Longshore Drift Encyclopedia Article

Longshore Drift

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

Longshore Drift Encyclopedia Article.....1

Contents.....2

Longshore Drift.....3

Longshore Drift

Longshore drift is the transport of **sand** along a beach by waves impinging or breaking at an angle to the beach. Longshore drift occurs when a wave breaks, lifts sand into suspension, and then throws a pulse of sand-bearing **water** (swash) up the slope of the beach. If the wave breaks on the beach at an angle, the swash travels simultaneously up the beach and along the beach in the direction of the wave's original motion. Friction and **gravity** slow and halt the upward progress of the swash, and it begins to arc down the beach as backwash (still moving, though more slowly, along the beach). Suspended sand settles out of the backwash when it reaches the waterline and mixes with the relatively stationary water there.

Relative to the beach surface, the path of a typical grain of sand suspended by a breaking wave is therefore a lopsided parabola: up, over, and down. Some grains will be moved similarly by the next wave, or the next, again and again, and so are transported along the beach by steps.

Beaches are continually shaped and shifted by long-shore drift. At Cape Cod, for example, long—approximately straight—wave-fronts from the east impinge on a bulging shoreline. Along the northern half of the Cape these westbound waves strike the beach at an angle that moves sand northward toward Provincetown. To the south, the same waves strike at angle that moves sand southward, toward the "elbow" of the Cape. In the last hundred years or so, consequently, the ends of the Cape have gained land while the central beach has receded.

Longshore drift is one of the few processes that can transport sand for long distances along a slope at a fixed altitude.

See Also

Beach and Shoreline Dynamics