THE ECUMENE AS A CIVILIZATIONAL MULTIPLIER SYSTEM

Gordon W. Hewes

Kroeber's The Ancient Oikoumene as a Historic Culture Aggregate, delivered as the Huxley Memorial Lecture for 1945 (Kroeber, 1946), is probably one of his most important papers, yet it failed to elicit much scholarly response (but cf. Caldwell, 1958:60). World War II had just ended, and many anthropologists and other scholars were still readjusting themselves to peacetime pursuits, or were involved in urgent practical projects. Few people would run across the paper in the Journal of the Royal Anthropological Institute. Moreover, intellectual interest in such problems was soon absorbed in criticism of Toynbee's monumental work, A Study of History, of which an excellent and widely read abridgment by Somervell appeared in 1947. Even Toynbee, who refers to Kroeber's works no less than forty-two times in volume 12 of A Study of History (1961), omits this obviously relevant paper of Kroeber's. Such references as he makes to Kroeber's notion of the ecumene are to Style and Civilizations (1957) (Toynbee, 1961:360, 472).

Kroeber uses the old Greek word oikoumenê--literally "the inhabited"--in an enriched sense to refer to the essential continuity of civilizations in the Old World zone stretching from Gibraltar to Japan. The adjectival form, ecumenical, has been used to mean "universal" or "worldwide"; thus Toynbee describes the Han historian, Ssŭ-ma Ch'ien, as China's first "oecumenical historian" (1961:187). I shall spell the word ecumene.

> For Kroeber, the Ecumene "of the Greeks, which stretched from Gibraltar to India and dimly known China, was the region where people lived in civilized states, plowed their fields and raised cattle, worked iron, and knew letters" (1948:423). It may be "redefined as a great web of culture growth, areally extensive and rich in content. Within this web or historic nexus, first of all, inventions or new cultural materials have tended to be transmitted, sooner or later, from end to end" (Kroeber, 1946). It was more than a mere area for descriptive convenience, for specific practices, "rooting in an idea-complex or attitude" tend to spread across it, sometimes in wave-like fashion (ibid.). Despite the persistence of major styles of civilization in local regions, such as China, Kroeber could view "the holistic concept of the Oikoumenê as a genuine historical unit of interconnected development of higher civilization in Asia, Europe, and North Africa" (1951). Further, ". . . within what the Greeks knew as the Oikoumenê, the traced and specific interconnections are now so many that a really separate total history of any culture in the area can no longer be thought of"(1953:267).

Does this bold construct of the ecumene have any heuristic value? Kroeber introduced it with the noncommittal term "culture aggregate." A similar query raised by Geyl (1956:44) for the far more elaborately documented Toynbeean scheme of civilizations, was answered negatively. As Sorokin pointed out (1956: 179-182), one can show that a long list of traits co-exists in an area--or in what may be called "civilizations"--without thereby demonstrating that these

elements provide any coherence or integration. He will not even admit that what most culture-historians deal with as civilizations or great cultural traditions are more than haphazard congeries, lacking internal coherence. Is it possible that understanding of the highly complex history of civilizations can be enhanced by advancing a yet more inclusive entity, the ecumene? Wright reminds us (1960:255) that simplification is always at war with analysis.

Steward observes that for a broad understanding of culture processes, "the greatest need is an adequate conceptualization of the phenomena of sociocultural systems above the tribal level" (1955:44), and that "in the growth continuum of any culture, there is a succession of organizational types which are not only increasingly complex but which represent new emergent forms" (ibid., 51). States and empires are such organizational types, but certain religions in the Old World also seem to belong in this succession. In this paper I shall try to show that with Kroeber's concept of the ecumene, we can go further than he did with it, placing it in this succession of organizational types or levels of sociocultural evolution. The following tentative definition may make the proposition clearer:

> An Ecumene or Ecumenical System is a set of functionally interconnected civilizations, linked by actual roads, sea-routes, and other channels of transport and communication, over which move agents of commerce, diplomacy and warfare, and religion, such that constituent civilizations tend toward a common and advancing technological base, and come to share various styles, scientific, philosophical, and religious ideas, political forms, and so on. Such a system also tends to expand geographically, incorporating new areas and peoples through trade, conquest, colonization, missionary effort, and the attraction which ecumenical affiliation may have for the leaders of marginal or external societies. The same long-distance transport and communication facilities required to maintain the internal linkages of the ecumenical system place its societies in a favorable position to employ them in this process of incorporating distant outside areas.
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> At a certain stage in its development, such an ecumenical system envelops the planet.
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> Theoretically, two or more such systems might have come into being on the earth, but as it happened, there has been only one. This is partly a function of the different configurations of the land masses in the Old and New Worlds.

This conception avoids several difficulties associated with the view that culture-history has consisted of a series of essentially separate growths which exhibit some remarkable convergences or pattern parallels, but no fundamental continuity. Such views tend to minimize the importance of borrowings and historical affiliations, since theoretical interest comes to center on the phenomena of evolutionary parallelism. My own notion of the Ecumene permits us to enjoy the best of both conceptions, by assuming that in the earlier stages of civilizational growth, evolutionary parallelism was significant, and "nuclear" civilizations were fairly isolated from one another, but that when intercommunication between these nuclei and secondary civilized centers reached a certain level of effectiveness, the Ecumene emerged. A very rough analogy makes this sharper. The earlier phases--Copper and Bronze Age phases--of civilized growth

may be likened to a three-ring circus, with essentially unrelated performances under way in each ring. As the affair progresses, things become more complicated, more rings are opened up, and the entire company gradually comes to engage in an immensely intricate dramatic spectacle.

Such an overview of culture-history appears in many formulations. Despite his strictures on "mere congeries," Sorokin (1952:275), summarizing areas of agreement with fellow philosophers of history--Berdyaev, Danilevsky, Kroeber, Northrop, Schubart, Schweitzer, Spengler, Toynbee, and himself--says, "in the boundless ocean of sociocultural phenomena there exists a kind of vast cultural entity, or cultural system, or civilization, which lives and functions as a real unity." Needless to say, this is not identifiable with any state, nation, or similar sociopolitical grouping. Jaspers (1959) sees "the multiplicity of the naturally given, the manifoldness of peoples and countries," existing "for a long time in unrelated contiguity," but "the history of mankind [commencing] as a perpetual mutual exchange in the unity of intercourse." So also Niebuhr (1953, in Meyerhoff, 1959:325), "history obviously moves towards more inclusive ends, towards more complex human relations, towards the technical enhancement of human powers and the cumulation of knowledge." Toynbee held, in the earlier volumes of his A Study of History, that civilizations, of which he counted 21 or 23, were the intelligible units of historical study (1947:1-11). By volume 7 (p. 449) he states that they cease to be intelligible when the level of the higher religions is reached. Toynbee had taken pains to dismiss two sorts of inadequate conceptions of the unity of civilization: the first that all civilization that really mattered was Western, which could be considered as unitary, the second that all civilization stemmed from some gifted ancient culture-bringers, such as the Egyptian "Children of the Sun" in Elliot Smith and Perry's fanciful monogenetic analysis of history (cf. Toynbee, 1947:36-41).

Sahlins and Service distinguish between units and levels as follows (1960: 33): "The unit of general evolutionary taxonomy . . . is a cultural system proper . . . the cultural organization of a sociopolitical entity. A level of general development is a class of cultures of a given order." In dealing with the ecumene, of which there is but one instance, we may treat it both as a class of cultures of a given order--for cultural-evolutionary purposes, or as an actual historical entity, functioning in some senses as a real sociocultural (not sociopolitical) system. The distinctiveness of civilizations is not at all eliminated by this concept, just as the distinctiveness of ethnic groups and countries or nations is not removed by the concept of civilization or culture-area. All of the less inclusive sociocultural systems are "still there"--empires, organized religions, political movements, nations, tribes, village communities, kinship groups, and the rest, just as the ultimate actors and carriers of all of these systems are individual human beings. But these systems are operant at vastly different scales of space and time (cf. Berlin, in Meyerhoff, 1959).

Turner provides a map and a culture-historical chart which in effect constitute a graphic presentation of the Old World Ecumene idea (1941:2:1243, 1245). Of the map he says that it "shows the centers of the European and Asiatic urban cultures and their areas as they were in the fifth century B.C. Within each area [i.e., culture-area] there were many local differences, but the dominant tradition gave over-all organization to life. In the several cultures, similar-

ities of pattern composed a unity, which, because of its pervasiveness, can be recognized as the traditional civilization of the Eastern and Western worlds, i.e., the general organization of life which embodied what man had made of man since the beginning of cultural development . . ." In the chart, Turner depicts the "interrelations of the cultures which contributed to the formation of the great Asiatic and European cultural traditions" in a manner which could have well served as an illustration for Kroeber's 1946 paper. My own conception may be clarified by the following diagram (fig. 1).

Here all civilizations are shown as arising out of either an Old or New World Neolithic base, which Coon (1954:122-123) finds to be still essentially present, in village communities at least, around the world. The lower portion of my diagram can in fact be duplicated in one of Braidwood's (1956:31). What Toynbee calls "primary" and "secondary" civilizations fall beneath the line marking the advent of the Ecumene, which roughly corresponds to the formation of the "higher religions." His "tertiary civilizations" lie above this line.

A consistently pluralistic conception of history is hardly tenable (Niebuhr, in Meyerhoff, 1959:323). Though new civilizational traditions may form certain new standards, there persists a "residual minimum of social or cultural experience" from antecedent civilizations. Mumford, in the same vein, puts it thus, "Our survey of man's successive transformations has disclosed the fact that the widening of the base of human community, though fitful and erratic, has nevertheless been one of the cumulative results of human history" (1956b: 184), a process based on "the need to enlarge the area of intercourse and human co-operation" (ibid., 185). Chinese civilization, as Altree reminds us, "has been a function in real measure of external contact" (1956:266). Niebuhr describes the relations between successive civilizations as "unities in length, or time," those between simultaneously existent civilizations as "unities in breadth, or space" (in Meyerhoff, 1953:324). The cumulative effect of history's unity in time "is daily increasing its unity in breadth [space]." Similar observations could be multiplied from the literature with little effort.

The discourse is often muddled by over-simple dichotomizing, especially into an "East" and "West" (cf. Northrop, 1960:ch. 9). Radhakrishnan, in opposing this, remarks that there is little in common between an Afghan Muslim and a Filipino Christian, a Chinese Taoist and a Ceylonese Buddhist (1956a:17). But all these, it could be added, are "ecumenical" in contrast to a Philippine Negrito or a Ceylon Vedda. In any case, we must agree with Toynbee's statement that the West has never been all of the world that matters (1953). The ecumenical view does not deny that segments of the Ecumene may exhibit a special kind of dynamism (Weber, 1947), variation in political freedom (Wittfogel, 1956), differential devotion to technical and scientific development (Singer, 1956:753-776), or contemplativeness (Northrop, 1946). Some such broad regional differences, like the much earlier division of the Old World into hand-axe-using and chopping-tool-using areas, might be of very long standing.

