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The Kwakiutl Indians: "Amiable" and "Atrocious"

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RÉSUMÉ

Cet article tente de reconcilier le type de personnalité des indiens Kwakiutl tel que vu par Ruth Benedict d'une part, et Helen Codere d'autre part. Benedict affirme que les Kwakiutl sont, entre autres: individualistes, barbares et "paranoïdes", tandis que Codere les décrit comme des gens aimables et sociables.

L'auteur de l'article se base sur la théorie de la culture et de la personnalité pour rapprocher les deux points de vue et montrer que les types de personnalité décrits par Benedict et Codere satisfont, de façon importante, des besoins sociaux et individuels.

The rather enigmatic title of this paper reflects two opposite characterizations in the abundant ethnographic data on the Kwakiutl Indians. There has been relatively little attempt to bring together under one conceptual umbrella these sharply contrasting, and seemingly contradictory, aspects of Kwakiutl culture and personality. Discussions in the literature have frequently emphasized the violent and bizarre features, to the exclusion of the co-operative and communal character of Kwakiutl life. Some of the more recent interpretations have documented the simultaneous existence of these different aspects without a concomitant attempt to understand how they are dynamically related to each other and to the wider context of Kwakiutl life. The range of differences in interpretation in the literature results from the particular theoretical purposes of the authors, and also from an unclear delineation of the concepts of personality and culture.

The purpose of this paper is to evaluate some of the interpretive statements of Kwakiutl culture and personality in the

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light of ethnographic descriptions of the society. On the basis of this examination of the ethnographic data, an attempt will be made to derive formulations of Kwakiutl personality and culture; to relate these conceptual levels of analysis to each other; and to indicate how the "amiable" and the "atrocious" aspects of these people are dynamic outgrowths of this relationship, rather than independent and contradictory entities. Finally, this study may suggest the value, for anthropologists, of re-examining their rich ethnographic heritage in the light of new insights in the social sciences and psychology.

In her description of the Kwakiutl, Benedict (1946:175,177) regarded self-glorification, intense will to superiority, violence, and unbridled individualistic rivalry as "the mainspring of their culture," and as a focus for the motivation underlying their economic institutions, religion, and social organization. This extreme position depends on evidence taken mainly from Kwakiutl ritual and ceremonial practices, and minimizes conflicting data about the more pervasive, everyday aspects of their social life. Despite common ownership of essential economic resources by the lineage group (i.e. numaym) she observed that the individually-held ceremonial prerogatives of rank are valued "over and above material well-being" (Benedict 1946:169). Such an attitude would seem to constitute a serious negative survival factor for this, or any, society. In her desire to present the "world-outlook" of the Kwakiutl in bold relief Benedict treated existing ethnographic evidence in a markedly selective fashion. She may have been encouraged in this inclination by Boas' voluminous and detailed writings on Kwakiutl ceremonial life, which failed to discuss the functional integration of these ceremonials with the more secular aspects of the society and culture. Like Benedict, Goldman (1961), emphasized the Kwakiutl characteristics of intense rivalry for status, and paranoid and megalomanic personality. The co-operative and communalistic aspects of Kwakiutl life in his ethnographic data were largely ignored in his interpretive statements. For example, he noted the existence of collective ownership of land and fishing territories (by the numaym), communal sharing of food, and co-operative labor enterprises, but despite such evidence, he concluded that all Kwakiutl social relations were motivated by an "obsessive" drive

for individual prestige, and that intense rivalry "is at the heart" of such relations. He maintained that material property was valued *only to the degree* that it could procure or validate prerogatives of status. He divorced economic and technological pursuits from ritual and ideology and relegated them to positions of minor importance. Goldman's (1961:533-534) recent recognition that Kwakiutl secular life is more co-operative and "amiable" than their underlying personality motivations and religious ideology in no way impelled him to re-evaluate his earlier position. Although Mead (1961) concurred with Goldman's interpretation, she recognized that no society is either exclusively competitive or exclusively co-operative; while there was "furious competition among the Kwakiutl at one stratum of the society... [i.e.] among the ranking chiefs..., within the household of each chief co-operation is mandatory..."[1] In relating this observation to her opinion that the Kwakiutl as a people were intensely competitive, she speculated that the ordinary Kwakiutl individual satisfied his needs for rivalry not by "competition per se" for power over others, but by vicarious sharing in the competitive victories of ranking lineage members.

Most of the characterizations of the "atrocious" Kwakiutl in the literature rest heavily on potlatch behavior. This tendency led Barnett (1938) to remark that existing (erroneous) interpretations of the potlatch often make it appear to be a cultural "excrescence." Further, although this institution was concerned with Status ranking and was frequently a vehicle for rivalry and aggression, it also had co-operative and socially cohesive functions.

While Codere (1950:8;1956) accepted, with Benedict and others, the Kwakiutl as "atrocious," she, like Boas (1936:267; 1938), also documented a more amiable, co-operative, and even humorous side of Kwakiutl life. Not only did Codere feel that their family life and economic arrangements were co-operatively oriented, but she denied the unqualified "cut-throat" view of the

[1] For reasons that will be presented later, even the statement of an ongoing extreme competitive situation among the chiefs is open to considerable doubt. However, given this situation, it would still encompass only a very small sector of the society and would be confined to a relatively small segment of social behavior.

potlatch and winter ceremonials. She wrote (1956:349) of Benedict's attempt to present a unified picture of this complex society:

> Rather than confuse reality with ideals and hopes about whole personalities and whole cultures, it might be far more fruitful to concede that true integration of either a functional or configurational sort is utopian and ideal... all cultures contain genuine contradictions. It is necessary to concede, at least, that the Kwakiutl and their culture possess positive and amiable characteristics as well as negative ones...

Although there is validity in Codere's admonition about forcing Kwakiutl culture into a too-simple configurational mold, she seems to have misunderstood the nature of a functional analysis. A functionalist approach does not deny that cultures (or personalities) often contain opposite traits; it attempts to show how these are related to each other and how they are integrated in the complex whole. That there are apparently contradictory behavior patterns in different situations does not imply that they are not functionally related. For example, in analyzing aspects of levity in the potlatch and winter ceremonials, Codere (1956) documented two situations that the Kwakiutl find extremely comical: one where the potlatch host is identified with a rich white man or a policeman, and another where supernatural power is caught and thrown to people, whom it then enters. These, she observed, demonstrated a humorous and lighter side of Kwakiutl life. While this may be true, she did not consider whether, and how, laughing at the rich white man or policeman might relate to vicarious expressions of hostility toward powerful authority figures (as in the comedies of Charlie Chaplin), or whether playfully tossing supernatural power about, might not represent a desire for mastery in a potentially anxiety-provoking situation. Supernatural power, usually regarded with considerable awe and fear during the winter ceremonials, was treated with surprising levity in this instance. Observations of children's play, and institutionalized rituals in different societies have shown that manipulating feared objects or situations in a "safe" context helps to alleviate and master the anxiety they provoke.

Both Kardiner and Ford have speculated on the psychodynamics underlying the contrasting aspects of Kwakiutl society. Kardiner (1939:116-121) maintained that the basic economic

organization of these people was co-operative, but that the competitive system and the desire to excel, operative mainly during ceremonial life, were largely responsible for tensions and anxieties which engendered such ("atrocious") characteristics as hostility, extreme suspicion, and rivalry. In accounting for the bizarre aspects of Kwakiutl ceremonialism (e.g., the biting of human flesh, ritual starvation, and various masochistic manifestations), he explained that "the novitiate is obviously tortured for hostile wishes toward rivals, and must suffer many privations for it". He believed (Kardiner 1939:118) that Kwakiutl ritual and myths "represent avenues of drainage for repressed affects." Although Kardiner did not develop this point, he suggested (1939:120) that "frustration in Kwakiutl culture involves craving for dependency."

In his analysis of the life history of a Kwakiutl chief, Ford (1941:26) concluded that a significant feature of Kwakiutl society was that "physical strife of any kind was strictly discouraged and heavily punished." He characterized the Kwakiutl as "peaceful" and "never even remotely bloodthirsty in their day-to-day relationships," and suggested that the violent aspects of the ceremonials "pleased the natives just because their daily life demanded such strict control over aggression and violence" (Ford 1941:27). This constant suppression of overt antagonism resulted in intense hostility toward their fellows, "though they dared not openly attack them," and was exemplified by their extensive practice of sorcery and pervasive fear of being bewitched. Unlike many earlier investigators, Ford characterized the Kwakiutl as *essentially co-operative and peaceful.* He viewed their "atrocious" aspects as institutionalized reactions to the restraints imposed by the requirements of a communalistic social structure.

In this discussion Ford seems to have tacitly assumed a fixed (and universal) quantum of aggressive energy that cannot be expressed directly in Kwakiutl society. As a result it "spills over" into oblique channels and ceremonials. Our knowledge of Hopi social and ceremonial life makes this assumption questionable. It is more likely that the dramatic instances of hostile expression among the Kwawiutl, can be explained not only in terms of the degree of restraint usually required, but also in terms of the socialization process that *themselves* generate hostility.

Although Codere (1961) was aware of Ford's interpretations, she regarded the aggressive aspects of Kwakiutl ceremonials as mere "theatrical" substitutions for what was, in the past, (actual) physically violent behavior. However, she herself observed that the Kwakiutl were essentially characterized by "an abhorrence of physical violence" in the pre-1849 period. Her theory seems insufficient to explain why they would find it necessary to incorporate into their subsequent ceremonial life such extremely florid and bizarre "theatrical representations".

Some Aspects of Kwakiutl Society

The Kwakiutl were organized into a number of tribes, further divided into bilateral family lines called numayms. Each of these lineages (there may have been several in any given village) claimed common descent from a mythical ancestor. A household consisted of about four families of the same numaym, usually closely related members of an extended family. Ford (1941:12) described household life as follows:

> Life in the communal dwelling lacked privacy. Quarrels between husband and wife were rarely concealed from the other families. There was a constant inter-communication with other members of the household. Often they would all breakfast together or share their evening meal. In the evening perhaps they would all sit around the central fire and chat, sing, or play games with the children.

This pattern of communal living also pervaded their basic notions of property and economic organization. The numaym was the essential economic unit; its members owned in common, and used co-operatively, hunting, fishing, and berry-picking territory. Each member owned as much of the "common stock" as the chiefs (Swan 1857:166). Houses and canoes were usually built co-operatively by members of one or more lineage groups and paid for out of the numaym's collective resources. Furthermore, Goldman (1961:183) observed, "in every construction requiring the labor of a number of men, the work is collectively organized. To the extent that the workers are all drawn from the same numaym and are working at the command of the chief, the ends are co-operative, too". The numaym was "no more and no less than an extended family (slaves of course excluded)," welded together

by blood ties and common economic resources" (Drucker 1939:58).

The existence of a hierarchy of status positions led both Benedict (1946) and Goldman (1961) to consider intense status rivalry the central principle of Kwakiutl social organization. Drucker (1939:55) though recognizing that status rivalry existed, found "no social classes among the freemen, but rather an unbroken series of graduated status," cemented by bonds of blood kinship. Those of lowest rank engaged less fully than members of highest rank in ostentatious ceremonial activities; this, Drucker felt was the only disparity in their social participation. These conclusions were supported by Boas (1920) and Codere (1957). Kwakiutl methods of distribution guaranteed all members food and housing and precluded invidious distinctions in consumption (Codere 1961). A chief did not own or control the means of production, and, despite his show of aggressiveness in ceremonial life (Franchère 1854:250) "he has no power, military or magical, which would enable him to seize wealth and impose his will". Ford's (1941:12,ff) previously cited description of the intimate and co-operative aspects of Kwakiutl family and social life should also be recalled.

In light of this evidence, it is difficult to accept Benedict's and Goldman's view of a society essentially geared to competitive striving and status rivalry as anything but extreme and overgeneralized. Goldman (1961) stressed the absence of officials, chiefs, and a well-defined system of political authority as evidence of an individualism characteristic of Kwakiutl society. However, his argument underscored a collective rather than an individualistic and hierarchical system of political authority in the vital areas of social and economic life. The numaym, not the individual (political leader), made decisions about building ventures, potlatches, and even marriages. While the extent of status strivings and concern with rank in this society should not be minimized, they did not determine access to essential goods or to political power. This conclusion is supported by evidence that the well-known Kwakiutl system of ranking villages, numayms, and individuals within numayms, was a recent (mid-nineteenth century) acquisition (Boas 1897:333; Codere 1961), and that status

rivalry and competitive behavior, frequently manifested in the potlatch and related activities, were imbedded in a fundamentally co-operative social endeavor.

Benedict (1946:188,194) characterized the Kwakiutl as essentially violent and bloodthirsty; she noted that murder was the most honored way to obtain status prerogatives, and that even the marriage ceremony was an aggressive affair. Although the restriction of such bizarre manifestations to ritual life does not negate their importance for understanding Kwakiutl personality, it does indicate that such behavior was controlled and was expressed only in well-defined, socially sanctioned (and thus psychologically "safe") situations. Much of the "violence" exhibited during war was of a mock nature, and battles often consisted largely of defiance "by menaces, railleries, and sarcasms, like the heroes of Homer and Virgil" (Franchère 1854:252). Warfare in Kwakiutl society was compared to "an orderly and sophisticated potlatch duel" (Ford 1941:27), while ceremonial violence was described as contrived, controlled, and theatrical (Codere 1961). Physical strife of any kind was severely discouraged, and murder exceedingly rare (Ford 1941:26).

Kwakiutl Early Socialization and Personality

An examination of early socialization and ceremonial life is necessary to increase our understanding of Kwakiutl personality dynamics and to probe the dramatic dichotomy between the co-operative "social," and the competitive, violent "ceremonial" Kwakiutl. Soon after birth, the infant was placed in a cradle and tightly swaddled (Boas 1913-1914:664ff), allowing only minimal movement of his arms and legs (Swan 1857:168; Ford 1941:31ff). His head was very tightly bound to flatten the forehead to meet aesthetic standards. He was removed from the cradle to be washed and exercised but remained in his bindings when nursed by his mother or while sleeping next to her. Speculations in the psychiatric literature suggest that such extended and severe restraint may heighten sado-masochistic elements of character, but this relationship has not been clearly established (Dennis 1939; Greenacre 1956). It is interesting that the Kwakiutl justified the restraint of motility to prevent the children from

developing a "wild and roving" disposition (Pettit 1946:12). Thus, even in early socialization, a value was placed on the restraint of impulse.

Considerable attention was shown the child during infancy and early years (Underhill 1944: 128,131). Any of a number of women in the family bathed him, changed his wrappings, or rocked him to sleep. The mother was expected to devote her full attention to the infant, even abstaining from coitus during the early nursing period. Until about age of three the child was usually suckled whenever he cried (Ford 1941:31ff). Although there is no evidence of oral deprivation during this period, weaning was abrupt, and the child was punished for continued efforts to suck (Ford 1941:32-33; Whiting and Child 1962:41).

Certain Kwakiutl beliefs and practices impressed the child with the special and awesome qualities of food and eating. For example, it was believed that the youngster who overate had a toad in his stomach, would become voracious, turn greenish in color, develop protuding eyes, and go from house to house begging for food (Boas 1932). The disobedient child was told that he would be kidnapped and eaten by a cannibalistic monster-woman with long pendulous breasts (Boas 1935:144-145). Fathers often forced their young sons to swallow pieces of grizzly bear heart in order to acquire its wildness and strength "so that you also may have no respect for anything" (Boas 1930:194-195). This practice links food intake with power and mastery and, in turn, associates this power and mastery with a "breaking out" of restraint and social conformity. Whiting and Child (1962: 156) report that illnesses are given oral explanations among the Kwakiutl; such explanations are generally found to be related to high oral socialization anxiety.

Kwakiutl practices in sex and toilet training were relatively permissive (Franchère 1854:225; Ford 1941:34). However, the disciplines and experiences associated with the socialization of dependence and aggressive needs cannot be categorized simply. Whiting and Child (1962:160) ranked the Kwakiutl and Dobuans highest among 30 societies on the degree to which their socialization practices tend to frustrate the child's dependence needs. Kwakiutl parents disciplined a four or five-year old child

severely to insure conformance to adult behavior (Ford 1941: 33-34). Among Northwest Indian groups in general, children learned to go without food and endure pain in order to insure help from the spirits; they were shamed or subjected to severe corporal punishment by their parents for recalcitrance or signs of weakness (Underhill 1944:132; Pettit 1946:6; Jenness 1955: 152). The stated purpose of this pressure was to "strengthen" the children (Boas 1935:26). In relating his life history, Nowell stated:

> The funny part of it is that our parents and the old people never stop us from doing any of these things [such self-inflicted ordeals as burning holes in the skin with hot charcoal] because they want us to be brave like they were in the olden days when they was fighting and hunting all the time (Ford 1941:66-67).

Boas (1932) commented that "boys are required to bathe in cold water even in the winter, when there is ice on the water. They used to sit for a long time in the water. Boys who were to be warriors would stab themselves with sharp bones after coming out of the water. Sometimes, they were whipped with cedar boughs when they emerged. Kardiner (1939:120) speculated that the frustration of dependency needs and consequent unconscious dependency cravings are important aspects of Kwakiutl personality.

In the socialization of males, severe physical punishment and self-inflicted ordeals were employed to achieve independent, assertive, aggressive, and individualistic-competitive behavior (Boas 1935:29). In his analysis of Kwakiutl childhood as reflected in myths, Boas (1935:34) noted that boys were prodded by their parents to engage in contests of strength (wrestling and other forms of mock fights) in order to prove their superiority, and that parents were ashamed if their son was defeated. Nowell (Ford 1941:66-67) recalled that "if we wasn't brave and couldn't play these games and be strong they [adults] didn't think we was much good." However, while shows of independence, strength, and surpassing others were rewarded, competitive and aggressive behavior that exceeded a certain level, or that was expressed in culturally inappropriate situations, was likely to elicit strong disapproval.

> Boys that fought with other members of their play group were ostracized for the time being and were permitted to join in the fun of the group only if they restrained their aggressive impulses. Aggression, in the form of striking, stealing, or lying was severely punished, especially when directed toward the parents. (Ford 1941:34).

Nowell elaborated on this observation:

> ...if two boys are wrestling and one gets mad, then the other boys... the older ones... goes and stands between the two that is fighting and stops them, and tels them they has to wrestle and not hit like that and not get mad. If a boy doesn't stop they send him away and he can't play with the other boys. That's his punishment... to stay by himself... If we get mad at our parents or older brothers, they give us a licking. (*Ibid.*: 76-77).

This type of restraint was necessitated by a social structure with a strong emphasis on co-operative and communalistic behavior. However, the fine discriminations the child had to learn in displaying his aggressiveness and independence acceptably, coupled with the severity of his punishment if he failed, constitute a confusing and potentially frustrating learning situation. The pre-requisites for an "approach-avoidance" conflict (Dollard and Miller 1950:355ff) are eminently fulfilled by the strong concomitant negative and positive conditioning of aggressive behavior in Kwakiutl society. Suppression of the direct expression of aggressive behavior is both fostered by this type of learning situation and further buttressed by the child's psychological reactions to the (previously-noted) frustration of his dependency needs. Psychiatric clinical evidence (Kardiner 1939:423; Maslow and Mittlemann 1941:151) links the frustration of dependency needs, the generation of anger and rage, and the need to repress this anger. When a child's normal desires for nurturance and support are frustrated, and he is forced to assume tasks for which his self-confidence and ego strength are not sufficient, his self-esteem and assurance are damaged. He compensates for feelings of inadequacy by attributing to others the power he lacks, and by developing exaggerated (and insatiable) expectations of support. When these are disappointed or threatened, he reacts with anger toward the objects of his dependency. However, direct expressions of hostility may endanger these object relationships; his anger must remain covert (or be expressed either obliquely or in certain "safe" situations). Such an individual is particularly

sensitive to insults or perceived threats to his already devalued and precarious concept of self.

Among most Northwest Indian groups, the child learned to subordinate his own desires to the demands of life in the large communalistic dwelling. He was taught not to cry for food, to eat what was given him, to be quiet, and not to interrupt adults (Underhill 1944:132). Feasts given in his honor, emphasized the giving away, rather than the receiving, of gifts. He learned that self-denial and generosity were important means of acquiring "fame and fortune" and of enhancing self-esteem (Underhill 1944:134-135).

Kwakiutl myths and practices indirectly reflected the severity of childhood socialization and hostility in the parent-child relationship. For example, parents kicked the body of a dead child to prevent its coming back to trouble their dreams or memories; this was called "pushing away the love of the deceased" (Boas 1932:215). Myths about a monster-woman who captures, roasts, and devours disobedient children (Boas 1905:431; 1935:144-145) were used as a disciplinary device. In many stories boys were starved or mistreated, usually by their fathers (Boas 1935:74, 133,174). The boys reacted by sulking, committing suicide, or acquiring power from a supernatural being in order to revenge themselves on the offending parent (Boas 1905:403). Sons commonly attempted to demonstrate their strength and competence to their mothers (Boas 1905:103-106; 1935:133). In a typical Oedipal tale, Mink seeks and acquires permission from his Sun-God father to drive the Sun through the sky. Although Mink is physically full-grown, he speaks in a child-like manner. Despite his father's warnings, Mink nearly incinerates the earth in his failure to control his power. To prevent a catastrophe, the Sun-God pursues and kills his son (Boas 1930:175-177). The story demonstrates the child's insistent desire for power, his doubts about his ability to master it, and his fear of its consequences. As previously noted, the use of power was associated with aggressive and potentially dangerous behavior. Such ceremonials as making the boy swallow a piece of grizzly-bear heart "so that you may also kill before you are struck" (Boas 1930:194-195) were intended to impress him with the value of obtaining the bear's power to be aggressive without fear of catastrophic failure.

