

GENETICS AND DIFFUSION

by

Prof. E. Morgan Kelley

Summary

The Genetic, or gradual and systematic, theory of language change is explained with specific reference to the study of Nostratics, the search for a common "Mother Tongue" encompassing most of the languages of the world. Some problems exist with this theory. One of these is the basic question of the chronology used. Modern research has called into question many of the suppositions about exactly how much time has passed between one point and another. Alternative models are presented in some detail. Then, of course most importantly, the "steady-state" theory does not allow for significant cultural exchange (Diffusion) as an engine for linguistic change. A very important factor in diffusionist theory are the group which Dr. Horst Friedrich calls the "Atlanto-Semites" for diffusion across the sea, and the group I call "Scytho-Semites" for diffusion over broad land masses. When tracing the expansion of these peoples, a study of person- and place-names (onomastics) has proven to be very helpful. Using a knowledge of myth and metaphor, coupled with a broader understanding of consonant transformation, some interesting connections come to light. Two tribal names, "Dan" and "Gwich'in" are described at length. The first seems to have spread from the Near East across the Atlantic to America; the second reaches from the interior of Asia across the Pacific to the New World. On the whole, it appears that scientists who fail to take into account the importance of Diffusion will gradually fall by the way.

INTRODUCTION

Genetics and diffusion are the two main theories that are used to explain the course of language development. In America, the prevailing school of thought tends toward a slow, straight-line development from some hypothesized Ur-Sprache, which its adherents hope to be able to discover someday through the traditional means adopted by historical linguists since the time of the Brothers Grimm. At the present stage, the farthest back in time we can go is to a hypothetical language called Nostratic, which incorporates

both Indo-European and some Asian and African languages.

YET THERE ARE some American linguists who are beginning to see that adaptations must be made in order to allow for Diffusionist theory, which has long been accepted by many in Europe and elsewhere. While the Genetic line of thought is highly-regarded in most cases, it has been argued that a modification of that evolutionary process is necessary to account for mounting evidence of a world-wide dispersion of culture (and hence of language) which

stretches much further back into time than had been previously proposed.

Perhaps the best example of this is in the case of American Indian languages. While it was previously thought that only with Columbus did European influence begin in America, new evidence is constantly being gathered that leads very strongly to the conclusion that America had been visited in "prehistoric" times not only by the Vikings, about 1000 years ago, but indeed also by pre-Columbian Japanese and Chinese as well as by Phoenicians, Carthaginians, Romans and Jews, among a fairly long list of others [1].

ASIDE FROM the archaeological finds, which indicate that there were indeed many visitors to America in pre-Columbian times, there is also considerable linguistic evidence that must be taken into account. Some of the evidence consists of words that seem to be borrowed from foreign cultures. Other evidence is found in the wide-spread occurrence of symbols which are similar to both American and trans-Atlantic as well as trans-Pacific cultures. When it was thought that no cultural contact was possible before Columbus, the similarities were explained as a result of polygenesis, i.e. parallel but independent development that stems from basic inherent similarities in all human symbolic thought. Now that there is a growing body of evidence that supports the theory of very early cultural diffusion around the globe, the similarity of symbols here and abroad must be viewed in a new light.

In reaching back into time to work out the relationships, some latitude must be given to include the existence of symbol families and word families which can be linked both by metaphoric and linguistic similarity. An analysis of sound and meaning, using an expanded version of the original Grimm reconstructions for linguistic transformation, can lead to a clearer understanding of the development of language. The basics of genetic development must be coupled with an

understanding of the equivalent of the "Comet from Space" theory. A fusing of the gradual development of culture with the notion of catastrophic changes due to invasion, massive movement of peoples, either peaceful or hostile, is necessary to see the picture as a whole. The Diffusionist theory of cultural change must be used to clear up the traditional line of development and incorporate new evidence.