Is the Ecumene only a culture-area, writ large? The ideas have much in common. The theoreticians of the culture-area, mostly Americanists, did try to find in it more than a descriptive convenience. Much of their failure lay in the feeble time-perspectives then available for areas such as North America, for which we now have a great deal of organized archaeological data. The

culture-area, often under other names, has been making a strong comeback, chiefly among archaeologists. Polgar (1961:104) credits Caldwell with the term "interaction area" as better suited to the facts of "continuous interareal diffusion of cultural forms" revealed by archaeology. Ehrich has shown what can be done with it in the ancient Mediterranean and Middle East (1956). Culture-areas are defined as areas within which cultures exhibit greater resemblance to one another than to cultures outside the area. The original formulation stressed their coincidence with subsistence areas, expectable where the economy was based on hunting-gathering or on rudimentary agriculture. Beyond a common economic pattern, cultures within such an area were supposed to show marked similarities in housing, clothing, and other aspects of technology, considerable agreement in artistic styles, and less uniformity in sociopolitical organization or religion. The great civilizational traditions of the Old World, often spread over highly diversified terrain and with sharp regional variations in climate and vegetation, were harder to deal with in culture-area terms (cf. Bacon, 1946; Kroeber, 1947; Naroll, 1950). This difficulty was not significant in the civilizations of the early Copper or Bronze Age type in Egypt, Mesopotamia, Indus Valley, and so on, but has been marked on the level of later, Iron Age civilizations. As great civilizations grow, they evidently transcend their initial geographic matrices. Roman town life could be carried on in regions as dissimilar as Britain, the Rhineland, and North Africa. High civilizations not only extend across different environments, but also distinctive civilizations can occupy similar environments despite possession of similar subsistence economies. The Marxians would dismiss such diagnostic differences as "superstructure," to be sure. Despite certain contrasts such as the absence of dairying in China, a taboo on beef-eating in India, or on pork in the Middle East, the Far Eastern, Indic, and Islamic worlds share with Christian Europe the plow cultivation of wheat, at least in some major subregions of each culture-area. The crops are attributable to a common Old World Neolithic base, as we have already seen.

But above this common Neolithic stratum, there is an enormous mass of later cultural content, far greater for the whole of the Ecumene than the trait-lists which are usually adduced to validate the unity of a given ethnographic culture-area. I am certain that the list of common cultural features shared by Elizabethan England and early Tokugawa Japan would be several times longer than any list of common traits shared by the pueblos of the Hopis and Zuni, which ethnographers would unhesitatingly place in the same culture-area.

The traits and complexes which link the Ecumene together are of certain kinds, but not of others. Great likenesses extend through the whole technological sphere, which is apparently the most persistently accumulative aspect of culture (Kroeber, 1953:273), ranging from modes of food production, building-construction materials and principles, clothing, transport, military weapons and organization, to certain broad features of political structure, diplomacy, commerce, science, and religion. Great likenesses also exist both in methods and results in the fine arts, literature, and philosophy, and, on a less profound level, also in games and other forms of recreation. Regional differences are observable in kinship and family structure, personal etiquette, costume, ornament, cuisine, musical styles (but not so much in instruments), household furnishings, and in such matters as world-view, modal personality, etc. (cf. Kroeber, 1953:274). Notable differences also arise from diversity in geographical and geopolitical situation, historical tradition, and language, written as

well as spoken. It may well be that the features which lead to the recognition of highly distinctive local or regional traditions within the Ecumene are less numerous than those which are its common denominators.

Kroeber reminds us that cultures are never wholly integrated systems (1952b:93), so it would be absurd to insist that the Ecumene has ever had more than a partial and specialized set of integrations. Though trade in foodstuffs has tended in the last century to increase the degree of interdependence within the Ecumene, the Ecumene has never really functioned as a coherent subsistence system. The occasional marriages across civilizational boundaries have not made it into a functional kinship unit. Nor can the Ecumene be regarded as a functioning religious unit--and so on. But then, what culture-area, or even what large-scale political organization has ever exhibited more than a partial integration?

Ethnographic preoccupation with small tribal societies or villages has perpetuated the illusion of the cultural isolate, just as preoccupation with nation-states has contributed to the discomfort of historians in the face of discussions about civilizations. Lesser (1959:11) says of the ethnographic tendency to think in societal compartments, "modern research has made the 'primitive isolate' assumption increasingly unrealistic. Aboriginal Australia . . . was essentially a continent-wide culture, made up of many societies, each part of a network of actual or potential relations to all others on the continent" (cf. Kroeber, 1953:265-66; Polgar, 1961:104). Toynbee's concentration on civilizations, according to Childe (1953:63) led him to minimize the "indebtedness that actually relates them." Hanks comments (1957:72) that except for a few isolated groups like the Eskimo, "every society is in more or less continuous contact with many others" (cf. Caldwell, 1959:304). Of Thailand in particular, he states that it has had "perennial military and trade contacts with outside kingdoms."

Just how many civilizational components should be recognized in the Ecumene at any period of its growth is not a major concern of this paper. For Asia, Kroeber's views in his critique of Bacon's culture groupings are worth consulting (1947). For the Old World Ecumene in the fifth century A.D., Turner has four main divisions (1941, 2:fac. p. 1246), subdivided thus:

1. Christian: Roman Catholic, Celtic, Greek Catholic, Coptic, Ethiopian, Armenian, Syrian
2. Iranian: Mazdaism
3. Indian: Hinduism (shown extending into Southeast Asia; Indonesia is beyond the limits of the map)
4. Chinese: Confucianism, Taoism, and an overlay of Buddhism which is shown stretching into China from the Tarim Basin. Japan (cross-hatched to indicate its then very marginal status), Korea, and Annam are included in this grouping.

Turner leaves out South Arabian cultures, certainly as much a part of the fifth century Ecumene as Japan; most of Central Asia is also left blank, though it too had close ecumenical ties by that period (cf. Talbot Rice, 1957; Mongait, 1961:153-178; Piggott, 1961:315-328). For the modern world, Toynbee distinguishes only five "living societies," viz.: (1) Western Christian, (2) Orthodox

Christian, (3) Islamic, (4) Hindu, (5) Far Eastern. In their very recent phases, Numbers 1 and 2 are often referred to in his scheme as "ex-Western Christian" and "ex-Eastern Orthodox." Toynbee neglects the following major areas which can be fitted into the foregoing list only with difficulty: (a) Southeast Asia, predominantly Therāvāda (or Hīnayāna) Buddhist, and thus including Ceylon, (b) Indonesia, which can hardly be intelligibly dealt with as a simple outlier of Islam, (c) Mongolian-Tibetan (Lamaistic Buddhist) now politically subordinated to the "ex-Eastern Orthodox" and Chinese. Moreover, one can really question whether the civilizational differences between the Chinese and Japanese are so slight that the latter can be lumped with the former. It is my own impression that the Russians are far more similar culturally to the rest of Christian Europeans than the Japanese are to the Chinese. Perhaps the small size and political weakness of the surviving Ethiopian, Armenian (and other Caucasic), and Coptic Christian societies explains their omission from Toynbee's list.

I attempted to map the world's culture-areas as of about 1500 A.D. (Hewes, 1954) with a result which agrees fairly well with what Honigmann independently arrived at (1959:136-137). The ecumenical civilizations were listed under the heading of advanced plow farmers, sharing all or most of the criteria for civilization advanced by Childe: Caucasic, Abyssinian, Sedentary Islamic, Southwestern European, Eastern European, Eastern Mediterranean European, Northwestern European, Indic, Mainland Southeast Asian lowland, Indonesian lowland, Chinese, Korean, and Japanese. Old World pastoral peoples I had catalogued separately, though recognizing the close affiliations of many of them with the sedentary civilized areas just mentioned. These were the groups which Beardsley et al. term "diversified pastoral nomads" (1956:148-149), such as the Kazak, Kirghiz, Kalmyk, Mongols, Bedouin, and Tuareg, plus archaeological examples from Shiba, Pazyryk, the Kurgan builders of south Russia, Scythians, Sarmatians, and Huns. All these existed in symbiosis with adjacent settled farming peoples, in a pattern which began early in the first millenium B.C. All were equestrian or camel-riding nomads, and not unmounted cattle-herders of the type found in much of the sub-Saharan grassland. In a revised catalog I would add several more groups of mounted African pastoralists in the Western and Eastern Sudan, and in the East Horn of Africa. The Upper Niger bend region was part of the Ecumene belonging to the Sedentary Islamic area. A Mandingo ruler made the pilgrimage to Mecca as early as 1050 A.D.; by the time of Ibn Batuta's visit in the mid-fourteenth century, the Upper Niger was apparently fully ecumenical in the sense used here. The size and boundaries of all these areas within or on the margins of the Ecumene varied with time, and their precise mapping would depend very much on the purposes of the analyst. Someone interested in politico-military phenomena within the Ecumene might choose to ignore certain boundaries which could be drawn on the basis of food habits, costume, or house types.

Some portions of the Ecumene seem to have maintained greater integrity or coherence than others; in general, continuities in one department of culture tend to be more marked than in others. Some peoples have changed their religions many times, but have retained other features with dogged persistence. Most of the Old World Ecumene if examined at close hand is seen to be a fantastic patchwork of ethnic strata, culminating in the complexities of some of the larger cities where each urban function had been fixed in a particular

ethnic segment. Europe, which recently has seemed almost drably uniform, not long ago displayed an unbelievably picturesque diversity in local costume, folk arts, festivals, cuisine, house-type, etc. (as a visit to any great European Folk Museum will show), approaching the complexity one can still find in Indochina. The great tradition of Christian doctrine and Latinity has unified this from the top downward, just as Brahminical Hinduism and Sanskrit unified the Indian subcontinent. A map in a recent Soviet ethnography of southwestern Asia (Kislyakov and Pershits, 1957:fac. p. 18) reveals an unexpected heterogeneity to one unfamiliar with the micro-ethnography of Old World civilizations. Dawson (1956:139) has in fact called for more such local detail, to counteract simplistic thinking about culture-historical processes. It will be noted, however, that nearly all of this very visible diversity is superficial or "folkloristic"; it does not really contradict what has been said about the fundamental cultural likeness within the Ecumene.

Despite many differences in world-outlook, derived both from the circumambient higher religious traditions and from ancient local customs, it has been noted that peasant peoples are everywhere much the same (Redfield, 1956:105-114), just as elites in different societies also can be said to share certain resemblances (Shils, 1960) despite comparable variations in Weltanschauungen. Turner (1941, 2:1276) feels that the high intellectual traditions within the Ecumene were "alike both in their fundamental forms and in the relation of these forms to one another." At times, to be sure, we can trace such similarities to known historical causes, as in India under British rule, where the elite acquired and still possess a surprising degree of British outlook despite political conflict--and present independence (cf. Garratt, 1937:394-422). Certain widely dispersed ethnic groups have also contributed to some kinds of ecumenical unity--notably the Hellenistic Greeks (Toynbee, 1959), the Jews in the Diaspora, Lebanese and Armenians, Arabs, Gujratis, Malays, Cantonese, and others (Caldwell, 1959:306).

Another unevenness in the Ecumene was due to the presence of enclaves of primitive or tribal peoples. Apparently the cultures of some parts of the Ecumene have not yet found it expedient or even technologically possible to exploit fully all the environments in which primitive societies had taken refuge (cf. Sahlins and Service, 1960:91). Notable concentrations of such relict societies are in eastern and southern India, most of the hill country of Southeastern Asia on into Southern China, and outside of Java, in the interior districts of the Indonesian and Philippine archipelagoes. Kroeber regards these groups as insignificant when it comes to mapping major cultural blocs (1947:330), though they are representative of a "type or evolutionary stage." Some tribal enclaves have been much affected by aspects of neighboring civilizations. In India many hill tribes are actually in various stages of "Indianization"--adopting Hindu food taboos and so on. Some of the most isolated have acquired iron and steel tools and weapons, and trade cloth. The Ainu and Lapps, at opposite northern extremes of the Ecumene, have been profoundly affected by the cultures of their civilized neighbors. Some of these peoples, especially the marginal pastoralists, have of course swept into full-scale ecumenical power-politics. The Manchus, a Tungusic people, assumed control of China as the Ch'ing Dynasty in 1644. Toynbee's designation of such peoples as "external proletariats" is not especially felicitous (cf. Dawson, 1956:137-38), though better than Danilevsky's dismissal of them as "ethnographic material." The primitivity of some of these groups has been exaggerated, possibly because they have often been used as

ethnographic case studies. The Mongols, Kirghiz, and Kazak have long been fairly sophisticated and fully ecumenical peoples, despite their pastoral economies. In any case, the relations of the tribal or primitive enclaves to the ecumenical civilizations was very different from that of the Pomo or Yurok to the Aztecs, or the Bororo or Macusi to the Incas. The Indians of Central California in 1500 A.D. were culturally far more remote from the civilized populations of Mesoamerica than were the British tribesmen of 1500 B.C. from the urban peoples of the Mediterranean.

