

DECORATIVE TERRAZZO

Suzanne Holman and the Public Art Squad have dramatically revolutionised the established techniques of terrazzo to set exciting new standards for the creative application of this ancient utilitarian medium.
Text by Robyn Tudor. Photography by Geoff Ambler.



Bruce Goold's 'Currawong Floor' at Harbourside Festival Marketplace, Darling Harbour, Sydney, from original linocut

EXTRAORDINARY floors are a luxury reminiscent of the mosaics of ancient Rome. The joy and privilege of walking on a durable work of art was well understood in the third century AD. The ruined Baths of Caracalla (AD 216) in Rome survive as a testimony to inspired paving, demonstrating the potential of a democratic artform wedded to the grandeur of architecture.

The Harbourside Festival Marketplace in Sydney's newly opened Darling Harbour complex recreates the noble spirit of Caracalla in its celebration of the floors. More than nine spectacular artist compositions have been painstakingly translated into terrazzo by Suzanne Holman of the Public Art Squad under the artistic direction of David Humphries, in response to the vision of architect Bob Perry of Architecture Oceania. The result is a collection of unique terrazzo floorworks which challenge preconceptions and set exciting new creative standards for this utilitarian medium. Terrazzo is essentially a fluid medium capable of

sustaining skilled manipulation in colour, texture and form. The bonding agent of cement assumes masterful command, supporting coloured chip inclusions of marble, glass and other materials to permit the casting of complex and resilient floors *in situ* and the premanufacture of tiles.

Terrazzo is versatile; responsive and sympathetic to the contemporary character of architectural construction, accommodating the open flow-through of spaces. When polished to a lustrous finish it serves to both unify and highlight the building interior, while enhancing the conceptual and architectural integrity of the whole. At the Harbourside Festival Marketplace terrazzo is the ideal floor material, artfully employed.

Surprisingly, the history of terrazzo is vague, presenting a disconcerting and intriguing mystery. How old is the process and where did it originate? For the inquisitive mind it becomes necessary to draw together the traditions of folklore and the imprecise conclusions of deductive reasoning



Suzanne Holman

Below: Bruce Goold's striking linocut design for the 'Waratah Floor' was sensitively translated into terrazzo by Suzanne Holman who supervised the hand-cutting of the polystyrene templates



in order to map the terrazzo story.

The word *terrazzo* is Italian, meaning terrace or balcony, and is derived from the Latin *terra*, for earth. These initial clues allude to an Italian origin while suggesting the traditional use of terrazzo as paving and acknowledge the earthy source of stone, sand and cement.

However, dictionaries and encyclopaedias, both general and specialist publications either omit mention of terrazzo altogether or provide only a cursory explanation of technique: 'A floor material of chippings of broken stone and cement, polished when in place' (*The Macquarie Dictionary*).

Undoubtedly, the heritage of terrazzo is ancient. Amateur detective work suggests it evolved at some point from the old Roman innovation of durable waterproof cement (called *cocciopesto*). The regions of Rome and southern Italy supplied a water-resistant, volcanic, sandy earth (called *pozzolana*) which, when mixed with powdered marble and lime, produced a mortar to which the Romans added crushed and broken pottery for strength. This invention of cement ranks it

Above: 'Gecko Floor' (detail) and visual of 'The Carp Pool', designed by Zig Moshkwa, Southern Pavilion

as the oldest synthetic building material, yet knowledge of concrete for monumental structures was wholly lost after Roman times in Europe for approximately 13 centuries, awaiting the late 16th century for rediscovery.

One of the earliest concrete pavements dates from about the 1st century AD at Aquileia, on the Gulf of Venice, and bears a simple pattern of pottery fragments and marble cubes. This might therefore be considered the beginning of terrazzo.

Pottery inclusions in cement were eventually replaced by cubes of stone or marble (called *tesserae*, Latin for dice). The mosaic tradition was born of closely fitting patterns of tesserae set on the surface of a bed of cement (similar to tiling). Predominantly black-and-white patterns evolved from simple geometric designs into elaborate emblems and exotically colourful figurative scenes. Mosaic spread from pavement to walls and domes on Christian churches, culminating in such extravagant undertakings as the shimmering gold-and-glass mosaic interior facing of St Mark's in Venice (1042-85).

