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On the Cover: In this issue, cotton (*Gossypium hirsutum*) fibers are shown by cryo-field emission-scanning electron microscopy (cryo-FE-SEM) and other imaging techniques to form tissue-like bundles during elongation (see Singh et al., pp. 684–699). A specialized outer layer of the primary cell wall fuses fibers into bundles, which then become tightly packed and organized within the boll. The view of the fiber surface that was appressed to the inner boll wall (in the large cryo-FE-SEM image) was revealed when a window (portrayed symbolically in the upper left) was cut in the wall of an 11-DPA cotton boll just prior to rapid freezing. At the onset of secondary wall deposition, fiber individuality is restored by developmentally controlled and spatially targeted cell wall hydrolysis. Contributors to this photomontage were Mark Grimson (Texas Tech University), Candace Haigler and Richard Glick (North Carolina State University), and David Livingston (USDA-ARS, Raleigh, NC).

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^[C] Some figures in this article are displayed in color online but in black and white in the print edition.

^[W] Indicates Web-only data.

^[OA] Open Access articles can be viewed online without a subscription.