A Compendium of Research and Design

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UNLV School of ARCHITECTURE
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Twenty years ago, during the 1997-1998 academic year, the UNLV School of Architecture celebrated the initial accreditation of its academic programs. The hard work and enthusiasm of the professional and academic communities that helped launch the Architecture Studies program in 1986 were at last bearing long-awaited fruits. The 1997-1998 academic year was also exciting because the UNLV School of Architecture was finally able to move into the brand-new Paul B. Sogg Architecture Building, and had received generous support from John Klai II to inaugurate its promising Klai+Juba+Wald Lecture Series. To showcase the school’s accomplishments of that era, the faculty published Terra Firma, a journal that highlighted the design and research activities of the architecture, landscape architecture and interior architecture and design programs.

In light of our twentieth anniversary, and after serving as Interim Director of the UNLV School of Architecture for the past two and half years (and as a faculty member for the past fourteen years), I am proud to launch Vertex, a compendium of research and design work highlighting the accomplishments of many talented students from all of our academic programs—the UNLV School of Architecture has come a long way since Terra Firma was first published. At present, our professional programs in architecture, landscape architecture, and interior architecture and design are all accredited with the maximum term granted by their respective agencies, with several curricular areas identified as “met with distinction.” Many of our alumni are now accomplished professionals and community leaders making a difference in Nevada and beyond. And to celebrate twenty years of our now renowned Klai+Juba+Wald Lecture Series, we featured seventeen distinguished alumni as our speakers. But perhaps the most important indicator of our vibrancy and success is that we have become a destination school for the students who wish to investigate the exciting urban laboratory of Las Vegas and the intricate environment of the Mojave Desert.

The UNLV School of Architecture has historically relied on the support of the local professional community, and more recently, its alumni, to be able to deliver a strong professional education. Generous gifts from professionals and alumni vested in the school’s success helped us launch the Natural Energies Advanced Technologies (NEAT) Laboratory, the David G. Howryla Design+Build Studio, and the Schoeman Travel Endowment. The combined effect these gifts have had on our students’ education is paramount and transformational.

Today, the UNLV School of Architecture is a diverse and dynamic learning community that capitalizes on its unique regional location to improve the human condition through teaching, research, and service. In line with the College of Fine Arts’ mission, the UNLV School of Architecture also strives to transform our global community through collaboration, scholarship, and innovation. The work and connections made
by our students and academic programs excitingly converge in, and are informed by, our locus in Las Vegas, Nevada. Therefore, I see the UNLV School of Architecture as a “vertex” or the point where academic programs, diverse people and ideas, and an engaged professional community all converge and connect to both develop a better understanding of this exciting environment and to shape a sustainable vision for the future of the unique urban and natural contexts that many of us proudly call home.

In Vertex, you will find a broad range of student exploration and strong examples of our culture of “making.” Design exploration of issues associated to our geographical location, as well as this passion for making at different scales, are both intrinsic characteristics that distinguish the UNLV School of Architecture graduates.

Vertex was organized to showcase some of the UNLV School of Architecture’s most prominent areas of strength. Our multidisciplinary design foundation program is the initial building block that instills in students an ethos of systematic inquiry through making. Appropriately structured processes of experimentation and production using a variety of tools and media help students develop significant spatial understandings through the sequential act of drawing and making. The spatial understandings developed in the design foundation, supplemented by a culture of inquiry through making that is cultivated in our design studios, prepare our students to creatively engage in a rigorous study of relevant disciplinary subjects that range from the design of arid environments to hospitality, and from building technologies (including design-build) to healthcare interior design.

The UNLV School of Architecture’s commitment to excellence in research and design is vastly illustrated in Vertex. I hope this compendium elucidates the high achievements of our students and faculty and incites you to engage with our school and to become a part of its future. Thank you for your unwavering commitment to ensure the success of our academic programs!

Notes
Top Right - Bamboo Construction Workshop led by Simon Velez and hosted by the NEAT Lab.
Bottom Right - AIA Las Vegas Design Citation Award: Proposal for the UNLV School of Architecture Alumni Pavilion.
While its exact genealogy is unclear, the English language-idiom, “A picture is worth a thousand words,” is an unspoken mantra—if not a core belief—of the design disciplines. Every day, whether inside or outside of studios, workshops, ateliers, firms, offices, or any spaces that serve as the laboratory that catalyze the production of our visual language, us designers continuously forge new vocabularies to communicate increasingly creative, radical and inspiring work. The image and the model are the tools with which we construct the built (and unbuilt) environments. What we experience through sight and touch fires up neural connections that bring our thinking alive. It is within this context that this tome’s design and layout were engendered.

Composed of 848 images collected across all three of the UNLV School of Architecture disciplines (Architecture, Landscape Architecture, and Interior Architecture and Design), this publication presents projects free of text. Instead, the indeterminacy of the narratives they tell, the insights they provide, and the inspiration they furnish, is left as a personal experience between the page and the eyes. Open for interpretation, this compendium does not prescribe a particular reading or elucidation of any one project. One can choose to marvel at projects’ craft, color, or composition. One can choose to analyze strategies of representation and visual argumentation. And—with enough mettle—one can delve deeply into the spatial implications of every single one of the projects contained herein. The one piece of text that is included within each spread is a 6- to 7-character code (e.g., AAI 373, AAE 790, LAND 486) that acts as an internal notational system delineating whether the work was produced in the Fall or Spring and at which point in the course sequence it belongs to.

Structurally, this primarily visual content was organized around five “fulcrums” upon which the UNLV School of Architecture has developed areas of specialization and expertise. Launched by Analog + Digital Design Foundation, and followed by Healthcare Interior Design, Landscape Architecture + Urbanism in Arid Environments, Hospitality Design + Entertainment Architecture, and Building Technologies + Sustainability + Design-Build, this book paints a narrative of incredible achievement and unwavering commitment to excellence in design scholarship and practice. However, no publication is complete without context, and therefore, each of these sections are introduced by different types of textual media—whether a conversation or a micro-essay, for instance—that help provide an additional window into the sort of thinking and doing that remains in constant evolution and flux. And of course, this publication would not have been possible without the visionary leadership of Interim Director Alfredo Fernández-González, and it would not have been as rich without the contributions of all the UNLV School of Architecture faculty and students. Vertex is, truly, a collective achievement we can all be proud of. As the school celebrates its 20th anniversary, this compendium is a datum of present work and augur for the incredible developments in our future.
On the Liminal Fertility (and Gradients) of Landscape Binaries in the Sin City of Neon Lights

ALBERTO DE SALVATIERRA + SAMANTHA SOLANO

Learning from Las Vegas could easily be regarded as one of the most significant architectural publications in the last half-century. Excavating an unusual depth from Las Vegas' widely alleged superficiality, it brought attention to a new set of architectural ideologies. However, rather than spurring further investigations into the city, Las Vegas has largely languished in isolation from the discourse: Other than the brave Denise Scott Brown et al., few have returned for serious play at the city of gaming. And, provocative though an exploration of signage and casinos was, what else is there to a consumerist city built on monetizing hedonism, excess and pure id delight? What can be gleaned from yet another sprawling "failed" suburbia in the middle of a barren desert? What can a Disneyland on steroids instruct about city-making and urban life? In fact, perhaps it should come as no surprise Las Vegas elicits such caustic contempt as a site for investigation—let alone speculative and projective exercises from its unique composition.

