

Cleaning, maintenance and restoration of stone is an important aspect of overall facility upkeep

The Taj Mahal by moonlight is one of the most beautiful of man-made structures, chiefly because of the white marble used and its perfect symmetry. However, the Taj is getting dirtier day-by-day and projects are on to clean and restore the marble to its pristine shine and glory. To prevent rain damage and algae growth, special silicone-based agents have been applied to the facade.

Marble is different from other stones as it is extremely porous and absorbent, allowing grime, stains and soiling to set in far more easily than less penetrable stones. A delicate mineral, marble cannot withstand harsh cleaning processes, especially heavy detergents and acids. Calcium carbonate, the main ingredient of marble, reacts with any kind of acid, resulting in pitting and etching. The natural shine of marble also tends to fade with the passage of time.

If marble is so sensitive, then why is it used so about through on-site often in buildings? It's because no other product, observation, whether natural or manmade, can compete with marble in terms of its luxurious texture, aesthetic brilliance and appeal.

However, it's not only marble that has prominence of use in private homes and commercial establishments but other stones as well, such as granite and reconstituted stone.

According to Graham Alban, Managing Director of Marble Renewal of UAE, a specialist company whose business is the cleaning, restoration and maintenance of all types of stone, reconstituted stone is also gaining popularity on account of the different colors that can be produced and the consistency of those colors which can be maintained compared to natural stone.

However, Alban says that "reconstituted stone is a difficult material to work on from a restoration point of view and should not be treated the same way as marble for it requires a different polishing technique. Technicians can spend a lot of time refinishing reconstituted stone with the possibility of the surface resin getting burnt due to excess heat

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produced during the polishing process. Once this happens, there is no option left other than reprocessing the stone again."

Like reconstituted stone, granite also is not an easy material to work with. Unlike marble which is made of calcium carbonate, granite is a silicaceous material and the average granite is usually up to six times harder than the average marble, making it difficult and time consuming under proper processing. "The ease of processing and grinding marble is what makes the entire floor look leveled, like one single piece, which does not happen with granite as there are more considerations associated with laying a granite floor, its leveling and polishing and finishing."

Another material commonly called "green marble", of which there are many types, comprises asbestos and oil and also cannot be polished the same way as ordinary marble. Crystallization is one of the ways in which stone can be regularly maintained, a process wherein the marble floor gets a mirror-like finish due to the chemical reaction that takes place on the surface. It creates a "glass like" layer on the surface of the stone, which is harder than the marble itself and helps to preserve the color and the gloss of the marble. However, crystallization cannot be used to treat green marble and granite as the process only works on material with a calcium carbonate content, whereas granite and green marble have no calcium content.

However, Marble Renewal of UAE does not use the crystallization process to maintain marble floors, which according to Alban is "not necessarily the best way to look after a marble floor." Marble Renewal of U.A.E.





Defects in floors usually arise through poor specification, poor workmanship, incorrect programming of work and only occasionally from defective materials. considers it to be detrimental to the wellbeing of any floor over time despite the fact it may give the desired result of a glass-like finish in the beginning.

Marble Renewal of UAE prefer to use their own special techniques to process and polish all types of stones, and uses its own, bespoke range, of chemicals, cleaners and polishes which are not available commercially. Singledisc and heavy-duty rotary machines are used for the restoration process and diamond abrasives used to remove lippage and smooth uneven areas. Once the floor is polished, a "penetrating sealer" is applied which goes deep into the pores of the stone and works as a hidden barrier to help reduce the ingress of moisture, soiling and staining into the stone.

Maintenance of stone is all about addressing the needs of the stone itself rather than just removing the surface dirt which is actually what cleaning does. In a property with a typical marble installation, property staff should inspect and monitor high-traffic areas and carry out dust control mopping every couple of hours to remove sand and debris that is blown in or carried in by shoes. "Sand and debris act like sandpaper under foot and prove to be detrimental to a polished floor." Proper entrance matting should also be used as a means of preventive maintenance for it can also prevent dirt and moisture from reaching and damaging stone floors.

