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# Stones of Scotland — footsteps in time geological diversity

Regionally Important Geological Site — Regent Road, Edinburgh

Grid reference: [NT 26761 74168]

Lothian and Borders RIGS Group

[Full colour illustrated PDF download](#)

## How to find the Stones of Scotland

The Stones of Scotland are in Regent Road Park on the south side of Regent Road facing to Arthur's Seat and the Scottish Parliament.

**By bus:** Numerous bus services to Princes Street and London Road.

**By coach:** Coach parking in metered bays alongside entrance.

**By car:** Parking opposite site in metered bays.

**By foot:** From east end of Princes Street about 800 m. From east end of London Road about 300 m.

The artists would like to thank persons and organisations too numerous to name here for their help and encouragement with the Stones of Scotland project. Thanks to Carcanet Press for their kind permission to use the poem by Hugh MacDiarmid.

In 1998 Kenny Munro received an award from the Scottish Arts Council which enabled the three artists to undertake a feasibility study for the Stones of Scotland project. George Wyllie received a Creative Scotland Award in 2000 from the Scottish Arts Council to realise the installation on site. Site for Stones of Scotland is part of a World Heritage Site and was generously gifted by the City of Edinburgh Council.

Produced by Lothian and Borders RIGS © 2006

Designed by: Derek Munn Photographs from British Geological Survey collection, Kenny Munro, Raymond Lintern  
Coordinator: Dr Elspeth Urquhart

Funding by Scottish Natural Heritage.

## The Stones of Scotland

A sculpture to celebrate the creative spirit in Scotland at the start of a new millennium by George Wyllie MBE., Kenny Munro, Lesley-May Miller with Stuart Rogers of the Paul Hogarth Company

This project grew out of a previous journey in Ireland undertaken by George Wyllie and Kenny Munro when they visited the 32 Counties and collected work to create the 'Spires for Hibernia'

A new creative journey was planned visiting each of the 32 regions of Scotland, involving local communities in finding a stone to represent their area in a central sculpture. The chosen site is in Regent Road Park, Edinburgh overlooking the new Scottish Parliament.

The official launch ceremony was on 30th November 2002

## Poems and quotes

"...this work is a reminder to a new era of Scottish politics that the centre must involve and be legit mised by all that surrounds it". George Wyllie MBE

### Incantation

Navel stone of Caledon

marker of millennium

eye of seer, druid's tongue,

world of carlin, — stand upon

this footprint made for everyone.

As pebble cast into a pool

sends ripple upon ripple

so this sacred stone will tell,

bear witness, fair or fell,

to our truth and principle.

Once as chiefs stood on Dunadd

our land and loyalty they bled,

Our corn, our cattle and our gold

whoso worked with hand or head:

crofter, hunter — Somerled.

Now we forward step once more

reclaiming those who walked before:

builder, makar, engineer, doctor, printer, traveller,

lad o'pairs and balladeer.

A step for Scotland carved in stone

a parliament without a throne

a country each of us can own

a wisdom, knowing as we are known,

a going forth and coming home.

Who among us now will work

for light that penetrates the dark

for freedom climbing like the lark

for the democratic spark —

whose the tread that fits this mark?

Tessa Ransford

### **Scotland**

It requires great love of it deeply to read

The configuration of a land,

Gradually grow conscious of fine shadings,

Of great meanings in slight symbols,

Hear at last the great voice that speaks softly ,

Hugh MacDiarmid (1892–1978)

See the swell and fall upon the flank

Of a statue carved out in a whole country's marble,

Be like Spring, like a hand in a window

Moving New and Old things carefully to and fro,

Moving a fraction of flower here,

Placing an inch of air there,

And without breaking anything.

So I have gathered unto myself

All the loose ends of Scotland,

And by naming them and accepting them

Attempt to express the whole.