Or, as any reader might ask themselves: How is Las Vegas relevant? While this is our central question, the departure point begins with the identification of a unique characteristic inherent to Las Vegas: The Sin City of neon lights is an oft-impossible agglomeration of strong and contradictory landscape binaries. The scorching heat of an arid city stands in direct contrast to its thirsty lawns and an annual “monsoon” season. The bombastic and flashing façades of the strip are exacerbated by the surrounding “adobe” monotony of the suburbs. As the marriage capital of the world, it lies within the only American state that sanctions prostitution. Even the immediate vicinity of Las Vegas is a contradiction between the preservationist attitude of the wildlife reserves and the destructive tendencies of military bases with a legacy of nuclear detonations. And lastly, the sacred and the profane coexist in a manner unlike any other American city: Is it Valhalla or Sodom and Gomorrah? It is these liminal conditions in between that both reveal an epistemic fertility that clamors for further study and reflect back the whole of American civilization on itself.

Of course, binaries can be problematic. They are often reductive and frequently perpetuate Western power structures that favor a white patriarchy: man/woman, white/black, rich/poor. As such, everything outside of those polarities becomes either erased or subsumed, and the resulting framed argument is given heightened authority: good v. bad, what else is left to consider? We agree such a view of the world can be reductive and as post-structuralists might argue, such rigid dichotomies are often too deterministic; reality is that of emergent gradients.1 Similarly, we find the interstitial indeterminacy fruitful. However, to arrive at a deeper reality than most afford the “Silver City,” we start with certain dialectics—decoupling what is often seen as just a one-sided fantasia—and end with projective speculations about the liminal gradients that ultimately manifest in the in-between.
Dry Matter. Wet Matter.

If one knew nothing about geography and landed right in the middle of the Las Vegas Strip, one might be hard-pressed to realize the immediate environment is a rain-shadowed basin in the driest desert of North America. Ubiquitous lush palm trees (and other vegetation) and an obscene amount of beautiful water features (the record-breaking The Fountains of Bellagio notwithstanding) suggest a beachy semi-tropical utopia instead. Or, if one did have greater awareness of the desert metropolis, knowledge of the 58 golf courses that mottle its urban fabric (the third most of any city in the United States) or the ever-expansionist verdant suburbs that continuously grow in all directions might make one wonder: How is this possible? Or, better yet: Are these conditions sustainable?

Of course, the massive maintenance of grass lawns at both the entertainment or domestic scale is not ecologically-friendly, and the various water features are not resource conscious. Even the suburbs themselves are problematic: as some have pointed out, Las Vegas “... image of hedonism in the casinos and the good life in gated communities has ravaged the natural environment and emphasized the most narcissistic aspects of the American Dream.” However, the culprit lies not just with a few actors, but with the city itself. As our colleague William J. Smith, here at the University of Nevada, Las Vegas, and Ahmad Safi write, “...the image of the fountains and their surroundings are in direct contradiction to the ‘real’ Las Vegas. Las Vegas is not a wet, lush place full of elite. However, its population participates in the charade because it is vital to the economy.” And certainly, it is this economic “reasoning” that acts as an obfuscating fog to present and future water resource issues:

Las Vegas has also run headlong into a sustainability dilemma that many in the city appear to find sacrilege to acknowledge. Growth is assumed to be positive at any rate possible. No local high-profile party has a vested interest in any other policy, and the federal government considers growth to be a local matter. Thus, what is on the table instead, is simply how to obtain more resources (i.e. water) to make unlimited growth possible. Ideas on the table for the Southern Nevada Water Authority (SNWA) include bringing water from as far away as the middle of the U.S. from the Mississippi River, cloud seeding which has already been tested towards the top of the country in Wyoming to obtain credits, and desalination of ocean water pumped far up the Lower Colorado River Basin from Mexico.

Las Vegas is in a state of denial over its arid milieu. The conservationist attitudes more appropriate for “desert living” stand in direction opposition to the capitalist model of continuous growth. Yet, without constant growth, under current operating procedures, Las Vegas would languish. Paradoxically, its thriving is built on dying—but for how long? And now that the springs that attracted early settlers were pumped to extinction and the meadows which give Las Vegas its name were paved over, new paradigms must emerge and new procedures for the city must be formulated. For example, a problem that might surprise outsiders is that Las Vegas experiences drastic seasonal flooding. And until recently, rainwater collection systems in the entire state of Nevada were prohibited. Even a bucket on a porch was illegal. And while on a state-wide basis the recharging of the aquifers is important, urban Las Vegas—where the majority of the city is covered in impermeable surfaces—demands a more complex solution.

Moreover, Las Vegas’ problematic relationship with its desert identity and its water resources also stem from a larger discourse (or lack thereof). In landscape architecture, for instance, the climate change conversation is primarily focused on endangered coastal territories due to rising sea levels. This is both timely and appropriate. However, other scenarios—dry ones—which equally require attention are constantly overlooked. This lack of urgency and consideration can be attributed to such designations of arid regions as “barren,” “deforested,” “overgrazed lands with little value,” and “aberrations that need to be repaired and improved” which was embodied by the 1994 UN Convention to Combat Desertification (UNNCD). Classified arid landscapes account for more than one third of the Earth’s total surface and are anything but “barren.” They are rich with urban life, provide agricultural necessities, and offer biological diversity—thus reinforcing their need to also be critically evaluated.

Stardust and Sawdust; or, The Strip and The Suburbs

The dry-wet gradient is not the only one that easily comes to mind when describing Las Vegas. The globally-recognized ‘Strip’ stands in literal contrast to the suburbs that surround it—differences that can be seen in aerial photography, from space. According to the Las Vegas Convention and Visitors Authority, 42.9 million tourists visited Las Vegas in 2016—surpassed in the U.S. only by Orlando, FL. This means, on average, per month, Las Vegas hosts almost double its population in tourists—and their activities are largely contained to the Strip. Yet, it is not only tourists who prefer isolation. According to Elena Vesselinov and Renaud Le Goix, 70% of homeowners live in a gated community. Beyond the service workers, or valets at the perimeters of the hotel-casinos, residents and tourists rarely interact. But surely residents visit the Strip too? It would seem not. Most find such forays into the heart of their city too cumbersome and traffic-ridden to warrant repeat visits. Tragically, it is this separation between the suburbs and the strip that has furthered the impression nothing exists beyond the gilded palaces and exotic temples to capitalism. The ceremonial drama of winning and losing has incorrectly mythologized the city. To visitors, to Hollywood, and to the rest of the planet, only the Las Vegas Strip exists, and “this malleability of imagery and identity has positioned Las Vegas as a target for critics who see the city as only the Strip and, therefore, as a bastion of postmodern hyper-reality and inauthenticity.”

