

A Fountain for Diana

by David Thomson - 10th August 2006

Confronted by make-over programmes and articles suggesting my urban plot couldn't possibly be considered complete without a water feature, my imagination was set in motion.

Over a back-breaking weekend wielding pick and shovel - excavating through layers of ash and clinker tipped by Edwardian predecessors - I dug a rectangular hole beneath the out-house wall and installed a sunken cistern. A ceramicist friend produced an elegant half-bowl bearing the words '*aqua vitae*' and positioned it at an aesthetically pleasing height above.

I thought it would be but a simple matter of piping a circulation of water. Soon I would be coming home on warm evenings to sit and contemplate - glass of wine in hand - whilst listening to its soothing splash.

The great day of inauguration arrived. The chilled Pinot Grigio was poured and a group of friends stood in anticipation as I flicked the switch on the concealed pump. The bowl filled and water gushed forth only to sound - let's keep it polite - like a carthorse watering into a pail. It was altogether most unappealing and within minutes I was receiving requests to turn-off as adjacent conversation was impossible.

Today the bowl is dry and the cistern of dank green water enjoyed by only a colony of frogs. The fountain awaits me finding time and money to research a more sophisticated adjustable pump and do test runs with the bowl positioned at different heights until the desired effect is achieved.

Imagine then having the responsibility to design a memorial fountain to commemorate the life of one of the most visible and magnetic personalities of the age - Diana, Princess of Wales - and oversee its construction in Hyde Park.

I suspect American designer Kathryn Gustafson had little idea of what lie ahead when her London-based partnership Gustafson Porter won the coveted commission through a competition in July 2002.

Early morning runs through the Park took me past the gently sloping site near to the Exhibition Road approach of the Serpentine Bridge. As time went by I was able to watch the progressive stages of construction.

Built of Cornish granite the memorial takes the form of an oval streambed - approx 50 m x 80 m - in which water flows in opposite directions from a head source to meet in a

shallow pool at the bottom - gently rippling down one side and sluicing as a fast flowing rill down the other.

Although described in the Press as a *'moat without a castle'* the construction includes three bridges giving easy access to the central grassed area.

Culture Secretary Tessa Jowell laying the foundation stone on 20 August 2003, declared, *'It is entirely fitting that Diana should be remembered by a memorial that is lively and welcoming, that will appeal especially to the young, and that represents the best of British materials, talent and technology'*.

Almost 11 months later on 6 July 2004 the Windsors and the Spencers stood together in public for the first time since the Princess's funeral to watch the Queen officially inaugurate the fountain. The Queen paid tribute to Diana's ability, *'not only to touch people's lives but to change them'*.

Kathryn Gustafson said that she intended the fountain to be accessible and to reflect the Princess's *'inclusive'* personality. A place of celebration and reflection - an expression of *'Reaching Out/Letting In'*.

I visited the fountain on the first weekend following the royal ceremony and admittedly things were not looking good. On a warm and sunny afternoon people had poured in in droves to clamber, wade and shriek their way around the circuit. The surrounding sward had turned into a quagmire.

This was far removed from the pre-construction, illustrative impressions that I had found so inspiring which featured a few people standing or strolling beside glistening waters in a sylvan landscape.

Nonetheless through the chaotic throng the elegant curves of the stonework and the joyous and intriguing sculpted effects of flowing water were discernible. To my eyes something magical had been created.

Later when talking about the fountain to a friend - who hadn't seen it - she exclaimed, *'It just sums up that poor girl's life having everyone walk all over her!'* It was a safe bet that no-one involved had intended to create that impression.

Fuelled by a spiteful Press - which gloated at every mishap - it seemed that the most vociferous and critical comment on *'The Peoples' Puddle'* came from those who had either never seen the fountain or had little idea of the design process and workings behind it. The Evening Standard mounting an appalling vitriolic attack on Kathryn Gustafson herself gave

scant coverage to the complexity of her work. Few people knew that the project was realised by advanced computer technology and involvement of the Ford Motor Company

Wanting to know more I contacted Gustafson Porter's Kentish Town office and Director Mary Bowman kindly gave me her time to run me through the project.

The concept was based upon a free association of words associated with Diana - style, elegance, femininity, approachability. A smooth oval was considered a form sympathetic to both concept and the gradients of the Grade II listed landscape. Varying flows and movements of water were devised to illustrate contrasting aspects of the Princess's life - happiness and turmoil, power and vulnerability.

Once the commission was in the bag Kathryn Gustafson and her British partner Neil Porter began a hands-on exercise with modelling clay at the Seattle office of the designer's American practice, Gustafson Guthrie Nichol.

The finished maquette illustrating the form of the memorial and its position within the gently reworked site topography was then freighted to England.

A resin cast was taken using a rubber mould and this more versatile model was digitally scanned by Ford Motor Company to create a '3D scan file'.

The scan allowed the designers to create sections through the memorial's granite ring and surrounding landform to enable them to work up features in detail. It was the first time this technology had been employed in an architectural project.

From these workings, SDE (Surface Development & Engineering), a company specialising in high quality computer generated surface models, created what is known as a 'jelly mould'. This was a final 3D model of the full shape of the memorial as a seamless electronic file detailing the exact shape and location of each of 545 pieces of stone within its construction. Taking things a stage further the jelly mould could then be divided into individual 'virtual' blocks to direct the stone cutting.

A further company, Barron Gould-TeXxus, conversant in the design of textured surfaces, computer-modelled the surface patterns of the granite and merged more than 230 sq m of unique surface effects with the jelly mould file.

