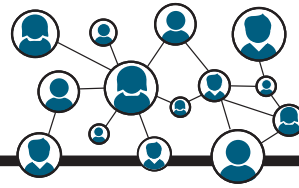


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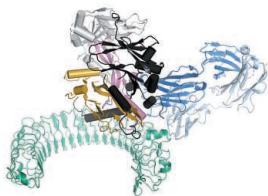
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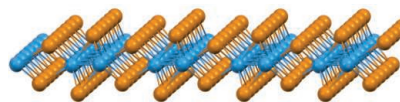
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ON THE COVER



A paleontologist in Canada's Kootenay National Park uses a rock saw to extract slabs bearing Cambrian fossils. In 1909, 40 kilometers up this valley, paleontologists discovered the Burgess

Shale, a 500-million-year-old formation that records animals' soft features, such as eyes and guts. Today, paleontologists have shown that this type of preservation extends across many kilometers, opening up new vistas of the dawn of modern animals. See page 880. Photo: John Lehmann

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