Many myths indirectly linked the ideas of rapid maturation, acquisition of power, and violent aggressive phantasies (Boas 1905:133ff; 1935:99). In such stories, the child is repeatedly bathed in icy water so that he may "grow up quickly," or the father stands on his child's toes and pulls him up by the shoulders. When the child becomes older, he is able to "jump higher than the tops of the tallest trees" and "split... [his] ...enemies in two" (Boas 1935:99). The pervasive emphasis on the acquisition of power and status in Kwakiutl myths (Boas 1935:184) may be related to the feelings of dependency discussed earlier. Horney (1937:166) notes that the dependent person often strives for power as a defense against helplessness.

The problem of determining the "fit" between Kwakiutl patterns engendered by early socialization and the type of interpersonal behavior required by the primary (survival) socio-economic institutions must be considered. That this society survived at all indicates that its members were able to meet essential social role requirements. However, this gross generalization tells us little about the type or degree of psychological stress associated with the expected behavior in given social situations. Conflict may stem from the need to play "contradictory" social roles or from discontinuities that do not adequately prepare the individual to fulfill adult requirements. Everyday social life among the Kwakiutl required a high degree of co-operative behavior, which, in turn, demanded the restraint of individualistic-competitive impulses and a control of direct expressions of hostility and aggression. How well did the early experiences of the Kwakiutl prepare them to function in this social context? The child was rewarded for being self-reliant, assertive, competitive, and aggressive; he strove to outdo his peers in order to enhance his self-esteem (and avoid being shamed by his "significant others"). His level of hostility was heightened as a consequence of early dependency-need frustration, and the severity of the corporal punishment and the ritual ordeals to which he was subjected. At the same time, he was taught to control aggressive interpersonal behavior. There were also strong demands made on him to defer to his elders, and to delay immediate gratification by giving things away in the expectation of later enhancing his status. Such controls over aggressive and egoistic

behavior were necessary for the smooth functioning of the social system (i.e., the facilitation of individual social-role performance). The child, however, was simultaneously exposed to two contradictory conditioning experiences. These speculations suggest that there was a structured strain in Kwakiutl personality, resulting from the opposition of a high level of hostility and ego-centric drives, and a concurrent strong need to control their direct expression. An examination of the potlatch and winter ceremonials should show how these institutions either heighten or reduce the mal-adjustive potential of these competing urges.

Historical Aspects of the Potlatch

Data concerning the potlatch and winter ceremonials formed the major basis for Benedict's (1946) and Goldman's (1961) characterization of the "megalomanic," "paranoid," "rivalrous," and "violent" Kwakiutl. Here I propose only to place such evidence in historical perspective and to show that the bizarre aspects of these social institutions were not simply reflections of a "basic" Kwakiutl personality structure.

Codere (1950:94; 1961) described the potlatch as a rather modest and sober institution before 1849 which underwent a florid elaboration between 1850 and 1921. It is this latter phase that was so well reported by Boas and popularized by Benedict. After 1921 the potlatch declined rapidly as a result of economic depression and the influence of Western culture.

Before the mid-nineteenth century, the potlatch involved primarily the distribution of surplus ordinary household goods (Bunzel 1938; Codere 1950:94) and bore little relationship to the donor's prestige or to any system of social ranking (Codere 1961). In fact, Codere (1961) maintained that, during this early period, there was no evidence for the existence of the ranking system usually associated with Kwakiutl society. Hereditary rights to crests probably did exist, a practice taken over from societies to the north (Drucker 1939). As new sources of wealth became available to the Kwakiutl, the amount of goods distributed and the social importance of the potlatch increased. This was particularly true in the Fort Rupert area, where a number of

different Kwakiutl groups benefited from business relations with whites and from mediating transactions between the trading company and visiting Kwakiutl (Codere 1961). Concurrent with these new sources of wealth was a serious decline in Kwakiutl population which created a rapid increase in the ratio of available status positions to total population (Boas 1924; Codere 1961). This situation disturbed the earlier relatively stable system of social ranking based on hereditary ownership of crests. Ambitious "nouveau riche" commoners began to potlatch their (or their children's) way to higher status positions and to replace the established aristocracy. There are recorded instances of slaves and commoners acquiring high rank by wealth secured through prostitution of their wives and daughters. The subsequent confusion and disturbance in status ranking caused much jealousy, hostility, and rivalry (Boas 1924; 1925:93-99; Codere 1950:68, 97; 1961; Goldman 1961). This phenomenon is illustrated in the recitation of a speaker for a Kwakiutl chief at a potlatch ceremony (Boas 1913-14:1283-84):

> That is only the cause why I laugh, the cause why I always laugh at the one who is hard up, the one who looks around here and there, the silencer, the one who points about for his ancestors who were chiefs. The little ones who have no ancestors who were chiefs, the little ones who have no names coming from their grandfathers, the little ones who do many kinds of work, the little ones who work hard, who made mistakes coming from insignificant places in the world (and who try now to go to high places) ...they are the cause why I laugh, for they speak in vain to my chief, tribes.
>
> But he who does not work and plan at all, the great one, the great one whose voice is true; he continues from one generation to the other in this world, he continues as one who is made to be the higher in rank with his great real father, the one who names himself Having-Food, chief.
>
> That is only the cause why I laugh, the cause why I always laugh at those who always rush up to my face, the little ones who rush against (?) [pieces of copper] thrown against my chief here, tribe.

Two other historical factors exaggerated the developing rivalry and hostility of the potlatch institution. The status system was further disturbed by the admixture of different Kwakiutl groups at Fort Rupert. Also, the exaggeration and proliferation of the potlatch may have been part of a "nativistic" reaction

against the progressive encroachment of Western civilization and the determined efforts of agents and missionaries to suppress various aspects of Kwakiutl life (Codere 1950:81). The extravagant hostility and competitiveness of the Kwakiutl potlatch may have been analogous to the temporary high fever in an organism trying simultaneously to maintain a stable inner equilibrium and to fight off noxious foreign influences.

Factors other than historical probably contributed to the rivalry and instability of the ranking system. For example, the Kwakiutl traditionally placed less emphasis on heredity as a basis of status (Drucker 1939), and had a more flexible system of inheritance — i.e., inheritance was possible through the lines of mother, father, or father-in-law (Goldman 1961), — than did their northern neighbors. This very flexibility may have heightened the problems of status confusion and instability after 1850.

The Social and Personal Functions of the Potlatch

Although the Kwakiutl potlatch was undoubtedly a means of affirming individual status, this does not stamp it as a purely individualistic-competitive and socially divisive instituton. In fact, its most important function appears to have been the facilitation of social cohesion both within and among the various numayms (Boas 1897:263,572, 575-576, 592; 1925:200, 227; Barnett 1938; Codere 1950:70-71, 75-77, 80). Co-operation among the members of the numaym was necessary to provide resources for the potlatch. It was essentially a group endeavor, providing status and recognition not only for the actual principals, but for many individuals within a numaym (Boas 1913:1914:1340-1344; Barnett 1938). The institution was also a means of reimbursement for work undertaken co-operatively by the various numayms and tribes (Barnett 1938; Ford 1941:22-23). Boas (1925:337-338) notes its socially cohesive function when he relates that after a feast given by a host for individuals of four tribes who aided him in building his house, "the four Kwagul tribes became one."

Although Boas' descriptions of the potlatch contained many instances of overt rivalry, examples of mutual praising among the so-called rivals seemed to predominate (Boas 1897:572; 1925:

200, 227). Rivalry and insults reached a destructive level only in a few flagrant cases (Codere 1961); its important function was social excitement and conviviality. Others noted that the potlatch was a "good-will" institution (Barnett 1938), serving to gratify individuals' needs for prestige (Barnett 1938; Ford 1941:22-23). Ford (1941:27, 49) affirmed its cohesive functions in noting that the potlatch provided a socially accepted means of channeling aggression that was potentially disruptive to the co-operative structure of Kwakiutl secular life. The major *social* function of the potlatch, then, was to insure cohesiveness by providing institutionalized ways to allocate prestige and status position, to settle arguments, and to amass resources for communal labor and group ceremonials.

Behavior during the potlatch both served and reflected the personality needs of the participants. The institution provided opportunities for catharsis of hostility and for the enhancement of self-esteem in a manner that was not too socially disruptive (Ford 1941:22, 27). Hyper-sensitive and "paranoid" tendencies in the potlatch speeches, "wiping away shame" by harming others (Boas 1925: 133-135), and blatant attempts to exhibit one's superiority all support the notion of a high level of hostility in Kwakiutl modal personality, coupled with doubts of self-adequacy and mastery. However, there were also many instances of humility and self-depreciation along with the proud boasting. A chief might say that he was too poor to buy a desired copper (Boas 1897:272) or express fear of his rival (Boas 1897:364). Such behavior was usually accompanied by lavish praise for his opponent's power and noble ancestry (Boas 1897:272, 464, 575-576). The alternate denigrating and praising of the self and others supports the notion of simultaneous strong, unsatisfied dependency needs and covert hostility toward the objects of dependency.

In the literature on the potlatch, the concepts of acquisition of wealth or power and the expression of aggression were considered equivalent. The Kwakiutl themselves were not unaware of this association:

> When I was young, I have seen streams of blood shed in war, but since that time the white man came and stopped up that stream

> of blood with wealth. Now we are fighting with wealth. (Boas 1897: 571). The time of fighting has passed. The fool dancer represents the warriors, but we do not fight now with weapons; we fight with property. (Boas 1897:602).
>
> The rivalry between chiefs when carried so far that the coppers are destroyed and that great feasts are given in order to destroy the prestige of the rival, often develops into open enmity...
>
> ...The host proceeds at once to tie a copper to each of his house posts. If he should not do so, the person who refused the spoon would, on returning, strike the posts with the copper, which is considered equal to striking the chief's face. (Boas 1897:355).

This equilibration may be interpreted as follows. Self-esteem and a sense of mastery (represented at the social level by status, rank, and power) could be obtained by competitive and aggressive behavior in potlatch rivalry. It is noteworthy that the heroes of Kwakiutl myths usually obtained power from the supernatural by aggressive means (Boas 1897:397-398, 408; 1905:123-132; 1935:91-92, 181-184). The dependent-hostile person would not ordinarily choose to gain power or mastery through such behavior; however, the potlatch institution created a socially sanctioned, "safe" situation in which hostility could be directly expressed, and in which dependency relationships were not threatened. If these observations are correct then we should also find indirect expressions of hostility in secular social life. The ethnographic evidence documents a considerable practice of, and concern with, malevolent sorcery (Boas 1932; Codere 1956), which Ford (1941: 27-28) attributed to the common suppression of overt antagonism. Such suppression may also account for a pervasive anxiety about death in dreams (Boas 1925:1-54) and fears of being harmed by the dead (Swan 1857:189, 212; Boas 1932).

The Winter Ceremonials

The initiation of a young man into the Cannibal Society during the winter ceremonials is said to epitomize the violent and destructive urges of the Kwakiutl (Benedict 1946:164ff). However, *both* "contradictory" aspects of Kwakiutl life were actually represented by the dominant aims of the ritual: the initiates' desire to revel in a state of ecstasy in which all internalized inhibitions were transcended (individualistic and unrestrained violence), and

the society's need to tame the initiate in order to make him a responsible, functioning member of the community (communalistic co-operation).

The ceremonial began with the seclusion of the young initiates for a few days, during which they were believed to be uncontrollably possessed by cannibalistic desires. The community went into mourning for the youths and concentrated its (ritual) efforts on capturing and returning them to the community. During this period, the people were angry with the supernaturals because they "have carried away enough of our number..." (Boas 1897: 512, 516). At the same time, they feared their destructive powers; their songs "exaggerate and thrill at the terror and destructiveness..." (Codere 1950:110).

> How shall we hide from the bear that is moving all around the world? Let us crawl underground! Let us cover our backs with dirt that the great terrible bear from the north end of the world may not find us. (Boas 1897:467).

Finally, the Cannibal (or Hamatsa) appeared, filled with wild power; he bit people, knocked them down, ate the flesh of a human corpse, tore clothing, and smashed property. Although terrified, the people proceeded to capture him, because "if we should not succeed in pacifying him, we should always be troubled by him, we should not be able to eat in our houses on account of him" (Boas 1897:573). It is clear that they were not merely neutral observers of this anti-social orgy. At this point, they experienced a state of heightened excitement, and individuals engaged in ritual self-torture (Boas 1930:113-114, 600ff; Ford 1941:118) and wanton destruction of property. When the Cannibal was captured, "the people hold him tight and torment him... they strike his feet with their staffs... he is maltreated in all conceivable ways... the people push him and tear his clothes" (Boas 1897:457). If he attempted to resist and bite, he was further tormented and beaten. During these ceremonials, the Fool Dancers, like the Cannibal, engaged in behavior that was strongly tabooed in everyday life; they bit others, broke property, and even smeared themselves with menstrual blood. I suggest that in taming the Cannibal, who embodies anti-social urges, the Kwakiutl were symbolically attempting to exorcise and control their own hostile impulses. This was a mastery mechanism de-

signed "to render him (and other individuals in the group) acceptable as a member of the society" (Ford 1941:25). Throughout the ceremony, the *group* co-operated in exorcising and taming the Cannibal; like the ancient Greek chorus, they voiced the fears and anxieties of the community. The *ultimate* function of the ceremonial may not have been merely the cathartic expression of covert hostile affect (Ford 1941:27; Kardiner 1939:118), but rather the *control and mastery* of these impulses. Codere (1956) noted that behavioral licence was sanctioned "in the name of an ideal smoothness in human relations." Ecstatic states may represent experiences of world mastery, in which the pains and anxieties of life are temporarily transcended (Lewin 1959). During the t'ō'X'ûit ceremony, without which a proper winter ceremonial could not be performed, individuals reached an ecstatic state in which they cried, laughed, kissed each others' wives, and denied the possibility of arguments, "for during this time there is no jealousy and no quarrelling" (Boas 1897:583-585). This was expressed in one of the sacred songs (Boas 1930:67):

> Now this is done friends, now you have wiped off your summer faces; now you have wiped away your sickness; and you have wiped off your quarrels; now you have wiped off your troubles. Now you will put on the happy maker (charcoal) on your faces... now the supernatural power of the charcoal has come to our friends, now it will change all our minds.

This interpretation of the winter ceremonials has presented Kwakiutl personality as the embodiment of unresolved tension deriving from the simultaneous needs to behave in a socially acceptable manner and also to "break out" of social constraints through individualistic and violent expressions. Given this interpretation, it is interesting to examine further a type of behavior central to these ceremonials: cannibalism. Its function and symbolic relationship to the twin aspects of Kwakiutl personality will thus become more understandable. It has been noted in the clinical literature that fantasies of devouring or of being devoured often occur in individuals with frustrated dependency needs, representing a desire to become one with the object of dependency, and thus to reduce anxiety. In these same individuals, cannibalistic fantasies are also associated with hostile and sadistic impulses toward the object of dependency, who is also the source of

frustration (Kardiner 1939:224; Glover 1956:85): the "inability to trust another object to satisfy certain emotional cravings leads to the perception of being injured by that object, whereupon active steps in the form of aggression against the object are taken" (Kardiner 1939:224). The dependent and aggressive fantasies, then, represent two sides of the same coin.

I have maintained that in these ceremonials fears were mastered by taming repressed anti-social urges (e.g., cannibalism, destruction of property) and by affirming group cohesion. A more detailed examination of Kwakiutl ceremonials may indicate to what extent such speculations are supported. According to Freud (1956:32) much of ceremonial behavior "represents the sum of all the conditions under which something not yet absolutely forbidden becomes permissible..." and acts as a defense against temptation and "a protection against the misfortune expected." If repressed anti-social impulses *are* acted out overtly during the ceremonials, we would expect to find defensive mechanisms incorporated into the ritual as a protection against potential anxiety. Elaborate acts of penance in expiation of guilt are one means of psychological defense, especially prevalent in the obsessional neuroses (Freud 1956). As previously noted, participants in the Cannibal ceremonial inflicted extreme torture on themselves and on the initiate. In addition, they ate human flesh, although it was considered abhorrent and poisonous (Ford 1941:114); Goldman 1961). Also, the final exorcism of the Cannibal was accomplished by menstrual blood ordinarily regarded as disgusting, dangerous, and a source of contamination for the male (Benedict 1946:167).[2] After the ceremonial the initiate was subjected to further extreme and exacting forms of punitive purification: "he must bathe four times every tenth day, then four times every sixth day, four times every eighth day, and four times every tenth day, thus covering a period of four moons" (Boas 1935:90). For sixteen days "he must not eat any warm food, and for four months he is not allowed to blow hot food in order to cool it. For a whole year he must not touch his wife, nor is he allowed to gamble or work" (Boas 1897:538).

[2] In Freudian terms, its use may be interpreted as symbolic castration in atonement for forbidden impulses.

There is another aspect of the Cannibal ceremony that invites interpretation as a psychological defense. In the performance of these prolonged rituals, participants were required to meticulously avoid even minute deviations from accepted form. The performer who made an error fell down as if dead, and the Bear impersonators feigned to tear him to pieces (Boas 1897:467; Ford 1941:119). Perhaps in the past death *actually* was the penalty for such deviations (Benedict 1946:163). Clinical discussions of obsessive-compulsive ritual behavior interpret such devices as defenses againts apprehension in situations where the ego cannot depend on its own governing devices. These attempts to ward off impulses "betray their nature as derivatives by their exaggerated character, that is, by the disproportion of the accompanying emotions or by the rigidity with which they are adhered to" (Fenichel 1945:268).[3]

The psychic danger adhering to the Cannibal ceremonial was further dealt with by a strange institutionalized denial mechanism. After the ceremony, the initiate "forgets" everyday human habits and has to "learn" anew how to walk, eat, speak, etc. (Boas 1897:538; Benedict 1946:164). It is interesting that this ceremonial was called "tsitsika", which means, according to Ford's (1941:110) translation, "everything is not real." It has often been noted in psychiatric writings that individuals will deny anxiety-provoking aspects of external reality or threatening internal impulses (Fenichel 1945:144ff). Possibly, the Kwakiutl wished to "forget" their own hostile impulses, so recently acted-out and "tamed." Although the loss of memory was merely a pretense, this fantasy denial had been incorporated into ritual as a social myth. Like other defense mechanisms, this denial relieved the dependent Kwakiutl personality of the guilt and anxiety usually accompanying direct expressions of hostile behavior. Thus, Kwakiutl ritual transformed potentially severe anxiety into a sense of mastery and a renewed ability to conform to social norms.

[3] It is not implied here that the Kwakiutl, as a group, are neurotic, but rather that their ("normal") personality shares some of the mechanisms used by the obsessive-compulsive. In this connection, Codere (1950:18) notes that the Kwakiutl work habits and manufacturing techniques are characterized by "extreme orderliness... and minutely fixed details."

Conclusions

In this paper I have reviewed various interpretations of the nature of the Kwakiutl Indians in the anthropological literature against the background of the ethnological descriptions, and have attempted to demonstrate that the culture and personality of these people contained psychodynamically related though seemingly contradictory features. The Kwakiutl institutions of economic survival were based on principles of co-operation and communal ownership, while the winter ceremonials and the potlatch revealed many elements of individual competitiveness and (often suppressed or rechanneled) violence and aggression. For the individual Kwakiutl I have attempted to demonstrate the structured strain imposed on him by a high level of hostility and desire to outdo others, along with his strong needs for dependency satisfaction and impulse control. I inferred this interpretation from the descriptions of socialization practices in the society, and from the assumption of the tendency of ceremonial and religious institutions to contain personality projections. However, in the absence of data collected specifically for the study of personality, these interpretations must remain speculative.

The study also raises some general questions about the relationship between culture and personality. Clearly, the present analysis is not compatible with an assumption of an isomorphic relationship between these two conceptual levels of analysis. The interpretive statements of Benedict and Goldman, however, seem implicitly to make such a supposition. Consequently, they attribute and generalize the personal motivation of hostility and the desire to outdo others, legitimately inferred from the institutional behavior of the potlatch and winter ceremonials, to Kwakiutl culture and society. Although it is clear that personal motives always underlie institutional practices and cultural values, there is no necessary isomorphic relationship between them. For example, an economic institution organized around co-operative formal role relationships may well involve large elements of personal motivation that can be described as individualistic, competitive, and hostile. Analyses of the Soviet planned economic system and the behavior of the new managerial group in that

society demonstrate this condition. While the range of variation in personality types and personal motivation may be limited by the requirements of a given social organization, there may also be considerable latitude for variation. Much remains to be known about existing regularities in the relationship between types of social organization and cultural values on one hand, and types of personal motivation on the other. In the case of the Kwakiutl, it appears that essential co-operative and communalistically-oriented practices involved in their survival economic institutions and social structure are neither logically nor practically incompatible with high motivational level of hostility and competitiveness. This discussion points to the importance of studying culture and personality with different research tools and independent theoretical schemes. The isomorphic assumption can easily lead to a "contamination" of these variables.

