Boylan Marble & Terrazzo Restoration provides environmentally friendly, sustainable care, repair, installation, and restoration of natural stone and terrazzo. Our GREEN process for mechanically polishing natural stone and terrazzo uses NO CHEMICALS to produce highly polished sustainable floors. These floors require no chemicals to maintain their finish saving on maintenance costs and contributing to a healthier indoor environment. With certified, skilled craftsmen and specialized equipment, we can restore large common areas or confined areas requiring skilled handwork.
Boylan Marble & Terrazzo Restoration has actively engaged in the restoration of natural stone, terrazzo, concrete, and masonry for more than 15 years. Specialists in GREEN and sustainable practices involving restoration/repair as well as hard surface polished floors.

**Exterior Services** include building
- Sealing
- Cleaning
- Caulking
- Re-Pointing & Repairs

**Restoration & Repair of**
- Natural Stone
- Terrazzo
- Concrete - polishing, dyeing
- Interior & Exterior

**Installation of**
- Natural stone
- Terrazzo (Epoxy & Portland based)
- Tile
- Treads
- Polished concrete floors

Project managers and safety officers are OSHA 30 Hour Certified and Class A stone restoration technicians are OSHA 10 Hour Certified.

All stone and terrazzo restoration technicians have been trained and certified by Dr. Fred Hueston a certified stone craftsman & architectural conservator.

Boylan Marble & Terrazzo Restoration is a member of the US Green Building Council, Marble Institute of America, AASHE, the International Stone Institute, National Training Center for Stone & Masonry Trades and the National Trust for Historic Preservation.

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www.BoylanStoneRestoration.com
Mr. Hueston is a nationally known consultant and the founder of Stone Forensics. He earned a Bachelor of Science degree in Chemical and Physical Science (Limnology) (University of Central Florida 1981) and a PhD in Technical Science (Bridgewater University 2002). He is a certified master stone craftsman and Architectural Conservator, a member of ASTM (American Society for Testing Materials) C-18 committee. He is a Technical Editor for Stone World Magazine and instructor for Certified Marble and Stone Inspectors via IICRC and has appeared on several television shows including The Discovery Channel, HGTV and several local talk shows. Mr. Hueston frequently presents seminars and presentations for stone, tile and historical associations. He has published over 100 articles on stone installation, care & restoration in both the United States and foreign publications and journals.

Author of over 30 books on stone and tile and has produced ten instructional videos.

He writes a syndicated newspaper column “Around the House” for several papers across the US

Has served as technical advisor, consultant & expert witness for numerous projects across the US, Canada, Asia and Europe.

Mr. Hueston is currently the only individual who is recognized by the IICRC to train other stone inspectors.

Mr. Hueston has served as technical advisor, specification writer and problem solver for the following:
  - Federal Court of Appeals, San Francisco, CA
  - Ohio State Capitol and Senate Buildings
  - Latirete International
  - Walt Disney World Company, Orlando, Florida
  - Los Angeles County Library
  - Kennedy Space Center, “Space Mirror.”
- As well as dozens of architect, engineering, law, government and private industry firms
Union Station Demo – Side by side comparison
Worcester City Hall – Worcester, MA

BEFORE

AFTER
The Green Building movement has been driven by raised awareness of the need to reduce energy and raw material consumption in both new and existing buildings as well as improve their indoor environment, particularly indoor air quality (IAQ). Consider these facts.

- Buildings in the U.S. account for 39% of total energy consumption. (71% of electricity consumption)
- About 20% of the nation's schools have problems linked to IAQ. (U.S. Department of Education)
- 50% of all illnesses are either caused or aggravated by poor IAQ. (American College of Allergy, Asthma & Immunology)
- Up to 64 million U.S. office workers and teachers may be at risk of suffering from “Sick Building Syndrome”. (World Health Organization)
- The EPA has identified indoor air pollution as often worse than outdoor air pollution.

Boylan Marble & terrazzo restoration has responded to this movement by developing a mechanical grinding process for polishing natural stone, terrazzo, and concrete floors. Our trained and certified technicians will restore your floor with a process that uses only diamond abrasives and water, NO CHEMICALS. And because it is a wet grind process no dust is produced. The slurry produced during grinding is vacuumed up immediately and recycled into clean water and solid waste which is removed from the jobsite. The process produces highly polished, sustainable floors which require no waxing and stripping to maintain their shine and appearance. These wax-free polished floors offer the following GREEN benefits:
Indoor Air Quality

HEALTHIER INDOOR ENVIRONMENT AND AIR QUALITY

-Natural stone, terrazzo, and concrete floors do not emit VOCs, use adhesives that emit VOCs, nor require maintenance chemicals that emit VOCs (Volatile Organic Compounds)

-They are asthma friendly and do not aggravate respiratory conditions.

-Moisture vapor passes through these floors and they do not promote or sustain the growth of mold or mildew.

-These floors do not trap dust, mites, allergens, VOCs, dirt or pesticides.

These floors are also safe. Despite their highly polished appearance they meet or exceed OSHA and ADA slip resistance requirements. Natural stone, Portland based terrazzo, and polished concrete are also non combustible and will not contribute to the spread of a fire. Since they do not burn, there is no additional danger during a fire of hazardous fumes being released by burning flooring material or floor coatings.
ENERGY SAVINGS

- By eliminating the wax-and strip cycle and higher maintenance requirements of traditionally maintained floors electricity consumption is lowered by less frequent use of electric floor buffers and polishers.
- Increased reflectivity from these polished floors often allows for reduced lighting which results in lower energy consumption.
- The thermal mass of these types of floors tends to reduce heating and cooling loads in a building leading to energy savings.

