toned natural stone chosen to complement the facades of the Three Graces, and used for rainwater collection through much of the space. As they approach the canal basins, however, they splay out to dramatic effect creating a series of seat walls which accommodate the change in level, elegantly morph into flights of steps, then finally re-converge to continue their journey through the space.

## DIGITAL CRAFTSMANSHIP

The seating provides inviting and sheltered places to sit close to the water's edge, watch the barges and enjoy the views. In addition to being sculpturally attractive, this inbuilt seating is robust and much less vulnerable to vandalism than traditional benches, while embodying a high degree of refinement and craftsmanship. The team worked with Marshalls to develop the design concept and ensure buildability. In terms of implementation, computer-generated 3D models created by the design team were used to cut complex stone shapes with great accuracy and cost-effectiveness using computer numerically controlled (CNC) milling machines. This closed the loop between designer and end product in a successful piece of digital craftsmanship. Project implementation presented many challenges, with extensive archaeology and the difficulty of working alongside concurrent construction projects. Indeed, waterfront project managers and contractors groups were set up to ensure joint working and effective coordination between the projects.

These brought many benefits, for example sharing fill across sites to cut down on imported materials and coordinating construction traffic to reduce disruption. Among the greatest strengths of the project is that the grand scale of the design, which sits well with the majestic Three Graces and the world-famous setting on the River Mersey. And yet, despite this large scale, there are also moments for intimacy, tranquility and reflection, the latter being especially important given the number of memorials here.

■ Rosey Paul is Principal Public Realm project Manager at Liverpool City Council http://www.liverpool.gov.uk Follow link to City Centre Movement Strategy in A-Z for further information on public realm improvements in the city



An exciting scheme of night-time illumination uses warm white light in decorative columns along the main thoroughfares and in innovative recessed light fittings within the canal and seat walls. These create attractive feature lighting within the basin areas, which is overlooked by the new museum and restaurant terrace of the ferry terminal and provides a wonderful backdrop at night. All equipment was chosen to be energy-efficient and to minimise light spillage. The area is a successful venue for hosting large events, for example an annual 'On the Waterfront' music and dance festival. The site was also used for the final event for Liverpool's Capital of Culture year when 35,000 gathered at the waterfront for entertainment and fireworks