Chapter V

A CHRISTIAN VIEW OF ANTHROPOLOGY

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"So God created man in his own image, in the image of God created he him; male and female created he them" (*Gen.* 1:27).

THE SCIENCE of man" is an ambitious name for a scholarly discipline. The science of man in his biological and cultural aspects in time and over all earth-space is likewise an ambitious purpose. These are, however, the ambitions of anthropology. Man as a biological organism with similarities to and differences from other biological organisms, together with the culture in which he lives—a phenomenon unique to him among all biological organisms—is the subject of anthropological study. To the Christian anthropologist the study of man's biological and cultural nature is the most worthwhile study next to that of the God in Whose image he was made.

Anthropology stands as a boundary discipline between the biological and social sciences. Its research is as diverse as the range between studies of the genetic effects of race mixture and the distribution of pottery pipes in prehistoric America; between the fossil forms of man and the forms of religious life over the earth; between changes in marriage and kinship structure of contemporary societies and the structure and relation of languages. The interrelation between man's physical and cultural existence—changes in body structures through time, differences over the

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surface of the globe, together with the development of culture and its differences—these are the subject matter of anthropology.

Because it is a young science anthropology has been taking its place among the other disciplines slowly, and has been recognized as having its implications for Christianity even more slowly. Because anthropology has focused the largest part of its attention on the less-known people of the earth and provides the only adequate key to their life and thought, the cultural emphases in anthropology have become increasingly useful to the more progressive of Christian missionaries in the last two generations. Few Christians realize, however, that most of the crucial points of the science-Scripture conflict center in anthropology, and that concepts of the evolution of man and the development of civilization are both in the sphere of anthropology. As yet realized by an even smaller number of Christians is the fact that an awakening culture consciousness among contemporary intellectuals has declared that all religion is purely cultural, that moral good is relative, and that each religion is integrally related with the culture which contains it. Many such points are so well founded that it becomes necessary for the thinking Christian to decide for himself what in his Christianity is cultural and changing, and what is not.

Subjects of Anthropological Investigation. Like the other sciences anthropology has developed its own necessary subdivisions of interest and method. The basic division in specialization is between the biological and cultural phases of the study of man. Physical anthropology is the study of the human body, its "evolution," its racial differences, its growth, its physiology. This is the study of race mixtures and population movements. Cultural anthropology on the other hand is the study of man's way of living in various environments and in his methods of handling his social, political, religious, and economic institutions, his language, and his material culture through time and space. Of course so diversified a series of interests must have a centrally unifying core to hold it together. That core is man and culture, their development, their nature, their content.

Two accidents of history have caused misconceptions to arise over the purpose of anthropological study. The fact that the most publicized early phases of the science dealt almost exclusively

with the measurements of human bones and fossils has led to the widespread idea that anthropology consists of such studies alone. At another extreme, anthropology has seemed to be the "science of primitive peoples" because in the study of culture anthropologists chose the distant, the exotic, the foreign, the illiterate societies of the world deliberately because they were different from Western tradition and could give a wider perspective of the nature of culture.

It is true that the finding of fossils of human beings who lived many thousands of years ago has been one of the most widely publicized accomplishments of anthropological investigation. It is likewise true that only in the last few years have anthropologists seriously undertaken the analysis of the more complex modern civilizations. Less publicized work has been painstakingly and widely done, however, and what has been learned about culture from societies in which the culture was simple has meaning for the complex ones.

Actually, cultural anthropology's preoccupation with non-Western cultures provides a major claim for its consideration as a bona-fide science in that the comparison of cultures provides a measure of control. The economist, sociologist, historian, or psychologist who draws inferences from Western culture draws them through necessarily prejudiced eyes for he is a Westerner and knows little different. The ethnologist examines other cultures, ones whose stream has never met, or rarely met, the Western culture stream. In so doing, he finds that some of the conclusions and generalizations based on Western life do not hold true. True they may be for Europe and its sphere of cultural influence, but not necessarily true for mankind. In the case of the science of human beings, ever since the—

> . . . confusion of tongues and the dispersion of peoples after the Tower of Babel, the student of human nature was guaranteed one kind of laboratory. In all parts of the world, in the densest jungle and on the small islands of the sea, groups of people differing in language and customs from their neighbors, were working out experiments with what could be done with human nature.[1]

[1]Margaret Mead, *Growing Up in New Guinea*, p. 2 (New York: Morrow, 1939).

Anthropology for Christians. Few Christians, either laymen, ministers, or missionaries, have the time or inclination to become students of a scientific discipline no matter how practical it may be for them. There are both practical and theoretical issues of anthropology which do concern us greatly, nevertheless. Such issues range from ancient human fossils to contemporary missionary procedures. Marginal comments on Biblical text still contain a date of 4004 B.C. for the creation of man, while scores of human fossils antedate that time by several thousands of years. Such evidence cannot be discounted in an understanding of Genesis. The geneologies there deserve consideration from other viewpoints than that of father-and-son direct generation.

The preaching of the gospel of Jesus Christ must be oriented to the life and thought, to the language and culture of the people to whom it goes. Anthropologists study foreign and primitive peoples with the purpose of getting a wide perspective of culture. The missionary who meets these foreign and primitive peoples may profit greatly from these culture concepts and from the information contained therein. The most worthwhile potential area for applied anthropology is in Christian missions.

The phase of anthropology most thoroughly exploited by Christians at present is the science of descriptive linguistics. A young science far different from traditional philology, it got its great impetus from anthropologists who were forced to deal with non-Indo-European languages which could not be handled with old language concepts. Now, under the research of the Summer Institute of Linguistics[2] linguistic techniques have been advanced, pedagogical methods have been devised, and the elements of linguistic analysis have been made available to all evangelical missionaries who wish to have the training. Many students have gone on to make their contributions to increased missionary efficiency, greater linguistic facility, and deeper insight into their ministry.[3]

[2]Affiliated with the Wycliffe Bible Translators of Glendale, California, with missionaries in Mexico, Peru, and the United States. Academic sessions are held each summer at the University of Oklahoma.

[3]Not to mention the contributions of these workers to linguistic science: "RESOLVED, that the members of the Linguistic Society present at the Summer meeting have heard a report by Professor Kenneth Pike on the

Similar values could be derived from cultural anthropology. Every missionary should be aware of the range in varieties of culture and the meanings of cultural differences. Every missionary should be impressed with the importance of finding the meaning of the parts of the culture with which he is dealing. Every missionary should be aware of the real effects of conversion upon the culture of new Christians and be ready to guide their new culture developments in Christian but at the same time indigenous patterns, rather than in the ways of Western civilization. It may be dangerous, for example, to introduce the Christmas tree to native peoples. There is generally no point to it, to say the least. Christmas trees have no basic association with Christ's birth. They may on the other hand carry the meaning of magic, sorcery, or ritual to the native mind.

Anthropology is not a panacea for missionary ills. An inadequate understanding of the science results in dangerous misapplication. Not all missionaries can be anthropologists, but Hendrik Kraemer, who, although a missionary and not an anthropologist, shows profound insight into both Christianity and culture, concludes: "Every important region needs some men who on account of their ability and knowledge regularly sow the seed of new principles and methods."[4] Rather than the panacea which evangelicals are inclined to look for, the building of a tradition of profound and dedicated applied scholarship is essential.

But aside from the area of potential applied anthropology in Christian missions, there are in anthropology unrealized but important bearings on Biblical interpretation. The truth of Revelation was expressed in the language and life of the peoples of the Near East. The Scriptures are clothed in oriental culture, and although their grosser implications are apparent even to the naive

teaching in practical phonemics carried on at the Summer Institute at Norman, Oklahoma, and on the impressive series of publications appearing from its staff members, it is the sense of this group that the work being done by the Summer Institute, as exemplified also by papers presented by its students at this meeting, should be strongly commended by our Society and welcomed as one of the most promising developments in applied linguistics in this country." *Proceedings* of the Linguistic Society of America, Ann Arbor, Mich., Aug. 1-2, 1947, Supplement to *Language*, Bulletin No. 21, p. 4.

[4]Hendrik Kraemer, *The Christian Message in a Non-Christian World*, pp. 443-444 (New York: International Missionary Council, 1947).

individual who pictures Bible life in terms of people and customs around him, the finer implications are not so apparent. Who could understand the parables without knowing Palestinian methods of sowing and reaping, and of herding sheep?

The Scriptures give us fleeting glimpses of origins and changes, but these are never elaborated in detail. The processes of these changes are the province of anthropology. The Scriptures make hints of the spread of mankind over the earth. The methods and avenues of such spread are discovered by anthropology. The age of man on the earth and his "origin" are likewise anthropological themes and with them is associated the question of human evolution. The data and interpretation of human fossils are in the province of anthropology. Christians who want to know the truth cannot ignore their existence and meaning. The biological changes which have brought about present differences between the modern races, all of which are descended from the same Biblical parents, are another correlation of the Scripture and anthropology.

Culture and "Superculture." One important contribution anthropology can make to Christian thinking is a more thoroughly defined concept of the difference between "religion," a cultural phenomenon, and that which is not cultural in true Christianity. Just as anthropology has sharpened understanding of the differences between biological and cultural ("superorganic") man, we must understand more clearly the difference between cultural and "supercultural"[5] Christianity. What is human and what is not human in Christianity? What is changing and what is eternal truth? Some Christians have long realized that there were both in our faith, but have not known where to draw the line. Such a distinction, if it is ever to come, presupposes an understanding of culture as well as of the Scriptures.

[5]The term "supercultural" is used by Dodge but is not elaborated: "For the missionary today the Gospel is supernational and supercultural, suitable for any type of culture and capable of establishing its own forms to meet the peculiarity of each people." (Ralph Edward Dodge, *Missions and Anthropology: A Program of Anthropological Research for Missionaries Working among the Bantu-speaking Peoples of Central and Southern Africa*, unpublished Ph.D. thesis, Kennedy School of Missions, Hartford Seminary Foundation, Hartford, Conn., 1944.)

The term "supercultural" rather than "supernatural" is used here because a term devoid of too many previous connotations is needed, even though the two may be in large part synonymous. It is used furthermore to complete the parallelism with "organic" and "superorganic" in anthropology. It highlights the basic problem: what parts of our faith are man-made, developing through the natural processes of culture dynamics, and what are divinely revealed and ordained? The great difficulty in studying the question lies in the fact that the Revelation came in cultural form, and changed its clothes as culture changed through the years over which Revelation occurred. Just as it is difficult to separate man as a biological organism from man as a creature of culture, so it is difficult to separate the Christianity of historical "accident" from the Christianity of the supercultural.

To distinguish between the cultural and the supercultural is even more vitally important than to distinguish between the organic and the superorganic. We cannot understand the superorganic until we separate it from the biological; neither can we understand the supercultural—the ordained absolutes of God, the Divine will—until we separate it from our patterns of behavior with which we are so selfishly preoccupied.

In Africa the Negro Anglican priest with his clerical garments and Anglican ritual conducts the Christian service in a church in one town. In the next town, the Negro Baptist minister dressed in a business suit conducts a different ritual. Each man feels that he is doing God's will in a more satisfactory way than the other. Both are sincere; both are born again; each thinks the other is wrong. The same thing goes on within the same block in some American towns—except that here the faces are white and not black. Both ministers must learn to divorce their cultural habits from the supercultural universal truth if they are not to be guilty of misrepresenting and misunderstanding that truth. Our cultural situation leads us inevitably to the necessity of distinguishing between the culture around us in Christian practice and the supercultural truth of God.

Man's organism and culture then are the great orientation points of anthropological research and theory. Organic man in the present takes various slightly diverging forms over the face

of the earth. Physical anthropology thus concerns itself with human race. Human culture in turn is a wide phenomenon. Its past is reconstructed largely through archaeology, which is discussed in another chapter of this volume. Its present is studied in its various forms over the face of the earth, and generalizations are made from that study. Language is a part of culture, but it carries its own techniques and its own special developments and bearing on Christian missions. Man's organic past can be studied only through the discovery of human bones and fossils. Physical anthropology thus specializes in part in human paleontology. Race, Culture, Language, Human Paleontology—these are the phases of anthropology which we propose to outline here for their relevancy to Christian faith.

Race

Apart from the consideration of prehistoric fossil finds and their meaning to the contemporary scene, the problem of physical anthropology most obvious, most charged with the dynamics of social issues, the question most insistently posed, is that of race. Although many important questions of race classification and race differences are unsolved, anthropology has often been able to speak with strong conviction based on sound empirical knowledge. The most thoroughly founded scientific conclusions on race correspond so closely to a real Christian attitude toward the phenomenon that they deserve enumeration. The science of man has now assembled enough facts so that one must accept the theoretical Christian interpretation of race.

Race a Biological Term. Essential to an effective understanding of the "race problem" is first of all a knowledge of the real nature of race and the definition of actual nonfictitious race differences. Obvious as it may seem, there are race differences, but these are often not according to popular stereotypes. In fact, whole series of judgments which do not pertain to race at all are called "racial." Strictly defined, race is the "assembly of genetic lines represented in a population."[6] Race is therefore a grouping of

[6]Franz Boas, *Race, Language and Culture* (New York: Macmillan, 1940).

organic features, hereditary, varying only slightly within fixed bounds and according to genetic principles, which distinguishes one population[7] from another. Contrary to popular misconception, race is *purely a biological term when properly used.*

Thus the difference in skin color between the pink Nordic and the black Forest Negro is racial. It results from the genetic transmission of pigmentation in the population. The difference in speech between the New Yorker of Nordic extraction and the New Yorker of Negro extraction is not racial; it is not a genetically transmitted character, but one learned in particular subcultures of general American life. The distinction between the two phenomena is of prime importance. When a problem is concerned with hair color and texture, eye color, height, body form, shape of mouth, lips, and nose, or any of the other hereditary differences which a population may have in common because of its common gene make-up, it is within the province of race.[8] When the problem has to do with economic status, "shrewdness" in business, "artistic" temperament, national character, morality, degree of refinement, or ability to keep a neighborhood clean—which a population may also have in common, *but not because of common gene make-up*—it is outside the province of race and in the area of culture conditioning.

When an Italian is described according to the prevalent crude stereotype as being a small, dark-skinned, curly-haired, fiery-tempered, soulful, artistic individual who likes opera, the first three elements in the characterization are physical and therefore racial in so far as they are true of the national population. The others are nonracial cultural factors, *even if they should prove to be true of the population in general.* The distinction will be seen in that the son of "typical" Italian parents, if brought up out of any Italian contact from infancy, will still have dark curly hair if his parents' genes are so ordered, but his artistic inclinations and temperament will depend upon the situation in which he is

[7]Population: the inhabitants of a given area.

[8]For an elaborate racial classification and the physical characteristics on which it is based, see Earnest A. Hooton, *Up from the Ape*, pp. 423-661, especially pp. 575-661 (New York: Macmillan, 1946). Racial types are illustrated in plates 21-34.

brought up, even though it were shown that he inherits temperamental and artistic tendencies. Dr. Margaret Mead's experimental data on the Manus of Melanesia, who produce no art either "naturally" or when stimulated by experiments, is a case worthy of study by educators and psychologists as well as racists. Closely neighboring people of the same race produce elaborate and intricate wood carving.[9]

Race Classifications. When the hereditary nature of truly racial differences is clearly understood and differentiated from nonhereditary cultural differences, it will be seen that race classifications should represent genetic relationships, stocks of people who together comprise a tremendous genetic family. Because the ancestry of the modern races has not been recorded through time, the problem of race classification becomes an attempt at the reconstruction of the most probable such genetic lines. That classification must perforce be a combination of morphological (physical form) and distributional (geographical placing) analysis.[10] There is always a chance of error, as Linton warns.[11] But since almost all of east Asia including China and Japan and much of Farther India, Eastern Siberia, and all of the aboriginal New World was inhabited by people with very dark, straight head hair, little body hair, dark eyes of rather small size, and with skin color ranging from "bronze" to brown and yellow-brown, a reasonable presumption is that these people with phenotypic features in common are of common genetic stock.

There are racial subdifferences within this large group, however. Thus, parts of eastern Asia show a specialization in an "epicanthic fold" (a fold of skin over the upper portion of the eye giving the "slant-eyed" oriental look). There are physical differences between the general Chinese populations and the general Japanese population. Among the American Indians (con-

[9]Mead, *op. cit.*, pp. 269-270.

[10]Hooton, *op. cit.* Racial analysis becomes more and more tenuous as Hooton's distinctions become finer and finer—especially as morphological types appear without reference to distribution in his "Composite Race" of American Indian: Mongoloid (predominantly) + Iranian Plateau + Australoid + very small Negroid element.

[11]Ralph Linton, *The Study of Man*, p. 45 (New York: Appleton-Century-Crofts, 1936).

sidered to be of the Mongoloid race) marked differences of size, face shape, and physical appearance occur, and all the Indians differ markedly from the Eskimo. Such population differences, transmitted in large or small tribal, national, or international groups, are again racial differences, reflecting different subraces within the major race. Siouan bravery, Eskimo hardiness in the cold, and Japanese "aggression" are cultural and only coincidentally associated with the respective subraces of the great Mongolian race.

In any racial consideration, then, cultural factors must first be divorced, and race be treated for what it is—a genetic phenomenon of variation within the "human race." The physical anthropologist does not thereby ignore culture, but recognizes its essential difference from the organic.[12] In the scientific classification of races it is wise to be content generally with the more obvious race differences and not attempt to carry classification too far. The more criteria of classification that are applied, the more races that result—until if enough criteria of physical differences were applied, every human being would constitute an individual race! Only those physical characteristics which have implication for the determination of true genetic lines should be used. Upon the material in Table I there is general agreement at least.

Far less unanimity is found in those groups "of doubtful classification"[13] as Kroeber calls them. His schematization of the morphological similarities between accepted races, subraces, and "doubtfuls," is shown in Fig. 16. It should be remembered that this oversimplification distorts the true picture in that actually almost all racial groups overlap at the extremes of the variation of most of their characteristics.

Actually, true race differences in human beings are minute when compared with the range in size—even from the 4-foot 6-inch pygmy to the almost 7-foot Nilotic (a range, incidentally, which occurs between people of the same Negro race, although the Nilotics may have admixture)—is proportionately small compared

[12]A. L. Kroeber, "The Superorganic," *American Anthropologist*, Vol. XIV, No. 2 (1917), pp. 163-213.

[13]A. L. Kroeber, *Anthropology: Race, Language, Culture, Psychology, Prehistory*, pp. 138-141 (New York: Harcourt Brace, 1948).

to the Pekinese-St. Bernard difference. Human hair color does not range nearly so much as the canine range from black to white with combinations of brown-white and black-white unknown in any human racial group.

TABLE I. RACIAL STOCKS AND THEIR CHARACTERISTICS*

Characteristic	White	Mongoloid	Negro
Skin	White	Yellow, brown	Dark brown
Eyes, hair	Varied	Dark brown, black	Dark brown, black
Hair	Straight, curly	Straight	Woolly
Body hair	Medium	None, slight	None, slight
Prognathism†	None	Slight	Marked
Brows†	Medium	Small	Small
Forehead	Sloping	Upright	Upright
Chin	Projecting	Medium	Slight
Nose	High	Low	Flat
Lips	Thin	Medium	Thick

*Adapted from William W. Howells, *Mankind So Far*, p. 222 (Garden City, N. Y.: Doubleday, 1944). Howells includes the Australian aborigine as a fourth major race.

†Prognathism: degree of protrusion of the jaw. Brows: supraorbital bony ridges.

Because of the very minor differences which must be invoked in any but the broadest classification of races into three or four major groups, agreement among specialists becomes less and less frequent with the finer distinctions. Yet such minute differences continue to be the rationalized basis for sweeping social attitudes. The "Jewish" nose is enough to place a man in New York under

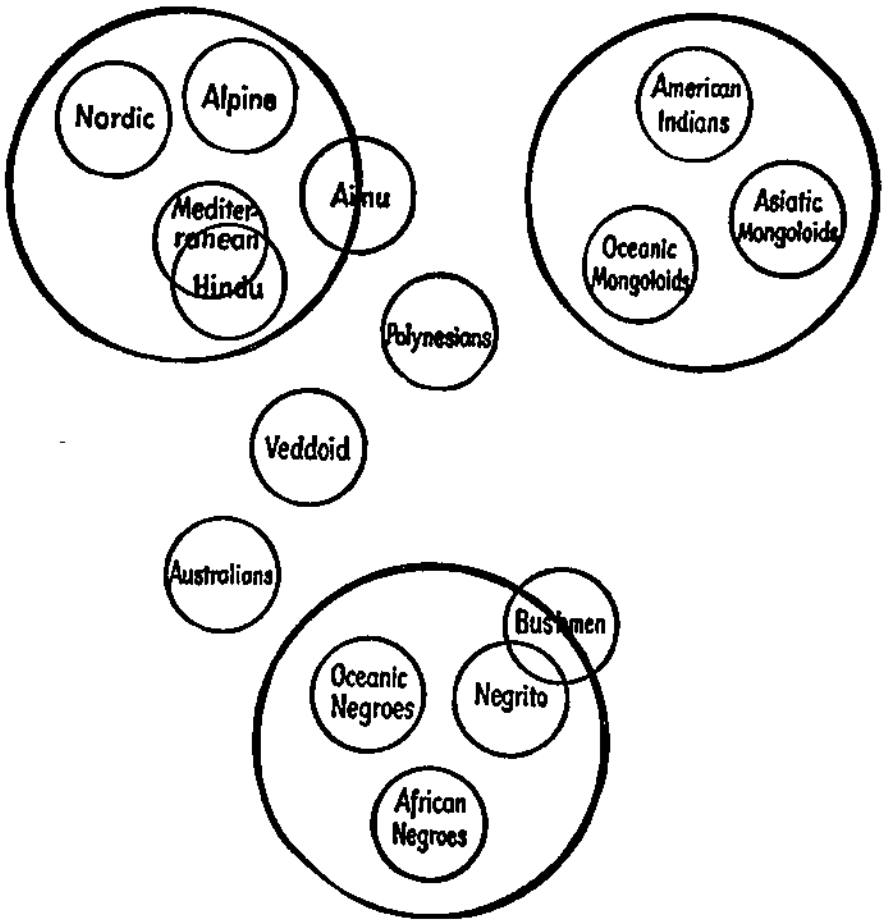

FIG. 16. The relationship of human races. (*From A. L. Kroeber, Anthropology, rev. ed., p.* 140, *Boston: Harcourt Brace,* 1948. *Copyright,* 1923.)

suspicion for being a shyster, whereas only 14.25 per cent of the Jews in New York have that typical nasal shape, and large populations of non-Jewish people in Syria, Palestine, Mesopotamia, and Arabia do.[14]

Race Mixture. To complicate the picture further, there are almost no racially "pure" groups. In spite of the past isolation of many peoples, an enormous amount of genetic mixing of racial lines has taken place throughout the thousands of years of human history. Miscegenation occurred between the major racial groups so that there are great bands of mixed peoples in Africa and Asia. These groups now preserve their own gene ratio originally derived from two or more stocks, and are now a new race just as much as the two original groups were races. Mixture has been going on even more among peoples less markedly differentiated, until a continent like Europe is hopeless for any universally agreeable race classification outside of the broad one of "basically Caucasoid," and a few grosser subclassifications like "Mediterranean," "Alpine," and "Nordic."[15]

Miscegenation has been a social problem especially in recent time through the influence of Western culture. We will treat of that below, but it should be remarked here that in none of the thoroughly studied cases of widespread race mixture is there any indication of physical deterioration in the resulting hybrid race.[16] Early studies to the contrary did not make the all-important distinction between the physical difference which is true race, and the culturally conditioned differences which we will treat below. As Dr. Ralph Linton has pointed out: "Every civilized group of which we have record has been a hybrid group, a fact which disposes effectually of the theory that hybrid people are inferior to pure-bred ones."[17]

Minor Changes in Race Form. Another extremely important factor in race classification and the consideration of race problems

[14]Louis L. Synder, *Race, A History of Modern Ethnic Theories,* p. 306 (New York: Longmans Green, 1939).
[15] C. Coon, *The Races of Europe* (New York: Macmillan, 1939).
[16]Harry L. Shapiro, *Six Generations* (New York: Simon and Schuster, 1936). Section IV, pp. 217-255, deals particularly with the results of race mixture and the inbreeding of the original settlers.
[17]Linton, *op. cit.,* p. 34.

is that any racial "type" is a norm from which there is some deviation. The deviation is not so much that a member of the Alpine subrace of the Caucasoids would ever be confused with a Bushman. It does mean that there are individual differences within a tightly homogeneous racial group, and it means further that, contrary to general biological theory, slight quantitative difference in racial characteristics will result from changes in environment. This last, now well-established fact came like a bombshell to racial theorists—in anthropology and out—when Boas announced it as a result of his measurements on the children of immigrants in New York City. The finds were duplicated and made more convincing by Shapiro in his carefully controlled studies of the children of Japanese immigrants in Hawaii as compared with their ancestors living in Japan. The results of Boas' work show among other things that physical features such as head and face length and width and stature are subject to change in the American-born-and-raised children of European immigrants, and "the influence of American environment makes itself felt with increasing intensity according to the time elapsed between the arrival of the mother and the birth of her child."[18] These data apply both to average and to specific families. Children born soon after the mother's arrival show less racial change than those born long after the arrival. Racial characteristics are set within a range both of individual differences and of possible type, but ecological forces may cause marked change within the genetic limitations. Except for stature, however, any changes are so minute as to be discoverable only with careful measurements.