"Preventive maintenance may be part of the specification of a facility, or it may come about through on-site observation. Ideally, the former is the better method," informs Alban.

Hard floor maintenance and cleaning should

actually work together. Apart from normal cleaning, floors need to be maintained to prevent or repair deterioration. Regular resurfacing and maintenance polishing of natural stone floors are procedures that, if carried out at the right time, will always prolong the life of any floor.

The need to call in a specialist natural stone maintenance and restoration company arises when building owners and operators are not overly happy with the final result of the floor, normally due to errors made during installation and finishing.

Flooring is often one of the last processes in a construction project and gets squeezed when working to a deadline: this tends to result in rushing or corners being cut to get the job done. "Defects in floors usually arise through poor specification, poor workmanship, incorrect programming of work and only occasionally from defective materials. Poor workmanship is often associated with incorrect spreading of adhesives and late application of the flooring onto it. Commercial pressures and the shortage of craftsmen who really do actually understand what they are doing can also exacerbate this," savs Alban.

In addition, if not anticipated by the designer of the floor, heavily loaded, hard-wheeled delivery trolleys can be very damaging both to tiling in supermarkets and retail outlets, and screeds in delivery areas.

Marble suppliers also call maintenance companies like Marble Renewal of UAE once a floor is laid as their line of interest does not include maintenance. Also spillages may occur which need to be removed for as Alban says,



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"the floor is the first to be completed and the last to get worked upon."

The best way to avoid spills and damage to the floor is to cover it up with a carpet and further protective layers of materials such as corrugated cardboard, plywood and plastic. However, it is often noticed that floors are only covered with plastic which tends to retain moisture and offers absolutely no protection to the stone from activities like painting, welding, riveting, and dragging scaffolds and ladders. "When the plastic is removed, the floor is normally found to be covered by stains and scratches that warrant our attention.

"Even with new properties, people realize very quickly after the opening that hightraffic areas start to deteriorate and there is a need for maintenance. In the hotel industry as well, we do a good job in refurbishing guest rooms and suites and maintaining thresholds of bathrooms, the bath and surrounding tiles, shelves and vanity tops." Cleaning of floors should be properly done on a daily basis by property staff or service providers. 'Properly clean' according to Alban implies that "the floor is put back in to the condition it was originally designed to be in" and that condition might include surface appearance, slip resistance, surface texture, light reflectivity or color. However, Alban says that whether this level of cleaning is ever achieved is rarely known, but followup procedures normally only seem to be undertaken when something goes wrong, or there is an accident.

The maintenance required by a floor is usually determined by the amount of traffic it receives, which is what happens in heavy-traffic areas such as a main entrance, an entrance lobby or a reception area. "Such areas demand more frequent attention."

Marble Renewal of UAE goes through an entire property every month on an average to determine where there is a need for maintenance or restoration. Housekeepers of hotels call in Marble Renewal of UAE if they notice the depth of shine decreasing or the clarity of reflection decreasing. In addition, the stone absorbs dirty water as a result of wet cleaning and starts looking dull and hazy. "Many times, as a maintenance and restoration company, we are called to restore old floors and bring back their original glory. When we are assigned a property, the stone will always look the same regardless of what needs to be done to it."

Marble Renewal's commercial division has worked on many prestigious properties in the UAE such as Atlantis, Burj Al Arab, DIFC, Madinat Jumeirah, Mina A'Salam, Raffles Hotel etc, while the residential division deals with freehold properties and private villas to restore and maintain floors, patios, vanities, table tops, etc.

"Stone should be enjoyed and not blamed when things go wrong because problems are typically deeper than the surface where they are expressed," says Alban while pointing out that the maintenance of floors should not be a side issue but a mainstream activity, carried out by professionals in a professional manner.







Are your marble&/or natural stone surfaces looking jaded, soiled, scratched or worn. If so, We Have the Solution.

MARBLE RENEWAL UAE LLC has 18 years of knowledge & experience working with natural stone in and around the UAE. Whether it be business i.e. Hotels, Offices, Factories etc or private i.e. Villas, Apartments etc we are equally professional in our approach and to the services we provide.

