

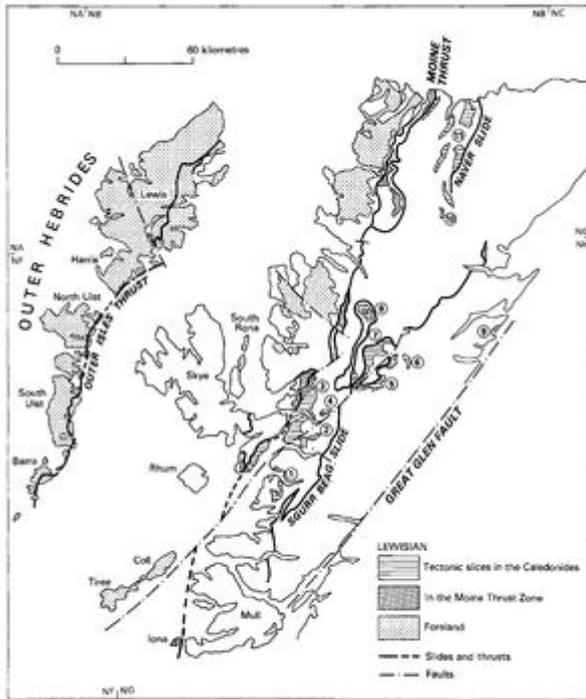
# Lewisian, Northern Highlands of Scotland

From Earthwise

[Jump to navigation](#) [Jump to search](#)

Johnstone, G S and Mykura, W. 1989. British regional geology: Northern Highlands of Scotland. Fourth edition. Keyworth, Nottingham: British Geological Survey.

## Lewisian



The inliers east of the Moine Thrust; 1 Morar 2 Glenelg 3 Attadale 4 Coire nan Gall 5 Strathfarrar-Monar 6 Orrin 7 Scardroy 8 Fannich 9 Rosemarkie 10 Shiu 11 Sutherland Group

Major structural divisions of the Lewisian rocks of the Northern Highlands. P915460.

The Lewisian Complex is a residual fragment of the ancient Laurentian continental mass, the southern extension of which is now buried under the metasediments of the Scottish Highlands. The gneisses of the Lewisian Complex represent a long and varied part of the earth's history. They bear evidence of having been formed then repeatedly deformed, often deep within the earth's crust, over a period of nearly 1800 Ma.

The greater part of the complex probably formed in the late Archean, around 2900–2700 Ma. During this time the earth's crust was relatively hot and mobile and, in consequence, the rocks were subjected to repeated deformation accompanying high-grade metamorphism. Subsequently, in the early Proterozoic c.2600–2400 Ma, the crust became cooler and more rigid; deformation was confined to more linear structures with generally lower grade metamorphism. Repeated deformation of this type continued intermittently until c.1100 Ma, the last deformation producing low-grade brittle structures. By this time the rocks had been uplifted, probably to near their present level, where they formed the basement on which the Torridonian and Moine sedimentary assemblages were deposited. During the late Proterozoic, the eastern Lewisian underlying the Moine was involved in the Grenvillian (c.1100 Ma), Morarian (c.750 Ma) and Caledonian (c.450 Ma) tectonothermal events.

In the following account the Lewisian is considered under two main headings relating to its present structural state ([P915460](#)), namely, the Lewisian Foreland, covering all the gneisses lying west of, and within, the Moine Thrust Zone, and the Lewisian Inliers, which are basement gneisses which have been thoroughly reworked by the later (Grenvillian etc.) tectonothermal events, and are now seen as tectonically-introduced slices and bands within the Moine.

## **[Selected bibliography](#)**

Retrieved from

'[http://earthwise.bgs.ac.uk/index.php?title=Lewisian,\\_Northern\\_Highlands\\_of\\_Scotland&oldid=34700](http://earthwise.bgs.ac.uk/index.php?title=Lewisian,_Northern_Highlands_of_Scotland&oldid=34700)'

[Category:](#)

- [Northern Highlands of Scotland](#)

## **Navigation menu**

### **Personal tools**

- Not logged in
- [Talk](#)
- [Contributions](#)
- [Log in](#)
- [Request account](#)

### **Namespaces**

- [Page](#)
- [Discussion](#)

### **Variants**

### **Views**

- [Read](#)
- [Edit](#)
- [View history](#)
- [PDF Export](#)

### **More**

### **Search**

## Navigation

- [Main page](#)
- [Recent changes](#)
- [Random page](#)
- [Help about MediaWiki](#)

## Tools

- [What links here](#)
- [Related changes](#)
- [Special pages](#)
- [Permanent link](#)
- [Page information](#)
- [Cite this page](#)
- [Browse properties](#)

• This page was last modified on 1 February 2018, at 11:50.

- [Privacy policy](#)
- [About Earthwise](#)
- [Disclaimers](#)