THIS IS PARALLEL to the changes in archaeology and biology which once posited only a steady-state field and which now are examined in the light of recent discoveries in geology. Darwin saw evolutionary development as gradual and rational and discounted any role mutation might have played in the process. But modern scientists now see mutation as the only likely explanation for much of the evolutionary process. The change is characterized by the recent theory of a "Dinosaur Catastrophe", but its origins reach back at least to the Age of Goethe in the argument between adherents of Vulcanism and those of Neptunism, 18th-century attempts to explain geologic change. Vulcanism emphasized catastrophic change and the fact that many rocks were obviously formed by fire, whereas Neptunism concluded a law of gradual change from the fact of sedimentary rock formation. In the following centuries, science has drifted away from Vulcanism and towards Neptunism. Only in recent decades has the emphasis shifted back again and the re-interpretation of geological history can be seen to parallel the re-interpretation of cultural history, in which the role played by Vulcanism can be adopted as a theoretical basis for the emerging picture of diffusion as the major element of change. So too can language now be seen not only as a steady-state development (Genetics), but also as the result of numerous leaps and bounds (Diffusion).

NOSTRATICS

The question of a genetic relationship

between languages is one that has occupied the thoughts of philosophers and scientists seemingly from time immemorial. Leaving aside earlier assumptions such as that of the Medieval philosophers that all languages were derived from Hebrew, and of the early Renaissance notion that "modern" languages were corrupted forms of an earlier "pure" language (no doubt founded on the awareness that Spanish, French and Italian are all derived from "Vulgar" Latin), the present body of knowledge began to evolve at the dawn of the Era of Discovery.

Even before the notion of a common tongue as the basis of most of the European languages came into being at the close of the eighteenth century, some earlier intuitive leaps were made in that direction (e.g. the awareness that Sanskrit had notable similarities to Italian). Once the basic principle of a genetic relationship among languages in the same "family" was accepted in principle with regard to the Indo-European languages, the merits of the comparative method became obvious, accepted by most linguists, and applied to other areas of interest. Within the past couple of decades, one of these has gained special prominence: the Nostratic Hypothesis.

THE TERM "Nostratic" was originally used a century ago by Holger Pedersen [2] in a context that incorporated Indo-European, Semitic-Egyptian, Hamitic, Uralic, Altaic, Yukagir, Basque, Eskimo and Caucasian. Later, it was adopted by Illych-Svitych and Dolgopolsky [3] to include similar language groups, and was dated at roughly 12,000 B.C. There are now more than 1600 roots for Nostratic, including words for plants, but none for cultivated varieties or for the technologies of cultivation. The "Nostratic Community" was probably more a broad range of activity than a "community" stretching across Asia, from Afro-Asiatic peoples in the West to Eskimo-Aleuts in the East. This concept of a "super-phylum" or extra-large language family undoubtedly

encompassed major sub-groupings, as did for instance Indo-European (e.g. the Kentum-Satem division: the two words being respectively Western and Eastern words for "100").

OVER A LONG period of time, words that had similar meaning and structure evolved into quite separate linguistic entities. Through transformations that I have defined elsewhere at length [4], even the puzzling equation that the Sumerian logogram SA-GAZ is to be pronounced hab/piru [Hebrew] can be explained scientifically. Briefly: the equation $S=H$ reflects the Kentum-Satem split; $G=B/P$ is parallel to the Celtic Q/P dichotomy also seen in the equivalence of Latin "quinque" and Greek "pente"; $Z=R$ is seen in the phenomenon known as "rhotacism", which explains the change from English "was" in the singular to "were" in the plural. Some of the theoretical underpinnings of this new study go beyond Grimm's and Verner's Laws to include the Wellentheorie (Wave-Model of language change, i.e. Diffusion), the Stammbaumtheorie (Tree-Model, i.e. Genetics), the Lautvorratstheorie (Sound-Supply in a given language, which explains how French Montpellier is reproduced in German as Mumpelgard (cf. Grimmelshausen), and Grimm's Kreislauftheorie (regular and consistent alternation in Indo-European between voiceless [t], aspirated [th] and voiced [d] consonants).

The reconstruction of a Nostratic Grammar has so far taken second place to the somewhat simpler reconstruction of basic vocabulary.. Here the camp is divided into at least two main schools of thought: those advocating a strict and conservative approach and those who are rather more loose in the reconstruction, often leaving themselves open to charges of carelessness (cf. Greenberg below). A monumental work of the more conservative type is Allan R. Bomhard's Nostratic Dictionary". This work, containing 477 etymologies, appeared as a supplement

to Mother Tongue [Nov/Dec 89], which is the primary outlet for an organization known as ASLIP (Association for the Study of Language in Prehistory). Professor Joseph Greenberg is one who has gone further afield and attempted so-called "Global Etymologies". Along with his colleague Merritt Ruhlen [5] he has attempted to reach far enough back in time to achieve a Basic Vocabulary, consisting of thirty-one roots such as *tik for "one", and *pal for "two". Ruhlen lays down the "pal-tik challenge": if indeed, as critics charge, his etymologies for "one" and "two" have been superimposed on an essentially random array of words, then those critics should be able to produce an equally plausible argument that *tik meant "two", not "one".

