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COVER Scanning tunneling microscope image of a high-transition temperature film of sputtered $\text{YBa}_2\text{Cu}_3\text{O}_7$ on MgO showing spiral grains with step heights of about one unit cell (12 Å). The perspective-shaded plot was generated with a computer program called SCOPE; colors represent increasing altitude from blue to red-violet. See page 1587. [Image by Melvin L. Prueitt, computer graphics group, and data by Marilyn Hawley, MST-7, Los Alamos National Laboratory]

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