

London Geology and Topography



1	Alluvial	8	Lower Greensand
2	Pleistocene 'Crag'	9	Weald Clay
4	Bagshot Beds etc	9a	Hastings Sand
5	London Clay	10-12	Middle & Upper Oolite
6	Chalk	13	Lower Oolite
7	Upper Greensand	14	Lias
7a	Gault	15-16	Trias

London Basin Geology (https://en.wikipedia.org/wiki/Geology_of_London#/media/File:Geological_map_of_London_Basin.jpg/2017)



Looking at the complex geology of the city. At the surface one may see many different rock types/sands/gravels from glacial activity and deposits through wind and water.

The area that predated London was folded 15 to 20 million years ago into a shallow basin, a syncline made from a layer of chalk, which was filled with stratified rock. These rocks are surfacing today in the Chiltern Hills (North-West) and the North Downs (South-East edge of London Area). The chalk of the London Basin is covered by a thick layer of Cenozoic sediments, predominately London Clay. In some places the clay layer is 150m thick.

Clay is heavy, no good for agriculture but has two very useful characteristics that were detrimental to how the city was formulated.

Firstly, clay is easy to be tunnelled and secondly it is used to produce bricks. Large parts of London's infrastructure run through networks of tunnels dug into the London clay. Clay was an abundant material resource with large availability.

Both the subterranean and terrestrial settlements were formed from bricks made from London clay. Historically developers were given portions of the city to produce bricks. Once a job was finished, they had permission to build on site which formed the vernacular of rows and rows of Georgian multi-storey terrace houses.

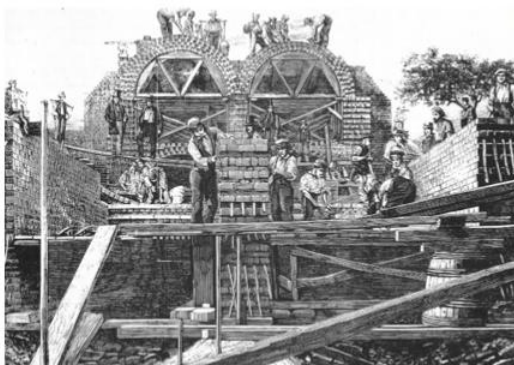
"The London Stock Brick" is all over the capital.



Whickham Lane Brick Fields in Plumstead: 1901. The image shows the typical organisation of quarry and construction site sharing the same site and being operated simultaneously same to formulate the local vernacular of brick terraces.
Photograph - Gibbs A., 1901, Whickham Lane Brickfields. Available at: <http://www.plumstead-stories.com/> (Accessed 21 January 2022)



London topography (https://www.reddit.com/london/comments/gdruet/the_topography_of_London2021)



A sectional view of the tunnels from Wick Lane, near Old Ford (top), gives a good impression of the building techniques employed.

Image - London Under London
A subterranean guide
Richard Trench and Ellis Hillman
John Murray (Publishers) Ltd,
London 1984, p.77



That clay is good for tunnelling is evident when looking at the tube map. There are only few tunnels south of the Thames as there are only few clay deposits. The clay was an abundant material resource with large availability.

London accurate tube map (https://londonist.com/london/transport/a-new-geographically-accurate-tube-map2020)