Enough has been said to suggest that the Ecumene has been something more than an aggregate. It can be described as a working system, consisting of identifiable parts organized in functional relations, working together as a whole. The functions have been commercial, political, and religious. The interacting parts have been civilizations--themselves complex assemblages of sociopolitical systems. Conceptualizing this is difficult because at any given time, the interacting systems were of widely varying orders of magnitude and operative at many levels. Some units were geographical entities under centralized administration; some were widely scattered groups of merchants and carriers; others were dispersed sectarians or followers of particular philosophies. It is easier to trace what has gone on between kingdoms and empires than what has passed over a thousand caravan routes and waterways, or occurred in tens of thousands of bazaars, caravanserais, seaports, monasteries, or nomadic encampments. Four broad kinds of units may be distinguished:

I. Local primary communities: villages, neighborhoods, small towns. If the total population of the Ecumene in 1500 A.D. was about 400,000,000 (Landis, 1943:17) and such communities averaged 2,000 individuals, the number of local primary communities would have been 200,000. The majority of these were not autonomous in 1500 (also often clustered in districts or provinces, with or without official political recognition or administration).

II. Local or Regional sociopolitical units: composed of the units given above, plus cities; organized as kingdoms, emirates, sheikdoms, a few as republics, and in some areas, into large empires. By 1500 A.D. the number of such units in the Ecumene may have been on the order of 1,000. On this level also, cutting across many of the political groupings, are organized religions and sects, probably numbering in the hundreds (excluding community cults without branches).

III. Civilizations: culture-areas, some coinciding with political and/or major religious groupings. By 1500 A.D. there were about 15 to 20 civilizations in the Ecumene, plus unabsorbed tribal or primitive enclaves.

IV. The Old World Ecumene itself.

Numerous crosscutting subsystems interconnect these units in fascinating complexity. Various kinds of specialists mediate between groups within and across these categories. Mediation between civilizations may seem grandiose but involves many prosaic activities, including foreign trade, diplomacy, transport and communications, missionary effort, book-translation, and, in modern times, the work of scientists, scholars, journalists, and even tourists. In

addition to agencies long dedicated to the ecumenical propagation of religions, we now have bodies devoted to high-level cultural interchange between civilizations for secular ends as well, such as UNESCO. Beardsley et al. (1956) developed an excellent classification for community patterns, but nonlocalized cultural activity was not included in what was intended as an archaeological-ethnological rapprochement. Most acculturation research has focussed on culture change within a defined area, where two or more groups are coresident; studies of caravan drivers and ship's crews and the like have been fewer.

The environmental aspects of the origin and growth of the Ecumene are certainly important. The earliest civilizations (as is well known) emerged in semiarid lands where water control and water supply were crucial (Cf. Steward, 1955; Wittfogel, 1938; 1956). Extensions into lands where rainfall agriculture was feasible led to many changes, including technological and other feedback to the nuclear riverine civilizations. In some of the temperate forest lands into which civilization ultimately spread, agricultural potentials were in fact far higher than in the old river-valley environments (e.g., Egypt with 13,000 square miles of arable land, Great Britain with 43,000). Some of the ecumenical effects noted by Kroeber, which suggested to him the "burning out" of the older, central areas of civilization, could better be attributed to the greater agricultural productivity of the outer temperate lands (and to the availability in the eighteenth and nineteenth centuries of water-power and coal in the latter!) than to some kind of cultural senility on the "slag heaps" of the Middle East. Actual deforestation and frightful overgrazing, with consequent soil erosion and lowered water tables, silted harbors, etc., seem to have played some role in the environmental deterioration of North Africa, the Near East, and parts of the Indus-Baluchistan areas.

Another aspect of the environment and the Ecumene is the effects of increasing diversity of climates, terrain, vegetation, mineral resources, etc., with the territorial growth of the area of civilization. Mesoamerican civilization in its incipient stages has sometimes been explained as a function of the juxtaposition of many different natural environments, each capable of developing a trade in local specialties. The same notion can be applied to the Old World Ecumene on a much larger scale. As long as the early civilizations were confined to a few river valleys flanked by desert or arid steppe, there was little for them to exchange. As trade tentacles pushed out into other kinds of terrain, opportunity for intercivilizational commerce arose. Traders in luxuries were the pioneers in this (see the more extended section on trade, below, p. 95). Other innovations were certainly stimulated by growing geographical diversity, so that fashions suited to a particular climate might "inappropriately" diffuse to a quite different one; the spread of tailored clothing into many warm tropical regions is an example. New crop plants and domestic animals, new raw materials, would all have increased chances of incorporation into other civilizations as a result of this expansion; the most striking case of this resulted from the contact of the Ecumene with the New World, which flooded the Old World with new plants.

We need not dwell long on possible cycles of civilization, in the sense of ebbing and flowing of power, cultural creativity, and so on. Political cyclicity is least significant; for the Ecumene as a whole, these cycles appear as mere whitecaps on a pond. Some politico-military events (not "cycles") have led

to grand transformations, such as Alexander's expedition, the westward sweep of the Huns, or the formation of the Mongol Empire. Dark ages have been localized phenomena. The post-Roman "decline" in Western Europe coincided with a long and prosperous growth in the Byzantine Empire, to say nothing of the turbulent but brilliant T'ang Dynasty. The decline in the West has been exaggerated (Heichelheim, 1956:179); transport was improved except for road maintenance, and many technical processes, formerly confined to urban specialists, filtered down to peasant villagers. Indeed, Heichelheim feels that the changes which followed the break-up of the western half of the Roman Empire were due to the fact that Rome and Persia "had ceased to be the only civilized territories in the world outside of India and China." There is not a too far-fetched analogy in this to the present colonial retreat in Africa, which has created new states rather than a "Dark Age" there.

Cultural creativity has often been thought to occur in cyclic bursts, but Kroeber found no real evidence for such cyclicity in his Configurations of Culture Growth, though he did suggest that certain kinds of creativity might follow one another in a fairly standard sequence. Nor has the over-all growth of science and technology exhibited cyclicity to its analysts (Singer, 1956). Whether or not Central nomads swarmed out of their pastures to assault the bastions of sedentary civilizations because of drought, the total span of their existence has probably been too short to yield clear-cut cycles, despite Huntington's efforts to demonstrate them (1959:ch. 30). I should not like to deny altogether the possibility of some kinds of recurrent patternings in culture history, but the growth of civilization during the last two and a half millenia has been such that the same constellation of external or intrinsic forces, even if recurrent, has never been able to exert itself on the same kind of entity. Thus, if we assume that the Scythians, Sarmatians, Huns, Avars, Mongols, and Turks all exerted exactly the same pressures in each of the great nomadic Putsches, the cultural systems against which they acted were never alike. On the whole I would not expect a system such as the Ecumene to exhibit much real cyclicity, though analogies, on changing scales of magnitude, might be perceived. At or near its inception, the Old World Ecumene produced several world religions and the beginnings of philosophical synthesis. This combination of creative activity is unlikely to recur in the history of this planet, just as the emergence of the hominids from primate ancestors is hardly likely to be repeated. Biologists do not ordinarily find "cycles" in evolution. It is probably futile to seek for them in ecumenical history.

If the ecumene concept is evolutionary as well as culture-historical, it might be expected that parallel developmental stages could be demonstrated, but only if there had been an emergence of more than one such system. With only one case, the comparative method is obviously unuseable. We cannot even be sure that when we start with a set of fairly isolated civilizations, they must eventually coalesce into a more complex system; the only long-isolated civilizations we know of, in the New World, did not coalesce as the result of inherent tendencies, but were forcibly incorporated into the Ecumene by invading forces. The closest we can come to an evolutionary statement about such an emergent as the Ecumene is that it seems to have had a high probability of developing as it did. It was probably a predictable sort of chain reaction, but no one who was around at the time it was happening was in a position to see what was taking place, though the allegorical or metaphysical language of some of the founders of early religious or philosophical systems might be seen as an effort at prediction.

The evolutionary quality of the Ecumene is not diminished by showing either that certain innovations were made within it but once, and thereafter diffused to the rest of it, or that they were made more than once, independently. In many cases, chance has determined the matter: an innovation with very high and immediate practical applicability in almost any cultural context is likely to spread so fast that its reinvention anywhere else would be thwarted (for example, portable firearms, matches, and photography). An ecumenical system fosters both the rapid diffusion of useful innovations from one center, and the discovery or invention of the same things in different places, because of a common technological, scientific, and aesthetic base. That there may be within the Ecumene certain regional or local barriers against some innovations does not deprive the concept of evolutionary significance. Islamic objections to printing, at first quite effective, prevented the even dispersion of that art throughout the Ecumene; similar religious conservatism inhibited the spread of the Gregorian calendar, and so on. It would be absurd to insist that a phenomenon cannot be regarded as an evolutionary product unless it exhibits absolutely uniform change. Nor must we be dismayed to discover that diffusion rates within the system are far from identical; some items have spread with lightning speed, others at a snail's pace. The tabulation of lags in the spread of certain traits from China to the West given by Singer (1956, 2:770-771) should be compared to Edmondson's theoretical average rate for Neolithic culture diffusions of 1,150 miles per millenium (Edmondson, 1961).

In ending these remarks on the ecumene as an evolutionary system, it is worth noting that Steward (1955:26-27) mentions several features of modern, world-wide industrial and economic development which can be attributed to evolution as much as to diffusion. We tend, in the West, to label some of these emergents as "Westernization" when in fact they come about through an interplay of factors established, to be sure, through Western contacts, but whose subsequent growth has not been under Western control or direction. Many of the phenomena analyzed by Rostow in connection with economic-industrial take-off are of this type (1960:7). We may in passing pay respect to the proponents of the "energy capture" theory of social and cultural development (cf. White, 1959:ch. 3; F. Cottrell, 1955:286-287). Cottrell feels that a universal diffusion of knowledge and cultural values associated with "high energy technology" is unlikely to occur; "high energy" technology tends to grow only in certain favored regions, with fossil fuels, water power, etc. It is certainly quite possible that the controls or power centers associated with such technological systems may tend to remain in favored regions or nations, but I suspect that most of the knowledge and cultural values have a much higher diffusibility. The high-energy technology is a very recent emergent in the world ecumene anyhow, and it is probably premature to predict its long-range impact. At this writing (1962), the correlation between international audibility on the political level and "high energy technology" is very low indeed: compare Cuba and Ghana with, say, Japan and Belgium.

Turner (1941:2:1244-1245) writes, "The environmental aspects of the several [Old World] centers of urban development conditioned these developments somewhat differently . . . in each instance, and fixed the points of contacts and channels of intercourse between the several urban centers . . . so that each urban center owed a debt to the others for specific materials and, on occasion, for stimulus that meant new growth" [emphasis supplied]. Here we are dealing with a multiplier effect, like that in the economics of national income. This is a feedback

phenomenon, or a kind of resonance. Hudson mentions a good case (1961:272-3) between widely separated civilizations in the Ecumene: he says that the color print was introduced to China from Europe about 1625, having been developed in Germany and Italy. The technique subsequently diffused from China to Japan, where it enjoyed a great vogue, and saw many technical improvements. In the nineteenth century the Japanese color print was taken to Europe, where it stimulated several artists, including several of the French impressionists, the American painter Whistler, and the poster work of Toulouse Lautrec. The chains of civilizational interaction are seldom so direct as this, but Nitobe was not exaggerating greatly when he stated that "so great is the contribution of alien elements to any nation's culture, that I am tempted to doubt whether any progress is possible at all in any land without an impetus from without" (1931:1).

