Nottingham's Market Square

Britain's largest market square has been re-vamped. Modern, expensive, trendy, bleak, dramatic, sterile, futuristic, wasteful - different people each have their own views. But now that it's all finished, we can peruse the new geological delights of the city centre.

It is typical of Britain's modern stone industry that none of the four stone types used in the new Market Square is derived from quarries in this country. Portugal and China were the sources; press reports that it all came from China, or that some came from Donegal, were in error. But the natural stone does replace the concrete slabs that previously floored most of the Square (with just steps of Cornish granite and kerbs of Mountsorrel granodiorite).

The main stone used for the majority of the slabs in the square is a beautiful, light, coarse granite that is packed with large plagioclase feldspar crystals, up to 75 mm long, all embedded in a finer-grained matrix. Some of this stone is darker, almost to a grey colour. This was down to natural variation in the one quarry, and some of the darker stone has been used almost as a feature along step edges, but some appears incongruous as scattered darker slabs that indicate some lapse in quality control. Much better are the many fist-sized xenoliths of a dark and fine-grained material; some have well-defined margins, while others show varying degrees of absorption and porphyroblastic recrystallisation. The designers did not like these, but were persuaded by the suppliers that they were an unavoidable natural feature – fortunately, because they are excellent. About 1000 tonnes of this granite were used in the Square, and it all came from a new quarry in northern Portugal, where it was cut and finished on site, the quarry lies inland, but most of the stone was trucked to a port and then shipped to Felixstowe for another stage of road transport. This granite goes under the trade name of Crystal Azul, and was supplied by Charcon.

There is also a beige granite that makes up a large part of the water feature and some of the stone bench seating terraces. This is called Amarelo Mondim, also from Charcon and also from Portugal. It is more homogeneous and finer grained than the main granite; so less interesting but a good colour contrast.

Much of the fountains area, and more of the stone benching, is a conspicuously darker material. It is an olivine gabbro, almost black and difficult to see its texture except where green crystals of olivine are visible in some of the watered faces. This came from Fujian, a province on the southeast coast of China, and was provided by Marshalls under the exciting trade name of GRA921 – where they refer to it as a black granite (using trade terminology instead of geological description).

The new Square (photo: Dom Henry, www.domhenry.com).

The fourth rock type, used in some small areas and features, is an unusual white granite, finer-grained and very homogeneous. It looks almost like a quartzite, and not dissimilar to the Portland limestone of the Council House, but it is actually an albitised granite. One wonders whether it is hydrothermally altered, or if it is a type of late-stage aplite, but it does appear to have retained its durability. This stone came from Jiangxi, the Chinese province just inland of Fujian, and was also imported by Marshalls, under the name GRA926, as one of their newer granite materials.

Parts of the Square's new design are seen by some as almost polychromatic in the style of Fothergill Watson, the famous Nottingham architect, and such a link to the past has to be both pleasing and appropriate to the city's evolving heritage.

Neil Turner and Tony Waltham

The old Square (photo: Tony Waltham, www.geophotos.co.uk).