



UCL

Rocks and stones: geology in the built environment

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University College London



Geoscience Wales, RCA, 17th November 2016





Why is it important to study building stones?

Work in the Stone Industry

Learning and teaching

Stone as cultural heritage/history

Conservation & Restoration

Leisure & Geotourism

Materiality



The
Geological
Society

100 Great Geosites

Landscape



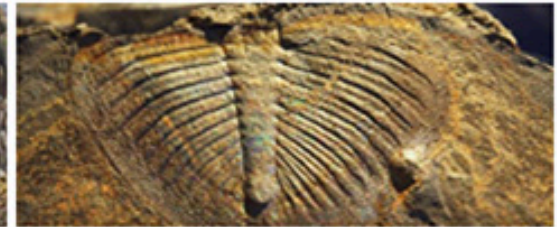
Industrial & Economic Importance



Historical & Scientific Importance



Educational



Adventurous



Human Habitation



Coastal



Outcrops



Folding and Faulting



Fire & Ice





https://commons.wikimedia.org/wiki/File:Job_Charnock_mausoleum_-_Wikimedia_PhotoWalk_Kolkata_20111218_IMG_4567.jpg



Thomas Holland
Geological Survey of India 1893

Job Charnock's Mausoleum, Kolkata
Erected 1695

"As this is a new type of rock ... I would suggest for it the name Charnockite in honour of the founder of Calcutta, who was the unconscious means of bringing, perhaps, the first specimen of this interesting rock to our capital."

Holland, T. H., 1893a, *The Petrology of Job Charnock's Tombstone.*, *Journal of the Asiatic Society of Bengal; Part II: Natural Science.*, 62, 162-164.

https://en.wikipedia.org/wiki/Job_Charnock









Case Study: The Sanctuary Pavement Westminster Abbey







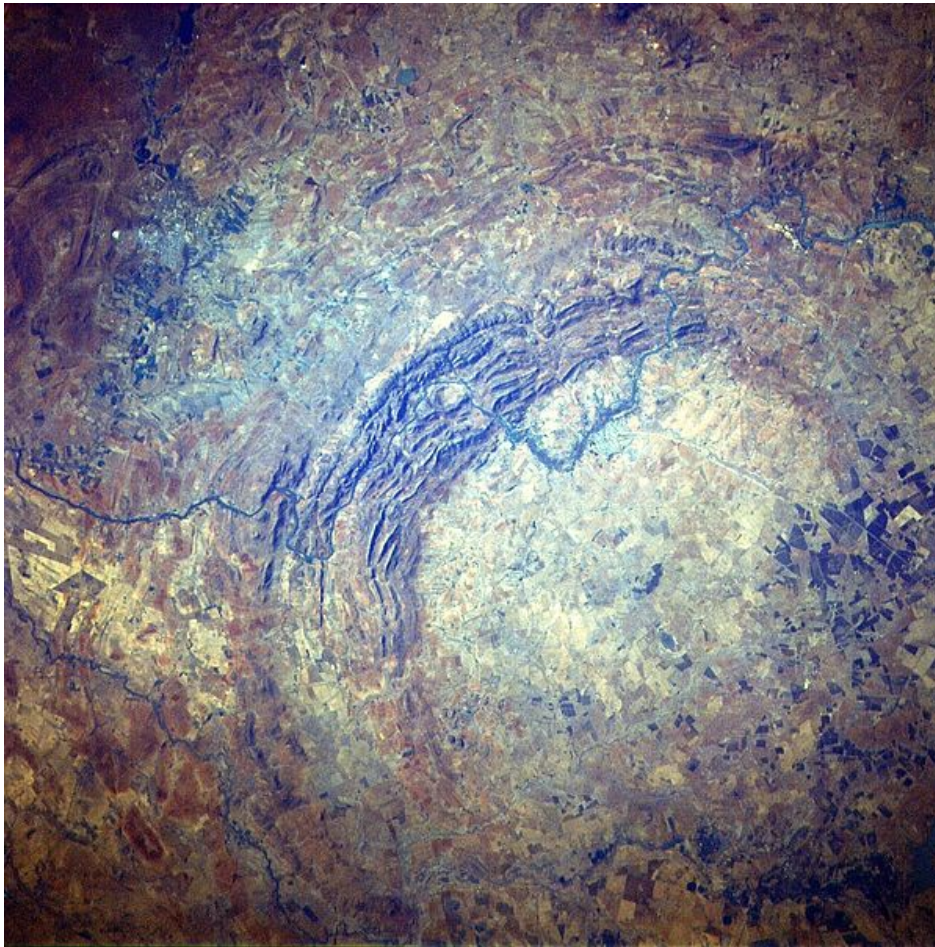
The urban environment as a teaching & learning resource