The natural development of stone demands sophisticated knowledge and care. Different materials may easily be grouped as "marble", yet, have tremendous variations in structure, content, absorption, hardness, density, etc. Business and homeowners have reached a crisis point in trying to restore or maintain their natural flooring. MARBLE RENEWAL of UAE have the solutions

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NATURAL STONE RESTORATION

Contrary to popular belief, natural stone surfaces are not durable and maintenance free. However, there is good news. **Marble Renewal**, founded in 1988, has developed stone restoration and maintenance systems that solve the problems associated with stone care.



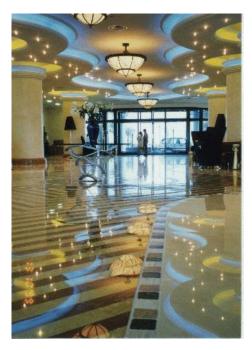
Marble Renewal focuses on keeping natural surfaces natural. Many alternative methods used today achieve results by applying harsh chemicals to the stone's surface either by a process called crystallization or by applying plastic floor finish over the stone. These common techniques may give the floor a good appearance initially; but within days, if not hours, the wear and problems will start to appear and even greater maintenance problems can begin.

Though crystallization achieves a good appearance initially, it deteriorates quickly as it produces a hard crystal shell on the surface of the stone. Over time, this process depletes the stone's calcium, the main component of marble. The maintenance process that was once done periodically can become a weekly or even daily task. The resulting appearance will continue to decline as the maintenance increases. Waxing simply coats the surface with a sacrificial plastic film that scratches easily and "yellows" over time, hiding the true beauty of the stone. This film will not allow the stone to breathe and release moisture. As the moisture level builds, it adds to the deterioration of the stone and its appearance.

Companies and homeowners make significant investments to install beautiful stone surfaces thinking that it will be "maintenance free". Unfortunately, they soon learn that stone surfaces do require proper care to maintain the look that they originally invested in for their property.

Marble Renewal has developed custom products and techniques that not only will restore your stone surfaces to their natural beauty, but also strengthen the stone to produce a longer lasting surface. This is accomplished with a three-step process of cleaning, hardening and polishing. Marble Renewal also has developed a complete line of specialty sealers for stone applications. The penetrating sealer will protect the stone, allowing it to still breath, but will not change the natural appearance. Not only does it protect, but it also adds slip-resistance to the surface. Since no stone surface is maintenance free, Marble Renewal offers ongoing maintenance programs to prevent the high cost of restoration and keep the surface beautiful and problem free.

Call today for your <u>free</u> demonstration! Let **Marble Renewal** show you how to keep the invested value of your floor, walls and other natural stone surfaces.





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TILE & GROUT RESTORATION



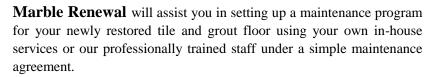
Marble Renewal offers valuable floor restoration expertise to an area that may be one of the toughest floor care problems experienced by business and homeowners alike. Tile and grout care. Anyone that has ceramic tile or brick pavers is probably experiencing care and appearance problems. Perhaps you've recently purchased a residence or business and those grout lines in your tile floors that looked dark gray turned out to be another color upon inspection. This is not an uncommon experience.

Ceramic tile is one of the most durable surfaces available on the market today. However, the porous grout lines that were improperly sealed, or not sealed at all, are sponges for dirty mop water and anything else that might spill on the floor. Removing and preventing these stains and cleaning problems can be a long, tedious, and sometimes impossible endeavor.



Marble Renewal has devised a way to restore these surfaces to their like new and original appearance. After restoration, it is essential to have a system of care that allows you to keep your tile floor's appearance clean and like new. As a result, we recommend that every restored tile and grout is also sealed

with our proprietary seal to aid and simplify long-term care. This penetrating sealer also aids in the maintenance of a proper slip coefficient level.



Regain the beauty of your tile and grout flooring. Call **Marble Renewal** today for a <u>free</u> on site demonstration. Let our craftsmen show you how good your tile and grout floor can look. They will also show you how to keep it that way for years to come.







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