Or, in the words of the very colorful author and critic James Howard Kunstler, Las Vegas is, “a utopia of clowns.” In other words, “Las Vegas has nearly always been viewed not as an urban place but as an isolated attraction.” But, beyond the overstimulating kaleidoscopic juxtaposition of Ancient Egypt, the Roman Empire, the Caribbean, New York City, Paris, Venice, Monte Carlo, and Avalon—on the Strip—and sprawling suburbs with Mediterranean names, the city has become an ephemeral urban space that cycles itself anew with indiscriminating frequency, where “landscapes, as well as fortunes, are made and unmade overnight.” And it is this collective urban-fabric that actually generates one of the most peculiar city conditions in America. As Sharon Zukin et al acutely observe: “Contemporary cities are no longer built on visible and tangible production, but on money changing hands. Urban design no longer delineates separate zones for work and leisure; all become one in the consumption of an image that is the city’s primary product. With these discursive practices, Las Vegas may well be called the typical ‘capitalist city.’ Therefore, what better subject of study than the modern, post-modern and meta-modern condition of a city with planetary recognition that dawned along with the Atomic age to offer a reflection of America?

Forever or For Now

Sociologically, Las Vegas is also a fascinating subject of study. As one enters it—either from exiting a plane or by driving down the interstate—visitors are immersed in a visual quandary of once-in-a-lifetime activities “offering a chance to shoot a machine gun,
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Beyond city limits, this narrative extends into another extension of the Mojave Desert that has experienced severe mutilations under the pretext of defending (human) life. Up until the Comprehensive Nuclear-Test-Ban Treaty (CTBT), the United States officially conducted 1,054 nuclear test detonations, of which approximately 86% were located within the former Nevada Test Site (NTS)—now known as the Nevada National Security Site (NNSS). Concealed between three iconic desert landscapes—Death Valley National Park, the Desert Wildlife Refuge (DWR), and Las Vegas—the NNSS embodies the cultural fetishization that satisfies our curiosity of spectacle, danger, and death. Because of its proximity to Las Vegas, the NNSS’ frequent tests (i.e. colorful mushroom clouds) could be experienced from the life, energy and lights of the strip. As Walter Benjamin famously asserted, “Humankind’s self-alienation has reached a point where it can experience its own annihilation as a supreme aesthetic pleasure.” Nevertheless, even though it has been nearly 25 years since the last detonation, the lasting effects and the continued threat of characterizing deserts as empty, lifeless, and prime for destructive alteration remains. The U.S. Air Force seeks to expand the Nevada Test and Training Range (NTTR) into the adjacent DWR which “is the largest wildlife refuge outside of Alaska…and can cover Rhode Island twice—and still have enough room left over for a quarter of a million football fields.” Filled with over 500 plant species and many distinct fauna (big horn sheep, mountain lions, and 320 bird species), the DWR offers a unique landscape experience to Las Vegas and its visitors. Once here, Las Vegas can cater to an obnoxiously wide array of epicurean desires with globally-recognized, endless food offerings as accessible as a buffet or as luxurious as desserts made with gold. And after both proper nourishment and sleep, Las Vegas offers a palette of experiential delights so extensive it has yet to be fully quantified. It is no wonder that many escape the dreadful monotony of the everyday by coming to ‘live’ here—even if for a short period. However, this excess of ‘life’ energy is counterbalanced by its opposite. Here, the threshold of addiction—whether gambling, alcohol, sex, tobacco or something else—is easy to cross; many have been lost to the seductive power of the city’s dark side. But, Las Vegas operates at many scales, and at the scale of the city, Las Vegas’ creative energies are manifested through its constant building frenzy. The most recent statistics state that in 2017, 8,411 new homes were built; 2018 has a forecast of an additional 10,400 new builds. But of course, Las Vegas was engendered to offer these extravagances of life, again, often by way of its mirror: death. The city demolishes the irrelevant and births new experiences so frequently that “you’re adrift in perpetual newness.” The old Vegas—and by old, we mean less than fifty years—is in an on-going jeopardy of full erasure as the value of modern amenity is greater than nostalgia. Because of its age—markedly adolescent compared to other cities—Las Vegas has yet to adopt a preservation mindset. Consequently, the city demonstrates behaviors associated with risk, destruction, and narrow-focused innovation. This cycle of creative destruction and destructive creation—this constant desire for novelty—extends beyond the Strip: Subtracting deserts and imploding terrains are common practice in the advent of new development. Absent of limits, development in Las Vegas, is beginning to encroach on conserved Mojave deserts landscapes such as Red Rock Canyon National Conservation Area and the Spring Mountains National Recreation Area.

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The Dance of Life and Death

More philosophically (or as analyzed from a Freudian lens), Las Vegas is a city of Eros (the ‘life’ drive) and Thanatos (the ‘death’ drive) made manifest. The will to live, to create, to produce, and to construct remain in a perpetual tango with the instinct to return to the inorganic in such ways as addiction and the proclivity to numb. At the scale of the ego and the group, Las Vegas’ delivery of an experience of abundance reigns supreme. Before arriving, one can select any one of 150,000 hotel rooms across dozens of hotels (Las Vegas is ranked 1st in number of hotel rooms in the United States). Once here, Las Vegas can cater to an obnoxiously wide array of epicurean desires with globally-recognized, endless food offerings as accessible as a buffet or as luxurious as desserts made with gold. And after both proper nourishment and sleep, Las Vegas offers a palette of experiential delights so extensive it has yet to be fully quantified. It is no wonder that many escape the dreadful monotony of the everyday by coming to ‘live’ here—even if for a short period. However, this excess of ‘life’ energy is counterbalanced by its opposite. Here, the threshold of addiction—whether gambling, alcohol, sex, tobacco or something else—is easy to cross; many have been lost to the seductive power of the city’s dark side. But, Las Vegas operates at many scales, and at the scale of the city, Las Vegas’ creative energies are manifested through its constant building frenzy. The most recent statistics state that in 2017, 8,411 new homes were built; 2018 has a forecast of an additional 10,400 new builds. But of course, Las Vegas was engendered to offer these extravagances of life, again, often by way of its mirror: death. The city demolishes the irrelevant and births new experiences so frequently that “you’re adrift in perpetual newness.” The old Vegas—and by old, we mean less than fifty years—is in an on-going jeopardy of full erasure as the value of modern amenity is greater than nostalgia. Because of its age—markedly adolescent compared to other cities—Las Vegas has yet to adopt a preservation mindset. Consequently, the city demonstrates behaviors associated with risk, destruction, and narrow-focused innovation. This cycle of creative destruction and destructive creation—this constant desire for novelty—extends beyond the Strip: Subtracting deserts and imploding terrains are common practice in the advent of new development. Absent of limits, development in Las Vegas, is beginning to encroach on conserved Mojave deserts landscapes such as Red Rock Canyon National
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food resources. Those open and brave enough to interface with the Mojave Desert find iconic spiritual connections in places such as: Valley of Fire, Death Valley National Park, Red Rock Canyon, Mount Charleston, Joshua Tree National Park, and the like. Under this context, as a disruption of the spiritual and sacred, the “City of Sin”–ironically situated in the unincorporated town of Paradise–lives up to its name, channeling its emblematic aura. Moreover, since “no one [wants] to give up the fantasy; no one [is] willing to step in and impose regulations on Oz. So, citizens simply [allow] Las Vegas to grow without bounds and without regard to the environment.” And, as the Bureau of Land Management (BLM) releases lands to hungry developers for the next set of profits, the city becomes the ravager of a sacred landscape—the disrespectful force of conquest, making it profane.

