# LUXURY LITHICS | DECORATIVE STONE ON BOND STREET

## RUTH SIDDALL



Old Bond Street was first laid out in the mid 1680s by a group of property developers and goldsmiths including Sir Thomas Bond, for whom the street is named. New Bond Street was completed after 1700. It is now the home of jewellers, fashion houses and fine art galleries.

Luxury global brands aim to create a high-end shopping experience, with bespoke detailing applied to the materials used in the construction of the interiors and often exteriors of the building as well as to the merchandise. Architects and designers are employed to set a style across global branches of these stores. Thus brands often adopt a livery of often lavish décor which may include the use of specific stones in stores across Europe and the Globe. Thus the same stones may be used in, say, Mulberry stores in London, Paris and New York. Stones are chosen for their appearance and unique character. Indeed this guide has turned into a bit of an epic, with almost 40 different stones identified, representing the igneous, sedimentary and metamorphic categories and coming from the British Isles and continental Europe as well as from further afield localities including Canada and Brazil. They range in age from 2 billion year old Bushveld gabbros to 50,000 year old travertines from Rome.

From Piccadilly, Old Bond Street and then New Bond Street run NNE in a straight line from Piccadilly to Oxford Street. For both Old and New Bond Streets, street numbering runs sequentially up the east side of the road and then down the west side of the roads. Therefore number 1, Old Bond Street stands on the corner of Piccadilly, numbers 2-5 (Standbrook House) next door and so on up to number 24 on the corner of Burlington Gardens. At this point Old Bond Street becomes New Bond Street; number 25, Old Bond Street (Tiffany & Co) is on the opposite side of the road and numbering runs to 48, back on the corner with Piccadilly (opposite number 1). From Burlington Gardens, numbering of New Bond Street runs from 1-3 on the corner of Burlington Gardens, up to Oxford Street and then back down to 180, New Bond Street (David Morris), which is next door to Tiffany's at 25 Old Bond Street.

A guide to the stones used on the shop fronts of Bond Street, compiled by the Institute of Geological Sciences (IGS) and published by the Geological Museum, was produced in 1976 (IGS, 1976). Some of the façades, generally those of listed buildings, remain intact, however many have changed (several times) since this publication almost 40 years ago. At the time of the writing of this guide, (2014), several major refurbishment projects have recently been completed on Old and New Bond Street and the removal of scaffolding and hoardings have revealed shiny new shop fronts, particularly those of Louis Vuitton, Prada and the recently cleaned façade of Fenwick's. Hopefully this may herald a period of stability, but changes of

premises and refurbishments will continue as fashions change, so this guide remains a snapshot of these streets in Spring 2014; for example, the branch of Watches of Switzerland on New Bond Street was been covered with hoardings between my two visits to the street during this period. A word of warning to the keen urban geologist though; the high-end nature of many of these stores means that they employ a significant security presence. These officers may become suspicious of too much loitering and photography outside their stores; such activities may be mistaken for those of potential jewel thieves conning up the place for a future heist. Please be ready to explain what you are doing and comply politely with instructions from staff if requested to move on or to desist from taking photographs.

Unless otherwise cited, architectural information given below is from Pevsner (Bradley & Pevsner, 2005). In addition, readers are referred to a useful glossary of terms used in architecture and the stone industry, compiled by the Marble Institute of America (2011).

This walk starts on the corner of Old Bond Street and Piccadilly, W1. The nearest London Underground station is Green Park. From Green Park tube, exit from the Piccadilly north side entrance and turn left towards the Royal Academy of Arts. Old Bond Street is the 4<sup>th</sup> street on the left. The first building, occupied by diamond dealers, De Beers, is on the east side of Old Bond Street. We will look at buildings on both sides of the Streets, which will entail crossing over several times. Localities are marked with an E for east side and W, for the west side.

#### The Corner, 46, Old Bond Street (W)

Jewellers De Beers occupies a block, including the elaborate porch of 'The Corner'. This building is built from Portland Whitbed as are several other buildings on Old and New Bond Streets and indeed a great number of buildings in London. The Whitbed is a fossiliferous variety of Portland Stone, an oolitic limestone, with layers rich in oyster fossils and sometimes fragments of the reef-building algae *Solenopora* species. It is quarried from the Isle of Portland on Dorset. The Portland Freestone, from which this unit is quarried, is of Upper Jurassic age and the sediment was deposited in tropical, shallow marine conditions. Fuller descriptions of the variety of facies found within the Portland Freestone and it's use in London's buildings may be found in Siddall et al. (2013) and Siddall (2014) and this lithology will not be further described in detail here.

#### 45, Old Bond Street (W)

45, Old Bond Street is clad in pale yellow **Bath Stone**. This stone is quarried from underground caverns in the vicinity of the city of Bath and it has been worked since at least the Roman Period (Stanier, 2000). It is a fine- to coarse-grained oolitic limestone, composed of 'ooids' or 'ooliths'; tiny spherical grains of calcium carbonate, which form in warm, shallow waters in tropical seas. Such conditions predominated in what is now Bath and the Cotswold area during the Oxfordian period of the Jurassic. The stone quarried, the Bath Oolite Member, belongs to a more extensive formation called The Chalfield Oolite. Until the ascendancy of Portland Stone, Bath Stone was one of England's most important building stones.

