Laser cleaning: The safer and more effective solution for large-scale restoration - by Ron Fanish

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Large-scale restoration projects are major undertakings — indeed, in severe cases restoring a property or other structure can be more time consuming than simply building a new one.

There are many elements and techniques that go into a large-scale restoration project, and one of the most common is cleaning. More specifically, cleaning things like grime, dust, dirt, burn marks, and water damage from surfaces so they look like new.

As any restoration professional will tell you, this is easier said than done. For years, the cleaning portion of restoration has been left up to a number of crude techniques. Restoration professionals have used tactics like sandblasting and water jetting. And while these may get the surface back to its original state, these tactics can sometimes damage the surface in the process. And that's to say nothing of the noise, mess, or hazards of these traditional cleaning techniques.

But the restoration industry, like many industries, is prone to innovation. And one of the latest technologies now available is truly revolutionizing the field – laser cleaning. Catalyzed by advancements in robotics, lasers, and even artificial intelligence, laser cleaning is significantly more precise, low impact, and less expensive than its predecessor approaches.

The laser cleaning process is an intriguing one. First, restoration professionals harness infrared light and focus it on the surface that needs to be cleaned. Next, the material on the surface — like grime or soot marks — absorbs the energy from that infrared light, and its temperature rises. Meanwhile, the temperature of the original surface behind the unwanted material remains the same. The result? This temperature differential leads to a separation, and the unwanted materials evaporate or dissolve. There may be minimal dust left behind, but in some cases the material evaporates completely.

Less mess is just one of many reasons restoration professionals are embracing laser cleaning for large-scale restoration projects. Cost is another reason. Older cleaning techniques require bulky machinery, blast materials, and hours of prep time and clean up time. Laser cleaning eliminates much of this, and can also be automated, saving on labor costs.

Laser cleaning is also highly versatile. It's not a tool that is used once in a blue moon. Indeed, it's a tool that can be deployed under several circumstances. Laser cleaning can be used on metals, stone, sheetrock, wood, concrete, and other materials. And it can be used to restore private homes, towering skyscrapers, public infrastructure like aging bridges, or even a piece of priceless artwork.

Last but not least, laser cleaning is green. It doesn't produce waste or require any kind of harmful chemical solvents. And it doesn't launch noxious airborne particles around the work area. This

keeps workers and tenants safe. Laser cleaning’s quiet nature also means it cuts down on noise pollution.

For your next restoration project, especially if it’s a large scale one, consider harnessing laser cleaning technology. This cutting-edge tool will save you time and money – and leave your structure looking brand-new. When you’re seeking out the right restoration company to conduct laser cleaning, make sure they have experience with the trade and the proper certification. This will ensure the process goes smoothly and efficiently.

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