Curiously, parts of the floor of St Mark's carry slabs of marble as a decorative aggregate in mortar which is considered by some to be suggestive of terrazzo. The term "Venetian mosaic" is also ambiguously used to describe terrazzo and underscores the close historical affiliation of stone and cement decorative processes.

The true origins of terrazzo remain speculative. Folklore attributes the invention of terrazzo to the economic need to capitalise on the tonnage of broken marble waste which was the byproduct of marble quarries, such as the famous quarries of Carrara in Italy. More recent history, however, has seen reinforced concrete first mooted in the mid-19th century, and cement assert itself as an indispensable modern building material after 1871, when the American David O. Saylor patented an equivalent of Portland cement. Coincidentally, this marks the emergence of decorative terrazzo from obscurity.

Terrazzo appeared in buildings around the turn of the 20th century with elaborate descriptive designs in brass inlay infilled with variously coloured terrazzo. Sydney is home to impressive examples in this style, such as the terrazzo rendition of the antique *Bonaparte Tasman Map*, executed by Melocco Brothers Pty Ltd in 1941, in the vestibule of the Mitchell Library in Macquarie Street. The 1920s and '30s witnessed terrazzo boldly applied, in strong colours and contrasts, to the geometric patterning typical of Art Deco-style architecture, as may be seen in Miami, USA.

Terrazzo had become international and continued to be employed between and after the world wars, in predominantly public architectural schemes for paths, floors, steps, staircases and service areas largely devoid of a decorative content. The cost of intricate brass inlay for patterned terrazzo had become prohibitive and it was not until 1987 in Sydney, Australia that Suzanne Holman and the Public Art Squad set out to dramatically revolutionise the techniques so that terrazzo could again fulfil its decorative potential.

Skill in terrazzo was carried to Australia during the opening years of the 20th century by Italian immigrants. The Terazzo and Co. Pty Ltd, which executed the terrazzo for the Harbourside Festival Marketplace in association with Suzanne Holman, has been operating in Sydney for 60 years. The company is owned by the descendants of the four Italian families of Melocco, Venier, Togno and Giugni, all of whom originated from small towns in northern Italy.

The Harbourside Festival Marketplace is a development of Merlin International Properties (Australia) Pty Ltd, executed by Architecture Oceania Pty Ltd, under the enlightened project direction of Bob Perry. The architectural brief was for: 'A marketplace with a continuous sense of festival; a place where people go simply for the pleasure of being there', as Perry relates. The intention with the building was to create 'a true expression of Sydney', which, he explains, 'meant going right back to the definition of all the building materials and processes. The driving motivation all the time was to make the place special . . . very definitely Sydney.'

Toward this end, Perry sought out the involvement of David Humphries whose community arts activities over the past decade ensured a depth of insight



into the incorporation of art into a public venue. Art that is confident and expressive yet unpretentious, with an exuberant sense of theatre, created for sheer pleasure, to delight in the true spirit of festival.

Humphries operated as the Director of Applied and Decorative Arts through his company the Public Art Squad Pty Ltd, jointly directed by Rodney Monk. Along with their team of artists they undertook commissions for ceramic and painted murals, sculptures, silk banners and flags, large earthenware jardinière or planter pots, mobiles, laminex table tops and the decorative terrazzo floors.

The festival theme provided a constant source of inspiration and past experience of the 'Sydney Festival', 'Carnivale' and other community celebrations served Perry, Humphries and his team well. For they had all engaged in the preparation of festivities before and understood the nature of the task presented by the Harbourside Festival Marketplace concept.

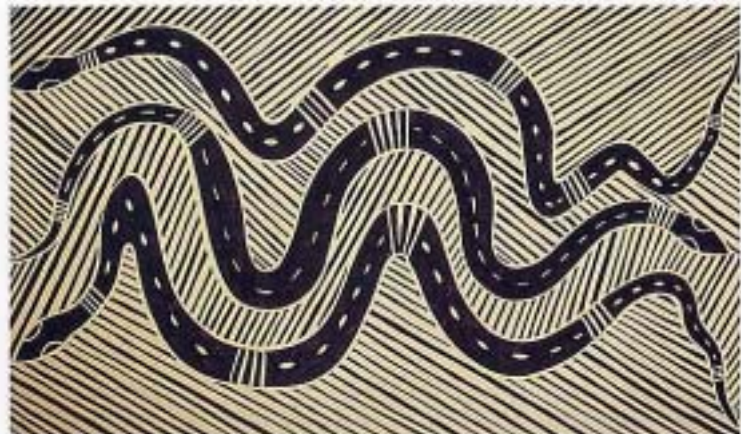
After preliminary research by Humphries and



