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LONDON 2012, OLYMPIC PARK SUSTAINABLE

The London Olympic Park, *by Alona Martinez-Perez*

The London Olympic Park project is one of the most ambitious projects set in the United Kingdom for the next twenty five years. Not only as part of the London Olympic Games in 2012, but as a catalyst for the regeneration of East London. The park is located in the Lea Valley River Area in Stratford, East London and comprises the regeneration of a hundred hectares of Brownfield land.
That the park with the Olympic facilities built from 2008 to 2012 for the London 2012 Olympic Games would not only be part of a global event but also form the legacy of the park after the event was clearly part of the vision of the original bid in 2005. In order to set out the key policy priorities to realise this vision sustainably with five key sustainability principles set up at the outset. The Olympic Delivery Authority (ODA) (2007, p.8)[1] refers to these principles in its strategy "*five 'headline themes' as key policy areas, which were: Climate change; Waste; Biodiversity; Healthy living; Inclusion. These represent the priority sustainability themes across the entire London 2012 programme (including venues outside London), and form the basis of strategies and action plans for the delivery bodies and official stakeholders".* These five key sustainability themes have been measured against 12 objective areas to track progress. The master plan for the site is being delivered by the Olympic Delivery Authority with the legacy of the park delivered by a company established for this purpose the Olympic Park Legacy Company (OPLC) which will look after the site for the next 25-30 years.

The London Olympic Park was previously a derelict and industrial area in Stratford to the East of the city of London. This area is one of the most deprived in the country with high unemployment rate and, by locating the Olympic Games there clearly this will not only just attract global attention to the site but furthermore help with its regeneration. The masterplan for the site includes the Park itself and all the venues for the Olympic Games (Stadium, Velodrome, Aquatic Centre, Energy facilities etc.), transport infrastructure improvements and an Olympic Village delivered by public and private sector partners that, after the Games, will become a mixed-use scheme. But the legacy after the Games of the park is a much longer affair as stated by the OPLC (2010, p10)[2] "*Over the next 25 years, the Park is expected to deliver 11,000 new homes (including the Athletes Village) and 7,000 –8,000 new jobs along with education, health, and community facilities, making a significant contribution to London's housing, employment and community needs".*

The five sustainability principles set at the beginning mean that all the structures for the Olympic Games will have to gain Building Research Establishment Environmental Assessment Methodology (BREEAM) Excellent rating and all of the Olympic Village will be designed to meet the Building Research Establishment (BRE) Eco Homes Excellent standard. These UK standards set a very high level in terms of sustainability and energy supply measures to reduce the environment footprint of the scheme throughout the whole lifecycle of the project – construction through occupation to demolition. This involve the use of Combined Cooling, Heating and Power Plants (CCHP) and a proposed wind turbine located at the north of the site at Eton Manor that according to the ODA (2005, p.15) *"is anticipated to provide the energy equivalent to supply 1,200 homes over an average year".* The ODA (2007, p.21)[1] has also developed clear strategies for reduction of water use and waste production *"with clear actions implemented in ODA's waste hierarchy of eliminate, reduce, re-use, recycle, recover, dispose. At least 90 per cent, by weight, of the material arising through the demolition works will be reused or recycled".* This demonstrates how the principles of dealing with climate change and waste have been clearly incorporated in the design of the Olympic park.

Furthermore the design of the park will increase the area of natural habitat in the whole site and provide opportunities for communities to enjoy a formerly derelict site improving Biodiversity with the design carefully

set out to prevent flood risks and to increase the penetration of waterways and greenways into the urban fabric.

The access on public transport to the Park also in addition to cycle and walking routes incorporating inclusive design have also been embedded by these five sustainable principles including Healthy Living and Inclusion. The park also includes public art works such as Anish Kapoor's sculpture ArcelorMittal Orbit.

To critically evaluate the level of sustainability included in the project of the Olympic Park is not just about the architectural products (generated pre and post legacy) but also of the processes that have generated the project of the Olympic Park and its ambition while thinking sustainably.

Barcelona used the Olympic Games as a catalyst to open the city to the sea, extending Cerdà's grid to the sea and regenerate industrial areas incorporating them into the fabric of the city while removing industrial infrastructure creating a whole new district for the city. London's ambition is not just to achieve that but also to have the sustainability at the heart of the project from the outset. The Olympic Park uses greenways and waterways to generate a series of public spaces that stitch back the surrounding neighbourhoods (Hackney Wick, Fish Island, Bromley-by-Bow, Leyton and Stratford) into the intervention. It also brings a derelict brownfield periphery into the city creating new links for a former industrial area to the water of the River Lea. The legacy is not a process that is left as an afterthought but incorporated sustainability right at its heart from the very start of the Olympics bid process and the Park project shows not just architectural objects but also the processes and its ambition at its heart. Where the Barcelona Model might have inspired London (it was the only city ever awarded the RIBA gold medal in 1999), this project goes beyond just regenerating an area of East London with its clear ambition to do it in a sustainable way. The concept of ecological urbanism has clearly been taken here as an opportunity to regenerate a brownfield periphery area in East London incorporating climate change reduction strategies as an integrated part of this project not as an afterthought once the Games were complete but as a clear strategy over 25-30 years for a part of the city badly needing urban regeneration.