In a consideration of this society, we may ask whether the simultaneous existence of the two different aspects of Kwakiutl culture and personality necessarily implies a high level of personal maladjustment. Would the Kwakiutl have manifested more severe personality problems than the Hopi, for example, whose society appears to have been characterized by a greater consistency at the institutional and personality levels? It is possible that the simultaneous stimulation of, and need to control, aggressive impulses, as in Kwakiutl society, took a heavy toll in emotional maladjustment. (However, it is also possible that the wide range of permissible (i.e. socially sanctioned) behavior in Kwakiutl society permitted a broader scope of social role adjustment for temperamentally different individuals, than did the more monolithic emphasis among the Hopi.)

In addition, there is nothing necessarily maladjustive about the coexistence of very different emphases in both culture and in personality, as long as there are adequate behavioral control mechanisms and institutional arrangements to provide clear situational guide lines for their socially sanctioned expression.

I have indicated that Kwakiutl ceremonial life provided a cathartic outlet and a means for mastering aggressive impulses that could not easily be expressed directly in secular social life. One might conclude, then, that this congruence between culture

and personality was conducive to "healthy" psychological adjustment. However, the historical developments affecting the potlatch may have given rise to such competitive and hostile situations that interpersonal relations were seriously disturbed. The institution of the potlatch and winter ceremonials may be viewed in two ways: either they provided an adjustive-cathartic outlet and control for aggression, or they *themselves* contributed to an increase of interpersonal conflict. Which way did the balance tip? Once again, the available data permit no answer. It is hoped, however, that some of the issues raised here will stimulate research questions for which empirical data will be gathered in future studies of culture and personality.

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Transients and Permanents at Camas
A STUDY IN SOCIAL STRATIFICATION

BY C.H. TOROK*

RÉSUMÉ

Cet article étudie la stratification sociale de Camas, un village de quelque 1,200 habitants, situé à l'intérieur de la Colombie Britanique. L'Auteur pense qu'en raison de facteurs économico-sociales, la stratification sociale à Camas présente deux différents systèmes, selon précisément que les habitants sont des résidents permanents ou non.

The following is a discussion of a social stratification at Camas, a village of some 1,200 people, situated in the interior of British Columbia.

It is suggested here that because of some socio-economic factors stratification at Camas shows a configuration which is different in some respects from the ones discussed by such authors as Warner (1960), Hollingshead (1961), and Vidich and Bensman (1960). Two systems of stratification are detected at Camas, and it is believed that length of residence and the ownership of real estate are important criteria in allocating personnel to one or the other system.

Since there is some reason to believe that certain kinds of Canadian villages show characteristics similar to those of Camas, the following study might be of some interest to students of Canadian society.

* This work is the result of two years residence at "Camas" where I worked as a minister of the United Church of Canada from August 1960 to June 1962. Because of this peculiarity of the research situation I have decided to use a pseudonym for the settlement. I wish to express my thanks to the following individuals for their help in research and in developing the argument of the paper: Professors H.B. Hawthorn and K.G. Neagele of University of British Columbia, and Professors J. Burnet, J.W. VanStone, and F.W. Voget of the University of Toronto. The responsibility for the interpretation of the data, needless to say, is mine.

The Economic History of Camas

Camas came into being in the 1850s after gold had been discovered in the Cariboo Country. In the initial stages of the resulting gold-rush a combination of land and water transport was used to carry freight and personnel through a series of lakes and portages to the edge of the Cariboo where goods were transferred to mule trains and other forms of land transport. Camas, being situated on the west bank of the Fraser River and being the gateway to the geographical region of the Cariboo, served as the half-way point in this transportation chain. It was there that goods were taken off the barges and transferred to mule trains. A village sprang up with stores, offices, churches and gambling halls. Gold miners with their satellites moved in by the hundreds.

Somewhat later in the same century the Cariboo Road was completed. This road provided a direct line of communication between the Fraser Valley and the Cariboo gold fields so that it was no longer necessary to use the Camas route with its lakes and lengthy portages. As a result of this development Camas lost much of its importance and most of its population. A small group of people, however, remained mainly to trade with the Indians and to take up subsistence farming. The building of a railroad early in the 20th Century gave a modest boost to the development of Camas, which, for the second time in its history, became a communications center. Although the volume of traffic along this railroad never approached that of the nationally-owned railway systems, still it gave employment to a number of people, some of whom settled at Camas to work for the railroad.

Another significant population increase occurred as a result of the re-settling of Japanese-Canadians during World War II. In this period camps were established for the Japanese-Canadians in and around Camas which became the headquarters of the administrative and supervisory staff. Some Japanese-Canadians engaged in horticulture, so a cannery was built at Camas to handle their product. At the end of the war most of the Japanese-Canadians left the Camas detention area, horticulture came to an end, the cannery closed down.

In the 1950s a series of hydro-electric installations were constructed in the Camas region. The availability of employment, the influx of workers (many with their families), the establishing of retail and recreational outlets led to an economic boom and population increase. Once the construction of hydro-electric complexes was completed the workers and their families left Camas so that by the fall of 1960 the village faced a local economic recession and population decline.

Thus, in a period of some 100 years the demographic and economic history of the village shows a series of boom periods associated with rapid population growth, followed by relative economic recession and population decrease.

Population and Economy from August 1960 to June 1962

At the time of the study (August 1960 - June 1962) the population of Camas was a little in excess of 1,200. Of these some 100 - 150 were of Japanese, Chinese, East Indian and Canadian Indian ancestry. The rest were Anglo-Canadians and a very few were European immigrants. In addition to the number of people residing within the village limits there were some 1,200 Indians of the Thompson, Lillooet, and Shuswap linguistic divisions making use of the facilities at Camas. (Teit 1900:166). These Indians lived on small reserves scattered along the Fraser and its tributaries. Some of the reserves are adjacent to Camas, others are situated thirty miles away.

In the period under discussion agriculture was minimal in and around Camas. While there were some ranches within a thirty-mile radius of Camas, the marketing and shipping of cattle normally took place at Kamloops which is some hundred miles east of Camas. There were a few part-time farmers growing vegetables and fruit for their own use and for marketing at Camas, but the income derived from this kind of horticulture was very small. The presence in Camas of Provincial Government Offices, an eighteen-bed hospital, a high school, as well as the road and railway stations provide employment for two-thirds of all gainfully employed. The following list gives an outline of the main sources of employment with approximate numbers of employees. It has to be stressed, however, that there

was considerable seasonal fluctuation in the level of employment. This fluctuation was due to such factors as the changing demands of the economy of the province, the government-sponsored winter works programs, and even the weather. The latter was particularly important in the case of the Public Works Department and of the Railway, since mud and rock slides caused by heavy rains occasionally necessitated the hiring of large numbers of temporary labour.

Main Sources of Employment in 1960-62.	*Approx. Number of Employees.*
The Provincial Railway	50
Public Works Department	50
The Forest Service	50
Government Offices	25
The Hospital	22
The School	21
2 Grocery and Clothing Stores	8-10 in each
2 Hardware Stores	3 in each
4 Service Stations	3-4 in each
4 Hotels and Motels	3-12 in each
2 Coffee Shops	3 in each
1 General Contractor	6-12, variable
3 Logging and Saw-Mill Contractors	5-12 in each, variable.

This short survey of the sources of employment indicates that Camas is basically a "service" town. I use this phrase to emphasize that Camas serves as an administrative and communications center. In addition to this, it provides hospital care and education, as well as shopping and recreational outlets to the population of Camas and to others living in the area.

Ethnic Groupings

As mentioned above, the number of Indians making use of Camas facilities equals the number of village residents. Especially on Fridays and Saturdays the Indians appear in large numbers in Camas where they shop, visit, and drink.

The population of Camas, then, may be divided into two groupings: Indians and non-Indians. "Indians" are those whose physical characteristics indicate Indian ancestry to Camas residents. Whether they have been enfranchised or not does not

matter, if they look like Indians, they are treated as such. In other words, categorization along visible physical characteristics is accompanied by standardized patterns of behaviour within each grouping. While there is no colour bar or overt hostility, there is little intimate social access between Indians and non-Indians. The list of associations, for example, showed no persons of recognizable Indian "blood" in the years 1960-1962. "They stick together. We don't bother them, and they don't bother us," summed up a non-Indian resident. In many respects the Camas situation parallels that of Fort St. James as reported by Hawthorn (1960:63-67) except for the ratio of Indians to non-Indians in the two settlements. In the case of Camas only about 300 Indians live in the village itself or on reserves adjacent to it, while many others pay periodic visits only. In Fort St. James, on the other hand, the two ethnic groupings are of equal size and are settled side by side. Whether an Indian is a resident of Camas, or whether he is a visitor, his relations with non-Indians can be summed up in the phrase "social distance."

I have used the word "non-Indian" rather than "White" because families of Japanese, Chinese, and East-Indian ancestry were grouped with the Euro-Canadians. These families were almost fully integrated into the social life of the village. Formal and informal visiting, participation in the activities of the associations, and mutual acceptance characterized their involvement into the socio-cultural complex of the Village. Generally, however, the Japanese and Chinese are lumped with the Whites into one category and are contrasted to that of the Indians. Thus, ethnically the village is subdivided into two main groups only; Indian and non-Indian.

Residential Categories

Many Camas residents work and live in the village temporarily only. Employees of the Forest Service, for example, moved into Camas in 1961 with the expectation that they would live and work there for the next two years. It was estimated that the building of forest access roads would be completed in that time. Thus, Forest Service employees and their families had no plans of settling in Camas permanently. Along with the

Forest Service, the school and the hospital also might serve as examples of short-term residence. The principal of the school, for example, reported that, apart from himself and another teacher, the entire staff was replaced in every three years. The hospital also reported a high turnover both among the professional and the non-professional staff.

Other examples from other sources strengthened the impression that there was a high turnover of employees at Camas at the time of the study. Many people would work there for a year or two, then move on. One of the government officials and one of the local businessmen suggested that in the years under consideration about half of the village's population was made up of people who would stay in Camas for no longer than three years.

Interviews with village residents showed that there was an awareness of a division amongst them. For example, newcomers tended to complain about the unfriendliness of other Camas residents. A school-teacher's comments sum up the general trend of comments of this kind:

> This is not a friendly town. In the first two years of our work here people would hardly talk to us outside of school. We received no invitations and we issued none. Although we go to church, even there we feel we are outsiders. Now this is our third year here and just a few days ago we got invited to two places.

On the other hand, residents who had lived in Camas for many years also complained. They felt that most newcomers, especially the teachers, simply regarded Camas as a place where they could make some money. The old-timers resented this and pointed out that they were the ones who had kept the village alive during periods of economic recession and that they were the ones who had "a stake in the community". As fas as making friends with newcomers was concerned, one prominent old-time resident made the following observation:

> There is not much sense in making friends with a woman who is here today and gone tomorrow. By the time you get to know her, she is gone... One year we made a real effort to encourage new comers to join the Ladies' Guild. We invited them to our meetings and we even elected our executive from amongst them. Well, you know what

> happened; the construction came to an end by Christmas, these ladies left with their families, and the Guild was left without an executive. We had to start all over again and since then we make sure we elect people whom we can count on.

There is, then, an awareness in Camas of a division of the resident population. Some people talk of "old-timers" and "newcomers", some use other labels. A number of newcomers felt that they had to spend a number of years in Camas before they were accepted by the older residents. Some of the old-timers stated explicitly that they avoided intimate social relations with newcomers.

This awareness of division along residential lines suggested to me that it might be analytically useful to divide the resident population into "permanent" and "transient" categories. I have defined "permanent" to refer to such persons who, at the time of the study, had resided in Camas for more than three years and who had acquired real estate there. Conversely, "transient" refers to such persons who, at the time of the study, had not yet spent three years in the village and who had not acquired real estate there.

Admittedly, the above definitions are somewhat arbitrary and rigid. It could be argued that both the permanent and the transient residential categories should be subdivided according to a number of other criteria. For example, one would expect that some Camas people were "permanent" by choice, others were "permanent" by necessity. Very likely some transients would wish to become permanent, while others would wish to leave Camas as soon as possible. Also the question of real estate could be raised. If a person owns land in Camas but has not lived there for three years, is he permanent or transient? While further elaboration of criteria of permanence and of transience will no doubt increase the applicability and usefulness of this sort of study, in this paper I shall be satisfied with pointing out certain relationships that existed between length of residence and real estate on the one hand, and associational activity and class affiliation on the other.

On the basis of the above definition of permanence and transience an estimate was made as to the ratio of permanent and

transient residents in the village. It was estimated that in the years 1960-1962 up to about 50% of the village's population was transient. Again, it has to be stressed that even within one calendar year there were many fluctuations as regards the number of transients.

The list of associations provided below indicates that the majority of the associations have their members from the permanent residential category. There are, of course, border-line cases. Some individuals join the associations sooner than do others, but, again, a tendency seems clear; the longer a person has been a resident of Camas the greater the chances of his participation in associational life. The list shown below will indicate only the parent associations; satellite or auxiliary associations will be mentioned only if their residential composition differs from that of the parent association.

Religious Associations	*Permanent Families*	*Transient Families*
Anglican Church	40	10
Jehovah's Witnesses	4	3
Pentecostal Church	9	1
Roman Catholic Church	22	8
United Church	45	5
Total	120	27

(Two qualifications to the above list should be noted. First, according to information received from the clergy, transient residents tended to participate marginally in church activities. Second, the Sunday Church Schools included a higher proportion of children of transients than the membership lists.)

Masons	20	5
Elks	13	2
Lions	23	2
Total	56	9

There were also three small groups with a predominantly *transient* membership. These were short-lived attempts by transient residents to provide means for intellectual and aesthetic expression. These groups lasted for only one or two years since

most of the founding members left Camas after that period of residence. One was a church discussion group, meetings of which were attended by clergy, nurses and some teachers. The ratio of transient to permanent residents in it was 14-1. A political discussion group met in private homes with attendance by invitation only. Transient-permanent ratio was 8-2. The Drama Club was organized by high school teachers; its activities came to an end when the teachers left Camas after two years of residence.

There were also three associations with a membership composed of both transient and permanent members. The Women's Auxiliary to the Hospital included women of both residential categories, the Parent-Teacher Association and the Canadian Legion also had both permanent and transient members. In these three associations no clearcut dominance of permanents or of transients could be seen.

Of these associations those with most prestige were the church groups, the service clubs, and the Hospital Auxiliary. The discussion groups and the Drama Club were short-lived so that their relative prestige compared to that of the other associations was neither understood nor measured by residents.

At the same time, residents of both categories were aware of the fact that the associations of greatest durability and prestige were staffed by permanent residents. Transients tended to complain that the "old guard" ran the town and the associations, while the permanents claimed that the admission of numbers of transients to these associations would be disruptive. It was also evident that informal and voluntary interaction tended to occur mainly within residential categories. Local businessmen associated mainly with other local businessmen and with other permanent residents. Teachers, nurses, as well as other transients, on the other hand, tended to associate mainly within their own professional groups and with other transient professional groups of roughly equal prestige.

Social Classes in Camas

Within each residential grouping a ranking of individuals and of families took place. This ranking was more clear-cut

within the permanent category than within the transient one. Among the permanents social classes were distinguished and ranked. I use the term "social class" to refer to

> ...a more or less endogamous stratum consisting of families of about equal prestige who are or would be acceptable to one another for "social" interaction that is culturally regarded as more or less symbolic of equality; as the term "stratum" suggests, a social class is one of two or more such groupings, all of which can be ranked relative to one another in a more or less integrated system of prestige stratification. (Johnson 1960:470).

Within the permanent category residents correlated civic-political power and high prestige so that the most often mentioned index of upper-class status was the exercise of power in local politics and associations. Residents readily identified some fifteen individuals as the ones who "run the town". They regarded these individuals and their families as the leading citizens of the village. The individuals thus identified thought of themselves also as leaders of the village. They, too, thought in terms of social strata, they, too, ranked other residents into social classes.

In addition to those who "run the town" two more classes were identified by village residents: the "decent", "reliable" people and the "low class" people.

The Permanent Upper Class, then, was composed of those families whose adult members were identified as the leaders of the village. Members of this class accepted each other as being of roughly equal prestige and manifested this mutual acceptance through such activities as mutual visiting and joint participation in forms of recreation.

As mentioned above, the most important index of identification with this class was the exercise of civic power realized through village politics and participation in, and leadership of, the permanent village associations. In the fifteen families of this class there was at least one adult member who occupied multiple leadership positions in a number of associations. An example of such multiple leadership status was that of the Chairman of the Village Council. Owner of one of the largest stores in the village, this man, in addition to being the Chairman of the Council, was in the year 1961 the leading layman of one of the Protestant

denominations, an executive member of the Lions, and one of the local officials of the Masons. His wife occupied, at the same time, two positions of high prestige; that of the Vice-Chairman of the Women's Auxiliary, and that of Chairman of the Ladies' Guild. This couple associated in an informal way mainly with the families of other merchants who also occupied positions of leadership in the associations.

Businessmen and the magistrates belonged to this class. They identified two more classes of residents within the permanent residential category: the "respectable citizens" and the "low class people".

From the point of view of Upper Class people those individuals and families were respectable who owned real estate in the village, who were permanently employed, and who were not publicly known to be involved in such activities as heavy public drinking and marital scandals. Permanent Upper Class people regarded as "low class" all those who owned, or lived in, poorly kept houses, were chronically unemployed, who associated with Indians, and whose heavy drinking and sexual promiscuity was common knowledge.

Upper Class people were also aware of prestige differences among the transients. Among the latter they identified three broad prestige groupings: "the doctor's friends", the "newcomers" or "transients", and "bums" or "drifters". It must be stressed that permanent residents in general, and permanent Upper Class residents in particular, were much less concerned with placing transients into prestige strata than they were ranking permanent residents. With the exception of some of the transient professionals they did not know many other transients by name and showed little interest in them unless some of the latter showed signs of settling in Camas permanently.

I shall use the term Permanent Middle Class to designate those who were locally identified as "respectable citizens". People belonging to this class were permanently employed. They participated in the life of the associations. Most of them were employees of the Railway and the Public Works Department, or were small businessmen. Their houses were well-kept, their children were well-dressed, their reputation was considered good by

other permanent residents. The main difference between them and the Upper Class was not so much one of income, but rather one of civic power. Middle Class individuals seemed less interested in local politics, and in general they did not challenge the Upper Class's leadership. Yet Middle Class people participated in associational life and some of them occupied leadership positions. Informal social interaction tended to occur within class boundaries, yet there was some crossing of residential boundaries. Among them occupational ties were, at times, stronger than residential ones. On the whole, however, informal and voluntary interaction occurred within the residential category as well as within class.

Thus, while in education and income there was little difference between the Permanent Upper and Permanent Middle classes, the exercise of civic power by the former and the recognition of this leardership by the latter constituted a line of division between the two groups.

The Permanent Low Class was characterized by chronic unemployment, dependence upon some form of social assistance, poor housing and, in some cases, conspicuous deviation from the sexual and drinking mores of the Upper and Middle classes. Members of the Low Class were aware of the existence of the other two strata above them, but this admission of superior prestige was grudgingly given. Their self-evaluation, while admitting relative inferiority *vis-à-vis* some other residents, was attenuated, at least in their own eyes, by their constant reference to bad luck and the alleged corruption of people of superior prestige.

Low Class people lived in dilapidated shacks on the outskirts of the village. They did not participate in associational activities (with the exception of the Canadian Legion which was an important liquor outlet), nor were they involved in village politics. Socially as well as geographically they lived on the outskirts of the village.

To sum up discussion of class among the permanents, let us turn to numbers. Of some 140 families categorized as permanent 15-20 should be placed with the Permanent Upper Class, some 60-70 into the Permanent Middle, and the remainder into the Permanent Low Class. While these rough estimates seem to

make the Low Class rather large, they are in accord with the opinion of the merchants one of whom stated: "It is a shame that I have to report that at this time social assistance seems to be the greatest single source of income in the village." While this was somewhat of an overstatement, the Government Agent and social workers also claimed that in their opinion Camas had a larger percentage of unemployed in the winters of 1961-1962 than some neighbouring villages of similar size.

The Transient Residential Category, probably because of the frequent change in its personnel, did not show quite as visible evidences of the existence of social classes as did the permanent. Yet there appeared one group among the transients showing all the criteria of social class. I shall call this group the Transient Upper Class noting that in Camas they were known as "the doctors' crowd". The core members of this class were some eight professional men who settled in Camas around 1960. Although at the time of the conclusion of the field-work some of them had spent three years in the village, they still retained a separate identity as a group. They regarded themselves as different from the Permanent Upper Class and they were regarded as different by members of the same. Doctors, clergymen, a lawyer, government officials constituted this class. The possession of university degrees, more than any other single feature might be regarded as an important index of their separateness. With the exception of the clergymen Transient Upper Class people did not join the associations, they did not involve themselves in village politics. Their own attempts to form and to maintain special interest groups were frustrated by the moving away, year after year, of some of their members. They rationalized their rejection of the associations by referring to the lack of intellectual and aesthetic activities in those groups. As a result of their attitudes, and as a result of the perception of their attitudes by permanent residents, there developed a degree of covert antagonism. While once or twice a year permanent and transient Upper Class people appeared together at some celebrations, they did not interact freely with each other. Transient Upper Class people preferred the company of their own kind even when engaging in recreation. They cited the lack of education of the permanent residents as the main reason for their lack of interaction with them.