Shapiro came to the conclusion that both selection and environment play a part in the altering of bodily form in immigrants and their descendants.

> I do believe that these changes, when they occur, move in accordance with the fundamental structure of the organism and only to a limited degree. I emphatically do not believe that the Japanese will ever become identical with Hawaiians as a result of enjoying an identical environment and I do not expect to find that the Japanese in Hawaii will eventually lose all similarity to the stock from which they came.[19]

[18]Boas, *op. cit.*, p. 61, 70.

[19]Harry L. Shapiro, *Migration and Environment: A Study of the Physical Characteristics of the Japanese Immigrants to Hawaii and the Effects of Environments on Their Descendants*, p. 202 (New York: Oxford, 1939). This work is a masterful example of careful scientific race analysis.

Qualitative Race Differences. Thus far, most attempts to measure physical and psychic qualitative race differences have been largely unsatisfactory. Descriptive and statistical studies showing qualitative differences in racial tendency to pathology, mortality rate, and intelligence have been collected and analyzed by Hooton,[20] Linton,[21] and Kroeber. Kroeber can only come to the conclusion: "Most of the alleged existing evidence on race endowment is probably worthless. The remainder probably has some value, but to what degree, and what it demonstrates cannot yet be asserted."[22] It remains only reasonable that there be some minor differences in race endowment *in specific characteristics* inasmuch as there is a genetic hereditary basis of such characteristics, but two conclusions at least are unwarranted: (1) that any one race has more than its share of undesirable or desirable genetic characteristics, and (2) that these differences are anything more than minor tendencies fairly easily overcome by cultural factors.

Intelligence quotient is an important case in point. No test has yet been devised which would eliminate the cultural factors to such a degree that any sound generalization on race differences in intelligence can be drawn. Education, city dwelling, the amount of specialized verbal activity of the individual or of the group are all cultural elements influencing I.Q. scores profoundly.

Even tests on the sense faculties do not eliminate culture.[23] The member of Western culture has been trained all his life in fine visual discrimination at close hand. He works with sharp tools, reads small print, and gets high scores on close visual discrimination. The primitive hunter searches for game on the horizon, rarely works with fine tools, and gets high scores in distant vision. Such differences cannot be shown to be racial, but are purely an accident of culture, in so far as tests have yet established.

Racial Origins. The origins of race differences are obscure. Except for those composite races which arise through mixture,

[20]Hooton, *op. cit.*, parts of pp. 541-567.

[21]Linton, *op. cit.*, pp. 46-59.

[22]Kroeber, *Anthropology*, p. 205.

[23]*Ibid.*, pp. 192-193.

we have no empirical knowledge of how races begin. The long-invoked rationalization of the origin of the three races in the three sons of Noah obviously will not hold for the following two reasons: (1) the sons were genotypically the same, and Biblically recorded groups of descendants remaining into historical times were Caucasian in race; (2) as nearly as can be determined, all areas inhabited by groups mentioned as being descended from the sons of Noah were inhabited by Caucasian peoples until relatively recent times. All Africa of the Sahara and north is historically Caucasian and not Negro. If all races were descended from Noah, their race differences developed independently of the coincidental number of Noah's offspring, and it can only be conjectured that race changes must have occurred among remote descendants in isolated places. The curse on Canaan does not apply to the Negro.[24]

The actual mechanism for the formation of race differences is unanalyzed. The best hypotheses are that mutation occurred in small, isolated groups which, because of their small size and isolation at rather extreme positions in the Europe-Asia-Africa land area, inbred the new factor. Both cultural and environmental selection could have operated. Modern cultural selection, for example, is reported by Linton for the Tanala of Madagascar.[25] If the Tanala Black Clan has a baby of too light a hue, the baby is killed in order to keep it from growing up to be a sorcerer. If the Red Clan has a baby too dark in skin color, the same procedure is followed. Both groups are endogamous (*i.e.*, members are supposed to marry members of the same clan only). Variants in the culturally undesired direction are thus eliminated. Natural selection for pigmentation is sometimes ascribed (especially by nonspecialists) to the effects of the sun or lack of it, but it is hard to find naturally selective forces for lip thickness, hair curl, nose breadth, eye color (except as it is associated with general pigmentation), ear shape, head width, and epicanthic fold.

The lack of any really important survival value in race differences should be noted. True, a naked Nordic in Central Africa would be subject to considerable discomfort from the sun, but the

[24]George Horner, "Are the Negroes Cursed?" *His*, Vol. 7 (May, 1947), pp. 28*ff*.

[25]Linton, *op. cit.*, p. 30.

Nordic is probably as much of an extreme variety as the Negro. His racial color at least is almost as different from that of most Caucasoids as is the color of many pure Negro groups in the opposite extreme. The predominant Caucasian pattern is dark as represented in races around the Mediterranean and through Western Asia. Whereas the Negro is pigmented more heavily than other races, the Nordic subrace is evidently a "mutation" in the direction of partial albinism. Mongolian American Indians have no difficulty in living on the equator in Amazonian territory. In fact, the American Indian shows no appreciable darkening of skin color in all the reaches from Alaska across the equator to Tierra del Fuego, even after an occupation of thousands of years.

The comparison of human race differences with the differences in any species of domesticated animal is sometimes considered to be an apt one by anthropological theorists. (Wild mammalian life does not present such an extreme variety in any species as we see in domestic horses, cows, cats, and dogs.) Isolation and controlled breeding (cultural selection) are a part of the domestication picture and no doubt contribute materially to the building up and maintaining of these differences. The human situation is so parallel that the term "self-domestication" has at least metaphorical usefulness. Cultural selection and cultural isolation will not "create" race differences in man any more than in any other organism. They may serve to establish a series of mutations within a stock, but can probably do no more than that. Possibly whatever biological processes have given rise to a wide range of physical form in domestic species have likewise operated in man.

The correlation in distribution between the centers of racial difference and their marginal positions in the greater Europe-Asia-Africa land mass is significant (see Fig. 17). The extremes of racial specification occur away from the center of the land mass and isolated by rather formidable geographic barriers. The large population of the area is intermediate, tending in one direction or another as intermixture or specialization may have occurred in varying degrees. The map is oversimplified particularly as to the great secondary movements which have caused extreme Mongoloids to spread over all of the Far Orient and extreme Caucasoids all over the earth. It does, however, illustrate the central problem.

Race Dispersions. The spread of some races and of large populations is documented from fairly modern history, the present Caucasian and Negro population of America being the most obvious case. We have indirect evidence also for the widespread and rapid prehistoric spread of such peoples as the Eskimo of North America and the Bantu-speaking groups of Africa. In both of these cases, the relative linguistic homogeneity over large areas speaks for rapid expansion. The most dramatic prehistoric spread is that of the Pacific island populations, particularly of the Polynesians who made their migrations over thousand-mile stretches in open canoes.[26]

The Scriptural record is of the spread of peoples from their origin in the approximate center of the great Europe-Asia-Africa land mass. This Biblical picture is so close to the best anthropological reconstructions of the original dispersion and the divergences of races that it is used as the allegorical picture of scientific findings by Dr. Ruth Benedict and Miss Gene Weltfish in their popular booklets combating race prejudice, and is basic in their map (Fig. 17).

Population movement into and through the New World is still one of the puzzling questions of group dispersions. The racial structure of most New World populations was fairly uniform in pre-Columbian times. The two continents were furthermore populated in their most distant and least accessible reaches, though with varying population density. Estimates for the earliest settling of the continent are now generally in the range of 10,000 to 20,000 years ago,[27] on geologic dating of ancient artifact finds. Although such dates are subject to severe revision (and there has been revision of some American archaeological dating toward greater modernity), they present a serious problem in determining the antiquity of the Flood, Babel, and the dispersion. It would seem

[26]For a reconstruction of possible routes of settling of the Pacific see J. E. Wechler, Jr., *Polynesians: Explorers of the Pacific,* War Background Studies No. 6. Washington: Smithsonian Institute.

[27]Paul S. Martin, George J. Quimby, and Donald Collier, *Indians before Columbus: Twenty Thousand Years of North American History Revealed by Archaeology,* pp. 79-83, 513-520 (Chicago: University of Chicago Press, 1947). Critical review of the book in *American Antiquity,* Vol. XIII, No. 2, pp. 184-189.

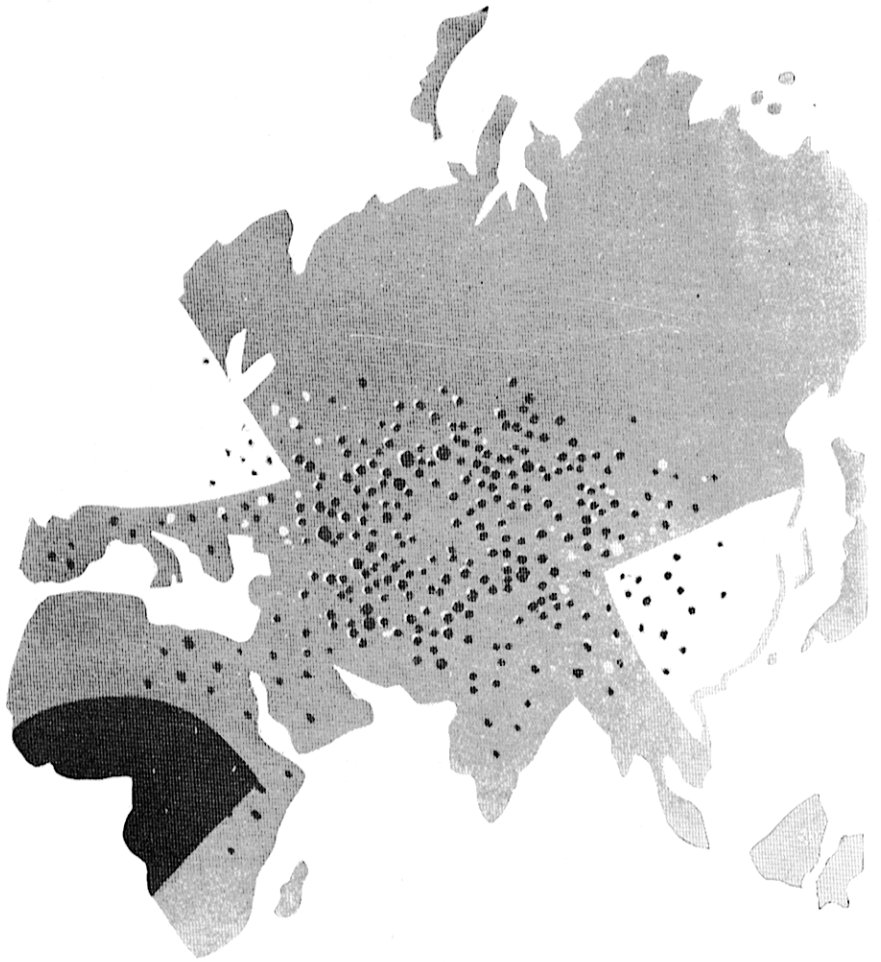

FIG. 17. Map showing areas of the extremes of skin color. Upper left: white; Lower left, black; Lower right, yellow. (*From Ruth Benedict and Gene Weltfish, In Henry's Backyard, New York: Henry Schuman,* 1948. *Copyright,* 1948.)

doubtful that the American continents were settled at all until Northeast Asia was at least partially populated. The earliest human artifact finds in North America show a very highly skilled stonework technique.

Race and Race Prejudice. The present important social issues of "racism" have been deliberately avoided in the preceding discussion of race because "race" and "racism" or "race prejudice" are two entirely different phenomena. Race has already been defined, but as Dr. Ruth Benedict has pointed out, "racism is the dogma that one ethnic group is condemned by nature to congenital inferiority and another is destined to congenital superiority."[28] Strictly speaking, racism or race prejudice is not a race problem at all, but a cultural problem. The phenomenon is phrased in racial terms at present, and it is dealt with here.

At least a partial basis for all race prejudice is the widespread feeling of the superiority of one's own group, particularly if the group is in political or economic dominance. Even the lowly Todas, a formerly isolated primitive tribe of Southern India, look down on their neighbors the Kota.[29] The only Toda claim to greatness is an elaborate, but now completely meaningless and mechanical, ritual centered on their sacred buffalo. To the outsider the Kota people seem at least as impressive as the Todas, especially as they supply the Todas with virtually everything they need except butter! The Kotas are ambitious, with a level of technical skill unknown to the Todas. But the Kotas eat animal flesh, and that makes them subhuman to the Todas' thinking.

Racism enters the picture when the feeling of superiority is rationalized on the basis of hereditary, inborn superiorities and inferiorities. Thus when a Negro commits a flagrant crime, the racist finds proof that the Negroes are "just naturally cruel and vicious." Cultural, linguistic, and racial issues become confused until we hear that "the French" (a political group consisting of several subraces as well as mixed peoples) are volatile, excitable, and highly verbal (all culturally determined traits). The "primi-

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[28]Ruth Benedict, *Race: Science and Politics*, p. 155 (New York: Modern Age Books, 1940).

[29]W. H. R. Rivers, *The Todas*, pp. 635-640 (London: Macmillan Co. Ltd., 1906).

tive" (any one of a dozen major and minor racial groups) is said to be "fickle," "impulsive," "lacking in restraint," "improvident," "just a wild savage," "incapable of learning," or, to go to the other extreme, extraordinarily sharp of sight and hearing, enigmatically wise, "just naturally" able to move through the underbrush with stealth, etc., with amplifications and variations.

The Modern Jew. The present flagrant confusion of race and culture by Christians who consider themselves "racially tolerant," as well as by avid racists, is most evident in the case of the modern Jew. Originally a Semitic-speaking group of the Eastern Mediterranean subtype of Caucasoids, the Jewish nation developed a culture similar to its neighbors but was the recipient of revealed religion of at least a partially unique character. The separation enjoined by God upon the Israelites is an excellent example of the way He uses cultural phenomena to serve His purpose, in this case to preserve moral purity through absence of contamination with pagan neighbors. The fact that many Jews carnally despised their non-Jewish neighbors to excess may also be seen as the typical interethnic animosity. Christ's atypical treatment of Samaritans might well be remembered.[30]

For a thousand years after the dispersion of the Jews, this people—an ethnic and religious group of originally Eastern Mediterranean race—had fairly complete spatial and social mobility, reaching from France to India, from Russia to Ethiopia, and even reaching China. For a thousand years proselytizing and intermarriage occurred continually, until in each area the Jewish population, while preserving its religion and some common ethnic features, took on the racial and general cultural features of the population of that area. It became indistinguishable from the physical type of the area in which it lived. The case of the Jewish nose has already been mentioned.[31] It should be further pointed out that 60 per cent of the Jews in southwestern Germany became blond to approximate the blond ratio in the non-Jewish population.[32] Now there is a large variety of races among Jews (who still remain an ethnic and a religious group). They are Mongolian in

[30]John 4:1-42.
[31]See p. 109.
[32]Snyder, *op. cit.*, p. 305.

China, Negro in Ethiopia, and generally Caucasian elsewhere, with the Caucasoid further subdivided according to the particular racial character of their neighbors.

Jews have developed a group cohesion in those areas where discrimination against them has been particularly strong. In such areas also they have tended to preserve their genetic lines by endogamy, but only in relatively recent times. So complete has been their assimilation in all but religious factors, however, that the most characteristic "Jewish" tongue (until Hebrew was revived) is Yiddish (a German dialect from medieval west-central Germany). "Typical Jewish" features such as facial expression, stance, and gesture mannerisms again are a specialization of the central Europe area from which many American Jews came, thoroughly established as cultural habits by long isolation in ghettos. Thus even an "atheistic Jew" may be ethnically a part of the Jewish group if his behavior is still characteristic of that group. As long as he is identified with the Jewish population in his behavior or by his association, he remains a "Jew." As soon as assimilaton becomes complete, he often becomes indistinguishable from the general American population and should no longer be considered a Jew.[33] Such an individual has now been acculturated to the majority ethnic group, and never was a different race. The analogy is not that of a Negro becoming white; it is that of a southern white "Christian" becoming a northern white "atheist," changing in his religious views and assimilating all northern habits of behavior and speech. He may have been born in the South, but ethnically, he is a Northerner, and the racial composition of the two groups is approximately the same.

All of this does not discount the special importance of God's historical and future dealing with the Jewish group. Their ethnic grouping is a marked subdivision of many varied cultures. Their ethnic distinctiveness, although often not as great or profound as many other people think, is nevertheless real. Jewish *religio-culture* not *race* is the basis for a grouping which God chooses not to allow to disappear. In His dealings with men, God generally

[33]For a general discussion of the Jews as a "race" see Melville Jacobs and Bernhard J. Stern, *Outline of Anthropology*, pp. 69-72 (New York: Barnes and Noble, College Outline Series, 1947).

works out His purpose through culture. Scriptural evidence indicates that there will always be a Jewish people (*i.e.*, that the ethnic group will never be everywhere completely assimilated).

Racism as directed against the Jews, then, is not even "race prejudice," and the features of Jewish character which are despised are not inherent or in any way fixed, but are the elements of a learned heritage of an only slightly varying subculture of the general Western pattern and content. The Jewish minority in this country is a cultural minority, not a homogeneous racial one.

The American Negro. The Negro in the United States, on the other hand, is a member of one of two general but genuine racial minorities: Negroid and mixed Caucasoid-Negroid (plus other less common composite races resulting from Negroid-Mongoloid miscegenation, etc.). The two racial groups are lumped by Americans into one "Negro" caste. It is a peculiarity of American culture stereotypes that an individual of any ancestry in non-Caucasian "blood" is considered of the non-Caucasian race. In states which forbid intermarriage of races, a Negro is defined as any individual who has ancestry ranging from one-fourth Negro in Oregon to one-sixteenth in Virginia and "ascertainable trace" in Georgia.[84]

The false position of the racial purist who thinks that race mixture will debilitate the race and does not realize the cultural conditioning of that "race" feeling is seen in the Oregon law which prohibits marriage between whites and individuals of other "races" according to varying proportions, one-fourth Negro, one-fourth Chinese, and one-half "Indian"! The Negro (a racial group) and the Chinese (a national group most of whose members are of Mongoloid race) are grouped together by the law in one category, but the "Indians" (a nondescript term for the aboriginal inhabitants of the Western world, Mongoloid in race) are not grouped with their fellow race members the Chinese, but are placed in a category of their own. The whole issue of the cultural conditioning of race prejudice is highlighted by comparison with Brazil where (except as the American tourist spoils the picture on the coast) the mixed blood is considered "white" if he has any Caucasoid ancestry, just as in the States a man is considered "Negro" if he has any Negroid ancestry. Obviously other forces than purely racial ones are at work.

[84]Data on state miscegenation laws from M. F. Ashley-Montague, *Man's Most Dangerous Myth: The Fallacy of Race*, pp. 188-193 (New York: Columbia University Press, 1942).

Racial versus Ethnic Animosities. Race prejudice is a very modern phenomenon. In ancient times and among many peoples today, animosities were generally ethnic, phrased in the simple in-group and out-group. "My tribe" was "the People" or simply "Man," as some groups call themselves. "Your tribe" consisted of subhuman individuals, or at least decidedly inferior ones. In Joseph's time ". . . the Egyptians might not eat bread with the Hebrews; for that is an abomination unto the Egyptians."[85] The rationalization of the attitude appears later: ". . . for every shepherd is an abomination unto the Egyptians."[86] The occupational difference was enough to stereotype the hostility of one group for another.

With the rise of world religions, the same animosities were culturally channeled along religious lines,[87] until we had specialization of the attitude in the Inquisition. Heretics were not human in the same sense as orthodox Christians. Later, with the acquisition of colonies, a strong distinction was made between Christian natives and non-Christian ones, particularly in Catholic countries, until it became economically expedient to exploit all natives. It was economically inconvenient for a plantation owner to release a slave when he became a Christian and therefore human. The gradual shift resulted in a phrasing of inferiorities in racial terms. This was really the most satisfactory channeling of prejudices because a man could do nothing about his race. Thus the medieval Inquisition became modern racism. As Dr. Benedict pointed out, "This old human obsession is that my group is uniquely valuable and, if it is weakened, all valuable things will perish. It were better therefore that a million perish than that one jot or tittle of that unique value be lost."[88]

The crucial issue of "race prejudice" is *prejudice*, not race. The anthropologist works for the scientific analysis of race dif-

[85]Genesis 43:32.
[86]Genesis 46:34.
[87]Development of the cultural history of racism is from Benedict, *op. cit.*, pp. 151-519.
[88]*Ibid.*, p. 221.

ferences, and finds them to be negligible. The prejudice, however, is strong. He finds no deteriorating effects in race mixture, hazarding a guess that there is probably only a very small percentage of persons of unmixed ancestry in the world today (and they are certainly not in the "American melting pot") but the feeling persists that to be a "half-breed" is degrading. The ultimate causation of group animosities which are at present rationalized as race inferiorities is a problem for further investigation.

