comparative tables of this sort are to serve any useful purpose, they must be complete, accurate and as up to date as possible. I am aware that a few zoologists treat *Strepsiceros* and *Tragelaphus* as synonyms, but the majority do not, and it is hard to see why the wild ass of Somaliland and Abyssinia—*Asinus*—is omitted altogether.

Dr. Martin uses the carbon-14 date for the carbonized wood found in the Acheulean levels of Kalambo Falls as evidence to date the Acheulean sites at Bed IV Olduvai, Olorgesailie, etc.; at these sites there is good faunal and geological evidence to support a much more remote age. Many prehistorians do not accept the Kalambo age of 58,000 B.P. as having any bearing on the age of the Acheulean cultures of Africa as a whole. There are two alternative possibilities which make it most dangerous to extrapolate from the evidence of this single site (which lacks fauna) in order to attempt to date the Acheulean. These two possibilities are (*a*) that the Acheulean assemblage at Kalambo represents a persistence of a people making hand-axes in an isolated habitat, in the same way that certain tribes in Kenya's northern desert areas were still using stone tools and assemblages which are scarcely distinguishable from Oldowan which evolved only a few thousand years ago; (*b*) that the carbon-14 date obtained from the wood may soon not be valid for the Acheulean culture found with it, because the site was waterlogged in Gamblian times and the wood may have become deeply impregnated with fresher carbon derived from the peaty waters.

Turning next to the suggestion that it was Palaeolithic "overkill", at the end of the Middle Pleistocene in Africa, that was responsible for the extinction of many genera, it may be possible that man, using such a hunting weapon as the bolas, contributed to the control of the herbivorous animals (in the same way that lions and leopards do), but one would have thought that neither played a chief part in causing the extinction. Had they done so, surely more of the numerous other genera which survived should also have been killed off.

Part B of Table 2 (ref. 1) shows that, with very few exceptions, it was those genera that had become too big —the giant forms—which died out at the end of Bed IV times. It seems likely that, as the climate deteriorated at the end of Middle Pleistocene, the animals that needed the greatest number of calories suffered most, while their smaller contemporaries survived into the Upper Pliocene. We know from Hay[4] that, at the end of Bed IV times, there was a period of desiccation.

Finally, if the activities of the Stone-age hunters are to be invoked to explain the extinction of large numbers of herbivores at the end of the Middle Pleistocene, and if in spite of these activities some fifty genera managed to survive into the Upper Pleistocene, it is difficult to explain why the much more numerous Upper Palaeolithic, Stillbay and Mesolithic hunters of the Upper Pleistocene and Post-Pleistocene times (equipped as they were with projectile points) had so little effect on the remaining fauna. Yet we know that when Europeans first arrived in the African game lands they found them teeming with herds of tens of thousands of very many species.

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GENERAL

Constant in Duplicated Television Viewing

CONSIDER the proportion of the audience viewing television at some time t who also view a given programme on the same television channel at a certain time s on another day of the week. It is then known that for all different times t this proportion remains approximately constant[1,2].

In its most general form this finding is best expressed by the empirical relationship $d_{st} = kr_s r_t \pm 0{\cdot}01$ between the proportion d_{st} of the total population who view the channel at both times s and t and the two audience levels or "ratings" r_s and r_t, where k is an empirical constant greater than 1. The part played by the content of a programme in attracting an audience therefore does not seem to act differentially across the population, but is summed up simply by the level of the audience which it attracts.

This simple empirical finding suggests a stochastic model in which the audience at any time s is regarded as generated by sampling the ith individual from the population at risk with a probability which is related first to the audience size r_s at time s and second to the individual's general intensity of viewing v_i. The latter quantity does not vary with the programme being shown and can be defined as the daily total hours viewed by the ith individual divided by the hours viewed by the average individual.

Ignoring that in this model the "sampling" should be without replacement from a finite population, we have that the probability p_{is} of the ith individual viewing the sth segment of time is given as a first approximation by $p_{is} \doteqdot v_i r_s$. Assuming now that two times s and t on two different days are sufficiently far apart for the "sampling" to be independent, the proportion d_{st} of the population of n individuals who view at both times should be given by

$$d_{st} = \sum_i (p_{is} p_{it})/n = \{\sum_i (v'_i v''_i)/n\} r_s r_t$$

where v'_i and v''_i are the ith individual's intensity of viewing on the two days. The summation term here is constant for all pairs of times s and t, and this theoretical relationship therefore agrees with the empirical result $d_{st} \doteqdot kr_s r_t$.

The constant k can be calculated either from the observed duplications d_{st}, as $k = \Sigma d_{st} / \Sigma (r_s r_t)$ where the summation is over all times s and t on 2 days, or from the daily intensities of viewing v'_i, and v''_i, as $k = \Sigma (v'_i v''_i)/n$ where the summation is over all individuals i. It can be shown that these two expressions are mathematically identical.

Examination of English and American viewing data obtained by TAM, Research Services and ARB under a variety of conditions—for example, both recent and five or more years ago, for all transmission times on different days of the week, for adults in general as well as for housewives and for the popular "set-on" type of audience measure, and for four different audience measurement techniques—has shown that the values of k for any pair of days can vary from as little as 1·2 to as much as 2·5, but the relationship $d_{st} = kr_s r_t$ still holds within the average limits of fit of $\pm 0{\cdot}01$.

This possible explanation of the empirical duplication of viewing law in terms of the general intensity of people of viewing now provides a basis for examining the patterns of television viewing in general, and the wider implications of this finding are being investigated.

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