The attitude of the permanent residents, and especially that of the Permanent Upper Class, was a mixture of criticism and of appreciation of superior education. According to the permanents, the transients took no interest in village affairs; according to the transients, they were being kept away from village affairs by the jealousy of the permanents. Permanents accepted the superior education of the transients somewhat grudgingly and claimed that the latter would "desert" Camas just as soon as economically convenient.

It would be difficult to decide which of the two upper classes had the greater prestige in the village. It seems that civic-political power in the case of the permanents, educational achievement and economic contributions in the case of the transients, placed the two classes into positions of equal, but different prestige.

It may be stretching the concept of social class to speak of the existence in Camas of a Transient Middle Class. Perhaps, it would be more accurate to suggest that teachers, nurses, government employees and some other occupational groups whose members resided in Camas for relatively short periods, formed a broad and vaguely defined prestige category. Individuals within this category interacted within their own groupings, but, because of their short-term residence in Camas, did not categorize clearly and consistently in terms of social classes. When identifying themselves, they did so by reference to their occupation and they interacted mainly within their own occupational group. A teacher's statement may be cited here:

> My wife and I came here a year ago. We intend to stay for another year, because the pay is good and we like the country. We want to save some money then move to a place with more life in it. We don't want to mix with the old-timers, and they don't want to mix with us. We visit back and forth with our colleagues.

Many transient professionals, however, were aware of social classes among the permanent residents and could identify the leading, as well as the low class, citizens of Camas.

To sum up discussion of social stratification in Camas, the periodic arrival of transient unemployed should be noted. Since these stopped only for a few hours, or for a few days at the most, their presence was not a significant factor in the stratification

scene although village councillors made unflattering remarks about "drifters" and "bums" who occasionally appeared in the village.

Conclusion

In the preceding discussion it was suggested that stratification at Camas occurs in both of the residential categories into which Camas residents sort themselves. Since Fried's (1963) preliminary survey of northern settlements shows residential configurations which seem to resemble that of Camas, it is entirely possible that length of residence and the ownership of real estate would turn out to be significant indices of stratification in certain kinds of Canadian communities.

I would offer the following suggestion for further study and testing: in settlements where a relatively stable and relatively well-entrenched permanent population experiences the influx of transients equal, or nearly equal, to their own numbers, a dual system of stratification might, at least temporarily, develop.

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Cummins' Summational MLI (1936) as an Expression of Significance of D and A Lines: An Alternative Approach

BY ABHIMANYU SHARMA*

RÉSUMÉ

L'auteur démontre la valeur scientifique de la méthode préconisée par Cummins malgré certaines déficiences du point de vue de la statistique.

Introduction

As was mentioned by Leche (1933:15) that "...D line is by far the most important, line A next in importance, while lines B and C are of less significance", it is clear that line D either singly (e.g. in MLF 11. 9. 7. 5") or in combination with line A (e.g. in MLF 7. 5". 5". 3, 9. 7. 5". 1, and so on) in a way "controls the movements" (strictly morphologically speaking) both of B and C as is clear from the examples given with parantheses. Attention was recently drawn by this writer to "somewhat topsyturvy arrangements" of the gradation orders indicated by C_5, B_5, and B_7 as compared to those shown by A and D lines. Further it has also been suggested that the "control" of the two latter lines (D and A) over B and C (in the morphological sense) is perhaps represented by the topsyturvy arrangements of their gradation orders (C_5, B_5, B_7) in the descending order of transversality and this seems to me "the most plausible explanation" (Sharma 1962a:112-127).

* The present paper is a shorter version of Art. VI of the unpublished Doctoral Thesis (Sharma 1962:150-159).

Problem

The central theme of the present paper is to attempt to show that besides the geometrical approach (Sharma 1957, 1959, 1961b, 1962a, 1962b, 1963a, 1963b) there is yet another way that both lines D and A are by far the most important (Cummins and Midlo 1943, 1961) and Cummins' MLI is simply instrumental in expressing this significant relationship between the two lines. In spite of a positive correlation (r = + 0.93) shown by Valsik and Pospisil (1960:369) between MLI and Valsik's Papillary Number (VPN), the latter is "an unscientific device" (Cummins, personal communication). This has been shown in several other papers by this writer (Sharma 1961a, 1962c, 1963c).

Material

Bilateral palmar prints (inked) of Burman males (400) and females (71) collected in 1953-1955 in Burma while I was on a teaching assignment at Rangoon University without any bias (Sharma 1962a:5-12) using the T-pad method of obtaining inked impressions (Sharma 1962a:29-37; 1962d).

Discussion

Table 1 shows the incidence of MLI-values (first vertical column) falling under different heads of D line terminations like D_{13}, D_{11}, D_{10}, D_9, D_8, D_7, and or D_x (first horizontal column).

The objective is to assess as to which different MLI-values are included when line D terminates in one particular termination. Is it that we find all MLI-values under all the different line D terminations, or only some? Some interesting facts come to light. For example, under D_{11} are included the MLI-values ranging from 7 to 12 (Table 1) but under D_9 the range of MLI-values is from 5 to 10, and so on as shown below for the entire Burman males under investigation (see Table 1):

D_{13} includes MLI-value of 16 only.
D_{11} includes MLI-values from 7 to 12.
D_{10} includes MLI-values of 7, 8, and 10.

D_9 includes MLI-values from 5 to 10.
D_8 includes MLI-values of 4 and 6 only.
D_7 includes MLI-values from 3 to 8.
(Value of r between MLI-values and line D terminations = 0.96 ± 0.003)

For D_x and D_0, MLI-values cannot be given since under the existing methods it is not possible to determine MLI for conditions D_x & D_0.

In Table 1, line D has been kept as a constant under different heads like D_{13}, D_{11}, D_{10}, D_9, D_8, D_7 and yet the values of MLI under each head of D line terminations show a wide range. It is only because of the uncommon factor of A line involved in the calculation of MLI of Cummins. The same can be stated in slightly different words: *for each fixed category of D line terminations A line shows a variety of combinations (with that fixed category of D) so as to give us a wide range of MLI-values.* This is what is observed in all the vertical columns of Table 1. Note that mean values of MLI go on progressively decreasing as we shift from D_{11} to D_9 to D_7.

A similar Table can be compiled by keeping the A line terminations separately in the horizontal columns so as to assess the "fluctuation" (in the morphological sense alone) of line D which would then combine differently with a fixed category like A_7, A_5'', A_5', A_4, A_3, A_2, A_1. It could be demonstrated, similarly to D line treatment, that MLI mean values show a progressive decrease as we shift from A_7 to A_6... to A_1 implying that more longitudinally alignments of line A are associated with lower MLI values as is indicated by the means. This is the crux of the present study. But these need not be compiled since the same can be deducted from the Table showing distribution of total number of different formulae as is shown below for D and A lines separately:

Line D:

D_{13} combines with A_7 only.
D_{11} combines with A_5'', A_5', A_4, A_3, A_2, A_1.
D_{10} combines with A_5', A_3, A_2.
D_9 combines with A_5'', A_5', A_4, A_3, A_1.
D_8 combines with A_3, A_1.
D_7 combines with A_5'', A_5', A_4, A_3, A_2, A_1.
D_x combines with A_3.

Line A:

A_7 combines with D_{13}.
A_5'' combines with D_{11}, D_9, D_7.
A_5' combines with D_{11}, D_{10}, D_9, D_7.
A_4 combines with D_{11}, D_9, D_7.
A_3 combines with D_{11}, D_{10}, D_9, D_8, D_7, D_x.
A_2 combines with D_{11}, D_{10}, D_9, D_7.
A_1 combines with D_{11}, D_9, D_8, D_7.

This is what has been referred to by M.T. Newman (1960: 49) in connection with the courses of line D and A as "...the association between their courses is not a rigid one". In spite of Gordon Gibson's statistical objections against MLI for two population samples being subjected to "comparative statistical treatment" referred to as "a statistical manipulation" of "unguarded means" by M.T. Newman (ibid), Gordon Gibson's suggestion (aimed at following statistical procedures) in favour of MT-11:7 Ratio being a "statistically unobjectionable device" is rejected by M.T. Newman (1960:49) since this ratio shows little or no distributional regularities in American aboriginal samples but "the regional weighted means for the main-line index (Newman 1960: 52, Table 4) partly corroborate the division between the North and South Highlands so clearly seen in finger pattern intensities" (Newman 1960:54).

It is only apt to quote Newman (1960) in relevant parts from the same paper as follows:

"For these reasons any attempt to devise a statistically acceptable measure of palmar main-line direction from *one main line alone* is not likely to produce as meaningful a measure as the main-line index" (p. 49).

"This distributional pattern [...] is only mentioned here as evidence that the main-line indices are meaningful in a biological sense, although their differences cannot be statistically validated" (p. 51).

"There is no question that Gibson is right in withholding statistical approval from so composite a measure as the main-line index. Future research for the purpose of developing more sensitive dermatoglyphic tools should more closely adhere to the tenets of good statistical procedures than they have in the past.

[...] it seems best to use the main-line index even though this tends to violate statistical usage" (pp. 49-50).

"The present paper, then shows what can be accomplished by established dermatoglyphic methods in discerning the biological distances between Maya populations" (p. 45).

"In short, use of the main-line index is statistically suspect, yet it does have definite meaning. A high average main-line index bespeaks a strong trend toward transverse (across the palm) courses of the two outside main-lines, while a low mean index signifies their generally longitudinal (proximo-distal) direction" (p. 50).

In spite of Gordon Gibson's opinion (see Newman 1960:49), "Statistical procedures in this instance would be better satisfied [...] if the values for one and not two main-lines were summated into an index or a proportion", it is found by Newman (1960:49) that this ratio shows little or no distributional regularities in American aboriginal samples [...]", whereas the regional weighted means for the MLI do succeed in partly corroborating "the division between the North and South Highlands so clearly seen in finger pattern intensities" (*ibid.*: 54). To my mind, this certainly settles the issue in favour of MLI being a superior technique or measure as an expression of extent of transversality (or longitudinality) as shown by the average mean ridge-directioning taken between D and A lines for a population. Of course, this is to be followed till "more sensitive dermatoglyphic tools" following "the tenets of good statistical procedures" are found out as Newman points out (*ibid.*: 49-50). He further recommends the usage of MLI "even though this tends to violate statistical usage" as has just previously been mentioned.

The expression *"one main line alone"* as used by Newman *(ibid.: 49)* in this context is significant since he writes, *"...one main line alone* is not likely to produce as meaningful a measure as the main-line index". Though this has been written in the context of Modal Types 11, 9, 7 as based on D line terminations, it is equally valid for line D or A separately, whatever form is given to these lines in adjudging the transverse or longitudinal alignments. This is further true because I hold the opinion that both

TABLE 1

Frequency Distribution of MLI Values Included Under Separate Terminations of D Line (D_{13}, D_{11}, D_{10}, D_9, D_8, D_7, D_x) in the Burman Males (400) Showing Association of Ridge Courses Between D and A.

	Classes of Line D Terminations (males only)																	
MLI	13		11		10		9		8		7		X		Total	
	R	L	R	L	R	L	R	L	R	L	R	L	R	L	R	L
16	2	–	–	–	–	–	–	–	–	–	–	–	–	–	2	–
12	–	–	18	5	–	–	–	–	–	–	–	–	–	–	18	5
11	–	–	76	22	–	–	–	–	–	–	–	–	–	–	76	22
10	–	–	2	1	3	–	1	–	–	–	–	–	–	–	6	1
9	–	–	47	31	–	–	57	14	–	–	–	–	–	–	104	45
8	–	–	–	4	2	3	8	2	–	–	1	–	–	–	11	9
7	–	–	2	1	–	2	84	115	–	–	18	2	–	–	104	120
6	–	–	–	–	–	–	–	6	2	3	2	1	–	–	4	10
5	–	–	–	–	–	–	1	24	–	–	72	118	–	–	73	142
4	–	–	–	–	–	–	–	–	–	1	1	16	–	–	1	17
3	–	–	–	–	–	–	–	–	–	–	1	28	–	–	1	28
N	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	(IN)
Total	2	–	145	64	5	5	151	161	2	4	95	165		1	400	399 (IN)

Result

Line D beginning with		Mean	S.D.	C.V.
D_{11} (MLI : 7 to 12)	R	10.41 ± 0.09	1.10 ± 0.07	10.58 ± 0.62
	L	9.84 ± 0.15	1.20 ± 0.11	12.17 ± 1.08
D_9 (MLI : 5 to 10)	R	8.19 ± 0.08	1.00 ± 0.06	12.69 ± 0.73
	L	6.91 ± 0.08	1.00 ± 0.06	14.41 ± 0.80
D_7 (MLI : 3 to 8)	R	5.40 ± 0.09	0.88 ± 0.06	16.30 ± 1.18
	L	4.66 ± 0.07	0.92 ± 0.05	19.66 ± 1.08
D_7 to $_{13}$ (MLI : 3 to 16)	R	8.23 ± 0.11	2.25 ± 0.08	27.38 ± 0.97
	L	6.39 ± 0.11	2.07 ± 0.07	32.34 ± 1.15

Value of r between MLI values and line D termination = + 0.96 ± 0.003

D and A lines (including their variations) morphologically define the two "outside most" limits of palmar main lines since D and A are the farthest removed from each other among the four digital triradii.

Summary and Conclusion

Both D and A lines — and their variations — on the palmar surface morphologically define the palmar ridge-coursing in any human population under investigation while Cummins' summational main-line Index (MLI) is by far the most vivid expression of this basic fact in spite of Gordon Gibson "withholding statistical approval". Newman (1960) is justified in observing that MLI has *"definite meaning"* irrespective of it being *"statistically suspect"*. Besides the geometrical approach, this is an alternative approach to understand the significance of MLI as an expression of significance of lines D and A.

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Nine Small Sites on Lake St. Francis Representing an Early Iroquois Horizon in the Upper St. Lawrence River Valley

BY JAMES F. PENDERGAST

RÉSUMÉ

Les restes archéologiques des Iroquois, surtout la poterie, trouvés dans la région du lac St-François, sont étudiés ici, puis comparés à ceux des villages typiquement Iroquois à l'est de l'Ontario.

INTRODUCTION

The existence of a number of small Iroquois sites on the St. Lawrence River between Kingston, Ontario and Lake St. Francis has been known for some time. Although they have been considered Iroquois on the basis of the pottery samples available, there are elements of incongruity which do not permit them being equated entirely with the major Iroquois villages nearby in eastern Ontario east of the Rideau Canal.

Certainly their location on the St. Lawrence River does not fit the site pattern of the major villages which, invariably, are located some distance inland from the St. Lawrence and on the headwaters of minor waterways. Their shallow artifact-bearing strata, the lack of deep middens containing an abundance of kitchen debris, and the paucity of white ash are the antithesis of the major inland villages. While these differences might be explained by attributing them to be but fishing stations of the inhabitants of the inland Iroquois villages, such a conclusion is not supported by the differences in the pottery types involved.

This paper proposes to examine the Iroquois artifacts, principally pottery, from nine small river sites located in the Lake St. Francis area, compare them with those from typical major Iroquois

inland village sites in eastern Ontario, and where possible suggest relationships between the two groups of sites. Attention will be invited to those instances where material from the river sites appears to be related to Iroquois elsewhere in Ontario.

SITE DESCRIPTIONS

All nine of the sites under discussion are located on islands in Lake St. Francis which is a broadening of the St. Lawrence River immediately north-east of the junction of the Quebec, Ontario, and New York State boundaries. Five of them are on Thompson Island, one of the principal islands in the Lake, which is approximately 1600 yards long and 800 yards wide at the widest points. The remainder are located on nearby small islands; two on Ross' and one each on Butternut and Kit Kit. The two largest sites are located on Thompson Island and have been named Gogo and Cameron after two prominent local collectors, one or the other of whom discovered or excavated all nine of the sites.

The Gogo site is situated on the top and south slope of a ridge which runs spine-like down the centre of the island in a north-east south-west direction. At the site this ridge is 200 - 300 feet inland from the north shore of the island and about 20 feet above the water. The area occupied appears to be about fifteen yards square consisting of a shallow layer of black soil three to four inches deep which occasionally dips to eight inches deep in what appear to be debris-filled natural hollows. Three ash filled depressions 15 inches deep and located towards the east end of the site appear to have been fire pits. Very little fragmented bone or charcoal occurs anywhere on the site and it produces nothing but Iroquois material.

All of the other sites produce a wide range of Point Peninsula and Owasco-like artifacts mixed with Iroquois material in three to four inches of top-soil. Butternut is an exception where the culture-bearing layer includes depressions up to eighteen inches deep. They are all small sites with material scattered for 25 to 30 yards along the shore and extending back from it 10-15 yards. There is very little of the fragmented bone or other kitchen debris

usually associated with Iroquois sites. The pre-Iroquoian and Iroquois artifacts are intermingled in the shallow artifact-bearing stratum to such an extent as to make difficult substantiating a seriation premised upon an excavating technique. Nevertheless it is possible to attribute groups of artifacts to different horizons based upon information available from other research, e.g. Ritchie and MacNeish 1949, Wintemberg 1936, MacNeish 1952, Emerson 1954, Ritchie 1961 and Pendergast 1962, n.d. It is on this basis that the Iroquois and Iroquois-like material has been separated for discussion in this paper.

BACKGROUND

As has been stated the small sites on the river have been considered Iroquois on the basis of the pottery found on them. Sherds decorated with chevron, oblique, and horizontal line motifs executed using dentate stamped, linear stamped, push-pull, and incised techniques are readily recognizable as Iroquois vis-à-vis the pottery attributable to pre-Iroquoian cultures on the basis of the definition provided by Ritchie and MacNeish (1949).

There are also present, however, considerable numbers of low collared and collarless rim sherds of many different shapes decorated with a great variety of motifs using an almost equally great variety of stamping and paddle-edge techniques. Because these sherds are found intermingled with the Iroquois and pre-Iroquoian material in a shallow artifact-bearing stratum, and because they resemble neither Ritchie and MacNeish's pre-Iroquoian pottery types nor MacNeish's Iroquois, there was for some time a haunting possibility that they represented an unrecognized horizon in eastern Ontario. In these circumstances the absence of data on similar material from elsewhere in the Northeast Area, the impracticability of arriving at a seriation based on an excavating technique, and the lack of time to locate and excavate similar undisturbed sites, readily fostered an attitude of procrastination which has delayed the preparation of this paper.

However recent investigations of three major inland Iroquois sites in eastern Ontario, i.e. Salem, Gray's Greek and Beckstead (Pendergast n.d.), have disclosed that similar stamp-decorated

low collared and collarless rim sherds are common on these sites. A subsequent re-examination by the author of relatively small pottery samples from a number of unexcavated inland Iroquois village sites and Wintemberg's Roebuck material indicates that significant quantities of this pottery are also found on those sites. Wintemberg (1936:36) went so far as to designate it the "third type" and to state, "It is possible however that the third type is a survival of an earlier stage in Iroquois pottery development". He suggests (ibid:123) that pots "with constricted necks and flaring mouths, however, may be survivals of evolutional stages in the development of the collared type". The association of recognized early Iroquois types, e.g. Iroquois Linear, Ontario Horizontal, and Lawson Incised, and the collarless and low collared stamp decorated ware on the small river sites appears to substantiate Wintemberg's suggestion. However, the collarless and low collared pottery and the early Iroquois pottery types are sometimes found in immediate physical association with a few well executed sophisticated late Iroquois rim sherds, e.g. Durfee Underlined and Onondaga Triangular, because of the shallow artifact layer on the sites. It is therefore not possible to conclude with any certainty that the physical proximity of rim sherds on the river sites is indicative of their proximity in time.

ARTIFACTS

Numerically, potsherds are the principal artifact recovered from the sites. Although there is a considerable number of Point Peninsula and Owasco-like sherds involved on all but the Gogo site, this paper is concerned only with the Iroquois material. It is planned to prepare a paper on this earlier material at a later date when its significance in the area is better understood.

The incidence of Iroquois rim sherds by types and groups from each site is set out in Table 1. Figure 1 illustrates the rim shapes and Figure 2 the decorative motifs involved in the complete rim sherd sample from all nine sites. This information is correlated in Table 2 to indicate, by sites, the number of sherds of each type or group recovered, their rim profile, and the decorative motif involved. In effect, Table 2 is a record of each Iroquois rim sherd recovered.

It is unfortunate that the other artifacts which were recovered intermingled cannot be separated into cultural groups with the same reasonable degree of certainty as can rim sherds. Were this not so it probably would be possible to determine whether late Iroquois artifacts occur earlier in the local Owasco-like horizon (call it what you may), and whether Owasco-like tools occur at the early levels of the local Iroquois sequence. Points are a good example. Seven typical Levanna points were recovered at Southwest Thompson together with three coarse Madison points. It would be very useful to know for certain which pottery complex these points are associated with in this area. A similar situation exists at Kit Kit where one Levanna and one Madison point were recovered. Although all four points found at Northwest Thompson are Levanna it is not certain whether they are associated with the Owasco-like pottery level, the early Iroquois, or both. At Butternut both points found are coarse Madison while at Kit Kit one point is Levanna and the other is typical Madison. The occurrence of unilateral and bilateral harpoons, and platform and Micmac steatite pipes is also in this category. Only four clay pipe fragments, all small pieces of cylindrical stems, were recovered. The one found on Cameron has a slightly flared mouthpiece while the three from Butternut do not appear unique in any way. It is not possible to say whether they are associated with the Owasco-like or the Iroquois material on the site.

