

## The Geology of Old Aberdeen – Photo Notebook

with reference to the Excursion Guide “A Brief Guide to The Geology of Old Aberdeen” prepared by Prof M. Hole.



### Location 1: Meston Building.

The wall, at the north side entrance, features 4 different types of granite, all 4 of which have different variations in colour, grain size and internal structure



### Location 1 / 2: Meston & Library open area.

The area in front of Meston and the library building is covered by flag stones (see next picture) but also features walkways created with granite setts.



### Location 2: Ramp to the Sir Duncan Rice Library.

The ramp surface comprises “Caithness Flags” – sedimentary stone created in the *Orcadian Basin* during the Devonian age (400 – 360 mya).



### Location 3: Wind & Water Sculpture.

The two monoliths look a bit more spectacular in the wet: the grey stone turns a nice shade of blue in the rain – that’s not surprising because they are sculpted from Kilkenny blue limestone which is from the Lower Carboniferous age (330 mya).



### Location 4: Porch of St. Mary's Building.

The facing on this part of the building uses thin slabs with a greenish sheen because of the presence of the mineral chlorite. This metamorphic rock was recrystallised from mudstone originally,



### Location 4a: Andalusite Flag in Thom's Passage.

This solitary flagstone, of andalusite schist, which is almost black in colour, is quite easy to spot among the other paving which is created from grey, blue and orangish coloured flags.



**Location 5: Taylor Building Ornamental Garden.**

The small octagonal walled and paved area has been formed from a fairly coarse granite. The mineral grains are easily spotted as are the rare rectangular phenocrysts of orthoclase feldspar.



**Location 6: New Kings, front wall dressed sandstone.**

This section of dressed sandstone wall to the left of the entrance shows bedding planes, lamination and red mud clasts exposed by weathering. The masons mark appears on the block on the right.



**Location 6b: Elphinstone Hall Sandstone Blocks.**

These sandstone blocks, close by the entrance, also show evidence of cross-bedding. The Old Red Sandstone is from Devonian age (400 mya). Note some blocks appear to be upside down vs the depositional orientation.



**Location 7: King's Chapel Consecration Stones.**

These blocks of sandstones have been severely eroded but originally had a cross and 2 fish carved on them. They are the consecration stones which were blessed prior to the chapel becoming a place of worship.



**Location 7: Bishop Elphinstone's Tomb.**

The bronze and marble structure was too big to pass thro' the doors of the chapel so was placed at the entrance in 1946 instead of in the nave. Elphinstone became Bishop of Aberdeen in 1483 and Keeper of the Privy Seal in 1492

**Location 8: Cromwell Tower**

This tower is the oldest building of the original King's College, and dates from 1661.

It was built as a residence to accommodate students and had 24 bedrooms.

It is built from rough granite blocks with sandstone around the windows and doors.



Please see "A Brief Guide to The Geology of Old Aberdeen" in our website's excursion booklets table for more details,



**Location 9: Chanonry walls and roadway**

There is a huge variety of rock types (Sedimentary, metamorphic and igneous) which have been used to construct the walls, pave the walkways and cover the street with cobbles and granite setts.



**Location 9: Kerb Stones at Chanonry Lodge.**

These kerb stones outside the front walls of Aberdeen University Principal's house, *Chanonry Lodge*, are formed from the igneous rock, Dolerite.



**Location 11: Seaton Park Granite Blocks.**

The 22 granite blocks represent some of the many former quarries found in North-east Scotland including red Peterhead, silvery Kemnay, salmon Corrennie and blue-grey stone from Dyce. Vegetation hides many of them.



**Location 10: St Machar Cathedral.**

Machar was a follower of Columba and built a church here in the 6<sup>th</sup> century. The original cathedral dates from the 12<sup>th</sup> century but was rebuilt many times. Although the current building dates from the 16<sup>th</sup> century, it probably used the granite and sandstone from the previous buildings.