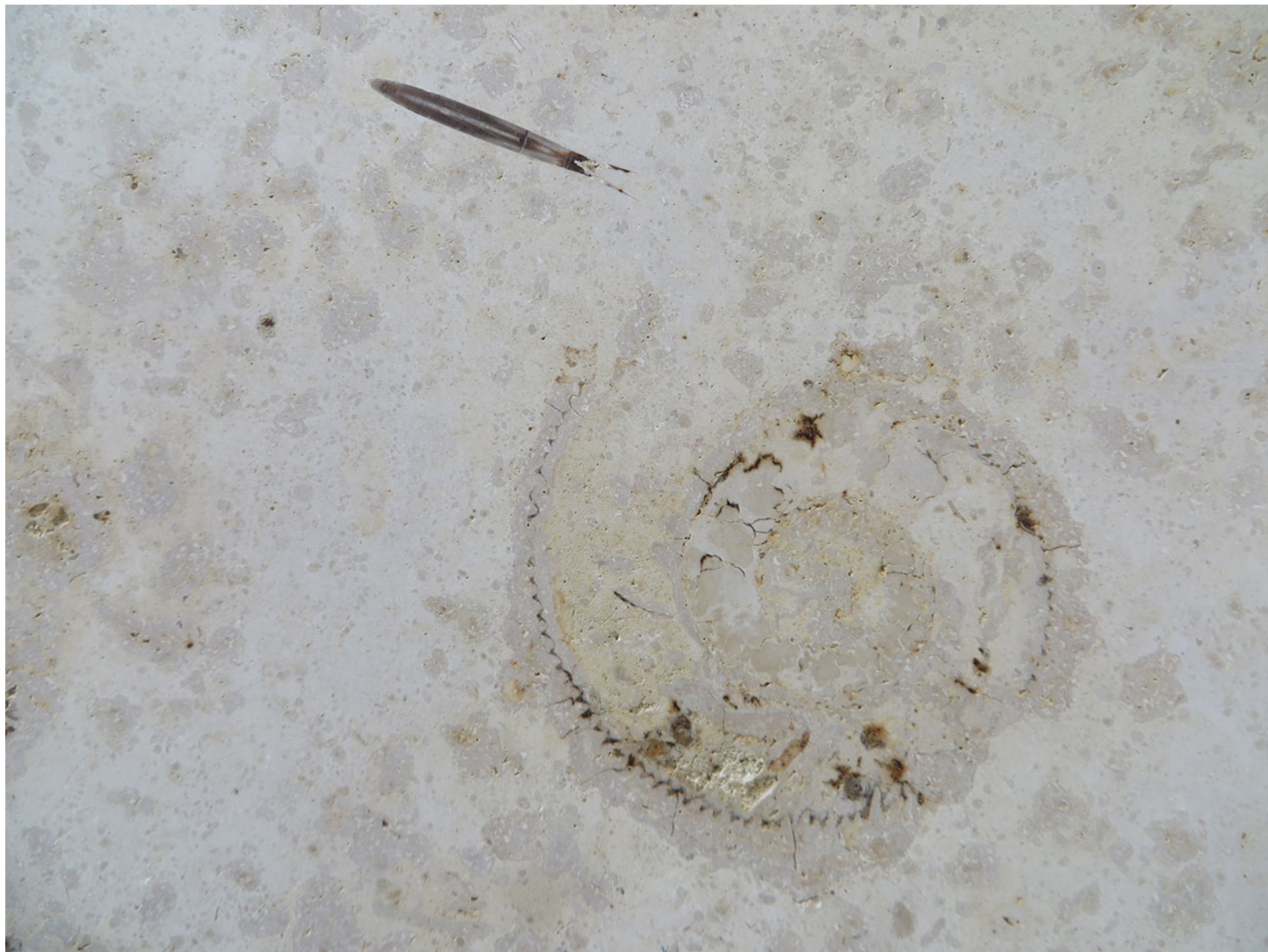
https://en.wikipedia.org/wiki/Vredefort_crater