As a landscape of contested moralities, where do we, as designers, position ourselves? Where do our values lie? Do we consider the city of Las Vegas to be sacred—a city to celebrate for its resilience and ingenuity in thriving within a harsh arid environment? Or, do we emphasize the desert—for its solace, spirituality, and the point of connection to the sacred? The interpretation of a wildlife reserve as sacred and a military base as profane perhaps resonates as true, but is also normative: If these wildlife reserves are furthering problematic conservationist agendas, is their halo removed? Does the NNSS assist in the perpetuity of safety, and therefore life, in America?

The critique of Las Vegas through dialectics opens up the discussion beyond the univocality of The Strip. Previously, most discussions focus on the negative, the obscene and the caricature of Las Vegas. This narrow focus has limited the potential for analyses of Las Vegas to join multiple conversations about urbanity, the environment, resiliency, innovation, and diversity. This is not to say that the Strip should not be regarded as a topic worthy of study, but moving forward we seek to open the narrative and study the alignments and flows that impact and support this iconic landscape: The good and the beautiful, the bad and the ugly. Additionally, several opportunities for designers to question emerge. How do we design sprawl? How do we preserve old Las Vegas? How do we interface with the desert ecologies? How do we densify and grow with limiting water resources? How do we sustain life with the pressures of uncertain climate futures? How do we see past moralistic judgements of a city? Each of the explored dichotomies—wet v. dry, stardust v. sawdust, forever v. for now, life v. death, sacred v. profane—are but a few of the possible filters that allow for interventions at the margins, at the liminal spaces in between. The challenge then becomes, as liminalities blur, to invert new open typologies that invite the rejected into the celebrated and the divine into the obscene. In this nature, Las Vegas is revolutionary as a designer’s paradise. Nothing is sacred enough to not touch and nothing is profane enough to not explore. Las Vegas is an open studio where risk is welcomed, global recognition is guaranteed, and innovation is within reach.
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Bibliography


The authors would also like to thank Michael Raspuzzi for his photography on Las Vegas’ dialectic conditions (pp.016-017, 020-021).

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Over fifty years after Marshall McLuhan delivered his famous quote, it still rings true. The tools that we devise to shape our world not only bring change, but—as the late 20th and early 21st centuries have demonstrated—they accelerate changes in the way we see, interact with, and construct our world at an unprecedented rate. Our design foundation students have grown up in the Anthropocene era, knowing nothing different than the breakneck speed of technological, cultural, and ecological changes that present various challenges as well as opportunities for the future of humankind. In order for design to be a catalyst for progressive change, we need to ensure that the ways in which we observe, learn, strategize, and execute design (process) are calibrated to address these challenges of the present and future. Beginning design courses should lay the pedagogical foundations for this attuned alignment between design and our responsibilities as professionals in an ever more complex world. To address these issues in the design foundation courses, our interdisciplinary faculty team scaffolds the learning process with the following values:

First, we wish to instill an ethos of prolific experimentation and production with a variety of tools and media—essentially constructing one’s understanding through the act of drawing and making. This way of working facilitates generative loops between two-dimensional drawing and three-dimensional making—a reflexive process oscillating back and forth between different modes of representation. Put simply, we make what we draw, and then we draw what we make. This constant production of tangible drawings and models, each building on and developing from antecedents while leading to new insights, has led to a culture of fearless creativity and inventiveness—with more focus on critical interrogations of tools, techniques and tectonics. In this way, students become comfortable with the unfamiliar, embracing happy accidents and making discoveries. A visitor to the studios might overhear any number of verbs describing operative processes to shaping media and materials—action verbs such as layer, laminate, cut, stack, sculpt, subtract, form, tether, bend, fold, notch, rotate, just to name a few. Through making, our students begin to understand the meaning of techne and we hope that the good-work energy and enthusiasm emanating from our studio becomes contagious.

Our foundation projects also build skills through constant, rigorous, and iterative practice—harvesting the fertile imaginations of our students to build a well-crafted body of work. Semester-end studio exhibits not only critique and celebrate the end results, they also index our students’ abilities and demonstrate the learning curve of wielding design tools with dexterity, care, and intention. The tools that we use in our design professions as well as in academe have been shaped over many years: the Beaux Arts tradition, Fordism and machine age logics via the Bauhaus—all most recently disrupted by...
the digital revolution. Working within the current, quickly-evolving ecosystem of digital technologies, we are opportunistic users of both analog and digital tools and techniques, developing a non-exclusive fluency that oscillates back and forth. This open-minded praxis allows students to absorb new technologies into their ever-evolving tool chest, developing their intellectual and professional curiosities, and encouraging adaptability through life-long learning (“learning how to learn”).

Furthermore, we approach design problems with interdisciplinary enthusiasm and mutual respect. In doing so, we hope that students understand that they must work together in order to make meaningful, long-term impacts on our world. The most productive working environments foster curiosity and risk-taking, but also collegiality, communication, and collaboration. Design education is challenging and intensive, but also hands-on, applied, character-building, and hopefully satisfying. We share and we learn from each other. Our work environment is situated in a professional school with three disciplines, nestled within a college full of creatives, and located on the most diverse university campus in the nation and that diversity is our strength—whether we are talking about demographics, ideologies, or disciplines. Design can only truly address the complexities of our world with the kind of divergent thinking generated from a diverse pool of viewpoints, life experiences, and complimentary expertises.

Finally, we embrace the mantra, fail early, fail often. Successes and failures are both inevitable outcomes of learning—and especially outcomes of design training that aspires for excellence. By embracing failure, we still hold ourselves to the highest expectations and standards, while acknowledging that temporary learning curves, set-backs, and dead-ends are simply learning opportunities that develop habits of critical reflection and rigorous persistence. We try to instill a comfort-level with the unknown or unfamiliar, and those feedback loops are the generative threads to an iterative process of discovery. We try to lead our studio with a spirit that together we can do anything, but with no illusions that the journey to do so will be easy or that we can take shortcuts.

