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Table 4 The underlying geology and engineering works of significant landscapes by Brown (after Hinde, 1986; Stroud, 1957; Brown, 2011; Turner, 1999; and Wibberley, 2015).

Date	Location	Solid	Drift	Earthworks	Water Features	Dams	Drainage
1748	Stowe	Bladen member (limestone, mudstone)	Glaciofluvial deposits	Contouring, re-profiling of vistas. Excavation of 18,000m ³ of glacial till for creation of Grecian Valley	Planned but inability to source water		
1748	Wakefield	Great Oolitic Group (limestone and argillaceous rocks)	Alluvium gravels	Removal of topsoil and re-profiling for area of 'smooth turf'	Unlined valley lake	213m long by 7.6m high earth embankment of glacial till	
1749	Warwick Castle	Bromsgrove Sandstone, Mercia Mudstones	Alluvium and River terrace gravels	'curved sweep of lawns down to river' Raising/levelling of ground using building rubble from castle	Excavation of lake within marshy/ boggy valley and unlined fed by drainage and brook	Construction Unknown Sluice and dam	Draining of land
1750	Croome Court	Silty mudstone/ clay	River terrace gravels and clay	Deposition of excavated lake material to create raised ground north of house	Expanded stream channel with puddled lining	Clay wall with limestone fill	Drainage of marshland beneath house using 1.5mi long limestone conduits
170	Moor Park	London Clays/ Lambeth silty sandy clays	Gravels & Alluvium	Removal of unstable 'made ground' forming terrace to create more natural slope with hillocks to undulate slope			
1752	Petworth Park	Hythe Bed sandstone with Wealdon Clays	Sandy loam topsoils, silts in saturated valley floor	Re-grading of slopes, replacement of formal gardens with level ground, using building rubble/ excavated sandstone partial excavation of sandstone/ clay for lake	Puddled lining for part of lake on greensand, the rest unlined 60,000 tonnes of earth excavated for two lakes	Two 100m long, 20m high with sandstone rubble fill with clay wall, possibly clay blanket	Brick arch drainage conduits to channel spring water to lakes
1757	Longleat	Oxford Clays, mudstones, oolitic limestones, sandstones	River alluvium/ gravels	Removal of gardens and creation of 'fine lawns'	Unlined 1mi long lake	Construction unknown	Lake acting as drainage of surrounding parkland
1758	Wimpole	Chalk, Gault Clays, Woburn Sands	Alluvium beneath lake	Substantial earthworks to undulate topography, usage of chalk and clay rubble	Two unlined lakes, upper and lower interconnected constructed from stream course	Construction unknown	Contouring to channel water down to lakes
1759	Trentham Park	Siltstone/ sandstones above micaceous silty mudstone	Alluvium, Devensian Till	Removal of topsoil for creation of lake, re-emplacement of material to form embankment separating lake from channelised river	Unlined ¾ mile long, ¼ wide lake supplied by River Trent	¾ mile Embankment with weir at southern end (construction unknown)	
1759	Burton Constable	Flamborough Chalk Formation	Devensian till with occasional glaciofluvial	Levelling and re-profiling of lawns separating house from lake	Puddled Lining Lowering and extending the existing lake and rounding the edges	Clay core wall, blanket unknown	
1761	Doddington	Wilkesley halite member - Mudstone	Glaciofluvial deposits of sands and gravels	'fine contouring in a narrow Cotswold valley'	Three lakes interconnected and fed by stream with puddled lining	Long earth embankments	

						(construction unknown)	
1761	Chatsworth	Millstone grits and shales	Shallow drift deposits, river gravels in vicinity of river	Levelling of ground around house, pronouncement of hummocks in parkland and removal of fields and tress	Widening of river, removal of meanders close to house	Millstone grit weirto raise and slow river	Stone instead of brick upon puddled clay before being buried to remove water from park
1762	Temple Newsam	Sandstone/ Mercia Mudstones	Fluvial deposits in vicinity of stream	Excavation to weathered sandstone and re-profiling of slope into valley, sandstone fill material then used for creation of hummocks	Creation of 3 lakes by removal of topsoil and flooding of valley with puddled lining	Small earth dams with sandstone cascades with clay core wall.	
1762	Gatton Park	Lewes nodular chalk	Clay with flints, Fullers Earth	Re-contouring to create undulations in parkland	Several lakes with puddled lining	Construction unknown	
1762	Audley End	Lewes nodular chalk	Glacial Tills, river gravels/alluvium	Grading of slopes down to river	Widening of existing river valley to create lake with puddled lining	Construction unknown Inclusion of sluices	
1764	Blenheim Palace	Oolitic White Limestone, rubble limestone, clays on higher ground	Sporadic patches of alluvium at base of river valley	Re-profiling of valley topsoils forming embankments, excavation of limestone rubble from areas of parkland	Puddled lining using clay loam topsoil Clay core, likely clay blanket	Large dam with cascade. ½ mile long 4m high second dam downstream, both using limestone rubble fill	
1770	Coombe Abbey	Bromsgrove Sandstone/Mercia Mudstones	Glaciofluvial and river terrace deposits	Creation of lake and characteristic parkland from agricultural fields	Unlined 80 acre lake 1.4m deep	Weir outlet dam (construction unknown)	Difficulty in obtaining/ maintaining adequate water supply for lake
1771	Grimsthorpe	Limestone/ clays	Glacial till in valleys	Re-contouring of parkland	Investigated accumulation of muds/silts		
1772	Harewood House	Grits, occasional Sandstones	Devensian Tills (clay) and river valley gravel deposits	Sloping and contouring of gradient to lake; Re-contouring of parkland to create undulations/ pronounce hills	Flooding of valley to create lake with puddled lining fed by stream Inclusion of siltation pools	115m long, 7.6m high constructed of glacial till.	
1774	Claremont	Bagshot formation – pale yellow brown sand/clays	None present	Re-profiling of grassland, infilling of clay pits used for brick manufacture for house; excavation of 5m sandstone cut to divert London-Portsmouth road; Excavation of tunnel and sunken courtyard		Sandstone rubble fill, possible use of flinty chalk for abrasive surface	
1775	Burghley Park	Lower Lincolnshire Limestone Member/ Northampton Sand Formation	None present	Re-profiling of topsoil across parkland	32 acre unlined lake Inclusion of siltation pools	Clay core wall and blanket	
1776	Sherborne Castle	Fullers earth beneath lake/ Frome Clay	Alluvium, River terrace deposits	Re-profiling earth movements of topsoil/ clays forming slopes down to lake	50 acre unlined lake over original T-shaped canal.	7m high dam formed of sandstone fill	

						with a clay core wall and blanket	
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