<http://www.passc.net/EarthImpactDatabase/vredefort.html>



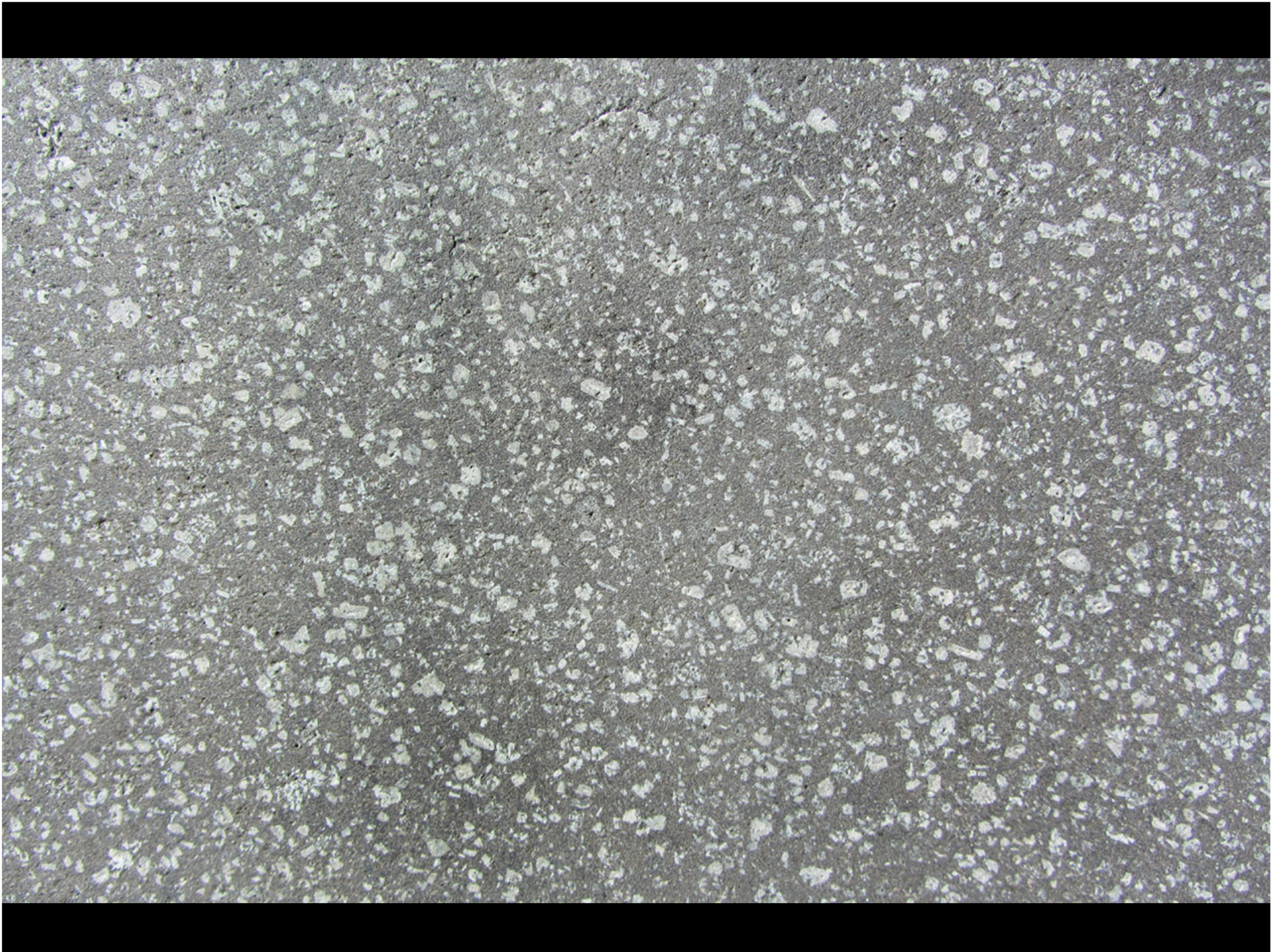






Social History in Stone ...













