
The limestones of Scotland

The limestones of Scotland [Volume 1]

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(Front cover)

Preface

An investigation of the limestone resources of Scotland has been proposed for many years, but the ease with which supplies could for most purposes be imported from England and Wales was such that there was no sense of urgency. In 1939, however, when war conditions supervened, and it became obvious that local supplies of lime or limestone for agricultural and other work would be invaluable, the investigation was pressed forward. The Macaulay Institute for Soil Research was at that time under the direction of Dr. W. G. Ogg, who agreed very willingly to co-operate with the Geological Survey by having all the necessary chemical work done in the laboratories of the Institute, by Dr. A. Muir and Mr. A. G. M. Hardie.

All the limestones of known importance and most others of potential value were examined or re-examined in the field; and a series of pamphlets (Wartime Pamphlet No. 13, Parts I to VIII) was published giving a description of the character, occurrence, distribution and accessibility of every limestone which might conceivably be of economic value. These descriptions were accompanied by records of the analyses done at the Macaulay Institute.

Most of the samples for analysis were selected by Survey Officers to represent the bulk composition of the limestone that would be obtained during commercial exploitation. In the case of working quarries and mines, sampling was at all times facilitated by the ready co-operation of the owners and lessees, and we record with pleasure our thanks for their assistance.

As this work progressed it became obvious that a more general geological discussion of its results would be advantageous; for the local and very detailed treatment adopted in the pamphlets was primarily designed to show where in any given district limestone was available, and to indicate which of the former sources of limestone had been worked out, were no longer accessible, or were not of sufficiently good quality to be worth working under modern conditions.

The preparation of this general account of Scottish limestone resources has been in charge of Dr. T. Robertson. The treatment is on a county basis, and the following authors are responsible for the most important county descriptions: Dr. Robertson for Fife (with Mr. D. Haldane), Inverness (Islands), Renfrew, Ross and Cromarty (with Mr. J. Knox), Shetland (with Mr. D. Haldane), Stirling, Sutherland (with Mr. J. Knox), West Lothian: Dr. Simpson for Ayr, Dumfries, East Lothian, Lanark, Midlothian, Peebles, Roxburgh; Dr. Anderson for Aberdeen, Argyll, Banff, Caithness, Inverness (Mainland). Perth.

W. F. P. McIntock.

Director, Geological Survey Office, Exhibition Road, South Kensington, London, S.W.7 December, 1998

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Carboniferous

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Banff

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Berwick

Bute

Caithness

Clackmannan

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Ballachulish Limestone, Kinlochlaggan Limestone, Mid-Strathspey Limestones

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Kirkcudbright

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Orkney

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The limestones of Scotland: chemical analyses and petrography [Volume 2]

Special reports on the mineral resources of Great Britain vol. 34

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Chemical analyses by A. Muir, B.Sc., Ph.D. and H. G. M. Hardie, Ph.D., A.R.I.C.

Spectrographic determinations of trace elements by R. L. Mitchell, B.Sc., Ph.D., F.R.I.C., at the Macaulay Institute for Soil Research

Petrography by J. Phemister, M.A., D.Sc.