The durability of these floors leads to reduced raw material consumption. The service life of natural stone, terrazzo, and polished concrete can match the life of the building. Since they do not get replaced with the frequency of other flooring options their impact on raw material and energy consumption is much less. These floors are also capable of being recycled at the end of their service life further lowering their impact on the environment.

ANOTHER “GREEN” BENEFIT........$$$$$$$$$ SAVE MONEY

The low maintenance requirements of these floors results in significant cost savings. With no waxes, strippers or chemical cleaners to purchase, lower energy use and fewer man hours needed to maintain polished floors can save you $1.00-$1.85 per square ft. in maintenance costs EVERY YEAR! With less man hours devoted to floor maintenance increasingly limited resources can be redirected to other maintenance projects.
Polishing Procedure

• Strip existing floor finish mechanically by grinding away any topical finishes or coatings.
• Repair damaged terrazzo or stone as needed. Allow any repairs to set. Rough grind repaired areas level and to same finish as the rest of floor.
• Analyze floor to determine starting grit
• Perform first honing pass with resin diamonds. (usually 50 grit resin bond diamonds)
• Continue to hone with resin bond diamonds – 100, 200, 400, 800, 1800, 3500 until desired gloss level is achieved
• Burnish portland base terrazzo floors with a propane burnisher and terrazzo buffing pads. Marble, granite, and epoxy base terrazzo are often final buffed with polishing compounds.
• Autoscrub and dust mop floor
How Densifiers Work

- Penetrates concrete surfaces through micro pores and cracks.
- Reacts with free calcium & lime to create calcium silicate crystals that fill the pores, micro cracks, and the surface.
- This reaction increases the mass, hardness, strength, and reduces acid reactivity and penetration.
- Elevates pH in older concrete.
Features & Benefits

When densifiers are combined with concrete grinding and polishing:

Features:
• Reduce porosity
• Seal out contaminants
• Increase the surface hardness
• Increase abrasion resistance
• Increase compression strength
• Retard scaling
• Increase mass and density

Benefits:
• Increased life span
• Less maintenance - lower cleaning expense
• No special cleaners or wax
• Brilliant - looks better over time
• Environmentally friendly
• Resist stains, forklift tire marks and abuse
• Uniform luster and sheen
Close Up of different finishes
Benefits

*Naturally finished*  
*Concrete, Terrazzo and Stone*

- Uniform appearance
- Environmentally conscious
- No stripping/recoating
- Better light reflection/energy savings
- Dust free
- Healthier
- LEED points available
- Minimal maintenance
- Resource enhancement
- Slip resistant
Light Reflectivity

- Images are more distorted on a rough surface because light is being reflected in different directions.
- Images are sharper on an even surface because the image is reflected back in a straight direction.
If you are maintaining your natural stone or terrazzo floor using waxes, strippers, and chemical cleaners then you are costing yourself money. You could also be putting the health of your maintenance staff and the buildings inhabitants at risk.

Converting your wax-n-strip maintained natural stone or terrazzo floor to a naturally polished natural stone or terrazzo floor from BOYLAN MARBLE & TERRAZZO RESTORATION can save you money, while improving the buildings indoor environment. Most wax-n-strip maintenance supplies contain chemicals which have been linked to serious health issues and even deaths. A BOYLAN polished floor is completely wax and chemical free. Because it is wax and chemical free you save money NOT buying the chemicals needed to maintain the wax-n-strip floors. These floors are not a source of pollutants that cause poor indoor air quality. Naturally polished floors also have very low maintenance requirements vs. wax-n-strip floors which saves man hours and labor costs.

The payback to convert wax-n-strip floors to Boylan’s naturally polished, GREEN, sustainable floors is about 30 months after which the savings add up fast.
Convert your wax-n-strip maintained natural stone or terrazzo floor to a naturally polished GREEN, sustainable floor and you not only save money but get these additional benefits.

IMPROVED INDOOR AIR QUALITY (IAQ)
SAFE, SLIP RESISTENT FLOORS THAT MEET OR EXCEED OSHA and ADA REQUIREMENTS
HELPING TO PRESERVE THE ENVIRONMENT BY KEEPING HARMFUL CHEMICALS OUT OF THE WASTE STREAM
LOWER ELECTRICAL USAGE
FREE UP SCARCE MAN HOURS FOR OTHER MAINTENANCE PROJECTS
POSSIBLE QUALIFICATION FOR LEED POINTS (Indoor Environmental Quality – Low-Emitting Materials EQ Credits 4.1 and 4.2)

With all the advantages of a naturally polished floor it makes both dollars and “sense” to break free from the wax-n-strip cycle and convert your floors today.
ADVANTAGES

• Polished natural stone and terrazzo compared to unpolished
  Abrasion resistance - 40% more
  Impact resistance - 20% more
  Ambient light reflection - 30% more concrete/terrazzo

• Other Features
  Increases resistance to oil absorption and other contaminants
  Resists marking and other sticky substances
  Harder and stronger than floor finishes
  Flatter, more even surface
  Low VOC and allergy free
  Environmentally friendly – LEED qualified