ly doesn't want to be an eyewitness in the usual sense at all. He wants to discover an inner truth that cannot be revealed by visual impressions and quick snapshots of the society. It is because of this, I think, that Portisch gives undue credence in his reporting to rumors or gossip as a way of explaining what does not at first glance seem justifiable in his scheme of things. Further, as has long been known, people in unusual circumstances see only the things they really want to see; their minds recall only those things that fit into thought patterns formed long ago. It may seem a trifle, but Portisch tells us that he never saw a poster with the face of a pretty girl, while Koningsberger saw posters in many places with "pretty girls with glossy black hair" and adds that "they have learned from the West to use sex in selling a message." This points up the fact, which could be made with far more subtle data, that the untutored eyewitness to events in China, as elsewhere, is only a moderately reliable recorder.

Mood and Code

But even so, there is a message communicated in both books which makes them worth reading and justifies their publication as firsthand accounts. While both authors tend to accept doubtful stereotypes, they also were able to grasp the mood of the country in a way that helps explain much of what we are seeing now in China, particularly in the upheaval of the "Red Guards." Everywhere they went they saw complacency. Koningsberger describes a factory in North China in which the workers were sitting "doing sweet nothing, picking up a tool or an oil can when they catch sight of the workshop manager." Portisch was given a trial spin in China's deluxe Red Flag passenger car and told that its designers' principal hope is to make the car as quiet as the Rolls-Royce. Both were able to report in revealing detail signs of what Mao Tse-tung now calls "revisionism." Here one can see quite clearly the growth of popular interest in the simple matters of career, prestige, glamor, and leisure. Mao could have read these books as confirming once more his belief that the Chinese society is moving in directions he regards with abhorrence.

The other aspect of Chinese life which emerges from these two books is how the contrasts of old China have been neutralized. A process of producing a tone of gray in the society has removed much of the cruelty that so typified human relations there in the past. The strain of idealism in the communist movement in China has helped erase the more unfortunate manifestations of traditional Chinese life, particularly as they pertained to the lack of food and shelter for the poor and the exploitation of young women. The now dominant tone is one of puritanism. The Chinese communists have instilled a highly developed code of personal morality and national pride, and a fanatical sense of cleanliness (which has virtually rid the country of flies). As in other puritanical societies, the effect of this is to eliminate much of the "joy of life" for the few who could once afford it. From the Western point of view it all seems too correct and orderly to be tolerable, but then, as both books bring out, the Western point of view is not so much in fashion these days in China.

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Identifying Races: Geography and Genetics

The effects of the controversies engendered by Carleton Coon's *Origin of Races* [reviewed by E. Mayr, *Science* **138,** 420 (1962)] were both salutary and unfortunate. They awakened physical anthropologists to the need for more systematic and intelligent focus on the semantic and taxonomic problems inherent in the taxon race, but they also tended to play into the hands of neoracists. **The Living Races of Man** (Knopf, New York, 1965. 352 pp. $10), written in collaboration with Edward E. Hunt, Jr., will probably add more fuel to professional fires but it contains less explosive matter for racist exploiters. As Coon points out, this new book can stand alone without the evolutionary background outlined in his earlier volume, but his frequent reference to the latter makes joint reading at times a necessity.

In the opening chapters the author bridges the two volumes with a summarization of his concept of race and a description of his five races or subspecies (geographical races)—Caucasoids, Mongoloids, Australoids, Congoids, and Capoids—to which he adds "Dwarfed Australoids" (Negritos) and "Dwarfed Congoids" (Pygmies). By referring to the latter two as races, he automatically elevates them to subspecies classification, a questionable procedure in view of his admission that their reduction in size is the only major factor that distinguishes them from their "full-sized" counterparts. Having determined his seven races and listed the descriptive criteria by which they were determined, he then outlines the selective pressure significance of geography and climate as mechanisms in race formation and the role of culture which so patently contributes toward complicating man's genetic composition.

Chapters 3 through 7 are devoted to the five major geographical or racial "realms" with which his seven geographical races are associated, and the next two chapters cover such topics as racial clines, skin and eye color, adipose tissues, the vascular system, and variable traits of uncertain significance such as earwax, eyeball size, facial muscles, dermatoglyphs, color blindness, ability to taste, and the geno-functional effects of diseases and disorders. Finally he reviews the wholesale migrations that have taken place since 1492 and concludes with a super-Aldous-Huxleyan glimpse into the realm of man's hypothetical capacity to transform himself biologically along imaginative but highly improbable lines.

To understand Coon is to interpret him in the light of his basic perspective and premises. He takes the position that races are not mere abstractions but extant entities whose movements can be traced and understood only in the light of history. He employs a regional, biocultural, and synoptic approach that he considers imperative in untangling the threads of man's racial past. To this end he has assembled an impressive mass of detailed information concerning migrations of peoples and the spread of languages and tool-making techniques, and has also collated into readable form data relating to the past and continuing impact of natural and artificial environments. His book is a helpful compendium, but whether or not it has satisfactorily delimited living races remains a question.

