# AN ELEMENTARY TREATISE ON QUARTZ AND OPAL

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An elementary treatise on quartz and opal by George William Traill

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# **GEORGE WILLIAM TRAILL**

# AN ELEMENTARY TREATISE ON QUARTZ AND OPAL



## ELEMENTARY TREATISE

ON

# QUARTZ AND OPAL,

INCLUDING THEIR VARIETIES:

WITH A NOTICE OF THE FRINCIPAL FOREIGN AND BRITISH LOCALITIES IN WHICH THEY OCCUR.

BY

# GEORGE WILLIAM TRAILL, F.G.S.E.,

EDINBURGH.



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# This Elementury Treatise

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HIS FAITHFUL AND OBLIGED FRIEND,

THE AUTHOR.

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### PREFACE.

THE minerals Quartz and Opal, owing to their great variety and beauty, hold a prominent place in most collections, and are well suited to form an independent treatise. A work of the kind must necessarily, to a certain extent, be compiled from general sources, yet a considerable amount of the following Treatise will be found strictly original, the Author having devoted his attention principally to this branch of the science; and care has been taken to assert nothing as fact but what has been well authenticated.

The Author is much indebted to the very complete lists of British localities contained in Greg and Lettsom's "Manual of the Mineralogy of Great Britain and Ireland;" also, personally, to Professor Heddle of St Andrews, for much general information, and for his kindness in affording frequent access to his extensive and valuable collection of minerals.

EDINEUBOH, October 1866.