There was now a complete set of computer files describing with engineering accuracy the precise shape and surface texture of each stone block. A further specialist company,

Vero, translated these files into 'machine code' for guiding the CNC (Computer Numerically Controlled) machines employed in fashioning stone.

In the face of such wizardry it's perhaps comforting to know that some basic hands-on techniques were still employed. For a section known as the 'Swoosh' no amount of computer technology could give a definitive image of how a flow of water would react. A quarter scale mock-up of this key section was made in foam and resin at Imperial College to fine tune the effect by literally sluicing water through it.

Other aquatic effects were the work of Ocmis, a specialist company working in co-operation with engineers Arups on the water mechanics and dynamics, who created a full scale trial section demonstrating jets shooting from below the surface to create 'champagne bubbles'.

A main contractor, Geoffrey Osbourne Ltd, was appointed with responsibility for management of the commission contract, including civil and mechanical engineering, landscaping and stonemasonry. Their subsidiary company, Cathedral Works Organisations, took on responsibility for quarrying, cutting and placement of the stone.

'De Lank' granite from Ennstone Breedon Ltd's quarry in Cornwall was chosen for its hard-wearing and non-porous qualities which would contribute to the memorial's longevity. The stone's light colour would also highlight the sparkle of the water.

The actual stone cutting was done by a company in Northern Ireland, S McConnell and Sons, which enthusiastically invested in new machinery to accommodate working on the stone blocks as they arrived via road to Scotland and ferry across the Irish Sea.

It was estimated that a sizeable team, cutting by hand would have taken well in excess of a year whereas cutting by electronic methods was completed within seven months.

Originally, the fountain was going to be higher up than its current position and replace the carpark adjacent to the bridge but when initial excavations were made the site was found to contain important historic remains of the grounds of Kensington Palace. Therefore a substantial amount of reworking was required to swing the design around and accommodate the structure on a different gradient as it was moved further to the east.

Construction began in June 2003 with the initial removal of topsoil and positioning of foundations. Various stages of preparation and construction then operated concurrently with

the first fashioned stones being positioned whilst others remained at the computer file conversion stage.

A borehole was sunk to provide a constant source of fresh water, to be pumped to the highest point from a storage tank at a rate of approx 100 litres per second. This also provides the ecological benefits of no chemical requirement for purification and as water flows around at a 10% volume replacement rate per circuit the surplus runs into the Serpentine and assists in maintaining water quality.

The unexpected can however infringe upon even the best-laid plans and with crowds exceeding all expectations the fountain closed under the pressure. It was also perhaps inevitable that the seductive qualities of the water would have them climbing in.

Perhaps there was naivety not to foresee this - especially with the superstar connection - but it can equally be said the fountain was a victim of its own success.

Contrary to denigrating the memory of Diana in all probability she would have laughed out loud to see so many people enjoying a lot of relatively harmless fun.

There were of course Health & Safety and practical reasons for the closure not least wear and tear of the surrounding grass. It was clear that the concept of a free-standing structure unhindered by hard surfaces and readily accessible to all had to be sacrificed.

Gustafson Porter was given the further commission of incorporating paths and tweaking the landforms to accommodate heavy public usage.

With paths in place over the most used routes and the surroundings replanted with a more durable variety of grass, the fountain re-opened in Spring 2005. Some of the atheistic subtlety may have been lost but enhanced access for the disabled has to be welcome.

Despite rumblings over cost: £5.275 million covering all aspects of the original design competition, construction and subsequent enhancement work, the fountain at last seems to be achieving the level of appreciation it deserves. In keeping with the Queen's opening address acknowledging *'difficult times'* but concluding *'memories mellow with the passing of the years'* unduly adverse criticism will fade.

The 2006 edition of Ken Allinson's *'London's Contemporary Architecture'* says, *'Make no mistake: Gustafson Porter know how to design landscapes. And this is a good example of their work - a very pleasant surprise in the middle of Hyde*

Park . . . there's a sensuous, eventful and skilled architecture to this thing'.

I revisited the fountain recently to find it enclosed by a green wire fence although this does appear less intrusive from within than from without. During good weather approx 8,000 visitors per day can be expected - increasing significantly on notable dates such as the Princess's birthday on 1 July - and monitoring is therefore essential.

On my visit the fountain's guardian was a cool beach-type dude who fitted the bill perfectly with his long baggy shorts, t-shirt and wrap-around shades. Circulating, he politely but firmly enforced a policy of allowing visitors to sit along the edge with their feet in the water but on no account to stand; to give everyone their credit they operated accordingly.

As I sat, feet dangling in the surprisingly chilly water, along side four very impressed women from Florida, I couldn't help thinking it was all a little too neat and well-behaved.

Nonetheless the fountain offers magical experiences for young and old alike with one of its most unexpected qualities being the variety of sounds it makes. Shut your eyes at various points around the circuit and you could be miles from central London listening to a gurgling mountain stream or the tide washing in over a shingle beach.

When questioning the dude about his job and public reaction, he said, *'Better to have the fountain like this than not have a fountain at all'.*

I'm certainly not going to disagree with that!'

The Diana Princess of Wales Memorial Fountain is now under the auspices of the Royal Parks. Open daily from 10.00am to shortly before dusk varying throughout the year. Closed for maintenance during the second and third weeks of November.

Other Gustafson Porter projects include: Great Glasshouse Interior, The National Botanic Garden of Wales; HM Treasury Courtyards, Whitehall (usually accessible on Open House Weekend); Swiss Cottage Open Space (behind public library and sports centre).

For full information on the Gustafson Partnerships:

'Moving Horizons, The Landscape of Kathryn Gustafson and Partners', by Jane Amidon, published by Birkhauser.