## Mappin & Webb, 1A, Old Bond Street (E)

Situated on the corner of Old Bond Street and Piccadilly, the jewellers Mappin & Webb occupies a building designed by architect Alfred Waterhouse in 1880-1881. It is clad with **Shap Granite** from Cumbria in northern England. A highly decorative granite with prominent phenocrysts of pink orthoclase feldspars, up to 1.5 cm in length, in a dark red-brown groundmass of quartz, feldspar and biotite. Intruded c. 397 Ma, during the final phases of the Caledonian Orogeny during the Silurian, the Shap Granite was widely used as a decorative stone during the later half of the 19<sup>th</sup> Century. This building and its stones have also been described in the guide to Piccadilly (Siddall, 2013).

# Alexander McQueen & Standbrook House, 2-5 Old Bond Street (E)

The upper storeys of Standbrook House, occupying 2-5, Old Bond Street are built from Portland Whitbed. Fashion house Alexander McQueen occupies number 5, Old Bond Street in Standbrook House. Of geological interest here is the interior of the store and particularly the floor, clearly visible through the plate glass windows. This is clad in a marble from the Carrara region of Tuscany, Italy and is called Statuario Extra. It is a tectonised and metamorphosed marble breccia characterised by white marble surrounded by broad veins of grey marble. The Carrara marbles belong to a geological Unit called the Hettangian Marbles, comprising

lower Jurassic limestones, metamorphosed at greenschist facies in the Oligocene to Miocene during the Alpine mountain building event. A wide variety of marbles are quarried in the 'basins' (valleys) of the Alpi Apuane, showing a range of colours and textures from pure white 'luna' through to multi-coloured breccias.

#### Daks, 10, Old Bond Street (E)

Daks is clad both on the exterior and in the interior, around the windows, with a decorative variety of Portland Whitbed, usually marketed as 'Fancy Beach Whitbed'. This is rich in detrital lumps of fossil *Solenopora* algae, looking a bit like cauliflower florets, and broken fragments of grey oyster shells. This facies of the Portland Freestone was deposited in a higher energy environment than much of the Portland stone.

## Gucci, 36-38, Old Bond Street (W)

Gucci occupies a building which was formerly a bank, and it has that solid, impregnable look about it. The foundations are of a medium to coarse grained, brown, two-mica granite – both silvery muscovite and black biotite are present – with brownish feldspars and quartz and exhibiting a weak foliation. This is a distinctive stone but its origin is unknown. Unfortunately and unhelpfully, it is only recorded as 'granite' in the Institute of Geological Sciences guide (IGS, 1976). Please let me know if you recognise this stone!

The Ionic columns and upper stories are of **Portland Whitbed**. This stone shows traces of burrows left by marine organisms, 'bioturbation'. This is particularly clear in the columns.



Gucci, 36-8 Old Bond Street. Left detail of the granite used in the foundations, field of view is ~ 8 cm.

#### Colnaghi & Bottega Veneta, 15, Old Bond Street (E)

Despite several changes in ownership, this shop has retained a Regency-style frontage installed in 1959 by architect Oliver Messel. It is faced with a pale bluegreen serpentinite. The geology of this shop front has been described in the IGS (1976) guide to Bond Street and by Ashurst & Dimes (1998). It is Verde Fraya, also known as Verde Chiesa, one of the many varieties of serpentinite quarried in the Val d'Aosta in the Italian Alps. This is a tremolite serpentinite and it is networked with a great



deal of veins of slightly darker colour. The blue-green colour is imparted by the serpentine group mineral antigorite (Sandrone et al., 2004). It is quarried from a 'boule' of serpentinite at Morge Raffort in the Media Valle (Perrier, 1995).

# Prada, 16-18, Old Bond Street (E)

Next door is Prada, which has recently been fitted out by Italian architect Roberto Baciocchi. The window surrounds have been clad with a striking black limestone called **Negro Marquina** from near Bilbao the Pais Basco of NE Spain (Perrier, 1992). This is a black micritic limestone, criss-crossed by white calcite veinlets. It is fossiliferous with abundant corals and fragments of rudists. It is of Aptian-Albian (Cretaceous) age and is part of the so-called Urigonian reefal facies of this age, formed during the early stages of the opening of the Bay of Biscay. This limestone has undergone some deformation and conjugate sets of *en echelon* tension gashes are common. Negro Marquina takes a very high polish - you will find it almost impossible to photograph!

#### Cartier, 40-41 Old Bond Street (W)

The branch of the jewellers Cartier, at 40-41 Old Bond Street was refurbished in 2012 and the façade was installed by stone contractors Keystone. It uses a classy, dark chocolate brown limestone called **Noir St Laurent**, which we will encounter several times on Old and New Bond Street. It is a dark brown, micritic limestone, cross cut by a series of calcite veins, some of which are white, but others are stained bright red and orange. It comes from Laurens in the French Montagne Noir, south of the Massif Central. Here a series of thrust faults carry Devonian carbonates northwards. The fracturing of this rock is a consequence of this deformation and ranges from centimetre wide veins to a fine lace-like network of veinlets. This rock may also contain a few rare brachiopod and gastropod fossils (see Price, 2007; Perrier, 1996).