Christianity's essential stand on the race question is that all peoples are of one family. Paul sees not a racial distinction but a religious one: "There is neither Jew nor Greek, there is neither bond nor free, there is neither male nor female: for we are all one in Christ Jesus."[39] In the attitude he expresses, obvious racial differences together with equally obvious sex differences are subordinate to Christian unity.

The Biblical record is of the common origin of all peoples. When Christian individuals take the racist viewpoint, they are following the perverted culture patterns of their society. When the anthropologist speaks of the physical and "psychic" unity of all mankind he is giving scientific emphasis to a fact which the Christian world should know from revelation: "The God who made the world and everything in it . . . made from one every nation of men to live on all the face of the earth. . . ."[40] One of the greatest blights on missionaries and missions in some parts of the world is the tacit assumption of an utterly false racial dichotomy and the assimilation of the pompous biological projection of political imperialism characteristic of colonial areas. Instead of emulating the Christ who identified himself with a foreign race to the point of incarnation, many a missionary happily imitates the exclusiveness of his compatriots and basks in the forced reverence which natives long drilled to submission accord him.

Culture

In the foregoing discussion of race, it became apparent that man as a biological entity is never divorced from a large body of

[39]Galatians 3:28.

[40]Acts 17:24-26 (R.S.V.).

behavioral, institutional, but nonhereditary patterns. So marked is the body of man's superorganic patterns that it colors the layman's racial (*i.e.*, biological) judgments; so strong is it that even the specialist cannot always decide whether nature (biology) or nurture (culture) is the major force at work in building certain human traits, even when the trait is such a biologically identified one as the psychological or temperamental difference between the sexes.[41]

Nature and nurture are different phenomena. They operate on different levels of human existence, but they are inseparable except for conceptual analytical purposes. In anthropological terms, biological man does not exist outside of his culture; neither does his culture exist except as lived by him. The two are inseparable, but they are different. We do not want to lose a sense of the unity of man's total make-up in his organic life and his behavior, but for definitive and analytical purposes, we must separate those phenomena which operate on different bases.

Definition of Culture. The term *culture* as used in anthropology is an extremely broad one, referring to all human activity which is not completely due to biological inheritance. It consists of those ways of thinking, feeling, and acting which are learned, and not biologically transmitted, and pertains to the material and conceptual products of cultural activity. Behavior which is not organically determined, plus the results of that behavior, forms the object of culture study. Culture is probably characteristic exclusively of human beings.[42]

Dr. Kroeber's definitive statement of culture or "civilization" as a "superorganic level of development" remains as one of the best clarifications of a most fundamental assumption in anthropology.[43] It is that the human race existing through centuries re-

[41]For the psychologist's formulation of the problems of nature and nurture, see Gardner Murphy and Lois Barclay Murphy, *Experimental Social Psychology*, pp. 27-75 (New York: Harper, 1937).

[42]Even the "more intelligent" animals which learn to perform "cultural" acts of considerable skill, such as riding bicycles, are taught to do so by human beings and not by their fellow animals. Culture cannot be said to exist among animals because even its rudimentary manifestations among them are not passed on. See Kroeber, *Anthropology*, pp. 58-68.

[43]Kroeber, "The Superorganic."

mains unchanged in its major, gross features unless mixed with another race or subject to mutation; but culture, which likewise exists through centuries, constantly changes and exists without marked correlation with the particular race which bears it. The superorganic existence of culture, then, is demonstrated every time a Caucasian missionary learns a language spoken by Negroes, and every time a Negro whose habitual dress has been a loin cloth learns to wear a shirt.

Actually, it will be seen that in using the term *culture* we are conceptualizing and generalizing. "Culture" as such exists nowhere except as an intellectual concept. It is an abstraction of the thousands of individual cultures which exist wherever there are human beings. These individual cultures vary between now nearly extinct Bushman hunters and New York socialites. Individual culture traits like the English language may have existence (although many languages are also extinct), but culture is a generalization on the sum of all human cultures through all time. The subject matter of cultural anthropology, then, is first of all the study of the greatest possible variety of single cultures from which over-all conceptualizations can be drawn. As the science matures, it steadily draws from its world-wide study of culture those generalizations which hold true, many of which may have their implications in the plight of Western culture today.

The Christian and an Understanding of Culture. While the anthropologist is interested ultimately in the prediction and control of culture, the Christian may learn lessons of a different nature as well. Until the Christian has grasped the rudiments of the nature of culture he is bound to a Christianity which is cultural without a clear distinction from the supercultural; he is obsessed with a feeling for the superiority of his type of Western culture in all ways over all other cultures; he is bound by an unanalytical culture prejudice which precludes rational judgment; he is blinded to a large part of the truth (even supercultural truth). Intellectually as well as spiritually, "the truth shall make you free."

If anyone needs a comprehensive view of mankind in the present and all through the past, it is the Christian who has recourse to the supercultural in a world of men who are unknowingly enmeshed in a system of perverted culture. Important as physical

anthropology is to questions of man's racial heredity and the antiquities of his existence on earth, the concepts of cultural anthropology are even more significant for the living of the Christian life in the present.

"Evolution" of Culture. One of the earliest conceptualizations of the development of human culture in modern anthropology was associated with nineteenth-century concepts of inevitable progress. It maintained that all peoples followed certain regular stages of cultural development. The nineteenth-century "evolutionists"[44] in cultural anthropology together with the other "liberals" of the day considered that European civilization represented the acme of cultural evolution, and that the more culture differed from the European pattern, the farther down the scale of development it should be. It was correspondingly assumed that primitive groups were ones which had been arrested in their development. The scheme was a corollary of the assumption that man progressed culturally as his brain evolved into a more complex structure.

Few present-day anthropologists, if any, follow so bold and ethnocentric an evolutionary conceptualization of culture as defined above. In fact, under the scrutiny of Boas and his students, the naivete of the crass evolutionary a priori generalizations, and their lack of conformance to the facts of human culture as they were being discovered by more and more trained ethnographers over the world, resulted in a repudiation so complete that for a time many cultural anthropologists hesitated to use the word *evolution* for culture except in a strictly figurative sense.[45]

As became readily apparent on examination, and as Kroeber admirably defined,[46] there is a basic difference of mechanism between the postulated human evolution and the processes of culture change. Change from one form to another in organic evolution is conceived as the modification and the eventual transformation of an already existing part. It is the gradual substitution

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[44]For a classic work by a cultural evolutionist, see Lewis H. Morgan, *Ancient Society* (Chicago: Kerr, 1907).

[45]For a contrary view recently being expressed in anthropology, see Leslie A. White, "Diffusion vs Evolution: An Anti-Evolutionist Fallacy," *American Anthropologist*, Vol. 48 (1945), pp. 338-356, and other works by the same author.

[46]Kroeber, "The Superorganic."

and elaboration of a new part or organ for an old. Thus the unspecialized Tarsier-like grasping foot is considered eventually to have become the hand.

In culture growth, however, tremendous historical documentation was available to demonstrate that change is not only by modification of an already existing element, but often by addition of new elements in the culture. Man invents a hammer to implement his hand. The old pattern may be retained while the new one is added, or the old pattern may be seriously modified through the change. The rate of culture change becomes partially dependent upon the complexity of the culture. Inventions, whether customs, ideas, or material objects, usually grow out of combinations of already existing inventions, and each of these new inventions, or several of them in combination, may give rise to more.[47]

Another fallacy of early evolutionary schemes was the identification of cultural levels with racial inferiorities which were in turn equated with physical evolutionary levels. The overwhelming evidence of ethnology, and of studies of race characteristics, showed no essential difference in the inherent mentality of one group as compared with another. It is now a basic assumption of cultural anthropology that qualitative biological differences between stocks are so minor as to be ignored for cultural study until they can be measured accurately.[48]

The morphological fallacy also confused the issue of the evolution of culture; for here, as in the present reconstructions of human evolution, classifications made by formal criteria for convenience of comparison were taken to be indicative of generic relation. Morgan's whole scheme of the development of society through the stages of *savagery, barbarism,* and *civilization*[49] is based largely

[47]For a brief discussion of "Discovery and Invention" see Linton, *op. cit.*, pp. 304-323.

[48]Otto Klineberg, "Racial Psychology" in Ralph Linton, *The Science of Man in the World Crisis,* pp. 63-77 (New York: Columbia University Press, 1945); Melville J. Herskovitz, *Man and His Works: The Science of Cultural Anthropology,* p. 135 (New York: Knopf, 1948): ". . . greater differences exist in the range of physical traits that characterize any single race of mankind, than between races in their entirety."

[49]Morgan, *op. cit.*, pp. 9-12. "Like the successive geological formations, the tribes of mankind may be arranged according to their relative conditions into successive strata. When thus arranged, they reveal with some degree of certainty the entire range of human progress from savagery to civilization. Thorough study of each successive stratum will develop whatever is special in its culture and characteristics, and yield a definite conception of the whole in their differences and in their relations. When this has been accomplished, the successive stages of human progress will be definitely understood" (p. 507).

on the forms of kinship structure which he found or reconstructed for groups, and which he arranged in a fairly arbitrary typological order.

In spite of the fact that it has been fashionable to be "anti-evolutionist" in cultural history, the basic assumptions of an evolutionary construct are by no means dead. Textbooks of anthropology begin with such concepts as "anticipation of culture among apes."[50] The implication is that we can learn about the beginnings of human culture from "proto-cultural" activity among apes and construct therefrom what must have been the first kind of cultural activity of man as he developed from apelike forms. Considerable discussion centers on what culture elements developed first in the hypothecated transition period. Such questions are admittedly speculations and are not worth serious controversey as such. Their value stands or falls with the question of the reality of human evolution from lower forms as we have outlined above.

A caution should be injected here. The general reaction of Christians to evolutionary schemes of culture development is generally to discount the "evolution" in favor of "degeneration." Primitive groups are considered by them to have degenerated from higher civilization. This reaction should not be adopted too glibly or we are guilty of the same hypothesizing without evidence of which the early evolutionists were guilty. Certainly the over-all process of culture development has been in the direction of increasing complexity. Even the Dark Ages—a period of cultural decline in Western Europe—did not mean that culture was not brilliantly developing among the Byzantines and Arabs.[51] The German barbarians learned more from the Roman Empire which they supplanted than from their destruction of its cultural continuity. Archaeology occasionally shows a layer of poorer civiliza-

[50]See Kroeber, *Anthropology,* p. 59.

[51]Harry Elmer Barnes, *An Intellectual and Cultural History of the Western World,* rev. ed., p. 327 (New York: Reynal and Hitchcock, 1941).

tion above a rich one, but the change is generally temporary. Arts have been lost many times, and in specific instances there has unquestionably been the deterioration or replacement of culture systems.[52] Yet when all examples of cultural degeneration have been amassed, the cultural forebears of every civilized group are known to have had a relatively simple life quite analogous to that of many "primitives" today.

Again we recognize from Scripture that since Adam knew God and his descendants do not, they have religiously degenerated in that sense. The concept should not be too widely applied, however. So far as most of culture is concerned, the beginnings were small and simple. If they are now simple, there is little point of hypothecating a complex stage between the two points of simplicity unless archaeology should reveal such an unusual development.

As we will point out below, culture is perverted in that it tends to be elaborated in systems which both propagate paganism and set a barrier to true Christianity. It is questionable that culture as we know it was ever otherwise, however.

That human culture has changed through time for better or for worse is obvious, and well documented by all history. One of the basic objectives of anthropology has been to determine the causes and patterns of such change. To put the question in partially Biblical terms, the pre-Fall Adam and Eve had only the barest rudiments of culture; their descendants in China, in India, in Australia, in New York all have highly different cultural manifestations, emphasizing different types of institutions, showing various degrees of complexity. How did this come to be?

Diffusion of Culture. In reaction to the early approach which considered culture development to be an automatic corollary of biological evolution, there have grown up different emphases in anthropology, some of them more productive than others, some more empirically sound, some more pertinent for Christian thought and life. One such emphasis, for example, has been on the ways in which different facets of culture are transmitted from one society to another. One group of people learns from another, and the elements of culture spread, sometimes over large parts of the earth.

[52]A. L. Kroeber, *Configurations of Cultural Growth*, pp. 818-825 (Berkeley: University of California Press, 1944).

Such an emphasis does not explain the origin of an element but rather determines where it is now found, how it spread, and what the probable center of origin was.

This diffusionist emphasis, or emphasis on the way culture spreads, derives some of its classic examples from the spread of writing systems from their early beginnings in the Near East,[53] or the smoking of tobacco from the American continent to almost every people of the earth since Columbus's time, or of myths, social systems, or religious rites among nonrelated peoples of contiguous areas. Culture growth, expansion, or change is described therefore in terms of the influence of one society on another. The extreme diffusionists emphasize the uninventiveness of the human mind, contending that it is only upon rare occasions that duplicated inventions are accomplished independently. This assumption causes them to stress the irrelevance of distance as well. If the same type of culture pattern or material device is found in two widely separated areas, and there is no visible way for it to have traveled from one place to the other, it is assumed that such a way existed but is no longer visible.

A very modern exposition of an extremely diffusionist historical reconstruction may be seen in Gladwin's *Men out of Asia*,[54] which describes all the high civilizations in American Indian cultures in terms of contacts with Asia--even to the extreme of postulating that Alexander's fleet sailed the Pacific picking up a Polynesian crew and bringing both Asiatic and Polynesian traits to the New World to give rise to Inca cultural forebears! Needless to say, Gladwin is lonely in his views, but he had had some close intellectual relatives among some other extreme diffusionists in anthropology, particularly the British school.

The Knowledge of a Supreme Being. Probably the anthropological diffusionist whose work is most influential among Christian thinkers is Father Wilhelm Schmidt whose theories of the "origin" of religion in a "high God" concept have been popular-

[53]Kroeber, *Anthropology*, pp. 509*ff*.

[54]Harold Sterling Gladwin, *Men out of Asia*, [New York: Whittlesey (McGraw-Hill,) 1947]. See also reviews by Julian H. Steward, *American Anthropologist*, Vol. 51, No. 1 (1949), pp. 113-115; and review by Gordon R. Willey and Marshall T. Newman, *ibid.*, pp. 160-164.

ized for Christians in America by Samuel Zwemer.[55] Father Schmidt is an amazingly versatile scholar, highly respected by his anthropological colleagues both in Europe and America, but he is a leading exponent of an anthropological theory which prejudices many of his conclusions. According to Schmidt and the other *Kulturkreis* diffusionists, wherever there is found a culture trait which bears any similarity with any other anywhere else over the face of the earth, the conclusion is that both have diffused to that point from a common center. The common center is thought of as being one of the primeval isolated groups in which man first lived after he began to multiply but when he still had plenty of room on the earth. As different culture elements came into contact with elements from other cultures through the improvement of methods of communication, they were conceived of as blending, or of being destroyed by each other.

When Schmidt worked out his theories of the origin of religion he assumed with all diffusionists that wherever a primitive people had an idea of a Supreme God that that was a relic of one of the original *Kulturkreise* (the circles of isolated culture development). He amassed an impressive roll of such primitive people in a masterly and scholarly work,[56] but his conclusions suffer with his premises. Religious systems like other emphases in culture arise and decline among civilized peoples. The idea of a Supreme Being is subject to the same vagaries. Because a group today believes in a Supreme Being is no indication that it has always done so.

Schmidt furthermore left out of his consideration the large number of equally primitive groups who have no "high God" concepts, and so his sampling was one-sided. Like other extreme diffusionists, and like the evolutionists he repudiated, Schmidt was also guilty of the comparing of incomparables. The slightest indication that a people conceived of a Supreme Being of the vaguest sort was enough for inclusion, whereas the sound reconstruction of

[55]Samuel Zwemer, *The Origin of Religion: Evolution of Revelation* (New York: Loizeaux, 1945).

[56]Schmidt's major work on the subject is the 7-volume *Der Ursprung der Gottesidee* (Munster, 1926-1934). An English summary is *The Origin and Growth of Religion: Facts and Theories*, trans. by H. J. Rose (New York, 1931).

prehistoric distribution patterns must restrict itself to a comparison of those culture elements which have a fairly large part of a complex in common.[57]

We agree with Schmidt, but not on the basis of his anthropological premises or method. We agree, a priori of anthropology, because of Scriptural record that Adam and Eve knew the High God and that the original religion must have known Him. We see in Cain and Abel a reflection of that religion. On the basis of the anthropological evidence we cannot agree, however, that all of the most primitive peoples have a recollection of the "High God" or if they now have such a concept, they have had it all through their cultural history.

The Function of Culture. Another important anthropological emphasis, one extremely pertinent to Christian missions, is the *functional* approach which makes much of the fact that cultures are not simply a collection of separate culture traits, but are integrated and meaningful wholes. The functionalist insists that single elements of culture cannot be understood and interpreted apart from an understanding of the general scheme, pattern, or emphasis of the cultural setting. The functionalist maintains, therefore, that the social systems mean nothing apart from the coexisting and mutually interworking economic processes of the society, and that religion likewise cannot be divorced nor treated separately from either of these two or from the pattern of child rearing, the subsistence level, or any other part of the cultural life with which it is in functional relationship. Religion is generally closely related to many parts of the culture.

We will not concern ourselves with the extremes of functionalist thought, which are unsound because their methodology cuts one culture off completely from others. Extreme functionalism is not likely to have its effect on Christian thought. But for the missionary who is not an anthropological specialist, who is concerned primarily with questions of his relation to his native people, of the effect of the gospel on these people, their receptivity to the Word of God, and the implications of Christianity for native life,

[57]For a fair review of Schmidt's general theories see Robert H. Lowie, *History of Ethnological Theory*, pp. 177-195 (New York: Rinehart, 1937).

a concept of every people's culture as an integrated functional whole is essential.[58]

Religion has been relegated to a separate compartment of life in Western culture. That is partly why the modern world gives it up so easily. With altogether too few people it is a functionally integrated part of their culture and of their life. It has become an embellishment, and virtually meaningless so far as the main stream of their cultural existence is concerned. Such a picture is almost never true in any other society. The conversion of an individual has its reverberations in every part of his life.

Linton reports an area in Madagascar where the native pattern of village life was one of severe cleanliness because ancestral spirits were thought to approve of cleanliness. Upon the Christianization of some of these villages the conceptual scheme of life was changed and no longer was ancestral punishment associated with filth. As a result the Christian communities were filthy, unhealthy spots, while the villages of pagan neighbors were clean and relatively far more healthy.[59] A missionary neglected to watch for the functional reverberations of conversion in all parts of the native life. A missionary did not lead the Christian communities into the development of a "functional substitute" for their previous behavior.

Any good missionary is necessarily an amateur functional anthropolgist even if he has never heard of anthropology. Any missionary who studies his people as they are, as they live, as they think, is using a functional approach to them to the degree of the depth of his study. Anthropology can provide the missionary with refined techniques of study and with developed generalizations of culture and behavior patterns which will not only make his knowledge of the people more thorough and his adaptations more profound, but will also mean a far more rapid arrival at pertinent observations and valid conclusions. Anthropological methods of studying societies and other facets of culture patterns which go along with them save many a missionary from part of

[58]Among several papers on anthropology and its place in missionary methods published in the *International Review of Missions*, see W. H. Newell, "'Functional' Social Anthropology and the Christian Missionary Method," *International Review of Missions*, Vol. 36, No. 142 (1947), pp. 253-257.

[59]Linton, *The Study of Man*, p. 357.

the painful learning of trial and error,[60] from being a "bull in a china shop, crashing hither and yon through the delicate materials of native life and thought."[61]

Anthropology as a science is not particularly interested in developing its techniques for the practical use of colonial administrators and missionaries alone. Modern American anthropology is interested in the functional interworking of a given culture for what it will reveal about the processes and relationships of culture, about its patterns and their effect on the individual. It is, furthermore, interested in the way culture has developed into cultural situations today. It is interested in the effect of one culture upon another, and in the effect of the individual on his culture and the culture on the individual.

Functionalism, like diffusion, then, although a valid concept as far as it goes, and supremely important in practical or applied anthropology, is not a total answer to the science of culture. In fact, the American anthropologists of today, although they each have their own emphases and interests, are keenly aware of the mutual interdependence of their interests.

The History of Culture. As modern anthropology is turning again to the problems of culture history and the processes of culture growth, it is concerned with the functional interrelation of culture as well as the increasing complexity of culture through time as a part of the approach. The carefully reconstructed development of the history of culture is related to the thinking of any student of the Scriptures. Human culture is found in association with human fossils as far back as Sinanthropus. Of course the fossils which were found without culture evidence in the form of fire hearths or stone implements are not thereby proved not to have had such. Prehistoric archaeology becomes the most fundamental basis for a determining of the earliest culture history. We do not discuss archaeology here because of its treatment in a separate chapter of this volume, but it should be pointed out that the archaeology of prehistoric man is largely conducted by anthropologists.

[60]For missionaries who have used anthropological methods of study and advocated them in print, see Dodge, *op. cit.*, especially pp. 127-207.

[61]Felix M. Keesing, "Applied Anthropology in Colonial Administration," in Linton, *The Science of Man in the World Crisis*, p. 392.

The Scriptures seem to indicate a fairly complex culture for man immediately after the Fall. We do not fully understand the time relationships of the book of Genesis, but Cain and Abel are shown with domesticated plants and animals respectively. In the present understanding of culture history such domestication comes relatively very late in time. If it is true that the earliest indications of agriculture are about 8000 B.C. or later in the Mesopotamian Valley[62] we have a major problem that deserves careful study in the light of the age of man. It is of course entirely possible that agriculture was in use long before that date in central Asia, but even that does not help the basic problem to any great degree if man is much older than that, as the fossil evidence indicates. Here is a problem eminently worthy of study.

Evangelicals rarely realize that the Scriptures outline some of the tremendous processes of culture change and that they reflect God's willingness to adjust His dealing with men to man's culture, and to adapt His stages of divine revelation in part to the cultural scene. The relationship of Adam and Eve and later Revelation indicate that God prefers one man to marry one woman, yet he never overtly condemned Abraham and the other patriarchs for their multiple wives. He was interested in their relation to Him. Had Abraham lived in Paul's time, however, he would have been expected by man and by God to have only one wife. Polygamy as an element of perverted culture did not stand in the way of God's using Joseph (the son of a second wife) to bring about the rescue of his family from hunger. Probably the most startling instance in which God used an extreme of perverted culture for His purposes may be found in the case of Hosea: "And the Lord said unto Hosea: Go, take unto thee a wife of whoredoms and children of whoredoms: for the land hath committed great whoredom, departing from the Lord."[63] The story of Judah and

[62]V. Gordon Childe, *What Happened in History?* pp. 41-61 (New York: Pelican Books, 1946); Julian H. Steward, "Cultural Causality or Law: A Trial Formulation of the Development of Early Civilization," *American Anthropologist*, Vol. 51, No. 1 (1949), pp. 9-11.

