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Heritage stones from Europe: Irish Black Marble

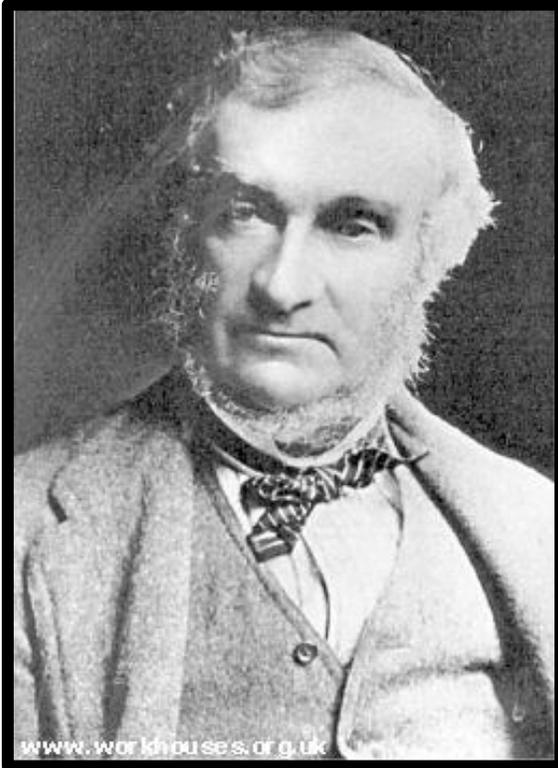
Louise M. Caulfield
Patrick N. Wyse Jackson

Trinity College Dublin
Department of Geology

5th-7th / 10 / 2021, Torino, Italy

2nd International Workshop on Heritage Stones





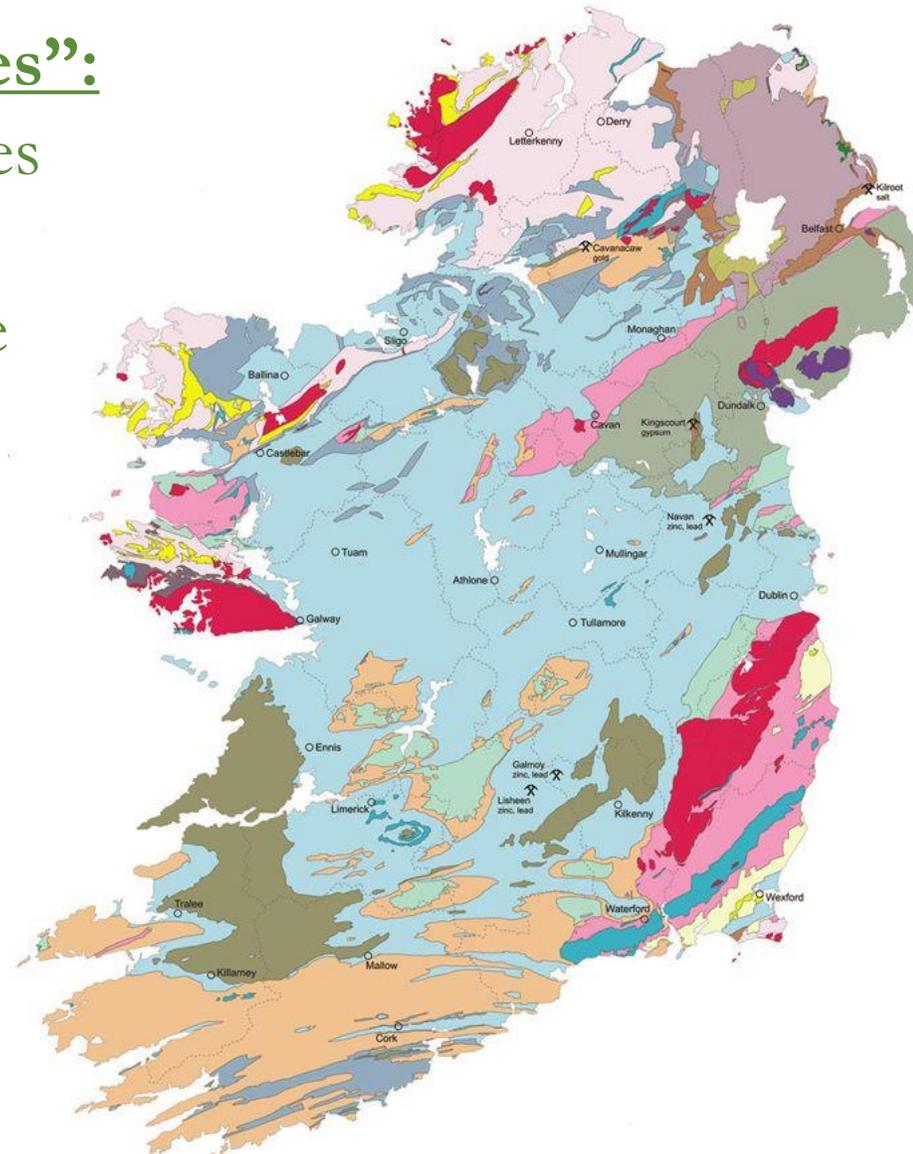
George Wilkinson (1814-1890)
*Practical Geology and ancient
Architecture of Ireland (1845)*