Case Study: London Pub Geology







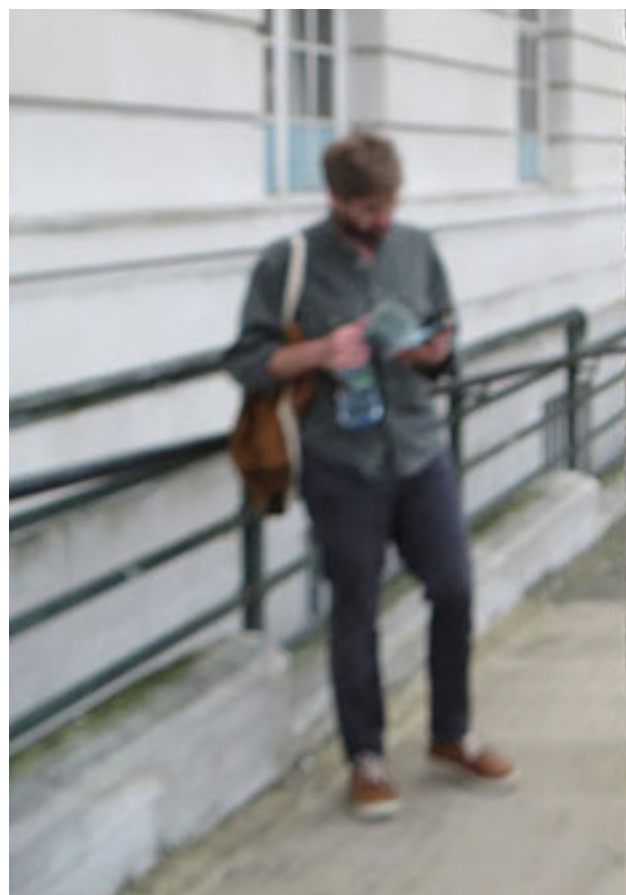
Conservation & Restoration





**Opicalcite marble: Svecofennian supracrustal rocks, 1.9-1.8 Ga
Marmorbruket, Kolmården, Norrköping, Södermanland, Sweden.**





URBAN GEOLOGY IN HACKNEY

JOSHUA BILTON & RUTH SIDDALL

*A GEOLOGICAL WALK AS PART OF THE EXHIBITION
'UNDERSONG'*

AUGUST 4TH 2016

6.30 PM

SPACE, 129-131 MARE STREET, E8 3RH



Geotourism

“...the provision of interpretive and service facilities to enable tourists to acquire knowledge and understanding of the geology and geomorphology of a site (including its contribution to the development of the Earth sciences) beyond the level of mere aesthetic appreciation...” (Hose, 1995, pp. 17).



Challenges

- Obtaining information from architects and stone contractors
- Sound, deep and broad knowledge from geologists! (what it is, is easy, where it comes from is harder ...) requires connoisseurship as well as basic knowledge.
- A lack of interest in this field in university Earth Sciences teaching

... and Research?

How to find out more ...



Reference Collections

- BGS (Geoscenic)
- Museums (Watson Collection at the Sedgwick, & Corsi Collection etc at OUMNH)

- Go on (or volunteer to lead!) urban geological walks
- Make industry contacts – trade fairs, architects

