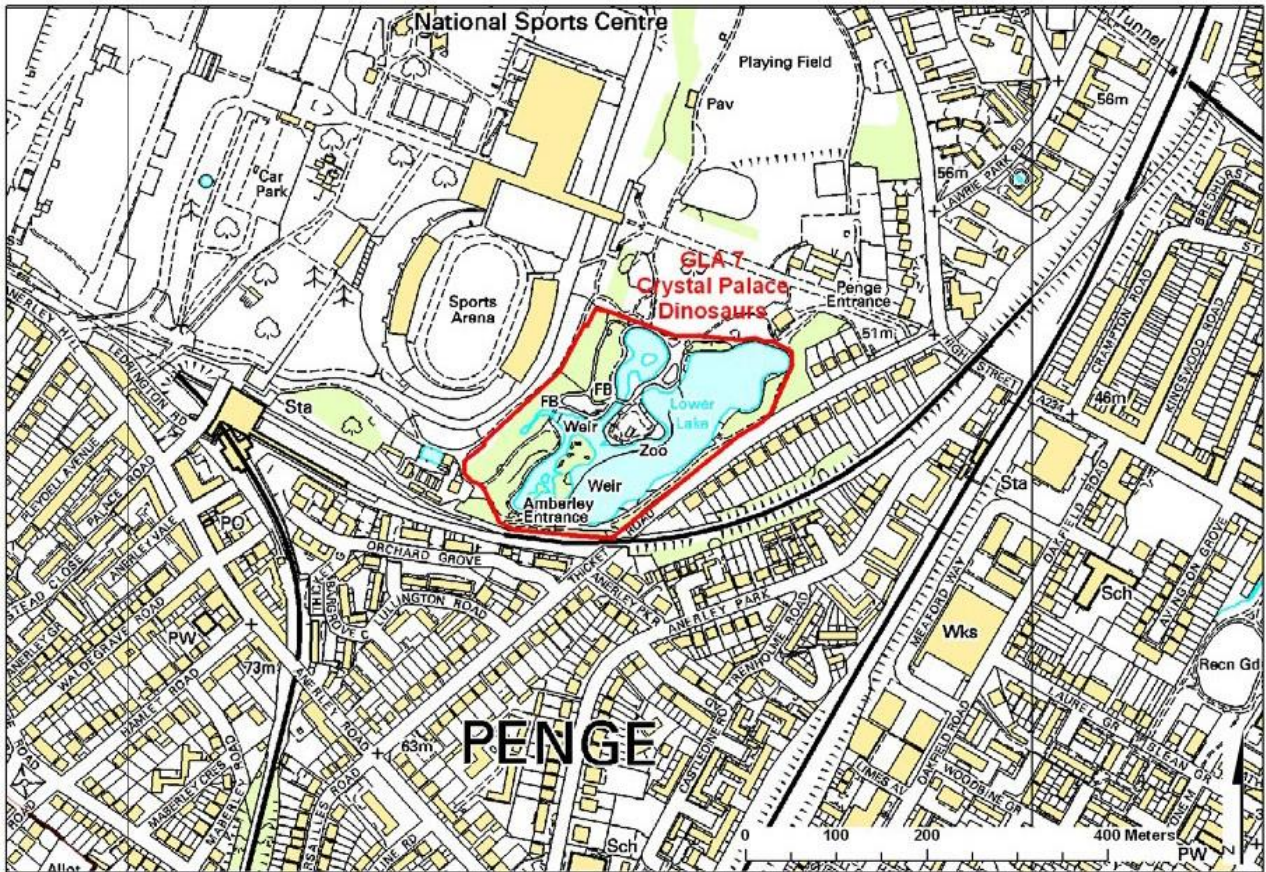


GLA 7 Crystal Palace Geological Illustrations

Grid Reference: TQ 3455 705	Site Type: Man-made artefact
Site Area (hectares): 5.37	Current use: Recreational land
Site ownership: London Borough of Bromley	Borough: London Borough of Bromley
Field surveyor: Joanna Brayson Last visited: Laurie Baker	Date: January 2011 Date: March 2020
Current geological designation: RIGS	Other designation: Listed building Grade I (At Risk); Borough Grade I SINC (Crystal Palace Park)
Site Map	OS Topography © Crown Copyright



Stratigraphy and Rock Types

Time Unit: N/A	Rock Unit: N/A
Rock Type: N/A	Details: N/A

Site Description

The Crystal Park Dinosaurs and other extinct animals are distributed across several islands in lakes at the southern edge of Crystal Palace Park. These life-sized sculptures were designed and built by Benjamin Waterhouse Hawkins between 1852 and 1854 with some input from Sir Richard Owen. The collection includes 30 sculptures of 15 taxa of dinosaurs, other reptiles and mammals, although more had been planned until funding was cut. The models were the cutting edge of palaeontological knowledge at the time, giving the first glimpse of extinct animals 'in the flesh', the first 'walk through geologic time' and the first large scale public 'educational-entertainment', or 'visual education' for science. Although the reconstructions are now considered outdated and some of the taxa are no longer recognised, they provide insight into how scientific knowledge was built on insights from scant remains. The site also includes 40 constructed geologic illustrations, made from original material, that demonstrate geological processes and fossil outcrops in time series. The sculptures and landscapes remain a globally significant site for the history of science.