LANGUAGE CHRONOLOGY

THE CHRONOLOGY of Nostratic has been theorized into the "Borean" model, which posits "Proto-Sapiens" at 130,000 BC, Eurasian at 92,000-40,000 BC, ProtoNostratic at 40,000-12,000 BC, with Indo-European developing further after "Caucasoid", which also includes Afro-Asiatic, Kartvelian and Dravidian [6]. The entire topic of Indo-European and Nostratic origins is immensely dependent upon the time frame that is adhered to. Modern research has cast some serious doubts on traditional chronologies. The model most generally accepted in America is one that posits a steady state of decline or language change, which can even be expressed as a binomial expansion. Yet this seems intuitively wrong in that it fails to deal with cultural diffusion, which can occur sporadically.

Two decades ago, Immanuel Velikovsky presented a theoretical basis for reworking the traditional dating method relative to Egyptian and Hebrew history [7]. In any theoretical dispute, the best theory is that which best answers more questions than any and leaves less loose ends. It is important to

remember that "history" has only recently been dealt with in what we now consider to be a scientific manner. Earlier histories were more in the form of legends and myths from particular ethnic groups. Of all the earlier histories, perhaps none is so exhaustively treated or internally consistent as is that of the Jewish people found in Holy Scripture. Even though regard for the historical accuracy of the Bible, especially of the time since Abraham (c. 2000 BC), is constantly increasing, there remains a curious and unexplained lack of correspondence between the chronologies of the people of Israel and of Egypt.

Velikovsky explains the lack and clarifies its origins. He shows that a cultural bias from the time of the Egyptian historian Manetho (ca. 400 BC)(who devised the system of dynasties still accepted by the traditionalists) crept into the work of Greek and Roman historians who persistently identified the barbaric Hyksos invaders with the Jewish people. This misconception (Velikovsky shows that the Hyksos were the Amalekites of Biblical history) was unwittingly compounded by Flavius Josephus (ca. 100 AD), a Jewish historian who acceded to this calumny only in his efforts to establish the antiquity of the Jewish people. Subsequent historians have mainly accepted these faulty notions, albeit with occasional hesitancy and the time of the Hyksos Invasion is thus generally placed by traditionalists ca. 1800 BC.

THE ESSENTIALS of Velikovsky's re-ordering of several Egyptian dynasties yield the following results: 1) The Hittites are finally placed in a time frame which does not fly in the face of what is generally understood of language change; 2) There is an almost constant succession of contacts with the Egyptians which is completely in accord with the Biblical account. Without the explanation he provides, there is almost no contact between Egypt and Palestine that can be verified by both sides; with his

theories, we have almost 1000 years of sustained contact with cross-references (which is a much more likely scenario, given the relative importance of the cultures); 3) The linguistic relationship between Egyptian and Hebrew makes more sense than under the traditionalist chronology. Once again I must emphasize that the best test of this theory is against the anvil of scientific study. Linguists are no longer forced to deal with such self-contradictory material as previously. One concrete example of the implications of this re-ordering of history is that Hammurabi (who had supposedly written material which was adopted by Moses several centuries later) is now seen as a contemporary of Moses. Velikovsky analyzes the Sumerian King-Lists and finds many inner contradictions. Such confusion as he cites can be seen in a better-known example: An historian who failed to recognize that Octavius was the same person elsewhere known as Octavian and also as Augustus, the first Caesar, would end up with a very confusing picture indeed.

ANOTHER THEORY of chronology that rivals the traditional one has emerged recently, led by Prof. Heinsohn of Bremen [8], whose basic thesis is that the "Sumerians" are mistakenly construed as a culture from several millennia ago, whereas in reality the chronology from that early time has been so subject to misinterpretation that several cultures have been misnamed or two different names and time-frames have been given to what was actually only one (later) culture. Dr. Heribert Illig has followed up with a New Chronology [9] and has cast serious doubt upon traditional chronology for the early period (before 500 BC). In a major work [10] he lists a number of enigmas which can best be explained by an altered chronology, e.g.: Extremely hard stones have been cut and worked, for the pyramids of the Old Kingdom of Egypt, 2,000 years prior to the possibility of smelting sufficient quantities of iron. His major thesis is that the Megalithic Age begins only with the first

millennium BC. He cites in support of his thesis the work of Benny Peiser [11], again adducing several examples of "stylistic" or "aesthetic" proofs [12].