“Now that we can do anything, what will we do?”
—Bruce Mau, Massive Change, 2004

Indeed, what will we do? The professional designers of the future have many concerns and problems (some being existential in nature) on their plate. Inequality, urbanization, automation, and a whole raft of potential disasters from climate change are just a few of the many urgent challenges of the twenty-first century that simply cannot be adequately addressed without our design professions. Shaping our world in equitable, sustainable, and delightful ways amid constant changes and crises is the new design project—one which requires careful and nuanced calibration to work with and connect between various cultural, political, ecological, and technological systems. In the design foundation sequence, we aim to lay the groundwork to help our students develop into professionals committed to this project of design with the curiosity to question and experiment, the audacity to dream, the work ethic to persist, and the agency to act.

Notes
Top Right - AAD 180 students (Patrick Whennen II, Greg Sample and Edward Oakes) preparing for their project review.
Bottom Right - CNC Mill giving shape to island topographies designed by AAD 282 students.
A Conversation on Healthcare Interior Design

ATTILA LAWRENCE + DAK KOPEC
w/ Alberto de Salvatierra

AS: Attila and Dak, in putting together this publication for the SoA, I wanted to get a better handle on our various programs. I’ve read our website’s elevator pitch, but wanted to dig deeper. What exactly is/falls-under-the-umbrella-of healthcare interior design? What sort of things is HID and what is it not?

DK: Like many other design programs that offer a concentration on health and wellbeing, we form our foundation on the World Health Organization’s definition of health as being the absence of disease and infirmity along with the complete psychological health of the individual and sociological health of interacting groups.

AL: The UNLV approach is therefore a creative and innovative strategic design process that harmonizes building performance with human cognitive and physical performance. My colleague frames this process as design that ultimately cares for human health.

AS: Given this is a universal concern, it is a serious and urgent undertaking then.

AL: Precisely. Most of us are born inside of a designed environment, and according to the Environmental Protection Agency we spend over 90% of our lives in interior environments—and many of us will transition to the afterlife within an interior environment as well. The impact of these spaces on individuals, families, communities, and our systems of care is therefore the most profound aspect of wellbeing. Adding to the complexity of health care interior design is the new era of design thinking where multicomponent design interventions are expected to account for their biological and behavioral impact on humans to promote health and wellbeing in the built environment.

DK: And our transition from an existence spent predominantly outside with only raw materials to aid in our comfort, to one where everyday activities have and are becoming more automated in a relatively short span of human existence—the importance of maintaining health and wellbeing is of paramount importance. The Healthcare Interior Design program at UNLV teaches students how to draw upon familiar technologies, integrate new technologies, and plan for future technologies in order to maintain optimal health and wellbeing of all people.

AS: You bring up automation and technology. With our attention shifting to these—as you say—to live more comfortably, is HID a growing industry?

AL: Demand for healthy and health-promoting interior environments permeate all segments of the building industry: from hotel, residential and corporate projects to hospital and allied health facilities. For example, major hospitality chains already are expanding their evidence-based health and wellness amenities for travelers to maintain their health and wellbeing while in transit. The next and urgent design challenge is likely to be school
HEALTHCARE INTERIOR DESIGN

violence that will require a multilayered design approach to shift the public focus from persistent and recurring problems to solutions that are supported by evidence-based design strategies. The three trillion United States healthcare market, the largest healthcare industry in the world—that comprises approximately 18% of our GDP—also presents unprecedented opportunities to a new generation of entrepreneurial healthcare design professionals.

DK: All of this translates to a growing demand for greater depth of knowledge in human anatomy, biology, psychology, and social behaviors related to the designed environment.

AS: Three trillion presents huge market potential. Educational institutions across the United States must be seeking to capitalize on it. Why did we choose to do it? What makes us special?

DK: Twenty-first century creative and innovative professional practices of interior design manifest at the intersection of the arts and sciences. What makes UNLV’s Interior Design program uniquely poised to tackle this challenge is the bold step that few Interior Design programs in the nation have taken: adding a specific faculty position based on a strong biological and social science background.

AL: Also, both the cross-disciplinary Master of Healthcare Interior Design and the undergraduate Interior Architecture + Design programs integrate research and education that is coupled with real-world, design-research, problem-solving-based teaching and learning. These programs assure an educational experience that is responsive to current and projected modes of professional practice in the design of health-promoting and healthy environments. The professional development of the students is further enhanced by the program’s unique collaborative relationship with behavioral and health science organizations which include the Cleveland Clinic Ruvo Center for Brain Health (in the development of neuroscience-informed design strategies) and the University Medical Center of Southern Nevada (for professional internships).

AS: Excellent. Wow...this is comprehensive. And I’m hearing there are a multiplicity of angles by which to arrive at HID. What drove you to the discipline?

DK: Most of the respected professions have developed specializations in response to the expected level of knowledge required to excel. No longer is a Lawyer just a Lawyer; they are now Divorce, Corporate, Contract, and Criminal Defense Lawyers, etc. The same holds true for physicians; they are Cardiologists, Oncologists, Pediatricians, etc. In order for design to thrive in the future, designers will need to gain sets of expertise, and Healthcare Interior Design responds to the core values of health safety and welfare that underpins much of Interior Design.

AL: Also, because significant formative life experiences that take place inside buildings are impacted by interior spatial qualities, I embraced the study of the dynamic relationship among these, the human brain, and the spirit, and refocused the breadth of my priorities in both design practice and construction. I want to have a better understanding of the human experience I design.

DK: All environments are based on sets of power and control, and become reflections of a person. This representation can be unfair, lead to bias, and affects the treatment of people. For example, an environment full of medical equipment with hospital-type qualities suggests a person is sick and we treat them like a sick person. This treatment may be unwelcomed and could result in hostilities. Likewise, an abused woman who goes to a not-for-profit safe house may feel like she is now one step away from being homeless because the safe house lacks elements that inspire safety and security. She thus decides to return to the abuser who despite beating her, does provide a home. Understanding how people use environments and what those environments mean have equal importance and should be integrated into a thoughtful and meaningful design. These are some of the reasons that compelled me towards Healthcare Interior Design.

AS: I imagine these perspectives then translate into pedagogy.

DK: Yes. First, we acknowledge that only cross-disciplinary collaboration creates new knowledge to inform the development of innovative and creative design strategies. To this end, we incorporate courses with specific biological and psychological content into the curriculum. Second, we embrace and engage in cross-disciplinary collaboration that inspires new design thinking. This is done through seminars at the Ruvo Brain Institute—interacting with real clients from Las Ventanas’ Senior Living Community—and including Behavioral Councilors, Kinesiologists, and Physical Therapists in our studio reviews.