Hugh macDiarmid (1892–1978)

(Poem engraved on slab of Coreennie granite sponsored by Fyfe Glenrock of Aberdeen)

The current living spirit of encouragement within the 'Stones of Scotland' requires recognition as a platform for debate. Within the rich rough edged diversity of these stones lies a catalyst to encourage every person to look around, sense their potential; in this new political landscape, urban and rural. People have a new capacity and responsibility as a force to evoke constructive change. **Kenny Munro**

"I think of the Stones of Scotland as a symbolic gathering and outlook place. The stones may represent the 32 points of the compass. A place to inspire people to meet for discussion from all over the country and from all over the world. A less formal meeting point than the Parliament building, looking beyond Scotland in the hope of a more peaceful future. The search for the 32 stones became a series of creative journeys and a series of interesting encounters." **Lesley-May Miller**

Wyllie has always striven to communicate with audiences and by taking art out of the gallery and into the community. Here too The Stones of Scotland is intended as a meeting place with a variety of uses — a contemplative retreat, yes, but perhaps also a tourist stop, the subject of the school trip, or a speakers forum.

## The Stones of Scotland

### 32 Stones - One from each of the 32 Scottish Regional Councils

**Location:** Regent Road Park, Edinburgh

Descriptions of the geology of each chosen stone and a map showing the diversity of Scotland's geology and the location of Scotland's 32 councils. Although not chosen as an A–Z of Scottish rocks, the stones are a good and useful representative sample of Scottish geology.

**Sedimentary rocks:** clastic rocks formed from sediments laid down in water or on land, e.g. sand to sandstone.

**Igneous rocks:** crystalline rocks formed from molten magma, either as extrusive lavas and ash, e.g. basalt, or underground intrusions, e.g. granite or basalt

**Metamorphic rocks:** rocks altered by natural heat and pressure at great depth, e.g. slate, schist, gneiss or marble.

The Stones of Scotland are of various sources: quarried blocks which are angular, fresher and sometimes cut rock, building stones which may be dressed (cut to shape) and tooled (with incised marks), weathered blocks from the land surface, or rounded boulders from river or shore.

**Weathering:** Some stones were collected with weathered, encrusted surfaces, other stones had fresh hand-worked surfaces. Over time the Stones are becoming weathered and overgrown with moss, lichen and black mould, and the geology of the Stones less clear.

### The selected stone from the 32 Scottish Regional Council areas

**Western Isles** Sea shore boulder, near Carloway, Lewis. This sea-rounded boulder is of hard banded pink and grey Lewisian gneiss, a high-grade metamorphic rock, among the oldest rock in Britain, about 2700 million years old.

**Argyll and Bute** Monumental block of pink granite quarried from Tormore Quarry, Ross of Mull. The granite intrusion covers 70 km, and is of late Caledonian age, 400 million years old. The crystals are mostly large pink feldspars, with clear quartz and black pyroxene. The granite was globally popular as a building stone, as in Iona Abbey, the pillars of the Albert Memorial and New York Docks.

**Stirling** Boulder of metamorphic rock collected from Tyndrum. Banded quartzite and mica schist, formed by alteration of sandstones and mudstones. Tyndrum was famous for a 'gold rush' in the 1800s/1980s

**West Dunbartonshire** Basalt or andesite igneous rock, probably intrusive. Brownish grey weathered surface, but fresh dark grey crystalline rock on sides. Patches of whitish crystals.

**East Dunbartonshire** Grey basalt lava, with obvious large white feldspar crystals; much iron weathering, some white quartz veining.

**Inverclyde** Dark grey basalt with large black pyroxene crystals seen on upper surface, an intrusive rock. Inner face is split along redpurple iron-ore veins.

**Renfrewshire** Block of brecciated lava, probably Carboniferous, consisting of lava fragments welded together. Small holes (vesicles) were formed by escaping gases in the lava.

**East Renfrewshire** Rectangular building block of coarse sandstone, finely-bedded, with iron-rich layers. Dressed with moss-filled tool marks on top surface.

**City of Glasgow** Grey medium-grained Carboniferous sandstone flagstone with bedding seen on side; typical of sandstones widely used in Glasgow buildings.

