Using a new laser cleaning technology in the USA on works of art and architecture: introducing the GC-1 Laser Cleaning System

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The new GC-1 laser cleaning system was specifically designed and built for art conservation applications by Bartosz Dajnowski in 2014, and has multiple patents pending worldwide. The 1064nm high frequency pulsed laser system is highly tunable, compact, and portable. Precise tuning of laser parameters such as pulse energy, fluence, pulse duration, pulse frequency, and scan speed allows for precise control over the level of cleaning that can be achieved on various surfaces and materials. Examples of various levels of cleaning on stone will be presented. The system features a geometrically efficient circular scan pattern that has proven to be extremely effective on projects across the USA such as the laser cleaning of the 3,500 year old Egyptian obelisk in New York's Central Park, cleaning the marble façade of the U.S. Supreme Court, and various works of art and cultural heritage objects. The presentation will feature examples of actual projects from 2014-2016.