*“The **science of architecture**... may be considered as combining with appropriate design the conversion and fit application of the solid materials which compose and cover the surface of the globe...*

*This science, therefore, of all others, especially **requires an acquaintance with geological phenomena and a knowledge** of the various products of the simple inorganic masses **of rocks**...*

*These **are the materials which the architect has to employ, and in which... he has to embody his ideas**”. (Wilkinson 1845)*

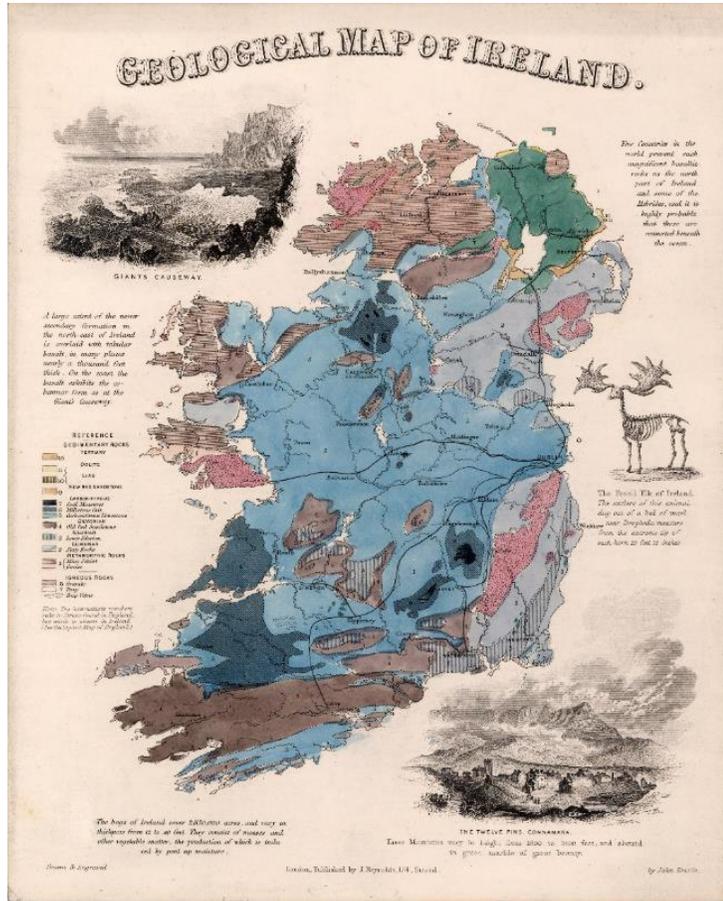
Irish “Marbles”: Host lithologies and Geological age



