The American Society of Architectural Illustrators (ASAI), founded in 1986, includes professional illustrators, architects, designers, teachers, students, corporations, and others engaged in the serious pursuit of architectural illustration. The goal of ASAI is to improve architectural visualization throughout the world and every year, after poring over a wealth of submissions, they select approximately 60 works to be honored in the *Architecture In Perspective* publication and exhibit. This year, ZimmermanVisual, or more specifically, Ken Zimmerman, was among those chosen for that honor for his illustration of the Scottsdale Quarters Hotel.

Originally from Austin, Texas, Ken Zimmerman graduated from Texas Tech University, spent a few years in Dallas, and then moved to California where he earned his master’s degree from the Southern California Institute of Architecture in Los Angeles. After graduation, Zimmerman elected to stay in California, plying his trade at a number of architectural firms. “I was always kind of their go-to 3D guy,” he says, “but eventually I got tired of doing it for other people and started doing it for myself.” Zimmerman admits that being self-employed was a bit rough in the beginning, but over the past few years, Zimmerman Visual has been doing well, and better yet, he’s enjoying it.

Award-winning SoCal visualization artist Ken Zimmerman wins big with BOXX - By John Vondrak
CREATIVE BACK AND FORTH

In most instances, Zimmerman’s creative process begins with a call from a developer, architect, or interior designer requesting one or multiple renderings or animation. “Usually, what I get from them is a 3D model of some sort, either in Sketch Up or Autodesk Revit and then I go from there,” he says. “I talk to them and see what they want as far as types of views and what they’re looking for. Sometimes, if they don’t know what they’re trying to achieve, I’ll send them a series of block outs, just rough white renders, blocking out the basic form or geometry of the architecture, then we’ll have some back and forth and eventually settle on the right ones.”

Throughout this process Zimmerman relies on Autodesk 3ds Max and V-Ray as his “front end and the middle end tools,” employing those applications for the block outs and renderings—although not exclusively. “I’ll go to Sketch Up if I need to clean up something a little bit,” he says, “but I don’t really use Rhino or Revit. I do have the Revit Viewer, the free software from Autodesk to view the model, and sometimes I’ll export out from that as an FBX file. I’ll add color, lighting materials, landscaping, and all that stuff. After that, it’s back and forth with the client adjusting colors or changing things.”

Zimmerman saying that he didn’t use Revit reminded me of a similar statement from a BOXX customer who insisted that architects need to continue working in 3ds Max because Revit is primarily about BIM, not 3D design. “He’s probably talking about generating imagery,” says Zimmerman. “Ninety percent of the architects I work with are using Revit, but they’re not using it to render. They’ll do some basic rendering out of it, but there’s a huge jump from that to what I do or people who specialize in visualization do. It’s not all about the rendering engines. Mental ray® and V-Ray are great rendering engines. But, I prefer V-Ray because it’s faster and I have a library of tools built around it that I use when modeling, just implementing, or plugging stuff in. That’s a really important part of visualization—having that extensive library because someone working in an architectural firm who is on track to be an architect, they don’t want to get into managing all those 3D assets. It becomes quite a task, where someone like me specializes in it. It’s what I do and I’m okay managing it. It’s just part of my job.”

Having met with numerous architects at their firms, Zimmerman says that when these firms provide preliminary presentations to clients they may rely on rendering from Revit but that the situation, the audience, and the stage of the project dictate its usage. “If it’s a small preliminary meeting its fine for that kind of situation,” he says, “but if they have many people viewing the project like potential investors, a city council, or the whole community, they want the rendering to be a nice showpiece. I think you probably could do it with Revit rendering, but I think it would be very difficult and challenging, so it’s rare.”

