

For the first half of the 20th century, architecture featured as an Olympic event. Medals in the “culture games” were also awarded for sports-related endeavours in the fields of music, painting, literature and even town-planning. But the practice was abandoned after the 1948 games, when the last gold medals for architecture went to an Austrian ski-jump and an athletics centre in Finland.

Architecture now has plenty of other awards to make up for the loss, including the Royal Institute of British Architects’ own gold medal. But when it comes to London 2012 buildings, the podium places seem to have been decided already. Three major venues have dominated public and media attention, just as they dominate the site: the main Olympic Stadium, the Aquatics Centre, and the Velodrome. Rightly so, you could argue: these are the principal venues, and the latter two are impressive works by two top British practices, Zaha Hadid and Hopkins Architects respectively. But now that most of the building work is done, it’s clear that the other Olympic buildings are more than just a field of also-rans.

In terms of show-stopping design, London’s Olympics have never threatened to compete with their

You’ve seen the pool, the stadium and the velodrome – now here’s the octopus-tentacle shooting range and the multicoloured rubber bridge. **Steve Rose** looks at the hidden architectural highlights of London 2012

Athletic builds

expensive predecessor, Beijing 2008. There’s the economic climate to consider – and the fact that London already has plenty of perfectly good sports venues. Instead, London 2012’s organisers have taken their cue from Barcelona’s 1992 games, using the Olympics to make lasting improvements to the city. (If there’s one word you rapidly tire of hearing in London 2012 design circles, it’s “legacy”.)

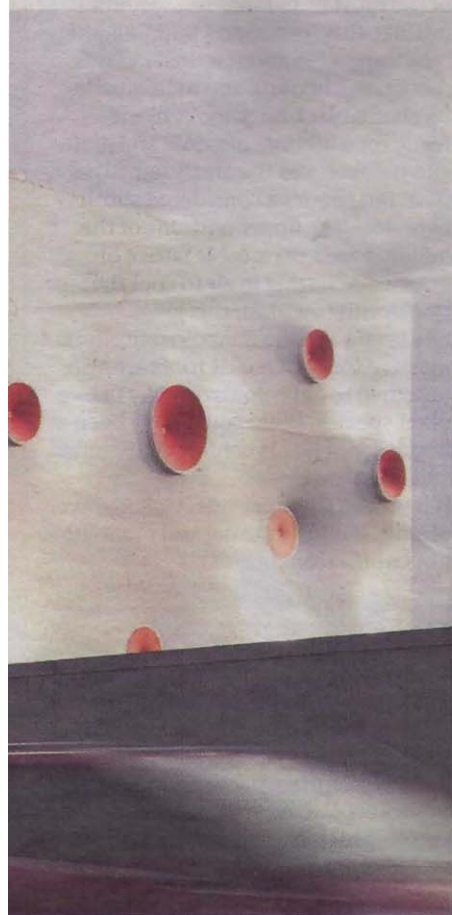
The result is a different type of Olympic landscape, one made up of permanent buildings designed with the future in mind (some of which have nothing to do with sport), alongside temporary structures that point to a more efficient way of hosting major sports events in the future. Some of this is plain and pragmatic (the Olympic Stadium), some of it is plain hideous (the ArcelorMittal Orbit), but much of it, in a quiet, practical, sleeves-rolled-up sort of way, is architecture Britain should be proud of. It’s not about winning; it’s about the taking part. Nor is this a sprint: it’s a marathon. Here are some of the highlights so far.

Shooting galleries and basketball arena

Magma and Wilkinson Eyre

Cost: £32m and £41m respectively

Two temporary, reusable venues



eyeing a sustainable future for large sports events. The chief of the Rio 2016 Olympics has already expressed an interest in taking the basketball arena to Brazil, while the shooting venues might well reappear at the 2014 Commonwealth Games in Glasgow. Both are simple tent-like structures made from a kit of parts, but given a distinctive twist. The 12,000-seat basketball arena's membrane is stretched over a random arrangement of curved forms. Inside, in accordance with sporting regulations, it is essentially a black box - albeit one with 8ft-high doorways so tall players don't bump their heads.

Over in Woolwich, the three shooting venues (different sizes for the variety of Olympic disciplines), are a safe distance from the famous facades of the Royal Artillery Barracks - which is just as well since they look more like rave tents at a festival, studded with coloured circular projections resembling the suckers of octopus tentacles. As well as creating a distinctive "family" identity, the suckers serve as ventilation openings, and become round doorways at ground-level.

If they were Olympians they would be: Kenyan marathon runners. They look like a bunch of lightweights but should get results.

Handball arena

Make

Cost: £41m

The quintessential London 2012 project: nothing fancy, does the job, but just enough character to earn it a nickname - the Copper Box. Apart from the copper, it looks like the generic sports centre it is destined to become post-Games, and its red trim does look slightly 1980s. But the unassuming design is energy-efficient, flexible and highly practical. There's a public level to the 6,500-seat arena halfway up, marked by a strip of glazing running around the building. That means you can walk straight into the action, or just peer in and see what's going on as you walk past. Unsung features include a rainwater harvesting system, retractable seating and 88 "light pipes" in the roof that reduce lighting bills by 40%. Construction dust from the site went into the concrete, and even the copper is mostly recycled.

If it was an Olympian: heptathlete Jessica Ennis. Modern, versatile and expected to deliver in the future.