#### Omega Watches, 12, Old Bond Street (E)

Omega is also clad with Portland Whitbed.

#### Chatila, 22, Old Bond Street (E)

The shop front of jewellers Chatila sits within the Shap Granite frame of 22 Old Bond Street which will be described below. Both dark and light Shap Granite are used in the frame. Chatila is clad in a pale cream-coloured limestone, with abundant grey fossil fragments, primarily bivalve shell fragments and fragments of small belemnites. This is a Portuguese limestone, one of the many ornamental limestones quarried from the Mesozoic strata of the Lusitanian basin, specifically from the Serra do Candeeiros in the western Province of Estremadura. It is called Calcário Candeeiros.

### 22, Old Bond Street (E)

The ornate, Italian Renaissance-style frontage of number 22, Old Bond Street was constructed in 1905 for the silversmith, Crichton Brothers. Chatila (above) now occupies the main shop front. But the external part of the entrance porch at 22 is carved from polished dark **Shap Granite**, as seen at Mappin & Webb's above. The soffits and reveals are probably a later addition, and use a red granite from Finland called **Balmoral**. This stone, from Vehmaa in south west Finland, is supplied in a Fine Grained and Coarse Grained variety and both are used here. This is an ancient stone, 1.5 billion years old and a variety of the rapakivi granites for which Finland is well known. This rock type is called a pyterlite and contains red, well-formed orthoclase feldspars in a groundmass dominated by smoky quartz and hornblende. Quarrying of this stone began in 1901 and it was shipped to Aberdeen for finishing and cutting. Scottish granites were all the rage, which is why this stone acquired the name 'Balmoral'. It is still actively quarried today (Selonen & Suominen, 2003).

## Rolex, 29, Old Bond Street (W)

Across the road, the watchmakers Rolex have a shop at 29, Old Bond Street. This is clad with the dark green Emerald Pearl Larvikite, a Monzonite from the Permian-age Larvik Plutonic Complex in southern Norway, magmatism associated with the formation of the Oslo Graben rift valley. This stone has been quarried since the 1880s from the Tjølling Quarry at Klåstad (Selonen & Suominen, 2003). Famous for the oligoclase perthite variety of feldspar, which have the characteristic play of colours known as schillerescence, this stone also contains magnetite, the clinopyroxene variety titanaugite and a variety of black mica called lepidomelane.

# The Royal Arcade, 28 Old Bond Street (W)



The Royal Arcade (left) was built between 1879 and 1880 by architects Archer & Green, and the curving shop windows of chocolatiers Charbonnel et Walker and the Camper shoe shop on each side of the entrance, were fitted in 1930. No one seems to like the brash orange paintwork. The stones used in the façade of the Arcade were listed in the Institute of Geological Sciences guide (IGS, 1976) as Peterhead and Bessbrook Granites, and indeed both stones occur here and can be observed on the pilasters at each end of the façade. The pedestals of the pilasters are of Irish Bessbrook Granite, quarried at Altnaveigh in County Armagh from the 399 Ma Newry Granodiorite, intruded during the Caledonian mountain building phase. This is the porphyritic facies of this granite with sparse, white feldspar phenocrysts in a medium to coarse grained

groundmass of plagioclase, microcline, quartz, hornblende and biotite. Small (1 cm), black xenoliths of hornblende-rich metasediments are abundant in this granite and give an appearance of being flecked with black marks. The upper parts of the pilasters and the lintel of the Arcade are in pink Peterhead Granite. This is a Scottish granite, from Stirlinghill on the coast north of Aberdeen. Slightly older than the Bessbrook granite at 406 Ma, this is also a Caledonian granite. It contains pink orthoclase feldspar, grey quartz and black hornblende and again, has abundant xenoliths of a dark green microdiorite. A third, grey coloured granite is used at pavement level in the foundations of this building. This is another Scottish granite from Aberdeenshire, Cairngall Granite. Cairngall Quarry, now disused, is located in the 475 Ma Forest of Deer Granite, are just a few miles west of Peterhead and this stone is sometimes called grey Peterhead, but the two stones are geologically unrelated. The pink Peterhead Granite intrudes through the older Forest of Deer Granite (see Stephenson & Gould, 1995). Howe (1910) remarks that Bessbrook and Cairngall granites are very similar. Bessbrook may be distinguished from Cairngall by having numerous flecks of small black xenoliths and better defined white feldspar phenocrysts.

# Tiffany & Co., 25, Old Bond Street (W)

This building was originally designed for the clockmaker J. W. Benson in 1865, designed by architects John Drew & Co. It is a classic Victorian shop front. Of geological interest here are engaged columns and pillars of Red Lizard Serpentinite from Cornwall. This is a stone which achieved brief popularity in the mid 19<sup>th</sup> Century as an architectural stone, but the climate and pollution in London were not kind to it and there are few examples still in place. For the history of quarrying and stone cutting on the Lizard, the interested reader is referred to the excellent book by Sagar-Fenton (2005). Nevertheless the examples on Tiffany's are certainly an attractive stone, mottled red and brown, with bronzy bastite phenocrysts and cross cut by white calcite veinlets. They have long lost their high polish, but the colours and textures are still visible. The Lizard Complex is a Variscan ophiolite which tectonically overlies the mid-Devonian Gramscatho Group on the Lizard Peninsula. These serpentinised Iherzolite peridotites have undergone at least 4 phases of deformation and metamorphism, and the complex is considerably dismembered. The red colouration is probably due to exposure and weathering of the peridotites on the ocean floor, prior to obduction.

