

## Birmingham Building Stones - walk 3




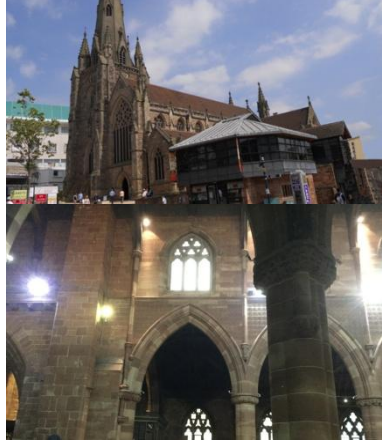


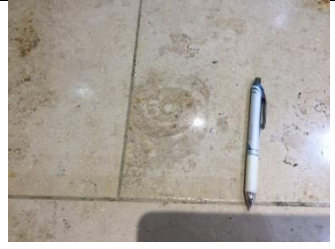
Leader: Julie Schroder










Compiled by Ray Pratt

On a dark Tuesday evening 12th November 2018, 16 geologists met up by the Bull sculpture in the centre of Birmingham at 18:00 hrs to participate in a guided tour of the building stones used in this area of the city.



This building stone walk focuses on the old centre of Birmingham, around the church of St Martin in the Bull Ring and the surrounding shopping malls. The area demonstrates continuity as a centre for trade and retail but the building materials used here have changed beyond those that would have been familiar to Peter de Bermingham and his family. The area has been transformed over the last two decades, and though the oldest part of the city of Birmingham, it is now the symbol of a new vibrant centre, with the covered markets replaced by glamorous shopping malls. Malls are modern cathedrals in terms of delivering the double whammy of decorative stones and public access. They are built to impress and the polished surfaces provide excellent opportunities for observing fossils, minerals and textures. This walk will take in the new shopping precincts of the Bullring and Grand Central.

<p>The walk commenced examining the entrance to the Rotunda, clad in Carrara Marble from northern Italy, probably of Alpine orogenic origin.</p>	<p>Diagonally opposite the Bulling entrance is the Nationwide Bank: The façade of this bank is clad in panels of a greenish grey gneiss, unfortunately of unknown origin.</p>	<p>From here we walked down the walkway to St Martins square (crossing the obscured Birmingham fault) stopping at the monument to Nelson. The plinth is made from Whitbed Portland Stone of Jurassic age, showing distinctive fossil death bed assemblages.</p>
		
<p>On the way down to the Nelson monument there are 2 cubes of street furniture supposedly of Visag Blue, but actually made of concrete. (The originals have been moved).</p>		
	<p>Our last outdoor stop was the Church of St Martins built with Grinshill Stone of Triassic age. The Spire is thought to be built of a different stone. The slabs outside the church are of Hauteville Limestone, a Lower Cretaceous limestone quarried from the eponymous French village.</p> <p>The street lighting was not good enough to appreciate the colour variations and sedimentary features in the stones of this building. Planning such a trip for as dark winters evening was always going to be a challenge however, most of the walk was indoors and the few localities visited outdoors were quite well lit with the street lights. Torch light augmented street lights for looking at details within the building stones.</p>	
<p>From St Martins we entered the Bull Ring Shopping Centre at the lower level. The Flooring is made from Cinza Rajado, a yellow and black tiger striped Gneiss from Brazil, almost certainly Archaean in age</p>	<p>A little further inside the mall the dominant paving stone is made from Yana Limestone of mid Cretaceous from Spain. It is variably fossiliferous, with fossils – dominantly the oyster <i>Toucasia</i> sp. – concentrated in shell lags. Gastropods and ammonites are also present. Some slabs are entirely devoid of fossils, others are packed full with them.</p>	
		

<p>External roundel composed of ancient cratonic migmatic Rosso Tigrato from Brazil. The inner roundel is of Vånga Granite, a rich wine-red granite from Skåne in southern Sweden.</p>	<p>Precambrian garnet bearing migmatite gneiss, Orissa Blue, seen here between escalators on lower level. This rock is from the Eastern Ghats Mobile Belt of north east India</p>	<p>Darker Vizag Blue and the lighter Orissa Blue have the same age and mineralogy , the latter contains distinctive, porphyroblasts of plagioclase aligned in the gneissose matrix. Both rocks are very rich in red garnets. gy.</p>
		
<p>Crossing the walkway on the third floor to the Central Station shopping mall, the walls near cafe Nero are clad in Jura Marble. This is a fossiliferous limestone from Central Bavaria. It belongs to the Late Jurassic Treuchtlingen Formation. Sponge biostrome fossil</p>	<p>Jura Marble - Belemnite fossil in flooring, Tiny white flecks are tubified worms.</p>	<p>Jura Marble - Amonite. Tiny white flecks are tubified worms.</p>
		
<p>A black Spanish limestone, Nero Marquina, is Mid-Cretaceous in age and comes from Marquina, in the Basque country of NE Spain. It is a bituminous limestone with a micritic matrix. This rock has been weakly deformed, evidenced by the excellent conjugate sets of <i>en echelon</i> tension gashes, infilled with white calcite</p>		<p>Outside of the Central Station the paving is comprised of 2 types of Chinese intrusives, Kobra (dark diorite) and Royal White granite. Both are of Cretaceous age.</p>
		<p>Royal White Granite</p> 