

## THE OLD WORLD ROOTS: REVIEW AND SPECULATIONS

by

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In 1959 I wrote (Chard, 1959) that it had been the general assumption that all of the oldest New World cultures were direct importations from Asia—more specifically, from Siberia—and that the prototypes for their distinctive features must be sought in this latter area. I think this notion has now been sufficiently dispelled and needs no further comment. I then surveyed prehistoric northeast Asia to see what was available for export on the appropriate time horizons, and offered some conclusions suggested by the evidence at hand as of then. In general, I was led to view early American culture as an independent development from very simple beginnings, and this overall picture I still believe to be essentially correct. More specifically, I pointed out the conspicuous division of northeastern Asia into two major culture areas: the Pacific coastal zone and the interior. Since the earliest American cultures seemed to antedate the oldest interior sites then known, I came to the conclusion that the primary New World roots must lie in the Pacific coastal zone, and postulated a single movement from the Manchuria-Amur region early in Wisconsin (Würm II) times of a people with a simple stone industry in the chopper/chopping-tool tradition as the sole basis for all subsequent New World developments down to about 5000 years ago, when a period of considerable cultural interchange in both directions seems to have begun which might have included some population movements as well. At the time, there seemed no evidence for other migrations since the original settlement. This meant, of course, that the American projectile points were local inventions, and in particular that the distinctive fluted point tradition was a purely indigenous development. The nature of the available migration routes through northeast Asia indicated that such a movement was feasible only during times of lowered sea levels associated with glaciations. None of these routes were blocked during Wisconsin times, and favorable hunting conditions prevailed over much of Alaska, which in many respects should more correctly be viewed as part of Asia at this period. Lastly, it was pointed out that the vast majority of remains left by any early migrants are most likely under water at the present time. (The problems of migration routes were discussed more specifically in Chard, 1958, 1960b.)

In the light of new finds, some aspects of the tentative conclusions sketched above require modification, as was envisaged, and it is the purpose of this paper to briefly review such data and to formulate hypotheses suggested by them. First of all, we may say that there is as yet no essen-

tial change in the picture presented by northeastern Siberia: we still have no early remains from this strategic area. The new evidence comes rather from the Asiatic heartland. In the Altai Mountains, the Ust'-Kanskaia cave site (Rudenko, 1961) clearly antedates the well-known Siberian Palaeolithic sites and contains an industry of general Mousterian type including an unspecialized percussion-flaked bifacial point. From a consideration of all the aspects of this site, I would suggest a date in the second half of the Würm I/II interstadial, roughly 35-30,000 B.C. An apparently comparable early Upper Palaeolithic site characterized by Mousterian technological traditions is represented by the lowest horizon of a Palaeolithic settlement excavated in 1960 by A. P. Okladnikov near the old Mongol capital of Karakorum in Outer Mongolia (Chard, 1962a). The same investigator has also announced the discovery of what he terms a Levallois-Mousterian site at Ottson-Maintl on the Sino-Mongolian frontier—the attribution being evidently on typological grounds, though details are lacking (*idem*). Of considerable interest for our purposes is the shift in Soviet archaeological opinion toward assignment of a greater age (15-20,000 years) to the early stage of the classic Siberian Palaeolithic as exemplified by the famous Mal'ta site. Despite some divergent opinion (see Chard 1962b) this is best viewed as representing a blend of genuine Mousterian traditions with a major East Asian chopper/chopping-tool contribution plus an infusion of Gravettian elements from the Upper Palaeolithic of the West. Just where the amalgamation of these disparate ingredients took place is not certain. A generally similar assemblage occurs at Shuitoungkou in the Ordos region of Northwestern China (Movius, 1955: 280) which on faunal grounds has been compared with Ust'-Kanskaia (e.g. by Okladnikov in Rudenko, 1961) and thus may antedate the Siberian Palaeolithic sites. On the other hand, Ust'-Kanskaia represents a relatively "pure" site of one of the ingredients in Siberia itself on a suitable time level, while an early occupation by chopper/chopping-tool people may be reflected at Malyi Kot in the Angara valley, which still awaits investigation (Chard, 1962b).