[63]Hosea 1:2. Whether or not this passage is taken "literally," its use in the Scriptures is based on its cultural meaning. A literal interpretation of the passage is no more astounding than some of God's other Old Testament uses of local patterns, *e.g.*, His command for the sacrifice of Isaac (Genesis 22:1-19) and His acceptance of the sacrifice of Jephtha's daughter (Judges 11:29-40). The attitude of Jephtha is commended in the New Testament in Hebrews 11:32.

God's displeasure with his negligence in supporting the moral institutions of his culture is very revealing. Judah admitted his guilt in preventing Tamar his daughter-in-law from having her rights under the levirate system of marrying the brother of her deceased husband.[64] God is recorded also as slaying one brother for not playing his part. Some missionaries would even presume to destroy such an institution as the levirate or the sororate before they understood all the factors involved in such a decision. Many of these would be immediately apparent to an anthropologist.

The Individual and Culture. The individual within a culture is generally not aware of most of the complex patterns of which he is a part. He takes them completely for granted until he observes people with other culture patterns. In spite of his unconsciousness of it, however, culture has been molding his behavior and even his temperament from birth. The process of learning is gradual and largely painless. In Western culture we are very conscious of what we learn in school, but we learn more of the basic patterns of our culture outside school, and relatively few cultures have such an educational system as ours. Mental and social attitudes, emotional habits, speech, mannerisms, and the multitude of activities which go to make up one's personality are acquired largely in this unconscious fashion.

The individual is not passive, however, in the process of molding. The culture determines how the potentialities of an individual will be expressed and realized, but this does not mean that it molds all its carriers alike. Linton[65] speaks of *universals* of a culture in which all sane adult members participate, as opposed to *specialties* shared by persons of only certain categories. Language and the general social and economic systems would be universals. The division of labor between sexes and specialized professions would obviously be specialties. The culture further provides *alternatives* or choices within its framework, and *individual peculiarities* inevitably exist.

[64]Genesis 38:8-26.

[65]Linton, *The Study of Man*, p. 272.

Culture is not therefore a superordinate determinant, arbitrarily conditioning all possibility of reaction, any more than "evolution" or "economics" is, but it sets the general framework within which the individual who bears its stamp may vary about a norm. The norm is vastly different for each culture, as Ruth Benedict graphically demonstrated in her *Patterns of Culture.*[66] Those personalities which are considered normal and acceptable in one culture may be not only unthinkable but also nonexistent in another.

Culture gives us our whole mental and moral slant to a degree unrealized by most individuals, Christian and non-Christian alike. We partake of those cultural generalizations and patternings in which we develop from childhood on, and we are not easily changed. Acculturation brings inconvenience, inefficiency, and perhaps discomfort if it goes very deeply.

Religion. Secular anthropologists consider religion to be completely cultural, and they include all Christianity in that category. We would agree that Christianity is a fact of our culture to a far larger extent than most of us realize, but as Christians we insist also that there is a supercultural level. Religion is sometimes called a "projection" of culture in that the world of the gods is thought of in terms of the particular cultural framework of the people holding the religion. Ruth Benedict has called religion a "domestication" of the universe reducing it to a nonmechanistic drama conducted by personalities activated by moral significance. She remarks truly enough that "throughout man's history it has been the mechanistic theory of the universe that he had found fantastic, not the animistic one."[67]

A careful Christian thinker will realize that both "projection of culture" and "domestication of the universe" occur in Christian thinking to a greater or less degree depending upon the sophistication of the thinker. We are all too prone to interpret God in our own image rather than realizing that the picture which He has given of Himself Who is on the supercultural level has to be expressed in cultural terms in order to be intelligible to us who live on a cultural level.

[66]Ruth Benedict, *Patterns of Culture* (New York: Penguin Books, Inc., 1946).

[67]Ruth Benedict, "Religion," in Franz Boas, *General Anthropology*, p. 637. (Boston: Health, 1938).

Christ is supercultural, and He has worked a miracle of salvation in Christian life, but He assumed cultural form to do this, for His salvation was effected through a cultural figure, a cultural representation of the supercultural. The expression of Christian faith in worship, prayer, and other Christian exercises is accomplished through the medium of culture.

Anthropology long concerned itself with the "origin" of religion as was mentioned in the discussion of Father Schmidt. This "origin" was variously considered to be in dreams and visions, belief in spirits, crowd excitement, respect for ancestors, mystic experience, fear, and many other factors.[68] By some writers this search was considered to be one for the common denominator or "core" of all religions, since they considered the origin to be lost to all objective study.

Aside from these unfounded speculations of origins, one of the greatest potential contributions of the anthropological study of religions to Christian thought has been in the defining of different types of religious feeling found in religions of the earth. The missionary may learn the difference between *animism,* the belief in a world of all-pervading spirits, and *mana,* the belief that certain natural objects have power in their own right without being the abode of a spirit. Animism is associated with supernatural beings; mana is not, but instead is associated with supernatural power without reference to spirits. There are areas of the world where the primitive religions display no mana, and there are others where they display little or no animism.

Such concepts as totem, taboo, magic, divination, sacrifice, and the differences and varieties of meaning in prayer as practiced by different groups have all been defined by anthropological students of religions.[69] All are highly complicated phenomena. No missionary should allow himself to be without a knowledge of varieties of religious behavior which are fundamental in the religious system which he seeks to supplant.

[68]*Ibid.*, pp. 627-628.

[69]For a popular definition and discussion of such basic religious distinctions, see William W. Howells, *The Heathens: Primitive Man and His Religions* (Garden City, N. Y.: Doubleday, 1948).

The values which we have suggested for a thorough Christian concept of culture have been largely on an applied anthropology-missionary level. The question rightfully arises, does a concept of culture and an understanding of its working have any bearing on more fundamental, more basic Christian issues? Of what Christian use is a rigid conceptual distinction betwen the organic and the superorganic? What could a culture concept contribute to the Christian life and thought? Only some of the peripheral possibilities can be indicated in answer to these questions. For most of the problems below, nonanthropological sources could also be mentioned as indicative of a widespread interest among some Christians. A knowledge of the nature and working of culture and of the real essence of the supercultural will perhaps provide a valuable approach to these problems.

Culture and Original Sin. The important problem of man's essentially sinful nature could well be clarified in a culturological approach. Man's sin nature cannot be only a biologically inherited factor as the lay-Christian's interpretation of original sin seems to be. Obviously, the propensity for sinning is at least channeled and organized by the culture into which he is born. There are cultures in which murder or thievery is virtually unknown. There are cultures in which the refusal to share food with someone else—even a stranger—is a most heinous social crime,[70] sometimes to the extent that it never occurs to anyone to commit that "sin." Culture certainly defines an area of possibilities within which an individual is likely to sin.

Culture may be, furthermore, a major causal force in the sinful nature of mankind. The cultural elements which can be construed from the Biblical record before the Fall are "dominion over nature," marriage, speech, and an ethic from God in commandment concerning the tree, naming the various species of the natural world, and "dressing the garden," plus interpersonal behavior patterns and patterns of behavior toward God. It may well be that material culture began when "they sewed fig leaves together, and made themselves aprons"[71] and that most nonmaterial aspects of

[70]Gladys A. Reichard, "The Navaho and Christianity," *American Anthropologist*, Vol. 51, No. 1 (1949), p. 67.

[71]Genesis 3:7.

culture also had their beginning in the same Fall. The curse itself contained the culture-fact of working for subsistence. Certain it is also that culture has been an iron mold for human temperament, human will, human desires, and human behavior ever since.

The Perversion of Culture. Whether or not the growing complexity of culture is a result of the Fall, the perverted nature of much human culture certainly is. As a finite human development resulting from original human perversion, culture is more than a mold for human sin. Human selfishness is oriented around cultural situations, and many cultures such as our own or that of the Kwakiutl Indians[72] develop that selfishness in a materialistic obsession almost to the point of group insanity. Ignorance and defiance of God are both culturally transmitted, and human cultures stand in opposition to the ideal of a Christian life. A concept of the cultural transmission and channeling of the sin nature does not abrogate human free will to any greater extent than a concept of the biological transmission and channeling of the sin nature. Within any culture, there is a range of possible behaviors among which an individual may make a choice. Until white contact becomes very strong, the Zuni Indians of the Southwestern United States do not use liquor. They know about it. The tribe tried it once, but, as Dr. Benedict points out, "The old men voluntarily outlawed it and the rule was congenial enough to be honored."[73]

Zuni personality and culture is so structured that alcohol does not present an appealing choice to the Zuni, but within his own cultural framework, within the things that make sense to him, he exercises his free will. He could drink if he wanted to. He does not want to because of his cultural conditioning.

A concept of the cultural transmission and channeling of the sin nature does not imply, furthermore, that mankind can be saved through cultural reform. From a moral standpoint culture is in its very nature perverted just as is a biologically transmitted sin nature. It is as impossible to make any fundamental perfection of culture as it is of human personality without the intervention of the supercultural. It is not much different in implication to be the victim of perverted culture than it is to be the victim of per-

[72]Benedict, *Patterns of Culture*, pp. 160*ff.*

[73]*Ibid*, p. 82.

verted biology. It does help to clarify the picture when the difference is drawn, however.

The Christian and "This World." The Christian actually lives in an alien culture. Christ's words speak eloquently of our relation to the culture around us.

> And the world hath hated them, because they are not of the world. I pray not that thou shouldst take them out of the world, but that thou shouldst keep them from the evil. They are not of the world, even as I am not of the world.[74]

So alien is "this world" to essential Christianity that the practical Christian-culture fruitage of the Sermon on the Mount seems impossible. In the cutthroat competition of many cultures the Christian pattern seems suicidal. It probably would be physical suicide were it practiced consistently; it certainly is cultural suicide. Paul may have had something more concrete than metaphysical death in mind when he said, "I am crucified with Christ."[75]

Kraemer speaks often of the "foreignness" of Christianity in the Orient as an important missionary problem.[76] We shall speak of that below, but in its essence, in its supercultural purity, Christianity is foreign to all human cultures. Christianity seems foreign in the Orient because it comes in a Western culture guise. Unfortunately, Christianity has been made to fit this guise altogether too well. Christianity is basically as foreign to the Western as to the Eastern world.

Culture and Moral Association. Not all parts of culture have moral meaning. Most of the regular processes of daily life (except as they set up interpersonal relations or relations with God) seem to be amoral. So great is our confusion in the analysis of culture and its relation to the Christian life that we sometimes condemn the amoral and condone or support the unchristian in our culturally conditioned system of Christian ethics and standards of behavior, and in actual missionary practice. More than one primitive society without the cultural curse of a profit motive in life has developed the material avarice of Western society by the missionary's insistence on flouting the native cooperative economic system in favor of an emphasis on material wealth. The natives who once shared their material possessions learned to hoard them by the missionary's example and his insistence on making the people work for wages.

[74]John 17:14-16.

[75]Galatians 2:20.

[76]Kraemer, *op. cit.*, p. 54.

Many another missionary without cultural perspective has thought that his people were lazy because they would not work for him, no matter what he offered, and because they left his employ in an apparently aimless manner. He failed to see that the motives of the society lay in entirely different channels from the accumulation of wealth. People who were perfectly capable of working hard when it was necessary saw no need of working hard merely to accumulate a type of property to which their culture attached no value or which would bring them no prestige. Natives are scored for not showing one of the worst extremes to which the perversions of culture have gone, one of the worst scourges of our civilization.

Although Christ and the apostles repeatedly insisted that sin lies in the motive more than in the act, that righteousness is in the heart and not in the behavior, and that really commendable behavior is that which reflects such righteousness, we continue to make moral judgments on the basis of cultural references and not by those superculturally imparted "fruits" by which "ye shall know them."[77] Because trousers are associated with modesty in Western civilization, trousers the African and the Papuan must wear if they are to be considered modest under the missionary regime. Because Western hymn tunes are uplifting to the missionary, Western hymn tunes the Dyak or the Quechua must sing, whether his native music is based on the same musical span of intervals or not. Because the minor key means sadness to the missionary, native hymns of a joyful import must not be written in the "minor key," regardless of the meaning which the natives ascribe to their music.

We do not need to go abroad to see the confusion of Christianity with the native culture of the Christian. Evangelicals have now reached the place where value judgments are often made in

[77]Matthew 7:15-23.

terms of the Victorian culture in which the evangelical movement made its strong start. We lay down cultural prohibitions ranging from taboos against drinking to necktie wearing, but most of us participate heartily in the strongly materialistic orientation of our culture. Some American evangelicals would a priori deprive individuals access to heaven because they belonged to a different cultural institution—a liberal denomination or the Roman Catholic Church—without investigation into the individual's supercultural relations.

It has long been recognized by Christians that some Scriptural demands are of local culture import and others of universal application. For centuries Christians have felt that the dietary taboos of the laws of Moses were not for them. Paul's injunctions about women "keeping silent in the churches"[78] have likewise received interpretations which gave them local culture and local situation significance. The obvious question becomes then where to draw the line. What demands are of local culture import, and what are universal? The surest road to a decision in this extremely complicated question lies in an understanding of what is cultural and what is supercultural in Christianity. That distinction has never been satisfactorily made, and we may never be able to know finally, but the individual with a clear concept of culture surely makes a more adequate choice. That which is cultural is changing, relative, and nonabsolute in time and space. That which is supercultural is unchanging, absolute.

The identical culture form may be amoral in one society, or evil in another in the light of its cultural associations. A dance form in one tribe may be purely aesthetic recreation, whereas in another tribe the identical form may be associated with magic steeped in bitter hatred. Kraemer points out that widespread sacrificial rites in some areas have seemed to missionaries to provide a splendid basis upon which to begin a gospel ministry, for Christ can be presented as the fulfillment of the atonement which the missionary thinks the sacrifice means. He warns:

> Nevertheless, on closer investigation and experience it appears that this non-Christian idea of propitiation and atonement virtually springs from the awareness of the superhuman forces. It is an ultimate measure of insurance, and therefore of self-assertion, and of exclusive effort to reclaim man. To talk here of fulfillment would mean to destroy all insight and discernment.[79]

[78]I Corinthians 14:34.

Among many of the Indian peoples of the American Southwest, magico-religious ceremonies to insure adequate rain or plentiful crops were felt to be efficacious only if the ritual were recited in word-perfect detail. Early converts among the Sonora Indians therefore made a similar interpretation of Jesuit ritual, and considered it a lapse into sin if they made the slightest mistake in ritual performance.[80]

Culture Norms. Dr. Ruth Benedict, in the conclusion to her widely read *Patterns of Culture*, points out that psychological types which are considered abnormal to the point of insanity in one culture may be highly prized in another. The paranoid was highly admired among the Kwakiutl Indians of Vancouver. Unstable neurotic types became the ritual performers in Siberia and many other areas. She describes the "extreme forms of ego-gratification" in our culture.

> Arrogant and unbridled egoists as family men, as officers of the law and in business, have been again and again portrayed by novelists and dramatists, and they are familiar in every community. . . . Yet they are intrusted with positions of great influence and importance and are as a rule fathers of families.[81]

Among Zuni Indians of the Southwestern states such men do not exist. The culture does not contribute to the formation of such personality. The people would not allow such a member to continue in their midst. Our psychiatric manuals do not describe them because they are within our "norm." Were the Zunis psychiatrists such men would certainly be the object of their study as abnormal types.

An acute culture consciousness is imperative for the realization that culturally accepted "natural" events are often really culturally determined. Until Margaret Mead did her work among the Samo-

[79]Kraemer, *op. cit.*, p. 124.

[80]Ruth M. Underhill, *Ceremonial Patterns in the Greater Southwest*, p. 17, Monograph XIII of the American Ethnological Society (New York: Augustin, 1948).

[81]Benedict, *Patterns of Culture*, p. 256.

ans, most psychologists took it for granted that "stormy adolescence" was "natural" in the human life cycle. Samoans have no "stormy adolescence."[82] This period in our youngsters is a product of the stresses which our culture places upon them. Dr. Mead further points out that in a Philippine tribe everyone is convinced that no man can keep a secret. Among the Manus, only men enjoy playing with babies. Among the Toda, domestic work is too sacred for women. Among the Arapesh, women are stronger than men and can carry heavier loads for longer distances. Among the Mundugumor people of New Guinea, if the child is born with the umbilical cord wound around his neck, he is singled out as destined to become an artist, and he does. Only those so born do paint good pictures.[83] The Aruwunde of the Belgian Congo do not fear death. They simply die.[84]

A cultural institution has no meaning outside of its culture. It is as worthless as one stone detached from a mosaic. Nudity in the Trobriand Islands or the African Sudan does not mean the same thing as it does in a New York cabaret. Clothes and lack of them in our culture are associated at least partially with sex appeal, but in many native societies there is no such association. More likely clothes will be associated with wealth or political prestige. When the native asks for clothing after his conversion he probably does so for one of two reasons. The missionary's nudity shame may have so affected him that in his attempt to change to Christian (confused with Western) patterns he seizes upon this expedient. Or the new identification which he feels with the foreigner causes him to want to emulate the foreigner's dress and with it gain some of the foreigner's prestige. Only the supercultural basis of Christianity can have valid universal application to all cultures.

Functional Substitutes. Much has been said about "functional substitutes," or the provision of Christianized channels of operation

[82]Margaret Mead, *Coming of Age in Samoa*, pp. 195*ff*. (New York: Morrow, 1939).

[83]Margaret Mead, *Sex and Temperment in Three Primitive Societies*, pp. vii, xi, xiv (New York: Morrow, 1939).

[84]Personal communication from Father DePauw, Catholic missionary and anthropologist in the area.

and expression for peoples whose culture needs have been met previously by pagan patterns. John T. Dale reports of the Andes area: "Fiestas, dances, alcohol, cocoa have all been prohibited without some Christian substitute being offered to satisfy these cravings. Missions as a rule have not endeavored to do this. Christian Indians have not been provided with enough social activities or church duties to take the place which the fiestas and other activities have filled in their lives."[85] As Dr. Bavinck points out in a similar context, a culture vacuum of such a nature is always very dangerous.[86]

If they are not guided by the missionaries, natives often create their own "functional substitutes," which may lead to ends as undesirable (or more so) than the original native pattern. Natives who went to the foreign doctor instead of the native practitioner among the Kikingo of Africa ascribed to him the same function which they ascribed to their own practices. When the doctor pulled out the hypodermic needle he was removing the spirit which had lodged in the native's body and made him ill.[87] It is no accidental coincidence that on the very site where the ancient Aztecs of Mexico worshipped the goddess of motherhood by making pilgrimages from miles around in the month of December, the Christianized descendants of the same Aztecs now make pilgrimages to a shrine of the Virgin Mother.[88] The Mexicans conquered by Cortez' troops and "converted" by zealous friars never sensed the supercultural. Their artistic portrayals of Christian saints are thinly disguised Aztec god motifs found in archaeological horizons as old as a thousand years or more. The Christian God has become "Papa Dios" and Mary "Mama Dios" among the Indians of some areas. These are nothing more than the terminological extensions of the ancient deities.

[85]W. Stanley Rycroft, *Indians of the High Andes*, p. 148, Report of the Commission on Cooperation in Latin America to study the Indians of the Andean Highland with a view to establishing a cooperative Christian enterprise (New York: Committee on Cooperation in Latin America, 1946).

[86]J. H. Bavinck, *The Impact of Christianity on the Non-Christian World*, p. 65 (Grand Rapids, Mich.: Eerdman, 1948).

[87]Personal communication from Eugene A. Nida.

[88]George C. Vaillant, *Aztecs of Mexico*, p. 273 (New York: Doubleday, 1947).

Functional substitutes are most urgent when Christian patterns alter the local social or economic system, or jeopardize the Christians' place in that system. The missionary who insists that his converts dispose of all but one of their wives had better see that provision is made for the divorced women. Chances are that the missionary is forcing them into lives of social outcasts if not prostitution. Dr. Bavinck states the inevitable conclusion:

> It is not possible to give a nation a new religious foundation without disturbing its characteristic cultural structure. If one teaches a nation to throw away the idols of its past and believe in Jesus Christ, one cannot avoid guiding that nation into a new future in every respect.[89]

Generally, functional substitutes attempted by missionaries have been too superficial to meet the real needs of the local situation. John T. Tucker lists the advantageous results of the initiation ceremonies for Lumbi boys as being physical cleansing, self-confidence, initiation into community affairs, ability to marry well, and education into useful arts.[90] He also recounts the immoral associations and debilitating effects of the same ceremonies, namely the coarse methods of imparting sex instruction and the sadistic injuries inflicted upon initiates by older men of the society. But as for functional substitutes, he recounts that some attempts had been made by missionaries to circumcise male babies "but this has been largely proved to be inefficacious. There is something deeper than the mere act of carnal circumcision."[91] Many of the valuable parts of the culture complex are seated in the initiation ceremonies. A functional substitute would be intended to preserve those values, to provide a substitute method for an individual's reaching maturity, of training him in his culture and in the tradition of his people, of teaching him physical hardness and discipline. It would do these, however, on a Christian plane with recognition of supercultural values. Tucker intimates that some such attempts are being made by missionaries, but feels that it is too early to forecast results.

Christian Cultural Institutions. A cultural perspective is necessary for Christians to realize that Christian religious institutions are

[89]Bavinck, *op. cit.*, p. 46.
[90]John T. Tucker, "Initiation Ceremonies for Lumbi Boys," *Africa*, Vol. XIX, No. 1 (1949), pp. 58, 59.
[91]*Ibid.*, p. 59.

literally "figures of the true,"[92] that as Christ is the supercultural high priest He has His figurative, imperfect, cultural representation in Christian religious institutions.[93] It is further necessary for Christians to realize that the present "figures of the true" are not inevitable and unchanging ones. Our religious institutions might well be changed or improved, as they have been at many times through history. A cultural perspective will help to see that our present Christian institutions are the result of the accidents of Western culture history, that the supercultural is not confined to institutions which are by nature cultural. The Church as the "bride of Christ," for instance, is supercultural. Churches, their organization and rituals, are not.

As a matter of fact, Christ left as little institution as possible—less than was necessary for the historic perpetuation of a knowledge of the cultural. He emphasized the supercultural constantly. Paul with his organizational genius and his knowledge of all the main cultures of his day and area contributed strongly to the formation of the Christian institutions of the earliest apostolic times. A normal program of culture change and growth has characterized the institutions ever since except as the institutional church has thought of its form as being sacrosanct and has hindered normal change for a time.

