Age of the Ocean Floor

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The color image representing crustal age was derived from a digital age grid of the ocean floor with a thickness of 1 mm, using standard techniques. The image shows the age of the ocean floor in millions of years, with lighter colors representing older ages and darker colors representing younger ages. The image is a result of a collaboration between the National Geophysical Data Center and the Scripps Institution of Oceanography.
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The color image representing crustal ages was created from a digital age grid of the ocean floor with a grid node interval of 0.1 degrees using a self-consistent set of global isochrons and associated plate reconstruction poles. The age at each grid node was determined by linear interpolation between adjacent isochrons in the direction of spreading. Ages for ocean floor between the oldest identified magnetic anomalies and continental crust were interpolated by estimating the ages of passive continental margin segments from geological data and published plate models. The quality of the grid is subject to variations depending on data coverage. The crustal age coloration was then applied to relief images derived from NGDC topographic data. Light gray areas are sediment-covered continental shelf materials; the darker gray color indicates land. Age-color overlay image by R. Dietmar Mueller, University of Sydney; combined age-relief images by Peter W. Sloss, NOAA-NESDIS-NGDC.