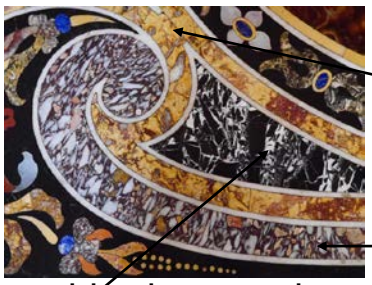
Franks Forages No 26. The Stones in the Great Hall Table Top

Volunteers are often asked about the stones in the pietra dura tables and below are descriptions of some of those in the Great Hall table top.

The large central stone is a travertine. Travertine, also called alabaster, comprises mainly of the mineral calcite (3 on the Mohs scale) and therefore fairly soft and easily worked. It is formed by the calcite deposits of hot springs and colouring is caused by the inclusion of iron oxides and other impurities. This one is known in Italian as *alabastro a tartaruga* from it's resemblance to a tortoise shell (tartaruga is Italian for tortoise). It is found in the hot spring deposits of Iona in Tuscany. Travertines are also known in the stone trade as *oriental onyx* or *onyx marble* but in geological terms they are neither onyx nor marble.

The black stone in which other stones are inlaid is known as *Black Belgian* and was quarried in Hainault Province in the Walloon district of Belgium. It is a limestone, black due to the inclusion of bitumen. Unpolished it is dark grey but polishes to pitch black. Fossils do occur but are rare. It is very brittle and fine grained and breaks with a curved conchoidal as glass does. It has sharp edges like glass too.

The two circular stones are *Breccia Quintilina.* Unworked blocks had been found in the ruins of the villa of Quintilus Varrus in Tivoli in 1565 and the Roman stone cutters made good use of the stone in their pietra dura work. It is composed of brown serpentinite fragments cemented in white calcite. It is quarried from the Levanto area in Liguria, Italy.



Of the more prominent stones, three are shown here:- *Spanish Broccatello, Semesanto* and *Grande antique.*

Spanish broccatello is a limestone rich in bivalve fossils in a calcite cement tinted by iron oxides. It was used extensively in Spain and Italy and was quarried at Tortosa in Catalonia.

Semesanto consists of very small fragments of coloured marble clasts set in a red hematic matrix or cement. It was quarried on the Greek island of Skyros and was first brought to Rome during the reign of Augustus.

Grande antique consists of black limestone clasts set in a white calcite matrix and is from the Hautes-Pyrenees in France. It was quarried by the Romans from the 3rd century AD and popular in the Byzantine era.

Surrounding the inlaid black marble band are lengths of *giallo antico* inlaid alternately with circles of *rosso antico* and *verde antico* rectangles.

Inlaid in the black marble are a variety of stones ranging from limestones and marbles to semi-precious stones. *Lumachella d'Egitto* is a limestone of mainly crushed bivalves from Henchir Kasbat in Tunisia. There are

many small pieces of giallo antico set in the black marble ranging in colour from pale yellow to deep orange. This limestone was quarried at Chemtou in Tunisia. Some are monochrome whilst others are brecciated, an example of which is on the billiard Room fireplace. Some of the brighter yellow stones may be *giallo di Siena* from Siena in Tuscany. Also present in the black marble band are pieces of rosso antico, a marble from Greece although some of the very small pieces could be other stones. There are also pieces of *Sicilian jasper* which come in a variety of colours as well as pieces of agate and true onyx. The light blue stones cold be chalcedony or onyx.

I am not sure what these two are? The far left stone may be a travertine and the other onyx! There are four similar of each of these stones in the table top. The moulded edging (below) *is giallo e nero di Carrara*, a partly metamorphosed limestone from Carrara in Tuscany. It has white calcite veins some of which have turned orange due to the dissemination of iron oxides.

The white base slab is Carrara marble. This marble is highly esteemed in its pure white calcitic form although some strains have black or grey veining due to the intrusion of graphite (as in the Great Hall floor).

Visitors may ask how the piece is made. A master craftsman would employ an artist to paint the design in oils full size on canvas. The various elements would then be traced and the tracings superimposed onto the stones and the shapes cut out using a bow saw with a wire blade with the aid of an abrasive. Where pieces are fitted into the black marble, the same tracing would be used to cut out the shapes in the black marble and the elements to be fitted in into the spaces thus ensuring a perfect fit. The stones are cut at an angle forming a Λ. A point at the top makes it easy for filing to make a perfect fit. The small pieces are fitted into the black marble upside down and the V filled with an adhesive of beeswax and resin and smoothed off. The white Carrara marble slab is accurately chiselled out by first drilling small holes around the profile traced thereon to the depth of the inlaid pieces. The finished table top is polished using varying grades of emery. Some stones take a better polish than others but the makers of pietra dura items would prefer to use the softer stones, usually calcite based such as alabaster, limestone and marble and no more than 4 on the Mohs scale.

I am indebted to Thomas Greenaway of Greenaway Mosaics (www.greenawaymosaics.com) for help in producing this forage. Visiting his website will help understand how pietra dura is made.

The description of the stones is based on *The sourcebook of decorative stone* by Monica T. Price, published by Firefly Books.

Frank Storr