The foundations and name plates at pavement level are in a medium grained gabbro, Nero Impala (also called Rustenburg Bon Accord) from the 2 billion year old Bushveld Complex of South Africa, and are a more recent addition to the building, installed when Tiffany's moved in.

## David Morris, 180, New Bond Street (W)

Next door, jeweller David Morris, is the last shop on New Bond Street. **Emerald Pearl Larvikite** is used at the foundation levels of this shop front. This is a somewhat more blue-coloured variety than that seen at the Rolex shop described above. The rest of this building is clad with a medium grained white calcarenite, a limestone made up of ooids, peloids and shell fragments and also showing cross-bedding. In the fluted columns, the cross-bedding is laid vertically. This is a Portuguese limestone called **Moca Crème** from Pe de

Pedreira, which is located about 50 km north of Lisbon. This is a mid Jurassic Limestone from the Valverde Formation of the Lusitanian Basin (Figueiredo et al., 2010).

## Ferragamo, 24 Old Bond Street (E)

The end of Old Bond Street on the east side is marked by Italian fashion house Ferragamo in a building of 1925-6 by Vincent Harris. This building successfully mixes a number of architectural styles, but it is mainly gothic. It is built from **Portland Whitbed**.

#### Ralph Lauren, 1-3, New Bond Street (E)

Ralph Lauren is clad in Portland Stone, once again **Fancy Beach Whitbed** (as seen at Daks), rich in shell and algal debris. This stone is also heavily bioturbated, with shell debris accumulated in the burrows.

## Graff, 6-8, New Bond Street (E)

The façade of jeweller Graff's flagship store here on New Bond Street has been recently installed. It is clad with Perryfield Whitbed, a variety of Whitbed from Perryfield Quarries on the Isle of Portland in Dorset, with panels carved with foliage and birds in Portland Basebed, the carvings demonstrate this stone's qualities as a freestone. The foundations are in a coarse grained, grey granite, with white feldspars and grey quartz and exhibiting a weak foliation, defined by black biotite mica. This is probably honed De Lank Silver Grey Granite, from St Breward on the western side of Bodmin Moor in Cornwall, though this has not been verified. However, the Cornish granites were intruded towards the end of the Variscan mountain building event around 300 million years ago.

# Asprey's, Bulgari & Piaget, 165-169, New Bond Street (W)

Jeweller and silversmiths Asprey's moved to this location on Bond Street in 1847. The firm started off in a row of 1770s houses with shops on the ground floor (the brick façades remain on the upper storeys) at the 165 end and moved towards 169 as the business expanded. The shop front is architecturally revered as one of the best Victorian plate glass shop fronts remaining, the earliest window believed to have been fitted in 1865, with others added between 1902 and 1925. There is little geology to be seen at Asprey's (apart from the gemstones), just thin strips of **Peterhead Granite**, as described for the Royal Arcade, above, form narrow pilasters between the cast iron columns supporting the window frames.

#### Church's, 163, New Bond Street (W)

Church's ladies shoe shop is faced with slabs of beautifully quarry-matched slabs of Noir St Laurent marble,

a Devonian limestone that we have already seen facing Cartier on Old Bond Street (right). This shop front allows us to view this rock almost at outcrop scale. Quarry-matching entails the fitting of stone slabs, fixed together as they were in the quarry, so that geological structures and textures can be traced across the slabs. Not only does this entail precision quarrying, but also precision cutting and fitting with no room for error or waste. This is a spectacular example of this technique and provides a splendid opportunity to properly examine the textures of this beautiful stone.



#### Watches of Switzerland, 16, New Bond Street (E)

Across the road, which is pedestrianized along this short stretch, is Watches of Switzerland which is faced with two contrasting stones, a marble and a granite. However, at the time of writing (April 2014), this shop has just been covered in hoardings. It is not known whether the external façade is being replaced, so it will be described here anyway! The marble is white with yellow-brown streaks and some slabs are 'book-matched'. This technique involves splitting a single block of marble and opening out the two halves like opening a book, producing a mirror images of the textures and structures present in the rock. For some reason, this technique seems to have been applied here more by accident than design as most slabs are not matched. The origin of this marble is not known, but it is probably a variety of Carrara Calacatta from Italy. We are on much more solid (and ancient) ground with the identification of the granite used on this shop front. This is Baltic Brown, the classic 'rapakivi' granite from the Vyborg Massif in south east Finland. Large, circular phenocrysts of pinkish orthoclase feldspars, rimmed by green plagioclase, are set in a coarse grained matrix of smoky quartz, plagioclase, hornblende and biotite. This rock is 1.5 billion years old, but has only been quarried since the 1970s, despite that it has become one of the most popular decorative stones on streets all over the world.

