

WANTED: MORE AND BETTER ARCHAEOLOGISTS

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This article, from the Proceedings of the American Philosophical Society, Vol. 83, and here reprinted under a new title and with a few very minor changes, represents the distillation of long thinking about the history of mankind seen from the perspective of the archaeologist. It is a broader perspective than that of most historians, both in space and time, strongly influenced by the necessity of dealing with the material remains of people long dead before their doings were recorded by the written word. Not all archaeologists, in fact only a very few, ever reach the stage of thoughtful, long viewing that Dr. Kidder's article presents. Archaeology is a study based on innumerable details—millions of bits and scraps of evidence. Most of its professionals never reach beyond the detail, but when they do, as Dr. Kidder has done, it is worth reading and thinking about. We are most grateful to the American Philosophical Society for permission to republish his article.

THE archaeologist is the only grave robber whose activities are contemplated by society without abhorrence, the reason, of course, being that the men and women whose tombs he violates have ceased to be persons and have faded, nameless and unremembered, into the mists of the past.

To this loss of individuality, this merging of the great with the humble, the good with the bad, this universal levelling and averaging, is due the major distinction between the study of archaeology and that of recorded history. Although it has its drawbacks in obscuring the enormous influence that single men of outstanding ability must always have exercised in directing the march of events and in the development of human culture, it permits a breadth of outlook, a smoothing, so to speak, of the curves of history, that should give unique opportunity to perceive the major trends of man's career.

I say "should" advisedly, for just as the historian or the student of art or literature risks over preoccupation with the lives and achievements of persons, so can the archaeologist all too easily immerse himself in the details of his profession: with the puzzles of stratigraphy, the decipherment of glyphs, the fascinating problems encountered in every excavation.

So it is good for an archaeologist to be forced to take stock, to survey his field, to attempt to show what bearing his delvings into the past may have upon our judgment of present day life; and what service, if any, he renders to the community beyond filling the cases of museums and supplying material for the magazine sections of the Sunday papers. And this might seem a particularly difficult task for one who, like myself, is concerned with the prehistory of the American Indians, a vanishing race which played no part in laying the foundations of present-day world culture.

But, as I hope to show, knowledge of the history of these first occupants of the New World can aid in throwing light upon fundamental and vitally important problems.

Perhaps the most striking phenomenon of man's career has been the strange series of ups and downs which have marked his slow climb toward the heights. From the dawn of the Stone Age to the present day, we have been striving for a more comfortable existence, for better relationships with our fellows, and for artistic and spiritual improvement. And progress has been ever upward. But that progress has been the gain of the race as a whole rather than of any single group. For while many peoples have played outstanding roles in the long drama, no one of them has held more than brief pre-eminence. A succession of brilliant nations have contributed their bit to the total, but every one of them has ultimately fallen.

If one plots graphically the course of human development and maps the migration of leadership from one part of the world to another, it is seen that while there has been a comforting general rise in the line of civilization, its mounting course has been interrupted by drops proportionate in violence to the height of each preceding peak; and the map shows that once a people has reached a position at the top of the heap it invariably has fallen, and leadership has been taken over by dwellers in some other land. All of which would seem to mean that our present order is due for a terrific smash and that the next advance will be made by races other than those of Western Europe and the United States.

Of course it is pleasant to feel that there will be another rise and that civilization itself is not necessarily doomed; and perhaps the people who are going to be the next overlords will run the world more intelligently than we do. Nevertheless, it is disquieting to consider even the temporary break-up of our culture or the passing of our race. What can we do about it? How can we smooth the curve, how eliminate the perhaps not inevitable drop, how keep ourselves in the cultural running?

What has happened in the past? It is of course the business of the archaeologists and the historians to find out. But they have not done so. At least not convincingly. And we do not yet know why former civilizations have withered, nor do we know why their seeds, finding lodgement in new racial soil, have almost always produced stronger cultural offspring. A thousand explanations have been offered. The geneticist attributes slumps to bad genes and recoveries to happy combinations of good ones; the nutritionist sees things in terms of vitamins; the medical man in terms of diseases; the sociologist perceives faults or virtues in this or that aspect of social organization. The theologian blames heresies. And if all else fail, we can always appeal to climatic change or economic determinism.

But, as we hope to show, the world's worst troubles have in the past been, are now, and will continue to be, due to a single underlying cause; and that is to man's inability to cope at certain critical periods with the cultural machine he has built. That is the fundamental difficulty, the hidden disease of which depressions, class clashes, wars, are the outward and visible symptoms. To explain:

Few people realize just what has happened to us humans during the million or so years of our career as *Homo sapiens*. Throughout those uncounted millennia we have been surrendering our inherited abilities, one by one, to that something, outside of ourselves, which we call culture, and which, in its more highly developed form, is known as civilization.

