Mean measurements of male cranial remains from Peru and Easter Island.

Measure	Peru	Easter Island periods	
		Middle	Late
Minimum frontal breadth (mm)	85.4	93.4	94.9
Endobasion–prosthion length (mm)	100.5	101.8	103.5
Orbital height, left (mm)	36.1	34.8	33.6
Cranial capacity (cm^3)	1356–1445.0*	1411.0	1462.0
Upper facial index	55.6	52.6	51.5
Nasal index	44.2	50.5	52.8
Height index	82.6–87.6*	88.2	88.7

* From "Handbook of South American Indians," vol. 6, *Bur. Amer. Ethnol. Bull.* 143.

an undescribed procedure by C. A. Leone, fall within the Polynesian range rather than that of American Indians, and skeletal pathologies, because of their rarity, appear more oceanic than continental. Teeth were not studied.

Murrill, who was not on the expedition but whose help was sought later, predicts, unlike Heyerdahl, that if Early Period skeletons are ever found they will be Polynesian in physical type (p. 84). While many anthropologists do not believe that Polynesia was significantly settled by American Indians, Murrill's prediction seems more dogmatic than considered: First, the carbon-14–dated Peruvian-like masonry (as well as other features) of the Early Period is unusual, if not unique to the Pacific area. Easter Island is the closest Polynesian island to Peru, which makes the probability of influence higher than if the island were in western Polynesia. Second, had Murrill made a separate comparison of the skeletons from the two later periods with Peruvian ones, instead of lumping the two periods together, he would have found that frequently, but not always, intermediate trait frequencies occur for the Middle Period—exactly the expected condition had admixture occurred on Easter Island between an assumed early Peruvian population and later populations that were demonstrably Polynesian-speakers. The accompanying table, using data from Murrill, gives only a few of the many such possible comparisons. Pre-Spanish South American pottery has been found on four of the Galápagos Islands. Finally, it should not be forgotten that Heyerdahl has dramatically demonstrated that balsa rafts of prehistoric Peruvian design can travel far beyond Easter Island. All the above, and other evidence, casts doubt on Murrill's prediction that the Early Period people will prove to be Polynesian.

This study has appeared previously in practically identical form in T. Heyerdahl and E. N. Ferdon, Eds., *Reports of the Norwegian Archaeological Expedition to Easter Island and the East Pacific (Monographs School Amer. Res. Kon-Tiki Mus.*, No. 24).

Notwithstanding the above criticism, this book is a valuable and easy-to-use reference for all concerned with Pacific anthropology. In sum, Murrill has shown that before contact with Europeans Easter Islanders were physically Polynesian and seemingly possessed Polynesian-like ABO gene frequencies, and that, as always, the best and deciding evidence for migration studies is the actual physical remains of the migrants.

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Uses of a Label

Thymidine Metabolism and Cell Kinetics. J. E. CLEAVER. North-Holland, Amsterdam; Interscience (Wiley), New York, 1967. 259 pp., illus. $13.25. Frontiers of Biology, vol. 6.

This book is the sixth volume of a series of monographs, Frontiers of Biology, a title that is more catchy than exact. The content of the book has to do with the very core of the problems in biology: replication and segregation of DNA in chromosomes, the cell cycle and cell renewal in tissues. The production of a book is not unlike pregnancy with its traumas and its satisfaction, though often the time to parturition seems elephantine in length. The finished book is examined, not unlike the newborn child, which is praised and criticized by the family members, each with his own motivation. This book is a bonny child; may it flourish. As with a child, it can be faulted, but those errors that can be corrected will no doubt disappear before reproduction.

Anyone who still contends with the literature must feel with the Sorcerer's Apprentice. The author in the preface likens his experience in coping with the flood of literature to shoveling water uphill. He has not only shoveled superbly but filtered the water up to 1966.

The main character in this monograph is tritiated thymidine, the hero of high-resolution autoradiography and the trusted servant of the investigator interested in DNA and cell replication. The pathways of incorporation and degradation of the label lead from problems associated with pool size and reutilization to the use of the label in the study of cyclic events at a chromosome and cell level. Then 50 pages deal with the use of this labeled DNA precursor in the investigation of cell population kinetics in tissues. The content will be very useful to the worker with some experience in one or another of the fields covered. It leads the newcomer to where he can find, rather than gives him, the details of the methods he may need. An even more critical evaluation of the suitability of various methods for particular problems would have been valuable. Some of the methods which are suitable for the study of cells leading a somewhat hippie existence in culture—all turned on and clinging to the glass of their petri pad—are not so suitable for the study of an organized community of cells in tissues.

The author chose, and he states quite clearly why, to discuss such aspects as granulopoeisis in relation to the experiments that he knows best by personal contact with the workers involved. He has attempted to balance this by reference to the work of others in the field. This approach has obvious advantages and disadvantages. The advantages are clarity and an air of certainty that is not clouded by contradictions, some of which may be more apparent than real. The disadvantage is that the points on which important differences may exist are not immediately apparent. But then a choice had to be made. There are, after all, only about 250 pages, and on every one of them I found something of interest. The choice has, also, made the book readable and personal, which alone is an achievement. One last point, irrelevant except perhaps to the ambulatory reader, isn't 900 g heavy for a book of this length written in anything but a heavy style?

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