# Louis Vuitton, 20, New Bond Street (E)

This is Louis Vuitton's flagship store in London and was refurbished inside and out by New York architect Peter Marino in 2010, who Maison Louis Vuitton have also commissioned to design their stores in Rome,



Munich, Singapore, Shanghai and New York. A clear theme runs through these shops which use subtly similar, but not necessarily identical materials in their interiors and exteriors. The main stone used in the exterior here is the Portland Stone variety Perryfield Whitbed, a shelly, white limestone from Perryfield Quarry on the Isle of Portland, certainly in keeping with classic London architecture. However a beautiful stone is used on the reveals and soffits of the doorways, evoking the Louis Vuitton livery colour scheme. From a few metres away, this may be mistaken for a hardwood, but it is a brown travertine called Stalatitte. This is an Italian travertine from the Trieste area of the north eastern Adriatic coast of Italy. Also known as the Onice del Carso, these calcite travertines are flowstones or 'speleothems' deposited in caves formed

on the Cretaceous-Palaeocene limestones of the Trieste Carbonate Platform. Pollen analysis indicates that they formed in the Lower Pleistocene, 1.6 million years ago, during a warm and wet climate (Boschian et al., 2002). The colour is imparted by iron oxide minerals which would have been washed in to the caves from overlying soils. Their compact nature, remarkable homogeneity and thickness suggests very rapid growth. The colours are variable, depending on iron oxide content, from white through shades of red, yellow and brown. Dark and light varieties of this stone are also used on the staircases inside the store. Stone contractor Stone Cladding International fitted the exterior and the French firm EDM | Ateliers de France are responsible for fitting out the interior.

## Cartier, 175-176, New Bond Street (W)

One branch of Cartier is not enough for Bond Street. This is the jeweller's London flagship store, is located across the street from Louis Vuitton. The original building dates from 1883-4 and is in the Renaissance-style by architects Allen & Mackland, with the frontage remodelled in the 1920s by Mewès & Davies for Cartier. Their shop front is preserved in the frontage of number 175. The overall decorative scheme uses contrasting red and dark green 'granites'. The fluted pilasters are of a coarse-grained, red granite called

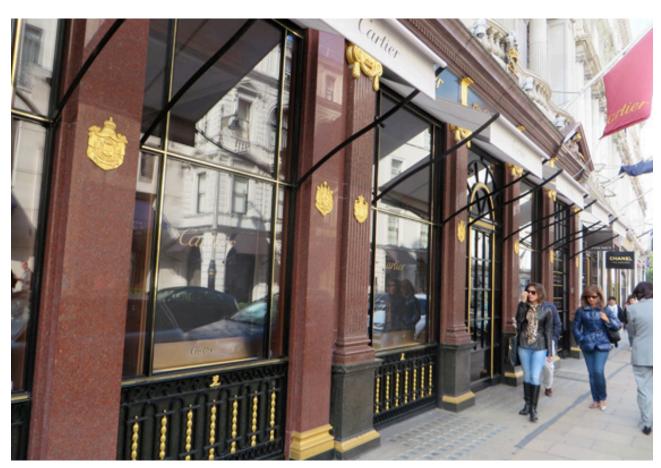
Swedish Imperial Red. This is from the Kalmar region on the Baltic coast, and probably from the 1.4 billion year old Götemar Granite. This is a orthoclase feldspar-rich variety of granite known as a pyterlite. A suite of these rocks were intruded into the Svecofennian crust; those located close to the coasts of Finland and Sweden were quarried and shipped out by boat and were generically known as the Coastal Reds. They have characteristically large, red feldspars, which often appear as they have been crushed and often the quartz appears milky, and sometimes even blue-ish. Both these features show that this rock has undergone some deformation.

The Imperial Red pilasters stand on pedestals of another Swedish Igneous rock, known as Swedish Green. This rock does not contain quartz therefore, geologically it is not a granite. It is an equigranular, medium to coarse grained gabbroic rock, containing a grey green plagioclase feldspar and a dark pyroxenes. It is from the Herrestad region of Jönköping in SW Sweden and the gabbros there have been dated to c. 1.5 billion years in age. These Swedish stones were very popular in late Victorian and Edwardian architecture and were shipped to London via Aberdeen for cutting and polishing.

The building frontage of the 176 half of Cartier was restored in 2007 by stone contractors Zanetti, and they have attempted to replicate the older stones, once fashionable in the early 20<sup>th</sup> Century, with more 'modern' stones. The red granite used for the pilasters is called **New Imperial Red** and is very similar to the 'old' Imperial Red from Sweden, but the quartz is greyer and more translucent, and the red orthoclase feldspars do not have the crushed appearance of the Swedish granite. New Imperial Red is from northern Karnataka in southern India. It is one of the several red granites quarried from the northern part of the 400 km long Closepet Granite, an ancient granite which was intruded into the Dharwar Craton 2.5 billion years ago.

The substitute for the dark green stone, used on the name plates and the foundations behind the metal grills is Brazilian Verde Ubatuba, a charnockite from the coastal state of São Paolo. Charnockites are granitic rocks, but probably metamorphic in origin. They are very coarse grained with prominent, blotchyappearing microcline phenocrysts. In addition this stone contains quartz, orthopyroxene, amphiboles and garnet. All charnockites are Precambrian. The Ubatuba Charnockite is 565 million years old and is part of the Ribeira mobile belt, the roots of an ancient mountain chain (Janasi & Ulbrich, 1991).

The windows of Cartier (below) also showcase a spectacular and ever changing selection of rocks of another sort and are always worth a look.



