

COVER

A bearded, horned terra cotta mask, about 5 centimeters in height, found at Mohenjo Daro, Pakistan. The artifact, which may have been attached to a puppet, offers a rare glimpse into the 5000-year-old Indus civilization. See page 1276.

Image: J. M. Kenoyer/Courtesy of the Department of Archaeology and Museums, Government of Pakistan

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www.sciencexpress.org

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BREVIA: Serotonin Modulates Behavioral Reactions to Unfairness M. J. Crockett, L. Clark, G. Tabibnia, M. D. Lieberman, T. W. Robbins Individuals with low levels of brain serotonin are less likely to accept an unfair offer of money from other players in a laboratory game.

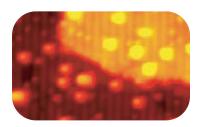
10.1126/science.1155577

ECOLOGY

Animal Versus Wind Dispersal and the Robustness of Tree Species to Deforestation

D. Montoya, M. A. Zavala, M. A. Rodríguez, D. W. Purves In Spanish forests, tree species with seeds that are dispersed by animals are more resilient in a fragmented forest than those with wind-dispersed seeds.

10.1126/science.1158404



CHEMISTRY

The Role of Interstitial Sites in the Ti3d Defect State in the Band Gap of Titania S. Wendt et al.

Scanning tunneling microscope data and calculations show that near-surface titanium sites, not bridging oxygen vacancies, determine the useful electronic properties of TiO₂. 10.1126/science.1159846

EVOLUTION

Natural Selection Shapes Genome-Wide Patterns of Copy-Number Polymorphism in Drosophila melanogaster J. J. Emerson, M. Cardoso-Moreira, J. O. Borevitz, M. Long

A high-resolution analysis of gene copy number in *Drosophila* species shows that most variations are deleterious but a few for resistance to toxins are being positively selected. 10.1126/science.1158078

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full text at www.sciencemag.org/cgi/content/full/320/5881/1291a

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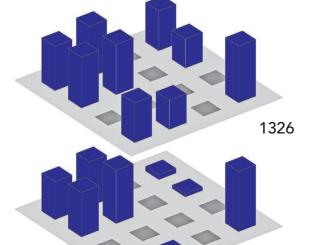
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P. Neumann et al.

Nitrogen vacancy centers in diamond are used to generate and detect 2-qubit and 3-qubit entangled states at room temperature.

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Strong Dissipation Inhibits Losses and Induces
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N. Syassen et al.

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Intersection of the RNA Interference and X-Inactivation Pathways

Y. Ogawa, B. K. Sun, J. T. Lee

Two noncoding RNAs required for X-chromosome inactivation in female mice form a duplex that is cleaved by the RNA interference machine, indicating a link between X inactivation and RNA interference.

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High Impulsivity Predicts the Switch to Compulsive 1352 Cocaine-Taking

D. Belin et al.

Rats that are more impulsive, but not those that seek novelty, tend to compulsively consume cocaine and become addicted.

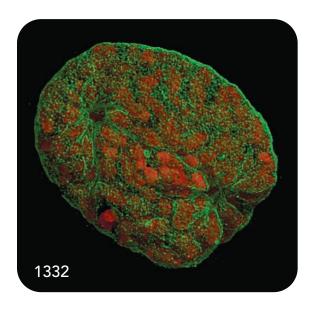
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SCIENCE (ISSN 0036-8075) is published weekly on Friday, except the last week in December, by the American Association for the Advancement of Science, 1200 New York Avenue, NW, Washington, DC 20005. Periodicals Mail postage (publication No. 484460) paid at Washington, DC, and additional mailing offices. Copyright © 2008 by the American Association the Advancement of Science. The title SCIENCE is a registered trademark of the AAAS. Domestic individual membership and subscription (51 issues): \$144 (\$74 allocated to subscription). Domestic institutional subscription (51 issues): \$770; Foreign postage extra: Mexico, Caribbean (surface mail) \$555; other countries (air assist delivery) \$85. First class, airmail, student, and emeritus rates on request. Canadian rates with GST available upon request, GST #1254 88122. Publications Mail Agreement Number 1069624. Printed in the U.S.A.

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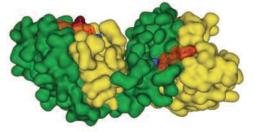
HIGHLIGHTS FROM OUR DAILY NEWS COVERAGE

Smallest Extrasolar Planet Portends Other Earths Newly discovered world only three times as large as ours, orbits tiny sun.

Rodent Bones of Contention

Rat fossils may settle dispute over when humans reached New Zealand.

Mutation Spells Bad News for Breast Cancer Patients Defect in NQO1 gene dramatically reduces survival rates, responsiveness to treatment.



Dimeric GTPase domains of the kinase LRRK2.

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PERSPECTIVE: ROCO Kinase Activity Is Controlled by Internal GTPase Function

B. Weiss

The guanosine triphosphatase (GTPase) domain of leucine-rich repeat kinase 2 (LRRK2) mediates LRRK2 homodimerization and controls its protein kinase activity.

PERSPECTIVE: Dual Functions of the KNOTTED1 Homeodomain—Sequence-Specific DNA Binding and Regulation of Cell-to-Cell Transport N. Bolduc, S. Hake, D. Jackson A single domain confers different subcellular localizations

TEACHING RESOURCE: Physiological and Pathological Actions of Calpains in Glutamatergic Neurons

J. Liu, M. C. Liu, K. K. W. Wang

of the homeodomain protein KN1.

A pair of animations illustrates how neuronal calpains contribute to synaptic plasticity or neuronal toxicity.



Iraq and Afghanistan veterans return to campus.

SCIENCE **CAREERS**

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Student-Veterans Come Marching Home: Their Return to Studies

1. Kotok

A group of Iraq and Afghanistan veterans tells about their new lives as science and engineering students.

Student-Veterans Come Marching Home:

A New G.I. Bill for Scientists

A. Kotok

Can the proposed G.I. Bill do for Iraq and Afghanistan veterans what the original G.I. Bill did for World War II veterans?

Taken for Granted: Over Here

B. L. Benderly

Science and technology fields offer professional opportunities for veterans who choose wisely.

June 2008 Funding News

GrantsNet Staff

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cocaine addiction, new insights
into the Indus civilization,
and more.





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Science 320 (5881), 1257-1366.

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