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LETTERS

AAAS Herbicide Assessment Commission

At the AAAS annual meeting in Washington, I received various requests for information on the AAAS Herbicide Assessment Commission (HAC). AAAS/HAC—apparently the financially most ambitious single project ever undertaken by the AAAS, and one with rather interesting public policy ramifications—was established by the AAAS Board of Directors at the AAAS annual meeting in Boston in 1969 (1). The board appointed M. S. Meselson of Harvard University as its chairman and sole member (2); he in turn appointed me director of AAAS/HAC (3), in which capacity I served throughout 1970.

During 1970, AAAS/HAC gathered information, prepared a background paper, convened an international conference, and visited South Vietnam. The AAAS/HAC investigation in South Vietnam was carried out by Meselson and me, as well as by J. D. Constable of Massachusetts General Hospital and R. E. Cook of Yale University; S. L. Popkin of Harvard University also assisted for a time (4).

The preliminary findings of AAAS/HAC were presented at the AAAS Chicago meeting in 1970 (5). News accounts of these findings appeared in *Science* and elsewhere (6). Both the AAAS/HAC background paper and preliminary report have been published (7), and several technical and popular reports based on the AAAS/HAC trip have been published independently (8). A final AAAS/HAC report is being prepared by Meselson and will be published in 1973 or 1974.

The preliminary findings of AAAS/HAC and the accompanying publicity contributed to the termination of the military use of herbicides in South Vietnam (9); herbicides, however, have not been removed from the U.S. arsenal (10).

Finally, the AAAS/HAC endeavors should not be confused with the similar ones of the NAS Committee on the Effects of Herbicides in Vietnam (11).

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References

1. D. Wolfe, *Science* **167**, 1151 (1970); *AAAS Bull.* **15** (No. 3), 7 (1970).
2. *Science* **167**, 37 (1970).
3. *Ibid.*, p. 1104.
4. *Ibid.* **170**, 42 (1970).

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FUNDAMENTALS OF CELL PHARMACOLOGY edited by S. Dikstein, *Hebrew Univ., Jerusalem, Israel*. (26 Contributors) '73, about 580 pp. (7 x 10), 150 il., 40 tables

RUBELLA: First Annual Symposium of the Eastern Pennsylvania Branch, American Society for Microbiology edited by Herman Friedman, *Albert Einstein Medical Center*, and James E. Prier, *Temple Univ. School of Medicine*. Both of Philadelphia. (16 Contributors) '73, 164 pp., 9 il., 33 tables, \$9.25

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MALNUTRITION AND RETARDED HUMAN DEVELOPMENT by Sohan L. Manocha, *Emory Univ., Atlanta*. Foreword by G. H. Bourne. '72, 400 pp., 20 il., 8 tables, \$19.75

BIOLOGY OF MAMMALIAN FERTILIZATION AND IMPLANTATION edited by Kamran S. Moghissi and E. S. E. Hafez. (21 Contributors) '72, 520 pp., 174 il. (11 in full color), 90 tables, \$31.00

ORGAN REGENERATION IN ANIMALS: Recovery of Organ Regeneration Ability in Animals by L. V. Polezhaev, *Academy of Sciences of the USSR, Moscow*. '72, 200 pp., 209 il., \$14.00

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5. W. Bevan, *ibid.* 171, 710 (1971).
6. P. M. Boffey, *ibid.* p. 43; T. Aaronson, *Environment* 13 (No. 2), 34 (1971).
7. M. S. Meselson, A. H. Westing, J. D. Constable, R. E. Cook, *Congr. Rec.* 118, S3226 (3 March 1972).
8. J. Constable and M. Meselson, *Sierra Club Bull.* 56 (No. 4), 4 (1971); R. E. Cook, *Yale Alumni Mag.* 34 (No. 8), 26 (1970-71); A. H. Westing, *BioScience* 21, 893 (1971); *J. Forest.* 69, 777 (1971).
9. A. H. Westing, *Biol. Conserv.* 4, 322 (1972).
10. D. S. Greenberg, *Sci. Gov. Rep.* 2 (No. 11), 1 (1972).
11. *Congr. Rec.* 117, S15995 (6 October 1971); *ibid.* 118, S3246 (3 March 1972).

Language and Prehistory

Reiner Protsch and Rainer Berger (19 Jan., p. 235) summarize radiocarbon dates for domesticated animals showing that southeastern Europe was no less an early center of domestication than the Near East was. Even though the early dates in question reach back considerably before the time of our earliest linguistic reconstructions of the Indo-European language (perhaps 3500 B.C.), the authors' results are striking to a student of comparative Indo-European linguistics.

It has been well known for a century or more that reliable reconstructions can be arrived at for the nouns naming most of the animals discussed by the authors. Recent scholarship on the structure and formation rules of reconstructed Indo-European, however, enables us to be more precise today regarding the chronology of certain aspects of the lexicon of that language. The authors find particularly early domestication dates for four animals; we reconstruct their Indo-European names as follows: *g^heH₂- (Greek *boûs*, English *cow*), *suH- (Latin *sūs*, English *sow*), *H₂eyi- (Latin *ovis*, English *ewe*), *kuon- (Greek *kýōn*, English *hound*). Each of these nouns has a shape and declensional class that place them among the earlier morphological layers of the reconstructed language; in other words, these nouns should already have been in the Indo-European language for a considerable time.

No direct dates yet exist for goats in Europe; goat bones are found in the lowest levels of one Greek site, but does this mean they do not occur thereafter? It may be of interest that we can recover no single Indo-European word for the goat. This does not mean that the speakers did not know goats, but that at an early date their term for the goat diverged dialectally, which conceivably reflects some important cultural change (1).

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