In order to deliver the best presentation and secure city council approval, board approval, community approval, or investor dollars, firms and clients look to the final rendering quality of Zimmerman Visual. “I did one for the Great Lakes Center for the Arts in Michigan,” recalls Zimmerman. “They had plans and everything, but it hadn’t been approved. It hadn’t gone to the city or anything. They were still fundraising, so they had this big presentation for all these people, executives from Chrysler, GM, and Ford in Detroit. That’s one capacity and the other is, for example, presenting it to a city.”
Although the bulk of Zimmerman’s work consists of realistic final-looking renders, that’s not what earned him the award from the ASAI—an irony not lost on him. “It’s funny because we’re having this conversation because I had reached out to one of your guys and I said ‘Hey, look at me, I won this award’ but it’s not what you’re describing. Typically, what I do is probably a more realistic type rendering which is fine—I like that. But every now and then, I’d say once every three or four months, I get a client who doesn’t want that. They want something that looks sketchier, but looks nice.” When I tell Zimmerman that what he’s describing is the more traditional, old school architectural concept artwork, he agrees. “Yes,” he says. “It’s looser, and as far as the architecture goes, leaves the edges kind of undefined. There’s a little bit left to the imagination of the client. It’s telling them ‘Hey, we’ve got this cool project, but were not set on the design yet. It’s going to be in this vein and kind of look like this. So that’s where I leave in or add line work. I’m still using my BOXX, 3ds Max on a base level, V-Ray on a a basic level, and a couple of other plug-ins. With the plug-ins, a lot of manipulation, and Photoshop, I get it to look more painterly or watercolor.”

As I look at Zimmerman’s ASAI award-winning illustration, its style is precisely as described. One of a set of two with some small vignettes, Zimmerman says the process of creating it took a little less than a week, which is quite impressive considering he had very little information from which to start. The Scottsdale Quarters Hotel project (Scottsdale, AZ) was designed by Jack Highwart, AIA, of Cuningham Group Architecture, P.A., headquartered in Minneapolis, MN. “I worked for Cuningham a long time ago, then broke off and started doing my own thing,” says Zimmerman. They later became my client. Being that the project was in the concept phase of design, we felt that the illustration should be a little rough, unfinished and “suggestive” of the architecture. In order to accomplish a more conceptual look, a combination of digital techniques was used to create a hybrid illustration.”
CREDIT WHERE IT IS DUE

Whatever the combination, it worked—and obviously clicked with ASAI judges. “Every year they do a publication called Architecture and Perspective,” says Zimmerman. “It’s a small book, but they also have a traveling exhibit. I think it goes to various cities around the country, but it’s an international competition, so a lot of people from Asia and Europe submit renderings and you can submit as many renderings as you want. They have a few big awards and then they have the awards of excellence.” Although Zimmerman had submitted before (in 2008), this was his first award and he insists that it’s not just about the quality of the illustration. “I’ve done really good illustrations of not-so-good buildings, that is, not very well designed,” he admits. “But after studying what wins and what doesn’t win, you need to not only have a good illustration, but a good project—a well designed piece of architecture that’s nicely illustrated. I think this time around, my award of excellence was a given to a project that was not so well defined, but had enough there that it looked nice. I did it really quickly. It took me maybe a week and I didn’t have any model, just loose sketches. No floor plans, no elevations, no 3D model, nothing. There was a lot I had to fill in, a lot of back and forth with the client, but we hashed it out. I remember I sent a blog post out to various clients (I do some marketing work throughout the year) and the illustration was included in one of those posts and I got a lot of response from it. So it was a little bit of a surprise to win, but not a big surprise. I’m given credit for doing the illustration, but I give credit to the architect. Whoever wins should give credit to the designer, because it’s important to have a good looking project. It makes life a little easier.”

Because the design competition began in 1986, submissions for many years were represented by pencil sketches, charcoal, or watercolor. “They were beautiful renderings,” says Zimmerman, but obviously, as time went by, digital technology came into play. They still give a lot of awards to the watercolor renderings, but the digital presence is much bigger now. I don’t think the rendering I did is that common of a style. I would call it digital watercolor—not real watercolor but looks kind of like it. There’s not a lot of that going on.” Zimmerman says that, on average, out of all the submissions, only two or three (or less) of his particular style will be featured in the ASAI publication. The remainder will be actual watercolor, sketches, or photorealistic renderings.
“I didn’t look at anything else out there because I knew BOXX was the one I wanted. The ones I had used were always reliable and there was that great customer support.”