The cultural dynamics operating in the Ecumene are not different in kind from those which serve to integrate less comprehensive sociocultural systems. Most of the processes are prosaic, and we need not think in terms of challenge and response, etherialization, withdrawal and return, and other esoteric mechanisms which Toynbee felt compelled to employ in his comparative study of civilizations. Even on the immense stage of the Ecumene, one finds ordinary human beings engaging in understandable activities. Some are seen as agents of great transformations realized in their lifetimes or shortly thereafter: Alexander, Ghenghis Khan, Gandhi (cf. Hook, 1943:ch. 9). Others, "heroes of thought" in Hook's terminology, may produce works which are responded to over long periods of time, in different cultural contexts (Gautama, Aristotle). Whether or not innovators are historical figures or anonymous toilers, or groups of individuals, the modes of action seem to be the same, whether the society affected be a local village or a vast collectivity. The successful innovator need not be a member of the in-group of the society which is transformed by the innovation (cf. Barnett, 1953). Two frequent situations in ecumenical development have apparently favored change--the so-called "privilege of historical backwardness," which Sahlins and Service restate as the "law of evolutionary potential," wherein less developed societies or segments thereof are more receptive to innovation and transformation than highly developed ones (Sahlins and Service, 1960; cf. also Balandier, et al., 1959). Europe, backward in respect to printing compared to China in the fifteenth century, leaped ahead with the result that in the nineteenth and twentieth centuries, advanced printing, type-founding, and printing machinery were introduced to China from the West. Another situation, not unconnected with this, is the rise of "interstitial" societies, between the areas of more developed civilizations, which benefit selectively from their neighbors (cf. Caldwell, 1959:306). The location of some of these has particularly stimulated commerce, as in the Phoenician case. Alphabetic writing arose in these circumstances; in other areas, lingua franca trading dialects sometimes emerged. Peoples situated on the edges of the Ecumeme have found it easy to pioneer new trade routes, and thus find themselves in the very active role of conquistador. The Greeks and Carthaginians in antiquity, vis à vis the more westerly barbarians, the south Arabians, the Novgorodians, Portuguese, and Spanish come to mind. Toynbee devoted part of volume 8 of A Study of History to these contacts of civilizations in space.

Culture can be interchanged indirectly, with little or no awareness on the part of the recipient group of the originating group (the intervening group or groups may of course be known). This is the chainlike process whereby, for

instance, tobacco and the cultivation of maize reached so many of the Old World peoples in the sixteenth century and afterward. Traits can be carried by particular groups of people--merchants, missionaries, etc., often for great distances and in full awareness of the transmission process. Societies can be in sustained contact over a vast range of communication channels, and with reasonably full knowledge of each other widely diffused. A Kazak of the nineteenth century, drinking Chinese tea from a porcelain cup might have been able to tell an inquire the source of both, China, and perhaps a few scraps of information about that country. His knowledge would have been considerably less than, say, that of a London tea merchant of the same period, who might know a good deal about the geography, economics, and even politics of the provinces on which his business depend

Barnett lists several ways in which culture contacts, leading to cultural change, may take place (1953:46-49): market-place contacts (market-towns, bazaar seaports, etc.), itinerant or resident foreign traders, missionaries, betterment-program personnel (public health, social welfare, education, foreign aid--all modern in origin), intermarriage, exchanges of ambassadors, emigration and expatriation, slavery and wage-labor recruitment, exploration and adventure, conquest and colonization. Jaspers adds: engineers, soldiers, journalists (1961: 95). We could add contacts in holy places, pilgrimage centers or en route thereto migrations of specialized craftsmen, professional entertainers, movements of pirates and brigands, scientists and scholars, transport personnel (sailors, camel-caravan men, etc.), and tourists. A recent phenomenon involves "delegations"--conducted tours of selected groups to impress them with the achievements of other countries, a rather different thing from simple tourism. Now, what is remarkable about this listing? All but a few of the modes of contact are peculiar to conditions in the developed Ecumene; several are in fact found only in very recent times. Only a few are likely to have been significant 2,500 or 3,000 years ago, even in the most civilized sectors of the Old World. Ecumenical conditions have evidently fostered new kinds of human contacts, which in Bronze Age or Neolithic times were unknown.

Culture contacts are usually reciprocal rather than one way in their effects. Things, ideas, or behaviors are exchanged, though not necessarily in any balanced fashion. The Chinese adopted trousers, iron-working, and cavalry tactics from the northern barbarians, but gave them an appreciation of Chinese silks, ornaments, and other luxuries (cf. von Wissmann, 1956:293). Teggart believed that there had to be marked contrasts in culture, conjunctions of differences, to bring about significant interchanges between civilizations.

Hanks (1957:72-73) emphasizes the creation of "points of reciprocation" between interacting social systems, in which intercourse is organized. In view of the overwhelming evidence for significant interchanges between widely spaced segments of the Ecumene, a vast number of points of reciprocation must have existed to mediate such cultural transferences. To be sure, institutional forms for such interchange can be rapidly improvised, since practically all known societies possess some techniques for handling aliens, and controlling their impact, if only on a local intertribal basis. Occasionally these mechanisms seem inappropriate, as when the Chinese tried to deal with the Western powers as if they were tribute-bearing vassal "Southern Barbarians," or conversely when Europeans sought to enter into treaty relations with tribal societies as if they were sovereign principalities on a European model. The value of Hanks' observation is that

cultural interchange, in the Ecumene or outside of it, normally flows into institutionalized channels, and not in a noncultural No Man's Land. Such systems are subject to disruption or interference, and the significance of particular channels may change radically with time, as Marriott has shown for Indic civilization (1959).

It is possible to distinguish certain formal ways of "joining the ecumene," even where a given society has perhaps for a long time existed in some kind of informal relations with a part of it. A standard procedure in the past has been religious conversion of the elite, or even of the entire population, as a symbol of acceptance. Treaty ceremonies may signalize the accession of a new ethnic component. Marriages of state have also been used to demonstrate that the new society is a formal equal. Achievement of national sovereignty from a previous colonial status is the most recent symbol, followed by admission to the United Nations. Obviously most if not all of these formal ways of "entering the community of civilized peoples" are preceded by long periods of de facto membership or inclusion. One of the most consistent criteria, however, for the entrance of any ethnic or societal unit to ecumenical status has been its possession of at least one city, or the existence of a city on its territory. Karakorum, the great "camp" of the Mongol Empire, was certainly in its heyday a city, in spite of Mongol nomadic sentimentality. Cities alone did not automatically lead to or create the Ecumene, however. They had existed for 2,500 years in parts of the Middle East, and for many centuries in the New World as well, without that fusion of civilizational traditions which forms the Ecumenical system. There were cities on the Guinea Coast too, beyond the Ecumene.

Kroeber believed that his Old World Ecumene shared only cultural content, but not style or values (cf. 1957:151ff.). But both styles and value systems have spread from one civilization to another within the Ecumene, and within recognized culture-areas or area--cotraditions, different value systems have coexisted (Confucianism and Taoism), and stylistic traditions of varied origin have persisted side by side (Gothic and Renaissance, Byzantine and Classical). Total congruence of styles, values, and the rest of culture content is exceptional in civilizational traditions, if in fact it has ever occurred at all. Despite syncretistic lapses, Shintō has persisted with its Pre-Buddhist pristine simplicity in a country which also produced the unbelievable ornateness of the Tokugawa temple-mausoleum complex at Nikkō. The case of the Spartan subculture in classical Greek civilization is also worth recalling.

We have already spoken of consciousness or awareness of other civilizations as a hallmark of the Ecumenical system. Haspels used the term "cognizance" (1956), in a different connection, but perhaps it sounds less metaphysical. In any event, increasing cognizance of other cultural traditions accompanies the growth of the Ecumene. Honigmann (1959:149) speaks of scale in a classification of societies, as "the number of people in conscious relations." Within ethnographic culture areas, on the tribal level, such awareness may range from almost nil to considerable familiarity with the other cultures round about. The California Indians were apparently much more parochial in this respect than were those of the Northwest Coast, who got around a good deal more in their big canoes. Many Polynesians, at the time of their European discovery, had virtually no more than mythological knowledge of more distant island cultures. The

Greeks in the sixth century B.C. knew almost nothing of the Chinese, a legendary people who lived "beyond the North Wind" (the Hyperboreans); this was doubtless reciprocated by even the best informed Chou noblemen, who would have failed miserably any quiz about the Mediterranean (cf. Hudson, 1961:ch. 1). But by the second century A.D., China was known not only as the silk country, but also as a land with unusual legal theories (Needham, 1954, 1:157). Within any of the component societies of the Ecumene, cognizance varied from elites and specialist groups to the peasantry. Only the literate few, several centuries after the events, could disentangle the historic Attila from the legendary Etzel, or Alexander from the culture-hero Iskander, to say nothing of the peoples and countries involved in their exploits. Cognizance of the struggles between the Christian Iberian kingdoms and the Muslim dominions became on the popular level a folk-dance battle between legendary Moors and Christians. So too have ancient Indian kings lost some of their historical, cross-cultural reality in being transferred to the shadow-puppet theatre in Indonesia.

The extent of this cross-cultural cognizance in the Ecumene is indicated in many travel accounts. Not all are as brief as the entry in the Saxon Chronicle for 883, mentioning the despatch of the clerics Sighelm and Athelstan, with alms, to the shrines of Sts. Thomas and Bartholomew in Malabar, southern India. Their king, Alfred, was not unfamiliar with Indian geography, having himself put into the Anglo-Saxon a Latin account of it in a work of Orosius (fifth century), which mentions the Ganges, the Himalaya (thought to be an extension of the Caucasus range), and Ceylon, and several Indian cities. Crude though Alfred's geography was, it told infinitely more about a distant country than one could have extracted from a Tarascan or Chimu monarch 600 years later. The Muslims accumulated a vast store of information about distant parts of the Ecumene, thanks both to their tradition of pilgrimage to Mecca and their long-distance commercial activity. The list of those whose reports contributed to Ecumenical awareness is very long, and names like Megasthenes, Chang Ch'ien, Fa Hsien, Ibn Fadhlan, Ibn Batuta, Friar Rubruk, Marco Polo, Nikitin, or Covilham, are only a few of them. Andrew Corsalis, who had seen them, was pleased to report to Lorenzo de'Medici that the Chinese were "di nostra qualità." When Vasco da Gama sent a crewman ashore in 1498 at Calicut, the astonished Portuguese was brought to a local "Moor's" house; the first words of his host were uttered <u>in Spanish</u>, "Devil take you, what brought you here?" (Kerr, 1811:2:356-357). It turned out that the Moor was a Tunisian, perfectly familiar with the Portuguese; his next question, obviously intended as a joke was, "And why haven't the Kings of Spain and France, and the Doge of Venice sent their fleets here too?" In another sphere, there have been the scholars who deliberately made their countrymen aware of the importance of the achievements of other civilizations, such as Christian Wolff (1679-1754), the Sinophile (Lach, 1953), and Fukuzawa Yukichi (1834-1901).

