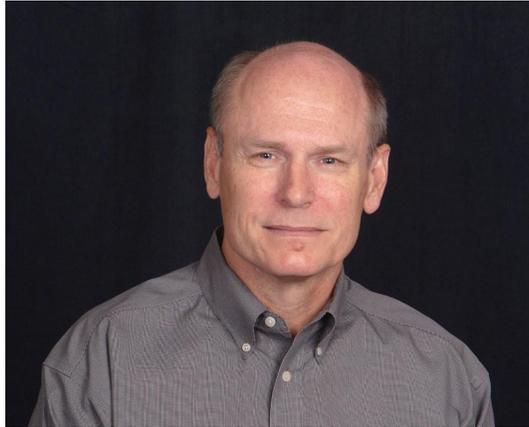
Contribute to the Digest

The future issues of the Practice Management Digest are currently planned to cover topics such as human resources, cultivating culture in your firm, business basics, and research in practice. If you have other topics related to practice management that you'd like explored or any articles you would like us to consider for inclusion, please contact pmkc@aia.org.

From Imagineer to Professor

network.aia.org/blogs/steven-w-grant-aia-member-emeritus/2023/07/06/from-imagineer-to-professor

By Steven Grant, AIA



Early Life

I grew up in a Levittown-like subdivision of an agricultural/industrial mid-sized city, Kokomo, Indiana. My high school was in the country surrounded by cornfields, and there were no architects within fifty miles of Kokomo. Luckily, my industrial arts teacher mentored me in architecture after school. He was the first of several mentors who had a tremendous influence on my career path. During summers while in high school and college, I worked in construction, installing aluminum siding and asphalt shingles.

Architecture College

Indiana's first public school of architecture at Ball State University (BSU) is fifty miles from Kokomo in Muncie, another agricultural/industrial mid-sized city. At BSU's College of Architecture and Planning, I received a five-year architecture program education that prepared me to be a pragmatic and productive architect. Two activities in college that went beyond the pragmatic and that had the greatest impact on my future career as an Imagineer were a field trip to Chicago and a study abroad program.

My architecture class took a field trip to Chicago during our sophomore year. We attended a show in the magnificent Auditorium Theater, by Adler and Sullivan. I was mesmerized by the experience - the performance and the space - and decided that I would focus my studies and time on theater as often as I could. I still get chills when I see an exceptional performance.

The other activity that influenced my career as an architect and Imagineer was Polyark. Polyark was the College of Architecture and Planning's overseas study program based in London. Until Polyark the only large city that I had visited was Chicago, and I had never been overseas. What I remember the most about London, and the other cities we visited, was simply walking down the street and attending the theater. My time in London influenced what my interests have been throughout my career, which are the theater, gardens and cities. I still attend the theater every week, and my thesis research for my graduate degree in the humanities was on the cultural history of gardens. And I also spend my time in cities walking, finding new spaces and streets.

What I learned from the College of Architecture and Planning at Ball State was discipline and pragmatic problem-solving. This general education in architecture served as a base to begin the more comprehensive education that I acquired by working, exploring and studying after college.

Early Career Path

After graduating with my Bachelor of Architecture degree in 1978, I worked in architecture offices in Chicago and New York City. My internship and first four years out of college were spent at the Chicago office of Skidmore Owings & Merrill (SOM).

I then moved to New York City and worked at an architecture/planning office in Times Square for four years. While there I was able to work on the design of two theaters as well as other urban architecture and planning projects. In New York I was fortunate to meet and marry a woman who shares my enthusiasm for theater and the arts, and we ended up back in Chicago in 1986.

Walt Disney Imagineering

In 1990 I was working in a small architecture office in Chicago. A friend and mentor of mine from my first job in Chicago saw a want ad in the Chicago Tribune for a company called Walt Disney Imagineering (WDI). Although I knew of Disney, I had never heard of their design division called Imagineering. He suggested that we send in our resumes and go work for Disney. I sent in my resume.

A few weeks later, Imagineering HR invited me and other Chicago architects to an interview gathering in a hotel hospitality suite in Springfield, Illinois. To my surprise, the director of the architecture department was a former colleague of mine from SOM Chicago. A month after we returned to Chicago, I received a call from Imagineering inviting me to Glendale,

California, for a follow-up meeting where four Imagineers interviewed me. Four weeks later I received a letter from WDI offering me a position as a Project Architect at Imagineering in Glendale, California.