The particular institutional structure of a native church should not be organized by a missionary from a foreign culture. If it is, it will be either a meaningless replica of the idiosyncrasies of Western Christianity, or an abortive adaptation to native patterns by one who is not a part of those patterns and cannot be in the natural stream of their growth. Kraemer makes the valuable statement that

> no catalog or Vademecum can be made, but the great pathfinder is the apostolic urge to pave the way for Christ and stimulate the growth of communities consisting of Christian men and women, who in the way they express Christianity are not clumsy imitations of Western Christianity, but have the flavor of their environment.[94]

[92]Hebrews 9:24.
[93]Hebrews 8:1-5.
[94]Kraemer, *op. cit.*, p. 324. Dr. Bavinck, whose work is in many respects a reflection of Kraemer's, adds: "It is extremely hard for these churches in the mission fields to come to a confession of faith that is born out of

There is a need for a definition of the meaning of a truly Christian culture and its relation to sin. Such a definition would be extremely difficult to formulate because of the incorrigible ethnocentricity of man. It would probably include a supercultural base with local differences varying because of local differences of need and traditional culture orientation. If we had such a definition perhaps we would not be faced with the ridiculous implicit assumption that a converted Indian is not quite satisfactorily Christianized until he has a Western hair cut and Western shirt or by the equally ridiculous assumption that a converted Westerner is not "spiritual" if he smokes, or breaks one or another of the traditional evangelical taboos, regardless of the meaning of the act in his culture. Cleanliness has been "next to godliness" only in the last two centuries of Western culture.[95] Early Christians considered it both carnal and pagan because of its association with the vice and softness of the public baths at Rome. Many a missionary, not realizing the acculturating influence of the convert's desire to imitate mission ways to gain prestige and virtue, has told the folks back home how the new converts "just naturally cleaned themselves up when they were saved."

Certainly it is true that God requires a standard of cultural behavior from Christians. But that behavior is not in itself supercultural. It is, at least partially, governed by the cultural patterns of the society. The cleanliness mentioned above, because it has a bearing on health, may be God's will for Christians, but it cannot therefore be considered a supercultural absolute. Christians in frigid climates, whose only hope of meager warmth is to keep their clothing on day and night, would probably be more "healthy" to remain dirty and be warm than to bathe and freeze to death. Part of the series of judgments which the Christian must make consists of his evaluating his own culture in the light of the supercultural and the revealed will of God, in order to know what is amoral and what is not in his behavior, and to make his adjustments accordingly.

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their own understanding of the truth. In a certain sense they have to forget those who brought them the gospel and begin to listen to Jesus with their own ears and with their own hearts" (p. 158).

[95]Kroeber, *Anthropology*, pp. 600-602.

Language

We have up to now neglected one very important part of the study of human culture—the science of language, the analysis of those conventional articulatory-auditory signs by which people within a given community interact.[96] As modern linguists often point out in general works on the subject of human speech, "language is the link between otherwise unconnected nervous systems."[97] "Language enables one person to make a reaction when another person has the stimulus."[98] The link between individuals is not organic, but cultural. Although it has its physiological basis in the structure of the human mouth, nose, and throat, and of the human ear and neural connections, its obvious features are learned features, and the particular set of such features which a given individual learns depends upon his cultural setting. Language is a part of the culture heritage of every normal individual.

Language is simultaneously an element of culture and a carrier of most of human culture. Individuals in any community learn their language in the same, often unconscious way by which they acquire their other motor habits, their preferences, their thought patterns, their tales and myths, their religion, their sense of interpersonal values. But language is, moreover, one of the major mediums through which they learn that culture (including the language part of that culture); it is the major means of the transmission of culture to individuals in addition to its own culture reality. This dual relationship of langauge and the rest of culture may be seen, for example, even in the learning of motor habits of the technological skills. Although a deaf-mute may be taught to sew, the training of a normal child in such a mechanical skill contains a large amount of verbal interaction: advice, reprimand, explanation. At

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[96]Definition adapted from Bernard Bloch, "A Set of Postulates for Phonemic Analysis," *Language*, Vol. 24, No. 1, (1948) p. 7, and from Edgar Sturtevant, *An Introduction to Linguistic Science*, p. 2 (New Haven: Yale University Press, 1947).

[97]Bernard Bloch and George Trager, *Outline of Linguistic Analysis*, p. 5, Special Publications of the Linguistic Society of America; see also Leonard Bloomfield, *Language*, Chap. 2, "The Use of Language," pp. 21-41 (New York: Holt, 1933).

[98]Bloomfield, *op. cit.*, p. 26.

the same time, the child is learning more of her language, words for *baste, hem, tuck, pleat,* and more or less of the rest of the technical vocabulary of the seamstress. When it comes to the teaching of the American political system, verbalism is all the more crucial, and with the teaching of philosophy it is indispensable. The deaf-mute gets along in society as a useful member if he makes adjustment for his handicap, but it is unlikely that human culture could persist if there were not a large proportion of normally lingual individuals to carry the culture along. Culture is constantly being transmitted by language, and language is being learned with the rest of the culture it carries.

One feature of language makes it different from most of the rest of culture. Among most unsophisticated peoples, language does not come into consciousness to the degree in which many cultural forms are known. The natives are conscious of at least some of the external forms of their religious life or of their pottery or of their myths. They do not, however, realize that there is just as real a structure to their speech systems, and that they are employing what are sometimes extremely complicated sound and grammar patterns. Nonliterate peoples do not realize that their speech is an intricate arrangement of elements which they may combine and recombine for their purposes, but only according to an extraordinarily complex series of patterns (of which they are not even aware).

Writing of Language. Writing systems bring language into the foreground of peoples' consciousness, but linguistic features are still so automatically conditioned that literate people usually think of their writing system as being their language. Thus English is considered to have five vowels (*a, e, i, o, u*) because we write five symbols, whereas any careful consideration of English speech will soon turn up the difference in *vowel sound* (*i.e.,* phonetic vowels and combinations of them as opposed to the spelling of vowels) between *beet, bit, bait, bet, bat, but, boot, boat, bought, bite* plus a few others![99] Individuals who are not phonetically trained feel that there is an *h* sound in *she,* and that somehow *beet*

[99]For different analyses of the significant sound units in English, see Kenneth L. Pike, *Phonemics: A Technique for Reducing Languages to Writing,* University of Michigan Publications in Linguistics III, p. 45 (Ann Arbor: University of Michigan Press, 1947); Bloomfield, *op. cit.,* pp. 90-92; Bloch and Trager, *op. cit.,* pp. 47-52.

and *beat* are "different" in more ways than their meaning and use. The confusion of speech and writing is furthermore seen in the prevalent opinion that Chinese, Greek, and Arabic must be "hard" languages because of the unfamiliarity of their scripts, and that nonliterate tribes without a writing system "don't have any language yet."

Writing receives careful study as a part of culture, to be sure,[100] but it is not nearly so significant as speech itself. Writing is at best only an imperfect representation of speech. Speech is universal among the peoples of the earth; writing is not. Speech has been the source of the transmission of culture from generation to generation and from people to people; writing has reflected this function of speech in a relatively minor degree. The speech of any person is an observable phenomenon analyzable into the patterns which control it; popular orthographic systems often distort or obscure the features of speech. The scientific linguist, then, is primarily interested in actual language as it is (or was) spoken by people and only secondarily in the reflection of language in writing systems.

Race and Language. Language is also of primary concern to the field of anthropology because of its associations with race in popular thought. A Negro brought up in the United States speaks English, but one brought up in France speaks French, whereas the ancestors of both men spoke Zulu, Dinka, Hausa, or any other of the many languages of Negro Africa. The popular opinion still persists, however, that languages are in some way correlated with races. It has been the universal and unequivocal result of all anthropological investigation that there is no such necessary correlation.[101] All major races speak more than one language stock, many of them at present completely unrelatable, and all major languages of the world are spoken by many races. Like race and culture, language and race cross cut according to the vagaries of historical accident.

[100]See Kroeber, *Anthropology,* Chap. 13, "Story of the Alphabet," pp. 509-537.

[101]Edward Sapir, *Language: An Introduction to the Study of Speech,* pp. 221-235 (New York: Harcourt Brace, 1921).

Change in Language. Linguistic questions of great importance to Christian thinking include the diversity of languages, and the reasons for that diversity. The Scriptural account of Babel is one of the most vivid pictures we have of the origin of a particular culture difference among people. Linguistic science by no means has the key to that early stage in language history, but it does make some important, well-established observations on the nature and processes of languages and their differences.

All languages today, and through all of recorded history, have been undergoing ceaseless steady change. The change is more accelerated in some languages than in others; it is more accelerated at one time in history than another, but all languages are constantly changing.[102] Furthermore, all language or dialect groups which do not make up a completely homogeneous or interacting community are changing in such a way as to become mutually less and less intelligible. Thus in aboriginal California or the Kordofan area of the Sudan in Africa, villages within a few hours walk of each other speak languages mutually unintelligible, although both are derived from the same parent language. This process has continued through history so that languages as different as the modern languages of English, German, Dutch, Danish, Norwegian, Swedish, Irish, Scotch, Gaelic, Welsh, Breton, Lithuanian, Polish, Bohemian, Russian, Bulgarian, Portugese, Spanish, French, Italian, Roumanian, Albanese, Greek, Armenian, Iranian, Hindi, Marthi, Bengali, Afghan, not to mention the now extinct classical languages from which many of these are derived, Latin and Sanskrit, plus many others less well known, can all be shown to stem by regular processes of change from the same language (called Indo-European by linguists). Indo-European and Hittite, now extinct, can likewise be shown to be derived from a still older language.[103]

One major force acting counter to this perpetual diversification of languages is the rapid geographic spread of one language or another, as when English spread to many important parts of the world in the last three centuries. Then a language confined to the southern half of a small island became the language of most of

[102]*Ibid.*, pp. 157-204; Bloomfield, *op. cit.*, pp. 346-443.
[103]Bloomfield, *op. cit.*, p. 65.

North America and Australia as well as of other localities. The steady force of change, however, is already at work, and dialects of English are becoming marked, as in British English (several dialects), American English (with New England, Northeastern, Southern, Middle-Western, Southwestern, and other dialects each in themselves subdivided many times), and Australian English. If modern communication does not alter the old process of changes, such dialects could eventually become mutually unintelligible and therefore separate languages.

Contrary to popular misconception, a printed literature does not stop language change or stabilize speech to any marked degree. It may be that a literary form will be crystallized as in classical Latin and Sanskrit, and that scholars will learn the classical form for centuries, but speech will continue to change. Thus French, Italian, and Spanish emerged by regular changes from Latin even while churchmen and scholars learned and used a fossilized classical Latin in their particular spheres. The "confounding" of languages which took place at Babel has continued ever since in a process historically just as real as the principle of the rotation of the heavenly bodies. The question arises as to whether or not the confusion of tongues did not result from this principle when the dispersion and isolation of peoples by God took place rather than vice versa. The implication of verses 7 and 8 in Genesis 11 might be so: "Go to, let us go down, and there confound their language that they may not understand one another's speech. So the Lord scattered them abroad from thence upon the face of all the earth." Be that as it may, ever since Babel, so far as we can possibly determine, the separation of two groups of peoples who speak the same language will in time mean the development of two mutually unintelligible languages.

Language Relationships. Languages which can be shown to be derived from the same language are considered to be "genetically related." They are said to belong to the same "language stock." The analogy is to the biological relationship of cousins through their mutual grandparents. Linguists at present cannot even at a wildest guess relate most of the languages of the world. With continued study, however, more and more languages are being shown to be related in an ever smaller number of stocks.

The terms Hamitic and Semitic[104] are ascribed to certain linguistic stocks. Some of the daughter branches of Semitic are Babylonian and Assyrian (later becoming Aramaic), Canaanite, Moabite, Phoenician, Hebrew, Arabic, Ethiopian. Hamitic became Egyptian, Coptic, Berber, and other North African languages. Hamitic and Semitic are probably relatable in turn by present linguistic techniques, showing them to come from the same language.[105]

It should be noted that not all people who have historically spoken Semitic-Hamitic languages are of the Caucasian race, although most of them are, with many varieties of subraces. Most Hamitic-speaking peoples are not Negro, although in the Sudan and Ethiopia, a few Negro peoples do speak Hamitic languages. Negro people of Central and West Africa from where American slaves came, however, were rarely Hamitic speakers. The Bible student is tempted to feel that these divisions which have been named after sons of Noah do reflect the division which took place after the Flood, but we have no indication of where and when other races and tongues developed, as will be discussed later. In such a question as this it should be remembered that names like "Hamitic" and "Semitic" were applied to a family of languages by nineteenth-century linguists. Except as we know that Abraham descended from Shem all questions relating to these languages need further study. The close relationship of Hebrew and Arabic is doubtless a reflection of the common ancestry of the human users of these tongues in Abraham. Isaac and Ishmael of the Biblical record sired the peoples with whom the two languages have been most closely associated. It cannot be emphasized strongly enough, however, that both Hebrew (as revived in modern Palestine) and Arabic are spoken by many peoples who are not a part of either of these "families." Arabic, particularly as the language of Mohammed and the Koran, has spread to people of all major races.

Origin of Language. The "origin of language" and the "evolution of language" have been questions around which centered voluminous speculative material in the nineteenth century. As late as 1922, Otto Jespersen, who stands as one of the greatest

[104]*Cf.* two of the sons of Noah: Ham and Shem.
[105]Bloomfield, *op. cit.*, pp. 65-67.

linguists, wrote a book on *Language: Its Nature, Development, and Origin.* Chapter XIX is entitled "Origin of Grammatical Elements" and Chapter XXI "Origin of Speech." Jespersen was far more sophisticated in his speculations than many predecessors had been, but even he reached the conclusion:

> Language, then, began with half-musical unanalyzed expressions for individual beings and solitary events. Languages composed of, and evolved from, such words and quasi-sentences are clumsy and insufficient instruments of thought, being intricate, capricious, and difficult. But from the beginning, the tendency has been one of progress, but still progress toward greater and greater clearness, regularity, ease and pliancy.[106]

Jespersen cautioned against the crassness of most theories of the origin of language and its evolution, but he added his own theory to the lot.

Present-day American linguists, however, not only realize that such speculation has no basis in any observations of linguistic science, but also that it is completely pointless, and they have therefore directed their energies to the analysis of present languages and historical language processes. Sapir's *Language*, of the same period as Jespersen, takes the trouble to discredit postulated theories of the origin of language without attempting to suggest a substitute.[107] Bloomfield, whose 1933 volume is the linguist's standard work, makes only the slightest reference to the origin of language, and that in a context which emphasizes the lack of any satisfactory explanation.[108] Sturtevant in his 1947 general work suggests some "likely" possibilities for the origin of speech, rationalized on the hypothesized period of change from ape to man, but is quite frank in admitting their speculative nature.[109] There is absolutely no basis in any present-day linguistic knowledge for the postulation of an "evolution" of language in any other sense than that language is continually changing. The ancient languages about which we know are neither more or less complex in structure than modern languages. Some languages change in the direction

[106]Otto Jespersen, *Language: Its Nature, Development and Origin*, pp. 441-442 (New York: Holt, 1922).
[107]Sapir, *op. cit.*, pp. 5-8.
[108]Bloomfield, *op. cit.*, p. 6.
[109]Sturtevant, *op. cit.*, p. 41: "I hope that none of my readers will take these details more seriously than I do."

of simplicity of structure, while others change in the direction of complexity. Phonetic structure in one part of a language may be in the process of simplification, whereas in another part of the same language, the phonetic complexities of elaborate consonant clusters may be building up through the gradual loss of vowels under certain conditions.

The Scientific Study of Language. Because of the intricate but unconscious structure of all languages, and because that structure is always based fundamentally on the same types of elements—speech sounds and their combinations—the study of languages has developed techniques different from those for the study of the rest of human culture. These techniques are more precise, require more specialization of training, and reach more formally rigid results than those applied by most ethnologists to the study of other parts of culture.

The more scientific study of language has two major emphases. We have referred to *historical* or *comparative* linguistics, in which rigid procedures for the determination of genetic language stocks (not typological similarities) have been refined. The other branch of modern linguistic study is a younger science in which refinements of technique are being made almost every year. *Descriptive linguistics,* as the study is called, attempts the objective study of the structure of any spoken language without the prejudice of notions derived from orthography or from the grammar of any other language. It is this science of descriptive linguistics which must provide part of the access to the thousand or more languages into which no part of the Scriptures has been translated.[110] The descriptive linguistic technique of language analysis is based on the assumption that every language has its own structural system, one identical with the structural system of no other language. Through the extensive experience of the Summer Institute of Linguistics this almost purely descriptive technique has been made

[110]The most complete exposition of the relationship of linguistics to Bible translation is in Eugene A. Nida, *Bible Translating: An Analysis of Principles and Procedures, with Special Reference to Aboriginal Languages* (New York: American Bible Society, 1947). See also Eugene A. Nida, "Linguistics and Ethnology in Translation Problems," *Word* (Journal of the Linguistic Circle of New York), Vol. 1, No. 2 (1945), pp. 1-15.

practically applicable to the immediate linguistic problems of the missionary.

Relative Value of Languages. In spite of the fact that many languages do not have extensive, sophisticated literatures or philosophic or scientific terminology, no language is in its structure inherently inferior to another. Every language meets the needs of the people who use it habitually, and when the need for new terminology arises new terms are made up or borrowed. All languages are adaptable to whatever cultural expansion or limitation may be the experience of the native speakers. There are, in fact, no languages which are structurally "primitive." So-called "primitive languages" are perfectly good patterns of speech, but happen to be used by people with unelaborate and nonliterate cultures.

At the same time, no language system is perfect. There are both structural and semantic limitations on any language. Unsophisticated people are not generally aware of any weakness or any lack of efficiency in their own language because they are used to the circumlocutions which their own language provides to avoid the difficulties or because they never have use for an area of meaning which the language does not provide. The difference between languages becomes obvious to the individual who learns a language other than his native speech, especially if that language is in an entirely different stock (*e.g.,* when an English speaker learns a language not in the Indo-European family). To give a very simple illustration, most speakers of English distinguish the offspring of their own brothers and sisters by the sex of the children: nephew and niece. The Aymara Indians of Bolivia, however, make a much finer distinction based on the needs of their society. A man's brother's son, or a woman's sister's son is called *yoca;* a woman's sister's daughter, or a man's brother's daughter is called *pucha;* a man's sister's son or daughter is called *haquiri;* and a woman's brother's son or daughter is called *ipasari.*[111] Note the circumlocutions we need in English to reflect unambiguously the relationship represented in a single word in Aymara. Note also that the sex of the person in question is differentiated

[111]Weston LaBarre, *The Aymara Indians of the Lake Titicaca Plateau, Bolivia,* American Anthropological Association, Memoir No. 68, *American Anthropologist,* Vol. XV, No. 1, Part 2 (1948), p. 140.

in the first two cases, but not in the last two. In all four cases the sex of the first two individuals in the older generation is a defining character. Thus the Aymara is very specific and exact on an issue which ordinary English vocabulary is not required to meet because it is not in our social system. Anthropologists, however, who meet such situations as these often have developed a terminology for their technical English vocabulary of anthropology so that they may refer to these relationships. Here we have a case of the development of an area of language where there is need for it.

Similar differences are reflected in grammar structure; for example, where English distinguishes between *singular* and *plural*, many languages of the world distinguish a *dual* also. Whereas in English we distinguish between *this* (close by) and *that* (farther away or way off), Comanche,[112] like many other languages, distinguishes *this* (close by), *that* (farther away), and *that way off*. Combining the meanings of number and distance, we then get nine combinations of form and meaning roughly equivalent in meaning to four English forms: *this, that, these, those.*

Such refinements of structure and meaning occur in all languages, but they seem so "natural" to the native speaker that they pass without comment. Likewise, awkward areas of circumlocution bother no one until a situation comes into linguistic use so often that a term (often a technical one) is coined to fill the need.

A language may develop quantitatively. The vocabulary of a given language does expand with an elaborated culture. In fact, primitive languages all have extensive vocabularies with words numbering in the tens of thousands, and there are no languages which "get along with two or three hundred words," according to a popular misconception. Witness the seventeen pages of closely printed "Glossary of Arawak Names in Natural History."[113] These terms cover only Arawak vocabulary referring to natural objects—

[112]Data from Henry Osborn and Wm. A. Smalley, "Formulae for Comanche Stem and Word Formation," *International Journal of American Linguistics*, Vol. XV, No. 2 (1949), pp. 93-99.

[113]D. B. Fenshawe, "Glossary of Arawak Names in Natural History," *International Journal of American Linguistics*, Vol. XV, No. 1 (1949), pp. 57-74.

nothing to do with its society, religion, technology, warfare, hunt, and many other parts of its life. The recorder no doubt succeeded in getting only part of the terms in actual use. However, the more complex the culture of the people, the larger the vocabulary they need to handle that culture. The difference is one of degree, not of kind, since any language has the mechanism for expanding its vocabulary to fit its needs. All languages are adequate to fill the needs of the cultures of which they are a part, or become so soon after the culture develops greater linguistic needs. The languages of "civilized" peoples are therefore "better" only in the sense that they are adapted to a more complex culture and to more and varied culture situations. Language thus "improves" in only the same sense that culture "improves" or "develops." The system of a language will change, and that according to a pattern of historical process, but we can make no value judgments therefrom.

In fact it has been the observation of the best translators of the Bible into "primitive" languages that the truth of the Scriptures can be expressed in any language, even though neither the language nor the culture has specialized in philosophical or theological questions, and even though the culture itself is entirely different from the culture described in the Scriptures.[114] If one language has a richer literature than another, such a fact is the reflection of the extralinguistic cultural setting, of a poetic, narrative, or even philosophical attitude developed by the emphasis of the culture or of a part of it.

Language and the Scriptures. Even though we cannot recognize the difference in value between any language systems as such, we may return to the question of the limitations of all language systems in relation to revelation and the truth. Language (and also culture) places a very definite limitation on Divine Revelation, for that Revelation is made in linguistic form and cultural terms. It has to be so made to be intelligible. If the original Revelation had not been made in the language of the people to whom it was directed, and if it were not now translated into our present languages, it would be unintelligible. If it were not presented in terms of the life and culture of the people, it

[114]Nida, *Bible Translating*, and "Linguistics and Ethonology in Translation Problems."

would be both unintelligible and pointless to the people. When Christ spoke to the Jews of His day, He spoke in Aramaic and used the culture of Near Eastern sheepherders and village folk, and the temple ritual which they knew. If He had spoken in Bantu or used the cultural setting of Polynesians, it would have been meaningless to the Jews of His day. The point is so obvious as not to need belaboring, but it must not be forgotten either by the missionary who takes the Revelation from its cultural setting and linguistic framework into another to which he must adapt it, or by the general Christian who should realize that the Revelation of the Infinite in language can only be partial because language is finite. The particular form of the particular language in which the Revelation was made and the culture of the people who used the language were the limiting factors. This is one reason that so much of the truth had to be presented in allegory and analogy. Its greater meaning would not be clear until another day when culture had expanded.

Much is often made of the fact that the New Testament was first written largely in the Koine. Without any question the Koine was the ideal language of Revelation for the time, *but because of cultural reasons, not linguistic ones.* Greek was superior to other languages only in the quantitative sense we have mentioned. It is no more "exact" or "precise" than any other language. It contains as many ambiguities, and is forced into as many circumlocutions. But Koine Greek reflected an ideal cultural situation in which the Revelation could spread most easily and with the greatest prestige, for Koine was the learned language and trade language of much of the then-known world. It had, furthermore, a religious and philosophic vocabulary as a result of its long heritage of advanced thought and learning.