Every animal, save only man, comes into the world endowed with all, or very nearly all, the knowledge required to carry on its individual existence. An oriole does not need to be taught to weave its nest; a deer does not learn from its parents how to circle and watch its back-track to see if an enemy is in pursuit. Such knowledges and skills are inherited. We, on the other hand, are born intellectually naked. Nothing is transmitted to us from former generations beyond our physical make-up and a receptive but empty mind. We have become this way by sloughing off, through the ages, one innate attribute after another. Natural hardihood we have exchanged for fire and houses and clothing; brute strength for weapons. We have at last, and this is an appalling thought, even abandoned most of our instincts, save the urge to exercise such purely organic functions as feeding and reproducing ourselves. We have entrusted everything to our culture, a pooled sum of common experience, which is now completely non-biological, outside of ourselves, which is not inherited, and which can only be passed from one individual to another by the teaching-learning process. Everything must be learned. Take away our culture; place, for example, a hundred male and female children, utterly untaught, and reared only just to the point of being able to feed themselves, upon an island well supplied with natural foods. They will probably continue to live. They might, though it is doubtful, bring children into the world and raise them. But they would have no

speech, no knowledge of fire, no conception of the use of any tool. Would their descendants, in the unlikely event of their survival, recreate a culture; and if so, would it take the countless millennia that were required for man to work through the first steps of his ascent from a purely animal life? These questions may seem academic, but they bear on the very fundamentals of man's present nature, and of that civilization to which, as has been said, we have entrusted so much. Civilization, being the creation of exceptional brains, and always being carried forward by a relatively small number of unusual individuals, is never really common human property. And constantly being added to, it tends to outgrow the ability of the average man, or indeed the capacity of any single man, to comprehend in its entirety or to make use of it in the most effective manner. Culture, too, is unrestrained by the slow-working laws of biological evolution. Thus it moves onward at such a rate that the human brain cannot develop fast enough to keep pace with it. Furthermore, and this is the really serious aspect of the matter, it expands unevenly and its material side always tends to outstrip its spiritual and ethical attributes. Hence culture can, and history teaches us that it repeatedly has, become so overwhelmingly complex and so materialistically overweighted as to bring confusion and ruin to those very peoples who have been most active in its creation. So, although our culture, our civilization, is our greatest triumph, it is also our most dangerous possession. Of this truth, it is perhaps unnecessary to state, the most striking example is offered by the perilous stresses now being brought about by recent advances in the physical and biological sciences.

On the physical side, we all know what the development of labor saving machinery has caused in the way of social and economic dislocations. The biological sciences together with biochemistry are permitting medicine vastly to reduce infant mortality and thus allowing to grow to maturity, and to reproduce themselves, countless thousands of weaklings who would not otherwise have survived, to the certain deterioration of the race. Upon what modern science has done for warfare it is, at the present moment, quite unnecessary to enlarge.

I said, a moment ago, that while our civilization is our greatest triumph, it is also our most dangerous possession. It is dangerous, to repeat, because it has always tended to become overweighted, specialized, on the material side. Particularly has this been the case during the past two centuries. And overspecialization inevitably carries the seeds of extinction. Consider the animal kingdom—take, for example, the dinosaurs. They specialized to adapt themselves to certain definite environments—their frames were moulded to perform certain special functions. Each species of dinosaur became so perfectly fitted in size, or proportions, or the shape of its teeth to do one thing and one thing only, that when conditions changed, even very slightly, it was physically unable to meet those changes and passed away.

So it has ever been. That is why the largest and the most strangely shaped beasts, the sabre-toothed tigers and the mastodons, have followed the dinosaurs; why the dodo and the great auk and the buffalo perished; why the giraffe, and other over-sized or over-specialized creatures of today are going. While the little, adaptable animals, the squirrels, foxes, rats and mice can face even the competition of man.

And, with us, any sudden change, any catastrophe, falls heaviest upon those who have committed themselves most thoroughly to particular ways of life. The man who could only shoe horses was without a job on the coming of the motor car. Think what happens at the time of a hurricane to those of us who live in the most specialized of modern houses. The electric current fails and we have no heat, no light, no water, no ice. But the farmer continues happily to sit by his stove, and read by his lamp, and pump from his well. New York, supreme example of urban specialization, could not exist a week without coal and gasoline.