#### Richard Green Gallery, 33, New Bond Street (E)

Richard Green Gallery has been fitted out with a Greek Revival façade by George Saumarez Smith of Adam Architecture, completed in 2011. A sculpted frieze, by Alexander Stoddart, in bas-relief runs across the top of the second floor windows. The façade and sculpture are all in Portland Stone, and predominantly in Perryfield Whitbed, as used at Louis Vuitton, above.

## Sotheby's, 34-35, New Bond Street (E)

The exterior of the auction house Sotheby's is stuccoed and painted white revealing little of geological, or indeed architectural interest. Although one of the older buildings on the street, built in the 18<sup>th</sup> Century, Pevsner describes the edifice as 'demonstratively undemonstrative'. However there is an easily missed feature here which is of unexpected and great interest. In the triangular pediment above the door is mounted a torso and head of the lion-headed goddess Sekhmet and this dates from the 1320 BC (below). Acquired by Sotheby's from the early Egyptian explorer Giovanni Belzoni, Sekhmet was (a presumably unsold) part of a collection put up for auction in 1822 (see Clayton, 2001) and became Sotheby's mascot when the firm moved here in 1917. It is a little out of reach, but this figure is almost certainly of the hornblende-rich Aswan Black Granite, known geologically as Aswan Tonalite, part of a suite of intrusions emplaced into what is now southern Egypt at c. 600 Ma (Finger et al., 2008). The entrance is flanked by twin columns of pink Peterhead Granite, as described at the Royal Arcade, above.



## Other Criteria Gallery, 36, New Bond Street (E)

The outside steps and window of this art gallery are clad in red and black serpentinite. It is very fine grained, black with bright red mottling. The mass is cut through by white calcite veins. Red colouration in serpentinites is generally the consequence of exposure and weathering on the ocean floor, where black magnetite has oxidised to form red hematite. The most commonly used varieties of red serpentinites are Italian Rosso Levanto, Turkish Elazig Visne and of course, Red Lizard Serpentinite as seen at Tiffany's. However all of these are bastite serpentinites, with phenocrysts of talc and tremolite pseudomorphing clinopyroxene. The variety here at 36, New Bond Street does not contain bastites. Unfortunately, therefore, its origin remains a mystery.

#### Burberry, 21-23, New Bond Street (E)

The façade of Burberrys has recently been restored and fitted out my architects and designers Mark Pinney Associates. The foundations are of **Blue Pearl** larvikite. Like Emerald Pearl described at various locations above, this is a variety of larvikite from the Vestfold of southern Norway. This blue stone, with the characteristic schillerescent feldspars is quarried at Tvedalen and Auen, near Larvik. This is one of the most popular varieties of larvikite and around 14 quarries actively produce this stone (Selonen & Suominen,



2003). The façade at pavement level is clad with pale yellow Bath Stone. However, this is a coarser grained and more richly fossiliferous facies than that seen at 45, Old Bond Street below. It is an oolitic limestone, a calcarenite, showing current cross-bedding. Close inspection shows the surface to be pitted, with ooids weathered out leaving spherical cavities. It contains fossilised shell, echinoid and algal fragments. Bath Stone comes from the Jurassic Great Oolite Group, this shelly, coarse grained, cross bedded facies belongs to the Coombe Down Member and is more properly known as Coombe Down Stone or Bathampton Stone (King, 2011). The upper storeys of the building are clad in Portland Whitbed. Left: an echinoid fossil with calcite spar infilling the inner cavity, FOV 2 cm.

## Time & Life Building, Loro Piana, Michael Kors and Hermés, 153-157 New Bond Street (W)

Designed by architect Michael Rosenaur, 1951-1953, this building, occupying a block on the corner of New Bond Street with Bruton Street, is a classic of 1950s 'Anglo-American' style architecture. The interiors and fittings were designed by the likes of Sir Hugh Casson and other designers who had worked on the Festival of Britain site on the South Bank. Now occupied by purveyors of luxury accessories and clothing Hermés, Michael Kors and Loro Piana, this building can be considered to be one of the geological gems of Bond Street. The foundations are of Blue Pearl larvikite, as described at Burberry's, above. The rest of the ground floor of the building is clad in travertine, Travertino di Tivoli, from Bagni di Tivoli near Rome in Italy. A number of huge quarries work this stone, some of which have been on operation since Antiquity. The travertines are freshwater limestones deposited by geothermal waters derived from the Monte Albani Volcanic Field into the Pleistocene Lake Tiburtinus. Although good, hardwearing building stones, these are the geologically youngest rocks seen on this walk, deposited between 115 - 30 thousand years ago. The travertines are banded with both micrite and sparite calcite. Another common feature are delicate 'arborescent' or 'shrub' features which are micritic aggregates replacing cyanobacteria build-ups (Ángeles García-del-Cura et al., 2012). This travertine here has been filled with resin to reduce porosity.