As if commenting on these matters, Jaspers writes (1953): "This intercourse between peoples has meant a continual growing together of mankind, the creation of unity through the planet's <u>becoming one to the consciousness</u>, and ultimately, to the actions of men." [Emphasis supplied.] Teilhard de Chardin (1956:103-112) has also stressed the growth of this planetary cultural consciousness. Rawlinson, concerned with India and Europe, was impressed by "the intercourse between India and Europe [which] throughout the ages has been almost uninterrupted, . . . and . . . has reacted upon the other in a remarkable fashion" (1937:1). Both Teggart and Hudson (1961) have documented the growing mutual

awareness of the West and China, through which there came the slow but ultimately massive infiltration of East Asian technology and scientific ideas to the West which Needham is now analyzing (1954--). Sarton had accomplished a similar analysis of the interchange between the Islamic world and the West, with its translations and commentaries. Needham blocks out several phases in these ecumenical exchanges, involving conscious cultural transference (1954, 1): (a) from third to seventh centuries A.D., Chinese and Indian contacts, mediated by Buddhism, (b) from eighth to thirteenth centuries, Chinese-Arabic contacts, based on the sea trade and actual Arab settlement at Canton, (c) from thirteenth to early fourteenth centuries, European-Chinese and other contacts made possible during the Pax Mongolica, (d) fifteenth century onward, full-scale pan-Ecumenical exchange based on European trade, and European expansion beyond the Old World. We can add to this the Muslim-Indian contact, which began in the tenth century, and continued into British India, and the Muslim-Indonesian contact, which began in the fourteenth century and lasted until the Portuguese and Dutch periods. The earlier Hindu-Buddhist-Indonesian contact period began several centuries A.D., lasting until the thirteenth century or so, and also extended into Cambodia and Southern Vietnam. The completion of the ecumenization of mankind is a process which picked up great speed in the nineteenth century, and which will probably end before the close of this century (cf. A. Weber, 1947:2). Awareness or cognizance has been concentrated in nodal fashion in certain great cosmopolitan cities, of which Alexandria was one of the earliest and most famous. Certain countries were active foci at different periods, e.g., the Kushan Kingdom in the first century A.D. Kroeber has called attention to the effects of ecumenical awareness in the field of the visual arts, broadened to include primitive and prehistoric arts very recently, thanks to scholarship, archaeology, museums, publications, and particularly, accurate reproductions (Kroeber, 1957:50). The effects of this in painting, sculpture, architecture, ceramics, textiles, etc. are already apparent.

The specific traits or complexes transmitted over this consciously developing system are very numerous. Kroeber has drawn up several such lists (e.g., 1946, 1948), as have also Singer and Needham. The list which follows is a composite one, drawn from these sources and others, and omitting traits which clearly seem to have been present in the underlying Neolithic base already alluded to. Omitted also are features of social and political organization which seem to be virtually inevitable concomitants of large-scale, organized society. This list makes no attempt to indicate whether the traits were independently invented in different parts of the Ecumene, or hit upon only once and thereafter widely diffused. The history of many is unknown at present. Nor is this a list of traits known only to Old World ecumenical civilizations before 1500 A.D. Several items were present in both hemispheres, seemingly a result of independent invention or discovery. Finally, few of these traits were known everywhere within the Old World Ecumene; even those of widest currency were only known to or practiced by special segments of the population in a given society. This is not a list of cultural universals. Since this paper is a direct borrowing of many of Kroeber's ideas, I have marked with a (K) the traits he has dealt with.

The listing which follows does not begin to exhaust the cultivated plants studied by Laufer in Sino-Iranica (1919), nor more than a fraction of the scientific and technological items considered by Sarton or by Needham. Thanks to

WIDELY DISTRIBUTED CULTURE TRAITS IN THE OLD WORLD ECUMENE

Abacus
Alchemy
Alcoholic beverages, distilled
Alcoholic beverages used for libations (K)
Alfalfa
Algebra
Algebraic-Geometric relations consciously appreciated
Alphabet (K)
Angel or seraph
Animal fables, Jataka or Aesop type
Animal sacrifices, burnt (K)
Arch, true (K)
Arch bridge, segmented
Artillery, projectile
Astrolabe
Azalea

Backgammon, nard (K)
Ballots, voting
Barrel, staved and hooped
Bells and gongs (large)
Bell-towers
Binomial theorem
Bird chariot toy
Blood sacrifice complex (K)
Bombs and grenades, explosive
Bookkeeping
Bricks, fired
Bronze metallurgy
Bull fighting

Calculus
Camellia
Camphor
Canal gates
Candles (K)
Caravan trade, organized for long distance trading
Cards, playing (K)
Cartography, highly developed
Cat, domestic
Cavalry warfare
Census taking
Chairs and tables
Chariots (K)
Chicken (K)
Chive
Chrysanthemum
Cire perdue casting
Civil service and civil service examinations
Clocks, mechanical
Cock-fighting
Coefficients, binomial
Coffee
Coinage, disc, metal (K)
Composite bow
Compass, mariner's (K)
Cookies, mould-made
Coriander
Corvee labor (K)
Crossbow, portable (K)
Crown, royal, of gold
Cucumber
Cubic equations

Dairying
Declination, magnetic, known
Devil, Satan concept
Dictionaries
Divination from animal parts, Scapulimancy, hepatoscopy (K)
Dome (K)
Dragon concept (K)
Drama, full-fledged theatrical
Draw-loom for figured weaves
Drilling, deep, for water, brine, gas (K)

Eclipse records
Encyclopaedias
Equatorially mounted astronomical instruments
Equinoxes, procession of, known
Eras, for year-counts, non-permutating
Euclidean geometry
Eunuchism (K)

Faience glaze
Falconry (K)
Fans, folding (K)
Felt (K)
Fig
Fire piston (K)
Firearms, cannons, muskets (K)
Fireworks
Flying gallop concept (K)
Fore and aft rigging

Gauze
Geometrical survey methods
Gimbals
Glass vessels
Glass, window
Glazed tiles
Globes, terrestrial and celestial
Grammar, analysis of (K)
Grapevine and wine-making
Grid mapping
Gunpowder (K)

Halo (nimbus) (K)
Helicopter top, spun by cord
Hell concept (K)
Hennin (conical hat)
Histories, written
Historiography, recognized theories of
Horse (K)
Horse-collar
Horse harness, breast strap
Hospitals, public, charitable
Hour and minute divisions of time
Indeterminate equations
Infinite universe, stars in space, not firmament, concept
Iron casting
Ironworking (K)

Kingship, divine (K)
Kites

Lamp, oil
Landscape painting
Laws, codified, written, formal jurisprudence
Lenses
Litter or palanquin
Locks, canal
Locks, door and chest
Logic, formal
Loom, with frame, etc.

Magnet, floating
Masses for dead (K)
Merchant class or caste(s)
Merels, or 9-men's morris game (K)
Meridian, base
Mill, edge-runner, water-driven (K)
Miniature painting
Mirrors, metal, then glass
Missionaries, religious
Monasticism, organized (K)
Money, paper
Musical notation

Negative numbers
Novels
Nunneries (K)

Orange

Palmistry
Pan's pipe
Pantheon similarities
Paper (K)
Papermaking (K)
Paradise, Heaven concept (K)
Parasols, umbrellas and as symbol of rank
Peach
Pear
Peony
Perspective, atmospheric
Perspective, linear and orthographic pseudo-perspective
Petroleum for illumination, etc.
Philosophies, world (K)
Phoenix concept
Pi determination to 10 places
Piston bellows
Plow, oxdrawn (K)
Plow moldboard, curved, of iron
Polo
Pomegranate
Porcelain (K)
Portraiture, individual
Printing, block (K)
Printing, color
Printing, movable type (K)
Proverbs
Pulleys
Pump, square-pallet chain
Puppet drama
Pythagorean theorem and proof

Quadratic equations

Rain gauge
Reeling machine for silk
Religions, world
Resist dyeing
Rockets
Rosaries
Rotary ventilating fan

Royal tombs (K)
Rudder, sternpost
Rule of three

Saddle (K)
Safflower
Sailing carriage
Sailing vessels, large seagoing
Sails, mat and batten
Screws
Seals (K)
Seed-drill plow and hopper
Sesame
Shadow plays
Silk textiles
Simultaneous linear equations
Snow gauge
Spectacles
Square and cube root extraction
Star catalogues
Star maps
Steam powered devices
Steel blades
Steelyard balance
Still-life paintings
Stirrup (K)
Straw hats, brimmed or conical
Stringed musical instruments
Sugar cane
Suovetaurilia sacrifice (K)
Suspension bridge, cable
Suspension bridge, iron chain
Swords, metal

Tailored cloth clothing
Tea
Teapot, spouted vessel
Tide tables
Tides, lunar theory of
Tiles, roofing
Tonsure, monastic (K)
Trigger, cross-bow
Trigonometry
Trip-hammer mill, also water-powered

Unicorn concept
Universities

Vault, architectural
Veils

Wagon mill for grain
Walled cities
Walnut
Water clock (clepsydra)
Water-powered silk-working machinery
Watertight compartment, ship
Warship, metal-clad
Weather-vane
Week, planetary (K)
Weights and measures, standardized
Wheel barrow
Wheel-made pottery
Wheeled vehicles
Windmills
Winnower, rotary, crank-handled

Zero concept
Zero sign (K)
Zodiac (K)
Zoëtrope (rotating ornamental lampcover, heat-powered)
Zoömorphic art style (Eurasiatic art style, "Scythian")

much more abundant documentation, Chinese diffusions are better known than Indian ones, but Clark believes that a great many important cultural items originated on the Indian subcontinent (1937:335-368). Some of the richness of Indic contributions is indicated by Basham (1954:appendices 1-8:488-504) for pre-Muslim times. Full treatment of ecumenical traits after 1500 A.D., from soup to ice cream, would expand this catalogue into an encyclopedia. Their range is suggested by what has flowed into Japan since the mid-sixteenth century (cf. Nitobe 1931).

Actual persons, not merely commodities and disembodied ideas, moved between the ecumenical societies. Intraecumenical visitations go back to the possibly apocryphal story of the Indian savants who not only reached Athens, but conversed with Socrates there, as reported 750 years later by Eusebius. Herodotus visited Egypt, where he obtained information from local priest-scholars, and also the Black Sea colonies where Greeks traded with Scythians. Alexander

brought the Greeks into unquestionable contact with India; Megasthenes was an envoy at the court of Chandragupta Maurya around 300 B.C. A pillar inscription in Gwalior records a visit of Greek (Yavana) emissaries in 150 B.C. (Radhakrishnan, 1956:62). Some Indian troops (possibly from the Indo-Afghan frontier region) apparently participated in the Persian invasion of Greece in 480 B.C. (Rawlinson, 1937). An ambassador from one of the South Indian kingdoms was in Samos in 21 B.C., where he had an audience with the Roman Emperor Augustus, Kushan diplomats were honored guests in Rome on the occasion of Trajan's accession in 99 A.D. Dio Chrysostom, lecturing to an Alexandrian audience in the second century A.D. observed among his listeners some Persians, Ethiopians, Arabs, Bactrians, Scythians, and Indians (Rawlinson, op. cit.). From the other extreme of the Ecumene we have Chang Ch'ien's memorable visit to Ferghana in the second century B.C. as the representative of the Han Emperor, Wu Ti (Hudson, 1961:ch. 2). Similar events can be adduced for every century during the last two millenia, indicating a steadily rising exchange of persons. In 735 a Persian physician is reported at the Nara court in Japan (Needham, 1: 187-188). Numerous Persians and Central Asians were in T'ang China, especially at the cosmopolitan city of Ch'ang An. Unmistakably Iranian camel-men are represented in T'ang figurines. Arabs arrived in South China in 651, and by 758 they were numerous enough to burn and loot Canton. The earliest Japanese chronicles report the presence of Korean and Chinese specialists in great numbers, some forming whole villages of craftsmen. On April 9, 752 A.D., an Indian Buddhist priest led the "eye-opening" ceremony dedicating the great bronze image in the Tōdaiji in Nara; the priest may not have come all the way from India, but he was evidently not a Chinese. The Seljuk Turks had envoys in China in the eleventh century. Franciscan friars with letters from the Pope and offers of alliance travelled to the Mongol court in the thirteenth century. Elizabeth of England despatched ambassadors to the Grand Mogul in Delhi. For every such official visit, there must have been hundreds or thousands of unrecorded ones. Books and letters of course greatly multiplied the effectiveness of such contact. In what is now Soviet Uzbekistan, one Mohammed ben Musa Al-Khwārizmī, who died about 850 A.D., wrote a book on Algebra--the very word is part of the title of this work in Arabic, which represented a fusion of Hindu and Greek mathematics. The first Latin translation of this was made by an Englishman, Robert of Chester or de Ketene (fl. 1143) (Clark: 367). Euclid's geometry found its way into a Medieval Chinese translation.