Central Park bridges

Heneghan Peng Architects

Cost: £56m

There are over 30 bridges around the Olympic site, old and new, but this is the special one. It's really three bridges

From left, top, the interior of the handball arena; bottom; the underside of the Central Park bridges; the Magma shooting galleries; the Olympic Park pumping station; top, the Olympic energy centre; bottom, a CGI of the proposed McDonald's building

in a Z-shape, which cross the River Lea in two wide, parallel 30-metre spans linked to each other by a narrower diagonal bridge. During the games this will be the main pedestrian route, so the gaps between the bridges have been filled in with a temporary rubber surface that looks like a giant psychedelic playmat. When this is removed, the bridge will link not just the two sides of the river but the two levels of the Olympic Park: the upper concourse and the rivers, canals and wetlands below. The bridge looks even better from beneath: its undersides resemble the keels of a catamaran; clad in mirrored stainless steel, they create surprising reflections of the water.

If it was an Olympian: Nadia Comaneci. Graceful, limber and dynamic, but doesn't look as if it's trying too hard.

Old Ford water treatment centre and Pudding Mill pumping station

John Lyall Architects

Cost: £7m and £7.5m respectively
 The treatment centre performs the unenviable but alchemical feat of turning sewage into fresh water - a decent analogy for what the architects have done with this, the short straw of Olympic commissions. Typically, these buildings are dull corrugated metal sheds, but this one - providing non-



drinking water for the whole site - camouflages its bulky sheds and tanks with timber cladding and gabion walls (a recurring theme across the site). And plenty of greenery - the Old Ford site will be a nature reserve when it's finished. Particularly appealing is a Luis Barragan-like cluster of cubes of rusted steel plates concealing the pumps for the aquifer below. At the other end of the site, Lyall has found unlikely romance in the unpromisingly named foul-water pumping station. Its concrete drum is enhanced by a chimney with a light box on top; imprinted into the walls are drawings of pumps and pistons from Joseph Bazalgette's celebrated Victorian sewer system, which runs nearby. It's a reminder of the last time such infrastructure was taken seriously. **If it was an Olympian:** the British sprint relay team. Good-looking individual parts that can get great results when they work together. But if one of them messes up, we're all in the, er ...

Olympic energy centres

John McAslan & Partners

Cost: undisclosed

Another building that looks as if it has work to do - and it has. This supplies all the electricity, heating and cooling for the site, and it wears its utilitarianism proudly. In form, the Energy Centre's industrial aesthetic alludes to Giles Gilbert Scott's Battersea and Millbank power station designs. But it's a smaller, lighter, cleaner interpretation, reflecting the 21st-century technology within. Rather than heavy brick, it is clad in perforated panels of rusted Cor-ten steel over a protective cloak of black rubber. The bright red external staircase and large bay window soften the severity. Inside, and in the adjacent, reconditioned warehouse building, are energy-efficient gas and woodchip-burning boilers, chillers and gas-fired turbines - all of which can be easily removed and upgraded in the future.

If it was an Olympian: shot putter-turned-strongman Geoff Capes. Not



pretty but lots of personality, and an endless capacity for heavy lifting.

McDonald's

AEW & Philippe Avanzi

Cost: undisclosed

Not a brand you immediately associate with sporting physique, or world-class design, but they are sponsoring the Games, so tough. During its brief existence, this temporary burger joint will be the world's largest and busiest McDonald's, so it's good to see they've made an effort. The interior conforms to Philippe Avanzi's "latest European design elements" for the brand, which means more wood, bright graphics and decent furniture - most of which will be reused elsewhere after the games. The building's facades are screened by horizontal and vertical wooden slats, which create balconies and billboards and mask the basic two-storey cabin beneath. The design was influenced by treehouses and the transparency of Japanese architecture, say McDonald's - neither of which have much to do with London 2012. But it beats yellow and red plastic.

If it was an Olympian: Ben Johnson.

Like the disgraced sprinter, it doesn't really deserve to be in this company - but it very much looks the part.

Electricity substation

Nord

Cost: undisclosed

One of the most pleasing pieces of design on the site turns out to be one

Already eyed up for Brazil 2016 ... above, the reusable basketball arena; below, the multicoloured rubber walkway across the River Lea to the Olympic Stadium

The basketball arena has 8ft-high doorways so players don't bump their heads



of the most mundane. You wouldn't mistake this for a sports building; there is nothing agile about it. Instead it is robust, earthbound and hard-wearing. Its ebony-black brick looks like it's ready for a lifetime of grime and graft, and it references the area's industrial past. But there's a considered subtlety here, too. The upper portions of the building are a permeable lattice of brickwork, letting in air to cool the transformers within; this gives a fine texture to the unapologetically massive forms. The flat roofs are also designed to aid colonisation by native plant species. What could have been a nondescript box is confident, dignified and sculptural.

If it was an Olympian: Steve Redgrave. Strong, silent, enduring and monolithic - but still a team player.

Eton Manor

Stanton Williams

Cost: around £65m

The original Eton Manor Boys Club was founded in 1907 by old Etonians to give underprivileged East End boys access to sports. That makes this one of the few places on site with a genuine sporting history - even if the club closed in 1967. This won't be a public venue during the Olympics, though it will host wheelchair tennis during the Paralympics; after the Games the building comes into its own as a home for the national hockey team and the Lawn Tennis Association. The main arena houses an indoor tennis court, and connects with a concrete outdoor seating stand for the main outdoor arena, with dozens more courts and pitches. Crisply detailed and well-ordered, using a small palette of materials (mainly timber, concrete and black metal), it makes a visual connection with the Velodrome next door; the two will form part of the same complex post-Games.

If it was an Olympian: Sebastian Coe. Aristocratic, well-mannered and slightly aloof, but reserves of potential for when the Games are over.

