

DUN LAOGHAIRE - RATHDOWN – COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Three Rock Mountain
Other names used for site	Two Rock Mountain, Fairy Castle
IGH THEME	IGH7 Quaternary
TOWNLAND(S)	Ticknock, Barnacullin, Ballyedmonduff, Ballybrack,
NEAREST TOWN/VILLAGE	Glencullen, Kiltiernan
SIX INCH MAP NUMBER	25, 26
ITM CO-ORDINATES	717750E 723300N (centre of feature)
1:50,000 O.S. SHEET NUMBER	50 GSI BEDROCK 1:100,000 SHEET NO. 16

Outline Site Description

A landmark mountain to the southwest of Dublin City, on which craggy stumps of granite stand proud of a mainly peat-covered granite mountain top.

Geological System/Age and Primary Rock Type

Devonian granite (porphyritic granite with large muscovite crystals ~80mm), severely weathered during Quaternary (Pleistocene) ice ages forming stumps/crags known as *tors*.

Main Geological or Geomorphological Interest

On the summit of Three Rock and Two Rock mountains, deeply etched and conspicuous crags of granite rock stand proud of the surrounding mainly peat covered mountain top. These protruding crags give the two mountains their names. From a distance, the rocky features resemble man-made structures. However, the granite outcrops are natural, formed by differential weathering of granite bedrock, and mass wasting and removal of the weathered material. Weathering along horizontal and near-vertical joints has created the characteristic granite *tor* shape, and these are the best examples in the Dublin and Wicklow Mountains. Studies of the tors of the Cairngorms (Scotland) conclude that the survival of tors with deeply etched surfaces and no, or limited, block removal requires a cover of largely non-erosive ice during each of the cold stages of the Pleistocene. Three Rock Mountain (488m) is capped by radio and television radio masts. The 536m high summit of Two Rock Mountain (Fairy Castle) is capped by a stone cairn and a Trig Point.

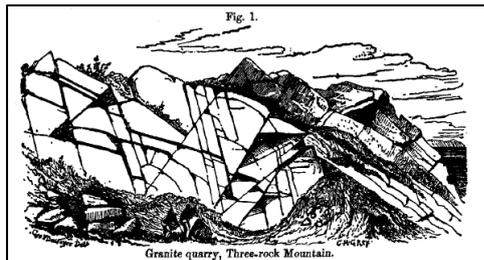


Illustration of granite outcrops on Three Rock Mountain (Figure 1, GSI Memoir Sheet 102/112, Page 28, 1875)

Site Importance - County Geological Site

This is an important County Geological Site, because the granite tors are landmark features and the best examples in the Dublin and Wicklow Mountains.

Management/promotion issues

Whilst the features are not under any immediate threat of damage, their sensitive situation in a popular hill-walking area demands attention. Littering and 'campfires' around the tors is an occurrence. Path development and improvement has been carried out using locally sourced granite sand and boulders. Coillte Outdoors and the Dublin Mountains Partnership have developed several looped walking routes on the site. Any future promotion of the site should relate the unique aspect of these features and their importance as features of Dublin's geological heritage.



Granite tor on Three Rock Mountain looking south. In distant background: Bray Head (left); Little Sugar Loaf (right).



Two granite tors on Two Rock Mountain (near left and far right).



Stone cairn (archaeology) and Trig Point on Two Rock summit.



Horizontal joints on granite tor, Two Rock Mountain.