Human Paleontology

One of the most closely specialized phases of anthropology is human paleontology, the science which concerns itself with fossilized remains of human beings. As a subdiscipline, paleontology is important to Christian thought because it is central to the whole question of human evolution and cognate naturalistic or mechanistic concepts of the universe and man. The evolutionary

concept is that man has developed in the course of time by gradual transformation from an apelike type to the type he presents today.[115] Fossilized portions of human skeletons which show morphological characteristics differing from modern man, and which are found under physical conditions indicating geological antiquity, give the data which are significant in testing the validity of the concept. Questions commonly asked by Christians concerning the data of human paleontology include: (1) Is the number of human fossils sufficient to warrant consideration? (2) Do these fossils show an evolutionary sequence? (3) Is man more than 10,000 to 15,000 years old?[116]

Some Christians have thought that the fossilized remains of human beings were spurious, that there were only a few isolated skeletal bones found in widely scattered places. There are, however, many deposits yielding bones of fossil man including complete skeletons. At Peking, China, alone there are the remains of more than forty individuals of considerable antiquity, showing physical difference from modern man. Many Christians have likewise been taught that the morphological features of the fossil men presented only slight deviations from the morphological features of man today, and that most fossil men could be found in type in any cosmopolitan center. Often it has been said jokingly that Neanderthal man is a frequent patron of the New York subways! However, a careful study of comparative morphology shows that there are large differences between the structure of man today and the structure of many of the fossil men. Whether such dif-

[115] Franz Weidenreich, "The Skull of *Sinanthropus pekinensis*: A Comparative Study on a Primitive Hominid Skull," *Paleontologia Sinica*, N. S. D, No. 10, whole series No. 127, (1943), p. 1.

[116] Bishop Ussher took the genealogies of the Old Testament to be a complete chronological record, and counting backward, he arrived at 4004 B.C. as the date of creation. Conservative Old Testament scholars such as B. B. Warfield of Princeton have since recognized that there are gaps in the genealogies. It is believed by some scholars that these gaps account for only a few thousand years, and that the date of the creation of man cannot be pushed back further than 10,000 to 20,000 years ago. See Laird Harris, "The Date of the Flood and the Age of Man," *The Bible Today*, Vol. 37, No. 9 (June-Sept., 1943), pp. 575*ff*. However, other conservative scholars have ably presented the case for a much greater antiquity of man, yet holding to the plenary inspiration of the Scriptures, *e.g.*, J. Oliver Buswell, Jr., "The Length of the Creative Days," *Christian Faith and Life*, April, 1935.

ferences in kind or in degree are adequate to indicate evolution in the usual sense is another matter.

It has also been thought that the majority of the fossil deposits were in river beds or open caves and that the geological evidence for antiquity was not very convincing. It is true that the geological data in a number of cases are not sufficient to allow dating, but in many cases the approximate age can be determined with reasonable accuracy. The evidence seems to indicate that man is much older than most evangelical Christians have suggested. Authentic, carefully examined fossil deposits date from the Third Interglacial period, and it is probable that some may date from the Second Interglacial period (see Table VIII).

These data do not mean that the Scriptures are in error. God is the Author of the Scriptures and Creator of the universe. All things of which He is the Author or Creator are ultimately consistent within themselves and with each other. Christians should be interested in all the documented evidence anthropology can offer on fossil man. If substantial evidence conflicts with certain traditional interpretations of Scripture, such interpretations may require some modifications. The task, therefore, is to evaluate and make available to the thinking Christian public the pertinent information available from human paleontology.

History of Human Fossil Discoveries. In 1848 the first recorded human fossil was found in a cave on the rock of Gibraltar, but its full significance was not realized until some years later when fossil man was again discovered in a cave in the Neander Valley near Dusseldorf, Germany. Because the newly found skull and skeletal parts had certain morphological characteristics differing from modern man or *Homo sapiens,* a new species of man was christened *Homo neanderthalensis,* or Neanderthal man. The famous German pathologist Rudolph Virchow long contended that the bones were pathological remains of a recent human, and not until this discovery was duplicated at other places was Virchow's statement discounted.

A Dutch Army surgeon, Dr. Eugene DuBois, influenced by Darwin's newly formulated idea of evolution, made a deliberate search for a form that would fill the gap between man and the ape. In 1891-1892 he discovered, on the island of Java, a fossilized skull cap, a femur, and several teeth. These were reconstructed into a form which was given the name *Pithecanthropus erectus,* or "ape-man who walked erect," and was hailed as the "missing link."

Since these early days, the number of finds of fossilized remains of human beings has increased tremendously. It can no longer be said that the evidence for fossil man is fragmentary. The past 100 years since the finding of the Gibraltar skull has witnessed much activity in the search for human fossils, and this search has been rewarded with an amazing degree of success.[117] Fossil man cannot be pushed aside or regarded as spurious. The correct interpretation of these finds is of considerable significance in the Christian world view.

Theories of Human Evolution. There are two main trends of thought concerning the course of human evolution, categorized here as (1) the classic theory and (2) Weidenreich's theory.[118] The classic theory has likened the process to a tree which produces steadily diverging branches and twigs. The various known fossil types are considered to represent branches for the most part, and not the main phylogenetic trunk. All but one of the branches withered and became extinct, leaving that one to emerge into the present species *Homo sapiens* and to be split in turn into diverging twigs representing the present human races.

The classical theory assumes a continuous radiation and divergence of human types. Since each of the fossil types has been disqualified as a progenitor of present *Homo sapiens,* the origin of our ancestors remains unknown. The earlier fossils, after progressing so far, became extinct. The later Neanderthals were conquered by an incoming *Homo sapiens* form (Cro-Magnon) without mixing with them. Only Cro-Magnon type fossils have been directly ancestral to present races. This theory necessarily assumes a strong degree of reproductive isolation, which assumption is

[117]William W. Howells, *Mankind So Far* (Garden City, N. Y.: Doubleday, 1944). This book gives a fairly complete and accurate review of human paleontology, including the history of the finds, the morphological and chronological position of each.

[118]Theo. Dobzhansky, "On Species and Races of Living and Fossil Man," *American Journal of Physical Anthropology,* Vol. 2, n.s. 3, 1944. Also Howells, *op. cit.*

not borne out in at least one case, the findings from Mt. Carmel, where paleoanthropic and neanthropic[119] fossils were found together and with evidence of genetic mixture.

Dr. Weidenreich has proposed a theory of polycentric evolution with a parallel development of races. He maintains that during the Pleistocene period different strains of the human species, in different regions at different speeds, were independently passing through the same general series of evolutionary stages leading from an anthropoid to a human type. In other words, he holds to a racial differentiation at a level far earlier than the attainment of the *sapiens* stage. This presupposes a polycentric origin of hominid forms. At various places in the world a hominid form emerged from an anthropoid form and began its development toward the *sapiens* form, certain of the fossil forms being direct ancestors of present-day races.

The trend of human evolution he elaborates in an orthogenetic theory of specialization, consisting of (1) the adoption of erect posture and a strictly correlated adaptation of the entire human organism to this position, and (2) the expansion of the brain, especially of the pallium, and an intensive differentiation of the internal cortex structures. He does not guess as to the causative agents of this orthogenesis. Weidenreich traces this trend of specialization by taking the fossil forms and arranging them in rank order according to their structure. The more primitive morphologies, *i.e.*, those more nearly approaching the ape form, are placed at the bottom, and so on up the scale. By doing this he considers it possible to trace various lines of development, as *Meganthropus* to *Pithecanthropus robustus* to *Pithecanthropus erectus* to *Homo soloensis* to Wadjak man to modern Australian man.

Dr. Weidenreich composes two charts showing hominid remains in a morphological sequence and in a chronological sequence (see Tables II and III). It is clear that with the present evidence the two sequences do not tally with each other. Morphologically recent fossils are chronologically ancient (Swanscombe, Piltdown). Weidenreich sees this discrepancy and explains it by a hypothesis that at some period earlier than the Pleistocene, prehominid ancestors of Swanscombe and Piltdown lived in England. This is a part of his theory of polycentric evolution with parallel development of races. This theory depends solely on a morphological classification and does not necessitate geological age determination; hence he admittedly refrains from correlating the morphological scale with the chronological scale.

[119]For definition see p. 170.

In determining the character of a given fossil form and its special place in the line of human evolution, only its morphological features should be made the basis of decision; neither the location of the site where it was recovered, nor the geological nature of the layer in which it was imbedded is important.[120]

TABLE II. MORPHOLOGICAL SEQUENCE OF HOMINID REMAINS*

General Classification	Subdivision	Type	Distribution
Prehominid		Pithecanthropus erectus	Java North China
		Sinanthropus pekinensis	
Homo neanderthalensis	I Rhodesian	Homo soloensis Homo rhodesiensis	Java South Africa
	II Spy group	Spy Gibraltar Saccopastore	Western Europe Southern Europe
		La Chapelle Aux-Saints Mauer (mandible)?	Western Europe Central Europe
	III Ehringsdorf group	Ehringsdorf Krapina Steinheim (Mt. Carmel)	Palestine
Homo sapiens, intermed.		Swanscombe Skhul (Mt. Carmel)	England Palestine
Homo sapiens, fossilis		Piltdown (braincase)	England

*After Franz Weidenreich, "Some Problems Dealing with Ancient Man," *American Anthropologist*, n.s. Vol. 42, No. 3 (1940), p. 381.

It should be pointed out that an evolutionary hypothesis is a priori here. This is a basic fallacy in that Weidenreich assumes what is to be proved. It may follow that evolution being true, a morphological construct would give the sequence of development

[120]Weidenreich, *loc. cit.*

regardless of the chronology of the specific fossils. One type would not disappear at once when another came on the scene. Dr. Weidenreich contends on this basis that the only valid way of determining man's evolution is by ranking the fossils on a morphological scale, in order to chart the trend of progress. It should be emphasized, however, that in leaving out the chronological scale, the most important evidence to support or discount his basic evolutionary conception is omitted.

There are limitations which are imposed on a reconstruction of phylogenetic evolution by morphology alone. The sorting of specimens by structure is a convenience for comparison and classification. It may indeed show a progression, but it does not necessarily show a progression in time. Rather, the progression may be merely a variation in space. A morphological progression alone is not indicative of a generic connection.

The morphological fallacy—the assumption that morphological sequential constructs made for convenience of comparison and analysis represent generic connections—has to be continually guarded against in all of anthropology. Pottery types, for example, may be selected from all over the earth and so arranged as to present a "sequence" in the development of the making of pottery, but, unless there is other evidence (such as stratigraphic placing in archaeological finds), it is only for the morphological connection that the sequence has validity. If the pottery represents a single sequence of development, it is significant to determine the form through which that development passed. The reality of that development, however, depends on the validity of the generic connection. Linguistics, as mentioned earlier, has repudiated the morphological fallacy. Similarity in language structure is known to be an insufficient basis for establishing genetic relationships.

Presuppositions in Anthropology. To evaluate properly present anthropological interpretations the presuppositions on which they are based must be understood. Dr. Wallis'[121] calls attention to the fact that throughout the literature on fossil man one notes at least two generalizations, usually implied but never stated: (1) More data are inferred from older remains than would be con-

[121]W. D. Wallis, "Presuppositions in Anthropological Interpretations," *American Anthropologist*, n.s. Vol. 50, No. 3 (1948), pp. 560-564.

TABLE III. CHRONOLOGICAL SEQUENCE OF HOMINID REMAINS*

Glacial periods	General and special classifications	Type	Distribution
Gunz	Homo sapiens	Piltdown (braincase)	Western Europe
Gunz-Mindel	Prehominids	Pithecanthropus erectus	Java
Mindel	Prehominid	Sinanthropus pekinensis	North China
Mindel-Riss	Homo neanderthalensis II	Mauer (mandible)	Central Europe
	Homo neanderthalensis III	Steinheim	
	Homo sapiens intermed.	Swanscombe	Western Europe
Riss			
Riss-Wurm	Homo neanderthalensis I	Homo soloensis	Java
	Homo neanderthalensis II	Saccopastore	Southern Europe
	Homo neanderthalensis III	Ehringsdorf	Central Europe
		Tabun	Palestine
	Homo sapiens intermed.	Skhul	Palestine
Wurm	Homo neanderthalensis II	Monte Circeo	Southern Europe
	Homo sapiens	Grimaldi	Western Europe
Post-Wurm	Homo sapiens	Homo sapiens fossilis	Europe, Africa, Asia

*After Franz Weidenreich, "Some Problems Dealing with Ancient Man," *American Anthropologist*, n.s. Vol. 42, No. 3 (1940), p. 382.

sidered sound to infer from contemporary remains; and (2) in dealing with prehistoric man inferences are made on less abundant material than would be considered necessary if contemporary man were being discussed.

Many statements are made concerning the mental capacity, development of psychic faculties, and development of faculties of speech in the fossil forms. These statements are made on the basis of evidence from endocranial casts showing the structure and development of the brain fissures and convolutions. For instance, Hooton[122] reports that one student deduced from a study of the endocranial cast of *Pithecanthropus erectus* that he had development of speech, establishment of human personality and higher psychic faculties, freeing of the hand for manual purposes, inception of unidexterity, and a number of other accomplishments. All of this was deduced from a brain *cast*, not from the brain itself. Very few anatomists would make such statements regarding a contemporary individual even if they had the complete brain to study. Dr. Weidenreich has furthermore written a very decisive article on this subject pointing out the limitations of the endocranial cast in determining such functions.[123] He points out that there is no clue to the amount or degree of general or special mental qualities from the size or form of the brain, or the surface of the hemispheres, or the wrinkle pattern in general or in detail. He summarizes by saying that

> . . . studies made on skeletons alone will never enable us to make statements about either the mentality of the individuals concerned or about mental changes or progress over a period of time. Cultural objects are the only guide so far as spiritual life is concerned. They may be fallacious guides, too, but we are completely lost if these objects are missing. And the closer we come to more primitive stages, the less likely we are to discover cultural objects.[124]

It should be mentioned also that museum reconstructions of prehistoric man, picturing forms with hairy bodies and bestial facial expressions, are certainly the imagination of the reconstructionist.

[122]Hooton, *op. cit.*, p. 292. In his 1931 edition of the same work, Hooton records this material uncritically (see p. 295 of that work).

[123]Franz Weidenreich, "The Human Brain in the Light of Its Phylogenetic Development," *Scientific Monthly*, Vol. 67, No. 2 (1948), pp. 103-109.

[124]*Ibid.*, p. 109.

Certain conclusions by the student of human paleontology must, therefore, be regarded as prejudiced to a considerable degree. These conclusions, however, are independent of the facts, *i.e.*, the actual remains which must be fitted into any rational view of the universe and its inhabitants. Some of the well-established data will be presented below.

Classification of Hominids. Human fossils have been arranged arbitrarily into the following morphological groups:[125] *protoanthropic*, or those which appear closest in form to the ape; *paleoanthropic*, those which are intermediate in structure between modern man and protoanthropic; and *neanthropic*, fossilized remains of *Homo sapiens*. It should be emphasized that these divisions are purely arbitrary and according to phenotypic morphology. There is no basis in them for generic arrangement.

TABLE IV. SUMMARY OF PROTOANTHROPIC JAVA FOSSILS*

Specimen	Year	Site
Mandible (Mandible A)	1890	Kedung Brubus
Skull cap (Pithecanthropus erectus I)	1891	Trinil
Femur (Pithecanthropus erectus I)	1892	Trinil
Mandible (Mandible B)	1937	Sangiran
Skull cap (Pithecanthropus erectus II)	1938	Sangiran
Skull fragment (Pithecanthropus erectus III)	1938	Sangiran
Skull cap and maxilla (Pithecanthropus robustus)	1939	Sangiran
Mandible (Meganthropus paleojavanicus)	1941	Sangiran
Skull fragment (Homo modjokertensis)	1936	Modjokerto

*Franz Weidenreich, "Giant Early Man from Java and South China," *American Museum of Natural History, Anthropological Papers*, Vol. 40 (1945), p. 96.

In the protoanthropic group, the Java fossils (Table IV) and the early fossils from China stand out in importance.

The China fossils, called *Sinanthropus pekinensis*, are known from skeletal remains of some forty individuals.[126]

[125]Kroeber, *Anthropology*, p. 80.

[126]Weidenreich, "The Skull of *Sinanthropus pekinensis*."

The paleoanthropic group (Table V) consists of the Neanderthal fossils and related forms. Since the finds at Gibraltar in 1848, and Dusseldorf in 1856, remains of Neanderthal man have been uncovered at many places in Europe, Asia, and Africa.

The neanthropic fossils (Table VI) likewise have a wide geographical distribution. The Cro-Magnon man of Europe is the best example of fossilized neanthropic man. All individuals of historic times seem to have been of this formal type.

TABLE V. SUMMARY OF THE MOST IMPORTANT PALEOANTHROPIC FOSSILS*

Specimen	Year	Site
Skull, parts of skeleton (Homo neanderthalensis)	1856	Dusseldorf, Ger.
Parts several skeletons (La Chapelle-aux-Saints)	1899	Correze, Fr.
Skeleton of youth (Le Moustier)	1908	Derdogne, Fr.
Senile and child mandible (Ehringsdorf)	1914	Weimar, Ger.
Skull vault, female (Ehringsdorf)	1925	Weimar, Ger.
Skull (Steinheim)	1933	Stuttgart, Ger.
Skull with maxilla (Homo rhodesiensis)	1921	Africa
Mandible with teeth (Homo heidelbergensis)	1907	Mauer, Ger.
11 fragmentary skulls (Homo soloensis)	1931-36	Java
Skeletal remains of 12 individuals (Tabun, Skuhl)	1931-32	Mt. Carmel, Pal.

*A. L. Kroeber, *Anthropology: Race, Language, Culture, Psychology, Prehistory*, pp. 94-97 (New York: Harcourt Brace, 1948).

According to the basic assumption underlying the study of paleoanthropology as it is practiced today, the morphology of these fossils should show an over-all gradation from a primitive, *i.e.*, apelike, to a modern, *i.e.*, *Homo sapiens*, form; and chronologically there should be a correlative time range. The most primitive morphological type should therefore be the most ancient geological type, and should decrease in number with time, if the fossil record is at all adequate in its sampling of time and type. Data will be presented with this premise in mind.

Pleistocene Chronology.[127] Because sound geological dating is essential to an understanding of the fossils, the methods are outlined in Table VII. Fortunately for the geologist, the Pleistocene was characterized by world-wide climatic changes that brought about tremendous advances and retreats of continental glaciers. Four major advances of ice have been determined for both the American and European continents. This gives us a precise world-wide, but irregularly graduated, time scale by which to measure Pleistocene chronology. It is much easier to get the relative time relations than the absolute, but both are possible.[128] Table VIII gives the terminology used in connection with the glaciations and interglacial times of the Pleistocene period, with the tentative approximate dates assigned by Pleistocene scholars.

TABLE VI. SUMMARY OF A FEW NEANTHROPIC FOSSILS*

Specimen	Year	Site
2 incomplete skulls (Wadjak man)	1889	Java
Skeleton, male (Combe Capelle)	1909	France
Portion skull cap, limb bones (Boskop)	1914	Africa
Skeletons, adult female, male child (Grimaldi)	1901	Italy
Skeletal remains of several individuals ("Upper Cave")	1933	China
Portions adult skull (Swanscombe)	1936	England

*Earnest A. Hooton, *Up from the Ape*, pp. 380, 398 (New York: Macmillan, 1946).

The brief summary in Table VII gives the most valid methods known at present for obtaining dates for events in the Pleistocene period. Studies in the decomposition of Pleistocene sediments indicate that long periods of time (120,000 years, 300,000 years, 200,000 years) have been involved in the duration of interglacial

[127]We are indebted to Dr. J. Laurence Kulp of the Columbia University Geology Department for assistance in geological problems. A table of geological time may be found on p. 32.

[128]A recent comprehensive survey of the methods of Pleistocene chronology determination may be found in Richard F. Flint, *Glacial Geology and the Pleistocene Epoch*, Chap. 18 (New York: Wiley, 1947).

TABLE VII. METHODS OF PLEISTOCENE CHRONOLOGY*

Method	Basis and range	Relative accuracy
Radioactive in-equilibrium†	Disintegration of radium and ionium in sea-floor sediments utilized to obtain dates for geologic events of the past 300,000 to 400,000 years	Fundamental assumptions reasonable. Experimental work being checked. Potentially accurate within experimental error (10%)
Carbon isotope 14‡	Rate of disintegration of radioactive C^{14} in organic remains utilized to obtain dates from the present to 50,000 years ago	Theoretical construction appears valid. Experimental work being constantly refined. Accuracy 5% in optimum (upper) dates
Decomposition Pleistocene sediments	Depth of weathering and formation of postglacial soils used in extrapolating for duration of interglacial ages	Absolute dates contingent upon validity of assumed postglacial base date. Three independent methods (decomposed loess, formation of gumbotil, and thickness of residual soils) show the relative dates to be of right order of magnitude
Varve counts	Study of varved lacustrine sediments used to determine postglacial time in any given area, and to trace retreat of glaciers	Quantitative evidence of postglacial time for a given lake bed. Traces retreat of glacier when lakes used are very proximate
Erosion and sedimentation studies§	Rates of erosion and sedimentation used to determine postglacial time for any given area	Variables involved are usually so great that the figures obtained are highly unreliable

*It should be noted that two frequently employed methods, paleontology and archaeology (certain artifacts), for the determination of the age of a deposit have been omitted. This was done for two reasons: (1) Although for a long time these were admittedly "the best we had," they actually depend for their validity on the preestablishment of an independent physical-chemical time scale; (2) the great prejudice against them in evangelical circles and the great prejudice for them in secular circles.

†C. S. Piggot and W. D. Urry, "Time Relations in Ocean Sediments," *Bulletin Geological Society of America*, Vol. 53 (1942), pp. 1187-1210.

‡W. F. Libby, E. C. Anderson, and J. R. Arnold, "Age Determination by Radiocarbon Content: World-wide Assay of Natural Radiocarbon," *Science*, Vol. 109 (1949), pp. 227-228.

§Richard F. Flint, "Leaching of Carbonates in Glacial Drift and Loess as a Basis for Age Correlation," *Journal of Geology*, Vol. 57 (1949), pp. 297-303.

ages. The radioactivity studies show promise of providing a check for these figures. With constantly refined techniques, radioactivity studies will yield very accurate results.

Particularly important to anthropology are the latest experimental developments in the field of direct age determination by radioactive decay of carbon isotope 14. Because of its accuracy and relevance, and because experimental work has already been done with archaeological materials, the method will be discussed

TABLE VIII. GLACIAL AGE TERMINOLOGY*

Phase		Approximate accepted dates (start)
Alpine or European	North American	(R. F. Flint)
Postglacial	Postglacial	25,000 years ago
Wurm	Wisconsin	100,000
Riss/Wurm† (Third Interglacial)	*Sangamon*	220,000
Riss	Illinoian	320,000
Mindel/Riss (Second Interglacial)	*Yarmouth*	600,000
	Kansan	700,000
Gunz/Mindel (First Interglacial)	*Aftonian*	900,000
Gunz	Nebraskan	1,000,000

*Data from Richard F. Flint, *Glacial Geology and the Pleistocene Epoch*, pp. 348, 532 (New York: Wiley, 1947).

