

SCIENCE NEWS®

The Weekly Newsmagazine of Science

A Science Service Publication
Volume 132, No. 21, November 21, 1987

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Subscription Department
231 West Center Street, Marion, Ohio 43305

Subscription rate: 1 yr., \$34.50; 2 yrs., \$58.00.
(Foreign postage \$6.00 additional per year.) Change of
address: Four to six weeks' notice is required. Please
state exactly how magazine is to be addressed.
Include zip code. For new subscriptions only call
(t) 800-247-2160. Printed in U.S.A. Second class
postage paid at Washington, D.C., and additional
mailing offices. Title registered as trademark U.S. and
Canadian Patent Offices. Published every Saturday by
SCIENCE SERVICE, Inc., 1719 N St., N.W.,
Washington, D.C. 20036. (202-785-2255)
ISSN 0036-8423

Letters

Taken to tusk

I read with interest "Prehistoric tusk: Early boomerang?" (SN: 10/3/87, p.215), as making and throwing boomerangs has been my hobby for years. My bet is that this tusk is a very big, nonreturning kyrie, or "killing stick."

Australians used to have contests to see just how big a returning stick they could build. Five feet seems to be the limit, with use of special airfoils and modern plywood. I myself own a 3-foot returning boomerang. However, rarely do boomerangs longer than 18 to 20 inches return well. And 0.6 inch thick! Few modern returning boomerangs exceed a thickness of 0.25 inch, and long-distance returning boomerangs are rarely thicker than 0.125 inch.

The angle between the leading and trailing arms also influences the returning ability of the stick. This angle must be greater than 70°

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Cover: On the morning of April 21, 1981, NASA's space shuttle program was launched with the successful liftoff of Columbia (shown here). Grounded since Challenger exploded on Jan. 28, 1986, the shuttle is scheduled to resume flights next year — barring technical setbacks. Rounding out the 1988 schedule are seven launches of unmanned "expendable launched vehicles."
(Photo: Adapted from NASA)
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and less than 120°. Although I don't know beans about the density of mammoth tusk, I'll bet it's similar to bones in current mammals. This stick must weigh 3 pounds or more. I don't believe a returning boomerang greater than about 24 ounces can be built (my 3-foot boomerang weighs 13 ounces).

Increased wing thickness (1) increases weight, which is detrimental to good return flights; and (2) increases air resistance to the airfoil on both the leading and trailing wings, which decreases lift and is also detrimental to good return flights. The dimensions of this tusk seem much more appropriate for a non-returner, where increased mass (up to a point, anyway) is desirable.

*Fredric A. Malmberg
York, Pa.*

I would guess that the Polish find of a mammoth tusk might be a real boomerang, for primitive people were intelligent enough—

if only out of necessity — to hit upon such an invention.

The aborigines of Australia had the natural advantage of a tree called the mulga, which grows its branches in right-angle zigzags or very sharp curves that make it possible to split out a thin section blade with one flat side — the outside. Their boomerang was thrown overhand with a quick snap that set it whirling so that whichever way it struck it was effective. It was thrown straight and was never intended to return to the thrower, and I suspect that the return stuff was a white man's invention — a toy for the kids. The curved side over the flat side gives it lift, and a wind can turn it around in flight.

How a Polish strong man was able to split the end of a mammoth's tusk is another matter, but that curved end of an old mammoth's tusk would be just the thing for a boomerang.

*Allan O. Kelly
Carlsbad, Calif.*

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