AS EARTHSHAKING and even implausible as some of these assertions seem to be, the serious student must come to terms with them in order to gain a full understanding of the problems involved in linguistic reconstruction. It would be nice if everything fit into neat little packages, e.g. if such frail vehicles as human beings were not the source of our knowledge about languages. Yet in the past few decades we have seen cause for a complete re-vamping of our understanding of the physical universe, its origins and components; the static picture of the geological record and the disappearance of species such as the dinosaurs has been turned topsy-turvy. Once again, the test to use is: which theory accounts for the most known facts and leaves the fewest anomalies. A truly inquiring mind will not dismiss strange notions out of hand just because they require some revision of our prejudices. Otherwise, we run the risk of eventually becoming an object of ridicule such as those mossbacks of archaeology whom D.H. Kelley (see below) has so wittily chided. As great a thinker as Thomas Jefferson lived in a time when meteors and comets landing on earth was dismissed as laughable. Upon hearing that a Harvard professor proposed a theory of "meteorites" Jefferson is said to have remarked that he could more easily imagine a Yankee professor telling an untruth (a situation he considered extremely unlikely) than accept the notion of stones falling from the sky. How wrong he was.

DIFFUSION

Perhaps the foremost name among the "Diffusionists" is that of the late Prof. Barry Fell. Starting back in 1982 he began, with "America BC" to make a very strong case that numerous peoples had arrived in America from Europe, Africa and Asia as far

back as 1000 BC. American archaeologists and historians have been at great pains to disprove Fell's theory, often resorting to "ad hominem" attacks which to my mind are usually the result of someone NOT knowing what he's talking about. Of course it had been long known that Maritime Archaic Indian cultures existed several thousand years ago that were precise parallels of what is known as the Erteboelle Culture in Scandinavia and that Phoenicians had sailed all the way to England in search of tin during pre-Christian time. But these were regarded as "anomalies" that did not imply anything of greater significance than mere isolated events. However, as time has passed, increasing evidence does indeed tend to legitimize the importance of cultural diffusion in shaping both North and South America in pre-Columbian times.

AN INCREASING number of American scholars are now bolstering the Diffusionist side. Chief among them is perhaps D.H. Kelley, the famous linguist who succeeded in deciphering the Maya script. Fell went a long way into developing the importance of Proto-Ogham and Proto-Tifinagh. The first is an ancient writing system of the Celts which has a much longer history than had earlier been imagined, and considerable amounts of such writing has been found in America. The second is a system of which examples have been found, and partially deciphered, as far afield as Scandinavia, the Eastern Mediterranean, South Africa and North America. D.H. Kelley has reviewed Fell's findings in "Proto-Tifinagh and Proto-Ogham in the Americas"[13]. Calling the tifinagh character of the Bronze Age petroglyphs in Ontario "certain", Kelley concludes: "The existence of such a script was not recognized prior to Fell's work and is of considerable importance to our understanding of Scandinavian/Germanic history." His outspoken advocacy of Fell has served to make the traditionalists more than a bit uneasy.

Several European authors have produced intriguing work that also supports the Diffusionists. Juergen Spanuth emphasized the importance of Scandinavia in the development of European culture [14]. Spanuth's work is very scholarly and convincing; his summary of numerous academic arguments about Indo-Europeans is worthwhile. More recent scholarship tends to support Spanuth's stress on the importance of the North. Nancy Sandar's excellent work [15] emphasizes the bronze workshops of Transylvania and Hungary as the source of certain weapons in the Mediterranean. Earlier histories supposed that these flange-hilted swords worked their way into Europe from the South, but Spanuth has shown their origin to be in the North. And as we now know this much more vigorous Northern culture was also in contact with North America. Findings of similar scripts in Bohuslaen in Sweden and in Ontario are irrefutable evidence of the widespread occurrence of trans-Atlantic cultural exchange.