†Interglacial periods in italics.

in brief here. A more technical discussion can be found in the literature, particularly in *The Physical Review*.

C^{14} is created at a constant rate in the atmosphere by the action of a component of cosmic rays on atmospheric nitrogen, and is instantaneously combined with oxygen to form $C^{14}O_2$. Carbon in living organisms is exchanged directly or indirectly with atmospheric carbon dioxide and thus contains C^{14}. Investigations by

W. F. Libby and colleagues at the University of Chicago[129] have shown that all living matter has essentially a constant concentration of C^{14}. When an organism dies, it ceases to exchange carbon with atmospheric carbon dioxide, and thus does not receive any more C^{14}. Since this supply of C^{14} is not replenished and is radioactive, it decreases with time at a constant rate. Since both the half-life (approximately 6,000 years) and the original concentration are known, it is possible to calculate the concentration of C^{14} in any organism at any time after its death. The measurement of the C^{14} concentration in human, plant, or animal remains can potentially give accurate figures for events occurring in the past, as long ago as 50,000 years.

Recent experiments[130] with material of known date about every 500 years back to 3000 B.C. has shown that the C^{14} method of age determination gives the correct dates within the limit of experimental error (about 10%). Two of the oldest samples were wood from the tombs of Sneferu and Zoser which are dated by written records as 4,575 $\pm$ 75 and 4,650 $\pm$ 75 years old respectively. The C^{14} age for these samples gave for Sneferu 4,400 $\pm$ 400 years old, and for Zoser 4,900 $\pm$ 450 years old. The degree of precision is constantly being improved by both the technique and the statistical numbers of samples measured. Experiments on human fossil (Cro-Magnon and Neanderthal) deposits are now in progress, and soon the actual or minimum age of these deposits should be known with a high degree of accuracy. Such further data will be crucial for anthropology.

Comparative Morphology. Not only sound dating but also sound interpretation of formal differences is essential for understanding the fossils. Structural differences and similarities between man and the other members of the primate order are easily observable, and they become the basis for morphological constructs of human evolution. Most of the ancient hominid remains consist of skull fragments, and it is in this area that some of the major

[129] W. F. Libby, E. C. Anderson, and J. R. Arnold, "Age Determination by Radiocarbon Content: World-wide Assay of Natural Radiocarbon," *Science*, Vol. 109 (1949), pp. 227-228.

[130] Arnold, J. A., and W. F. Libby, "Age Determination by Radiocarbon Content: Checks with Samples of Known Age," *Science*, Vol. 110 (1949), pp. 678, 679.

differences are found. Figure 18 shows some of these differences. A photograph of a skull of *Sinanthropus pekinensis* is shown for comparision (see Fig. 19 facing p. 180).

As may be seen from these figures, man's skull is much more expanded than that of any ape. The forehead is higher, with a sharper angle, as contrasted with the low and receding forehead of the ape. The bony structure above the eye (supraorbital torus) is not developed on man's skull whereas on the ape it forms a heavy bar extending across the face. The area for neck muscle

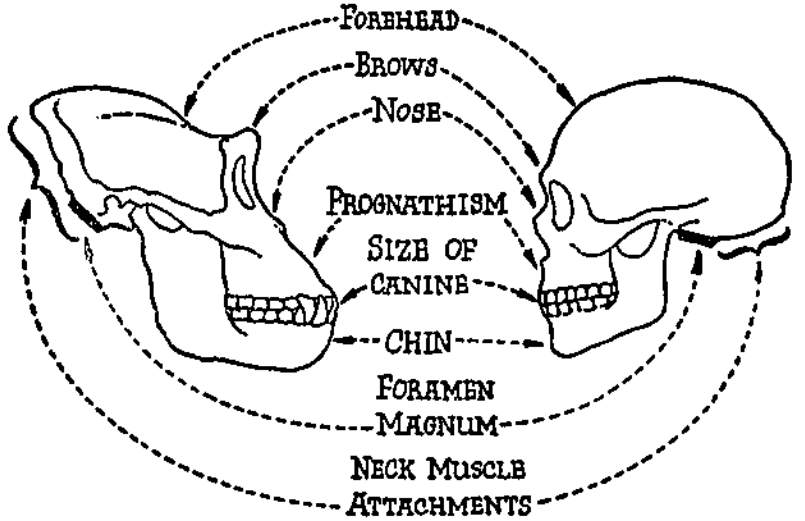

FIG. 18. Points of difference in the skulls of ape and man. (*From William W. Howells, Mankind So Far, p. 130, Garden City: Doubleday, 1947. Copyright, 1944.*)

attachments is small in man. The ape requires a large muscle mass running high up on the back of the skull to support the heavy head in its thrust-forward position. In man, the foramen magnum—the opening through which the spinal cord passes—is in a forward and central position that serves to balance the head on the vertebral column and thus afford upright posture.

The face of man is flat or straight, whereas prognathism, or protrusion of the jaws, is pronounced in the ape facial structure. Man's chin has a bony development on the outside, giving it a

characteristic angular shape. The ape's chin is rounded, with a bony reinforcement on the inside, known as the simian shelf. The proportionate size of the teeth and the pattern of dentition are different in the two species. The interlocking canines are not found in man.

The average cranial capacity for the apes (gorillas) is 500 to 600 cc., and for human adult males racial averages range from 1,200 to 1,500 cc. It should be noted, however, that some individuals with normal intelligence have a cranial capacity of less than 1,000 cc.

Long bones are identified as human by a general lightness and straightness. Human femurs have well-defined markings for the attachment of strongly developed leg muscles.

Fossils are classified as they pattern according to these crucial features which have been described. Those which show features more similar to those of apes than to those of modern man are considered to be "intervening stages" of evolution from one to the other. It must be emphasized that only if those resemblances can be shown to be generic, and only if they correlate with geological spacing, is such a procedure valid.

General View of Hominids. Figure 20 indicates the generally accepted record of the progress of human life and culture during the Pleistocene period. There is no evidence from any known source that hominids existed previous to Pleistocene times. The earliest fossil bones as well as the earliest stone cultures are assigned to the Lower Pleistocene. The date of the Piltdown finds is uncertain; hence the question mark in parentheses. Neanderthal man and Peking man are the only hominids listed on this chart which have an associated stone industry. Neanderthal man is always associated with Mousterian culture, and Peking man is associated with an Asiatic equivalent to European Chellean culture. Although the dates shown are not established as absolute dates, the relative sequence shown seems approximately correct.

The structure and age of the fossils from Java and the Mauer sand pit in Germany illustrate the type of evidence available and how it is used. Similar data can be presented for most of the fossil deposits. An analysis of the data for all ancient hominid fossils will reveal (1) the probable great antiquity of these hominid

fossils, (2) the structural variation of hominid fossils, and (3) the lack of any simple unilinear evolutionary development with time.

The Java Finds. The number of Java finds has already been summarized.[131] A general picture of the morphological features of the Pithecanthropus fossils is given in Table IX.

Sangiran, Trinil, and Modjokerto, the sites of the fossil deposits, are easily located on a map of the island. The geologic stratigraphic sequence in the interior valley of eastern and central Java,

TABLE IX. MORPHOLOGICAL FEATURES OF PITHECANTHROPUS FOSSILS*

Skull	Low braincase with greatest breadth near base
	Extraordinary flatness of the forehead
	Pronounced postorbital construction
	Developed occipital torus
	Heavy and projecting supraorbitals
	Average cranial capacity of 900 cc.
Teeth	Humanlike pattern
	Apelike in size and proportion of molars
	Wide diastema in upper jaw
Posture	Erect, indicated by skull base and position of foramen magnum (skull IV)

*After Franz Weidenreich, "Some Problems Dealing with Ancient Man," *American Anthropologist*, n.s. Vol. 42, No. 3 (1940), pp. 375-376.

through which the Solo River runs, is clearly defined and has been carefully studied. There can be no doubt as to the sequence of beds; but the precise absolute dating, and in particular the correlations with Asiatic fauna and Eur-Asia glaciations, is disputable.

The majority of fossils have come from the Trinil beds; the infant skull of *Homo modjokertensis* came from the Poetjang beds (see Fig. 21).

[131]See p. 169.

The skull of *Homo modjokertensis* is in conglomeratic sandstone in the northern portion of an anticline. An examination of the matrix adhering to the skull showed it to be of the same material as the layer exposed in the pit, indicating that the skull was *in situ* in the Poetjang beds.[182] No trace of landslides or any formation responsible for redeposition was found in the area. The exposures along the road show an unbroken sequence; hence, there is no doubt as to the correct assignment of the fossil layer within the sequence.

Figure 22 is a cross section of the site of Pithecanthropus skull II. This skull was found firmly embedded in a chunk of sandstone which is known definitely to have come from a sandstone layer in this well-exposed section of tilted strata. Thus, there is no possible doubt that this skull was *in situ* in the Trinil beds. The nature of the rock and the formation of the beds indicate that considerable antiquity must be attached to these two deposits. Sandstone is formed by cementation of sand grains under compaction from overlying layers. Wide stretches of sand were laid down under water, and subsequently layers of other material were formed over the sand. At least a mile of additional sediment must have been laid on top of this sand to compact it into a sandstone. Subsequent to the deposition of this great thickness of sediment, the entire region was subject to compressional forces, causing the folding of the strata as indicated in the diagrams. Even this folding must have been an extremely slow process; otherwise the rocks would have an entirely different appearance, as the physics of rocks can readily show. Finally, the folded area had to be eroded to the present topography—again an extremely long process. Thus, the great antiquity of the Modjokerto and Sangiran specimens is clearly demonstrated. To obtain absolute ages, however, these sequences of erosion and deposition must be correlated with the Eur-Asia glaciation phases.

The dates of the Java sites, therefore, cannot be exactly correlated with European and Asiatic finds. However, it may be noted that (1) they are certainly in a proper sequence; (2) long time

[182]Helmut de Terra, "Pleistocene Geology and Early Man in Java," *Transactions*, American Philosophical Society, n.s. Vol. 32, 1943.

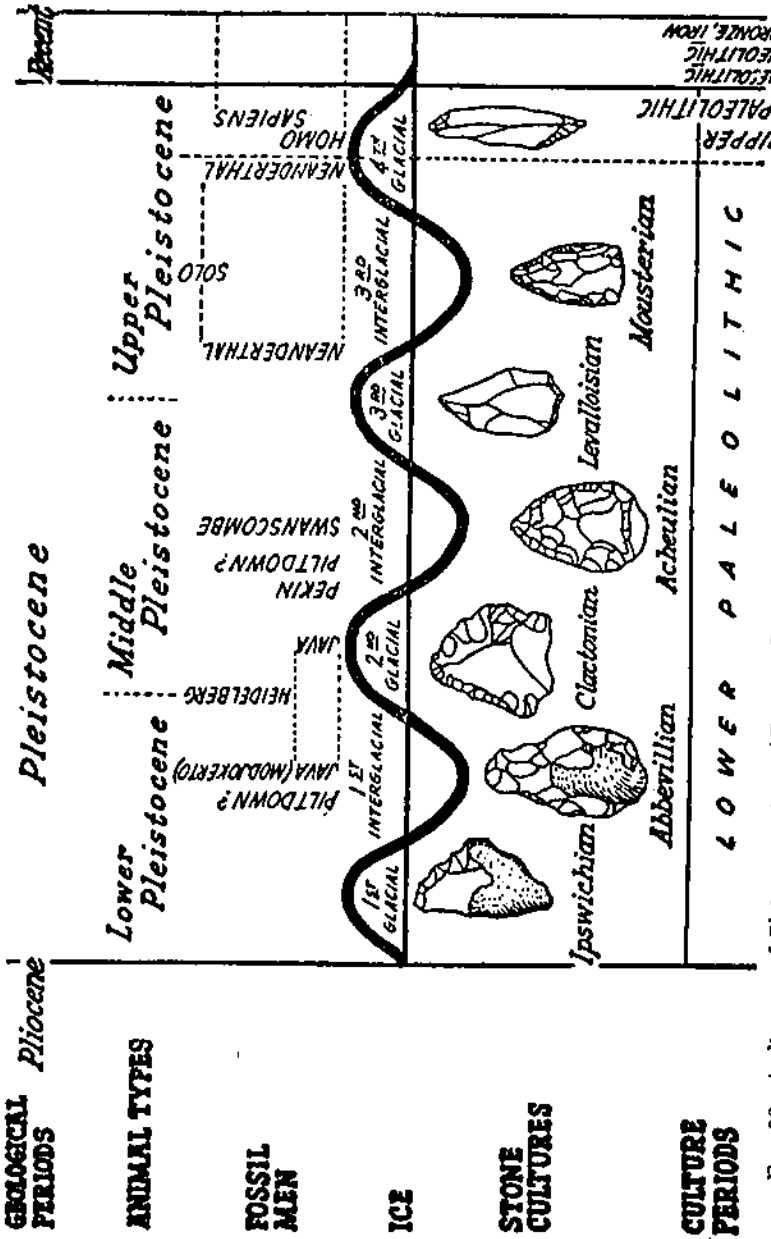

FIG. 20. A diagram of Pleistocene time. (*From William W. Howells, Mankind So Far*, p. 119, Garden City: *Doubleday*, 1947. *Copyright*, 1944.)

periods are involved during and between deposition of the groups; and (3) the erosional-depositional cycles are doubtless related to glaciation-deglaciation, but further investigation is required to make this relation precise.

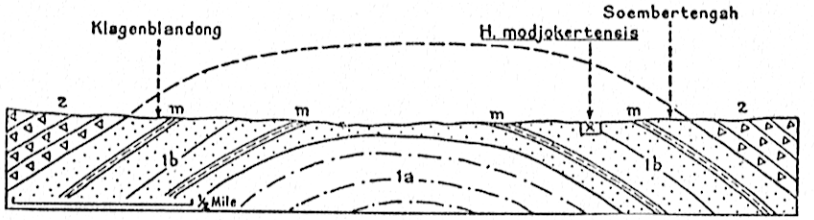

FIG. 21. Geological section north of Perning, near Modjokerto. (After Duyfjes.) 1. Lower Pleistocene *Poetjang* beds containing the Djetis fauna. 1a. Marine deposits. 1b. Fresh-water deposits, m—marine layers. 2. Middle Pleistocene *Kaboeh* beds containing the Trinil fauna. (*From Helmut De Terra, Pleistocene Geology and Early Man in Java, Transactions of the American Philosophical Society, Vol.* 32, 1943, *p.* 442).

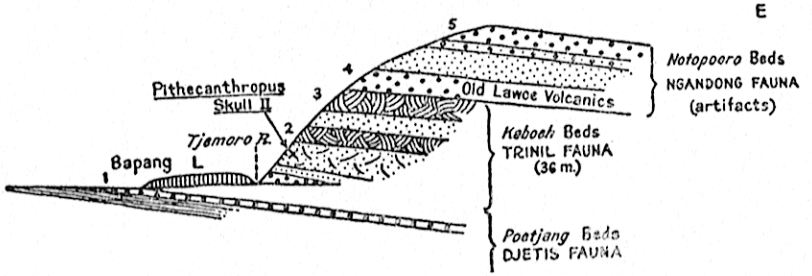

FIG. 22. Geological section on the Tjemoro river at Bapang, near Sangiran (*Partly after Van Bemmelen.*)

1. Cemented basal agglomerate, 4 m.
L. Landslide material (?).
2. Cross-bedded sands and fine gravel with basal clay bed, 27 m.
3. Sand and clayey silt containing plant remains, 9 m.
4. Volcanic breccia (lahar formation) and river sand, 7 m.
5. River gravel and sand, 14 m.

(*From Helmut De Terra, Pleistocene Geology and Early Man in Java, Transactions of the American Philosophical Society, Vol.* 32, 1943, *p.* 445.)

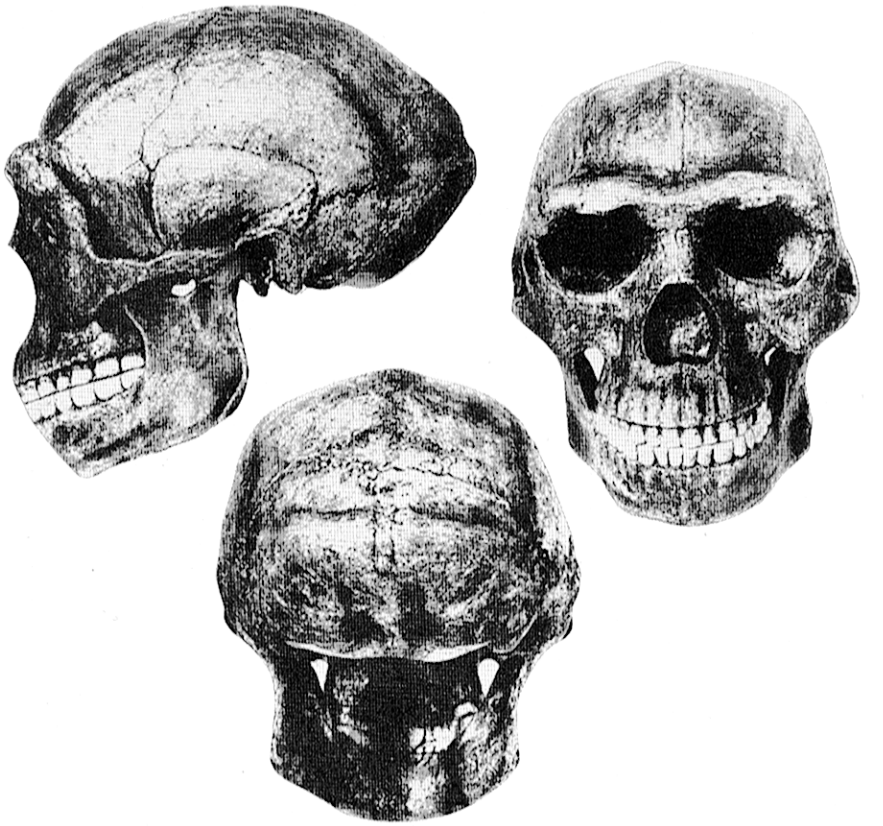

FIG. 19. Reconstructed skull of *Sinanthropus pekinensis*. (*From F. Weidenreich, The Skull of Sinanthropus pekinensis: A Comparative Study on a Primitive Hominid Skull, plate* 35, *Geological Survey of China, Paleontologia Sinica, n.s. D, no.* 10, *whole series no.* 127, 1943.)

The Heidelberg Finds. Homo heidelbergensis is represented solely by a lower jaw, containing all its teeth. This jaw is primitive only in the character of the bone as a whole; the form of its dental arch and the pattern of the individual teeth come very close to that of modern man. The bone is thick, and the whole jaw massive. The chin region is not well developed.

This jaw was discovered *in situ* 82 feet below the surface of the Mauer sand pit near Mauer, Germany.[132] The deposit is well

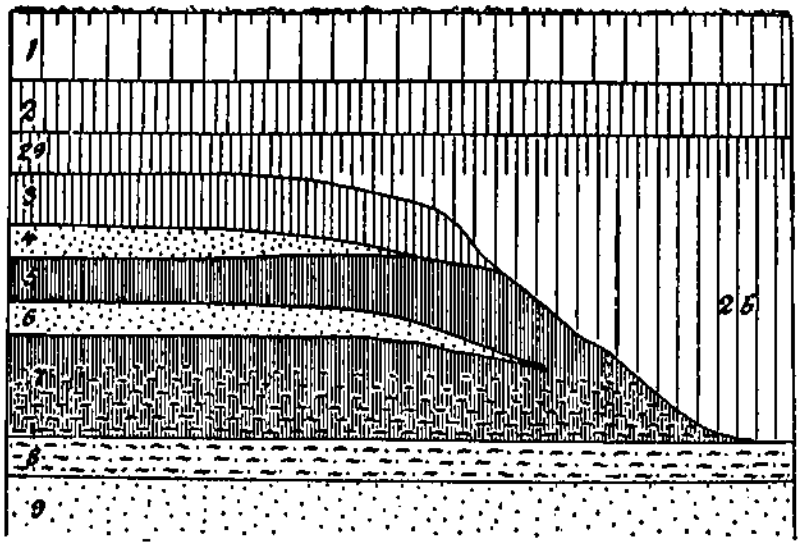

FIG. 23. Section through the sediments overlying the Mauer Sands in the east face of the pit at Grafenrain near Mauer. (*From W. Soergel, Das Geologische Alters des Homo Heidelbergensis, Paleontologische Zeitschrift*, Vol. 10, 1928, *p.* 220)

stratified, and the stratigraphy has been studied by competent geologists. Figures 23 and 24 show cross sections of the east and west walls of the pit, with the leached loess (fine, sandy soil, usually wind-carried) zones clearly defined.

The top layer (Younger Loess with two subdivisions) is about 18 feet thick and slightly weathered. Beneath it are three layers

[132]The original monograph is Otto Schoetensach, *Der Unterkiefer des Homo Heidelbergensis* (Leipzig: Wilhelm Engelmann, 1908).

of Older Loess with an aggregate depth of 16 feet. All are deeply weathered, which process requires long periods of time.

Zeuner[134] discusses the stratigraphy of the Mauer sand pit, and, correlating each layer of loess with a glacial stage or substage, he arrives at the First Interglacial period as the time of deposition of the Mauer Sands, in which the jaw was found *in situ*.

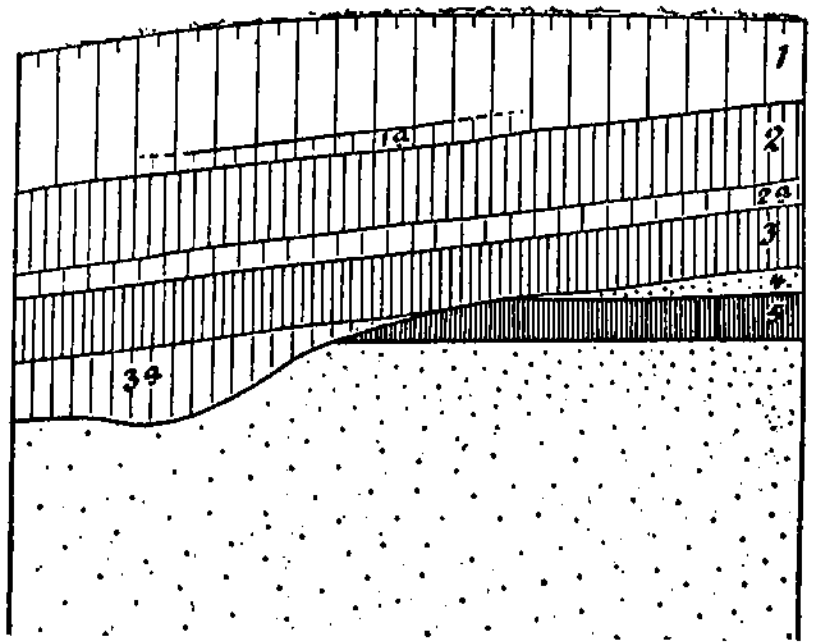

FIG. 24. Section through the sediments overlying the Mauer Sands in the north face of the pit at the Grafenrain near Mauer. (*From W. Soergel, Das Geologische Alter des Homo Heidelbergensis, Paleontologische Zeitschrift*, Vol. 10, 1928, p. 221.)