My family and I moved to Glendale, California, in March 1991 so I could begin what became a 28-year career as an Imagineer. After three years in Glendale, I temporarily relocated to Orlando to work on the Magic Kingdom Tomorrowland redo. This temporary relocation turned into a permanent relocation, and I resettled my family in Orlando.

During my 28 years as an Imagineer, I was a project architect, a design manager and the manager of the architecture and interior design departments. Working as an Imagineer was extremely rewarding as every project was different. In total, I was a team member on over one hundred projects, from adding a flagpole to the Epcot entrance to working on large theme park expansions. Fortunately, I was able to be part of all phases of projects from their conception to construction. This broad exposure to all aspects of design and construction made my second career as a professor, where I am writing and developing a new curriculum, possible.

Collaboration and Diverse Disciplines

While artists and craftsmen are not the types of disciplines architects typically collaborate with, Imagineering includes more than one hundred disciplines in its work. This represents an extremely broad wealth of talent and knowledge that architects in traditional architectural practices are not typically exposed to. Theme Park facilities - shows, rides, retail and restaurants - are story based. At Imagineering, architecture and engineering work supports the story tellers, writers, artists and sculptors. Elements of architectural design - line, color, shape, form, space and texture - are used to support the story being told.

Working in large teams at WDI that included a wide range of disciplines was rewarding and challenging. When I was studying architecture in college, collaboration was not a focus. However, during forty years of practice, it became clear to me that the most important skill you bring to a project is your ability to collaborate well.

Architecture education and experience can also be very siloed. This became clear to me as well when I began to work with the multiple disciplines at Imagineering. Architects are taught to be leaders of teams, but they seldom are. That is why it is important that architects be trained to be collaborators.

The hard skills that I used as an Imagineer were space planning, code compliance, programming and systems integration. My soft skills, which were by far the most important skills to have as an Imagineer, were collaborating with many diverse disciplines with different personalities and viewpoints.

While still working at WDI I returned to school in 2013 and obtained a graduate degree in liberal studies from Rollins College in Winter Park, Florida. It was a life-changing experience! I returned to school because I realized my education lacked a study of the humanities. While at Rollins, I studied history, philosophy, religion, literature, art and culture. My graduate studies ended up making possible my unplanned second career as a professor.

University of Florida's Orlando CityLab

In 2019 I retired from Imagineering to write, direct and teach a new interdisciplinary graduate program focused on themed environments at the University of Florida's Orlando CityLab.

When I accepted this new opportunity, I was acutely aware of my limited experience in teaching and complete lack of experience in writing curriculum. However, I did benefit from the skills and experiences that I gained from being in architecture for 42 years, twenty-eight of those at Walt Disney Imagineering collaborating with artists, designers, operators and contractors plus studying the humanities. The knowledge and skills that I used to write and direct this new graduate program have been the following:

- Knowing a little about a lot of things
- Making lists (In professional practice I wrote many programs, scopes of work and code analyses.)
- Team and department management
- Industry connections
- Organizing skills
- A love of learning (I am learning along with my students.)
- Awareness of the amount of time that teaching requires.

The Master of Science in Architectural Studies (MSAS) Concentration in Themed Environments Integration (TEI) has been a remarkable success! I have students from around the world coming to Orlando to study at CityLab who want to work in the themed environments industry. They begin the program wanting to work at Disney or Universal, but during their studies they learn about all the companies that support the themed environments industry. The large companies that build and run large, themed environments do not do it alone. Dozens of other companies support them, and my students learn about these companies.

With the support, encouragement and help of the University of Florida's faculty, and the themed environments industry professionals in Orlando, I have been able to write, teach and lead this graduate program that focuses on what is important to be successful in the themed environments industry. What is crucial about the TEI graduate program is that it is interdisciplinary. I currently have students with undergraduate degrees in planning, film, interior design, industrial design, communications, psychology, theater, engineering, hospitality and architecture.

In my wildest dreams as a kid from Kokomo, I never would have thought that I would be collaborating with large teams, made up of over one hundred disciplines, designing theme park facilities, and then being able to teach what I have learned. In my 40-year plus professional career I worked on over 160 projects in different architectural roles. I then returned to school to obtain additional education, and now I am teaching what I spent my life learning. It has been a great adventure and career!