Thus it is, in a larger sense, with the civilization of which we are so proud. It has specialized so strongly on the mechanical side that the monkey wrenches of war, or pestilence, or crop failure can bring its delicate mechanism to crashing ruin.

We cannot hope for success in driving this terrific cultural machine we have built, until we know much more about it. Not only must we know what it is today, but what it has been in the past. What is its history? What is the relationship between man and his culture? Given proper opportunity, will all men take certain cultural steps? Are some races more capable than others of building culture? Are others unable to cope with it? And, most important of all, is culture—which has no physical existence, because it is carried solely in the minds of men—is culture subject to laws of development comparable to those which we know control the material world?

These questions bring us at last back to the American Indians, and to the bearing of their history upon the problems under discussion.

Man first came into the New World many thousand years ago. The earliest Indians, and apparently all other groups which later drifted across from Asia, arrived as nomadic hunters. And as savages, or little better, they spread themselves from the Atlantic to the Pacific, from Alaska to Patagonia. For a very long time no significant progress was made, but eventually there came the discovery of agriculture; and with it increase of population and rapid development of higher culture.

This culture, based on maize, got its start well before the time of Christ, somewhere in Middle America or in Western South America, and from there diffused itself over a large part of the New World. A great outward push apparently took place during the first millennium of our era. And toward or about the year 1,000 there was reached a general peak of achievement and a maximum geographical expansion.

Then came a recession. It was not everywhere equally severe, nor were its manifestations simultaneous. But there can be little doubt of its reality. The cities of the Maya Old Empire were abandoned. The temples and pyramids of Teotihuacan in Central Mexico fell into ruin. Something similar was going on in South America, as is evidenced by the break-up of the great early cultures of Peru and Bolivia. It was a sort of American Middle Ages.

New World progress, however, was not permanently halted. For although some groups had definitely shot their bolt, other people, previously unimportant, came to the fore. In South America the Incas, building on the ruins of older and lesser states, welded a vast and powerful empire. The Aztecs were gradually spreading their rule over Mexico. The new orders

hope for safe issue from the troubles brought upon us by our blind and stupid misuse of our newly acquired, and still growing, command of the material world.

The reason, of course, for our slowness in gaining that knowledge is that man is so complex a creature. Lack of progress in the social sciences is due to their inherent difficulty. A plant is harder to understand than any rock, because to its basic chemical structure are added the mysterious forces of life. Any animal presents more baffling problems than any plant—for to life is added the even more mysterious factor of consciousness. And topping the pyramid comes man—a chemical compound like the rocks and the plants and the animals, but to whose life and to whose consciousness are superadded the hitherto ungoverned but all-controlling powers of culture.

It is small wonder that we have made so little headway toward the understanding of man. But the sooner we realize what we are up against the better off we shall be. Only by facing situations can they effectively be grappled with. And the relation of man to his culture, to which we keep harking back, seems to be the one problem with which we must first come to grips.

The human race has surrendered nearly everything to culture. Culture, not man's brain, has come to carry our accumulated store from generation to generation. Culture has grown, evolved. But what of the human brain? We know that in certain ways it has lost, just as our bodies have lost their primitive strength and hardihood. For at birth our brain holds less than that of any other mammal. Far more, however, than any mammal are we capable of learning and of profiting from individual experience. In that way our brains have evolved, enormously. But, and this it seems is the great but, is that evolution still going on? Are we equipped with better mental tools, are we innately more intelligent than we were one, or five, or fifty thousand years ago? Or have we come to be so thoroughly dependent upon culture that we have left it to do our evolving for us? If so, God help us, for our culture, like Frankenstein's monster, is a soulless thing.

The anthropologist, student of man, perceives trends and tendencies which fill him with alarm. But, on the other hand, only the anthropologist can readily appreciate the extraordinary toughness, and persistence, and resourcefulness of the human race. Most of us take our present state for granted—we do not bother to think how hardly it was won. We seldom realize the overwhelming difficulties man has undergone during his long upward struggle; how our naked arboreal ancestors fought their way through the perils of a savage and hostile world; how they added to their power through development of speech, and by the taming of fire; how they put stone and bone and wood to their service as tools. These things the anthropologist realizes probably more clearly than any one else. He sees the human race triumphing, little by little, in the face of countless defeats, over every obstacle; he knows that after each setback the rise has been a little higher. And seeing all these things so clearly he cannot but feel that our present troubles will also be conquered. But, and of this he is sure, salvation can only be attained through greater knowledge of man, not only modern man, but of man throughout the ages, and in both the Old and the New Worlds. In other words, what we really need is more and better archaeologists.