FOR TWO DECADES, Dr. Horst Friedrich has written with great insight on the topic of cultural diffusion [16]. In "A Diffusionist View on the Genesis of Civilizations" in the same journal he has presented an excellent rationale to show that the traditional concept of "isolationism", i.e. multiple, independent origins of numerous cultures, must now be put aside in view of recent studies [17]. As he states, "Looking at any advanced civilization from a diffusionist angle, it becomes natural to suspect – until proof of the contrary – that its genesis has been due to an amalgamation of an, in the majority of cases simpler, indigenous culture, and one or more, much more sophisticated superstratum, or superstrata." Many great civilizations have already been seen to have multiple origins (he cites the Phoenician-Carthaginian colonization of the Iberian Peninsula as an example). In the case of many such advanced civilizations, the principle means of cultural transfer is best understood in the

context of world-wide trading routes dating back thousands of years ago.

DR. FRIEDRICH has elsewhere [18] given a lengthy treatment of such trans-oceanic cultures. Citing the works of Velikovsky and Spanuth, he emphasizes that Pastor Spanuth "produces very strong evidence for his scenario, according to which the Sea Peoples originate from the Atlantic Northwest of Europe". As I mentioned earlier, Velikovsky has shown that much of the problem with Egyptian-Hebrew chronology resulted from mistaken notions of exactly who or which culture is being referred to. He cites a more recent example of such possible confusion and states: "We need only imagine the confusion which would result if we should confound the Angles participating in the Anglo-Saxon invasion of England (which was named after them), with the English who, more than 1000 years later, built the British Empire and fought against the Mahdi" [i.e. with "Chinese" Gordon at Khartoum]. Thus the "Atlanto-Semites", as he calls them, were the vehicle through which much cultural diffusion was attained. They would have formed a part of the links I have outlined above which have contributed over millennia to Trans-Atlantic contact between the Old World and the New. Friedrich's work is quite specific on numerous topics related to those outlined here and is an excellent source for further research.

Dr. Friedrich notes in that longer work (p. 25) that Spanuth drew upon previous work by Dr. Otto Zeller in formulating his ideas. Zeller gives us insight into the question of who the "Sa-Gaz" (mentioned above) actually were. Procopius (VIII,5) when describing the "Gotenkriege" says the Goths, Visigoths and Vandals were all called Scythians [19] because they inhabited the region known as Scythia which extended as far as the "Sauromaten" and "Melanchlainen". Zeller interprets this to mean that if any tribe in Southern Russia was called Scythian merely because of its

location, then the "Sarmatians" and others should also be so designated; but they are not. The inescapable conclusion is that the Goths and Vandals belonged to a larger group known as "Scyths". This is only a problem if the Scythians were from the interior of Asia; otherwise they obviously lent their tribal name to their territory. Jordanes (an early Byzantine writer, as was Procopius) in his "Getica IV" calls the homeland of the Goths in the Baltic "Scandza". Pliny calls the same island "Scatia" and both are identical with Scandinavia (actually a peninsula, but seeming to be an island from the "Baltic" point of view). Only later did these people, known as Goths, migrate to the Black Sea area where they became known to Herodotus (IV,13). The contention thus is that the "Scythians", as they came into the historical picture in the Near East, actually originated in Scandinavia. Note that "Scatia" is not very different than "Scotia", which was an early name for Ireland (only later did these Scotii migrate into what is now known as "Scotland", leaving their name behind). Of course Ireland would have been a part of that Northwest-European cultural center. It seems to me that what I call the "Scytho-Semites" would have been the land-based parallel to the sea-faring "Atlanto-Semites".

A SIMILAR LINE of reasoning is followed by Prof. Heinsohn [20]. He shows art work of the Scythians at Beth Shean which helps him equate them with the Guti (note the similarity to "Goth") and Luristan. Their art work looks remarkably like that of the Picts, one of the prehistoric tribes inhabiting what would later be known as "Scotland". Others have found the designation "Scythian" to be a handy one, similar to "Barbarian", as a very general term almost equivalent to "foreign", a usage somewhat supported by the diversity of opinion described here so far. Dr. Albrecht Wirth [21] groups proto-Armenians, Anatolians, and other "CauCASians" all under the name of KAS. "The dutch scholar, Marcus Boxhorn grouped Greek, Latin,

German and Persian under the name of "Scythian", a theory defended by no less a scholar than Leibnitz.