**North Lanarkshire** This angular quarried block is medium-grained dolerite, an intrusive rock, with crystals showing in one good clean face.

**South Lanarkshire** Red medium sandstone of Carboniferous age. It is finely bedded, with red and orange beds set vertically. Brown iron patches occur. Used extensively in buildings such as the now demolished Hamilton Palace.

**North Ayrshire** Boulder of two parts, the lower part Dalradian grit with vertical lineations, the upper part a whitish quartz vein cutting the grit. Dalradian is Cambrian metamorphic rock.

**East Ayrshire** Dressed red sandstone block with vertical quarry marks on inside face. Probably Mauchline desert sandstone of Permian age, seen in many old buildings throughout the west of Scotland.

**South Ayrshire** Dark grey medium-grained dolerite block. Surface all weathered, only well seen in broken corner. Gap is split along natural joint.

**Shetland** Grey, fissile sandstone, flagstone, long-used as building material as in Broch of Mousa.

**Orkney** Cut flagstone of fine-grained sandstone, pinkish brown with fine grey laminations. Top surface is dark bedding plane with burrows, very like the Caithness Flags in centre of sculpture.

**Midlothian** White sandstone with fossil tree root, Stigmara, on front. Back shows typical sandstone soil, with varying colours, brown iron patches, and fine black carbonaceous rootlets.

**West Lothian** Chosen because of the association with the locally famous Gingerbread House. A partly dressed building block, with tool marks on top; white, fine to medium-grained sandstone, though no fresh surfaces.

**Scottish Borders** White to pink unbedded fine to medium-grained sandstone, becoming obscured by black mould and moss

**Dumfries & Galloway** Worked block of Creetown granite. Crystals seen on clean side - white feldspar, clear quartz, black pyroxene. Top surface is iron joint with gold-like pyrite. Creetown Granite was much used for building and can be seen in the pillars of the George IV Bridge, Edinburgh.

**Highland** Marble and grey granite. Greyish white Skye Marble reputedly used in great buildings, such as Iona Abbey , The Vatican, and the Palace of Versailles. The grey granite has crystals of pale pink feldspar , some clear quartz and black pyroxene.

**Moray** Sandstone from Clashach Quarry on Moray coast, famous for fossil footprints of Permian reptiles (now protected site). In Craigendarroch, Ballater the part-dressed block, the golden brown is due to iron-staining, darker along bedding planes and joints, as on outer face. This building stone is widely used for prestige buildings such as the Museum of Scotland in Edinburgh.

**Aberdeenshire** Grey granite boulder with a very weathered surface, but large white feldspar crystals visible. Granite forms a distinctive landscape of rounded hills as around the collection locality at Easter Corriehoule

**City of Aberdeen** Polished cut block of grey crystalline granite with white and pink feldspar, clear quartz and black pyroxene. Such quarrying of granite began in the mid 1700s, with extensive use of granite as a building material in Aberdeen, e.g. Marischal College of the University of Aberdeen, hence it being known as 'the granite city'.

**Angus** Dalradian grit, metamorphosed coarse sandstone, with vertical banding visible through black growth and moss. The prominent quartz grains make the stone feel rough to the touch.

**Perth and Kinross** Typical dark grey slate from this region showing bedding and cleavage formed in low-grade metamorphism. Slate for roofs was split along the cleavage.

**City of Dundee** Fife sandstone building block, dressed and tooled, from local demolished building. The grey to pinkish, medium to coarse-grained, micaceous sandstone is possibly Lower Devonian in age. The stone has no fresh surface, and moss is growing in tooling.

**Fife** Andesite block from the surface has weathered brown and green with brown iron spots. Fresh surface on top shows dark grey fine-grained crystalline rock with a few phenocrysts (larger crystals).

**Clackmannan** Dark grey andesite lava block, with some brown iron staining along jointed surface. The fresh rock is dark grey and crystalline.

