

Re: Article: brain & tools; Well-tooled Primates

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- *From:* "Chapstick" <chapstick@xxxxxxxxxx>
 - *Date:* Wed, 21 Feb 2007 18:23:13 -0500
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hi

this post did not show up on Google Groups, that i use at work? but it is on my rr server... --chap

"Chapstick" <chapstick@xxxxxxxxxx> wrote in message [news:45dbb6db\\$0\\$16668\\$4c368faf@xxxxxxxxxxxxxxxxxxxx](mailto:news:45dbb6db$0$16668$4c368faf@xxxxxxxxxxxxxxxxxxxx)

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<http://www.sciencenews.org/index.asp>

(article available to subscriber's only... by the way.. bruce bower is a great writer...--chap)

Well-Tooled Primates

The evolutionary roots of our technological prowess may run deep
Bruce Bower

In a lab in Japan, a macaque monkey eyes a small, plastic rake and performs an act that his wild brethren would never dream of doing. The animal grasps the utensil by its handle and extends it toward a food pellet placed beyond his reach. Slowly, the monkey manipulates the rake so that it drags the morsel close enough that he can grab it and pop it into his mouth. Researchers in the lab suspect that macaques possess an innate neural capacity for manipulating objects that encourages tool use, even if such behavior occurs rarely in the wild.

STONE STRUCK. A researcher demonstrates how to use one stone to pound flakes off another, yielding a sharpened edge in a style developed by our Stone Age ancestors.
Stone Age Inst.

Meanwhile, at Indiana University in Bloomington, six people smash rocks together in the name of science. At the request of anthropologist Dietrich Stout, each participant chooses a pair of stones from a selection on a cart and strikes them together, again and again, trying to create sharp flakes suitable for use as cutting tools. After four 1-hour sessions, the

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budding toolmakers produce sharp flakes that look much like the stone tools made by human ancestors as many as 2.5 million years ago.

Brain scans obtained from those participants before and after the toolmaking sessions and from the monkeys as they use the plastic rakes show increases in activity in the same brain area. Furthermore, no activity emerges in the human toolmakers' neural regions that control planning and memory, intellectual faculties often considered crucial to the evolution of toolmaking.

These related findings support the theory that the evolution of neural areas devoted to o