THUS IT becomes apparent that the term "Scythian" has been applied over the centuries to tribes of different ethnic composition; living in areas widely separated from each other (from Scandinavia to the Steppes, through Asia Minor and into the Near East); speaking a language only loosely associated with Indo-European and often showing a parallel development to Semitic linguistic groups; whose culture has sometimes been regarded as that of a tent-dwelling primitive and at others (e.g. artistically [22]) been seen as highly sophisticated, especially in comparison to that of its neighbors. We should not be dismayed at the variations, but take them into account as a natural result of different evaluators at different time periods (cf. the wide variety of modern responses to the "prehistoric" cultures of an area as "small" as Central America) and look for those characteristics that seem most constant. They were definitely associated with the domesticated horse, were usually viewed as a hostile military threat by the more settled peoples with whom they interacted, possessed a significant artistic capacity that can be identified and evaluated with some degree of certainty and spoke a language which might well have been a transitional one at the crossroads between "East" and "West."

IN CONCLUSION, we seem to have found an excellent candidate for the role of Scytho-Semite. This candidate, although exhibiting some cultural uniformity over the centuries, has been known by various names due to the fact that it has encountered diverse peoples at widely separated moments in history. A key to establishing some consistency over a large extent of time and place is the use of metaphor to discern Word Families and to analyze Tribal Names. The first provides us with a deeper understanding of linguistic

change, enabling the philologist to reach still further back into the past. The second helps us to discover a core morpheme (unit of meaning) that in turn will hint at totemic, tribal and possibly ethnic ties. By using the notion of word families and tribal names, we can perceive a line of cultural development and transmission. If our vision is obscured by the mists of time, we can by diligent research and the application of rigorous scientific principles to intuitive hypotheses, follow it to a clearer picture of human "prehistory". Previously "indecipherable" texts are yielding to a renewed assault. The graphic "language" of symbols is also used to reconstruct our past, so that what has been considered prehistory is induced, however reluctantly, to lift its veil.

ONOMASTICS

THE STUDY of person- and place-names (onomastics) is useful in trying to determine the migration of peoples. A case in point is the name "Dan". Dan was the northernmost of the Hebrew tribes and thus in contact with "barbarians" as well as involved in the overseas trade: "Dan ... in his ships" (Judges 5:17). The tribe of Dan often conquered a city and then renamed it DAN, e.g. the Canaanite city of Laish was renamed Dan after being conquered by that tribe. This practice seems to have led ultimately to the equivalence of Dan = "town". The same morpheme appears in Celtic, e.g. Dunedin = Edinburgh (the latter morpheme "burgh" is the Germanic equivalent of "dun"). Note also the Tuatha de Danaan, an ancient tribe that invaded Ireland roughly 1000 BC, well before the Celts. Italic languages (e.g. "domicile") and other examples lead us to suspect the morpheme is very old and may have originated in the Near East. It might have followed the tribe of Dan on its wanderings along waterways, cf. Danube and Don rivers. The morpheme seems to have undergone the same changes in Semitic (from Tanis to Zoan) as would be appropriate for a Germanic language, i.e. the affrication which

occurred during the High German Sound Shift. The ancient "Sea Peoples" in Egyptian history are known as "Danuta" (c. 1100 BC) and may be the ancestors of the "Danaoi" of early Greek history. Denmark was originally Danmark.

THE SAME morpheme is especially noticeable in America among tribes in the Athabaskan family and occurs variously as: AhTENa, TANish (Arikara), ThlingchaDINNE (Dogrib), KoyukhoTANa, KuTENai, and ManDAN (Siouan), as well as Dine, the name for themselves used by both Apache (Southwest US) and Athabaskan (Northwest Canada) and the base of the language family Nadene. All of these proper names have been translated as variations of the word "people", and thus may be characterized as allomorphs or variations of the morpheme DAN. The "father of the Maori" on New Zealand was called Tane, and their war-god was called the "Great Tu"; both of these names indicate a cultural link with surrounding peoples, cf. "Tanith" of the Carthaginians and the Saxon war-god "Tiw". I have compiled [23] a list of North American Indian tribal names, a surprising number of which actually mean simply "the people". Prof. Cyclone Covey [24] has written a very informative article about the "Ohio Valley Crucible" which includes a lengthy description of the Adena peoples. Prof. Covey has made an excellent case for diffusion of cultural elements from outside the New World into American Indian cultures. It seems to me that my examples here tend to support his views. Not that any of this is truly conclusive in nature, but the more different threads we can weave together to form a new pattern, the more justification can be called to bear in order to emphasize the diffusionist nature of cultural change.