**Falkirk** Brown weathered block of coarse-grained dolerite with pink veins of microgranite. Small, long crystals (laths) can be seen. This very hard intrusive igneous rock forms thick hard ridges in the area which caused problems for railway engineers.

**City of Edinburgh** Craigleith Sandstone, a pale yellowish grey finegrained micaceous sandstone, bedded, with ripple marks and brown and black carbonaceous plant remains.

**East Lothian** Pink medium-grained igneous rock from Traprain Quarry , more like rock from North Berwick Law than Traprain Law, though may be from edge of Traprain intrusion.

## Figures

(Front cover)

(Figure 1) Stones of Scotland.

(Figure 2) Map showing the locations from which the stones were collected.

# Stones of Scotland



Footsteps  
in time



Geological  
diversity



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Regent Road, Edinburgh



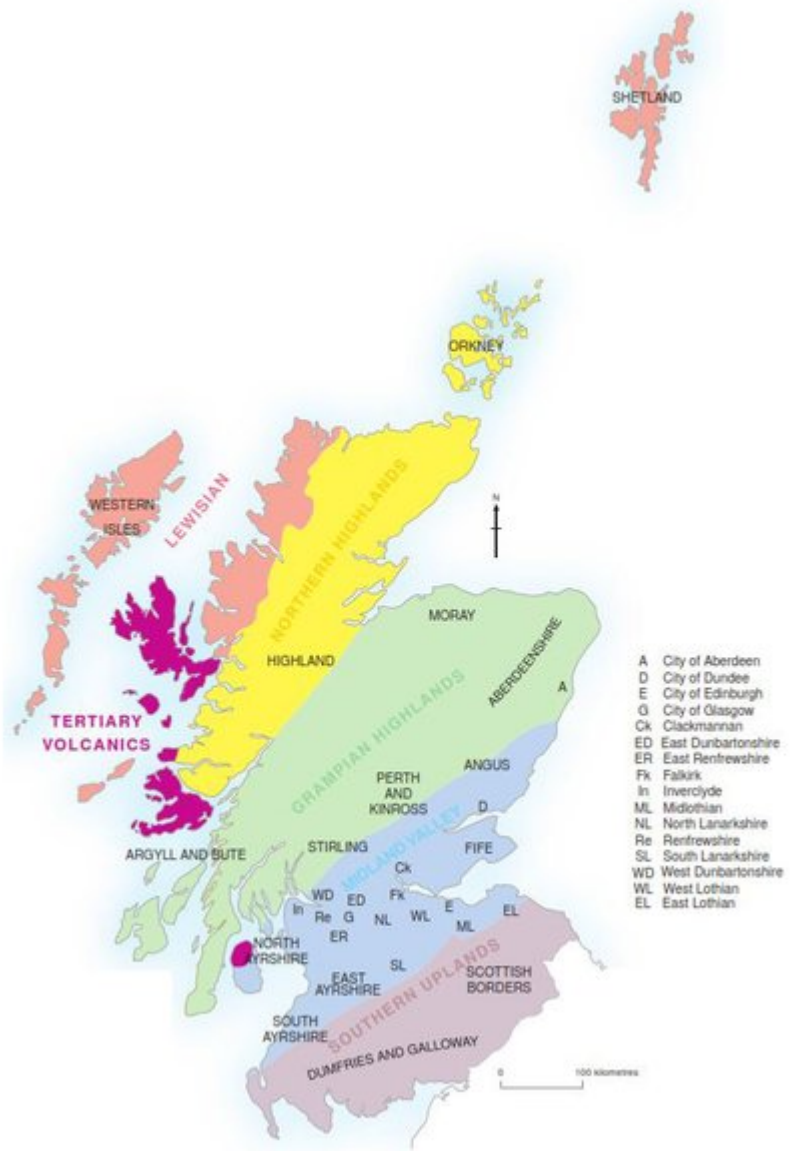
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(Front cover)



(Figure 1) Stones of Scotland.



(Figure 2) Map showing the locations from which the stones were collected.