- Ken Zimmerman

ALL IN THE SUPPORT

So how did Zimmerman become a BOXXer? He says the odyssey began over ten years ago. “It was in the early days of Revit,” he recalls, “and I went to work for this small viz office in Pasadena that was using BOXX. They were doing Revit models and bringing them into what at that time was called 3d Studio Viz. At one time there was both Max and Viz. This was 2003 or 04 and I hadn’t heard of BOXX. I liked the machines a lot and loved the customer service.”

Zimmerman says that whenever they needed help, they could call BOXX Technical Support and expect courteous, knowledgeable assistance. “That’s a big issue especially with smaller offices and sole proprietor businesses,” he says. “I have so many things I have to do and keep up on, and tech is a real challenge sometimes. I don’t have time to get into the nuts and bolts of things.” Zimmerman is not kidding. In fact, later in our conversation when the subject turns to overclocking, he admits, without apology, that he doesn’t know whether or not his current systems are overclocked. Nor does he care. “See, I don’t want to get into the tech aspects,” he says. “I just don’t have time for it. My whole thing is trying to get business and keep clients happy. That stuff is interesting and once upon a time, I was really interested in the details of the tech.”

At one firm, before going to work for himself, Zimmerman managed to wrangle a BOXX workstation for himself. “At the very last place I worked, we had a little 3D group and all three of us had BOXX computers because I wanted BOXX,” he says. “Everybody else had HPs, Dells, or something else. They were running CAD—not real graphics intensive stuff. I requested BOXX and they got us some, as well as a little server for rendering. As soon as I left that office in 2010, I took a few weeks off and then decided to get a computer and try and get a few clients. I didn’t look at anything else out there because I knew BOXX was the one I wanted. The ones I had used were always reliable and there was that great customer support.” Zimmerman chose an 3DBOXX 4860, now considered a predecessor to the current BOXX APEXX 2.
WORKFLOW

In 2012, Zimmerman purchased a second system, a 3DBOXX 3970 (also comparable to the APEXX 2) and according to Zimmerman, the pair really accelerated his workflow. “I have the two and will probably get another at some point,” he says. “A lot of times, I’ll have multiple renderings or animations and it’s really difficult to do that on one machine, especially if I’m under a tight deadline and I’m almost always on a tight deadline because everyone wants everything yesterday. If I have two or three or eight renderings that I have to have done by the end of the day Monday, I really need to have multiple computers. I can render projects overnight, but I like the ability to render during the day, so I networked the two computers, got the V-Ray license and 3ds Max and all that so I can be using one computer or slaving it out and be using the other one as the production computer or workstation.”

I assumed that Zimmerman created on the newer BOXX and rendered on the old, but he was quick to correct me. “That would be the smart way to do it,” he laughs, “but actually, the newer computer is the one that’s getting rendered on. It has a faster processor and I’m okay doing that. I stole the video card from the newer computer and put it in the older one because that seems logical to me. Since I’m creating with it, I need the better graphics card.” I tell Zimmerman that he needs to stop all this card-swapping and simply buy a renderPRO, a suggestion with which he’s in agreement (just as soon as his budget allows). “Believe me,” he exclaims, “I love those things. They’re really cool and probably my next purchase.”

As our conversation shifts to workflow challenges, Zimmerman says that even though he doesn’t actively market his animation capabilities on his website, the demand from his clients is steadily increasing. “I like doing them and there’s business to be had there,” he says. “It’s all sizes of projects they want and each year it’s a little bit more. Besides keeping my clients happy, animations can be quite challenging. I find that probably half the time, it’s challenging to render all the frames of an animation with my current setup, so I’ll do all the prep work and test rendering, and then eventually send my files to a render farm in downtown Los Angeles. They can render out a 1000 frames or so in a few hours, whereas it might take me days or weeks to do that.”