Echoes of the Festival of Britain are seen in the stone used to clad the doorways of Hermés and Michael Kors. This is a spectacular crinoidal limestone which was also used to decorate the interior of the Royal Festival Hall. It contains huge crinoid fossil with stems preserved up to 10 cm in length, and individual circular ossicles big enough to be used for buttons. This stone is called Derbyshire Fossil Marble or Derbydene, which comes from the Carboniferous Monsal Dale Limestone of Derbyshire. It has been extracted from strata in several quarries, including the Once-a-Week Quarry, owned by the Dukes of Devonshire at Sheldon and these 1950s stones come from Dene Quarry at Cromford (Thomas, 2005). It was popular for fire surrounds and small architectural features and is not often seen on the architectural scale seen on the Time & Life Building and at the Festival Hall. The doorway of Loro Piana is clad with a different stone, albeit a crinoidal limestone. Here the crinoid ossicles are small, probably representing sections from the brachioles (arms) of the crinoids. The ossicles are also very densely packed. This is Bird's Eye Marble and may have been derived from Coals Hill Quarry, also at Cromford. Looking up, above Loro Piana, four

sculptures by Henry Moore are carved from **Portland Stone**, which is also used to clad the upper storeys of this building.

#### Miu Miu, 150, New Bond Street and 40, Bruton Street (W)

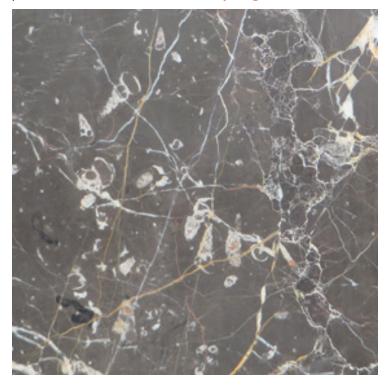
Standing on the corner of Bruton Street and New Bond Street, 150, New Bond Street is a new office and retail development by architect Rolfe Judd in 2010. The stone was supplied and fitted by stone contractors Putney & Wood. The building has strong, rectilinear, geometric lines with rows of square windows above the shops below. The retail space on New Bond Street is occupied by Prada-offshoot Miu Miu and the store front has been remodelled and fitted out by Roberto Baciocchi who was also responsible for Prada on Old Bond Street. The detailing above the door and windows once more features the Devonian limestone Noir St. Laurent we have seen at Old Bond Street's branch of Cartier and Church's ladies shoe shop. Worthy of note here are a cluster of fossil gastropods which are occasionally found in this stone. Their turret-shaped chambered shells can be seen in the right-hand reveal of the doorway.

The socle of the Miu Miu store is clad with an ivory coloured fine grained limestone, with thin grey calcite veins and the odd fossil fragment. This is **Crema Marfil**, an Eocene limestone from El Coto Quarries – the largest quarry in Europe – in Murcia, Spain.

The upper storeys of the building are faced with **Portland Basebed**, a relatively fossil-free variety of Portland Stone, an homogeneous oolitic limestone freestone. Walk around to the office entrance on Bruton Street, where the original granite plinth still survives Miu Miu's fit-out. This is **Kuru Grey Granite**, also known as Karin Grey and it comes from the 1.8 billion year old Kuru Batholith, located near the city of Tampere in south-central Finland (Selonen et al., 2012). This is a homogeneous, grey, medium to fine grained granite, containing quartz, orthoclase and plagioclase feldspar and biotite. The latter mineral defines a weak foliation to this rock. This stone has been worked since the mid 19<sup>th</sup> Century. Although often encountered in building projects, the main use of this stone is for monumental masonry.

Looking through the window, the reception desk inside is clad with Brandy Crag Slate and walnut

wood. Brandy Crag, extracted from the eponymous quarry above Coniston in the Lake District is supplied by Burlington Slate, long time workers of the so-called ornamental slates of the Lake District. These slates were originally erupted as pyroclastic rocks, forming the upper part of the Ordovician Borrowdale Volcanics Group. A combination of airfall ash, lapilli tuff and pyroclastic flow deposits, these were subjected to low grade metamorphism and deformation during the closing stages of the Caledonian Orogeny; processes which transformed them from sandstones into slates. At Brandy Crag, the slates are more grey coloured, rather than the more typical greenish coloured slates quarried in the vicinity.



Right: Gastropod fossils in Noir St Laurent.

## The Fine Art Society, 148, New Bond Street (W)

The main point of geological interest at The Fine Art Society is the marble floor in the recess beneath the portico. The address is depicted in a mosaic using black and white marble, and the rest of the floor area is paved in white Carrara Calacatta marble and a green serpentinite, Verde Alpi. Calacatta will be described in more detail at Belstaff, below, but the term is used rather generically to describe veined varieties of Carrara marbles. Verde Alpi is also a generic term to describe the serpentinites quarried from many localities in the ophiolites of the Piedmont Zone of the French and Italian Alps. These units represent tectonically emplaced slices of ancient ocean floor, thrust onto the European continent during the collision

of the Adrian Plate (Italy). Serpentinites were once ultramafic rocks which would have been composed of olivine and pyroxene. These would have altered to the serpentine group minerals, and related phases such as tremolite and talc, in the ocean floor environment. This process involved expansion, causing these rocks to be heavily fractured and veined with calcite, as seen in the examples here.

## S. J. Phillips Ltd., 139 New Bond Street (W)

From across the street, the jewellers, S.J. Phillips Ltd. appears to have columns and name plate of a cream marble with grey veins. However, closer inspections shows that this is not the real thing, but a painted, trompe l'oeil marble, intended literally, to 'deceive the eye'. Obviously cheaper than the real thing, the decorative techniques needed to imitate stone using paint requires great skill on behalf of the artist, with layers of paint and varnish being built up to replicate the translucency and textures of real marble. The 'veining' is often applied using a feather, rather than a paintbrush, to create an imprecise line. This technique has been used since at least the Roman period to imitate marble and is most frequently seen in interior decoration; it is quite unusual to see an example on the exterior façade of a building.