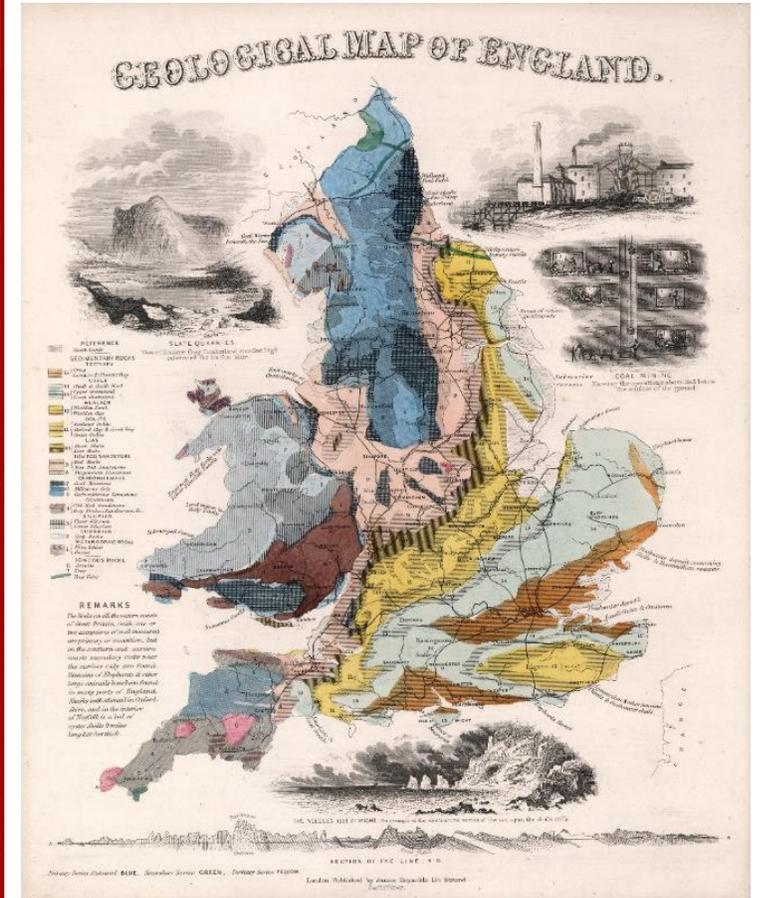
ERA	AGE	PERIOD	MAP COLOUR	MAIN ROCK TYPES
CENOZOIC	1.8	Quaternary*		
		Tertiary		Clay
	.65			Basalt
MEZOZOIC		Cretaceous		Chalk
	1.44	Jurassic		
	203	Triassic		Shale & limestone
	250	Permian		Sandstone 'New Red Sandstone'
	298			Sandstone & shale
PALAEOZOIC		Carboniferous		Limestone
	354			Sandstone & shale
		Devonian		Sandstone 'Old Red Sandstone'
	410	Silurian		Sandstone & shale
	440			Sandstone & shale
		Ordovician		Shale & sandstone, basalt & rhyolite
	495			
		Cambrian		Sandstone & slate Quartzite in above
PRECAMBRIAN*	545			Schist & gneiss Quartzite in above

*Precambrian and Quaternary not to scale.

Geological map of Ireland.
Published by James Reynolds (1850)



Geological map of England.
Published by James Reynolds (1849)



“For the sister kingdom is unusually rich in marbles, and has extensive quarries of dove-coloured, black, pink, mottled gray, bluish white, and other tints, though unfortunately but few of the quarries are worked” (Bell’s Weekly Messenger. May 31, 1858)



'... though the radical polychromy of the mid-nineteenth century diminished its [Irish black marble] central role in Irish building practice, its dark colour and rich fossilised composition retained its appeal until the present day'.

(Hand, 2019)

Marble Quarries of Kilkenny



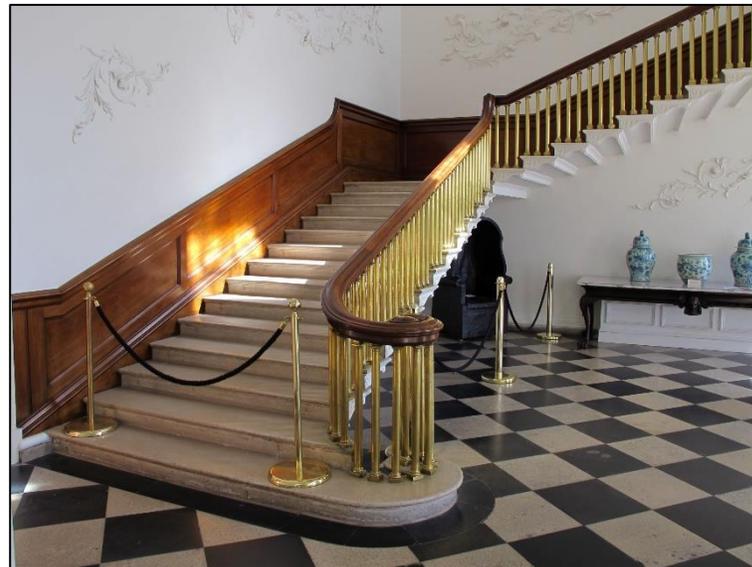
Articles fabricated by the Kilkenny Marble Works