The question is how this will change East London as Pierluigi Sacco (2011)[3] states *"How to change the identity of the city? From this point of view it's absolutely essential to get to strategically complementary design methodologies, in which the evaluation of the logistical and physical impact is always connected to social impact evaluation."* The Olympic Park pre-legacy has temporary structures that will host the games but after the Games are over the structures that are not part of the post-legacy period will be dismantled and re-used and the park will be an integral element in the regeneration of this area of East London. I think for East London the ambition of this project goes beyond the architecture but it is clear that sustainable strategies and thinking have been incorporated into the projects. Having sustainability incorporated into all the processes clearly from the outset (and not as an afterthought once the scheme is completed in order to tick the right boxes) in the design methodologies, decisions and the design is clearly its strength. The concept of sustainability was embedded in the bid clearly by using permanent structures only if they had a viable long term use after the Games with clear coordination of the stakeholders involved to achieve this goal with the aim that the design was to be sustainable not just physically but also socially, creating a vibrant new part of the city for the communities of East London.

The park will be the key point of activity during the games with the River Lea as the unifying element but afterwards green infrastructure will be at the heart of this new part of the city of London that is not only an example of sustainable regeneration but has the ambition to be one of the most sustainable projects recently carried out in the United Kingdom.

Here the site chosen for the project is not a Greenfield site at the urban edge of the city or a central historic site but a brownfield peripheral area on a highly contaminated site in a historically poor part of London. The intervention revitalises and brings back the industrial site critically repairing the whole area with the effect not just being restricted to the site itself but rippling out to the surrounding areas of East London around the Park. It returns back to some of the influential ideas and work of The Urban Task Force, led by Richard Rogers that promoted more sustainable ways of thinking of the future for English cities. This influenced planning policies in England promoting mixed-use, high density, brownfield development instead of Greenfield, the use of public transport and compactness as key elements to a project citing Rogers (2005, p.2)[4] and his vision referring to English cities as "a *vision of well designed, compact and connected cities supporting a diverse range of uses – where people live, work and enjoy leisure time at close quarters – in a sustainable urban environment well integrated with public transport and adaptable to change"* and that is a vision equally applicable to the Olympic Park's sustainable strategy and ethos.

For this area of East London the legacy of this project will mean a hundred hectares of Brownfield land becoming a vision of a new sustainable community, where the ideas of mixed-use, high density, public spaces and connections will be a reality for the future. With the Park running like a spine connecting the

different buildings and reconnecting the industrial site to the river and to nature with the carefully designed greenways connecting neighbourhoods and transport and infrastructure upgrade (new schools) bringing a poor and derelict area in the East to the rest of the city as the backdrop to a Global event. The sustainability principles that have been incorporated in the design and the processes with ambition and boldness along with the companies created to deliver these and the people involved sharing this common ethos including citizens and stakeholders.

The park is a spine that connects the site from the neighbourhood scale to the city scale (transport), transforming an industrial site critically repairing the fabric of the city where it has been previously damaged by industry and creating a new green landscape that connects the Lower Lea Valley back to the water and having sustainability as its heart.
In that sense the choices are bold, requiring ambition not just about an object but a much more thoughtful process of thinking about the city in a sustainable way. In this sense London has exceeded in its ambition for the Olympic Park. But for the Olympic Park to be sustainable and successful long term is critical that this ambition will have to remain with the Legacy plan for the next 25 years.

If we look back at other models like Barcelona, the Catalan architect Manuel Sola-Morales (2008, p.73)[5] explains "*Operating in the city does not mean solving problems it means increasing clarity while creating ambiguity at the same time in order to bring the great wealth of significant containing places at the forefront; creating places where before they were none; introducing unsuspected scales of reference; taking advantage of anything that strikes the senses in order to augment the mental significance of the site*". For me this explains that while the Olympic Park might not solve all the problems of East London, the project still successfully makes an intervention in the abandoned periphery taking advantage of the site in a sustainable way and embedded sustainability in the process for the project and the site creating a new place where before there was nothing more than the remains of industry. The project creates and introduces different scales of reference, from public spaces such public art to waterways and greenways, from sport facilities to residential ones, while creating connections between different urban elements (transport, cycle and pedestrian paths), and sustainable facilities for energy and waste. All of these aspects take the use of an industrial area that one was important to the *genius loci* of the site, adding new references that add to the mental significance of this site and doing this in a sustainable way.

The Olympic Park brings back the garden to the city, but in a contemporary way using a polluted site to repair the fabric of East London suggesting a different concept of new naturalism where nature meets architecture, and the spine that connects all this elements is the park, the garden. This could be the kind of public place and garden of the future regeneration of East London and as metaphor suggested by the words of the architects Iñaki Abalos and Juan Herreros (2002, p. 27)[6] in a paper where *"The fusion of nature and artifice, the dissolution of disciplinary boundaries between architecture, art, garden and philosophy; the organisation of experience into narrative sequences; the primacy of the visual and of movement, in the material and the invisible, too; the construction of a public space and an architecture reflecting new sensibilities…"* this new public park could do all that, and do it sustainably.

1. Olympic Delivery Authority. (2007). *Sustainable Development Strategy,* London: London 2012
2. Olympic Park Legacy Company. (2010). *A walk around Queen Elizabeth Olympic Park,* London: Olympic Park Legacy Company Limited
3. Sacco, Pierluiggi. (2011). In the foreground, *Eco Web Town No 0 Magazine of Sustainable Design,* [online]. Available at: (http://www.ecowebtown.eu/en/00_11/pdf/sacco_en.pdf) [Accessed 2 of July 2011].
4. Rogers, Richard. (2005). Towards *a stronger Urban Renaissance,* London: Urban Task Force.
5. Sola-Morales Rubio, Manuel de. (2008). *A Matter of Things*, Rotterdam: NAI Publishers
6. Ábalos, Iñaki; and Herreros, Juan. (2002). A new naturalism (7 Micromanifestos). *2G Ábalos & Herreros*, International Architecture Review no. 22, pp. 26-33.