To argue the importance of languages and tools or evidences of contact and diffusion would be pointless

because these form part of the very stuff of anthropological pursuit and analysis. But how reliable are they as valid indicators of gene flow or as aids in racial classification? The author admits that they are not in themselves proof of gene flow. He even quotes a text especially prepared by Charles F. Hockett, who writes in part, "There is, of course, no direct tie of necessity between genes and language —as was once suspected. . . . But there is this basis for indirect inference: if two communities, speaking different languages, have been in sufficiently close and prolonged contact for one to borrow a sizeable number of words from the other, then we can be sure . . . that the communities have exchanged genes too" (p. 40). Coon, however, frequently uses arguments based on both historic languages and prehistoric tool-making techniques to account for gene flow, with little justification for doing so beyond his own probabilistic reasonings. He writes, for instance, that since Mousterian artifacts with East Asian chopping tool influence are associated with Neanderthaloids in Uzbekistan and northern Afghanistan and since chopping tools appear also in the lower horizons of New World prehistory, "this might be cited as evidence that Neanderthals penetrated deep into China before the departure of the American Indians" (p. 131). He states further on the same page that "such an invasion might be construed to explain the beaky faces and other Neanderthaloid features seen on some of the living American Indians and also on the peripheral Mongoloids such as the Nagas of Assam." Apart from the dubious equating of Neanderthaloid beakiness with, say, that of the Sioux or Mayas or Nagas, the rationale for tool technique association is at best highly speculative. As linguistic evidence, he notes that since recent classifications by Greenberg and Swadesh indicate that all American languages are related, this suggests only one thing: "that the American Indians came from North East Asia in a single migration or in a series of migrations and all from an essentially Mongoloid line" (p. 148).

Impressionistic Typologies

The criteria used to delineate populations are far from satisfactory. In describing the populations of North and East Africa, Coon writes that Ethiopians and Gallas are "essentially Caucasoid in body build and facial features" and that south of them are the Fula and related Fulani who are all "Caucasoids in a sense and somewhat Negroid."

Such generalizations are inevitable concomitants of the kind of task which the author has undertaken, but they result in an impressionistic style that detracts from the book's scientific worth. A glaring example is the statement that "Most specialists agree that four racial types are represented in the Mesolithic and Neolithic populations of Southeast Asia and Indonesia" (p. 161). The statement is based on studies of a few skulls and other bone fragments, and the specialists he refers to are clearly race typologists. Under the heading "Historic genetic contacts in Southeast Asia and Indonesia," he also refers to "tribal incursions of undiluted Mongoloids from the north" (p. 162). In context, he is referring to Chinese, but elsewhere he indicates that the Chinese are mixed in spite of their relative racial uniformity vis-à-vis either Congoids or Caucasoids (p. 149).

Coon's methodology is deductive, and the basis of his classification is typological. His position is that concentrations of geographically congruent or overlapping phenotypic traits within a regionally determinable population can be taken as presumptive evidence of a basic genetic linkage permitting its classification as a geographic race or subspecies. At the same time, he points out that genetic contacts are so numerous that true breeding isolates are probably nonexistent but maintains that anyone has the scientific right to name "geographically distinct populations within a subspecific region as long as he makes it clear that he is referring to mean or central tendencies rather than to rigidly defined type . . ." (p. 63).

A review is scarcely an appropriate place to question the validity of using a phenotypically based typological approach to solve problems of racial identification, or to debate the continued use of the term race as applied to man. As long as our studies of human Mendelian populations remain inadequate to cope with problems of phenetic and phyletic traits for purposes of racial classification, the use of such a term as race will continue. Admitting Coon's use of the term race, however, his position might have avoided the odium of earlier terminologies, and have been more consistent with his concept of subspecies, had he used geographical terms rather than terms like Caucasoid and Mongoloid. Designations such as European-West Asian (or even European) and East Asian, respectively, would have been more justifiable both logologically and taxonomically.

Questions of Method

More pertinent to this discussion, however, are questions of method. In this new book, Coon continues to refer to relatively isolated and geographically distinct "cradle lands" at the *Homo erectus* level where his five races "originated." He fails to explain how he can justify use of the term subspecies as a unit of evolution in connection with fossil bone assemblages; nor does he differentiate clearly between genetically definable race and geographically determined subspecies [see *Animal Species and Evolution* (1963), edited by E. Mayr].

Having taken exception to so much of the author's methodology and many of his theories, I am reluctant to do more than mention the subject of typographical and technical shortcomings. The transposition of a line and other minor typographical errors are not necessarily the fault of the author, but there are quite a few mistakes in spelling, and it would have helped if the maps had been numbered. The reader must turn to the front of the book for page listings of maps referred to by numbers in the text. There is also one rather significant error in the map of the five races (p. 26): the Ainu are referred to as Caucasoids in the text but are shown as Mongoloids on the map. The 128 pages of photographs of individual racial and mixed types provide a useful addition to the volume, but few references are made to them in the text, and the reader is left to judge for himself the trait complexes they have been selected to portray.

The author has not grappled with the issues of racial and cultural inequalities. He states in the introduction (p. ix) to this second volume that he had expected to take up the subject of brain anatomy but considered it too emotionally laden to attempt. Undoubtedly he will be taken to task for this omission, but he does clearly state that he adheres to no "dogma, cause, emotion, or personal interest, or preconceived idea" concerning questions of racial intelligence, and I am prepared to accept his statement at face value.

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