LONDON PAVEMENT GEOLOGY



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Contact

Categories

All

Igneous

Metamorphic

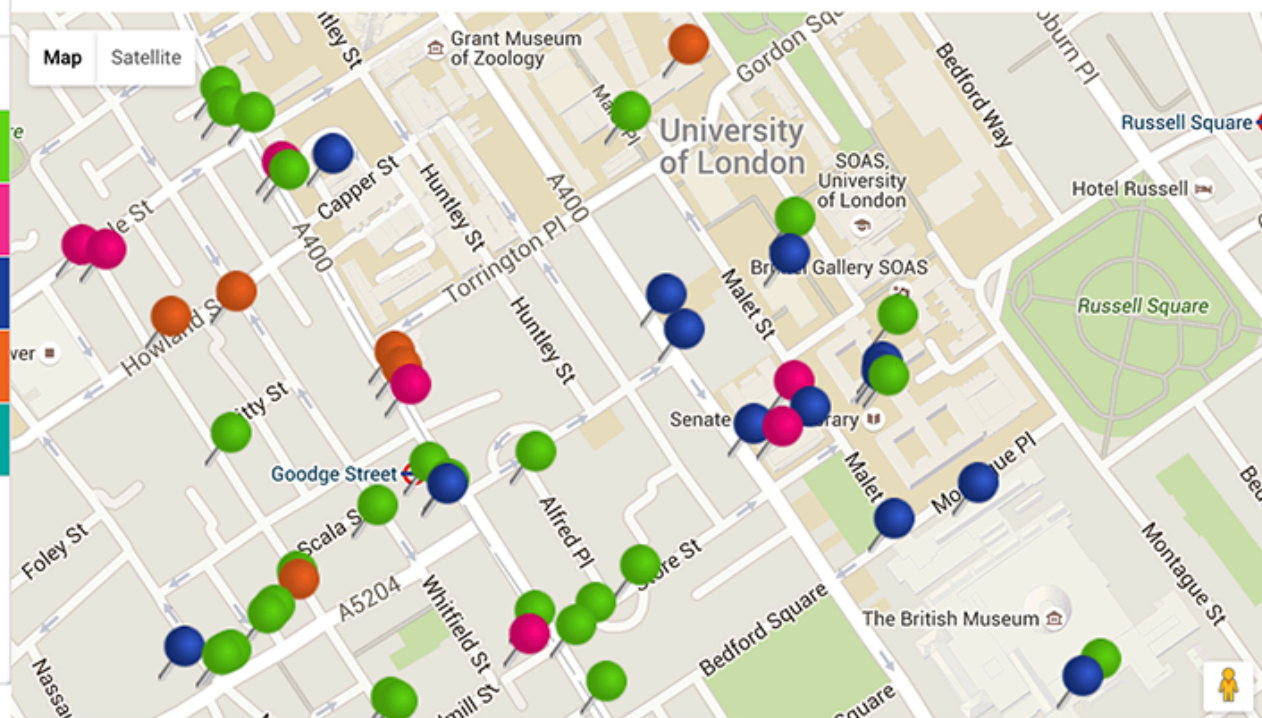
Sedimentary

Fossil

Structure



If you see
these symbols, please zoom in.
Multiple listings at this location.



LONDONPAVEMENTGEOLOGY

<http://londonpavementgeology.co.uk>

LONDON PAVEMENT GEOLOGY



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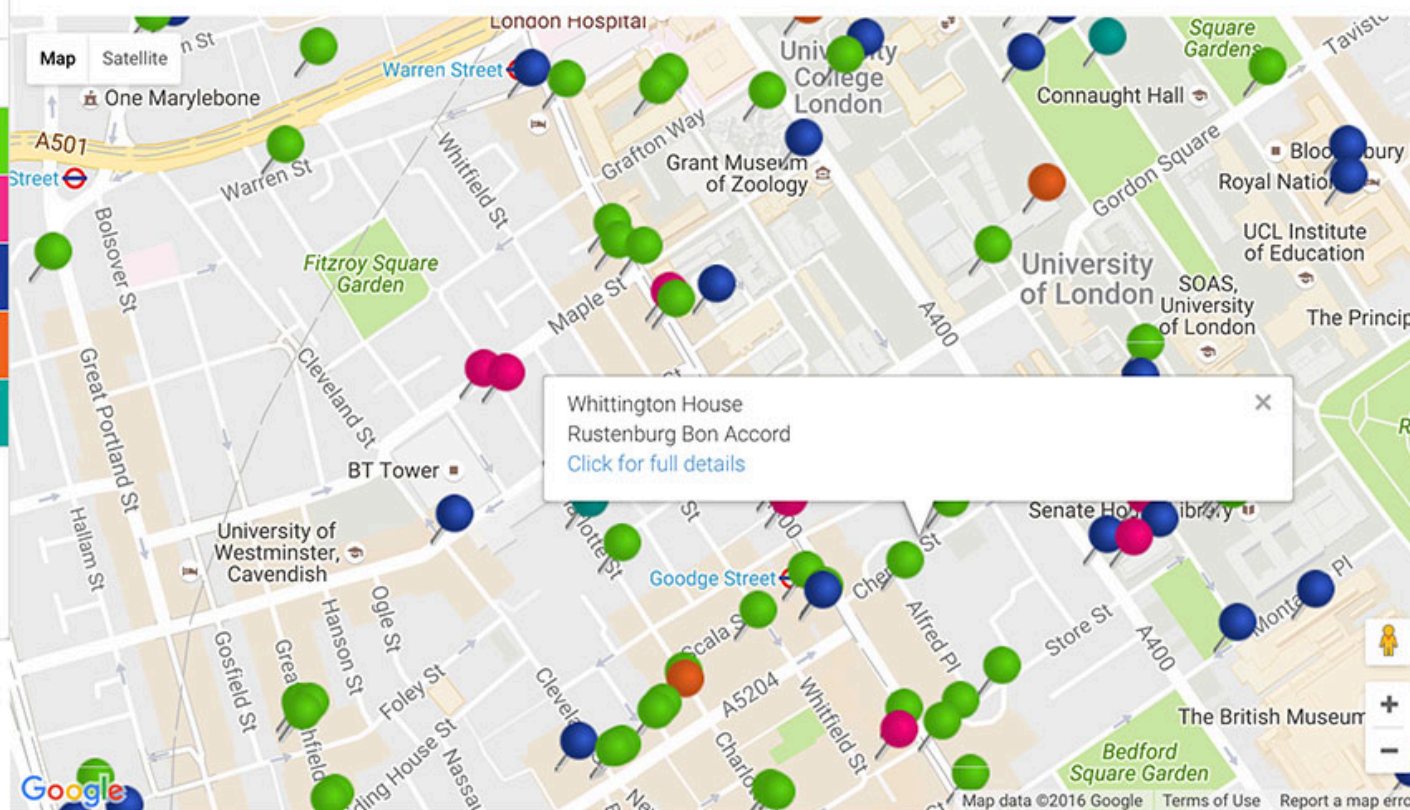
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Categories

