

Decorative Concrete

(Photo: Martin Clarke.)

Decorative Concrete - Leisure for pleasure

In recent years, decorative concrete finishes have become the choice for a range of leisure projects both in the UK and around the world. From the largest theme parks to the smallest museums and public park commissions, the scope and creative options offered by decorative concrete professionals enables the practical installation and realisation of ideas from within the imagination of the designer.

John Grant, PICS, Newbury, UK



Figure 1: Carole Vincent's
Bude Light 2000.



Figure 2: A project using seeded, integral colour, pink dry shake, which was shot blasted.

With an emphasis on long term durability to cope with the demands of high levels of vehicle and pedestrian foot traffic, the majority of in-situ decorative systems cope with heavy use over many years, requiring only simple, minimal in-house maintenance. This is made possible because the pattern imprinted, integrally coloured and exposed aggregate systems use the strength and performance characteristics of high quality ready mixed concrete mix designs. The use of mono-filament fibres, air entraining admixtures and an average minimum cement content of 350kg/m³ of Ordinary Portland cement, produces the equivalent strength of a typical structural concrete. Designed with 50% sand content, combined with colour surface hardeners, the surface of the floated concrete is capable of stretching into the shape of brick, cobble or natural stone for use in a range of pattern imprinted finishes.

Today, more than ever, architects and specifiers for zoos, shopping malls and leisure areas look to incorporate products which can be recycled in the future when redesigning urban landscapes. These days, leisure companies are more likely to reconfigure the theming of parks and play areas over a shorter period and decorative concrete products suit this way of thinking. Most is manufactured on-site, thus the environmental impact of importing stone or paving alternatives is greatly reduced.

Organisations such as Legoland and Blackpool Pleasure Beach carry out regular routine maintenance to areas of paving during the winter months; decorative concrete provides the opportunity to refurbish the paving to a very high standard, year-on-year.

It is important for owners of organisations to minimise the risk of litigation as a result of slips, trips and fall hazards – decorative concrete installed as a single slab can avoid most issues such as sinking paving, slab movement while also maintaining high levels of slip resistance. Other specialist techniques are used, including shot blasting cured or precast concrete surfaces through a stencil or template, the use of photo-engraving formliners, or creating an imprint through chemical etching.

Creative

A project to create a circular cenotaph for the British Army Flying Memorial at Stockbridge, Hampshire, to commemorate the 5127 heroes who died in active service was created by Townscape Products (See Figure 5). Jonathon Goss of Townscape describes how they used printed precast concrete to create the imprinted concrete commemoration; “there is the potential to cast virtually



Figure 3: Deco Concrete Solutions project, winner of Golden Trowel Awards commercial category in 2013, shows a diverse mix of surfaces and materials for a courtyard project.

any design and text into printed precast concrete at varying depths, and it shows that concrete is functional, versatile and can be used highly accurately.”

Since 1989, E J Lazenby Contracts of Yeovil have been breaking the boundaries of function and art within the field of decorative concrete and they were one of the first proponents of commercial pattern imprinted concrete in the UK, when they installed their first drive-thru restaurant paving at Gatwick Airport for McDonalds Restaurants. This was the first of hundreds of similar Picspave pattern imprinted drive-thru specifications, now adopted by most leading restaurant chains, including KFC, Burger King, Starbucks Taco Bell and Dunkin Donuts.

Lazenby have since completed many concrete projects in the UK using a range of decorative techniques, including pattern imprinted and shot blasting work to expose bold colour surface hardeners for crisp colour definition of 3500 text characters at Possil Park in Glasgow, where a map of Europe and a Starscape were featured. At the Princess Diana Memorial Garden in Kensington, a Peter Pan-themed seascape, including wood, rope and seashore effects were imprinted. Special aggregate and shells were seeded into the concrete surface and reliefs of starfish, crabs and crocodile claws were created within the concrete surface. Exposed Aggregate surfaces were shot blasted to create an anti-slip surface – essential around children and water.

A project at Bideford Quay in Devon led Pics to create a new Colour Surface Hardener, aptly named Bideford Buff, to suit the natural stone in the local area. At Port Seaton in Edinburgh, working from hand written sketch drawings, a play area was created. Lazenby utilised techniques, including pattern imprinting, acid staining, texturing, engraving and concrete polishing.