Also relevant is our greatly increased knowledge of the Japanese Palaeolithic (Serizawa and Ikawa, 1960; Befu and Chard, 1960, 1961). It has been suggested that industries of general hand-axe type may have been present in Japan by Würm I times, and crude blade industries at a date corresponding to the Würm I/II interstadial.

In North China, the Middle Palaeolithic Fenho complex (Chang, 1960, n.d.), from a series of localities in the Fen River valley of as yet uncertain but possibly 3rd Interglacial age, fills the previous hiatus between *Sinanthropus* and the Upper Pleistocene Ordos and Upper Cave remains. "Basically, the Fenho Complex is in the so-called 'Clactonian' tradition, containing a high percentage of choppers and chopping-tools and bifacially flaked bifaces made on cores as well as flakes" (Chang, 1960: 50).

There is evidence of Levallois technique in the sense of prepared core surfaces and faceted striking platforms; there are also discoidal cores and parallel-sided flakes—embryonic blades (Chang, n.d.). (It should be mentioned that evidence of step flaking has been noted by some observers.) Its special interest lies in the fact that it could provide, at last, a possible source for such putative early New World assemblages as the Manix Lake Lithic Industry of southern California with its hand-axes, choppers and “Clactonian” flakes (Simpson, 1960). It could also represent an east Asian source for the Levallois-Mousterian technique.<sup>1</sup> Of interest also is the discovery of two Upper Pleistocene fossil men of definite Mongoloid type at Tzeyang and Liu-Chiang in China, establishing the presence of the basic New World racial stock in the Far East at an earlier period than had been known previously (Chang, 1960).

There continues to be general agreement that the small tool (“micro-lithic”) industries of Japan and adjacent East Asia are late in time. Although certain morphological similarities can be pointed out with comparable industries of northern North America, direct historical relationships have yet to be demonstrated.

Data on racial history must also be taken into consideration. 1959 field work among the Yukagir confirmed previous opinion that this group is genetically unrelated to the Arctic Mongoloids and belongs rather with the Tungus and other peoples of the Baikal-Lena area. They are widely viewed as descendants of the ancient population of interior northern Asia. The Arctic Mongoloids, comprising the Chukchi, Koryak, Kamchadal and Eskimo, are regarded as one of the major racial groupings of northern Asia. They are clearly set off both from all other Siberians and from American Indians. Soviet scholars believe that this type was originally formed in the general Bering Sea area. In the overall sense it is alien to the New World and evidently a late intrusion there which introduced blood group B for the first time. Some time depth is indicated by crania of Old Bering Sea age from the Uelen cemetery, which are of essentially modern Eskimo physical type.

Finally, we may note the latest views of the distinguished Soviet physical anthropologist G. F. Debets on the peopling of the New World (Chard, 1962b). He believes that this was not a protracted process extending over millennia but was on the contrary simultaneous and brief, taking place most probably 25,000 years ago. All or almost all of the basic New World population, in his opinion, stems from one small ethnic group, and any subsequent infiltrations from Asia did not significantly affect the fundamental situation.

Certain comments on this new material are appropriate. It should be

<sup>1</sup> The Ottson-Maintl site (above) not far to the north in Mongolia shows much in common with the Fenho complex (V. E. Larichev, personal communication).