Above: Glass lollies made by Shar Feil as decorative inlay for the 'Lollypop Shop' floor

Below: View of Harbourside Festival Marketplace, Darling Harbour, Sydney





'Snake' design for terrazzo floor by Aboriginal artist Banduk Marika



Scaled-up polystyrene template of Banduk Marika's 'Snake' design



Positioning polystyrene templates for terrazzo design by Thancoupie



Sun design and polystyrene cutouts



Template for 'Gecko Floor' designed by Zig Moskwa

his assistant co-ordinator Merrin Morrison, the initiative passed to Public Art Squad member Suzanne Holman who was charged with the responsibility for developing the decorative terrazzo. She is uniquely experienced with a background in promotion and publicity; theatre and circus; costume, mask and puppet-making among other festival involvements; murals and community projects, such as the designing and building of children's playgrounds.

Holman understands cement and has the highly developed ability to conscientiously work with a team. She comments: 'The artists' vision in terrazzo is the sum total of people working in various different areas that needed to pull together.' This is the key to Holman's exceptional success with



Star tiles being produced at Terazzo & Co., Sydney



Insetting coloured glass chips into concrete star tiles

terrazzo. She worked with the generous support and enthusiasm of expert Terrazzo and Co. artisans, such as factory foreman Remo Raffin, in order to come to terms with a specialist medium and extend the boundaries of established technique.

In the past Melocco Brothers Pty Ltd had engaged in innovative exploits with terrazzo, such as the remarkable floor in the crypt of Sydney's St Mary's Cathedral, College Street. Holman describes this as: 'The most incredible piece of terrazzo ever done in Australia.'

'It took Peter Melocco 10 years to complete and it has colours, textures and subtleties of technique that are astounding - but they were never repeated.'

The prohibitive nature of brass linework in terrazzo sent Holman looking for alternatives. Traditionally, the brass acts to relieve stress in terrazzo cast *in situ* and to divide colour areas of wet cement. The concern over stress did not require involved linear work in brass and so the issue was one of creating a template, a mask or stencil, which would permit the isolation of colours in the sequential laying of terrazzo into a complex pattern.

Holman is an artist in the sense that she thinks in conceptual as well as practical and visual terms. Her familiarity with cement and her experience with a wide range of other art processes coalesced through controlled experiments and samples to offer a new solution to the problem of eliminating the brass partitions from decorative terrazzo.

Polystyrene foam was the answer. Lightweight yet available in thick sheet form, easily cut with precision yet soft enough to be removed without damage to previously poured colours, the foam provided the ideal template material. 'But that was only the beginning,' says Holman. 'It needed time to develop control over that medium. It literally took three floors to perfect the process.'

The test for the new technique was demanding. Humphries had investigated the scope for design in terrazzo and identified the suitability of graphic imagery. Perry recalls that: 'Bruce Goold was commissioned to do a prototype for the *Currawong* floor.' Humphries' art direction contributed to the adaptation of one of Goold's lino-cut images into a circular format of quadrant repeat. The arresting self-contained design is particularly responsive to the conditions in the main Monorail entrance area, with a central column and encircling walls.

The design is a large and complex composition in black and white of currawongs with strikingly yellow eyes perched in branches laden with red berries. It was Holman's task to devise a means of implementing the design which Humphries later admits, 'Gave us some idea of the problems we would encounter, but we persisted because it was such a strong and exciting image. The strength and visual vitality of the *Currawong* floor inspired a sense of collaboration between artists, terrazzo workers and the architect which carried forward the technical development work.'

The template solution was adopted but there remained the question of the yellow-rimmed eyes of the many birds and the 2,144 red berries. Holman experimented with many possibilities and developed a method of casting the bi-coloured circular eye units from hard resin. A fixing device at the back of each eye permitted her to individually hand place each currawong eye in the design in



preparation for the first pouring of black terrazzo. Similarly, the berries were individually pre-cast units of red resin chip terrazzo which could be incorporated in a poured background.

Holman says, 'The new ideas sounded crazy to start with but they worked and saved literally hundreds of hours worth of time and money. The placement of so many things in the design spurred on the imagination without which we would never have extended the process or learned what terrazzo could do.'

