



Glacial Systems and Landforms

A Virtual Interactive Experience

Ryan C. Bell

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Description

An interactive guide to the glacial world, including detailed instructions on how to create your own Google Earth virtual tour of glacial landforms.

“This is an invaluable teaching tool about glaciers, landforms and climate history. It concisely and clearly explains complex material; its chapter reviews highlight critical points; and its Google Earth exercises facilitate excellent experiential learning. I will use this book to prepare my students for their study abroad experience in Antarctica!”

—*Dr James Spiller, Associate Professor of History, The College at Brockport, State University of New York*

Using Google Earth, this guide offers a virtual interactive experience in which students can visit and explore glacier environments in 3D. Ryan C. Bell demonstrates how the explosion of satellite imagery and remote sensing technologies has further helped reveal the hidden truths of glacial environments by providing new methods of mapping and measuring glacial ice.

Taking advantage of the recent proliferation in high-resolution satellite imagery, this guide includes a series of satellite images from NASA’s Earth Observatory. By studying these images students will not only start to recognize the patterns and processes commonly found within glacial landscapes, but will also develop skills in map analysis and interpretation. Such guided inquiry activities range from calculating the Mendenhall Glacier’s rate of melting to identifying erosional landforms in the Swiss Alps.

Included within this book is a guided final project in which students have the opportunity to develop and present a Google Earth tour of various glacial landforms, allowing them to “fly” from one location to the next. The volume also reveals how past and present glaciations profoundly influence almost every aspect of life on Earth and can provide answers and solutions to current climate problems.

Readership: This guide is suitable for advanced high school science students. It is also suitable for undergraduate courses in geology, environmental studies and physical geography.

Contents

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