noted that there is still no trace of pressure-flaking in Asia on any early level, nor any clear ancestors for the distinctive early New World artifact types—particularly fluted points. Crude blades are present in East Asia during the Upper Pleistocene, and there is no necessity for invoking the western Upper Palaeolithic to account for the suggested presence of blade technology in Palaeo-Indian cultures. The early stage of the classic Siberian Palaeolithic contains Gravettian elements that do not occur in the New World. Although recent Alaskan finds of significant antiquity sometimes display scattered similarities to the Siberian materials (Campbell, 1961a; MacNeish, 1959b), there is no overall correspondence; no complex can be paralleled in the Old World. The same applies to the small tool industries, as noted above. Despite the considerably earlier dating now in vogue for the interior Siberian Palaeolithic, and the evidence (or suggestion) of still earlier occupation in certain areas, the fact remains that man has a far longer history in the Far East. It is current dogma that only men with a highly-developed, specialized technology could pass through the Arctic barrier, and that only professional big-game hunters would be inspired to—hence the tendency in many quarters to feel that the classical Upper Palaeolithic hunters of the West must somehow be involved. We were apt to forget that way back in the time of *Sinanthropus* the population of Pacific northeast Asia was able to cope with a quite severe climate and to base their economy on the hunting of large and sometimes dangerous game animals with the aid of the most rudimentary technology imaginable. Moreover, as Haag (1962: 123) has pointed out, the animals that are known to have crossed the Bering land bridge are *not* typically cold climate forms but those that would prefer warmer interglacial times. Geographical factors favor the Far East as the most likely source for New World migrants, and the greater length of time during which men were available for export here, as compared with interior Siberia, would seem to enhance the probability.

The division of northeastern Asia into two cultural spheres—Pacific coastal and interior—is still apparent, with its correlate that any flow of peoples and cultures from either toward the New World would be channeled, respectively, along the Pacific shore or down the Lena and thence east along the Arctic coast. Nothing has affected the previous conclusion that any such movements must have occurred during periods of lowered sea level. With a drop of 300 feet, a level plain up to 1,000 miles wide would have extended north and south from Bering Strait. "Giving full weight to the biological evidence, it seems amply demonstrated that a bridge wider than present-day Alaska joined the Old and New Worlds during a large part of the Pleistocene" (Haag, 1962: 123). When one compares the favorable topography of this vast land mass ("Beringia") with the rugged terrain of the small portion of northeast Siberia still above water, it is only too obvious that the great majority

of Pleistocene human inhabitants of this region would have been concentrated in the area now submerged.

This is the picture as of December 1961 of northeast Asia in pre-ceramic times, viewed from the standpoint of New World origins. What deductions do these data suggest? Firstly, the classical Siberian Palaeolithic, although probably older than suspected, is still not ancestral to any American culture; it follows that any movement to the New World from interior Siberia must have occurred at a time antedating the early (Mal'ta) stage, with its Gravettian elements. Occasional analogies in north-western North American sites must be attributed to diffusion of basic techniques and types, or common participation in the last gasp of a broadly similar technological tradition. Byers (1959: 235) postulates a New World cultural base whose bearers "possessed skills in flint working of a general late Levallois-Mousterian order—an industry on the verge of blade making but not yet capable of the fine work of the Solutrean craftsmen". Industries of this type would seem to be represented in the Altai region (Ust'-Kanskaia) in Okladnikov's new Mongolian sites and apparently in the Fenho complex of North China, and offer a possible source for this technological tradition, including bifacial flaking and the subsequent development of points, which in Europe arose in a similar milieu. Certainly one of the major problems we face is the possible relationship between bifacial flaking in the Old and New Worlds. Although it may be feasible to derive our bifacial flaking from Siberia in the light of the Ust'-Kanskaia find, still this raises many questions. Even if bifacial points do occur there at sufficiently early time levels, they are still the exception in lithic assemblages, whereas everywhere in the New World they are the dominant feature. Nor do any real prototypes for our distinctive forms occur. This makes it seem likely that at the most what could have diffused would have been the basis for this technique—the technological trends, not the points themselves; the latter are a New World development. The absence of this tradition on the Pacific coast would necessitate envisaging a spread direct from interior Siberia at the requisite time level, via the Lena and Arctic shore. It would seem hard to believe that such a minor element in the Siberian assemblages could so strongly influence distant America and yet make such a very slight impression in its own homeland—where it continues to be the exception until Neolithic times. Strange, too, that its influence was not felt first on the Pacific coast of Siberia, right next door, before it crops up on the other side of the world. Finally, we are faced with a significant problem in cultural dynamics that demands attention: namely, what condition here in the New World led to this efflorescence of points that never occurred in the Old?

But even if some elements of early New World culture did originate

in interior Siberia, this does not necessarily represent the initial settlement.

