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# ON THE WEB THIS WEEK

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Read Reports on self-assembling peptide cages, explaining a missing spleen, and more.



#### COVER

Reconstruction of a ~2-million-year-old *Australopithecus sediba* skeleton (height: ~1.3 meters) based on fossils from the Malapa Hominin 1 (MH1), MH2, and MH4 specimens from Malapa, Gauteng, South Africa. Brown indicates discovered fossils. *Au. sediba* exhibits a mosaic morphology distinct from that of other australopiths and early *Homo*. See pages 132 and 163, as well as www.sciencemag.org/extra/sediba.

Reconstruction: Peter Schmid and casting technicians at the University of the Witwatersrand's Evolutionary Studies Institute; Photo: Brett Eloff, courtesy of Lee R. Berger and the University of the Witwatersrand

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177 Direct Measurements of Conformer-Dependent Reactivity of the Criegee Intermediate CH<sub>3</sub>CHOO C. A. Taaties et al.

> The reaction kinetics of an intermediate implicated in atmospheric ozone chemistry has been measured in the laboratory.

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A synthetic route to a complex natural product could foster preparation of analogs for exploratory medicinal chemistry.

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Speleothems Reveal 500,000-Year History of Siberian Permafrost

A. Vaks et al.

Siberian caves recorded the history of permafrost occurrence during the past 450,000 years.

A Long-Lived Relativistic Electron Storage Ring Embedded in Earth's Outer Van Allen Belt

> D. N. Baker et al. NASA's Van Allen Probes revealed an additional, dynamic belt of relativistic particles surrounding Earth.

A Guanosine-Centric Mechanism for RNA **Chaperone Function** 

J. K. Grohman et al.

RNA chaperones promote assembly of complex RNA structures by binding to and "neutralizing" guanosine bases.

A Histone Acetylation Switch Regulates H2A.Z Deposition by the SWR-C Remodeling Enzyme

S. Watanabe et al.

A modification on histone H3 in a nucleosome favors the swapping out of one type of H2A histone for another.

Latency-Associated Degradation of the MRP1 Drug Transporter During Latent **Human Cytomegalovirus Infection** M. P. Weekes et al.

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Injectable, Cellular-Scale Optoelectronics with Applications for Wireless Optogenetics T. Kim et al.

Miniaturized and implantable light-emitting diodes offer precise and flexible control of neurons, when used in combination with optogenetics.

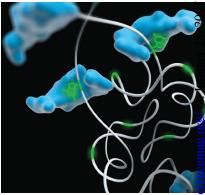
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