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AVRP Uses Apple Vision Pro, Related Technologies, to Improve Designs and Save Clients Time and Money

By Chris Veum

[AVRP Studios](#) was an early adopter of VR and AR (Virtual Reality and Augmented Reality) and we have become one of the first design firms using [Apple Vision Pro](#) to improve our designs and save clients time and money.

We also use AI or Artificial Intelligence, which is taboo in some circles but not at AVRP. We embrace innovation and technology. We're constantly pushing to achieve the best results for our clients while designing the most dynamic spaces we can for them. What is really cool are these new forms of technology, especially Apple Vision Pro. But before we get into that, let's go back to the beginning.

As early as 2016, AVRP was using VR as a design tool for a hospital. At the time, most architecture firms were using VR as a presentation tool rather than a design tool.

So why VR? We used VR as a method to first and foremost, help doctors, nurses and technicians fully understand the 3D environment as well as how the new operating rooms and procedure rooms would be laid out. We took that feedback from the people who would be using the new spaces, and using VR headsets and large screens, we refined the design and optimized the layout and space for their use. We made real-time corrections to the drawings each day. I can't stress enough how valuable that was to our team, to our process, and for our client. We were able to correct and optimize the layout, the flow, lighting, and equipment locations (and what utility connections were needed), saving the client millions of dollars by avoiding costly construction changes.

We were one of the first firms in the country to use VR for design and user-group input on a hospital. As noted, the VR process really acts as a tool to help clients fully understand the design. Traditionally, we show clients two-dimensional drawings of floor plans and exterior designs – to highlight scale, proportion, materials, etc. Helpful but that does not include the same level of detail as VR. 3D models are incredibly useful, but VR engages the client in a more realistic version, furthering the idea of collaborative design with our clients.

We have also been using AR to take clients to their job site, open a 3D model on a tablet and view their design on the actual site and move around the site with the virtual images on tablets. Going one step further, AVRP recently started using Apple Vision Pro to do the same work as AR, but the Apple headsets give us more accuracy and more reality.

Apple Vision Pro breaks new ground for us and our designs, allowing us to walk around and through the building as if you are actually there. As with AR and VR, Apple Vision Pro leads to better design and efficiencies, affording us the ability to make adjustments early in the process, saving our clients time and money.

The tablet method of AR is great, but it does not have the same reality effect as the Apple or Oculus headsets. Oculus Quest 3 is Meta's VR headset. It is not as refined as the Apple Vision Pro's AR, but we use it effectively.

At AVRP, we're also using AI to improve our designs and save clients time and money. We hear the fear of AI. However, we choose to embrace AR, VR, Apple Vision Pro and AI – not to eliminate jobs, but rather to augment what we do.

There are hundreds of images of buildings designed by AI. They look amazing and fantastical. But AI does not know codes, structural systems, utility requirements, construction costs, etc. that are vital to architecture. It also has trouble understanding the nuances of a space or building that make it unique or memorable.

One of the ways we are currently using AI is to generate multiple design options within seconds. In other words, we can do a quick sketch of a concept and then ask AI to generate multiple variations of the design based on inputs such as, modern, green, organic, etc. Seconds later, we're reviewing multiple options. That benefits both ourselves and our clients.

AI is good at making connections and inferences that we aren't necessarily able to make, but it's still a machine. It's not a storyteller in the way that architects and designers can create an iterative design development that will respond to a site or setting. AI currently has no understanding or appreciation of feature importance for a new building because it simply hasn't been programmed for each individual and/or site. It doesn't yet understand human-centered design, which is our objective.

Let us know what you think of AVRP's use of these new design technologies. If we can apply any of it to your next project, please don't hesitate to reach out. You can reach me at (619) 704.2700 x3275 or via email at cveum@avrpstudios.com.

About AVRP Studios: Celebrating 45+ years of creativity and achievements, the firm and its principals have earned nearly 135 design awards. AVRP originated in 1976, when Doug Austin began a small design firm out of his home. Today, the firm has designed billions of dollars' worth of iconic projects both domestically and internationally. The firm's project types include urban infill, mixed-use, housing, education, corporate office, multigenerational space, healthcare and more. The firm is led by three principals: Douglas H. Austin, FAIA, LEED AP, MAIBC; Christopher T. Veum, AAIA, IIDA; and Randy Robbins, AIA, LEED AP. Visit www.avrpstudios.com to learn more.