The models are made of mixed materials including concrete, fossils and metal, needing regular maintenance. Although a full restoration project was completed in 2002, subsequent lack of maintenance has left the site needing urgent work again. Recent conservation has been piecemeal, with the Standing

Iguanodon and eight more models worked on in 2016-2017, but most of the other 21 animal models and all of the geological illustrations are still badly in need of conservation, showing major cracks and losing significant parts. New interpretive signs have improved visitors' appreciation of the site. As a result of seven years campaigning and raising the public profile of the site by Friends of Crystal Palace Dinosaurs, they were added to the UK's official 'Heritage at Risk Register' by Historic England in February 2020. This is critical first step to gaining needed support for further works.

Public engagement has been key to bringing the site back to life. The Palaeo Planting Project brings volunteers on site to replant the islands with historically appropriate vegetation for the evolutionary narrative, The Friends also stepped in to remediate the unfortunate removal of access to the site during hydrological works in 2017. A global campaign allowed the re-building of bridge to allow conservation of the sculptures, landscape maintenance and guided public access. Support from over 700 individual, business, celebrity and institutional donors resulted in an award-winning bridge installed in 2021 after three years of work.

Assessment of Site Value

Geodiversity topic: Palaeontology, geology; public outreach of science, history of science

Access and Safety

Aspect	Description
Safety of access	Very good – pathways suitable for wheelchairs. Fencing around lakes.
Safety of exposure	Models are viewed from pathways.
Permission to visit	Public park, 24-hour access on foot, parking and toilets available during park opening hours.
Current condition	The Grade I listed sculptures and site have deteriorated badly since the last major conservation project in 2002-3, with some subsequent piecemeal interventions. The Friends of Crystal Palace Dinosaurs (cpdinosaurs.org) have been actively campaigning for restoration work which began with the <i>Iguanodon</i> in 2017, continued with work on eight water-based sculptures in 2017, and a stabilisation intervention of the iconic <i>Megalosaurus</i> in 2021. In February 2020 all 30 models, 40 geological illustrations and landscapes were added to the Heritage 'At Risk' Register of Historic England.
Current conflicting activities	None.
Restricting conditions	None.
Nature of exposure	Dinosaur and other extinct animal models with interpretation panels within a public park. The models are surrounded by appropriate planting.

Culture, Heritage & Economic

Aspect	Description	Rating
Historic, archaeological & literary associations	Extensive historic links with all the significant palaeontologists of the 19 th C including Buckland, Mantell, Cuvier, Anning, Owen, Ansted, Paxton, Queen Victoria and Prince Albert, recurrent in literature including Dickens, and in popular culture of the 20-21 st Century. Grade I Historic Asset listing, thus among the UK's most internationally significant sites.	10
Aesthetic landscape	Situated in a well-used public park, well maintained, landscape constructed to tell narrative and provide aesthetic experience.	8
History of Earth Sciences	History of palaeontology, highlights the increase in information since the models were made but also the interest in geology at the time.	8
Economic geology	Man-made illustrative sections explaining economic geology.	8

GeoScientific Merit

Geomorphology	Illustrates faulting, limestone cliffs and waterways.	2
Sedimentology	Man-made illustrative models explaining sedimentation in relation to economic geology. Rocks of appropriate ages are included within the display.	8
Palaeontology	Dinosaur, other reptile, mammal, plant models, including a few real specimens, e.g., Purbeck fossil tree.	8

Igneous / mineral / metamorphic geology	Some aspects of illustrative sections illustrate metamorphism.	6
Structural Geology	Faults are illustrated in the man-made sections.	6
Lithostratigraphy	Illustrated in the man-made sections.	6
Potential use	School education; tourist attraction.	
Fragility	Needs continuous care and maintenance.	
Current Site Value		
Community	Valuable open space used every-day. On Capital Ring and Green Chain Walk	10
Education	Excellent introduction to geology and palaeontology, history and philosophy of science with on-site interpretation. Included in GA Guide 68, Itinerary 8 (see references).	8
Geodiversity value		
RIGS: Excellent educational site accessible and interesting to all age groups.		8

GLA 7 Crystal Palace Dinosaurs



Restored Iguanodon sculptures, lived 139.8–124 million years ago. Photo: Laurie Baker, March 2020



Geological strata: Carboniferous coal measures. Photo: Diana Clements, November 2012