Numerous plano-convex and biconvex adzes, hammerstones, flat circular pitted stones, and net-sinkers of various sizes occur on all the sites. Since they cannot be attributed to either the Owasco-like or the Iroquois levels with certainty, and because they are all typical Iroquois tools of their type, they will not be described in detail. Schist, granite, limestone, red slate, and green slate are the materials used for these tools in that order of preference.

DISCUSSION

The small sample available from the river sites makes it difficult to support the validity of some of the conclusions which can be reached from a statistical analysis. Nevertheless at present, because of the very nature of the nine sites under discussion, such

an approach appears to be the only means available to provide an insight into this heretofore unexamined horizon of the eastern Ontario Iroquois. It is hoped that similar larger and richer undisturbed sites will be found which will confirm or deny the tentative conclusions and suggestions arrived at on the basis of the limited material available at present.

Pottery

In seeking to determine the relative place occupied by the sites in the local Iroquois sequence, a comparative analysis of the incidence of early Iroquois rim sherds (MacNeish 1952) was undertaken with the result shown in Table 3. On the basis of this comparison it appears valid to state that the river sites are earlier than the inland village sites because they have more than twice the amount of early pottery types present. It is worthy of note that the Iroquois Linear, Ontario Horizontal, Lawson Incised, and Pound Necked types, early types in eastern Ontario, are more prevalent on the river sites than are Swarthout Dentate and Lanoraie Mixed, which are quite prevalent on some of the inland village sites. It appears that the dentate stamping decorative technique came into extensive use at a time later than that during which the small river sites were occupied. This does not infer that the technique is absent during river site times but rather it notes the paucity of dentate stamping at that level relative to its abundance during the earlier Point Peninsula era, and later during the time when some of the major inland village sites were occupied.

Should Wintemberg's suggestion be correct that stamped collarless and low collared pottery (his third type) is early, then it is possible that the relative quantities of such pottery on eastern Ontario Iroquois sites may be useful as a time marker in the area. With this in mind the information set out in Table 4 has been compiled. While it is subject to the earlier comment regarding the statistical validity of small samples and the fact that the pre-Iroquoian and Iroquois pottery, although intermingled, likely represent a considerable span of time, there are a number of indications worthy of note.

On an overall average the river sites produced twice the amount of stamped low collared pottery found on the inland villages. The incidence of collarless sherds on the river sites slightly exceeds that on the inland villages. This relationship appears to bear out Wintemberg's prognostication and suggests that the river sites are earlier than are the inland villages.

Of the low collared stamp-decorated sherds it is only in the Depressed Lip category that the inland villages have the greater incidence. As such, it appears that Depressed Lip is a minor trait more prevalent on early inland villages, e.g. Salem, than it is on the later ones, e.g. Roebuck or the earlier river sites.

Emerson (1954, 1955) suggests that castellations can serve as an indication of time level in the Ontario Iroquois sequence. With this in mind Table 5 has been compiled to describe the thirty-three castellated rim sherds recovered from all nine sites. Table 5 can also be used in conjunction with Table 2 to determine the decoration and rim shape of sherds on which castellations occur. Emerson (1955:2) under the nomenclature "Classic Early", considers the incipient pointed castellation to be early in the southwestern and central Ontario Iroquois sequence and at present there is no reason to believe it is other than early in eastern Ontario. On this basis the fact that 73 percent of the castellations on the river sites are incipient pointed, as opposed to 64 percent at Beckstead, 57 percent at Salem, and 19 percent at Gray's Creek, supports the suggestion that the river sites are earlier than the inland villages. The use of vertical rows of punctate circles as a castellation decoration, four on an Onondaga Triangular sherd, five on a Lanoraie Mixed sherd, and six on a Durfee Underlined sherd, makes a case for the equally early introduction of the punctate circle decoration in the eastern Ontario Iroquois sequence. As such, it can not always be equated to the Roebuck time level, but this is not a reason to deny the possibility that there may not have been an upward surge in its use later in Roebuck times. One classic pointed castellation on a Durfee Underlined sherd from the Northwest Thompson site and one incipient pointed castellation on a Swarthout Dentate rim sherd from the East Ross site have a slight overhang. This suggests a nascent characteristic that increased as the state of

the art developed to the point where a one to two-inch overhang became possible as is found on the sophisticated versions which occur in considerable quantities on the inland village sites. The prevalence of incipient pointed castellations on Ontario Horizontal sherds appears to indicate that the sherds are relatively late in the evolution of that pottery type in view of MacNeish's statement (1952:16) that castellations are rare on typical sherds of this type. It follows, therefore, that Ontario Horizontal in eastern Ontario cannot be equated in time with that in south-western, and possibly central, Ontario.

Decorated pot lips are common at Salem and Gray's Creek and to a lesser extent at Beckstead. Although they occur at Roebuck they do not appear to be as dominant a characteristic. In the event this trait might be useful as a time marker the information in Table 6 has been compiled. Only 3.7 percent of all rim sherds from all nine river sites have lip decorations whereas 35 percent at Salem, 25 percent at Gray's Creek, and 17 percent at Beckstead are decorated. This appears to indicate that lip decoration is a trait which flowered during the period when some of the earlier inland village sites were occupied, but which did not continue through to Roebuck times to the same extent.

MacNeish (1952:79, 82) considers pottery decorated with cord-wrapped stick impressions to be early, and it is a common decorative technique on pre-Iroquoian pottery (Ritchie and MacNeish 1949). Table 7 indicates the occurrence of this technique on pottery from the river sites. The twelve rim sherds involved represent 3.3 percent of all the rim sherds from the nine river sites. This is considerably more than is found on the inland village sites where only 0.2 percent occurs at Salem with none at either Gray's Creek or Beckstead. Two cord-marked body sherds occur in the Gogo site sample representing 0.5 percent of the body sherds. At Salem 1.2 percent of the body sherds and 1.2 percent of the shoulder sherds are cord-marked. At Gray's Creek 4.7 percent of the body sherds are cord-marked while at Beckstead there are none. It would appear therefore that cord-wrapped stick-impressed rims are a valid early time marker in this area whereas the evidence available on cord-marked body sherds is, at present, so inconclusive as to deny the use of this trait to the same extent.

Tables 1 and 2 mention Ontario Horizontal, Iroquois Linear, Durfee Underlined, and Onondaga Triangular rim sherds. In many cases these sherds, while undoubtedly belonging to the pottery type mentioned, look slightly foreign and crude in comparison with typical sherds of the type. Although the decorative motif, technique, and rim shape all meet the requirements necessary to be classified under the established type, there remains an element of difference which sets them apart from typical sherds of their type. The Ontario Horizontal sherds in this category have widely spaced and wide, deeply incised lines on a collar somewhat higher than is normal. The Durfee Underlined and Onondaga Triangular specimens have wavy, shallow, incised or scraped lines at irregular intervals which are sometimes incomplete as regards their length. The general impression is one of poor workmanship indicative of a skill not yet developed to the same degree as that prevalent on the inland village sites. However there are a few Durfee Underlined, Onondaga Triangular, and Roebuck Low Collar sherds on the river sites which are fully as well executed as classic examples of similar sherds from Roebuck. It is for consideration whether these are early sherds or those left on the site later than their crude counterparts but found intermingled with them and in some cases, with pre-Iroquoian pottery, due to the very thin artifact-bearing mantel found on the river sites.

The six sherds from Gogo and four from Butternut classified Coarse Oblique Dentate are grouped under that heading because of their similarity in technique, motif, and rim shape. Similar sherds were found at Roebuck (Smith 1923:129, fig 7, Wintemberg 1936:135, fig 37). At Salem 26 rim sherds, representing 32.5 percent of the Swarthout Dentate sample which in turn was 3 percent of the site sample, are coarse dentate stamped. At Gray's Creek there were 3 coarse dentate stamp rim sherds while at Beckstead there were none. There is no suggestion at this time that this group of sherds should be accepted as an Iroquois pottery type and the wide time span encompassed appears to deny its use as a qualitative time marker. It remains to be seen whether its quantitative occurrence will be useful in this regard.

It has been suggested by Emerson (1954:85) that the carinated or ridged pot-shoulder is a late trait in the Ontario Iroquois sequence. P. Schuyler Miller, in private correspondence with the author, also suggests the use of this characteristic as a late time marker. On the Gogo site only seven of the 39 shoulder sherds recovered, 17.9 percent, are carinated. At Gray's Creek 37 percent of the shoulders are carinated; at Beckstead 52 percent; and at Salem 56 percent are so shaped. This comparison supports Emerson's and Miller's hypothesis and reinforces the conclusion reached from the analysis of the rim sherds that the river sites are earlier than the inland villages.

The incidence of check-stamped marked body sherds has been suggested by MacNeish (1952:82) and Emerson (1954:80) as a useful time marker on the basis that it is present on Iroquois pottery as a vestige of an earlier pre-Iroquoian trait. Unfortunately only body sherds from the Gogo site are available for analysis. Nevertheless the characteristics of these 394 sherds shed some light on the problem. Three hundred and nine, 78.4 percent, are check stamped; 49, 12.4 percent, are plain; 34, 8.6 percent, ribbed-paddle marked; and two, 0.5 percent, are cord-marked. At Roebuck 10 percent of the body sherds are check-stamped while Salem, Gray's Creek, and Beckstead each have 14 percent of the body sherds so decorated. This comparison appears to bear out MacNeish's and Emerson's contention and supports the relative position of the river sites in the eastern Ontario Iroquois sequence derived from the rim and shoulder sherd analysis.

MacNeish (1952:16) states that Ontario Horizontal, together with Fonda Incised and Cayuga Horizontal, "might well be combined to form a Super-Pan-Iroquoian type". The presence of Ontario Horizontal on the river sites substantiates MacNeish's opinion in this regard insofar as it adds a heretofore unreported area and time level to the instances applicable. It is likely that in this case Ontario Horizontal is ancestral to Salem Horizontal (Pendergast n.d.) which occurs in considerable quantities on the inland village sites nearby in eastern Ontario. Salem Horizontal in turn is undoubtedly closely related to Fonda Incised. The co-existence of Iroquois Linear and Ontario Horizontal also tends to support MacNeish's hypothesis that the former may be ances-

tral to the latter. The relative incidence of the two types on all sites combined, 18.7 percent Ontario Horizontal and 4.5 percent Iroquois Linear, appears to serve as an indicator that the time period involved is closer to the late incised pottery era than it is to the earlier era when the push-pull technique was in vogue. This is also borne out by the small number of early cord-wrapped stick-impressed sherds recovered.

Wright (1960:3) considers Middleport Oblique, Lawson Incised, and Ontario Horizontal to be the "trio of pottery types which is regarded as the major marker of the Middleport Horizon." He goes on to state that Iroquois Linear, Middleport Criss-Cross, Lawson Opposed, and Pound Necked are frequently found in association. The presence of Ontario Horizontal on the river sites to the amount of 18.7 per cent, Lawson Incised 5.6 per cent, Iroquois Linear 4.5 per cent, and Pound Necked 2.5 per cent suggests some relationship between the river sites and the Middleport Horizon. It would appear that while Ontario Horizontal, Lawson Incised, Iroquois Linear, and Pound Necked are pottery types common to both the Middleport Horizon and the river sites, the remaining Middleport Horizon pottery types are replaced on the river sites by low collared and collarless pottery varieties decorated with a stamping technique which persists in the area through to Roebuck times.

He also claims (ibid.) Middleport Horizon, "projectile points tend to be of the narrow, triangular, side notched variety rather than the unnotched triangular form which is characteristic of later Iroquois sites." Projectile points from the river sites being unnotched triangular shapes do not support the conclusions reached on the basis of the ceramic analysis. Unfortunately the lack of pipes and bone artifacts from the river sites does not permit the comparison to be extended to these artifacts.

Points

The Levanna points recovered are typical specimens of their type. The Madison points on the other hand appear to be thicker than usual and not as well executed. They tend to be more equilateral than isosceles. Whether these attributes will emerge

as traits of the early Iroquois in this area remains to be seen. The existence of Levanna points and Owasco-like pottery appears to indicate that there are grounds for suspecting Owasco-like antecedents for the eastern Ontario Iroquois.

CONCLUSION

Although the validity of certain of the conclusions reached from the analysis may be open to question on the basis that insufficient statistical depth exists in the small samples available, it should be recognized that the inherent characteristics of known small river sites dictates that conclusions will have to stem from small samples if this eastern Ontario Iroquois horizon is to be considered at present.

From the point of view of the Iroquois pottery specialist a number of tentative conclusions are suggested. Probably the most significant is the emergence of stamped low collared and collarless pottery as an early Iroquois trait as was foreseen by Wintemberg. At present this characteristic appears to apply to eastern Ontario east of the Rideau Canal, south-central Quebec, and in the light of Miller's experience, Vermont state. Equally interesting, and not yet wholly supported by the author, is the possibility that dentate-stamp decorated pottery, e.g. Swarthout Dentate, Lanoraie Mixed, and Oblique Dentate, is more common on the early inland village sites than it is on the still earlier Iroquois river sites. As a result the incidence of dentate-stamp decorated pottery may not be indicative per se of antiquity, particularly if it involves a comparison of Iroquois sites on the St. Lawrence River and those inland. The incidence and complexity of lip decorations, believed to be indicative of early sites (Pendergast n.d.), is also likely subject to this comment. The punctate circle decoration occurs early in the eastern Ontario Iroquois sequence hence its presence cannot be equated with Roebuck times only. Carinated or ridged shoulders are emerging as a valuable time marker in the area.

Approached with a less microscopic outlook there are interesting possibilities. On the basis of the ceramic analysis the

river sites appear to be related to the Middleport Horizon in a manner not yet fully understood. It is possible that they are the eastern Ontario equivalent on that time level.

It appears likely that there was a time relatively early in the development of the eastern Ontario Iroquois when their pattern of daily life more resembled that of their nomadic woodland ancestors than it did the historic Iroquois located in well established and sometimes fortified inland villages. Apparently they lived relatively defenceless in camps on the major waterways which they occupied for short periods, how long probably depending on the availability of fish and waterfowl. The absence of corn and beans on these sites suggests that farming was not yet a prime source of food. The small areas of the river sites suggests that family groups had not coalesced to form the large groups which later occupied the inland village sites.

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TABLE 1 — RIM SHERD ANALYSIS BY SITES

Pottery Type/Group	*Gogo*		*Cameron*		*East Ross*		*SW Thompson*		*Butternut*		*SE Thompson*		*South Ross*		*Kit Kit*		*NW Thompson*		*Totals*	*Percent. of Total Sample*
	No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%		
Ontario Horizontal	20	11.7	40	40.4	2	10.0	1	5.3	1	6.3	1	7.7	2	18.2	—	—	—	—	67	18.7
Stamped Low Collared	29	17.0	11	11.1	1	5.0	1	5.3	4	25.0	3	23.1	2	18.2	—	—	1	50.0	52	14.5
Salem Lip	19	11.1	2	2.0	1	5.0	2	10.5	1	6.3	1	7.7	2	18.2	—	—	—	—	28	7.8
Dutch Hollow Notched	25	14.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	25	7.0
Chevrons	4	2.3	10	10.1	1	5.0	2	10.5	—	—	1	7.7	—	—	6	75.0	—	—	24	6.7
Niagara Collared	16	9.4	5	5.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	21	5.8
Lawson Incised	12	7.0	1	1.0	6	30.0	—	—	—	—	1	7.7	—	—	—	—	—	—	20	5.6
Durfee Underlined	11	6.4	3	3.0	1	5.0	1	5.3	2	12.5	—	—	—	—	—	—	1	50.0	19	5.3
Iroquois Linear	6	3.5	7	7.1	—	—	—	—	2	12.5	—	—	—	—	1	12.5	—	—	16	4.5
Oblique Coarse Dentate	6	3.5	—	—	—	—	—	—	4	25.0	—	—	—	—	—	—	—	—	10	2.8
Pound Necked	6	3.5	3	3.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9	2.5
Pseudo-Huron Incised	—	—	2	2.0	3	15.0	1	5.3	—	—	1	7.7	—	—	—	—	—	—	7	1.9
Roebuck Low Collar	—	—	—	—	1	5.0	—	—	—	—	—	—	5	45.5	1	12.5	—	—	7	1.9
Salem Mixed	—	—	—	—	—	—	5	26.3	—	—	2	15.4	—	—	—	—	—	—	7	1.9
Lanoraie Crossed Lip	4	2.3	2	2.0	—	—	—	—	—	—	—	—	1	—	—	—	—	—	6	1.7
Ripley Plain	2	1.2	—	—	—	—	—	—	—	—	1	7.7	—	—	—	—	—	—	3	0.8
Thurston Horizontal	—	—	—	—	—	—	1	5.3	1	6.3	—	—	—	—	—	—	—	—	2	0.6
Depressed Lip	1	0.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	0.3
Scalloped Lip	1	0.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	0.3
Onondaga Triangular	—	—	1	1.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	0.3
Oak Hill Corded	—	—	—	—	—	—	1	5.3	—	—	—	—	—	—	—	—	—	—	1	0.3
Lanoraie Mixed	—	—	—	—	—	—	1	5.3	—	—	—	—	—	—	—	—	—	—	1	0.3
Genoa Frilled	—	—	—	—	1	5.0	—	—	—	—	—	—	—	—	—	—	—	—	1	0.3
Swarthout Dentate (Coarse)	—	—	—	—	1	5.0	—	—	—	—	—	—	—	—	—	—	—	—	1	0.3
Lanoraie Crossed	—	—	—	—	—	—	—	—	1	6.3	—	—	—	—	—	—	—	—	1	0.3
Untyped	9	5.3	12	12.1	2	10.0	3	15.8	—	—	2	15.4	—	—	—	—	—	—	28	7.8
TOTAL	171	—	99	—	20	—	19	—	16	—	13	—	11	—	8	—	2	—	359	
Percent of Total Sample	47.6	—	27.6	—	5.6	—	5.3	—	4.5	—	3.6	—	3.1	—	2.2	—	0.6	—		

TABLE 2 — TYPE, INCIDENCE, SHAPE, AND MOTIF OF RIM SHERDS BY SITES

Site	*Type/Group*	*Shape*	*Motif*	*No.*	*Remarks*
Gogo (171 rim sherds)	Stamped Low Collared (29 - 17.0%)	43	146	6	same pot-stamp decoration on lip pulled down onto collar
		52	30	2	
		3	6	1	
		44	146	1	stamp decoration on lip pulled down onto collar
		45	71	1	
		46	146	1	stamp decoration on lip pulled down onto collar
		69	42	1	
		95	28	1	
		104	7	1	
		104	44	1	
		105	11	1	
		108	21	1	
		108	29	1	
		110	39	1	
		114	16	1	
		119	27	1	
		121	45	1	
		126	9	1	
		130	34	1	
		150	18	1	
		154	22	1	
		154	118	1	
		162	17	1	
	Dutch Hollow Notched (25 - 14.6%)	80	66	9	same pot
		90	53	4	
		78	53	3	
		91	53	2	
		65	63	1	
		66	64	1	
		72	53	1	
		81	57	1	cord - wrapped stick impressed
		84	53	1	
		84	70	1	
		89	63	1	

Site	*Type/Group*	*Shape*	*Motif*	*No.*	*Remarks*
	Ontario Horizontal (20 - 11.7%)	?	72	8	same pot
		5	72	4	three classic - pointed castellations
		149	103	3	one classic - pointed castellation
		1	72	1	
		16	?	1	one classic - pointed castellation
		19	75	1	
		144	103	1	
		?	98	1	
	Salem Lip (19 - 11.1%)	58	47	3	
		60	148	3	same pot
		64	147	3	
		71	68	2	
		57	56	1	
		57	59	1	
		58	44	1	
		60	59	1	
		64	plain	1	
		76	60	1	
		82	38	1	
		?	48	1	
	Niagara Collared (16 - 9.4%)	13	36	14	same pot
		53	36	1	
		127	plain	1	
	Lawson Incised (12 - 7.0%)	10	9	2	
		122	6	2	
		14	7	1	
		36	6	1	
		37	6	1	
		38	6	1	
		39	6	1	
		39	7	1	
		51	12	1	
		120	6	1	
	Durfee Underlined (11 - 6.4%)	1	14	11	same pot — shallow irregular incising notches below collar — two classic-pointed castellations

Site	*Type/Group*	*Shape*	*Motif*	*No.*	*Remarks*
	Iroquois Linear (6 - 3.5%)	11	73	1	incipient-pointed castellation
		30	80	1	
		31	69	1	
		63	74	1	
		68	75	1	same pot — one incipient-pointed castellation
		72	75	1	
	Pound Necked (6 - 3.5%)	35	111	6	same pot
	Coarse Oblique Dentate (6 - 3.5%)	16	1	4	one incipient-pointed castellation
		14	5	1	
		125	2	1	
	Lanoraie Crossed Lip (4 - 2.3%)	112	137	2	
		21	138	1	cord-wrapped stick-impressed collar over horizontal push-pull lines
		77	136	1	
	Chevrons (4 - 2.3%)	22	127	2	
		49	116	1	
		56	114	1	
	Ripley Plain (2 - 1.2%)	60	36	2	same pot
	Depressed Lip (1 - 0.6%)	113	15	1	
	Scalloped Lip (1 - 0.6%)	79	149	1	
	Untyped (9 - 5.3%)	54	143	6	same pot
		128	130	2	same pot
		111	129	1	
Cameron (99 rim sherds)	Ontario Horizontal (40 - 40.4%)	102	84	3	same pot
		132	101	3	same pot
		48	96	2	same pot
		48	102	2	same pot
		131	99	2	same pot
		132	98	2	same pot
		132	100	2	same pot
		143	98	2	same pot