## Belstaff, 135-137 New Bond Street (W)

In contrast to S.J. Phillips, the clothing company Belstaff has a façade with fluted ionic columns constructed from a real marble. Most of this marble is weathered and now pinkish in colour with dark grey veins, but it has been recently patched with a marble of very similar texture, but in white and grey (below). This work was carried out by Tudor Stonework in 2013. The variety of marble used here is Carrara Calacatta, a metamorphosed and deformed marble breccia from the Alpi Apuane tectonic window. This is worked from many quarries in the Carrara and Serravezza regions and varies in colour from white through pink and yellow shades.

Eramosa Stone is used for the socles beneath the windows and for the paving in the entrance porch. Here used unpolished, this is a highly decorative and unusual stone from Ontario, Canada. This is a fine grained and very thinly bedded bituminous dolomite from the mid-Silurian Guelph Formation. Several quarries extract this stone around the town of Wiarton on the Bruce Peninsula. These sediments were deposited in an anoxic, shallow marine environment and the quarrying has also recently revealed strata rich in exceptionally well preserved, marine soft-bodied fauna including conodonts and arthropods (von Bitter et al., 2007). The stone can be vein cut, orthogonal to the bedding to reveal the laminated nature of the dolomites, or cut sub-parallel to bedding as here, described as 'fleuri cut'.



#### 43-44, New Bond Street (E)

A narrow doorway to the offices above 43-44, New Bond Street has reveals clad in the coarse grained variety of the Finnish, Proterozoic **Balmoral Granite**, as described at 22, Old Bond Street.

#### 50, New Bond Street (E)

Despite all the bling of the luxury good stores, number 50, New Bond Street is notable in having one of the most interesting of the modern architectural façades on the street. Designed by architect Eric Parry and constructed in 2010, the frontage is clag with twisting fins of greenish, glazed, architectural terracottas,

manufactured by Shaws of Darwen. This Lancashire-based firm of specialist, architectural ceramics manufacturers was established in 1897 and have been responsible for supplying and restoring architectural ceramics on many of London's buildings including the Royal Albert Hall, Natural History Museum and the Hackney Empire and Coliseum theatres.

#### Dolce & Gabbana and Emporio Armani, 51-55, New Bond Street (E)

Both store fronts are clad in pale grey, oolitic **Portland Whitbed**, with sparse shells of the oyster *Liostrea* species.

### Fenwick's, 63, New Bond Street (E)

Fenwick's department store first opened in 1891 as a ladies' tailors and outfitters. The store underwent a major phase of cleaning and restoration in 2010, with the stonework repaired and cleaned by Stonewest Ltd. The façade is of **Bath Stone**, as described at 45, Old Bond Street (above) which is best observed on the columns between the shop windows at pavement level. The paving at the entrance is also worth a quick look. This is a red and yellow granite from near Novo Venecia in Espiritu Santo State, Brazil. Called **Giallo Veneziano**, it comes from the 576 Ma Carlos Chagas Suite (Pedroso-Soares et al. 2011). The granite contains large feldspar megacrysts but the red colour is imparted by garnets, which reveal that this granite has been metamorphosed at high grade. This metamorphism has also imparted a strong foliation to this rock. The yellow colour is imparted by leaching of iron in the tropical weathering environment of Brazil.

# 67-69, New Bond Street (E)

Currently in the process of major refurbishment (and hopefully not demolition), number 67-69 New Bond Street has a spectacular frontage with a central arch in dark **Shap Granite**, architecturally similar to that seen at 22, Old Bond Street. The building is by architect W. H. Romaine-Walker, and constructed in 1896.

#### 78-79, New Bond Street (E)

The entrance to the offices 78-79 New Bond Street are clad in the grey granite, **Grigio Sardo**, from Sardinia. The architect was Rolfe Judd and this work was completed in 1996. This granite is very similar to Cornish De Lank granite seen at Graff at number 6, New Bond Street and indeed these two stones are around the same age, c. 300 Ma, and were intruded during the same mountain building event, the Variscan Orogeny. Grigio Sardo has slightly pinkish grey feldspars, which are slightly bigger than the surrounding groundmass of grey quartz and black biotite. The rock has a weakly foliated texture.

## Next, 327-329, Oxford Street and New Bond Street (E)

Next fashion store on the corner of Oxford Street and New Bond Street is the final stop on this walk. The nameplate on the New Bond Street elevation is on slabs of a grey, mottled slate, of unknown origin . This is set in a wall of blocks of rough-cut schist. This is rich in muscovite mica, which defines the schistosity and there are also porphyroblasts of black hornblendes scattered throughout the rock. The origin of this stone has not been verified, but it may well be Norwegian **Otta Pillarguri**, from the Caledonian nappes of west-central Norway. The stone was metamorphosed at amphibolite facies at 400 Ma.

At Oxford Street, turn left for Bond Street London Underground station, or right for Oxford Circus station (or go shopping ...!)

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