AL: We also limit dependence on precedence (studying environments in a different time, place, for different users with extant technologies) as a factor in design decisions that may influence design methodologies that close upon themselves and do not serve the interests of contemporary stakeholders. Most of our studio courses are co-taught by adjuncts who are practitioners in the field and bring in real-world factors, and faculty who promote theory exploration of thought. These differing but highly relevant and complementary expertise provide students with a greater breadth of knowledge. Every studio course is a new “collaboratory” of different disciplines integral to the project. Students in both programs having won numerous national and international awards and recognitions appear to underscore the viability of this educational experience. In short, our students are not just trained to be designers; they are prepared to be design leaders.

AS: Perhaps I should switch disciplines! This is all quite extraordinary. It is so imperative disciplines of today are framed by timely and real-world concerns and buttressed with interdisciplinary collaborations—all of which are at the core of our HID program. And ultimately, design with purpose leverages immense power and optimism for the improvement of the human condition. There is no better ideal for which to strive for. Thank you for that deep dive!

DK: Our pleasure Alberto!

AL: Indeed.
Novel and Non-Nascent Technologies in Landscape Architecture: V.R., Tomorrow; A.R., Today

SAMANTHA SOLANO + PHILLIP ZAWARUS

As a fundamental part of the design process, the act of visualizing data engages methods of disclosing, encoding and registering information. For the landscape architect, the representation of geospatial data often becomes the primary way of understanding and responding to a site. As a result, contemporary conventions are constantly being redefined by both topical technologies and the emergence of new ones—presenting us with increasingly more creative ways of discovering and interacting with information. Whether cartographic making, landscape processing, or systems visualizing, both virtual and augmented reality technologies are ripe for exploring and tackling new paradigms of immersive interfacing in landscape architecture.

Virtual Reality

Over the past 40 years the emergence and evolution of gaming technologies has immersed users into virtual worlds using realistic graphics, rich narratives, and the authority to control their own digital experiences. So, it comes as no surprise the argument for video game technology as a critical part of the design process is beginning to gain traction amongst the design disciplines. In landscape architecture specifically, there has been a shift in the ways landscapes are represented—challenging conventional techniques such as plans, sections, and perspectives and exploring interactive, dynamic media to express the ephemeral and atmospheric qualities inherent in the landscape. The introduction of free and accessible game development software such as Unity 3D, has made it possible for anyone to design their own game environment while also “triggering” events to unfold as the user interacts with these virtual worlds. However, the use of these available technologies remains largely isolated within the gaming design disciplines, focusing primarily on the outcome of a “playable” consumer-driven game. However, the advantage of these technologies is that there is an opportunity to integrate various “methods and processes” of designing virtual environments into current practices of representing landscape design.

For example, in the mapping of site, these technologies would allow designers to engage with spatial and statistical data through a dynamic immersive experience rather than the static 2D convention of “a map.” Yet, to better understand the medium of games in the context of landscape representation, several analyses would have to occur. First, a review of the “immersive” qualities of gaming environments—focusing primarily on its atmospheric and ephemeral abilities—would reveal its efficacy in displaying real-world metrics. Second, an evaluation of the advantages and disadvantages associated with current 3D immersive technologies such as Lumion and how it differs from the gaming design development platform, Unity 3D, would need to be executed. Next, the compatibility of conventional 3D modeling applications such as Rhinoceros 3D would need to be studied—revealing the necessary workflows to integrate a designed landscape into a full immersive “playable” experience. Lastly, one would need to speculate on the implication of integrating gaming technologies within academia and praxis. So, while these outlines are very much projective research in progress, there are already technologies today that begin to blur the boundary...
between the digital and the physical and therefore are strongly positioned to help redefine often nostalgic and traditional conceptions of landscape and ecology.³

Augmented Reality

Augmented reality technologies are not new. In fact, the relative ease of their construction makes them an accessible tool for landscape architecture instruction. For this reason, combined fabrication and digital technologies afford the ability to analyze spaces beyond the traditional outcomes by overlaying big data sets with comprehensive formulas to execute such tasks as evaluating ecosystem services from existing site conditions. This analytical knowledge, for instance, then provides a framework to measure, synthesize, and conceptualize ecological design solutions in response to the critical environmental, social, and economic needs of an area. In other words, by working within an interactive and responsive digital modeling platform, design outcomes can adapt and be evaluated in real-time. Such a responsive workflow being orchestrated within a digital 3D analytical environment can simplify resulting outcomes into a visually-communicated set of relative and tangible metrics. Therefore, methods of representation must in turn also transform to address landscape performance complexities by using dynamic visualization techniques that can include analytical datascapes, interactive media, and animated scenarios in response to spatial and temporal conditions. It is within this framework, that a series of workshops and exhibitions were held at the UNLV School of Architecture and the Marjorie Barrick Museum of Art to showcase how augmented technologies can effectively integrate landscape performance metrics such as terrain grading, runoff hydrology, and vegetal limitations packaged into a responsive platform operating between the analytical and design process of a project.

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Ultimately, for the profession of landscape architecture to remain relevant, we must continue to pursue ever more radical and technology-embracing methodologies to catalyze divergent thinking with rigorous study. Whether augmented reality today or virtual reality tomorrow, it is time for landscape and its adjacencies to shed perspectives not taking full advantage of interdisciplinary cross-pollination, and jump headfirst into asking more of our visualization methodologies. As Bruce H. McCormick et al articulated in 1987: “Visualization is a method of computing. It transforms the symbolic into the geometric, enabling researchers to observe their simulations and computations. Visualization offers a method for seeing the unseen. It enriches the process of scientific discovery and fosters profound and unexpected insights.”⁴

Notes

Right: Photography of UNLV community interacting with Kinect Augmented Sandbox by Phillip Zawaras.

A Q&A Session on Hospitality Design

GLENN NOWAK
w/ Alberto de Salvatierra

AS: What does hospitality design entail?

GN: Hospitality design encompasses so much of our built environment, it is almost easier to ask, “What does hospitality design not entail?” The archetypes for consideration in hospitality are not only limited to hotels and casinos—although these represent trillion-dollar industries that are always a part of the conversation—but extend to every facet of guest experiences: transportation hubs, restaurants, retail and convention spaces, performing arts venues, sports stadia; the list goes on. Even the design of offices and work spaces is increasingly a matter of balancing leisure and productivity with an emphasis on employee experience and wellbeing.

AS: This must extend into healthcare and other industries as well, then.

GN: Yes. Some of healthcare’s biggest trends are in medical tourism, which focuses on bringing lessons learned from hospitality into the design of treatment and preventative care environments.

AS: And what about schools?

GN: Actually, schools whose architecture are informed by hospitality design principles—like “Hospitality Hall” designed to emulate world-class resort architecture at the center of UNLV’s main campus (a project by SoA alumnus Michael Del Gatto of Carpenter Sellers Del Gatto Architects)—are seeing higher rates of student engagement, recruitment, and retention. Even housing is becoming a matter of hospitality: think “stay-cation” and the implications of Airbnb. Lessons learned through hospitality design are truly applicable across the entire architectural industry.