Kilkenny black limestone chimneypiece in Ballinahinch Castle (1754). →

Pavement of coloured Irish marbles in the chancel of St. Canice's Cathedral, Kilkenny laid by the Irish Marble Company Ltd. between 1864 and 1870 during the restoration by architect Thomas Newenham Deane. ↓



Staircase hall in Castletown House (18th century) with Portland stone staircase and checkered Kilkenny black limestone and Portland stone floor and Kilkenny black limestone chimneypiece.



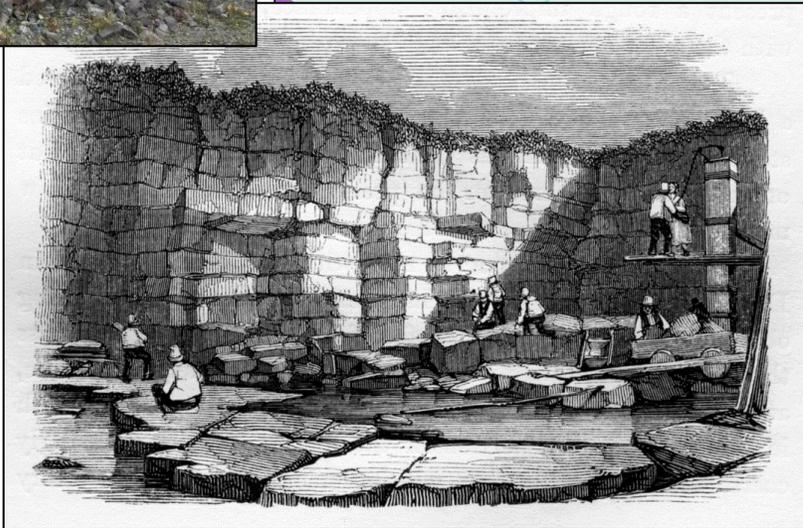
Marble Quarries of Galway



Menlough
Quarry
*
Anglingham
Quarry

Merlin Park
Quarry *
Merlin Park
(Doughiska)
Quarry *

- * Quarries
- Fraser's Map 1883 Railways
- WATER_RivNetRoutes
- Geology
 - Viscan Limestones
 - Lower Paleozoic



Present day ↑

Black limestone
quarry, Anglingham,
Co. Galway.

1845 →



Uses of Galway black limestone

Cathedral of Our Lady & St Nicholas,
Galway (1957)



Church of Saints Peter & Paul, Athlone
(1930)



St Joseph's Church, Clifden (1871)



Uses of Galway black limestone: Hamilton Palace (1840-45)