**Location 10: St Machar's Graveyard - Memorial**

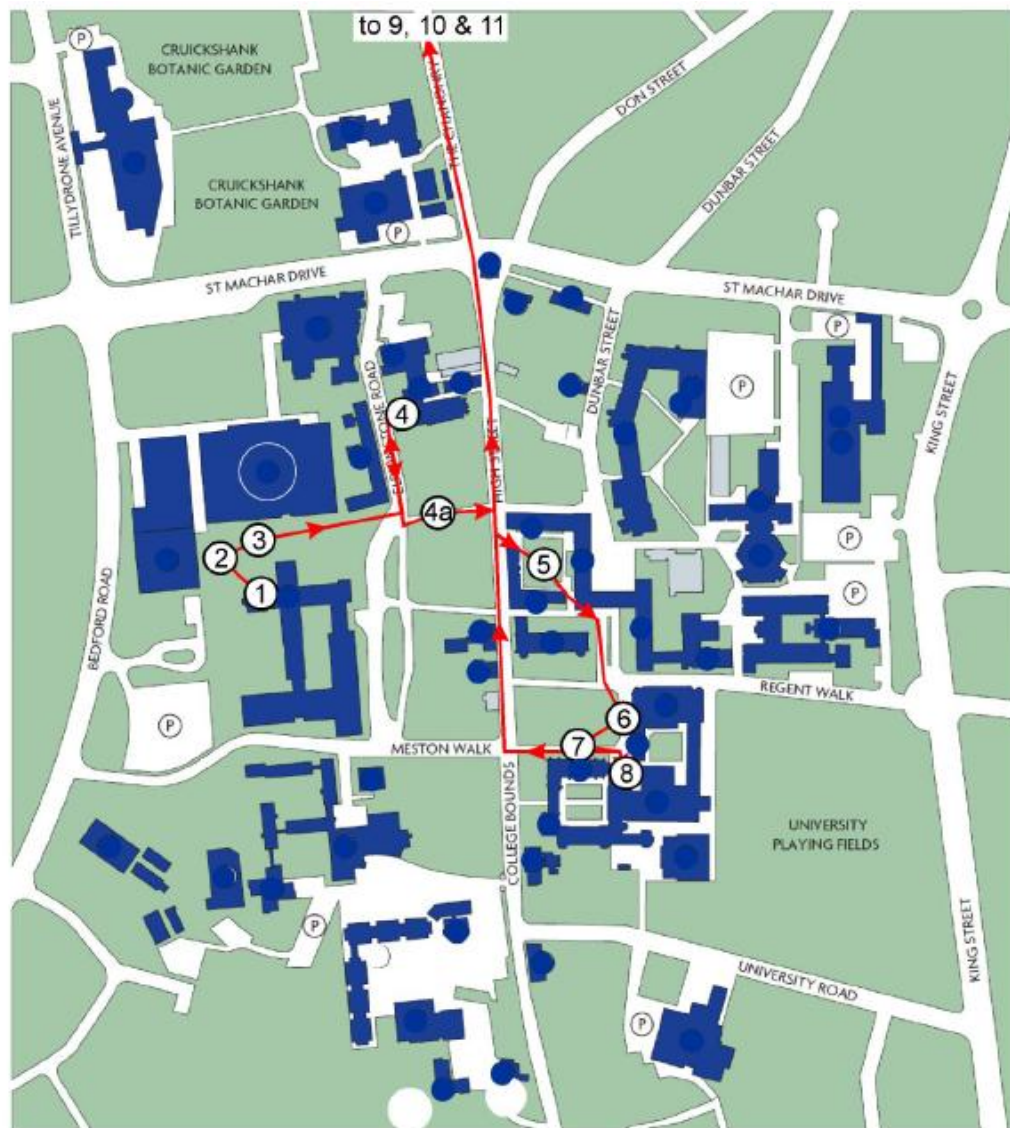
This memorial created in polished pink granite was erected by a granite merchant, Frederick Wright, for his wife. He was also laid to rest here later. Wrights' factory appears to have been in Holburn street.



**Location 10: St Machar's Graveyard - Gravestone.**

This limestone slab, placed in 1879, exhibits signs of some fossils but they are very difficult to spot. The rock dates from the Carboniferous age.

**Note:** Two particular #aberdeentrails booklets "Old Aberdeen Trail" and "Seaton Park Trail & Guide" also provide useful general information on these localities.



Map of Old Aberdeen showing localities mentioned in the text. Note that St Machar's Cathedral is off the map to the North.

This map is reproduced from Excursion booklet:

*"A Brief Guide to The Geology of Old Aberdeen"* by Prof M. Hole.

The document may be accessed from the website's [Excursion Booklets](#) table on the [Field Guides](#) page.

All photographs and text in this document are by K. London.

Some additional notes, concerning dimensions:

Loc 1: The granite setts are ~ 10cm x 10cm

Loc 2: The flagstones are ~ 60cm wide and between 50 cm to 110cm long

Loc 4: The green facing panels are ~ 40cm H x 33cm W

Loc 4a: The unique slab is ~ 80cm x 30cm

Loc 5: The phenocrysts are up to 50mm L x 15mm wide

Loc 6: The height of the blocks is ~ 30cm. (Both buildings)

Loc 7: The Consecration stones cover an area ~ 150cm x 70cm

Loc 9: The kerb stones are ~ 70cm L x 12cm W

Loc 10: The width of the memorial is ~ 2.7m