Perry believes that Holman has brought a new dimension to terrazzo by asking the terrazzo workers to accomplish more than they are normally asked to do... 'things which to them seemed impossible at the time turned out to be possible'. Elaborating upon this, Perry said, 'The team venture is really what the Public Art Squad has always been about, philosophically. So not only is the terrazzo fresh and bold from a design point of view, it is also current Australian art from Bruce Goold and its implementation is done to the highest quality control. Suzanne Holman does all the visual work, such as laying in all the special pieces and so on. Having an artist there doing that last act of placement - the last art direction as the terrazzo is going in - being treated as a fellow worker, is the only way you can successfully do architectural-scale craft.' The remarkable consequence of this liaison between architecture, industry and the arts is that, as Perry points out, 'The decorative terrazzo has been implemented at the Harbourside Festival Marketplace at

Detail of finished terrazzo 'Snake Floor' designed by Banduh Mariha, upstairs, Southern Pavilion, Harbourside Festival Marketplace

Below: Suzanne Holman was the artist responsible for implementing all the terrazzo designs commissioned by The Public Art Squad





Bruce Gould's 'Waratah Floor' in situ, Northern Pavilion, Harbourside Festival Marketplace, Sydney



Right: The 'Sun Floor' being laid, showing polystyrene templates in position



Right: The 'Sun Floor' prior to polishing

Below: Finished 'Sun Floor' in the Diamond Court area with kinetic 'Acrobatic Sculpture' and PAS Ceramic Spandrel, Harbourside Festival Marketplace, Sydney



a tenth of the cost of the same kind of terrazzo using the old patterning technology. It is cost-effective. 'Involving artists is not about patronising the arts, it's about management and perceiving that there are people in the community who can do things much more skilled and beautiful than going through the traditional building industry channels. People who generally are not given the opportunity to participate in large-scale projects are now demonstrating that, astonishingly, they are very competitive.'

Bruce Gould's powerful design for the *Waratah* floor proved equally challenging and successful, with the full energy of the lino-cut image translated undiminished into terrazzo via the sensitive hand-cutting of the polystyrene templates. The uninhibited free-form linework of the four terrazzo floors, designed by Aboriginal women artists Thancoupie and Bunduk Marika, was permitted similar coherence and freedom by the new techniques.

Other decorative floors in the Harbourside Festival Marketplace include the fiery yellow sun motif designed by Rodney Monk, situated beneath the large kinetic acrobatic sculpture. Particularly satisfying is a pair of subtle grey, white and black textured compositions of the *Carp Pool* and the *Gecko*, which were sensitively designed by Zig Moskwa, another committed and long-standing member of the Public Art Squad.

Broad expanses of the thoroughfares at the Harbourside Festival Marketplace are floored with simple terrazzo tiles enhanced in places by stars and streaks, masks and lizards. The *Lollypop Shop* floor is joyously littered with glass Smarties, jelly beans, licorice allsorts and jellied snakes cast in vitreous multi-colours by Shar Feil and captured in the terrazzo as a result of Holman's dedicated experiments and test samples.

Exotic coloured glass has been employed as terrazzo inclusions along with the innovative use of resins beside the traditional marble chips, the majority of which are quarried in NSW around areas such as Mudgee, Bathurst and Tamworth. Traditional mineral oxides are used to colour the grey, white or off-white Portland cement along with modern dyes which offer a vibrancy of colour new to terrazzo.

Terrazzo is a remarkable material, inexpensive, resilient, water- and dirt-resistant, adaptable, colourful and capable of great beauty in design and surface. Terrazzo also has both two- and three-dimensional potential as yet unexplored.

The future for terrazzo is beckoning to the imagination of designers and artists. The success of the medium for expressive applications has been aptly demonstrated at the Harbourside Festival Marketplace. What is certain is that stimulating new horizons have been opened up by the innovative and lyrical artworks created in terrazzo for the people of Sydney by the Public Art Squad. Creative initiative is their hallmark.

Robyn Tudor

Robyn Tudor is a practising contemporary jeweller; lecturer in art, craft and history; curatorial specialist in jewellery, enamel and precious objects, and freelance writer.

The Public Art Squad Pty Ltd is located at Level 5, 2-12 William Henry Street, Ultimo, Sydney, NSW 2007. Visitors by appointment. Telephone: (02) 660 4508.