Site	*Type/Group*	*Shape*	*Motif*	*No.*	*Remarks*
		15	108	1	
		28	83	1	
		32	67	1	
		32	102	1	
		32	105	1	incipient-pointed castellation
		34	109	1	
		41	102	1	
		42	103	1	
		123	110	1	
		132	99	1	
		144	85	1	
		159	97	1	
		161	92	1	
		164	101	1	
		168	93	1	
		?	82	1	
		?	102	6	six incipient-pointed castellations
	Stamped Low Collared (11 - 11.1%)	99	26	3	same pot
		99	24	1	
		100	37	1	
		100	51	1	
		100	52	1	
		101	20	1	
		107	32	1	
		124	48	1	
		166	23	1	
	Chevrons (10 - 10.1%)	9	113	4	same pot — one incipient-pointed castellation
		50	114	2	same pot — cord-wrapped stick-impressed chevrons on the neck
		5	120	1	
		9	119	1	
		139	123	1	
		155	125	1	
	Iroquois Linear (7 - 7.1%)	20	81	1	incipient-pointed castellation
		26	117	1	incipient-pointed castellation

Site	*Type/Group*	*Shape*	*Motif*	*No.*	*Remarks*
		31	132	1	push-pull looks like end-to-end stamping
		85	87	1	
		129	88	1	
		142	77	1	push-pull looks like end-to-end stamping
		157	78	1	incipient-pointed castellation
	Niagara Collared (5 - 5.1%)	87	150	3	same pot
		54	plain	2	same pot
	Durfee Underlined (3 - 3.0%)	8	normal	1	lip decoration of dots and triangles
		71	normal	1	child's pot
		133	normal	1	
	Pound Necked (3 - 3.0%)	106	112	3	same pot — one incipient - pointed castellation
	Lanoraie Crossed Lip (2 - 2.0%)	109	139	1	
		158	140	1	
	Salem Lip (2 - 2.0%)	75	12	1	
		83	13	1	
	Pseudo-Huron Incised (2 - 2.0%)	40	7	1	
		153	11	1	
	Lawson Incised (1 - 1.0%)	19	6	1	
	Onondaga Triangular (1 - 1.0%)	133	normal	1	punctate notches under collar, incipient-pointed castellation with vertical row 4 punctate circles
	Untyped (10 - 10.1%)	7	126	7	same pot
		31	8	2	cord-wrapped stick-impressed chevrons on the neck — one incipient-pointed castellation
		116	8	1	

Site	*Type/Group*	*Shape*	*Motif*	*No.*	*Remarks*
East Ross (20 rim sherds)	Lawson Incised (6 - 30%)	24	9	6	same pot
	Pseudo-Huron Incised	163	9	2	same pot
	(3 - 15%)	169	49	1	
	Ontario Horizontal	11	72	1	
	(2 - 10%)	27	90	1	
	Chevrons (1 - 5%)	87	111	1	
	Genoa Frilled (1)	152	76	1	
	Salem Lip (1)	59	149	1	
	Stamped Low Collared (1)	97	41	1	
	Roebuck Low Collar (1)	?	Durfee Underlined	1	
	Durfee Underlined (1)	133	normal	1	ladder - plait decoration in open triangles
	Swarthout Dentate (1)	2	Durfee	1	coarse dentate — incipient-pointed castellation decorated with vertical plait of short horizontal lines — castellation has slight overhang
			Underlined	1	
	Untyped (2 - 10%)	39	128	1	incipient-pointed castellation decorated with opposed oblique lines apex up — slight overhang
		156	124	1	
South-West Thompson (19 rim sherds)	Salem Mixed	26	107	2	same pot
	(5 - 26.3%)	133	135	2	same pot
		136	134	1	
	Salem Lip (2 - 10.5%)	61	40	1	
		165	54	1	
	Chevrons	12	115	1	
	(2 - 10.5%)	15	111	1	

Site	*Type/Group*	*Shape*	*Motif*	*No.*	*Remarks*
	Ontario Horizontal (1 - 5.3%)	138	86	1	
	Thurston Horizontal (1)	47	25	1	horizontal lines are broad incised — top vertical lines are long rectangular stamp — bottom vertical lines are short rectangular stamp — lip decorated with transverse rectangular stamp 1 mm deep
	Stamped Low Collared (1)	96	55	1	
	Oak Hill Corded (1)	25	91	1	incipient-pointed castellation
	Pseudo-Huron Incised (1)	148	6	1	
	Durfee Underlined (1)	140	normal	1	incipient-pointed castellation decorated with vertical row 6 punctate circles — incising crude — stamped notches at base of collar — inside lip decorated with vertical rectangular stamp
	Lanoraie Mixed (1)	?	Onondaga Triangular	1	incipient-pointed castellation decorated with vertical row 5 punctate circles — large deep circular notches at base of collar — fine dentate stamp smoothed over — lip overted sharply to overhang collar
	Untyped (3 - 15.8%)	70	144	1	
		141	94	1	
		146	145	1	
Butternut (16 rim sherds)	Oblique Dentate (4 - 25%)	103	3	3	same pot
		?	4	1	

Site	*Type/Group*	*Shape*	*Motif*	*No.*	*Remarks*
	Stamped Low Collared (4 - 25%)	10	41	1	
		88	58	1	
		98	65	1	
		167	50	1	
	Iroquois Linear (2 - 12.5%)	18	89	2	same pot
	Durfee Underlined (2)	24	normal	1	crude shallow irregular incising
		132	normal	1	
	Lanoraie Crossed (1 - 6.3%)	?	141	1	
	Salem Lip (1)	82	43	1	
	Ontario Horizontal (1)	17	95	1	
	Thurston Horizontal (1)	29	normal	1	incipient-pointed castellation decorated with a plait of vertical incised lines
South-East Thompson (13 rim sherds)	Stamped	55	16	1	
	Low Collared	94	61	1	
	(3 - 23.1%)	160	31	1	incipient-pointed castellation
	Salem Mixed (2 - 16.4%)	23	133	1	
		135	131	1	
	Ontario Horizontal (1 - 7.7%)	6	104	1	
	Salem Lip (1)	6	10	1	
	Ripley Plain (1)	86	plain	1	
	Lawson Incised (1)	4	7	1	incipient - rounded castellation — oblique lines apex down
	Chevrons (1)	145	122	1	
	Pseudo-Huron Incised (1)	151	19	1	
	Untyped (2 - 15.4%)	92	46	1	
		117	142	1	
South Ross (11 rim sherds)	Roebuck Low Collar (5 - 45.5%)	137	Durfee Underlined	5	same pot- notches at base of collar are cord - wrapped, stick-impressed — and interior of lip decodated with paddle-edge impressions

Site	*Type/Group*	*Shape*	*Motif*	*No.*	*Remarks*
	Ontario Horizontal	74	91	1	
	(2 - 18.2%)	74	96	1	
	Salem Lip (2)	73	62	2	same pot
	Stamped Low Collared (2)	93	35	2	same pot
Kit Kit (8 rim sherds)	Chevrons	149	121	5	same pot
	(6 - 75%)	33	118	1	
	Iroquois Linear (1 - 12.5%)	162	79	1	
	Roebuck Low Collar (1)	147	normal	1	Durfee Underlined motif in crude incising
North-West Thompson (2 rim sherds)	Durfee Underlined (1 - 50%)	134	normal	1	crude irregular incised lines — classic pointed castellation with slight overhang
	Stamped Low Collared (1 - 50%)	115	33	1	

TABLE 3 — COMPARISON OF THE INCIDENCE OF EARLY IROQUOIS POTTERY TYPES

	Pottery Types (%)							
	Iroquois Linear	*Lanoraie Crossed*	*Lanoraie Mixed*	*Pound Necked*	*Swarthout Dentate*	*Ontario Horizontal*	*Lawson Incised*	*Totals on Site Groups*
River Sites								
Gogo	4	—	—	4	—	12	7	
Cameron	7	—	—	3	—	40	1	
Kit Kit	13	—	—	—	—	—	—	
NW Thompson	—	—	—	—	—	—	—	
SW Thompson	—	—	5	—	—	5	—	
SE Thompson	—	—	—	—	—	8	8	
South Ross	—	—	—	—	—	18	—	
East Ross	—	—	—	—	5	10	30	
Butternut	13	6	—	—	—	6	—	
Total	37	6	5	7	5	99	46	205
Average per site	4.1	0.7	0.6	0.8	0.6	11.0	5.1	
Inland Village Sites								
Roebuck	—	—	—	—	1	9	2	
Beckstead	—	—	5	—	1	—	—	
Gray's Creek	—	2	1	—	4	—	—	
Salem	—	0.4	5	—	3	—	—	
Lanoraie	2	4	7	1	28	5	3	
Total	2	6.4	18	1	37	14	5	83.4
Average per site	0.4	12.8	3.6	0.2	7.4	4.8	1.0	

TABLE 4 — COMPARISON OF THE INCIDENCE OF LOW COLLARED AND COLLARLESS POTTERY

SITES	*Pottery Types (%)*							
	1	2	3	4	5	6	7	8
	Stamped Low Collared	*Salem Lip*	*Genoa Frilled*	*Dutch Hollow Notched*	*Scalloped Lip*	*Depressed Lip*	*Lanoraie Crossed Lip*	*Roebuck Low Collar*
River Sites								
Gogo	17	11	—	15	1	1	2	—
Cameron	11	2	—	—	—	—	2	—
Kit Kit	—	—	—	—	—	—	—	13
NW Thompson	50	—	—	—	—	—	—	—
SW Thompson	5	11	—	—	—	—	—	—
SE Thompson	23	8	—	—	—	—	—	—
South Ross	18	18	—	—	—	—	—	46
East Ross	5	5	5	—	—	—	—	5
Butternut	25	6	—	—	—	—	—	—
Total	154	61	5	15	1	1	4	64
Average per site	17.1	6.8	0.6	1.7	0.1	0.1	4.4	7.1
Inland Village Sites								
Roebuck	5	3	—	0.5	0.02	0.2	0.1	10
Roebuck *	7	6	—	—	—	0.6	1	9
Gray's Creek	11	8	—	—	—	2	12	12
Salem	11	4	—	0.3	0.3	1	6	8
Total	34	21	0	0.8	0.32	3.8	19.1	39
Average per site	8.5	5.3	0	0.2	0.04	0.4	2.1	4.3

* Figures for Roebuck other than columns 4 and 8 are result of authors re-analysis of Wintembergs' material. Figures in column 4 and 8 are from MacNeish 1952:58, 65.

TABLE 5 — CASTELLATION ANALYSIS

Castellation Type	*Site*	*No.*	*Associated Pottery Type*
Incipient-Pointed (24 - 72.7%)	Cameron	7	Ontario Horizontal
		3	Iroquois Linear
		1	Chevrons
		1	Pound Necked
		1	Durfee Underlined
		1	Untyped
	Gogo	2	Iroquois Linear
		1	Coarse Oblique Dentate
	SW Thompson	1	Oak Hill Corded
		1	Durfee Underlined
		1	Lanoraie Mixed
	East Ross	1	Swarthout Dentate
		1	Untyped
	SE Thompson	1	Stamped Low Collar
	Butternut	1	Thurston Horizontal
Classic-Pointed (8 - 24.2%)	Gogo	5	Ontario Horizontal
		2	Durfee Underlined
	NW Thompson	1	Durfee Underlined
Incipient-Rounded (1 - 3.0%)	SE Thompson	1	Lawson Incised

TABLE 6 — LIP DECORATIONS

Decoration	*Associated Pottery Type*	*No. Sherds*	*Site*
Crossed paddle-edge	Lanoraie Crossed Lip	4	Gogo
	?	2	Cameron
Transverse paddle-edge pulled down onto collar	Stamped Low Collar	8	Gogo
Transverse rectangular stamp	Thurston Horizontal	1	SW Thompson
Transverse paddle-edge	Roebuck Low Collar	1	South Ross
Dots and paddle-edge triangles	Durfee Underlined	1	Cameron
Deep line around circumference	Depressed Lip	1	Gogo

TABLE 7 — CORD-WRAPPED STICK-DECORATED POTTERY

Cord-wrapped Stick Decoration	*Associated Pottery Type*	*No. Sherds*	*Site*
Notches at base of collar	Roebuck Low Collar	5	South Ross
Chevrons with open triangles on neck	Untyped	2	Cameron
Chevrons on collar	Chevrons	2	Cameron
Notches in lip	Dutch Hollow Notched	1	Gogo
Collar	Lanoraie Crossed Lip	1	Gogo
Chevrons and horizontal lines	Oak Hill Corded	1	SW Thompson

PLATE 1

Fig 1	Ontario Horizontal	—	Cameron
Fig 2	Ontario Horizontal	—	Cameron
Fig 3	Ontario Horizontal	—	Gogo
Fig 4	Ontario Horizontal	—	Cameron
Fig 5	Ontario Horizontal	—	South Ross
Fig 6	Ontario Horizontal	—	Southeast Thompson
Fig 7	Stamped Low Collared	—	Cameron
Fig 8	Stamped Low Collared	—	Cameron
Fig 9	Stamped Low Collared	—	Butternut
Fig 10	Stamped Low Collared	—	Southeast Thompson
Fig 11	Stamped Low Collared	—	Gogo
Fig 12	Stamped Low Collared	—	Northwest Thompson
Fig 13	Salem Lip	—	Gogo
Fig 14	Salem Lip	—	South Ross
Fig 15	Salem Lip	—	Gogo
Fig 16	Salem Lip	—	East Ross
Fig 17	Salem Lip	—	Gogo
Fig 18	Dutch Hollow Notched	—	Gogo
Fig 19	Dutch Hollow Notched	—	Gogo
Fig 20	Chevrons	—	Kit Kit
Fig 21	Chevrons	—	Cameron
Fig 22	Chevrons	—	Gogo
Fig 23	Niagara Collared	—	Cameron
Fig 24	Niagara Collared	—	Gogo
Fig 25	Lawson Incised	—	East Ross
Fig 26	Lawson Incised	—	Gogo
Fig 27	Lawson Incised	—	Gogo

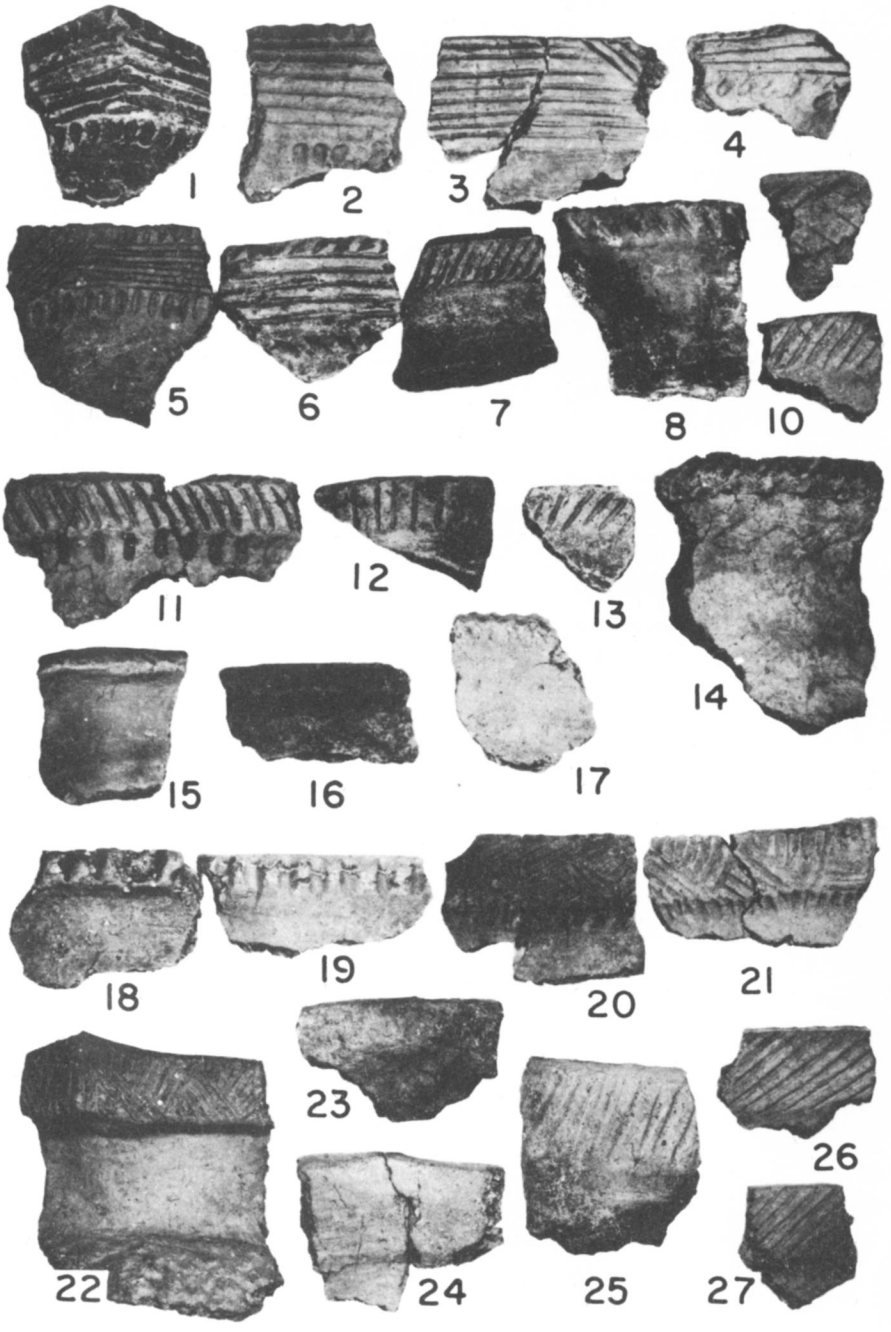
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PLATE 2

Fig 1	Durfee Underlined	—	Northwest Thompson
Fig 2	Durfee Underlined	—	Gogo
Fig 3	Iroquois Linear	—	Cameron
Fig 4	Iroquois Linear	—	Gogo
Fig 5	Iroquois Linear	—	Kit Kit
Fig 6	Iroquois Linear	—	Cameron
Fig 7	Oblique Coarse Dentate	—	Butternut
Fig 8	Oblique Coarse Dentate	—	Gogo
Fig 9	Pound Necked	—	Cameron
Fig 10	Pound Necked	—	Gogo
Fig 11	Pseudo Huron Incised	—	Southeast Thompson
Fig 12	Pseudo Huron Incised	—	East Ross
Fig 13	Roebuck Low Collared	—	East Ross
Fig 14	Roebuck Low Collared	—	South Ross
Fig 15	Lonaraie Crossed Lip	—	Gogo
Fig 16	Salem Mixed	—	Southeast Thompson
Fig 17	Thurston Horizontal	—	Butternut
Fig 18	Depressed Lip	—	Gogo
Fig 19	Lonaraie Mixed	—	Southwest Thompson
Fig 20	Swarthout Dentate	—	East Ross
Fig 21	Scalloped Lip	—	Gogo
Fig 22	Oak Hill Corded	—	Southwest Thompson
Fig 23	Genoa Frilled	—	East Ross
Fig 24	Lanoraie Crossed	—	Butternut
Fig 25	Untyped	—	Southeast Thompson
Fig 26	Untyped	—	Cameron
Fig 27	Untyped	—	Cameron
Fig 28	Untyped	—	Gogo

