



TAKING NATURE'S COURSE

Centuries of expertise with natural materials is improving the durability and aesthetics of buildings. **Brian James** explains.

It is interesting how ancient craft materials are experiencing a comeback. This is not only the rejuvenated love of natural materials by architects and designers but also the resurgence of colour in buildings – the bare and drab concrete designs of many post-war buildings are now long gone! These images are intended to remind the designer of what can be achieved with different stones and colours providing flexibility and innovation.

Terrazzo is an extremely versatile material which can be applied in situ to floors and other surfaces, made into tiles or cast into moulds to almost any shape. It is probably the most widely used of all hard floorings, certainly in heavy traffic areas, such as shopping malls, airports, railway and underground stations, hospitals and supermarkets.

Terrazzo can be supplied rectangular and with a textured finish, final polished or finished on site after laying and grouting, which is the norm. Bedding direct to concrete saves the need to screed, being laid monolithic and any reinforcing requirement is incorporated within the bedding.

Terrazzo is centuries old being originally created by Venetian construction workers as a low cost flooring material to surface the patios around their living quarters. Today, terrazzo craftsmen are

still creating stunning walls, floors, patios and panels by exposing marble chips and other fine aggregates on the surface.

Terrazzo tiles can be bedded monolithically direct to the concrete base, making a pre-screed unnecessary, and the bedding reinforced if required. These can be laid final polished, but polishing on completion of laying is the norm, and sealing on completion. In situ cementitious terrazzo requires a 3:1 coarse aggregate sand screed to the concrete base, which is divided into panels using coloured plastic or metal strips before the in situ mix is applied.

The marble aggregate is then rolled using a weighted roller to compact the chippings and bring surplus cement/matrix to the surface. This is then ground using a multi-headed, or single head, floor polisher, grouted, final polished and sealed. The minimum overall thickness of in situ can be 38mm to 100mm, and the screed reinforced as required.

As with tiles, the marble, or chosen aggregate, can vary in size from 2mm to 28mm. It is strongly recommended that the screed to receive the in situ is carried out by the terrazzo layer.

Evidence from both new and restored buildings shows that terrazzo is also popular as a rectangular design with a textured finish.



Designers can also have samples manufactured for final approval before they are replicated in mass and delivered in swatches.

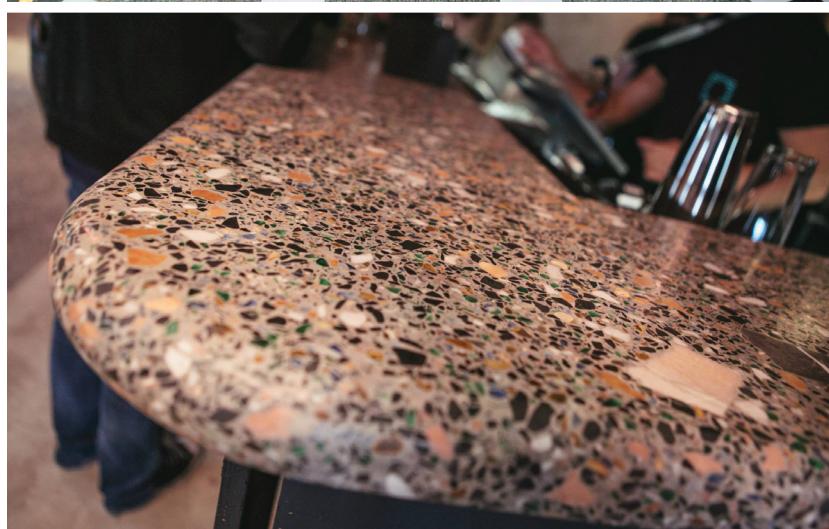
Bedding direct to concrete saves the need to screed since it is monolithic and any reinforcement is incorporated within the bedding.

As we know, marble has long proved to be among the finest decorative building material

Continued on page 64 >>



FLOORS AND FLOOR COVERING



<< Continued from page 63

since early Greek and Roman times. It provides the permanence demanded by the client together with the aesthetic qualities desired by the architect.

The variety of colours and vein inherent to marble, combined with the available surface finishes, lend themselves equally to the most complex or simplest of designs limited only by a designer's imagination.

Marble offers prestige, quality, durability and appearance. However, not all stones suit all applications and it is essential to ensure that any particular material selected is suitable for its purpose. Assistance is often available from the client inception, through design feasibility to tender stage. Also, information on the current availability, quality and suitability of the specifier's or architect's preferred material is readily available.

Granite is a hard and adaptable material and more suitable for worktops and counters, being more dense than marble and thereby more resistant to staining. It is also suitable for paving and cladding in tile or slab form. Modern cutting methods enable granite to be cut thinner making it more competitive in price and reducing shipping cost.

Various finishes can be applied to the surface, as with most hard surfaces, to suit the area to which it is applied.

As many will know, mosaics were born on the shores of the Mediterranean over 2000 years ago. The fascinating art of mosaic was developed and refined by the Romans who used it extensively throughout their Empire. It is a work of art, adorned with coloured fragments, known as tesserae, made from various different materials. The most popular types are stone, comprising all types of minerals and rocks, and glass, mainly consisting of coloured smalti (opaque glass paste) and precious smalti (gold and silver). The creation of a mosaic work of art requires design skills, innovation and traditional craftsmanship using methods that have changed little over the years.

The wealth of interesting projects and the way in which this specialised craftsmanship has been used is extraordinary. For example, one secret of

selling is the way the goods are presented and this is especially so for the retailing of upmarket and luxury goods where great interior ambience is essential. This is one reason why marble is increasingly specified for floors and walls. It not only meets the resurgence of interest in natural and sustainable materials but also fulfils the current trends for subtle and very attractive colour.

This is because colour has become a key component of design rather than a finishing touch. It is why the qualities and durability of traditional terrazzo craftsmanship are so much appreciated by designers, giving them a fascinating choice of material and another palette of colours.

Brian James is secretary of the National Federation of Terrazzo Marble and Mosaic Specialists

