

possible to retrieve. Accumulations of handaxes would probably be a function of the length of time during which an area was exploited and the frequency of abandonment of projectiles that missed their targets.

As a projectile, the classic handaxe is functionally and efficiently designed. Experiments reveal that it can be used effectively in this way. How other handaxe designs relate to this function needs to be explored, and the physical analyses of the effects of different sizes need to be confirmed. The use of the classic handaxe as a projectile offers an alternative explanation of the archaeological record and opens a new perspective on the Palaeolithic. When combined with the superior strength of *H. erectus* and the potential for lifelong training, the handaxe would have been an important weapon.

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Attitudes of Physical Anthropologists toward Reports of Bigfoot and Nessie

by J. RICHARD GREENWELL and JAMES E. KING
 Department of Psychology, University of Arizona, Tucson, Ariz.
 85721, U.S.A. 25 VII 80

In the summer of 1978 we surveyed 300 American and Canadian scientists on their attitudes toward the existence of the supposed Bigfoot (sasquatch) of Northwest America and the unknown animals supposedly inhabiting Loch Ness, Scotland (hereinafter called Nessie). Of these, 100 were physical anthropologists specializing in primatology and human evolution whose names were selected from the *Fifth International Directory of Anthropologists*, published in 1975 by the University of Chicago Press. (The *Directory* contains the names, addresses, and biographies of most of the Associates in CURRENT ANTHROPOLOGY.) Half of the target individuals were mailed a Bigfoot questionnaire; the other half received a Nessie questionnaire. The other two groups (also with 100 individuals each) were biological limnologists and oceanographers and physical chemists. The purpose of the study was to investigate the relationships between disciplinary fields and attitudes toward anomalous phenomena related to those fields. We present here those parts of the survey results which we believe will be of particular interest to CURRENT ANTHROPOLOGY readers.

Of the 100 physical anthropologists surveyed, 71 responded, but only 69 returned usable questionnaires; 39 of these were on Bigfoot, and 30 were on Nessie. Table 1 shows that 13%

(representing 5 physical anthropologists) accepted Bigfoot as a real animal "unknown to science," while 23% accepted Nessie as a valid phenomenon. The reasons most respondents rejected the existence of Bigfoot are made clear in table 2: the

TABLE 1
 RESPONSES BY PHYSICAL ANTHROPOLOGISTS (%) ON THE CAUSE OF BIGFOOT/NESSIE REPORTS

	BIGFOOT	NESSIE
Living animals "still unknown to science".	12.8	23.3
Ordinary animals misidentified.....	35.9	36.7
Imagination, hoaxes, myths.....	74.4	56.7

TABLE 2
 REASONS GIVEN BY PHYSICAL ANTHROPOLOGISTS (%) FOR REJECTING BIGFOOT/NESSIE REPORTS

	BIGFOOT	NESSIE
Lack of fossil evidence.....	46.2	16.7
Lack of specimens (or parts of).....	74.4	56.7
Lack of bones.....	61.5	46.7
Too tall/too large.....	2.6	-
Lack of nutritional resources in environment.....	12.8	23.3
Could not have remained so long "undetected by science".....	35.9	40.0
"Too bizarre" to consider.....	2.6	3.3

TABLE 3
 JUDGMENTS OF PHYSICAL ANTHROPOLOGISTS (%) ON IMPACT OF BIGFOOT/
 NESSIE DISCOVERY ON SCIENCE

	BIGFOOT	NESSIE
Severe.	57.1	3.3
Moderate. . . .	34.3	36.7
Slight.	8.6	60.0

$\chi^2 = 35.44$, $df = 2$, $p < .001$.

lack of specimens, osteological material, or related fossil evidence. Table 3 shows that 57% believed that the discovery of Bigfoot would have a severe impact on science, but only 3% believed that discovery of Nessie would have a comparable effect. About 61% indicated that scientists either certainly or probably should undertake Bigfoot research, while 70% supported research on Nessie. However, only 36% supported federal funding for Nessie research and only 30% supported federal funding for Bigfoot research.

A majority of 59% had read some scientific (as opposed to popular) literature on Bigfoot, and this may include discussions in CURRENT ANTHROPOLOGY (Porshnev 1974, Strassenburgh 1975, Bayanov and Bourtsev 1976). A third of the respondents had read physical anthropologist John Napier's (1973) book on the subject, and another 46% professed to be aware of the book, although it was not widely disseminated or reviewed in anthropological circles.

Almost three-quarters of the respondents provided optional personal information on themselves including name. Almost a third provided informative comments, while 10% provided abusive comments of one kind or another, including comments

on our motivations, the purpose of the study, and the design of our questionnaire.

We can conclude that there is far more skepticism about the existence of Bigfoot among physical anthropologists than there is about the existence of Nessie, although the existence of both is strongly doubted. Because of the lack of physical evidence, a large majority believe that Bigfoot reports are a result of imagination, hoaxes, myths, or misidentifications, although they seem to bend over backward to support scientific investigation of the topic, provided federal funds are not involved.

The lack of nutritional resources in the forests of the Northwest to support Bigfoot populations, which has been raised in the literature as a serious problem (Napier 1973), does not seem to have played a significant role in the formation of physical anthropologists' attitudes. Over a third, however, believe that Bigfoot "could not have remained so long undetected by science."

More complete results (including response rates by biological limnologists/oceanographers and physical chemists) and selections of informative and abusive comments by the respondents may be found elsewhere (Greenwell and King 1980).

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