We think too much in terms of Siberia, which was not the only possible source, or even for long periods a possible source at all; we need to devote equal attention to the Far East, a much older hearth of human culture. The evidence of Pleistocene geography grants higher probability to the Pacific coastal route to America—one which was always open. I still believe that it is here that we must look for the roots of the earliest New World cultures; what went into their formation will be determined by what was available for export in this part of Asia, and hints of this are provided by the Fenho Complex and the early finds in Japan. It could have included the beginnings of a blade industry. Whatever factors impelled these heirs of the chopper/chopping-tool tradition to move north-westward in late glacial times and contribute so heavily to the formation of Palaeolithic culture in Siberia might equally have impelled them to move northeastward up the Pacific coast toward Beringia.

The racial picture suggests that Pacific northeast Siberia and coastal Alaska formed a single circum-Beringian ethnic area, with the ancestral Eskimo as simply the eastern half of this genetic bloc. Linguistic data also hint at such a unity, as Shimkin has suggested (Shimkin, 1960). It is tempting to correlate the bearers of the "microlithic" industries with the original appearance of this group. In the light of this situation, the numerous and often striking cultural parallels between Alaska and north-eastern Siberia on later time levels would seem to represent diffusion back and forth along the Arctic shore between the Lena and the Mackenzie, but with no concomitant population movements of any significance. Those who postulate a late migration from Asia of the Athabascans or any other non-Eskimo New World group will find no support in the Siberian data.

In conclusion, I would offer the following hypotheses on New World origins which seem suggested by the foregoing discussion. I think we may discern perhaps two basic early movements from two different Old World reservoirs. The initial movement was from the Far East, along the Pacific shore, bringing an industrial tradition of choppers, bifaces, amorphous flakes and probably the Levalloiso-Mousterian technique—perhaps in Würm I times, say 40,000 years ago. Men of Mongoloid stock may have been available this early or soon thereafter. It is conceivable that a secondary movement from interior Siberia brought a further increment of the Levalloiso-Mousterian tradition of flint working, a crude blade technique and possibly the germ of bifacial flaking, traveling via the Lena-Arctic coastal route most likely in Würm II (classic Wisconsin) times, when the route would have been more feasible, say about 25,000 years ago. I think it more likely, however, that any such secondary



movement at this time came again from the Far East along the Pacific coast, bringing an embryonic blade technique well established by then in East Asia. I do not think there is any basis for postulating subsequent population movements until the appearance of the Arctic Mongoloids, perhaps 5000 years ago, who may or may not have had some connection with the small tool traditions. Considerable recent cultural diffusion both ways has taken place subsequently through the medium of this circum-Beringian population bloc.

There remains only to comment on the alternative hypotheses offered by Bushnell and McBurney (1959). "In seeking the ultimate origins of the Palaeo-Indian hunting cultures," they write, "we are still inclined to attribute a dominant role to the great events of Upper Palaeolithic spread between the 25th and 20th millennia B. C. rather than to possible survival of primitive indigenous traditions of the Far East." In view of the presence of crude blade industries at an earlier time in the Far East and in the Altai, as well as the absence of Upper Palaeolithic analogies in the New World, I find no justification for this attitude. These authors further state that in central and eastern Europe, pressure flaking is a product of the cultural fusion of East Mousterian and early Upper Palaeolithic, and go on to postulate that these same elements gave rise to the technique in Central Siberia, whence it was exported to the New World. There is no basis for such a view, since there is no trace of this technique in Siberia until very late times. Furthermore, recent expert opinion holds that the early New World points are not pressure flaked at all, and that the technique did not achieve prominence here until tens of thousands of years after its European beginnings. Finally, Bushnell and McBurney allege that the chopper/chopping-tool tradition was confined to Lower Palaeolithic times and subsequently gave way in the Far East to industries of more western types; hence it is unlikely to have exerted any influence on the New World. This is erroneous. It played a major role in the late Palaeolithic cultures of Siberia and Mongolia and persisted into postglacial times in the Vladivostok area. There is clear evidence of its survival in nearly all the Pleistocene assemblages turned up in China itself. No cultural transmission from East Asia to America at any time level could have escaped its influence.

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