PROF. COVEY also mentions the Yuchi tribe as part of this cultural flow. I believe that tribal name is part of a much larger migratory group that appears on both sides of the Pacific Ocean. Again allowing for

linguistic variation we may trace these people far afield. The Gwich'in tribe of Alaska are members of the Athabaskan language family and seem to be the most northerly remnant of a tribal name which can be found as far south as Mexico (the Quiche Maya) and even Peru (the Inca name for themselves was Quechua). In between these extremes, we hear echoes of the same morphemes in the Quechan (also spelled Kwatcan), a Hokan tribe of the Southwest. An apparent dialect variation within Athabaskan is the Kutchin tribe, itself similar to the Kutenai of the Great Basin, possibly a Penutian language. Two other Penutian tribal names might also be related: Yokuts (note the similarity to Yakutsk in Siberia) and Yuki of California. Yuki is the Wintu (Penutian) name for a California tribe and means "enemy". Yaqui (a Utan language of the Southwest) and Yuchi (a Muskogean tribe whose proper name translates as "from far away") are probably related.

THESE PHONETIC correspondences include most of the major linguistic groups of North America and extend even into Central and South America. This would be remarkable enough by itself, but coupled with the fact that, exceptions noted, all these names are supposed to mean "the people", we are justified in suspecting a very old tribal name. Just where this tribal name came from, or whether it originated in America, must remain a matter of speculation, but before we leave the matter completely, we should remember the Cochin tribe of Southwest India and Cochin China in Vietnam, both of which may be derived from the original tribal name of the Tocharians (an Indo-European people) in Central Asia: Kuchean. We might also include the Chechen tribe in the Caucasus, Checheng in China and Chechon in Korea. The Japanese expression *gwaikoku* means "foreign", while a Pueblo tribe is known as Kawaiku. Surely we are hearing echoes here of the Bronze Age or earlier. Perhaps further studies can establish more family connections among the North American tribes. It seems that

researchers would be well advised to include non-American morphemes in their search.

AN UNDERSTANDING of myth and metaphor aids greatly in this search. I would like to cite two examples of how the meaning of a word is often obscured by time: the principal Aztec deity (sun-god as well as war-god) is Huitzilopochtli, which translates as "Left-handed Hummingbird". I have shown that this is a metaphor or "kenning" that actually means "rattlesnake" (left-handed also means "sinister" in Aztec, and the buzzing of the hummingbird is reminiscent of the snake's rattling warning call). The Mayan god Tohil can be translated as "Obsidian Mirror", as well as "Torch Mirror" and is often depicted as "serpent-footed", thus apparently cognate to the Aztec war-god Tezcatlipoca ("Smoking Mirror") and even to the Gnostic deity Abraxas. This last entity is especially interesting because in Mayan the words "smoking" and "talking" are parallel. Gods and men are often shown with little "speech balloons" coming forth from their mouths (as today in cartoons). These balloons resemble puffs of smoke and represent speech. So "Smoking Mirror" also means "Talking Mirror" and we are reminded, amusingly, of Snow White and "Mirror, mirror on the wall" [25].

In addition to the underlying metaphor, changes in the specific sounds of a given morpheme can be analyzed and reconstructed. Grimm's Law carries us just so far, and I have organized numerous consonant transformations into a system I describe at length in the Section "Beyond Grimm" of my work cited below. Consonants are much more stable than are vowels. A "bon mot" among linguists is "all vowels are accident", wherein "accidence" means grammatical change ("see" changes to "saw" and indicates a tense change in English), and sounds just like "accidents", which in a sense they are. To add to the scientific justification for this system, I used them to construct larger word-families for

Proto-Nostratic and shown them to be valid (in Appendix III through IX, pp. 302-348.) I strongly urge those interested in linguistic reconstruction to consult my findings and see if they can be used to work out some of the thornier problems in sound change. I also invite any questions and comments others might have at my address below.

Correspondence address:

Prof. E. Morgan Kelley, Ph.D.
5216 Hemlock Road
Quinton, VA 23141
USA
Email: emorgankelley@aol.com

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