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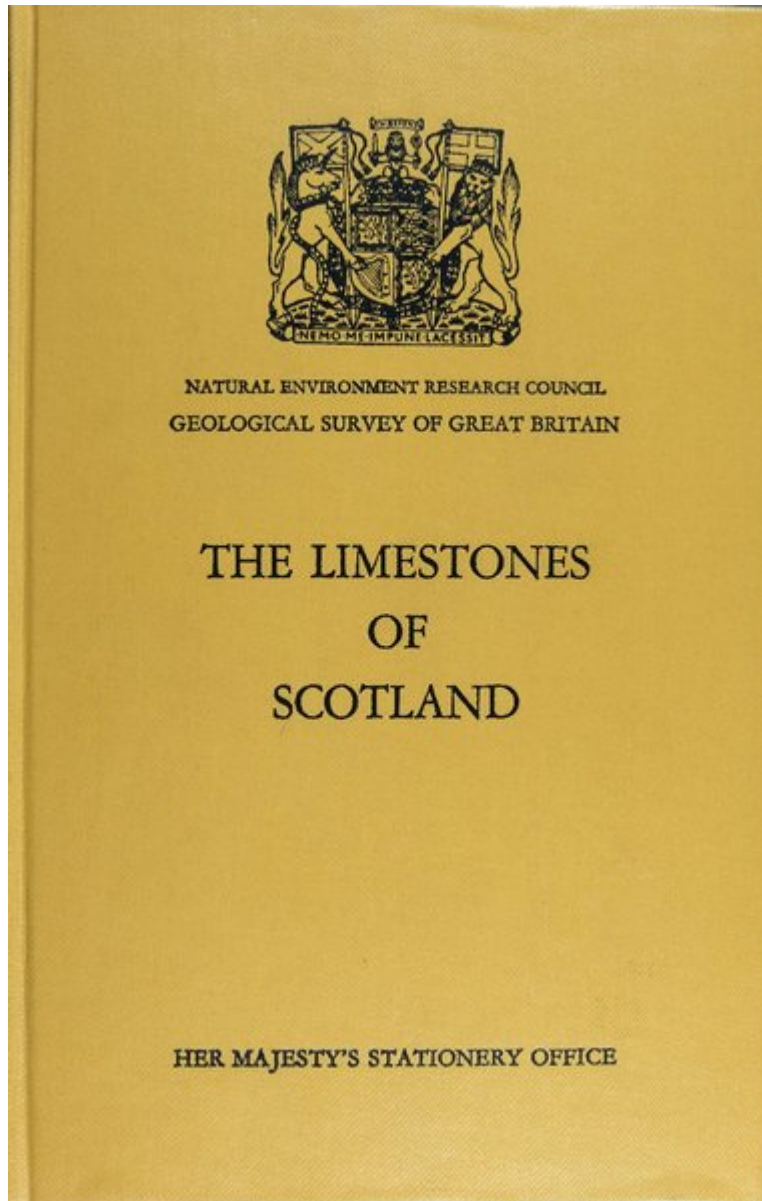
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An investigation of the limestone resources of Scotland was undertaken in 1939 by the Geological Survey; all limestones of known importance and most others of potential value were examined or re-examined in the field. Samples to represent the bulk composition of the stone which would be obtained in commercial exploitation were collected, mostly by Survey officers, and chemical analyses were made by the Macaulay Institute for Soil Research. As the work progressed a series of pamphlets —Wartime Pamphlet No. 13, Parts I to VIII—was issued showing the results of the analyses done at the Macaulay Institute and giving brief notes on the character, occurrence, distribution and accessibility of every limestone which might be of economic value. The edition was a small one and most parts of the pamphlet are now out of print.

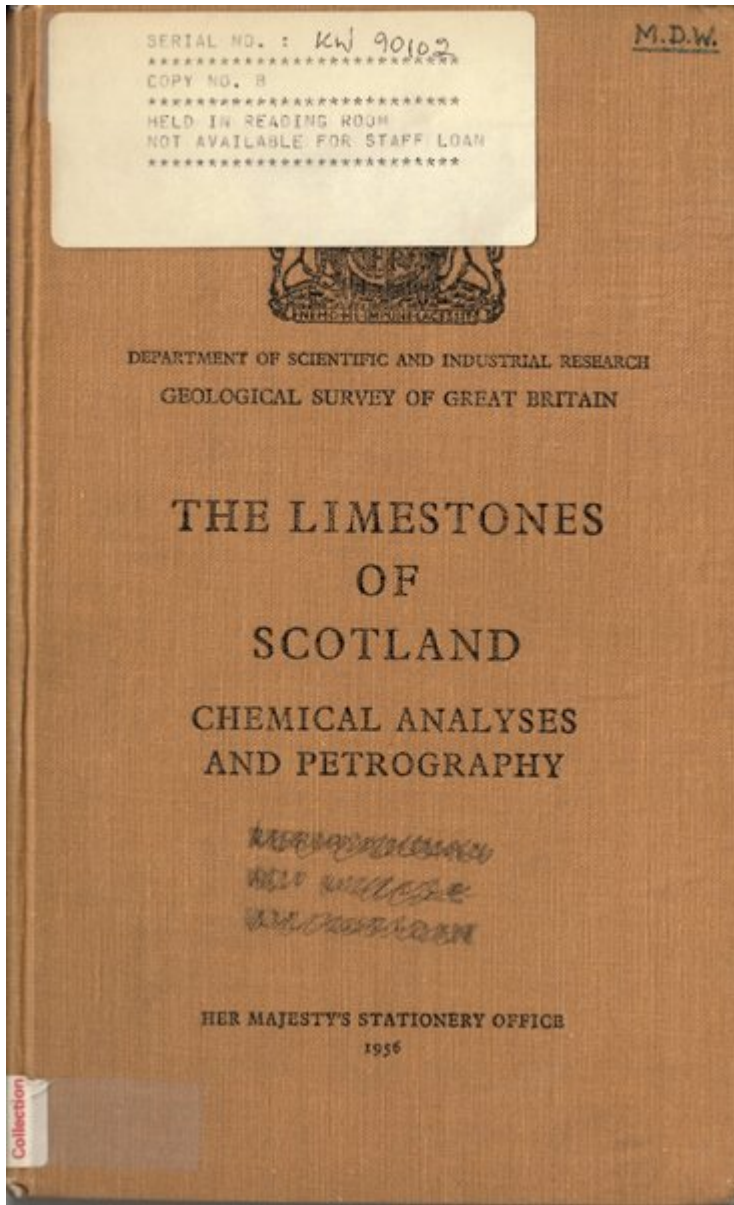
A more general and systematic discussion of the results of the investigation was prepared after the war and published in 1949 as a memoir 'The Limestones of Scotland', forming volume XXXV of the series of Special Reports on the Mineral Resources of Great Britain. In this memoir the stratigraphical range of limestones and dolomites in Scotland, and their general chemical characteristics in relation to each major geological series or formation were described, and details of the limestone and dolomite resources, arranged on a county basis, were given. The present volume is supplementary to that memoir and records the chemical analyses and the petrographical descriptions of the rocks studied during the