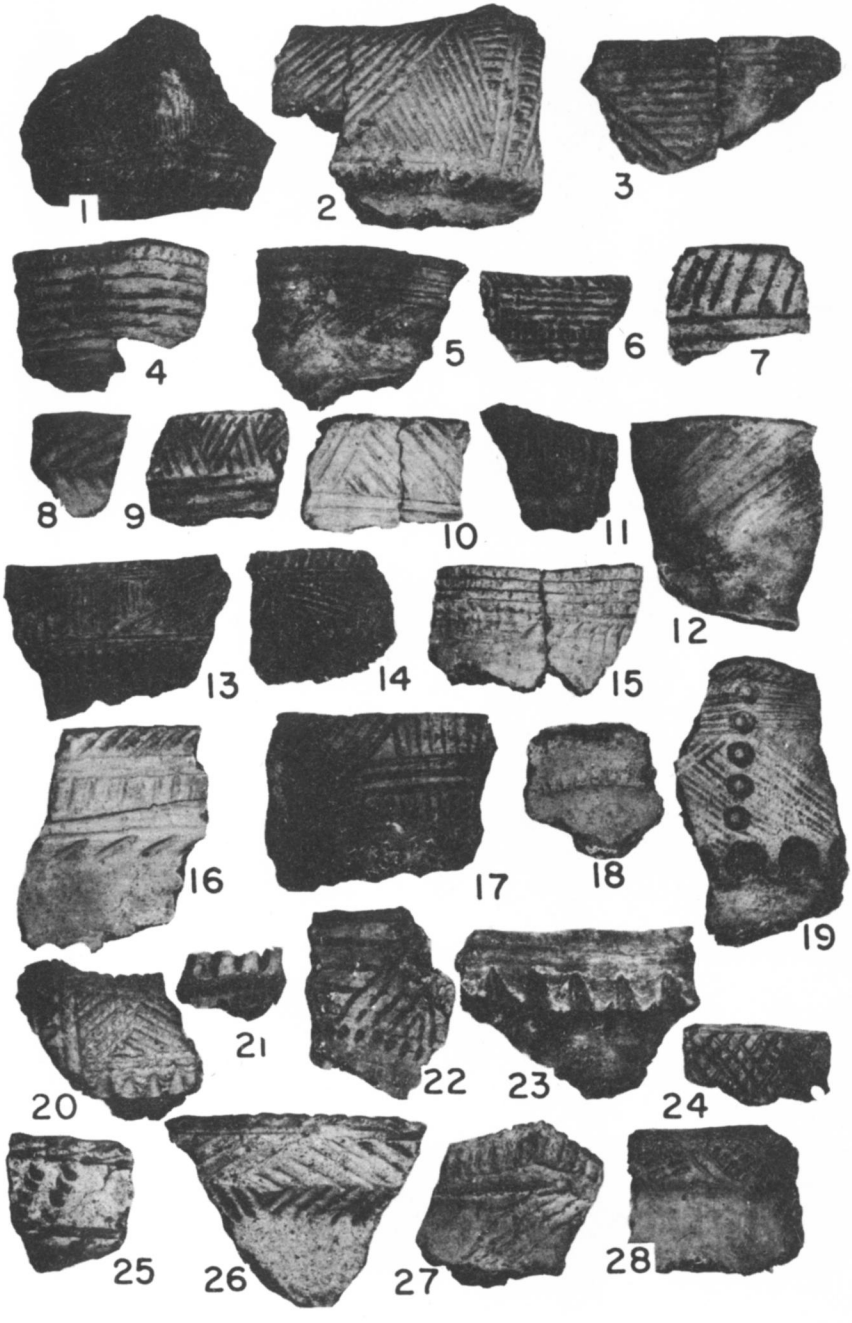
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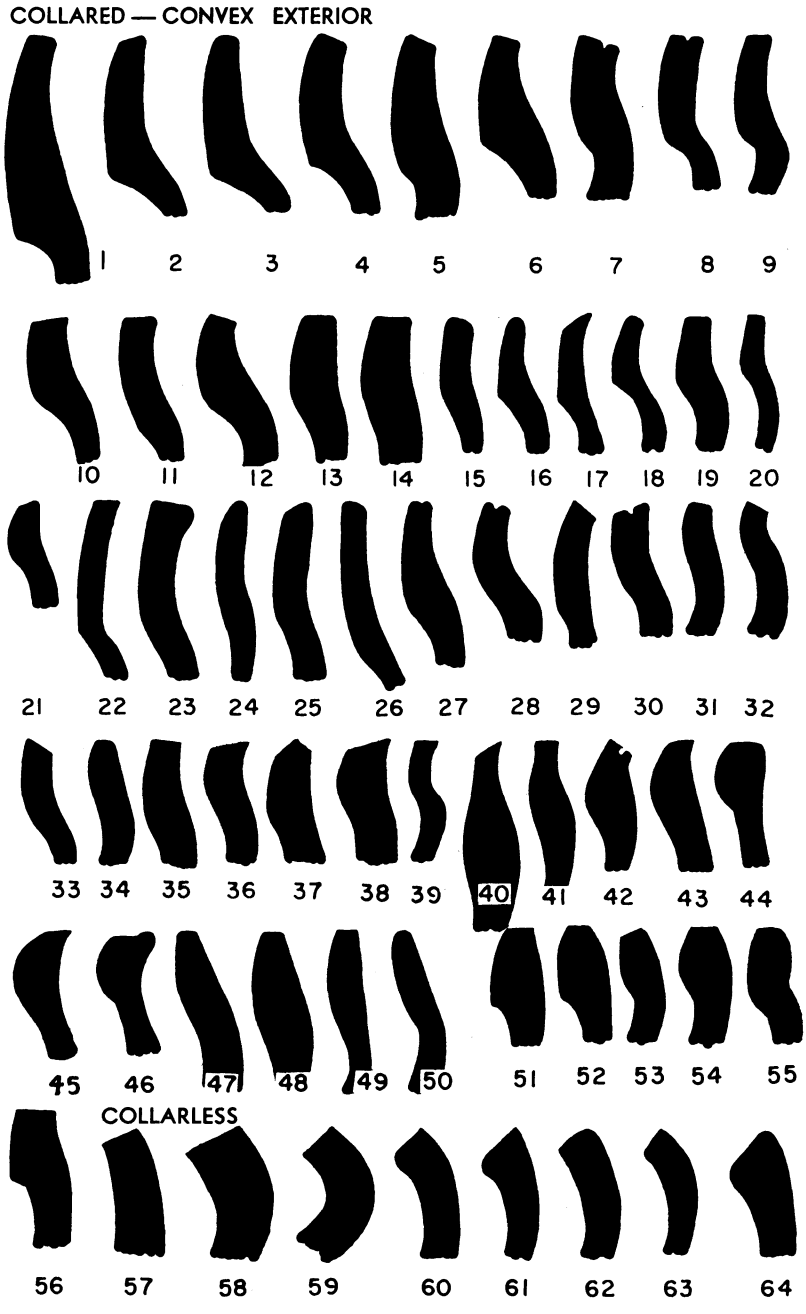
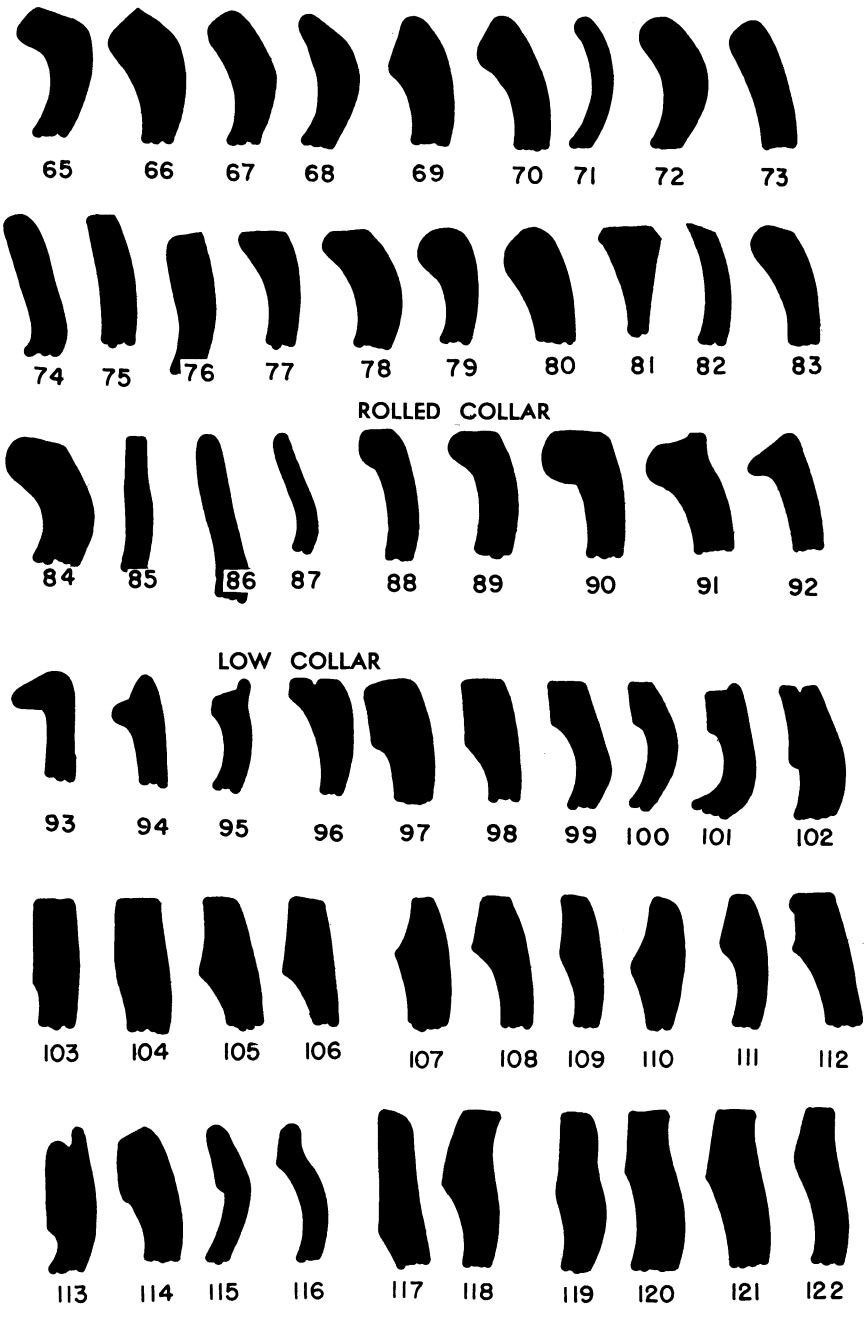
FIGURE 1 — RIMSHERD SHAPES

Scale: 3/5

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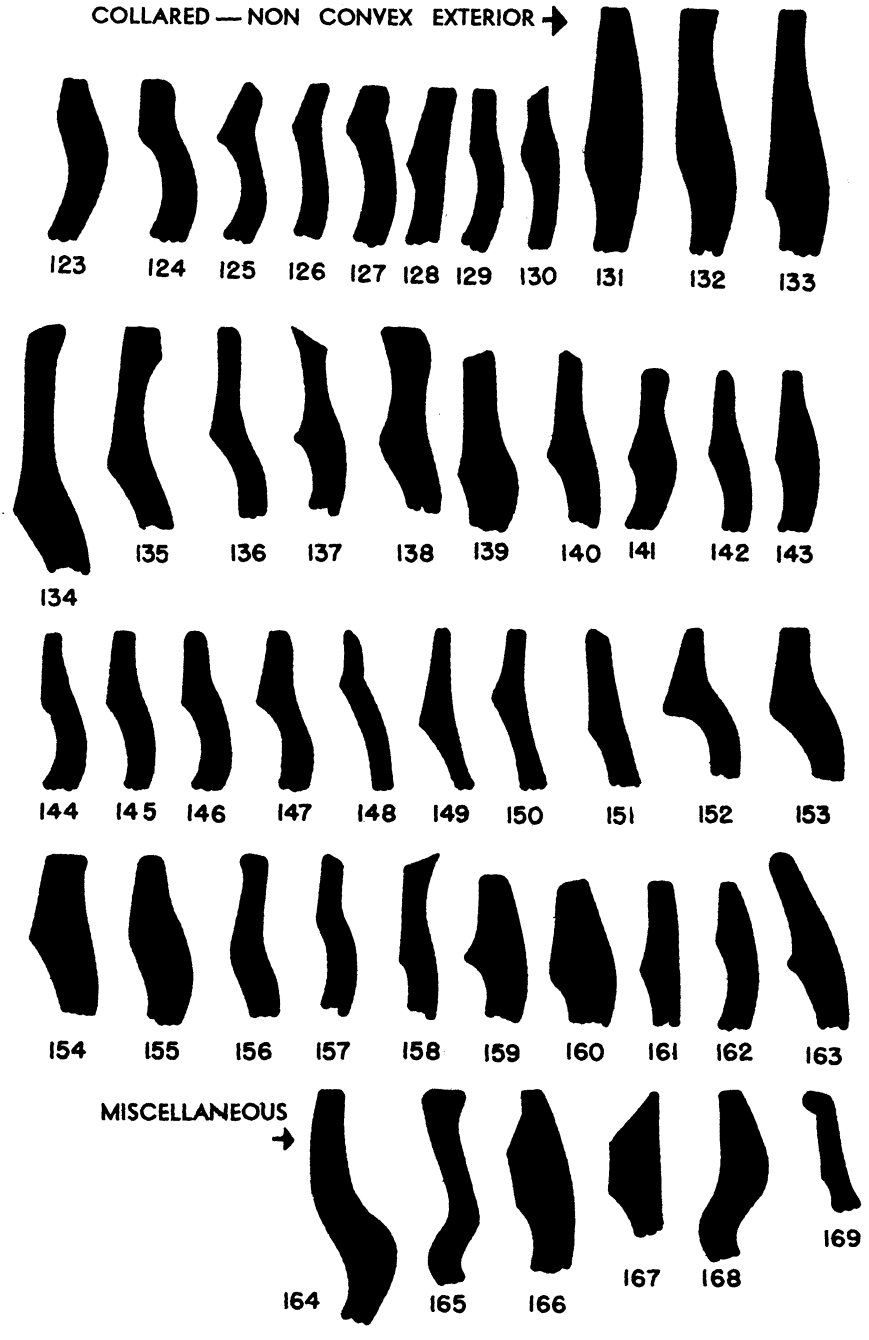
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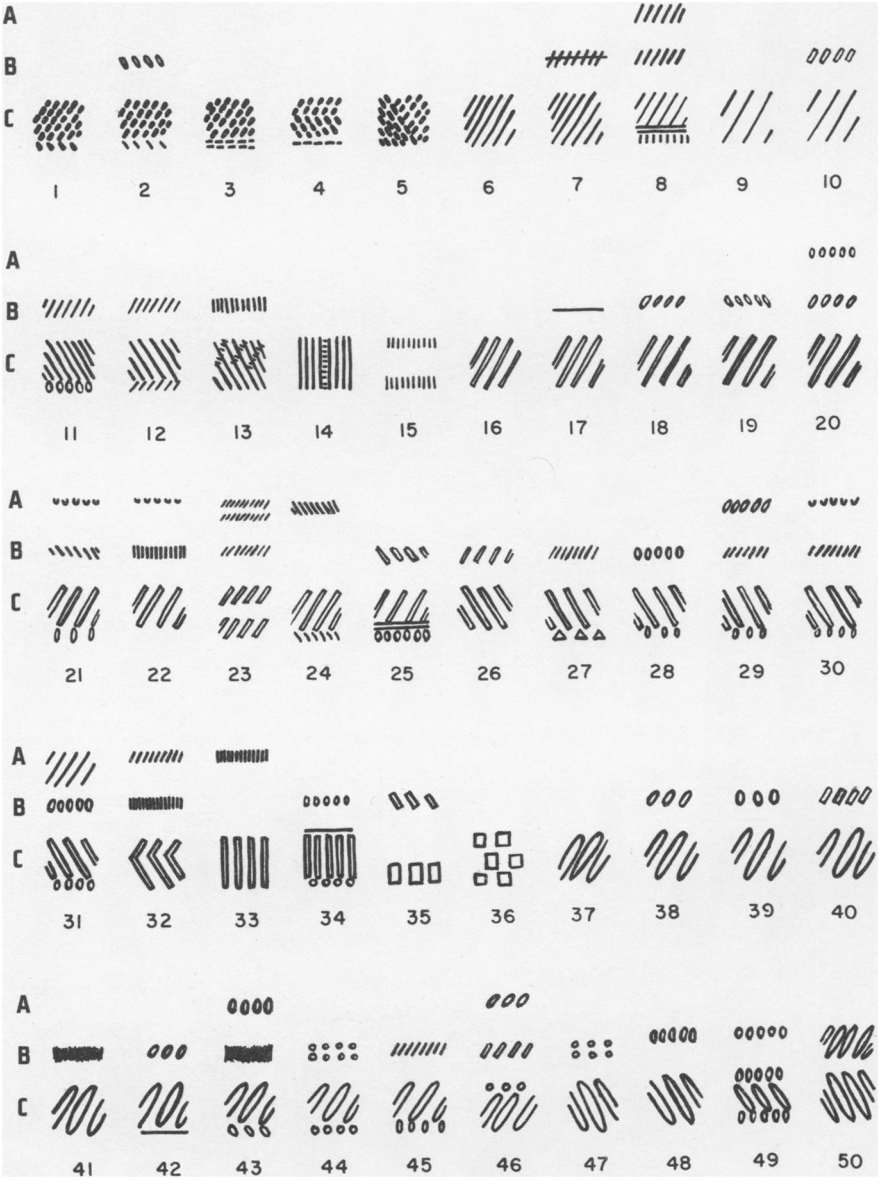
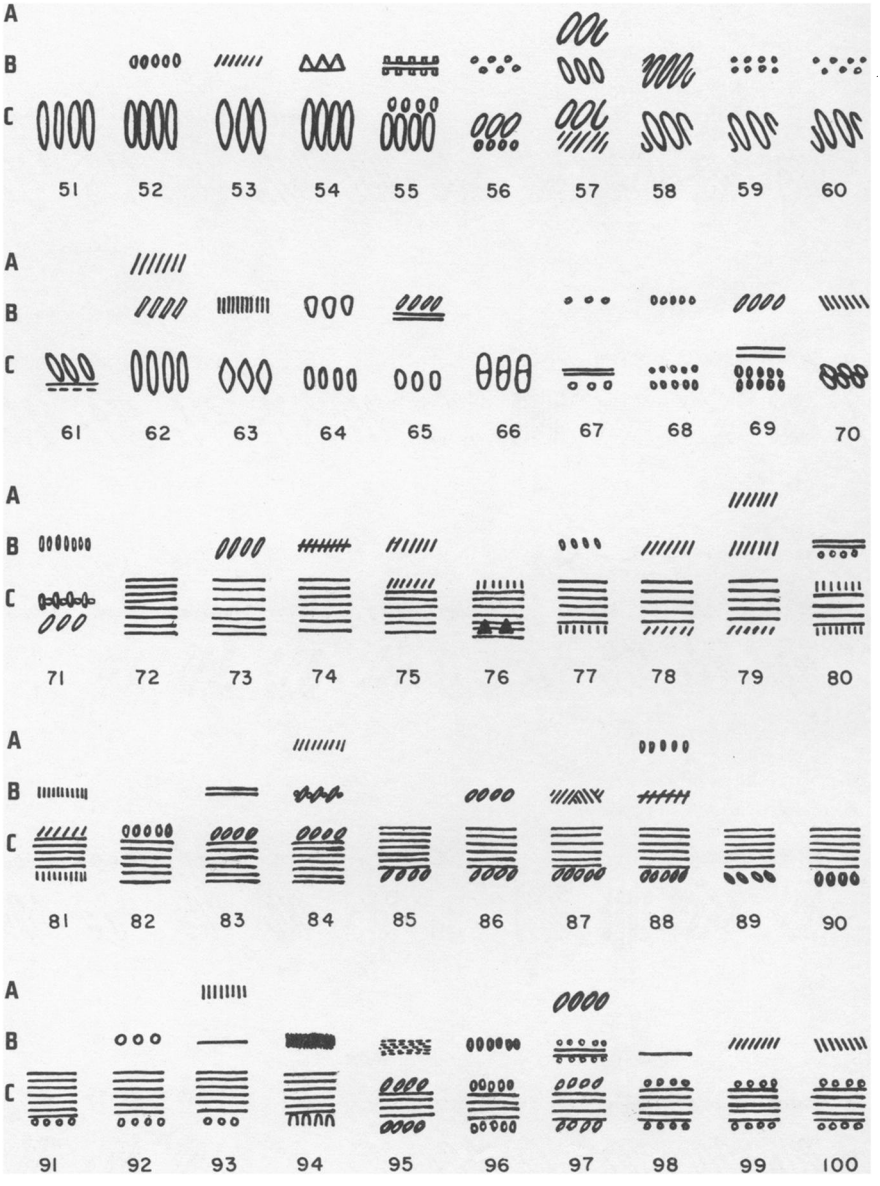
FIGURE 2 — RIMSHERD MOTIFS



A - INSIDE LIP B - LIP C - COLLAR



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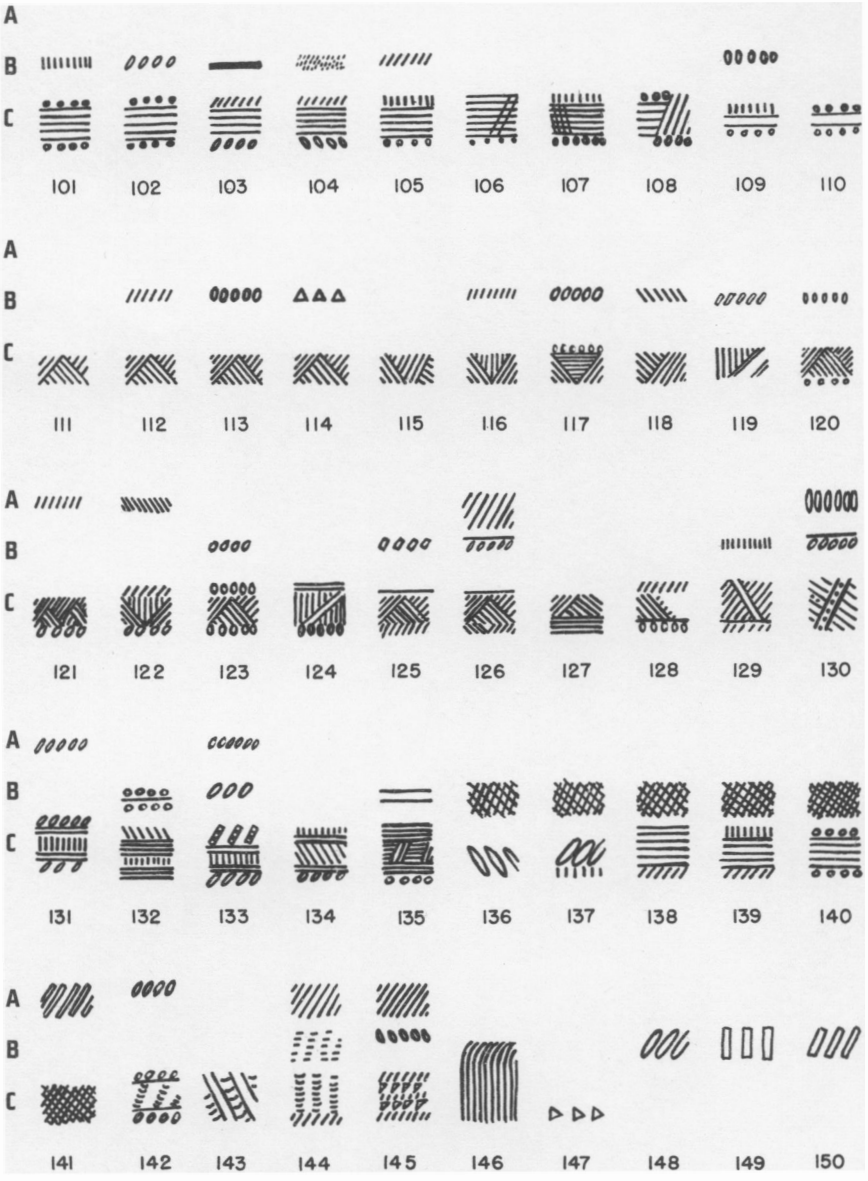

A - INSIDE LIP B - LIP C - COLLAR

Anthropometric and Dermatoglyphic Study of the Juangs in Orissa, India

BY P.D. PRASADA RAO*

RÉSUMÉ

Cet article nous livre les résultats d'une étude anthropométrique de soixante hommes de la tribu des Juangs, Inde.