PALEONTOLOGICAL CONCLUSIONS

From the foregoing discussion of human paleontology two important considerations for Christian thought thus stand out: (1) Hominid remains are apparently of much greater antiquity than was formerly thought; and (2) although some fossil men differ morphologically from modern man, so far as present evidence allows, hominid forms have always been rational and do not show a simple progression from an apelike form to modern man.[135] In fact, some of the earliest finds cannot be distinguished from modern man.

[134]F. Zeuner, *The Pleistocene Period* (London: The Ray Society, 1945).

It has been shown, however, that man has not always looked just as he does today. The structural differences between modern man and fossil man are great in many respects. Thickness of bone, pronounced development of certain bony structures on the skull, and lowered cranial capacity are perhaps the most obvious differences. Not included in the above is the Neanderthal man, in whom the curved femora and posterior position of the foramen magnum represent drastic differences from modern man. However, the differences would not, in themselves, demonstrate "half-way men."

There is strong evidence, which is constantly increasing, for the antiquity of fossil man. The specimens dealt with on the preceding pages were found *in situ*, and in both cases the nature of the site and the geologic history of the area indicate that long periods of time have been involved in deposition. Although the absolute dates assigned to the Pleistocene period are admittedly only tentative ones, it does appear from several types of work (*e.g.*, decomposition of Pleistocene sediments, and radioactivity studies) that these dates are of the right order of magnitude and that several hundred thousand years have been involved in the deposition of Pleistocene strata.

Modern morphologic types such as Swanscombe man are among the oldest known hominid fossils. Evidence seems to indicate that a *Homo sapiens* type (Swanscombe) was probably living at approximately the same time as such primitive forms as *Pithecanthropus* and *Sinanthropus* (Table IX). It is known that in the case of the Neanderthals, more primitive forms lived in a later geological age than did less "primitive" forms, and in the case of the Tabun and Skhul fossils, it appears that Neanderthal man and *Homo sapiens* were living at the same time.[136] *According to present data, therefore, form is not an indication of age.*

[135]Weidenreich goes so far as to say that all types of fossil man represent one species along with present-day races.

[136]Kroeber, *Anthropology*, pp. 98, 99.

In the summer of 1947, Mlle. Germaine Henri-Martin brought to light a new fossil man from the cave of Fontechevade near the village of Montbrun, France.[187] The bones found are in no way outside the range of *Homo sapiens*. This discovery was not made by an amateur, but rather by a trained professional. There is no doubt that the finds were *in situ* at the time of their discovery. They came from an undisturbed horizon sealed below a thick layer of stalagmite that underlies the Mousterian culture level at this locality. Mousterian culture appears always associated with the Fourth Glacial, and this deposit definitely underlies the Mousterian level. The associated faunal aggregate indicates that the level was formed during a warm temperate period. For these reasons the deposit has been designated as Third Interglacial. The discovery of the Fontechevade *Homo sapiens* in a Third Interglacial site adds credence to the evidence already supplied by the Swanscombe fossil and others for the early existence of *Homo sapiens*.

It has also been pointed out that mental qualities for fossil man cannot be determined with any remote degree of accuracy. The only evidence for development of mental faculties in fossil man lies in the cultural artifacts associated with the human bones. The lack of artifacts or other cultural evidences with each fossil deposit is not necessarily an indication of lack of culture for that particular fossil man. Certain of the early fossils did not come from caves or any other type of sealed deposit, and therefore are not found under circumstances favorable either to the aggregation or preservation of cultural remains. *Sinanthropus pekinensis* lived in a cave, and there is a well-developed stone industry associated with the bones. Since *Pithecanthropus* seems of approximately the same level of physical development, it is reasonable to suppose that this hominid type was capable of similar cultural development.

The conclusions given above are based upon data which cannot be ignored. Indeed, any intelligent understanding of human origins and of human beings through time must take them into consideration.

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[187]H. L. Movius, "Notes on Tayacian Man," *American Anthropologist*, n.s., Vol. 50, No. 2 (1948), pp. 365-367.

Correlation with Scripture. The evidence of paleonthropology can be fitted into several Biblical interpretations. Those offered below are possible alternatives which are generally consistent with an orthodox view of the Scriptures. Undoubtedly there are other interpretations which would account for the established facts of anthropology within a conservative Biblical framework of the origin of man. Such a framework accepts the plenary inspiration of the Scriptures.

One view is that the account of creation is essentially symbolic, and that no details are expected. While there may be some use of metaphor in the first chapters of Genesis (as there certainly is elsewhere in the Bible), to relegate the entire account of creation to metaphorism will bring one to serious difficulties in the interpretation of Scripture as a whole. Furthermore, to say that the account of creation is purely metaphoric does not really solve the basic problem of man's origin. Whether one takes the words of Genesis 1 as literal or as metaphoric, one has to take account of a definite point of time at which man appeared; for, to be sure, the most careful evolutionist would admit that an eternal spirit could never be evolved from an animal body.

The traditional interpretation of Scripture, based mainly on the geneological accounts, has been that Adam was a late figure in time. It seems that there may be at least two variations to this view of a late Adam. One would be that physical forms similar to man were created instantaneously and then lived in early times, but though they had rationality as indicated by cultural remains, they did not have a free moral agency, nor were they eternal spiritual beings, with neither the fact nor the potential of supercultural relationships, and thus were not true men. Then at some point in time, possibly only some ten thousand years ago, God created, instantaneously and in His own supercultural image, the man Adam. This view involves several difficulties. It presupposes that all the fossil forms died out leaving no descendants. This seems unreasonable on anthropological grounds since the form of the cave burials of Neanderthal man (100,000 years ago) indicates a belief in life after death, and a worship of some sort. Since the ability to worship is a part of the concept of personality which distinguishes man from other forms of animal life, it would seem that

Neanderthal man was true man. Further, the findings from Mt. Carmel indicate a genetic mixture of Neanderthal forms and modern man.

The other variation in the view of a late Adam would be that God allowed the biological house we live in to be developed by certain predetermined laws; but at a comparatively recent time created within it a soul, thus making a true man in His own image. This is one form of theistic evolution in a Christian sense and such a view has been held by eminent scholars of orthodox theological persuasion, such as James Orr.[138] This view is subject to similar criticisms as above on anthropological grounds, but also adopts a form of the scientific theory of organic evolution which has yet to be established.

A major alternative to the view of a late Adam outlined above is that of an early Adam. This would appear to harmonize better with the present evidence of great antiquity for fossil man. There are those who hold that the geneological tables of the Scriptures must refer in their earlier parts at least to other sequences than those of direct generations, and as there is no definite indication as to when creation took place, Adam could have been very early in point of time. Again, this interpretation may have at least two variations. It is possible that God made the physical bodies in which we live by a developmental process, and that early in time He put an eternal spirit into one of these forms. This is also a theistic and evolutionary view, but must not be confused with mechanistic evolution.

The other alternative to the late Adam view would be that God created Adam instantaneously at a very early point in time, and since that time the physical form of man has varied considerably in space and time. At the present there is no conclusive scientific evidence which forces the acceptance of either of these alternatives of the early Adam interpretations, but the latter appears simpler and in better harmony with the Biblical account.

It is emphasized that these interpretations are only suggestions of possible ways of fitting together the evidence of paleoanthropology and the account of creation as given in the Scriptures.

[138]James Orr, *Christian View of God and the World* (New York: Scribner's, 1897).

It is recognized that serious problems remain to be solved. Present and future work in this phase of anthropology will surely offer the Christian student pertinent material concerning man's history.

Anthropology of the Flood

Most of the issues of the science-Scripture conflict are associated with anthropology in at least a remote way. The Flood disaster from which Noah and his family were exempted is one such case. It is not the province of anthropology to find the geologic record of the Flood or to determine its extent, nature, or position in time. The techniques of that analysis belong to geology. Beyond such a determination, however, the Flood raises tremendously important anthropological considerations, such as the following: the geographic distribution of man before the Flood, the rapidity of population dispersion after the Flood, the rise of present races and of present cultures, the settling of the tremendous expanses of the New World and the subsequent domestication of maize, squash, beans, tobacco, and other New World products, and their later diffusion over large parts of the Americas. Anthropology is tempted to push dates as far into the past as possible to give time for changes to occur, but it will be obvious that even a conservative dating reconstruction would require considerable time for these developments. So far as can be seen, however, they must have occurred subsequent to the Flood unless that catastrophe was not universal.

The widespread distribution of the Flood account among historical and contemporary peoples is likewise pertinent here. Kroeber states that "Flood myths are probably told by the majority of human nations. . . . Formerly this widespread distribution was thought to prove the actuality of the Biblical Flood, or to be evidence of the descent of all mankind from a single nation that had once experienced it. Refutation is hardly necessary."[139] Although the situation should not be dismissed as summarily as that, there are some important considerations which should be made before the wide distribution of the Flood account should be taken as proof that all peoples have legendary recollection of it. It has been a

[139]Kroeber, *Anthropology*, p. 545.

painful lesson in anthropology that because a characteristic is widespread we cannot thereby infer that those peoples brought that characteristic with them as they migrated. Far more often it diffuses without migration. Stories, tales, and myths are especially prone to diffuse even across marked language barriers.[140]

Furthermore, some of the Flood stories are not alike. Some might better be called "creation myths," because they have to do with "primeval waters" rather than destructive flood. One version has the earth formed out of sands which were brought up from the bottom of the waters under the fingernails of a giant turtle who dived for it. The sand grew to be the earth.[141]

Sometimes this and another more conclusively flood account are confused to the point of illogicality. We have a genuine flood core, however, in one legend of the Kato tribe of California, as follows:

"It was evening. It rained. Every day, every night it rained. 'What will happen? It rains every day,' they said. The fog spread out close to the ground The clouds were thick. The people then had no fire. The fire became small. All the creeks were full. There was water in the valleys. The water encircled them. . . .

"Every day it rained, every night it rained. All the people slept. The sky fell. The land was not. For a very great distance there was no land. The waters of the oceans came together. Animals of all kinds drowned. Where the water was there were no trees. There was no land."[142]

This flood account is only one motif of the tale, however, and the legend goes on to describe the re-creation of the earth after the flood:

"He went around the earth, dragging his foot to make the streams, and placing redwoods, firs, pines, oaks, and chestnut trees. When he looked back he saw the rocks had become large and

[140]*Ibid.*, pp. 538-571; Stith Thompson, *The Folktale*, p. 27 (New York: Dryden, 1946).

[141]Stith Thompson, *Tales of the North American Indians*, pp. 24-30 (Cambridge: Harvard University Press, 1929). See Thompson's notes to get an idea of the widespread occurrence of tales of almost identical themes.

[142]*Ibid.*, p. 32.

the mountains loomed up. He drank of the water and called it good."[143]

Although we recognize that stories may and do change through time, there is little in the "primeval water" type of tale to warrant including it in a consideration of the distribution of the Flood account. Furthermore, the point of change in tales cannot be carried too far, as other widespread legends are amazingly uniform. A famous case is the Magic Flight or the Obstacle Flight which has a distribution completely around the globe among both aboriginal and historic peoples, particularly Europe, Asia, North America, Africa and Indonesia.[144] In this tale there is a specific structure with a flight away from an ogre and "objects thrown back over the shoulder forming obstacles—a stone which becomes a mountain; a comb which becomes a thicket; oil which becomes a body of water."[145] The details are always specific with only minor changes such as a forest for a thicket and some other liquid for oil. This tale is ancient, widespread, and uniform. The multiplicity of Flood themes is likewise ancient and widespread, but not quite so uniform.

Anthropologists in general feel that the widespread and often geographically continuous distribution of both the Magic Flight and the various Flood accounts is due to the transmission of the tale from one group to another, slowly spreading out from the centers of origin. The universal prevalence of Flood legends cannot be considered "proof" of the actual reality of the Flood, or that all peoples who have Flood accounts most similar to the Biblical accounts have passed them on through their generations from time immemorial. If it is so considered, there is as strong a proof for the occurrence of the Magic Flight!

Whatever may be the truth—universal or local Flood—memory of the Flood transmitted from generation to generation as a tradition or from people to people by diffusion—the problems are there and the data are anthropological. Anthropology cannot do much to orient the prehistory of man in relation to the Flood until

[143]*Ibid.*, p. 34.

[144]Kroeber, *Anthropology*, pp. 544-555; Thompson, *The Folktale*, p. 60; Antti Aarne, *Die Magische Flucht: eine Marchenstudie*, F. F. Communications No. 92, Helsinki, 1930.

[145]Boas, *General Anthropology*, pp. 612-613.

the geological flood questions are settled, or until a lead presents itself, but the questions and data are anthropological from there on.

Anthropology and the Consciousness of Sin

It is not only to the science-Scripture conflict as represented in the Flood that anthropology is pertinent for Christians, however. If this were so, all issues of cross interest would be of apologetic and perhaps only temporary value. Anthropology can throw light on many of the important problems of Christian life and faith. One further case is the question of a sense of sin. Missionaries have declared, and evangelical preachers and expositors have followed them because they supported a priori theology, that all people are conscious of sin. If this is true it has implications both in theology and in missionary approach, and it follows that no matter how sharply Western civilization changes it will probably not degenerate sufficiently morally or be secularized to the point where people completely lose a sense of sin.

Many anthropologists are insistent, however, that many peoples, if not most peoples, do not have a sense of sin. They declare that there is a difference between a sense of sin and a sense of shame, and that a sense of shame is universal but that a sense of sin is found in only a few societies (*e.g.*, Hindu and Melanesian) which have not been under the influence of Protestant Christianity. As Kroeber has defined the difference, "(A sense of) sin implies a disapproving conscience at work within oneself; shame, the knowledge that others disapprove. . . ."[146] Chinese or Japanese "face saving" is a highly institutionalized form of shame. Ridicule or social opprobrium brings shame. That is at least partially the reason for the widespread attitude that an act is not wrong unless the individual performing it is caught. He has no sense of sin to condemn him whether he is caught or not. He feels shame only when found in a socially disapproved situation.

Fear further complicates the picture. Taboos are not kept in most societies because breaking them would be sin or the displeasing of a spiritual power. They are kept because the act has become so completely repugnant that it is unthinkable or because retribution is considered to be inevitable in the very nature of the taboo. In some societies a man will be afraid to steal, commit incest, or do physical violence because of the elaborate cultural, social, and religious controls upon his behavior, and yet he will have no concept of such right and wrong as a *moral* value. The many cultures where *mana*[147] (inherent, nonpersonal, nonspiritual power) is characteristically a part of religion and a determinant of behavior display evidence of motivation by fear of that power, even though the *mana* has neither morality nor spirit in any native concept.

Aside from the missionary implications of the existence of a sense of sin among many peoples of the earth, a sense of sin is disappearing from the more pagan subcultures of Western culture. It has probably not completely disappeared in any group, but the trend seems apparent. There is no point in deluding ourselves with the wishful thinking of untrained missionaries who have either confused shame with a sense of sin or have found a realization of sin to exist after their teaching had caused it to come into being.

All this does not mean that peoples of the earth do not have systems of ethical behavior, either implicit or formulated. Nor does it mean that people do not sin. We know that all men disobey the moral law of God, His supercultural Will, whether they are conscious of it and feel guilty or not.[148] Societies likewise do have their mores, their systems of what should be done and what should not. The individual may deeply fear social or supernatural results of infringements of the code. Fear of retribution, however, is not a sense of wrong as moral sin. Neither is the small child's "guilt" necessarily guilt at all, but fear of punishment and shame in the face of parents' expected disapproval. There comes a time in the Christian family when a child shows a sense of sin, a necessity for confession, and an unhappiness until the sin is forgiven. Not all people do so. Generally, knowledge of sin comes from Biblical teaching. Perhaps this is the anthropologist's observation of what Paul said by revelation: "There is none that understandeth, there is none that seeketh after God. . . . There is no fear of God before

[146]Kroeber, *Anthropology*, p. 612.

[147]See p. 137.

[148]Romans 3:23.

their eyes . . . for by the law is the knowledge of sin."[149] The first part of Romans is a graphic description of the results of human cultural perversion.

Summary

Anthropology is in many instances the one science most immediately pertinent to Christian thought, Christian life, and Christian missions.

The science of anthropology is at present, however, as completely naturalistic as the rest of secular modern science, and we do not excuse it for its philosophy or for its failings in a priori non-Christian judgments. At its best it has developed a scope of knowledge about man and culture which is breathtaking in its sweep and which intelligently integrates many of the other more specialized sciences. No thoughtful reader of Kroeber's *Anthropology* could fail to be impressed with its scope, its insight, and its discernment on many crucial issues. At the other extreme, anthropology is guilty of elaborate generalization on grossly inadequate evidence. It must be said in all fairness, however, that much of the reconstruction of human evolution which reaches the popular level (precariously founded as it is) is not the work of scholars, and that when it is, they label it in their professional works as highly tentative. Unfortunately, the label is removed altogether too often in high school texts.

Even with these qualifications, however, we must realize that in the reconstruction of past man and his works, and in the interpretation of present man and his works, anthropology often suffers from the lack of a rigorous methodology and a sound basis of conceptualization.[150] Improvements in methodology are being made constantly. Self- and cross-criticism are keen. A break in the tendency to a priori evolutionary judgments is sometimes seen. We owe to the late Franz Boas, father of American anthropology, the American insistence on soundness of method and generalization. Significantly enough, it was he who most clearly and strongly repudiated the concept of cultural evolution as being the same as organic evolution. To this day, in spite of a swing in the counter direction, cultural anthropology is the one science in which a conceptual basis of evolutionary development is approached with caution and careful definition.

[149] Romans 3:11-20.

[150] W. D. Wallis, "Presuppositions in Anthropological Interpretations," *American Anthropologist*, n.s. Vol. 50, No. 3 (1948), pp. 560-564.

Anthropology is valuable for clearer understanding and application of the Christian faith, but for the missionary who must deal with a "foreign" people, language, and culture it would seem essential. Dr. Nida declares, "Almost every sentence of a translation will bear the mark of the translator's anthropological training, for every sentence is a set of symbols for the behavior and thought patterns of one culture translated into another set of symbols representing different behavior and thought pattern."[151] His emphasis on the importance of general anthropological and specifically linguistic training is both implicit and explicit throughout *Bible Translating* and his other writings.[152]

Dr. Edwin W. Smith has called anthropology "a missionary science, first, on account of its great utility to missionaries, and second, because the material upon which it is built has so largely been gathered by them."[153] In actual practice it is only potentially a "missionary science."

[151] Nida, *Bible Translating*, p. 62.

[152] Nida, "Linguistics and Ethnology in Translation Problems," p. 1-15.

[153] Edwin W. Smith, "Social Anthropology and Missionary Work," *The International Review of Missions*, Vol. 13 (1924), p. 518.

Suggested Readings

The following titles are easily available readings for newcomers to anthropology. They are either standard works in the field or bear implications in the relation of anthropology to Christian thought, life, or missions.

Africa, Journal of the International African Institute (London: Oxford University Press, 1928). ". . . directed towards bringing about a closer association of scientific knowledge and research with practical affairs" (Vol. 1, No. 1, p. 2). Missionaries have contributed heavily to the contents of the journal as well as to the leadership of the institute.

Benedict, Ruth: *Patterns of Culture* (New York: Penguin Books, 1946). An admirable comparison of the configuration of three cultures in psychological terms, intended for the general reader as well as for the anthropologist.

Bloomfield, Leonard: *Language* (New York: Henry Holt and Co., 1933). The standard general work on scientific linguistics.

Childe, Gordon: *What Happened in History* (New York: Penguin Books, 1946). A graphic summary of present views on the evolutionary development of culture in the Middle East, based on archaeology and general anthropological theory.

Davis, J. Merle: *New Buildings on Old Foundations: A Handbook on Stabilizing the Younger Churches in Their Environment* (New York and London: International Missionary Council, 1945). Chapter 3 deals particularly with the anthropological approach in modern missions and highlights many problems with which we have not dealt in this chapter.

Goldenweiser, Alexander: *Anthropology: An Introduction to Primitive Culture* (New York: Appleton-Century-Crofts, 1946). A short beginning textbook in general anthropology.

Herskovitz, Melville J.: *Man and His Works: The Science of Cultural Anthropology* (New York: Alfred A. Knopf, 1948). An extensive beginning textbook in general anthropology.

Hooton, Earnest A.: *Up from the Ape* (New York: The Macmillan Co., 1946). A complete general discussion of physical anthropology including human evolution, race, and individual differences.

Howells, William: *The Heathens: Primitive Man and His Religions* (Garden City, N. Y.: Doubleday and Co., 1948). A semipopular discussion of religion from an anthropological viewpoint. Completely naturalistic, like other anthropological analyses of religion, but lucid in defining and describing various forms of native religious life.

Howells, William: *Mankind So Far* (Garden City, N. Y.: Doubleday and Co., 1944). A beginning textbook and discussion of fossils, "human evolution," and present races.

The International Review of Missions, published by the International Missionary Council (in America: 156 Fifth Ave., New York, N. Y.). A quarterly journal of scholarly papers on Christian missions with a representative number dealing directly with the relation of applied anthropology to missionary work.

Jacobs, Melville, and Bernard J. Stern: *Outline of Anthropology* (New York: Barnes and Noble, Inc., College Outline Series, 1947). A valuable summary of most of the interests of anthropology. Glossary of terms.

Kraemer, Hendrik: *The Christian Message in a Non-Christian World* (New York: International Missionary Council, 1947). A penetrating discussion of the place of missions today, with considerable emphasis upon an understanding of the culture of the peoples to whom the Gospel is preached.

Kroeber, A. L.: *Anthropology* (New York: Harcourt, Brace, & Co., revised, 1948). The revision is a new and definitive general work of amazing scope, oriented toward an historical emphasis but treating all major anthropological preoccupations. The best distillation of anthropological knowledge and theory but without much detailed treatment of specific cultures or peoples.

Linton, Ralph: *The Study of Man: An Introduction* (New York: Appleton-Century-Crofts, 1936). A valuable exposition of many of the concepts cultural anthropology.

Linton, Ralph (ed.): *Most of the World: the Peoples of Africa, Latin America, and the East Today* (New York: Columbia University Press, 1949). A survey of the peoples and general cultural features of the major world areas with each chapter written by a specialist in the area. Bibliography of suggested readings for each area.

Linton, Ralph, (ed.): *The Science of Man in the World Crisis* (New York: Columbia University Press, 1945). A compilation of papers by various experts in anthropological research and application. The chapter, "Applied Anthropology in Colonial Administration," by Felix Keesing deals incidentally with anthropology in its relations to missionary problems. Many other chapters are also worth while.

Lowie, Robert H.: *Social Organization* (New York: Rinehart and Company, 1948). An anthropologist's analysis of "the social organization of all peoples and all times."

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