All

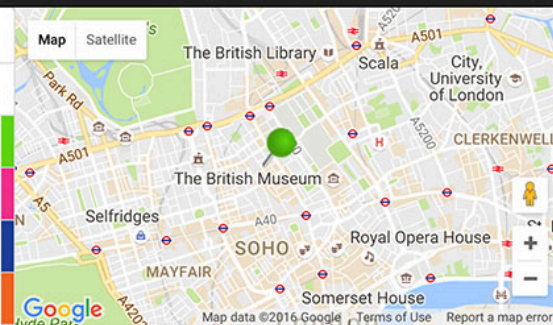
Igneous

Metamorphic

Sedimentary

Fossil

Structure



Location Details [Back](#)

Building Name or Address

Whittington House

Location of Geological Feature

Black stone cladding the walls.

Description of geological feature

Rustenburg Bon Accord

Fossils

Rock Type

Gabbro

Geological Age

2054 Ma

Quarry Location

Rustenburg, South Africa.

Category

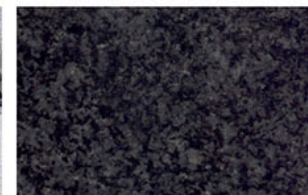
Igneous

Nearest Tube station

Goodge Street

Address

19-30, Alfred Place WC1E 7EA



[Suggest an Edit](#)
 Entry submitted by Ruth

Categories

[All](#)[Igneous](#)[Metamorphic](#)[Sedimentary](#)[Fossil](#)[Structure](#)

Submit Location Details

Please use the form below to submit the details of building stone locations in central London. You do not have to fill out all the fields below, but please ensure that there is a map location and photograph of the building/geological feature as a minimum. You may add up to four photographs. Please follow the style of pre-existing entries to get an idea of what to write in each box. We will then check your location and approve it before it goes live on London Pavement Geology. If you are highlighting an unusual or unfamiliar stone, do not feel you have to identify it. We will try to do this for you! London Pavement Geology reserves the right to edit and approve all information submitted.

Building Name or Address

Location of Geological Feature

Description of geological feature

Geol 1 (Fossil)

Geol 2 (Rock Type)

Thank You for Listening!

And many thanks to

**Eric Robinson, Dave Wallis,
Geoscience Wales, GA, PESGB, UCL, BGS
London Geodiversity Partnership,
Geologists' Association**

Welsh Stone Forum

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@pavementgeology**

**London Pavement Geology
App**



