

Renovating spaces and preserving places with lasers

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When you want to preserve a place or enhance a space, sometimes the best approach is to take a laser to it.

Not a cosmetic surgeon's scalpel, or a sci-fi blaster. Rather, a 3-D [laser](#) scanner that can measure your space with millimeter accuracy—and help you visualize it in the future down to very tiny details.

While 3-D scanning is not a new technology, it has matured to the point where it's both practical and accurate. Today, it's used not only to design upgraded building interiors, but also by [law enforcement officials](#) for documenting crime scenes, by real-estate agents for presenting virtual walkthroughs of houses, and by archaeologists to preserve discoveries.

The accompanying two-minute video shows how 3-D scanning was used to help transform an old storage building into a stylish modern [space](#). The video, narrated by NIST guest researcher Bjorn Johansson, shows how scanning can help plan the upgrade, and also reveal differences between the initial plans and the actual completed work.

On Feb. 14, 2016, at the annual meeting of the American Association for the Advancement of Science (AAAS) in Washington, D.C., [a panel of experts will discuss how laser scanning is transforming fields from archaeology to manufacturing](#). Johansson and his NIST colleague, Ram Sriram, along with Ramesh Jain from the University of California, Irvine, organized the panel. It includes Volvo's Jan-Eric Sundgren, who will share how 3-D scanning improves resource usage in manufacturing;

Microsoft's Katsushi Ikeuchi, who will discuss the preservation work he is leading at Cambodia's Angkor Wat; and the University of South Florida's Lori Collins, who will explain how she uses scanning to share and interpret archaeological data.

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