AS: But hospitality design is not new; it has been in practice for decades. Are there any factors that make it especially relevant today?

GN: Worldwide tourism has seen steady growth every year for well over a decade and it is forecasted to double again by 2030 with an estimated 2 billion annual travelers. What is most interesting is that lesser known destinations are developing to reap the benefits—and this creates tremendous opportunities to design smarter and more cohesive built environments across the country and around the world. As travelers become ever more discerning, they will choose to be “locals” in cities that extend experiential design sensibilities to broader contexts that serve residents as well as tourists.

AS: Glad you bring this up. What are some additional current and future trends in hospitality design?
Many in hospitality are trying to focus efforts around guest experiences with digital technology. eSports is huge, and robotics is transforming potentials on the service side of hotel operations.

And how does the city of Las Vegas fit into this landscape?

Las Vegas is often seen as a model of hospitality design. Design researchers can engage “The Strip” and its surroundings as a living laboratory to test design ideas that not only address the needs of the transient tourist population or the economic sustainability of the resort corridors, but their relationships to larger social and environmental sustainability issues (along with the city’s potential as the intellectual capital of the hospitality industry).

The city must be an incredible resource for the pedagogy at UNLV.

We have been very fortunate to work with campus and community partners both formally and informally for the past several years. Critics on design reviews often include CEOs of major resorts and principal architects or lead designers from industry-leading firms: Klai Juba Wald Architects, Marnell Architecture, YWS, Gensler, CSD Architects, Wynn Design, BUNNYFiSH Studio, Friedmutter Group, and many more. Research sponsors have included MGM Resorts International. The UNLV International Gaming Institute and the American Gaming Association have been collaborators on countless projects. Essentially, connecting our pedagogy with the Las Vegas community also means we are capable of contributing to the global hospitality industry because Las Vegas—and UNLV—is in many ways the center of that world.

Remarkable. What sort of projects are our students currently working on?

Some of our M. Arch candidates have presented design research at international conferences proposing digital kiosks as part of “Post-Occupancy Evaluations”—gauging guest satisfaction and preferences toward various design revisions in hotel spaces. Others have taken different approaches to identifying best practices for integrating eSports throughout IRs (integrated resorts). Last fall, four of our graduates (Matthew Bogan, Alex Klenk, Jas Le, and Thanh Le) were invited to present “TED-Talk” style presentations at G2E.

You mentioned robotics earlier—undeniably a hot trend right now. How are we interfacing with that?

The HD Studio has had the pleasure of collaborating with the UNLV Robotics Lab to envision “hotel rooms of the future.” The conversations amongst students and faculty led to design schemes for a hub of robotics education, entertainment, and research. And while many of the current trends focus on the intersection of the built environment and millennials, the HD Studio has been proud to also have research that takes a long view into the future by recognizing the cyclical nature of generational theory and how it can inform design decisions for buildings that should responsibly contribute to the economy, society, and the environment for generations to come.

In addition to the UNLV International Gaming Institute, do we have any cross-collaboration with other departmental units?

Yes. Colleagues in the William F. Harrah College of Hospitality are now getting involved, too. We are starting a new student team for The John Hardy Group’s Radical Innovation in Hospitality Competition, which will further encourage interdisciplinary collaboration to generate even more ideas across a wide gradient of interests.

I hear our students have had a history of success with this competition.

News gets around! Yes, one of our recent M. Arch graduates, Juan Orduz, won the competition in 2016, and Brandan Siebrecht, an SoA undergraduate, won in 2017! Yasmin Abdelfattah Soliman, the 2015 student winner, joined our M. Arch program last fall—also receiving the John Klai, FAIA Honorary Scholarship. We will also likely sponsor a traveling trophy—Rebels of Radical—to recognize top hospitality design talent and encourage students to continue their studies at UNLV.

All this fertile activity and production begs for dissemination. How can students and/or researchers outside the program get access to any of this research?

The UNLV Libraries have invited the HD research books and posters to be a part of the Digital Scholarship Collection—including those of the past several years. Our work will soon be accessible to the world alongside university theses, dissertations and publicly funded research. Many of our guests at final reviews express interest in having hardcopies of these works as well, and I will explore options to make these publications more accessible in the future.
Adapted Excerpts: Creating the UNLV Design+Build Studio

ERIC WEBER

Creating a new design-build program is an exceptionally challenging, but highly rewarding process. As one might imagine, there are numerous questions that must be answered before starting the process, and many more that appear as the program takes shape.

The University informed the Design+Build Studio coordinator that its insurance would cover students working on design-build projects for work done on campus. This meant that the program would need to utilize offsite construction for outside clients. This determination impacted the projects that have followed, as well as the regulatory structure necessary to complete the projects.

The Design+Build Studio determined that the first project should be something highly public, as this would assist in generating support for the program; the U.S. Department of Energy’s Solar Decathlon appeared to be an ideal opportunity. The Decathlon requires university-based student teams to design and build solar-powered housing prototypes, which must be transported to a competition site for testing. Off-site construction offers opportunities for students outside the Studio to engage the construction process, as well. By seeing these systems firsthand, students who are not enrolled in the Studio have an unparalleled opportunity to enrich their education with real-world exposure to systems explored in their course materials.

Establishing a new design-build program requires dedication, determination, and a good measure of patience. Navigating the complexities of regulatory processes and university bureaucracy can at times seem to be overwhelming, but a careful understanding of the constraints and opportunities is essential to a successful outcome. Developing reliable funding and project streams are also critical to the long-term viability of any design-build program. While every circumstance is unique, a careful review of the lessons learned by other design-build educators can assist in avoiding making the same mistakes, while capitalizing on the sometimes-unexpected lessons that can be learned. One of the more surprising lessons for the Design+Build Studio’s coordinator was the need to teach students soft skills like constructing clear, concise e-mails to suppliers. Proper phone etiquette, following up on communications to ensure consultants deliver on commitments, and the importance of being early for meetings are a few of the many skills employers expect graduates to know that have become integral parts of the Studio’s teaching. Professionals who have hired graduates from the Studio have commented that these new hires have much better communication and interpersonal skills than their peers, an unexpected but positive development.

The success of UNLV’s Solar Decathlon house led to interest from other parties, most notably the Nevada Division of State Parks, which commissioned the Design+Build Studio to design a box office for the Lake Tahoe Shakespeare Festival.
The lessons from this project were outlined in detail elsewhere, but perhaps the most important lesson was that the Studio was capable of completing a project on its own, without assistance from other units on campus. The success of the box office project ultimately led to finalizing an agreement to assist a nonprofit organization in creating an artist’s retreat center in Springdale, Utah, outside Zion National Park. Its unique location at the junction of the Mojave Desert, the Great Basin Desert, and the Colorado Plateau provides an opportunity to focus in a powerful, inspiring landscape. It is a compelling context for a design that foregrounds these experiences, while also challenging residents’ expectations.