The Ecumene was bound together by regularly traveled routes by land and sea. Trails are of course older than mankind, having been pioneered by many species of land mammals, and some routes still in use were probably traveled by Palaeolithic men. But the Ecumene had not only such trails, but roads, complete with bridges and ferries, guard-posts, caravanserais or hans, and the sea-routes had corresponding ports, beacons, pilots, and patrols against piracy. Road systems which had grown up within a particular region came to serve also ecumenical ends. Magisterial routes stretching thousands of miles have linked the eastern and western extremes of the Ecumene for about 2,000 years--from about 100 B.C. when the Trans-Asiatic silk caravan traffic began, and from about 50 A.D. when direct sailing with the alternating monsoon winds started between Bab el Mandeb and the west coast of India. The Ecumene was advantageously placed with respect to dry-land east to west travel, as well as having a series of landlocked or nearly landlocked seas, usually fairly calm, and an ocean with dependable wind patterns and equable temperatures throughout

the year, suitable for maritime commerce. The New World, in contrast, was quite unfavorable for primitive navigation. Only portions of Southeast Asia and Indonesia were difficult or dangerous. Singer comments, "thus trade-routes are a very early and natural result of the formation of stable human aggregates. . . . All such routes must be adapted to two-way traffic, for men cannot buy unless they can sell" (1956:772). Mumford recognizes two great stages in civilization or urbanization, the first corresponding to the limited external trading in the early nuclear civilizations, the second to the period of "development of large-scale river and sea transport and the introduction of roads for chariots and carts" (1956:389). Cart traffic was not very important for really long-distance treks; caravans consisted of pack animals. Mumford's third stage coincides with the rise of mechanized, steam powered transport in the nineteenth century.

The pre-Columbian New World, despite an extensive and in places, excellent road network, never achieved an overland road link between its two nuclear civilizations. The isthmus of Panama is still without a surface road, and the voyage around this gap is definitely not a simple day's paddle run.

Some of the great ecumenical routes had been used in the Bronze Age or earlier. The steppe road or "Scythian Way" across central Asia seems to have been the path over which bronze metallurgy and horse-chariots reached China. It was this route that was vaguely known to Herodotus (Needham, 1954, 1:226). V. K. Ting, the Chinese geographer, comments on the ease of communication over this "continuous semi-steppe, free from heath, forest, and marsh," from the Yellow Sea into Turkestan, which made possible a continuous diffusion of culture (quoted in Altree, 1956:254-255). The nature of these routes is set forth in daily horse-riding stages, with information on pasture and water, etc., for the nineteenth century, by Venukov (quoted fully in Burnaby, 1885:352-403). A well-traveled road westward follows the Mediterranean coast from the Nile Delta to Gibraltar. Knowledge of ancient land and water routes from the Bosporus into Europe is very complete. The Indus-Sumerian trade was probably sea-borne, in view of recent finds on Bahrein Island in the Persian Gulf. The Anatolian Peninsula forms a broad highway linking the Aegean and the West with Afrasia; Blegen refers to it as the "Royal Bridge" (1956). The Achaemenian Persians laid out the first great Anatolian highway, linking Sardis with Susa (Turner, 1941; 2:1260). From there, good trails or roads led across the Iranian Plateau, into the Indus Valley and northward to Bactria and Badakhshan. Another royal road came down from the Khyber Pass to Taxila, and from there to Pataliputra (Patna), which the British 2,000 years later converted into the Grand Trunk Road. Fairly good roads existed in North China, giving way in the south to waterways. Feeders to the transverse steppe trails in Russia and Siberia were the great rivers, providing routes into or from the taiga. The overland trail from Szechwan to Burma and Assam was used in antiquity, but was not in the same class as the steppe and desert routes across Turkestan. Chang Ch'ien found some Chinese trade goods in Ferghana which he thought must have reached there over this Burma road and then by way of India. Huntington quotes data on Syrian caravan traffic volume (1959 ed.), and perhaps research might yield similar information about other ecumenical overland commerce.

The sea lane from the Red Sea to India was shifted from slow coastwise sailing to the monsoon track during the first century A.D., and for this we have sailing directions and business information for about 70 A.D. in the Periplus of

the Erythraean Sea. Over this path the Graeco-Egyptian trade between the Mediterranean and south India moved, testified to by finds of Roman pottery and coins in Arikamedu near Pondicherry, and such items as the ivory statuette of the Indian Goddess Lakshmi, presumably from the Kushan Kingdom, uncovered in Pompeii (79 A.D. deposition) (Cf. Wheeler, 1955:ch. 12). Antonine coins found in Indochina represent the eastern balance of payments for spices unloaded in the Mediterranean. This trade via the Red Sea was restricted by the rise of the Ethiopian Kingdom of Axum, which merely indicates how an African society could affect the relations between two other widely separated segments of the Ecumene. Chinese vessels reached Penang about 350 A.D., and soon afterward, Ceylon; by the fifth century they called occasionally at the head of the Persian Gulf and at Aden. Two centuries later the Arabs were in business at Canton, and subsequently acquired some information about Korea and even Japan. Space is lacking to add details on the feeder-route functions of the Nile, the trans-Saharan camel routes, and the coastal traffic down to what is now the Swahili coast of East Africa.

Routes and the commerce they served are hard to deal with separately. Boulding remarks (in Thomas, 1956:432) that "the significance of the rise of worldwide trade is that it makes man into a single organism." Intertribal trade long antedates the growth of civilization (White, 1959:334), but organized merchants did not appear uniformly in all early civilizations; in Egypt they do not seem to have formed a recognizable class until the New Kingdom (Wittfogel, in Thomas, 1956:429). China lacked professional merchants until the middle Chou Dynasty. Other areas, such as Mesopotamia and the Aegean had merchants very much earlier. Intraregional trade in several of the nuclear civilizations was a state monopoly, but long-distance intra-ecumenical trade came to be organized by private entrepreneurs for the most part (Turner, 1941, 2:1260). The cases of hermit kingdoms such as Tibet, Korea, and Tokugawa Japan show that even tightly controlled external trade afforded at least a small trickle of foreign ideas and influences. In the Ecumene trade has provided a circulatory system for all kinds of non-commercial transmissions--e.g., Western anatomical knowledge to Tokugawa Japan via Dutch medical books. The commercial feedback from the initially religious Crusades illustrates the opposite sequence.

Turner discusses the effects of trade within the Ecumene, which he calls "the traditional civilization of the Eastern and Western worlds," in creating a huge, interlocking system of mechanisms of exchange, credit, loans, interest, prices, convertible (though not standardized) weights and measures, and so on (1941). Heichelheim notes that gold coins based on the Roman solidus and the Bezant of Constantinople were current from Scotland and Scandinavia to India, from Russia to Abyssinia, for the better part of a millenium (1956:177), complicated by innumerable local mintings and fractional coinages. The coins from Middle Eastern mints which found their way into Viking hoards is very impressive. If there were comparable linkages in the New World, one would expect to find Aztec trade-tokens in burial mounds in the Great Lakes region, or on Puget Sound.

The ecumenical traders, according to first-hand voyagers' accounts, were very much at home in the vast zone from Western Europe to the Far East. Albuquerque makes a deal with the masters of the Chinese merchantmen lying off

Malacca, his eye on the good will of future Portuguese trade with the Chinese. The men from the Farthest West found themselves in a familiar milieu, on the south Malaya coast in 1511. We could mention the trade in the Hansa orbit, which linked Britain with the Finns and northern Slavs, the trans-Saharan trade between Morocco and the Niger, and the Atlantic codfishing business, which may well have led the Bretons to the Grand Banks before the official voyages of discovery. The international trade in women (for concubines and prostitutes) is also of very long standing; the author of the Periplus speaks of the demand for Greek girls in India. After the return of Marco Polo, there was a small scale trade in Tatar girls to Italy. Not only did this commerce produce entire "trading peoples," classes, and castes, sometimes marvelously scattered across the Ecumene, but also organized brigands, smugglers, and pirates.

Political influences apparently traveled across the Ecumene, though less obviously than trade goods. The essential features of Bronze Age kingship might have evolved in several centers independently, but certain items suggest what Toynbee calls mimesis--e.g., the use of golden crowns and royal parasols, and many rules of court etiquette, which would spread very rapidly from grand to lesser but ambitious monarchs. Exchanges of envoys would do much to standardize the game of royal pomp; how much diffusion had to do with the spread of the dais, the carpetry, the pavilion with its lion or eagle-topped finials, we do not know. More direct political effects of Ecumenical contacts include Chandragupta Maurya's formation of a new and vigorous dynasty in Magadha shortly after Alexander's presence in the Punjab, the careful patterning of the Yamato court and its capital after the T'ang model, to say nothing of the imitations of the Roman Imperial system in Europe, and the Muscovite theory that their state was the Third Rome. The trappings of empire, and sometimes more practical administrative details, have been repeatedly reinforced within the Ecumene by multifarious contacts. This is not at all equivalent to insisting that everything in this sphere can be traced back to the Egyptian theory of divine kingship.

Language and writing have linked the Ecumene in a number of special ways, even though it has continued to be an area of great linguistic diversity, and its separate civilizations usually have distinctive languages (Kroeber, 1953:269). Sizeable blocs have been integrated on some levels by canonical or sacred languages, administrative vernaculars, or trading jargons. Important ecumenically have been Old Persian, Phoenician-Carthaginian, the Greek koine, Aramaic, Latin, Sanskrit and Pali, Classical Chinese, Turkish, Arabic, Spanish, Portuguese, Urdū, Swahili, French, English, and Russian, Lingua Franca, and Bazaar Malay. Often such languages developed quite specialized functions in the context of cross-cultural relations. Certain of these languages had little literary or religious use; others survived only in this manner. Hudson observes that "it is the written word that is the decisive factor in conscious cultural tradition" (1961:11, f.n. 1), in agreement with Jaspers' statement that "the man who learns to read and write learns new ways of thinking, . . . and thinking men suffer differently and acquire new impulses" (1961:113). This is partly a pardonable bias of the literate, in view of the heights achieved in religious and philosophical traditions where the emphasis has been on word-perfect oral tradition, but the absence of writing or an undecipherable (or virtually undecipherable) script does render an earlier civilization strangely mute. Mesoamerican writing, such as that of the Maya, which was most developed, apparently never served prosaic mercantile or personal ends. In the Old World Ecumene, widespread writing systems, though

rooted in more ancient hieratic forms, became a part of daily life through the courts of law, shopkeeping, the lowest orders of the clergy, the diffusion of secular literature, and common schools where boys were taught the rudiments of literacy--in the Christian West, in synagogues and Koranic schools, for twice-born Hindu youths, Southeast Asian Buddhist temple schools, in Chinese villages and towns. The spread of various forms of the alphabet, which blanketed all of the Old World Ecumene except for the Far East (and even penetrated Korea in the form of ŏnmun or hanggŭl) shows how widespread these effects were. The use of ogham and runic scripts by the northern European and Central Asian barbarians, long before their "official entry" into the Ecumene through religious conversion, and the penetration of scripts of Indic origin to the remoter tribal peoples of Indonesia and the Philippines magnifies the difference between the Old World situation and that of the Americas before 1500 A.D. The spread of writing has been bound up with translations, initially mostly religious, book-production, and the storage of knowledge in libraries; cultures which advance thus far lay themselves open to ideological infiltrations which may come from the most distant parts of the Ecumene in spite of the strictest censorship efforts.

