ON THE FRONT COVER: Earth as seen from space. Elektro-L weather satellite image collected May 2011 by the Russian Federal Space Agency Research Center for Earth Operative Monitoring (NTS OMZ). Image was processed by James Drake (http://infinity-imagined.tumblr.com/) and can be found at http://planet-earth.ca.

Inset images (top to bottom): Cartoon illustrating the range of deep-Earth processes that likely influence the long-term carbon cycle. See Figure 1 in Chapter 7 by Dasgupta. Predicted high-pressure orthorhombic structure of CaCO₃. See Figure 14b in Chapter 3 by Oganov et al. The biomineralized calcium carbonate eye lenses of the trilobite Erbenochile erbeni. See Figure 5 in Chapter 4 by Hazen et al. Carbonatite lava flow from an eruption of Oldoinyo Lengai, Tanzania. Photo courtesy of Tobias Fischer.

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