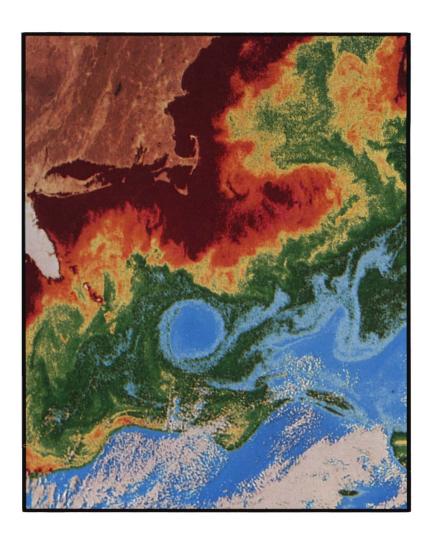


**PLATE 1.** An example of a hopper-type split-hull dredge. The dredge is an outgrowth of the bottom-dump barge used for land reclamation and the cost-effective placement of rock rubble in the deep-water core sections of large breakwaters.

(See: P. Bruun, Cost Effective Coastal Protection With Reference to Florida and the Carolinas, U.S.A., page 54)

**PHOTO 4** (facing page). A Nimbus-7 Coastal Zone Color Scanner (CZCS) photograph showing a portion of the U.S. Atlantic coast in the vicinity of Cape Cod, Massachusetts (upper center). The false color images have been enhanced digitally to assign color to levels of a calculated pigment concentration [chlorophyll a + phaeopigments a (mg m<sup>-3</sup>)]. Increasing concentrations of phytoplankton (chlorophyll a) have the effect of changing the color of the water to green hues from the deep blue of its pure state. Still greater concentrations of phytoplankton pigments are represented by the darker reddish hues closer to the coast. The western margin of the Gulf Stream and a blue-colored warm core ring (center) are clearly marked by the color changes to greenish and reddish hues near the shore.

Nimbus CZCS data are available from the Satellite Data Services Division (SDSD) of the National Environmental Satellite Data and Information Service (NESDIS) of the National Oceanographic and Atmospheric Administration [Washington, D.C. 20233; Phone (301) 763-8188]. The SDSD maintains an archive of all pictures taken with the CZCS. More than 40,000 images are stored in chronological order.



**PHOTO 4.** Coastal Zone Color Scanner photograph of northeastern U.S. Atlantic coast near Cape Cod, Massachusetts.

PHOTO 5 (facing page). LANDSAT (19 JAN 1976) color infra-red space photograph of a portion of coastal southwestern Western Australia. The prograding shoreline of the Swan Coastal Plain (light-colored area lying seaward of the redcolored Jarrah forest on the crystalline-based Darling Plateau) features spectacular strandplain development. The rhythmic shore-parallel beach-ridge topography is similar to many others in the world except that the ridges are carbonaterich (35-90% CaCO<sub>2</sub>). Radiocarbon dates indicate that the deposits are less than 6,500 years old, i.e. they formed during the period after postglacial sea level reached its maximum. Sedimentary accumulation (following in plan a large logspiral curve around Geographe Bay) appears to have been fairly uniform, although some depositional sequences may have been cyclic. Several shoreparallel lagoons (light blue-colored areas within the coastal plain) mark major stages in the sequential development of Holocene abandoned shorelines. (This photo [I.D.# 822520118250600-5] and others are available from: EROS Data Center, Sioux Falls, South Dakota 57198, USA).

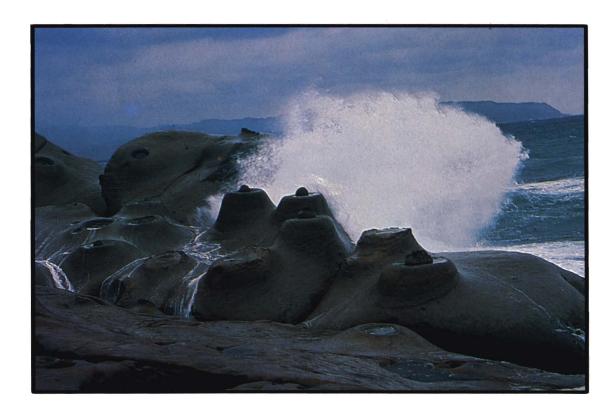


## COASTAL PHOTOGRAPH



**PHOTO 5.** LANDSAT color infra-red space photograph of the southern portion of the Swan Coastal Plain, southwestern coast of Western Australia.

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**PHOTO 6.** Locally known as "candle rocks," these erosional features are located at Yehliu on the northern coast of Taiwan. They are formed by concretions in the sandstone of the early Miocene Taliao Formation.

PHOTOGRAPHY BY MAURICE L. SCHWARTZ