Decorative Concrete Specialists of Swindon have installed a range of challenging decorative concrete paved schemes for The Zoological Society of London, specifying decorative projects at both Whipsnade Zoo and the recent Land of Lions area at London Zoo (See Figure 4). An area of pattern imprinted concrete was installed on an elevated metal walkway within the new Tropical House at Marwell Zoo, and Koala Creek contains the latest area of decorative concrete paving at Longleat Enterprises Wildlife and



Figure 4: At London Zoo's Land of Lions area, mud pathways and camping areas are accurately replicated using decorative concrete.

Safari Park in Wiltshire. The latest DCS project is a unique imprinted design within a paved area in a new public park alongside the canal at Edgbaston. Port Loop is a major development being delivered by Places for People and Urban Splash in association with Birmingham City Council and the Canal & River Trust. Glenn Howells Architects are working alongside architects Maccreean Lavington, Shedkm and Grant Associates to develop detailed proposals for this 3.15 hectare site near Birmingham city centre. Along with installing imprinted pathway work for Butlins at Bognor Regis and many drive thru restaurant projects, the range and scope of decorative concrete designs continues to grow within the sector.

Innovation

The use of shapes and colour in modular concrete tiling systems is changing the way concrete is being used in interior design. New technological solutions work with the essential physical properties of concrete to develop innovative processes to manufacture sleek, crisp concrete creations that are tessellated to form fascinating surfaces, such as the 'Cracked Earth' design conceived by Hugo Bugg for the Chelsea Flower Show, and featured in the variety of designers and artists work within Kaza Concrete of Hungary's designs portfolio.

The work of artist, painter and sculptor Carole Vincent, who sadly passed away earlier this year, explored the use of natural colour and texture in concrete for sculpture. Her work with pigments has achieved remarkable success, opening new doors to architects, engineers and planners. The highly polished surfaces of her work reveal texture, form and colour, utilising the time-proven assets of concrete: flexibility; strength; durability; and resistance to vandalism and graffiti. She liked to work on commissions for specific environments, ranging from public spaces to individual buildings and gardens. Carole was the first winner of the British Precast 'Creativity in Concrete' award

and was a fellow of The Concrete Society. Her work featured in the Blue Circle Garden at the RHS Chelsea Flower Show in 2001.

Other projects featuring Carole's work include The Sundial in Plymouth City Centre, The Pedestrians in Devon, Quartet in Glasgow, Colloquy in Singapore, Les Jongleurs in Jersey, The Red Carpet in Edinburgh, and The Bude Light in 2000 (See Figure 1 page 44).

Adventures

The re-creation of natural surfaces in concrete has been carried out at many Zoo projects around the world. In the UK, a colour hardened, rough finished driving area was installed at the Chessington World of Adventures Zoofari ride, where large safari vehicles enter a mud pool area, and coloured textured concrete was chosen to recreate the natural look in the wild, without the vehicles getting stuck in the mud! Similar areas have recently been installed at both London Zoo and Marwell Zoo for exhibits and pedestrian areas where the look and feel of mud paths and grazing areas feature animal footprints, vehicle tracks and campsites. The muddy floor of a replica WW1 trench was created out of decorative concrete at the Tank Museum at Bovington, Dorset, and scorpions are imprinted into the surface of the textured concrete at Merlin Groups' Chessington World of Adventures Scorpion Express ride.

The use of texture-only paving has become increasingly popular to avoid trip hazards across many theme parks, zoos and the proliferation of crazy golf courses. Other recent decorative concrete projects specified by leading leisure providers include projects at Thorpe Park, Paultons Park, Colchester Zoo, Chester Zoo and West Midlands Safari Park to name a few. As we all invest more of our free time in leisure activities, decorative concrete plays an interesting but mostly silent part in adding pleasure to leisure.

Figure 5: Circular cenotaph for the British Army Flying Memorial at Stockbridge, Hampshire, to commemorate the 5127 heroes who died in active service, created by Townscape Products.