Religion, as has been suggested already, has been a principal factor in ecumenical growth and creation of linkages, even though no one religious faith has achieved unquestioned dominance. Religious sytems have of course contributed to the integration of primitive culture-areas and nuclear, non-ecumenical civilizations, and have perhaps produced some common features where a full-fledged Ecumene has not arisen (as in Mesoamerica—Peru, where there may be Chavín-Olmec connections). Nor is the mere diffusion of religious complexes unique to the Ecumene. What is impressive is the progressive enrichment, if not in creed, at least in iconography, architecture, and organization, of the several world religions, as they came to be shared across major cultural boundaries. Some of these function as part-cultures, immensely intricate, and with specialized trait-inventories exceeding the total trait-count for local "whóle" sociocultural communities. Even Hinduism, often grudged a status among the world religions because of its seeming confinement to the Indian subcontinent, diffused and transformed itself in Southeast Asia and Indonesia (where it has since been submerged in a predominantly Hinayana Buddhist mainland faith, and subsists in the islands only as a facet of Balinese Hindu-Buddhist syncretism).

Although religious interpenetrations were not at all unknown in the older, nuclear civilizations of the Old World, the birth of the Ecumene coincides fairly well with religious and philosophical outbursts which fall in what Jaspers calls the "Axial Period" (cf. Jaspers, in Meyerhoff, 1959:333-345; Radhakrishnan, 1956a:19, f.n. 4; Turner, 1941, 2:1270; Toynbee, 1953; von Wissmann, 1956, et al.), dated by him from about 800 B.C. to 200 B.C. Competent scholars seem generally to agree that this period marks some kind of watershed in culture-history, though they do not agree on the explanation for it. It is the epoch of repudiation of older tribal or national religions, of the assertion of individual autonomy, of a direct relationship with the Absolute or Universal, "the miracle of a growing and deepening of the 'logos' in the human mind" (von Wissmann, 1956:296). Toynbee believes that it was the "clash of cultures" which was being attacked, and that in spite of tribe or nation, all men should become "one in Jesus, Mithra, Cybele, Isis, a Bodhisattva"

(1953). Kroeber recognizes this in discussing the progress from primitive, tribal cultures toward mature ethical-religious systems which developed in the higher civilizations (1948:296-304); Kroeber even speaks of an "increasing concern for humaneness," a gradual dissociation of religion from blood sacrifice and an "immature" concern for human biological processes. The virtual simultaneity of these emergents, from Greece and Israel to Shantung via Iran and Kapilavastu is genuinely astonishing. Apart from humanitarianism, the movement saw the birth of logical analysis (Turner, 1941, 2:1270) in several centers, and the not unrelated beginnings of grammatical analysis. All of this development fits nicely into the notion of a rapidly integrating Ecumenical system, the growing importance of long-distance land and sea trade routes, the rapid spreading of iron metallurgy and new military tactics involving the sword and cavalry, from Europe around to the Far East. Turner uses this phenomenon to distinguish the "ancient oriental civilizations"--Bronze Age in type, from the newer "urban cultures," Iron Age in technology, extending from the Hellenistic world and the Persian Empire to classical Hindu and Buddhist India and Han China. Mumford feels that Hinduism turned this corner with the anonymous author of the Bhagavadgītā, so different from the remainder of the Mahābhārata (1956:89). He is also struck by the remarkable prominence of dualism in many of these Axial religions or philosophies. The Iranian components of the Eurasiatic Animal Style, which we know mainly from art objects of this period, but which seem to embody many features of a religious iconography, may also be fitted into this Axial scheme. New religious syntheses appeared after Jaspers' rather arbitrary date of 200 B.C.--Christianity, Manichaeanism, and Islam, and the older ecumenical religions were profoundly transformed--as in the growth of the Mahāyāna, and the Midrash. There is no very clear pattern sequence in the subsequent growth of world religions; they spread in different fashion, with varied velocity, and uneven adherence to orthodoxy. Where representatives of two or more world religions were present in the same area, they might provide courtly amusement by their disputation. Another effect of the spread and confrontation of different religions was that ideas drawn from one might be used by the proponents of another as ammunition for argumentation. Clement of Alexandria used some information he had obtained about Buddhism (he was the first known Westerner to refer to Boutta) in attacking certain Greek pretensions (Rawlinson, 1937:19). When Buddhism reached China, its ideas were sometimes used there in arguments against the Confucian tradition. Fusions of the various world religions appeared not only on the barbarian fringes of Christendom, but between Islam and Hinduism--the Sikh religion is one such product, and others. The recent spreads of Vedānta and Theosophy, of "Zen for the West," and the popularity of Gandhian ideals among liberal Western Christians, may be cited. Gandhi is an instance of feedback, since he had absorbed many Christian notions.

As Turner has noted, a body of religious writings comes to have a special role in the training and discipline of an intellectual class, and the Ecumene with its several great religious literatures produced a growing population of scholarly commentators, exegetes who would ultimately find themselves engaging in comparative religious research. This is in contrast to the sealed mysteries of many of the archaic cults.

Another by-product of world religions has been their tendency to provide more precise chronological and spatial orientations. Characteristically, the world religions have set up eras, starting with the birth or some other important

event in the career of their founders--a great improvement over the older system of regnal years, as anyone who has dealt with one of the few surviving such systems, the Japanese, can testify. In the Mesoamerican area, cyclic year-counts were in use, but it is doubtful whether any but members of the priesthood knew more than the immediately relevant year-signs of the current 52-year cycle. The world religions and their simple eras, mostly readily convertible by addition or subtraction, fix thousands of years into a narrative sequence. Contributions to geography are less world-shaking, but several of the world-religions have "holy lands" or sacred geographies, tied to the real geography of trade routes and pilgrim roads, which relate the lands of the most distant believers to the homelands of their faiths. This is true of Judaism, Christianity, Islam, and Buddhism. The creative, energizing, and orientational functions of the world religions within the ecumenical system are undeniable, and the emergence of such a system is seemingly dependent upon their growth. Nor is it at all certain that the recent tremendous advancement of science has made them entirely obsolete.

Several kinds of voluntary ecumenical organizations have been formed in recent centuries, and have spread widely in the Ecumene. Freemasonry was one of the first. Charitable, scientific, athletic, labor, and political associations have spread very widely, across civilizational boundaries: Red Cross (and Red Crescent), service clubs like Rotary, international chambers of commerce (and a host of specialized trading and industrial associations), Boy Scouts, to mention a few. Although they do not operate in some important countries, the vast, intricately integrated network of international corporations, banks, transport and communications concerns, could also be mentioned here, since their effects are by no means limited to trade, discussed earlier.

This outline of the Ecumene, building on what Kroeber had to say about it in his 1946 paper, perhaps reflects in its disjointed character a good deal of the quality of that huge sociocultural system. It is now time to look at some areas which lay beyond it until recent centuries.

In Africa south of the Sahara, the Guinea Coast was closest to having developed an independent civilizational focus. Long-standing prejudice rather than objective evaluation probably accounts for the hesitation to place some of the rich and powerful Guinea Coast kingdoms on the same level as the Aztecs, for example. Though the Aztecs and their predecessors had more impressive buildings, the Africans were far ahead of them in metallurgy, law, and music. Islam had reached the Upper Niger, incorporating that region into the Old World Ecumene. Factors which slowed up the further expansion of the Ecumene southward probably included the virtual impossibility of Muslim adjustment to the deeply entrenched polytheistic cults of the Guinea Coast kingdoms, which were too populous and militarily powerful to overcome by the tactics that had succeeded in the grasslands. The arrival of the Portuguese and other European trading groups did in fact gradually bring the coast into the Ecumene, or parts of it. The persistence of paganism, the genuine backwardness of some tribes in the area, and the sedulously cultivated myth of an African "savagery" applicable everywhere in the continent south of the Sahara, delayed European recognition of the growing ecumenical character of the zone from Nigeria to Senegal. Survival of some really primitive enclaves is no more a reason to deny ecumenical status to a culture-area like the Guinea Coast than it would

be in the case of India, Southeast Asia, or for that matter, modern Latin America. With the admission of Guinea Coast states to participation in international affairs, within the last few years, their elites are seen to be no less sophisticated than those of nations which have been active in the Ecumene for centuries, or since its emergence. Another African area which might have developed a civilizational nucleus is the East African Lakes region, particularly Uganda. Evidently it remained too isolated, even from the Arab trading posts on the East Coast. Apart from Arab slave-raiders and a trickle of traits southward from the Nile, this promising area did not contact the Ecumene until the middle of the last century.

It is in the New World, however, that we find the key to understanding the meaning of the Ecumene, precisely because the New World did not develop such a system on its own. I must disagree with Kroeber's assertion that the New World nuclear civilizations in Mexico and Peru had its "own counterpart of the Oikoumenê" (1948:784; cf. Willey, 1955; Caldwell, 1958:ch. 4). I think he misapplies his own concept. Toynbee goes so far as to say that Mesoamerica played for both Mexico and Peru the role of Sumer (1961:355), and adopts Kroeber's term Oikoumenê (1961) in speaking of the bonds of culture which linked them. Linkages there had been in the New World, in crops, metallurgy, possibly pottery, and even in religious motifs--as in Chavin and Olmec--but these were ancient and not part of a surviving conscious tradition of continuity (cf. Willey, 1961:47-48). The Mesoamerican and Andean areas grew to their civilized estates in practical isolation from one another, ignorant of each other's existence. If there ever had been direct contact, it had certainly been broken long before the arrival of the Spanish. I for one will be immensely surprised if evidence ever comes to light showing that the ancient Mexicans and Peruvians exchanged envoys, engaged in direct commerce, or sent missionaries representing made-in-America "world religions" either to each other, or to the heathen tribal peoples beyond the limits of New World civilization. This is not to deny, for example, that some religious-ceremonial traits had actually diffused from Mesoamerica to the Southeastern U.S. (Caldwell, 1958:60-61).

The list of important cultural traits widespread in the civilizations of the Old World, but absent in the Americas, is long and very familiar to most anthropologists. Only a few of the traits mentioned above (pp. 90-92) were present in Mexico or Peru, despite the great complexity in Mesoamerican and Andean civilizations. That several puzzling parallels exist in the art and architecture of Mesoamerica and Southeast Asia has suggested to Ekholm (1953), Heine-Geldern, Estrada and Meggers (1961), and others, the possibility of trans-Pacific contacts. The contacts, if there were any, seem to have been remarkably one-sided, and curiously selective, as many critics of these views have noted. Even if Ekholm's "Complex A" did come into Mesoamerica from Hindu-Buddhist Southeast Asia, it did not establish a genuine outpost of the pre-1500 Old World Ecumene. As we have defined and described the Ecumene, it involves conscious awareness of other civilizations, regular routes by land or sea, and active trade, diplomacy, warfare, spreads of world religions (not merely some dissociated art forms), and so on. It is quite possible that the art of Ipiutak, or of the Northwest Coast of North America, reveals some ancient connection with the art of Shang China, but until the Russians arrived in Alaska in the eighteenth century, no civilization, ecumenical or otherwise, had reached that part of the world.