Steven Grant, AIA is the Program Director of the Master of Science in Architectural Studies Concentration in Themed Environments Integration, at the University of Florida's CityLab-Orlando. Professor Grant is a licensed architect and a former Disney Imagineer. He received a Bachelor of Architecture degree from Ball State University in Indiana and a Master of Liberal Studies degree from Rollins College in Florida.

The University Architect

network.aia.org/blogs/kathryn-l-horne-faia/2023/07/06/the-university-architect

By **Kathryn Horne, FAIA**



From Traditional Practice to University Architect

As director of planning design and construction at the University of North Carolina at Charlotte, the state's second largest public university, I am responsible for overseeing planning including development and implementation of the campus master plan, development of the capital plan, managing the design process for all building projects, and overseeing new construction and renovations of existing space and infrastructure.

My job is to connect people, needs and ideas to create a campus environment that reflects the mission and values of the university. That entails:

- connecting the needs of students and faculty to the design of spaces and buildings
- connecting planning with funding to create long-range plans to be executed over time
- connecting future developments and trends in higher education with long range plans for the campus's development.

My career began in traditional practice in architectural firms, working on projects for educational institutions – K12, community colleges and universities – from programming and planning through design and construction. I began my career at Gantt Huberman Architects, one of the most diverse architectural firms in the country, and later became a partner at The FWA Group, a regional firm with offices in three states.

I left private practice to join Georgia Tech's Planning and Space Management department after 25 years. The career change presented a wonderful opportunity to use my experience and skills in new ways. I joined UNC Charlotte in 2015, when the university was experiencing tremendous growth and changing circumstances to position UNCC to achieve new levels of academic excellence and enhanced student life experiences. UNCC has become the fastest growing university in North Carolina's 17-campus system, and, during my tenure, the institution has seen a 19% increase in graduation rates, a 2.8% increase in retention, and dramatically increased research funding. These factors have successfully met the university's goals for academic excellence and raised UNCC's profile nationally.



Image: UNC Charlotte Admissions Center (designed by Watson Tate Savory, image provided by Jana Hartenstine, AIA)

A Deeper Understanding

In private practice, I worked on projects for several colleges and universities, often taking on individual projects at different institutions simultaneously. The most significant difference between my work as an architect with a firm and my work with the university is that today I have a long-term relationship with a single institution. This allows me to develop a deep understanding of the institution and to work on many projects over an extended period, guiding the development of each project from the perspective of how it contributes to and supports the campus's long-range goals.

My education and training as an architect give me an ability to work with constituents to find solutions to complex problems. Architectural education and training uniquely position us to consider the many facets of campus development, design and capital planning faced by higher education while integrating technical, operational, financial, and spatial programmatic requirements.



Image: Cone Center Sector Study (Architect: Hanbury with MHTN planners)

As an architect, I bring a unique understanding of how architecture and design facilitate connections between students and faculty to reinforce the educational experience. The role requires not only the understanding and commitment to integrate design principles to improve the physical environment but also knowing how the environment itself has the potential to enrich the experiences of the students, faculty, staff and visitors.

My role also entails recognizing that the approaches of the past will not solve problems of today. I work with others in the constant development of new models to address exponential growth, changing pedagogy, student expectations, limited funding and aging buildings to

shape facilities that continue to foster the education and growth of students. As an architect, I am positioned to challenge the status quo and encourage academic leaders and consultants to think broadly about the role of the physical environment in achieving the university's central mission—supporting students' academic achievement.

Challenges and Rewards

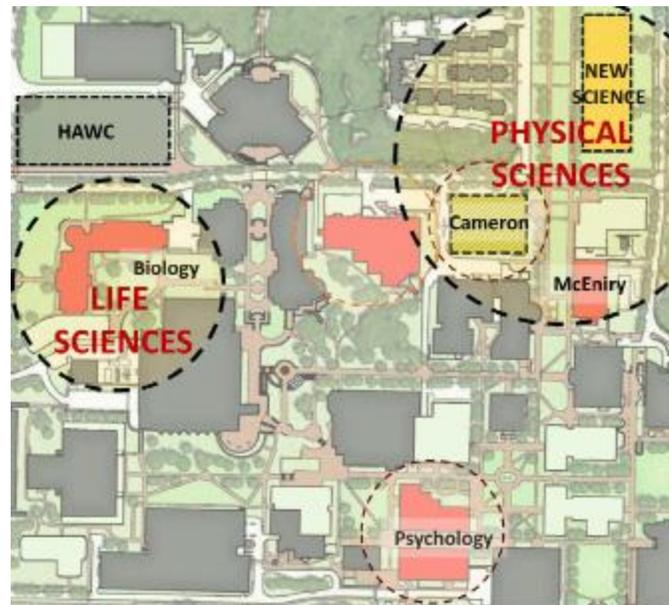


Image: UNCC Science Space Utilization Study proposed districts (Planner: Dober Lidsky Matthey)