The building site comprises six acres atop a mesa-like geological formation, with panoramic vistas for the retreat residents, providing a unique opportunity for those who inhabit The Mesa to gain deeper insights into the distant landscapes of the American West. Each residential unit will be approximately 400 square feet, with two residential spaces per module. There will be two modules constructed in the first phase of the project, with future phases including artists’ studios and common spaces with opportunities for social interaction.

Each dwelling unit begins as a journey into a narrow canyon, which then opens to the sky, a reference to “The Narrows,” an iconic location in Zion National Park. Passing through the entry, the space directs the visitor to primary views of the adjacent mountains, with secondary views northward to Zion Canyon and other prominent landmarks.

The building was conceived to be an analog for the way in which life on the hilltop tended to be most diverse in the cracks between the rock formations; creativity and biodiversity are connected in the design conception. The corrugated metal walls become the strata between which the project’s life occurs.

Notes
Right - David G. Howryla Design+Build Studio field trip to “The Narrows;” led by Eric Weber.
This piece was adapted from two excerpts:
Student Life at the UNLV School of Architecture is as unique as the people that make up our small community on the corner of Maryland and Tropicana. With a blue-collar work ethic and ambition, our students have carved a niche for themselves in the diverse, global network of design. With one foot in academia and the other in the community, our students walk a very fine line that allows them to fully embrace both the challenges of a design school and the opportunities Las Vegas and UNLV affords.

A local firm principal once told me, “I hire UNLV grads because I know I’m getting someone who is a dedicated designer and engaged with the community...They work in the profession, they volunteer; they’re so much more than just students.”

As Las Vegas recovers from the ailments of the last recession, we are being looked to as the future decision-makers for this young, but burgeoning metropolis. From hospitality design, to master planning historic rural neighborhoods, to redevelopment of the Maryland corridor, UNLV students find themselves at the collision point of a maturing, exciting community and a rapidly changing world.

The dedication and involvement of the student body has also been recognized at a national level. In particular, this year has been a milestone for the UNLV Chapter of the American Institute of Architecture Students. At the FORUM Conference in Austin, Texas, the chapter accepted the National Chapter Honor Award, marking the first time UNLV has ever received the highest distinction an AIAS chapter can receive. For his leadership and dedication, Past-President Dominic Armendariz was given the Honorable Mention for the Chapter President Honor Award. I added a design award, bringing UNLV’s total honor awards to three—the most for any school.

Dominic was also elected the next Director of the West Quadrant, becoming the third UNLV student to serve on the National Board of Directors. Dominic plans to use his position to grow the AIAS, reaching out to high schools and community colleges in the region. As President-Elect, Destanee Cook prepares to take the reins of a nationally-recognized chapter. Her team will look to create new and innovative ways to enhance the students’ experience at the School of Architecture.

Life as an architecture student at UNLV is about creating opportunities. By taking an active role in our education, we customize our journey to fit our passions. This can come in the form of involvement in our student organizations, community outreach, or internships—to name a few. Ultimately, this is what each of us brings to the table. It is not simply a diploma, but a summation of scholastic, practical, and personal experiences that shape who we are, and will be, as designers and leaders of tomorrow.
A MESSAGE TO OUR ALUMNI

Through my service as Interim Director, I have come to realize that our alumni and students share a passion for design, making, and service that together contribute to the enhancement of the communities in which we live and work. Successful stories such as the 2015 U.S. DOE Race to Zero Competition, where our collaboration with the Southern Moapa Paiute Tribe resulted in a low-income home recognized with a Design Excellence Award, or the highly innovative 2013 and 2017 U.S. DOE Solar Decathlon Competition entries (in 2013 we placed 2nd overall; in 2017 we placed 1st in Innovation and 2nd in the Architecture and Engineering contests), illustrate why your design education at the UNLV School of Architecture is so valuable.

I can proudly attest that our graduates are often recognized by their ability to be empathetic with end-users of variable needs, for their skill to identify and investigate critical design issues, for their use of evidence and data to inform design, but most importantly, for their generosity in sharing their time and talents to advance worthy causes. Our alumni’s work, and the inspiring stories shared by some of you during the 2017 Klai+Juba+Wald Lecture Series, challenge us to be better, to build upon our legacy, and to boldly look into the future as we strive to fulfill our noble mission to improve the human condition through design.

Yet, as the design professions undergo rapid transformation, we need your continued help to ensure the success of the next generation of designers. Your support may come in many forms: from attending mentoring and networking events to connect with our students, to participating in design reviews, to providing summer internships and hiring our graduates, and, of course, through your financial support. There is certainly more to be done (e.g., plans are being drawn to both refurbish space and purchase equipment for an advanced digital studio, and to launch a study abroad center for the UNLV School of Architecture), and your interest and continued support are vital in bringing these, and other projects, to fruition.

I hope that Vertex makes you as proud as I am of the excellent work produced by our future UNLV School of Architecture Alumni! They, like you, have learned about the importance of exploring, with an open mind, critical design issues that affect our human experience and wellbeing. Please consider supporting the UNLV School of Architecture as it enters into a new and exciting third decade of educational excellence!
I am very pleased and honored to provide afterword remarks to celebrate the inaugural edition of Vertex: A Compendium of Research and Design. This work is a monumental achievement for the School of Architecture, the College of Fine Arts and indeed the whole of UNLV. Its contents confirm not only the range of scholarship being produced by the SoA, but also the rich education being offered to undergraduate and graduate students. The work shared in this volume is stunning. Moreover, the learning that permeates the SoA is framed by the illumination of different ways of knowing the world within the discipline and profession of architecture—delving deeply into the integrated areas of practice and research. The exceptional asset of this School of Architecture is that it is located in Las Vegas, which functions for the SoA as a laboratory for the future. Whether the topic is Analog + Digital Design Foundation, Hospitality Design + Entertainment Architecture, Health Care Design in the context of Interior Architecture, Sustainability, Design-Build or Landscape Architecture—to name just a few examples; new knowledge is being created that has the potential to transform our global society. The connection of the SoA to the local community is strong, with an indelible commitment to collaboration, through the Downtown Design Center, the Urban Studio, events such as the Mayor’s Symposium and the Klai+Juba+Wald Lecture Series, as well as other work going on in the SoA—much of it highly interdisciplinary. This compendium is a celebration of the SoA’s deep sense of purpose and dedication to scholarship, as well as the pride of being both local and global. In an era where change is the only constant, the School of Architecture in the College of Fine Arts, at the University of Nevada, Las Vegas is making a powerful contribution through sharing the work in this volume, which will serve the academic community and the region, students and faculty, the discipline and profession of architecture, and all that it stands for in our world.