If the civilizations of the New World had in fact developed an independent Ecumene before the Spanish sixteenth century conquests, the Spaniards would have been confronted by a very different situation than the one they found in actuality. Let us imagine what the New World independent Ecumene might have been like; (for an excuse for this fantasy see Hook, 1943, ch. 7). If in 1492 Columbus had landed on the fringe of a hypothetical New World Ecumene, the natives of San Salvador might have given him explicit sailing directions to Cuba, where he should have found several large towns, Mexican trading posts, roughly analogous to the Hindu-Buddhist settlements in Indonesia. Impressive Mexican-style temples would probably have been seen in Cuba and Hispaniola, and on the U.S. Gulf Coast. Instead of the sanguinary cult actually practiced by the Aztecs, the Spanish should have encountered a New World "world religion," with considerably milder deities, and perhaps even a savior or prophetic founder. The ethical precepts of this religion would have been the basis of a written canon, the explication of which would be engaging many communities of priests or monks. Missionaries of this religion would have been sent deep into the "barbarian" tribal lands perhaps as far as the Great Lakes or into California. Penetrating to Tenochtitlan (Columbus himself might have done so, had the New World had an ecumenical system; it would hardly have taken 29 years for the Europeans to accomplish this journey, had the Caribbean been part of a regular Mesoamerican trading network), the Spanish might have discovered resident merchants from distant Peru, an Empire which they would have learned much about from their Mexican guides even before reaching the Valley of Mexico. Moctezuma's famous zoo would have had not only a bison, but some llamas, a gift from the Inca. Some of the Aztec nobles would have been wearing imported Peruvian cloth. The Mesoamerican written languages might still have exhibited considerable diversity, but almost certainly cursive scripts for everyday use would exist alongside the more elaborate inscriptional forms. Some form of this script might have spread widely into North America, along with the Mexican "world religion." In short, the slow, painful course of Spanish conquest and exploration would have been unnecessary. The pattern would have been closer to what had happened in India with the Portuguese. Even if we do not, in this hypothetical New World Ecumene, wish to credit the Mesoamericans with iron metallurgy and wheeled vehicles (what draught animals they could have used I do not know), we may assume that instead of rapidly collapsing, the Mexicans would have quickly adopted European armaments, established their own iron industry, and thereby would have delayed incorporation as New Spain for a considerable period. Having their own world religion, they might have been able to avoid Christianization almost entirely, much as India did. I could continue this fantasy on into South America, supposing that the Spanish had seized the strategic isthmus of Panamá, much in the manner of the Portuguese seizure of Malacca--in order to divert the rich trade of Peru from its markets in Mexico. But of course there was no such trade going on. There was no New World Ecumene.

The great Inca Empire, despite its roads and state-socialistic administration, might have been on another planet, for all that its rulers knew of the Aztecs and their civilization, only 1,500 miles to the north. The non-ecumenical status of the New World before 1500 A.D. did not rest on the inherent backwardness of its peoples, nor any disinclination on their part to develop dynamic, expansive, militaristic states. Nor was it technological backwardness. I think we have to fall back on some hard facts of geography. The Isthmus of Panama was, and still is, in 1962, a far more formidable obstacle to land travel than

any section of the route from Morocco to Honan. No horseman and no land vehicle has ever negotiated the stretch from Panamá into northern Colombia. Even if the Peruvians had wanted to, they could not have traded with Mexico by llama caravan. The sea passage from Guatemala or Mexico to Peru is neither quick nor easy, though probably feasible, since the Peruvian or Ecuadorean Indians managed to reach the Galápagos. But even if there had been regular trade and other contacts between Mesoamerica and the Andean area, by land or sea, it would still have been only a two-way relationship. Adding the Chibcha area in Colombia would hardly have provided enough for ecumenical take-off, when one remembers that during the first millenium B.C., there were seven major civilizational areas stretching from outposts in Spain and Morocco to North China. The Old World was obviously a much bigger, more diversified place in which a new kind of sociocultural integration could grow, quite apart from its all-weather trade-routes, and its domestic animals which made possible the economic hauling of goods from China to Anatolia or Syria. Suitable domestic animals also provided the Old World, but not the New, with an economic base for the occupancy of semi-arid grasslands far above what could be maintained by mere hunting and gathering. In the Old World, regions of low agricultural potential, prior to the steel plowshare, were inhabited by nomadic pastoralists capable of carrying on and transmitting a considerable part of a high civilized tradition. In the New World, comparable regions were virtually so much dead space (as far as the spread of civilization was concerned). Southwestern archaeologists in the United States might speculate on how differently the Pueblo area would have been by the time of Coronado's visit, had the dry interior grassland of Northern Mexico, from Zacatecas and Durango to Juárez, been long occupied by tribes of horse and sheep-herding nomads.

The New World, despite these geographic limitations, has fortunately not been a total loss, ecumenically speaking. The technology, domestic animals, crops, administrative apparatus, and one of the world religions were successfully introduced by conquistadores and colonists from the Ecumene. The New World, as is well known, reciprocated by contributing many valuable food and other plants, etc., to the Old World (cf. Armillas, 1958, Pt. I:67-68). Northrop has shown (1960:ch. 2) how Mexico has recovered some of its former civilizational individuality, thanks to a deliberate and élite-led revival of old, pre-ecumenical art forms. Even the tribal societies of the New World contributed something to the World Ecumene; the very conditions of their existence provoked some notable philosophizing in the seventeenth and eighteenth centuries, on the part of Hobbes, Locke, Rousseau, and others, and as ethnographic material their institutions ultimately affected the growth of anthropology as a science, to say nothing of the theorizing of Engels.

The modern World Ecumene (this redundance seems unavoidable) hardly requires description. It has grown from the extension of ecumenical societies into the areas of the former New World civilizations, but also by trade, conquest, and colonization, from the addition of formerly non-civilized portions of the Americas, Africa, and Oceania. It is the system which Sahlins and Service refer to (1960:83) as penetrating "just about every ecological nook and cranny of the planet." This expansion has been accompanied by, or in some areas made possible by an enormous increase in the speed, frequency, and volume of transport and communication. Intellectual and technical élites have been growing at an unprecedented, "disproportionate rate" (Shils, 1960)--a phenomenon

related to the spread of mass-education, urban life, and the multiplication of colleges and universities throughout the world. It is almost trite to perceive in this the beginning of a new phase of human history, or a new level of cultural evolution.

We have traveled a long way from Kroeber's "Old World Oikoumenê," long enough, it is hoped, to show that such a concept provides a workable way of handling the totality of civilization over the past two and a half millenia, prior to which nuclear civilizations, developing in semi-isolation, exhibited some significant parallelism. It seems feasible to consider the Ecumene, initially confined to the Old World, as a sociocultural system rather than a mere aggregate, and in a sense, a great community marked by a rising awareness of the whole on the part of its members. Envisaging the Ecumene thus demands no utopian belief in the imminence of a world state, a universal language, a single world faith, a Pax Ecumenica or its Indian counterpart, Lokasamgraha (Radhakrishnan, 1956b:227, cf. Mumford, 1956:ch. 8). A fairly high degree of cultural similarity can exist without political unification as Latin America, Western Europe, or Anglo-America show.

A common criticism of historical (including culture-evolutionary) synthesis is that it is merely an expression of fashion, of the Zeitgeist, and that each age or civilization rewrites history to fit its own prejudices. This notion becomes increasingly unjustifiable, in view of the immense accumulation of carefully sifted historical and archaeological evidence, especially since the nineteenth century. To assert that we are in no better a position than Polybius or Ssu-ma Ch'ien, Sir Walter Raleigh or Montesquieu, is absurd. In macrohistory, as in science, style and readability aside, more recent work is apt to be better, based on a more complete survey of the evidence. Anthropologists would be in a peculiar position if they were to insist that while prehistoric archaeology and the ethnology of pre-literate peoples are scientific and improving in coverage and quality, the study of civilizations can only be an art, philosophy, or a literary exercise, faithfully reflecting the current biases of the society in which it is undertaken.

With modern computers, it should be possible to program a model for the growth of the Ecumene, as a problem in diffusion and interaction, building in the variables relating topography, climate, speed of travel, agricultural potential, population growth, etc., etc. Such a program would be analogous to the physical models of river systems employed by hydrographic engineers, where the number of relevant factors is too great to permit predictions to be made by simple inspection of maps and stream-flow data.

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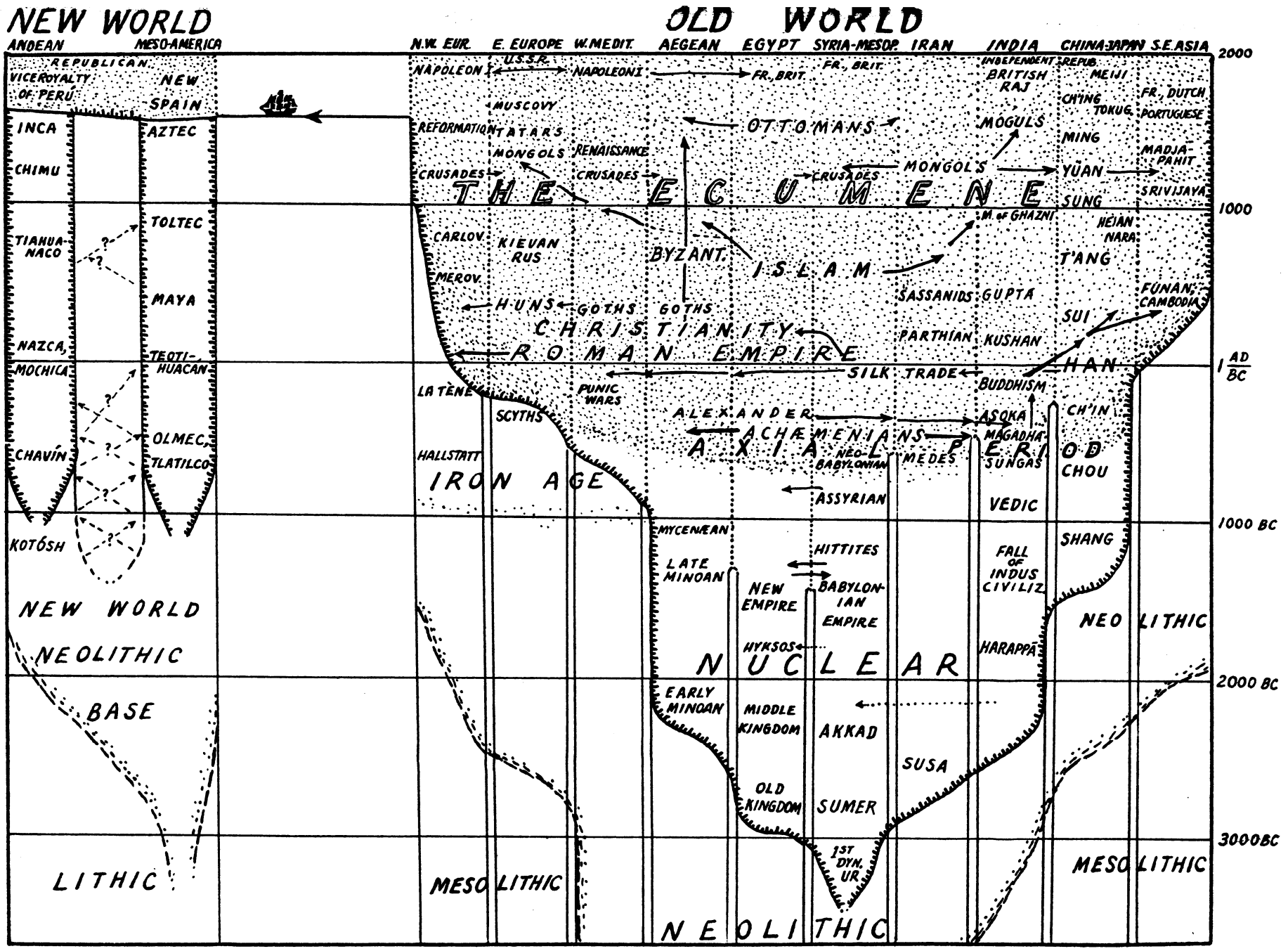
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