A New Reality
FOR RETAIL DESIGN
by Travis Brown

The rise of virtual-reality technology has begun to transform the landscape of retail design. Once thought of solely as a video-game peripheral, virtual technology is now a proven tool within the architectural industry. Recently developed hardware and software platforms by Oculus, HTC, and others have evolved virtual reality (VR), making it ready for commercial application. We have not only demonstrated its potential, but also developed a way to regularly integrate it into our design process. Now we are enthusiastic to see where it takes the industry next.

For the first time, we're able to virtually immerse ourselves in a photorealistic retail environment. By utilizing current 3D software and adopting the right hardware, our teams and clients can review and present designs in immersive 3D—digital spaces accurately representing a built environment. This allows for an elevated level of decision-making and enables clients to experience the future of their brand without constructing a single physical wall.
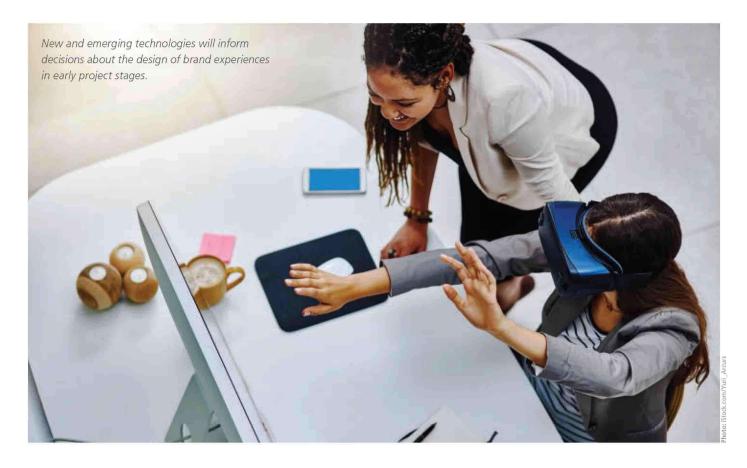
Current realities

We see five advantages to VR today:

• **Photorealistic Spaces.** See the design come to life right before your eyes or, better yet, feel immersed as if you're standing in the environment itself. The photorealistic imagery that's true to real-world scale allows the user to assess an environment from a first-person view.

• **Seamless Integration.** We've thoroughly tested the technology to establish a pipeline that seamlessly integrates with our 3D workflow and supports rapid design iteration.

• **Improved Review Process.** The design review process is elevated with new information from an eye-level perspective that includes scale, depth, and proportion.

• **Brand Accuracy.** The process provides the required visual fidelity for a retail-focused environment. A greater emphasis on visual merchandising and accurate product representation creates a comprehensive visual of a brand.

• **Virtual Prototype.** The ability to digitally simulate retail spaces allows for expedited decision-making, enhanced communication, and lower vendor prototyping costs.

New and emerging technologies will inform decisions about the design of brand experiences in early project stages.

Future possibilities

We predict the following VR trends will come to fruition in the future:

- **Mainstream Performance.** In the near future, VR will become established as a mainstream premium visualization offering. Manufacturers will continue to refine headsets with high-resolution screens that become indistinguishable from reality. This will include a streamlined mobile form factor and simplified user controls for better navigation.

- **Universal Adoption.** All architectural visualization software will seamlessly integrate with VR hardware. This widespread convergence of technology will continue to push the boundaries of what's possible and reveal new and innovative ways that VR can evolve as an architectural tool.

- **Personalization.** It's likely that every designer and client could have their own personal headset. This would allow for improved group collaboration such as connecting multiple headsets together to view the same design. At this point, traditional computer monitors may devolve to a secondary device.

- **Future of Immersion.** Open a door, alternate through design options, or explore a space with others even while miles away. This could all be commonplace in the virtual environments of the future—all fully interactive with simulations of moving cars, people, and vegetation. The immersive nature of VR and the ability to overlay information with augmented reality (AR) will open new possibilities of viewing and sharing retail designs.

- **Virtual Retail.** It's anticipated that an entirely new way to shop and engage with a brand will emerge. Virtual retail could offer a new shopping destination with spaces that push beyond the limitations of brick and mortar and evolve online shopping like never before. Imagine an environment not limited by physics or building constraints, budgets, or permanence. This would be a boundless retail experience, a virtual expression of a brand and its products.

Considering the impressive advancements in recent VR technology, what's achievable today is simply a glimpse into what's possible for the future of our industry. Upcoming streamlined software solutions will continue to surface in the months and years ahead, eventually simplifying the point of entry for adopting the technology. It may not take a visionary to see the uses of VR and AR, which we've seen in science fiction films for decades, but it's up to those practicing in the industry today to demonstrate its value and empower the retail design of tomorrow.

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