

# Landscape Evolution Encyclopedia Article

## Landscape Evolution

The following sections of this BookRags Literature Study Guide is offprint from Gale's For Students Series: Presenting Analysis, Context, and Criticism on Commonly Studied Works: Introduction, Author Biography, Plot Summary, Characters, Themes, Style, Historical Context, Critical Overview, Criticism and Critical Essays, Media Adaptations, Topics for Further Study, Compare & Contrast, What Do I Read Next?, For Further Study, and Sources.

(c)1998-2002; (c)2002 by Gale. Gale is an imprint of The Gale Group, Inc., a division of Thomson Learning, Inc. Gale and Design and Thomson Learning are trademarks used herein under license.

The following sections, if they exist, are offprint from Beacham's Encyclopedia of Popular Fiction: "Social Concerns", "Thematic Overview", "Techniques", "Literary Precedents", "Key Questions", "Related Titles", "Adaptations", "Related Web Sites". (c)1994-2005, by Walton Beacham.

The following sections, if they exist, are offprint from Beacham's Guide to Literature for Young Adults: "About the Author", "Overview", "Setting", "Literary Qualities", "Social Sensitivity", "Topics for Discussion", "Ideas for Reports and Papers". (c)1994-2005, by Walton Beacham.

All other sections in this Literature Study Guide are owned and copyrighted by BookRags, Inc.

# Contents

<a href="#">Landscape Evolution Encyclopedia Article.....</a>	<a href="#">1</a>
<a href="#">Contents.....</a>	<a href="#">2</a>
<a href="#">Landscape Evolution.....</a>	<a href="#">3</a>

# Landscape Evolution

A landscape is the cumulative product of interaction among dynamic geological processes over time. A region's **topography** and suite of characteristic **landforms** are, thus, clues to its geologic history. For example, the landscape of rugged, linear **mountain chains**, deep canyons, dry lake beds, and mesas in the United States' **desert** southwest tells a geologic story of fluvial and Eolian **erosion** acting during a period of increasing climatic aridity while plate tectonic forces caused crustal extension and uplift. Earth processes carve a landscape; dynamic interactions between processes control its **evolution** over time.

The earth's internal heat drives plate tectonic motion and influences the related processes of crustal uplift, magmatic intrusion, volcanism, crustal deformation, and seismic activity. External heat from the **Sun** forces circulation of Earth's atmosphere and hydrosphere, which in turn drives sedimentary processes such as weathering, erosion, transportation, and deposition. These forces, interacting under the influence of **gravity**, shape Earth's surface.

Earth processes interact in complex feedback systems. A change in the rate or directional alignment of one process—for example, an increase in rainfall or the abandonment of a river channel—may start a cascade of compensatory changes throughout a region. Plate-tectonic mountain-building and erosion interact in a negative feedback system that regulates the elevation of continental mountain belts. Elevation interacts with **temperature** and rainfall, the components of **climate**, to regulate rates of erosion. Climate interacts with vegetation to create soils. A balance between **precipitation** and temperature maintains a glacier. These are just a few examples of the dynamic processes that shape a regional landscape, and of the interactions that remold an existing array of landforms over time.

## See Also

Eolian Processes; Weathering and Weathering Series