Working as a university architect presents the opportunity to implement a long-range vision, influence decisions about planning, development and design for a variety of building types. However, impacting student success is one of the most rewarding aspects of this kind of work.

The role of a university architect is not without its challenges. I must constantly represent the diverse (and sometimes competing) needs of all campus stakeholders, but this challenge is also exciting. The reward is witnessing how the physical environment of the campus makes a difference in the lives of the students, faculty and staff every day. For example, I led the first comprehensive campus science space utilization study, reaching across departments to elevate the interdisciplinary nature of learning and research. The data collected highlighted critical needs and priorities for a new science building, created a tool for assessing space needs, and proposed holistic, phased recommendations to increase STEM instruction and research space over the next decade. Another study compelled stakeholders from multiple

departments to rethink outdated models and abandon territorial thinking to leverage shared goals to develop an actionable vision for creating spaces that focus on student success rather than department silos.

For every university, architecture's purpose is to build better learning, teaching and living environments. Architects can find many opportunities to use their skills in higher education settings to support student success, foster community and create impactful experiences through planning and design of exceptional spaces and places for learning.

Kathryn L. Horne, FAIA, is the campus architect and director of Planning, Design and Construction at the University of North Carolina at Charlotte where she leads the development of the campus and oversees implementation of the master plan. Kathryn has over 30 years of experience planning and designing projects for education. She holds a bachelor of environmental design from NC State College of Design and a masters of architecture from Clemson University, is a LEED accredited professional and is licensed in NC and SC. She served as the first woman president of AIA Charlotte, chair of the Society of College and University Planners Southern Region Council and is a member of the Association of University Architects.

Construction-side design

network.aia.org/blogs/randall-c-vaughn-faia/2023/07/06/construction-side-design

By [Randall Vaughn, FAIA](#)



Describe your journey to a position outside of a standard architectural practice.

My journey in this position began 25 years ago when I accepted a design studio director position with Gray. Prior to joining Gray, I served in an Architect project management role providing professional services for 11 years for a Lexington-based architectural firm, Sherman Carter Barnhart Architects (SBC). In that position, I gained broad design and project management experience and achieved licensure while working on public, multi-family, K-12, post-secondary, and commercial development projects. This laid a solid foundation for understanding the architect's role in design/bid/build project delivery model. I was always curious about design-build project delivery, single-source. I joined Gray with hopes of applying those 11 years of experience in the design-build project delivery model.



Image: Gray designed and built a state-of-the-art bottling facility for Monin, Americas in Sparks, NV. The facility also includes corporate offices with high-end finishes.

Can you provide some insight into why you were attracted to design-build delivery, especially from the construction side?

I was attracted to design-build from learning first-hand the effort it takes to plan and execute construction activities. For years, I prepared construction documents and provided them to construction teams for bid without fully understanding or appreciating the effort it takes to pre-plan the construction process. In design-build, we already have a pulse on subcontractor availability, subcontractor resources, construction scheduling, unit costs, and material availability.

Thus, the design-build method provides architects insight into contractor constraints, such as labor force issues, labor costs, and building supply disruptions, which can lead to delays and cost increases. Our pre-construction efforts early in the project process identify potential cost escalations, material delays, and labor trade availability to execute the work. This insight affords project teams the opportunity to truly optimize building design, cost and schedule;

mitigate potential risks/challenges; and anticipate any obstacles ahead that potentially could compromise the vision and purpose of a project. Contractually, design-build offers single-source contracting and streamlines contracts between owner, contractor, and designer.

Please describe how what you do differs from standard practice.

Professional services in design/bid/build and design-build delivery are similar, but design-build places greater emphasis on collaboration and integration of design and construction services simultaneously—while the project is under construction.

