The Noneconomic Nature of Eating People

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REPORTS AND COMMENTS

On Measuring Adaptation

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Much credit must be given to James Flanagan for his thorough review of my book *Subsistence on Bellona Island (AA* 80:451, 1978). As might be expected, I have no objections to the positive side of the reviewer's conclusion. I can also agree in part to the final remark, " . . . measurement of adaptation will have to await a future effort," but not for the reasons given in the review—that "Demographic data are particularly weak," and " . . . yields and consumption remain as estimates . . . . " Let me explain why.

There is in fact a measure of adaptation in the book. Adaptation defined by the notions of *efficiency* and *stability* is specified. Efficiency is "measured" by the area-work combinations to produce 1 metric ton of dry matter (Christiansen 1976:68), and stability is dealt with in detail in Chapter 6. In applying this particular measure to the whole subsistence system, total production is checked against total consumption. Production was assessed by a sampling technique. The final result was called an estimate. Identical methods are used to find agricultural production as a standard. Doubt cannot be raised against the method itself, but only whether, in each particular case, it meets a desired standard of accuracy. Since yields can hardly be assessed with an error of less than ± 5%, and areas with less than ± 2%, the accuracy of demographic data can easily reach a comparable standard. In fact, these are better than Flanagan thinks. Apart from a regrettable error (p. 113: the total 581 should be 585), the data are consistent. The work force data on pages 95 and 118 also fit together. The reviewer must have overlooked that one cipher refers to the total and the other to the work force engaged in gathering/collecting.

I agree with Flanagan—apart from what has been said above—that absolute and more accurate measurements on adaptation are still lacking. Promising results are achieved in trying to define and measure "potential crop production." Against such a measure future researchers may gauge results of productive systems investigated.

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Over the past few years the possible situational advantages of using people as human food have been explored in various books and articles by Harner (1977a, b), Harris (1977) and others. A few calculations, however, show that people-eating is not only uneconomic but may incur a substantial long-term caloric debt.

Consider just the energy cost of catching and returning a captive for immediate festive consumption. Assuming a 10-man search-and-capture team, and 4 days portal-to-portal, the energy cost would approximate 160,000 kilocalories. And that ignores any rations given to the captive and the caloric cost of training and maintaining a search-and-capture team between forays.

Consider next the energy cost of maintaining the captive for future consumption or fattening the captive for more succulent appearance and improved caloric yield. Over a period of 100 days in the cage, an additional expenditure of 200,000 kilocalories would incur just to maintain weight and 300,000 kilocalories to fatten a tranquil captive. Of course, these estimates ignore the energy cost of guards, food transport, cooks, and building and maintenance of public-viewing fattening pens.

In return for the out-of-pocket caloric costs for capture and return (estimated at 160,000 kilocalories) or maintenance and fattening (say, 200,000 to 300,000 kilocalories more), the caloric yield of the captive is surprisingly small. The 50-kg. captive might yield 80,000 kilocalories if butchered immediately, or 120,000 kilocalories

(at most) if scientifically fattened. In either event the community would incur a caloric debt of substantial proportions. It would approximate 80,000 kilocalories just for the hunting and a cumulative debt of nearly 340,000 kilocalories after 100 days of fattening.

Let me state the dimensional and energy assumptions built into these calculations, for they affect the numbers though not the conclusions. I assume 50 kg. (110 lb.) for both hunters and hunted and 4,000 kilocalories per day required for active hunters with long work days. So, 10 hunters × 4 days × 4,000 kilocalories/day equal 160,000 kilocalories, in all. I assume a low 2,000 kilocalories/day simply to maintain a captive in a cage (100 days × 2,000 kilocalories equals 200,000 kilocalories). For fattening, I assume 3,000 kilcalories/day, a deliberately low figure, to be sure.

I assume that the 50-kg. captive—if butchered upon return—might yield a 40-kg. edible carcass mass, if economically utilized, and would have a food value of 2,000 kilocalories/kg.—comparable to that of lean veal, of 14% fatness. This accounts for 80,000 kilocalories, as mentioned above, although such efficiency in people-processing may be doubted. A fat captive, after 100 days in the cage, might yield 50% more—the addition being largely fat—and the optimistic total carcass value of 120,000 kilocalories deliberately ignores inefficiencies in butchering, shrinkage in cooking, and losses in distribution.

These simple calculations deliberately underestimate the energy costs of capture and return, as in the preparation of special rations. They deliberately overestimate the edible value of the butchered captive, as well as the efficiency of pen-fattening. The point is that people-capturing and people-eating is necessarily an uneconomic enterprise. Forty sedentary people could be fed for a day if the search-and-capture enterprise were aborted. One hundred and seventy such lean people could dine from the savings if the entire mission were canceled!

That people ate people, in some cultures and under some circumstances, is known as a historic fact. In some emergencies diners have survived on the flesh of the dined-upon. But, given the energy cost of capturing people and bringing them back in special forays, people-eating is scarcely economic as a regular enterprise. Even as a protein supplement, regular people-eating becomes inefficient, as has been previously shown (Garn and Block 1970). A surprisingly large and continually renewable source of human flesh would be required just to provide a regular supply of meaty tidbits of people.

Bernard R. Ortiz de Montellano (1978) has come to the conclusion that Aztec cannibalism was not motivated by nutritional need. The calculations given above further suggest that cannibalism, Aztec style, is practicable only if there is an actual caloric surplus. Given the energy costs of catching people and bringing them back, and then pen-feeding for any reasonable period, ritualized cannibalism may have existed for ceremonial and gustatory pleasure, but (like truffle-hunting) scarcely for caloric profit.

References Cited

Garn, S. M., and W. D. Block
1970 The Limited Nutritional Value of Cannibalism. American Anthropologist 72:106.

Harner, M.
1977a The Ecological Basis for Aztec Sacrifice. American Ethnologist 4:117-135.
1977b The Enigma of Aztec Sacrifice. Natural History 86:47-52.

Harris, M.
1977 Cannibals and Kings: The Origins of Cultures. New York: Random House.

Ortiz de Montellano, B. R.
1978 Aztec Cannibalism: An Ecological Necessity? Science 200:611-617.

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The Veil of Objectivity?

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Ms. Jules-Rosette (*AA* 80:549-570, 1978) reminds us that an outside observer can violate the integrity of a thought system in at least two ways: (1) through merely incorporating it into another system, by glossing over differences and emphasizing similarities, usually of function; and (2) by comparing the unfamiliar with a familiar system on the basis of a few selected criteria (which, I would add, usually favor the familiar if the investigator is a straightforward ethnocentric, or the unfamiliar if he/she is an exotophile).