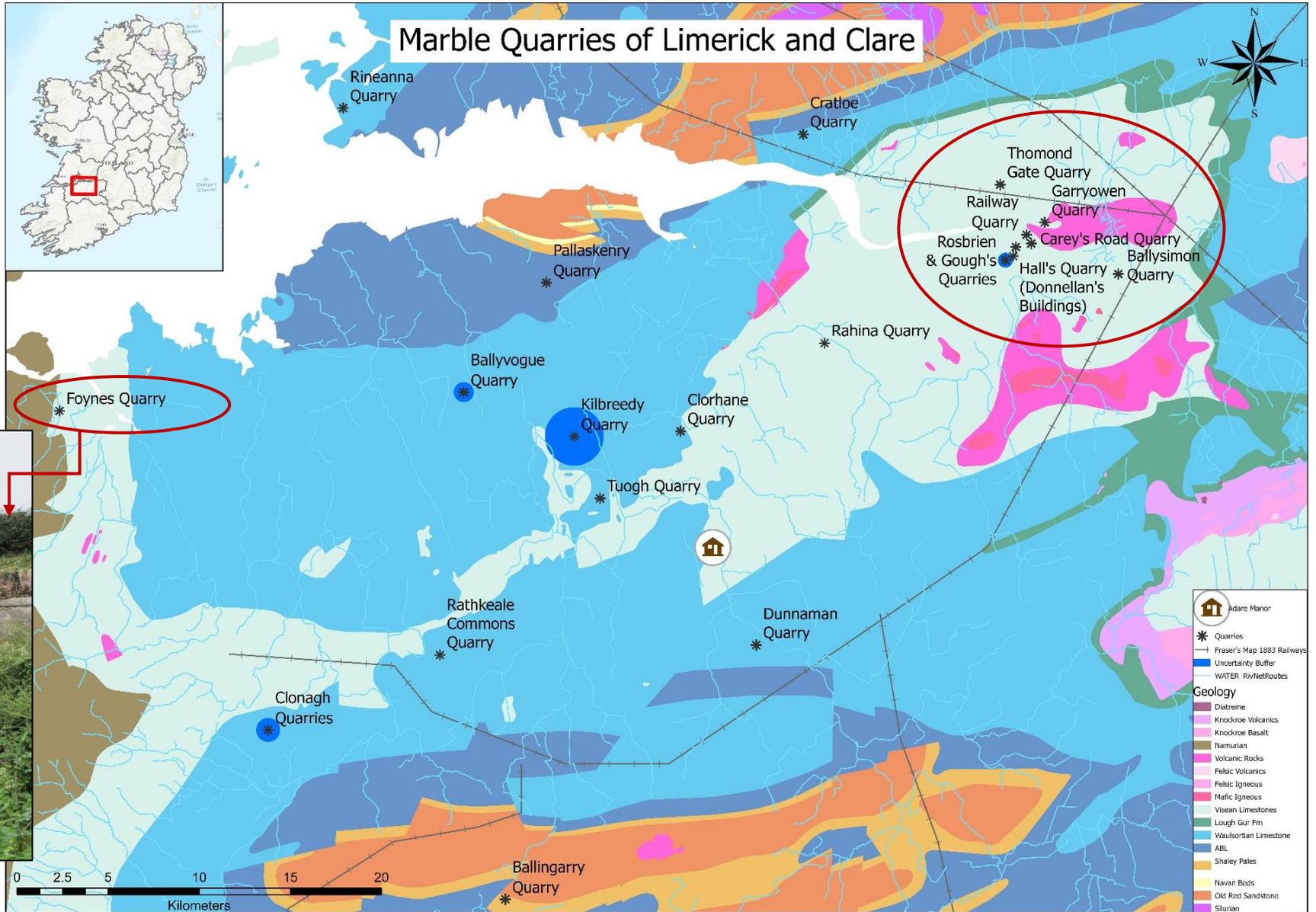


“the wide steps, large landings, and solid carved balustrades being formed of this marble, worked to a jet black polish; and doubtless when brilliantly lighted and surrounded by other accessories appertaining to a palatial residence, they will reflect on the rude labour of those who raised it, in ignorance of its destiny after it left its native bed, and also on the numerous persons and skilful artists to whom it has given employment in its passage to its present position”

(Wilkinson, 1845)

The black marble staircase at Hamilton Palace, 1840s, photographed for *Country Living* in 1919.

Marble Quarries of Limerick and Clare



**Uses of
Limerick
black
limestone**



Grey columns and arches of unpolished Thomond Gate limestone in the main hall of Adare Manor (mid-1800s).



Polished black bases of columns in the Church of Saints Peter and Paul in Cork city (1859) sourced from Foynes quarry.



This short account regarding the black marbles of Ireland is part of a wider study undertaken by the authors as the **STONEBUILT IRELAND** project, which encompasses all the major building and decorative stone formally quarried and fabricated in Ireland. This research sheds light on the importance of Ireland's natural stone resources and explores the quarry locations, ownership and extraction methods, together with manufacturing processes and applications of stone in historic heritage buildings and monuments.



OPW Oifig na nOibreacha Poiblí
Office of Public Works



Trinity College Dublin
The University of Dublin

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