The design-build delivery model emphasizes schedule and cost. You're designing the project and working through design, making numerous real-time decisions, all the while construction is underway. Many times, we're working through the design process and the substructure and building structure are the only design elements that are resolved. Not knowing essentially how the final building design will resolve itself can cause some stress, but the process is also exciting. Ultimately, it brings greater value to customers, which is rewarding.



Image: Holding tanks in Buffalo Trace's new bottling warehouse in Frankfort, KY, designed and built by Gray from March 2018 to June 2019. The project resulted in reduced product loss for the customer, improved operability and process maintenance, and preservation of the site's historical nature.

What do you, as architect, bring to the institution, organization or business?

As an architect, I bring creativity, design thinking and problem solving to the business. The outcome—efficient and cost-effective solutions founded in architectural design—means our business is competitive; we typically respond to request for proposals (RFP) with a design-build, single-source response for both design and construction services. Thus, a nearly complete design must be generated in a relatively short time.

Because the projects are cost and schedule driven, they require teams to work cohesively to deliver the project in the most efficient manner. For industrial projects, this includes integrating manufacturing equipment and mechanization components into the design and confirming the infrastructure needed for turnkey projects. The process is complex and puts all the skills of the architectural profession to work in a fast-paced environment.

How does your perspective as an architect benefit the effort?

We provide the leadership to see beyond a project's immediate needs to recognize the end goal and envision the outcomes in built form. Architects understand all aspects of a project and serve as the integrator for a project's many components, including other design disciplines, numerous equipment vendors, and suppliers necessary to fulfill the project needs.

In addition, Architects provide building and energy code and compliance review for the hazardous operations often found in manufacturing facilities. The architect serves as the team quarterback tasked with coordinating the complex elements of industrial projects and integrating highly technical aspects of this building type into the design.



Image: The façade of Amada America's newest production complex in High Point, NC. Gray designed and built the 261,000 s.f. production facility in 15 months.

What would you most like other architects and/or emerging professionals to know about your work?

The work is very challenging and intriguing because, in designing for industrial markets, we often get to see the inner workings of how products are manufactured, assembled, and/or processed. These are usually products we as consumers use in our daily lives. The equipment in these facilities is quite intricate, expensive, highly specialized one-off components, requiring long lead times for their procurement, manufacture, shipment, and installation. The equipment is often many times more expensive than the building itself.

Understanding the manufacturing process requires a level of evaluation when you're working to integrate these specialized systems into a facility's site and building design and construction. Because of the hazards often associated with process and manufacturing facilities, our analysis and evaluation of building code is more intensive than for educational and or commercial developments.

What opportunities does being a design-build architect present to others who are seeking to use their architectural credentials outside of traditional/firm practice?

According to the Design-Build Institute of America (DBIA), nearly 50% of annual construction dollars spent in America will be design-build delivery by 2025. This shows design-build holds a lot of opportunity for interested architects.

At Gray, we've found that the immense amount of integration involved with design and construction in delivering large complex manufacturing projects has opened the doors for fields including pre-construction, project management, procurement, project scheduling, building modeling (BIM), construction safety, and many more. Design-build involves many parts moving simultaneously in real time, requiring team members firing on all cylinders to achieve a successful outcome. The fast-paced nature of our work requires tremendous focus and attention to detail—skills in which we architects are very well trained.



Image: Gray designed and built a large distribution facility for sporting goods retailer Academy Sports + Outdoors in Cookeville, TN. The project was completed in 14 months and included extensive racking with an automatic storage and retrieval system (AS/RS). Spiral conveyors and other material handling equipment (pictured) facilitate fast movement of product throughout the 1.6 million s.f. facility.

Randall Vaughn, FAIA, serves as Vice President of Professional Services for Gray, based in Lexington, Kentucky with integrated design offices in Charlotte, NC, Birmingham, AL. and Fullerton, CA. Gray is a pioneer in the design-build space and is frequently recognized with awards for its integrated offering. Gray's industrial project portfolio includes projects in the food & beverage, manufacturing, automotive, and distribution markets. Randall serves as Architect of Record on projects with licensure responsibility for Gray.

He is NCARB certified and holds licenses in 38 states and 2 Canadian provinces. He serves as executive sponsor for training and professional development. He's a member of NOMA and has served as the 2019-2021 At-Large member to the AIA strategic council and 2017 AIA Kentucky President. During his career, he has served on numerous local and state boards and commissions during his career. Randall is a University of Kentucky, College of Design alum.