investigation. Its preparation was put in hand and editing begun by Mr. T. H. Whitehead when Assistant Director in Scotland; later, Dr. J. Phemister has acted as editor. Save for a few carried out in the Geological Survey laboratory by Mr. C. O. Harvey and Mr. W. F. Waters and some early analyses by the late Dr. W. Pollard, the chemical analyses are by Dr. A. Muir and Dr. H. G. M. Hardie of the Macaulay Institute for Soil Research. Dr. Hardie has also contributed a chapter on the methods of chemical analysis. The spectrographic analyses of trace elements were made at the Macaulay Institute by Dr. R. L. Mitchell who has also furnished notes on the methods and results. The petrographical chapters and detailed descriptions are by Dr. J. Phemister.

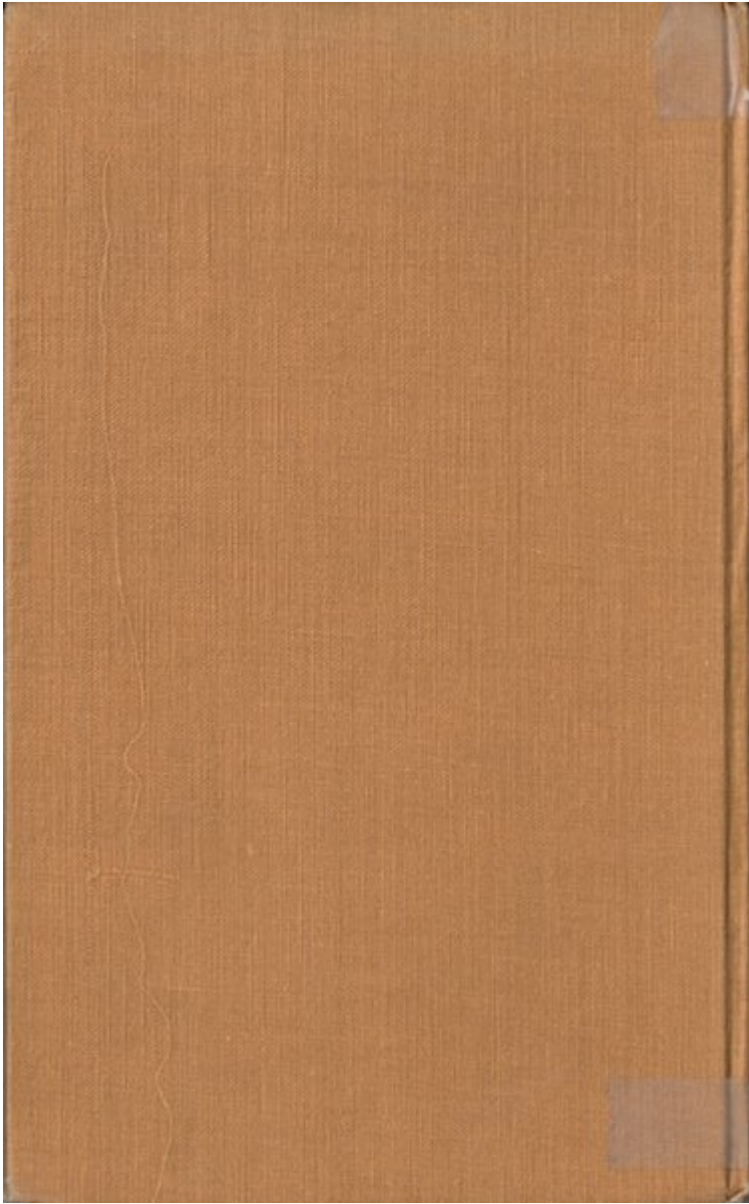
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Front cover. Limestones of Scotland.



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