Zimmerman confides that sending his files offsite, hoping that they all render within the allotted time, does make him a bit nervous in regard to deadlines, but so far, the process has worked. In fact, despite my repeated renderPRO recommendations, Zimmerman doesn’t consider rendering, a bottleneck for many creative professionals, to be much of a problem in his particular workflow. “When I have a whole bunch of project renderings due on Monday, they’re all at 5000 pixels, and it will probably take from an hour to three hours to render each one, I can render them overnight so I don’t have to send them downtown. Typically I don’t have a big issue with still image rendering.”

WHAT IS OVERCLOCKING?

When companies like Intel look to increase performance of their CPU designs, they have three ways to do so. They can 1) increase the frequency (going from 3GHz to 4GHz, for example), 2) increase the Instructions Per Clock (architectural enhancements that allow a CPU to get more done in the same amount of time), or 3) add CPU cores (four cores, six cores, eight cores, and so on). Of these three methods, adding additional cores will only show a performance advantage when utilizing heavily-threaded applications, like those used to render an image. This is where it’s important to have a good understanding of what kind of performance your application needs. Of the two remaining options, the one variable that a solutions company like BOXX has a level of control over is the frequency of the CPU—and that is by design. Take the fourth generation Intel Core processors as an example. These processors are produced on a silicon substrate with many CPUs on the same wafer. They then undergo multiple micro fabrication process steps before they are individually separated. At this point, the processors are “binned,” or separated by performance and capability (not every CPU on a wafer will end up as the same product). After undergoing various tests, some may end up in the i3 family, while others will qualify or be sorted into i5 and i7 products. By design, and in order to maximize profit, there is headroom in most of these CPUs so Intel can extract as many functioning products from a wafer as possible. This means that many models are artificially throttled to run at their rated speed. For instance, a Core i7 4770K may actually be fully functional and stable at 4.3GHz, but Intel caps it at 3.9GHz to ensure that they can maximize the number of 4770K processors they sell.
“When you call BOXX, you immediately talk to someone. That’s a big deal, a very big deal—and the computers are great too. I’ve never had any problems. I feel very safe and secure working on BOXX. It’s one aspect of my work I don’t have to worry about. As far as the processing power, the stability of the machine, and all the hardware and components, there are no incompatibility issues. A lot of peace of mind comes with it.”

- Ken Zimmerman

**BOXX PEACE OF MIND**

As our conversation nears its conclusion, Zimmerman, the former Austinite, can’t help but discuss the “other” workstation manufacturer in our hometown. “I haven’t used Dell in at least ten years,” he says, “but there was a time that if you cracked open a Dell, you were voiding all of these different things and you might not be able to get someone to talk to you about it. They may have since changed their policies, but with my BOXX machines, if I need to clean something, or add RAM, put in a new video card, or make some sort of alteration, I can still call them before and after I do it and they’re not going to give me a hard time. It was just the other day I called and wanted to add RAM and wanted to make sure I was getting the right type and they were very helpful and walked me right through it. When you call BOXX, you immediately talk to someone. That’s a big deal, a very big deal—and the computers are great too. I’ve never had any problems. I feel very safe and secure working on BOXX. It’s one aspect of my work I don’t have to worry about. As far as the processing power, the stability of the machine, and all the hardware and components, there are no incompatibility issues. A lot of peace of mind comes with it. This thing never crashes, it just something I don’t have to wrestle with. I have enough to worry about. For ZimmermanVisual, it’s always been BOXX.”

To learn more about ZimmermanVisual, visit: http://www.zimmermanvisual.com/

To learn more about BOXX Technologies workstations and rendering solutions, visit: www.boxxtech.com

Intel®, the Intel® Logo, Intel Inside®, Intel® Core™, and™ Core Inside® are trademarks of Intel® Corporation in the U.S. and/or other countries.