INTRODUCTION

The Juangs, one of the primitive tribes of the Orissa state, India, inhabit the central region of the state in the districts of Dhenkanal and Keonjhar. The data on Anthropometry finger and palm prints was collected by the author in December 1959 from the village of Sansailo. Measurements were taken on 60 adults of male sex only on a random sample basis. The finger and palm prints were collected on 50 adults of male sex of the same group leaving some subjects whose prints were not clear.

METHODS

The conventional methods adopted by Martin were followed for anthropometric study and the methods adopted by Cummins

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and Midlo (1943) were followed for the analysis of the finger and pramar dermatoglyphic study of the Juangs. The following measurements and the indices have been worked out.

Stature (height vertex), sitting height (vertex), head length, head breadth, head height, minimum frontal diameter, bizygomatic breadth, bigonial diameter, nasal height, nasal breadth, morphological facial length and morphological superior facial length.

Cephalic index, breadth-height index, length-height index, total face index, upper face index, and nasal index.

RESULTS

Table 1

Classification of Stature (in cms.)

Class	Range	Absolute No.	Percentage
Very short	130.0–149.0	3	5.00%
Short	150.0–159.9	40	66.66%
Below medium	160.0–163.9	7	11.66%
Medium	164.0–166.9	5	8.33%
Above medium	167.0–169.9	4	6.66%
Tall	170.0–179.9	1	1.66%

The mean stature of the Juang people is 158.4 ± 0.77 cms., the maximum being 171.8 cms., and the minimum 147.8 cms. Short stature (66.66%) appears to be the predominating character among the Juangs. Below medium class is 11.66% which is followed by medium (8.33%), above medium (6.66%) and very short (5%) respectively. Only one tall statured individual occurs in the entire group.

The following table gives the statistical constants of the measurements taken and the indices of the 60 Juang males.

Table 2

Measurement	Max.	Min.	Range	Mean+S.E.	S.D.+S.E.
1) Stature (ht. vertex)	171.8	147.8	24.0	158.4 ± .77	5.8 ± .53
2) Sitting (ht. vertex)	87.2	76.4	10.8	80.9 ± .29	2.27 ± .20
3) Head length	20.2	16.8	3.4	18.5 ± .20	1.55 ± .14
4) Head breadth	14.6	12.8	1.8	14.1 ± .30	2.25 ± .18
5) Min. frontal diameter	11.2	9.0	2.2	10.37 ± .26	2.05 ± .18
6) Bizygomatic breadth	13.2	10.2	3.0	10.8 ± .42	3.20 ± .29
7) Bigonial breadth	10.8	8.8	2.0	10.46 ± .20	2.35 ± .21
8) Nasal height	5.5	3.9	1.6	4.63 ± .20	1.57 ± .14
9) Nasal breadth	4.5	3.5	1.0	4.31 ± .26	1.99 ± .18
10) Morph. facial length	11.8	9.5	2.3	11.03 ± .30	2.26 ± .20
11) Morph. super fac. length	7.2	5.2	2.0	6.33 ± .28	2.14 ± .19
12) Head height	13.4	11.0	2.4	11.46 ± .33	2.56 ± .23
13) Cephalic index	86.92	66.42	20.50	74.28 ± .49	3.80 ± .35
14) Lt-ht index	86.34	58.41	27.93	65.90 ± .56	4.38 ± .40
15) Br-ht index	96.91	72.76	24.65	85.98 ± .74	5.76 ± .53
16) Total face	105.80	78.50	27.30	91.29 ± .78	6.10 ± .56
17) Upper face	60.04	46.02	14.02	52.93 ± .54	4.22 ± .38
18) Nasal index	100.00	74.06	25.04	91.59 ± .84	6.56 ± .60

The mean cephalic index is 74.28 ± .49 with the maximum 86.92 and minimum of 66.42. Dolicocephaly appears to be most common in 45% and mesocephaly and brachycephaly occurs in 40% and 5% respectively as seen from the table given below.

Table 3

Class	Range	Absolute No.	Percentage
Hyper dolicocephalic	X –69.9	6	10%
Dolicocephalic	70.0–75.9	27	45%
Mesocephalic	76.0–80.9	24	40%
Brachycephalic	81.0–85.4	3	5%
Hyperbrachycephalic	85.5– X	–	–

The mean head length and head breadth of the Juangs are 18.5 ± .20 and 14.1 ± .30 respectively. Head length varies from 20.2 to 16.2 cms., and head breadth from 14.6 to 12.8 cms.

The mean length-height index of the Juangs head is 65.9 ± .56 and the range of variation between 86.34 to 58.41 as seen from the Table 3.

Table 4

Class	Range	Absolute No.	Percentage
Chamaecephalic	X –57.6	1	1.66%
Orthocephalic	57.7–62.6	7	11.66%
Hypsicephalic	62.7– X	52	86.66%

Hypsicephaly being the highest in 86.66% cases of heads while orthocephalic and chamaecephalic heads are in 11.66% and 1.66% respectively. The mean head height is 11.45 ± .33 and it varies from 13.4 to 11.0 cms.

The mean breadth-height index of the Juangs head is 85.98 ± .74 ranging from 96.91 to 72.76 as seen from the Table 4.

Table 5

Class	Range	Absolute No.	Percentage
Tapeinocephalic	X –78.9	6	10.00%
Metriocephalic	79.0–84.9	17	28.33%
Acrocephalic	85.0– X	37	61.66%

Acracephaly being largest in 61.66% of the heads and metriocephaly and tapeinocephaly are in 28.33% and 10% cases respectively. The mean total face index is 91.29 ± .78 and varies from 105.80 to 78.50. The mean total facial height (morphological facial length) is 11.03 ± .30 the maximum being 11.8 cms. and the minimum 9.5 cms.

Table 6

Class	Range	Absolute No.	Percentage
Hypereuryprosopic	X –78.9	2	3.33%
Euryprosopic	79.0–83.9	6	10.00%
Mesoprosopic	84.0–87.9	10	18.33%
Leptoprosopic	88.0–92.9	17	28.33%
Hyperleptoprosopic	93.0– X	25	41.66%

Hyperleptoprosopic type of faces is most common (41.66%) among these people, and leptoprosopic, mesoprosopic and euryprosopic appear in decreasing order, namely in 28.33%, 18.33% and 10% respectively. The mean bizygomatic breadth is 10.8 ± .42 cms. varying from 13.2 to 10.2 cms. The mean upper face index is 52.93 ± .54 and varies from 60.04 to 46.02.

Table 7

Class	Range	Absolute No.	Percentage
Hypereuryne	X –42.9	–	–
Euryene	43.0–47.9	8	13.33%
Mesene	48.0–52.9	23	38.33%
Leptene	53.0–56.9	20	33.33%
Hyperleptene	57.0– X	9	15.00%

It is observed that among the Juang faces mesene and leptene are common, appearing in 38.33% and 33.33% respectively, while hyperleptene appears in 15% and euryene in 13.33%. The mean upper facial-height (morphological superior facial length) is 6.33 ± .28 cms. varying from 7.2 to 5.2 cms. The mean nasal index is 91.59 ± .84 having maximum of 100.00 and a minimum of 74.06.

Table 8

Class	Range	Absolute No.	Percentage
Leptorrhine	55.0–69.9	1	1.66%
Mesorrhine	70.0–84.9	12	20.00%
Platyrrhine	85.0–99.9	42	70.00%
Hyperplatyrrhine	100.0– X	5	8.33%

Among the Juangs the platyrrhine type of nose is common occurring in 70%. Mesorrhine type appears in 20%, hyperplatyrrhine in 8.33% but leptorrhine is negligible.

The mean nasal height and nasal breadth are 4.63 ± .20 cms. and 4.31 ± .26 cms. respectively. The range of variation of nasal height is from 3.9 to 5.5 cms., and in nasal breadth it is from 3.5 to 4.5 cms.

Finger prints:

The following table gives the frequency of the finger print patterns of the 500 finger prints of the 50 Juang males that were analysed.

Table 9

Frequency of the Finger Print Patterns

Digit	Hand	Loops				Arches
		Whorl	Ulnar	Radial	Total	
I	R	56.86	43.11	–	43.11	–
	L	50.00	48.00	2.00	50.00	2.00
	R + L	53.43	45.55	1.00	46.55	1.00
II	R	54.90	41.17	3.91	45.08	–
	L	52.00	38.00	8.00	46.00	2.00
	R + L	53.46	39.58	5.95	45.53	1.00
III	R	34.00	66.00	–	66.00	–
	L	46.00	50.00	2.00	52.00	2.00
	R + L	40.00	58.00	1.00	59.00	1.00
IV	R	77.07	26.53	–	26.53	–
	L	74.00	26.00	–	26.00	–
	R + L	75.53	26.26	–	26.26	–
V	R	34.00	61.00	2.00	63.00	2.00
	L	26.52	71.42	2.04	73.46	2.04
	R + L	30.26	66.21	2.02	68.23	2.02
All digits	R + L	50.54	47.12	1.99	49.11	1.00

From the above table it is clear that finger prints show unlike frequencies on the different digits when combined on both the hands. On digits I, II whorls are frequent and on digit IV whorls appear abundantly. The frequency ranges from 77% in digit IV to 56% in digit I and 54% in digit II. The frequency of the ulnar loops is greater in digit III and V ranging from 66% to 71% respectively, while on digits I, II and IV they are found in 48%, 41% and 26% respectively. The radial loops show the greatest frequency on digit II (8%) and show a sharp reduction on digits I, III and V. The arches are found in the frequency of 2% on digits I, II, III and V. The whorls are seen more on the right hand than on left, while ulnar loops are more on digits III and V and are common on both the hands. Finally arches are very few on both the hands.

Sarkar (1954) proposed that an approximate whorl-loop ratio of 60:40 is probably a characteristic of the Veddids or Australoids. This is confirmed by the finger data of the Australian aborigines (Cummins and Setzler 1951), where whorls occur in 75.5% and lopps in 21.1%. The Juangs show the Munda ratio and it is, as seen from the present study, approximately 50.54%: 49.11%.

The following table shows the pattern intensity index (Cummins and Steggeda 1935), arch-whorl index of Dankmeijer (1938) and the whorl-loop index of Furuhata (1927).

Table 10

Frequencies of Pattern Types in %

Whorl	U.L	R.L	Arch.	P.I	D.I	F.I
50.54	47.12	1.99	1.00	15.02	2.01	105.93

The Dankmeijer index is too low due to the lesser number of arches and the great abundance of whorls and the Furuhata index is great because of the nearly equal number of whorls and loops. The pattern intensity index is 15.02 which bears resemblance to Sabara (14.07) and Juang (14.06) as seen from the following table which is quoted from Sarkar (1957) for comparison.

Table 11

Finger Prints of Orissan Aborigines (all fingers combined)

Tribe	Whorls	Loops	Arches	*Indices* P.I	D.I	F.I
Juangs (♂) — Sarkar	42.00%	56.64%	1.36%	14.06	3.25	74.15
Juangs (♀) — Sarkar	38.82%	57.65%	3.53%	13.53	9.09	67.34
Sabara (♂) — Sarkar	42.43%	55.89%	1.68%	14.07	3.96	99.12
Sabara (♀) — Sarkar	24.72%	67.42%	7.86%	11.68	31.82	36.67
Khond (♂) — Sarkar	41.07%	52.89%	5.14%	13.68	12.12	79.52
Khond (♂) — Rao	29.08%	65.26%	5.63%	12.95	14.24	62.37
Juangs (♂) — present study	50.54%	48.11%	1.00%	15.02	2.01	105.93

Thus from the table it is seen that the Juangs resemble the other Munda tribes of Orissa. Rife (1954) has shown ethnic variations in the pattern intensity indices and they are given below for some of the tribes known.

Table 12

Tribe	P.I	Tribe	P.I
Pahira (♂)	15.23	Pahira (♀)	14.18
Munda (♂)	14.78	Munda (♀)	13.44
Oraon (♂) — W. Bengal	15.39	Oraon (♀) — W. Bengal	15.25
Oraon (♂) — Ranchi	15.67	Oraon (♀) — Ranchi	15.00
Kurmi Mahato (Male)	14.38	Adiyan	14.72
Vettukurma	12.59	Paniyan	15.67
Maale	12.31	Panoo (♂)	12.55
Juangs (♂)	14.06	Juangs (♀)	13.53
Sabara (♂)	14.07	Sabara (♀)	11.68
Khonds (♂)	13.69	Khonds (♂)	12.95
Andamanese (♂, ♀)	12.26	Juangs (♂) — present study	15.02

The pattern intensity index will be high if there is a high frequency of whorls as is true in the case of the Australian aborigines who have 75% whorls and their pattern intensity index is 17.73.

Palmar prints:

Main line formula — It has been shown by many observers that the frequency of the typical main line formulae 11.9.7.-, 9.7.5.-, and 7.5.5.- varies in different races (Wilder 1904). The following table shows the frequency of the three main line formulae as in the right and left hand of the Juangs.

Table 13

Frequency of the Three Typical Formulae in %

Formula	Right	Left	Mean
11.9.7.—	24.00%	6.00%	15.00%
9.7.5.—	34.00%	60.00%	47.00%
7.5.5.—	40.00%	30.00%	35.00%

From the above table it is clear that the main line formula 9.7.5.- is more common, occurring in 47.00%, in the left hand, than in the right hand. The formula 7.5.5.- occurs nearly in equal proportions whereas 11.9.7.- is not so common and it occurs only in 24.00% on the right hands.

Patterns on the configurational areas of the palms — The following table shows the frequencies of the true patterns in the configurational areas of the palms both right and left.

Table 14

Frequencies of the Types of Palmar Configurations

Configurational Area	*Frequencies of the Patterns in %* Right	Left	Mean
Hypothenar	24.00%	30.00%	27.00%
Thenar/Interdigital I	2.00%	4.00%	3.00%
Interdigital II	8.00%	6.00%	7.00%
Interdigital III	54.00%	54.00%	54.00%
Interdigital IV	68.00%	70.00%	69.00%

The frequency of the pattern in the hypothenar area is 27.00% among these people as seen from the above table. It is 32.07% among the Indians (Biswas 1936) and 41.07% among the Euro-Americans (Cummins 1943). The frequency of the patterns in the Thenar/Interdigital I area is 3.00% and that of the Interdigital II is 7.00% among these people. The Juangs show a large percentage of patterns in the Interdigital III and IV areas, 54.00% and 69.00% respectively. This high frequency of patterns is due to the occurrence of the main line formulae 9.7.5.- and 7.5.5.- in many of the cases.

The following table shows the frequencies of the patterns of formulae O.O.L., O.L.O. and O.O.O. of the combination of the three Interdigitals II, III and IV.

Table 15

Formula	*Frequency of the pattern in %* Right	Left	Mean
O.O.L	34.00%	26.00%	30.00%
O.L.O	25.00%	20.00%	22.50%
O.O.O.	—	4.00%	2.00%

From the above table it is clear that the combination formula O.O.L. occurs in many cases (30.00%), more in the right hand and the combination formula O.L.O. is almost equal in both the hands. It is interesting to note that the combination formula O.O.O. is absent in the right hand and is quite insignificant on the left hand occuring in 4.00%.

Axial triradius — The following table shows the position of the axial triradius as observed in the Juangs.

Table 16

Position of the Axial Triradius

Axial Triradius	Right	Left	Total
t	45	45	90
t′	4	1	5
t″	–	–	–
tt″	1	4	5

Among the Juangs the axial triradius is occurring in equal proportions on both right and left hands in the position t (carpal axial triradius). It occurs in 4 cases on the left hand in position tt″ (carpal triradius with central triradius).

SUMMARY AND CONCLUSION

Anthropometric data of 60 adults Juangs of male sex only from the village Sansailo of the Dhenkanal district in Orissa, India, was collected and analysed.

The study of the finger and palmar dermatoglyphics was done on the 500 configurations of fingers and 100 palmar prints of 50 Juang adults of male sex from the same village.

From the analysis of the data on Anthropometry, the Juangs are characterized as short statured people (66.66%) — very few below medium — to medium, having head length 18.5 ± .20 cms. and head breadth 14.1 ± .30 cms. Most of the Juangs have dolicocephalic (45.00%) to mesocephalic (40.00%) heads. Brachycephalic heads are very few (5.00%). The head proportions are characterized by hypsicephaly (86.66%) and acrocephaly (61.66%). In facial proportions they are hyperleptoprosopic (41.66%), leptene (33.33%), to mesene (38.33%). Most of the Juangs have platyrrhine (70.00%) type of nose with a sporadic occurrence of hyperplatyrrhine type of nose (8.33%). Mesorrhine type of nose is also found (20.00%) among these people.

The skin colour of these people varies from dark brown to brown; the hair is low wavy. Epicanthic fold of the eye is not to be seen in this group. Facial prognathism is to be found in some of the persons.

From the study of the finger and palmar dermatoglyphics the Juang appear to conform to the Mundari type of the Orissa such as Sabara, Munda, and others, who are of the progressive proto-australoid ethnic stock.

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Communications

A propos de la recension par A. Trouwborst[1] du livre de J. Hurault sur *"Les Noir Réfugiés Boni de la Guyane française"*.

J'ai lu avec surprise le commentaire consacré par M. Trouwborst à mon ouvrage "les Noirs Réfugiés Boni de la Guyane française"[2]. M. Trouwborst me reproche d'avoir apporté des matériaux à l'état brut, et de n'avoir pu dégager les principes régissant le système social et familial, principes qu'il croit pouvoir reconstituer d'après mon texte.

Ceci pose un problème de méthode, et je vous serais obligé de vouloir bien me permettre d'exposer à vos lecteurs mon point de vue, en ce qui concerne la conduite d'une enquête ethnographique.

En me limitant aux points essentiels faisant l'objet de critique, je précise ceci:

Les Boni, tribu de 1.000 personnes, sont divisés en groupes matrilinéaires et matrilocaux. Une étude exhaustive montre que les membres de certains groupes ne connaissent plus leur généalogie jusqu'à l'aïeule fondatrice. Ces groupes, selon notre propre optique, apparaissent scindés en plusieurs segments. Pourtant, les gens n'ont pas conscience de cet état de chose; toute leur attention est portée vers un système rigoureux d'appellations classificatoires faisant que l'on appelle frère, oncle, neveu, chacun des membres du groupe, en fonction seulement du nombre de générations séparant de la fondatrice. Ce système très simple, transmis de génération en génération, fait que chacun connaît en toute certitude l'appellation qu'il doit attribuer à tel membre du groupe, même si les liens généalogiques les rattachant l'un à l'autre sont oubliés.

Les croyances, le droit coutumier et le mode de vie des Noirs Réfugiés sont fortement opposés à la scission de ces groupes.

La notion du *kunu* joue à cet égard un rôle décisif. Le *konu,* malédiction pesant collectivement sur l'ensemble d'un lignage, ne peut être conjuré temporairement que par des rites réunissant la totalité du groupe. Ni l'écoulement du temps, ni la séparation matérielle ne protègent un individu de son *kunu,* inexorablement transmis de la mère aux enfants. Cette croyance a pour effet, non seulement d'empêcher les groupes de se scinder totalement, mais d'admettre dans leur sein des éléments étrangers. J'ai montré (pp. 224-229) que dans les cas très rares où un fragment de parenté paternelle est admis dans le lignage et y fait souche, ses membres conservent un *kunu* différent. Le fait d'avoir un même *kunu* peut être regardé comme un signe indiscutable d'une même origine matrilinéaire.

Cependant, avec les temps, un fractionnement finit par se produire, les membres du groupe se répartissent entre plusieurs villages dont chacun crée

[1] Cf. Anthropologica VI, 1, 1964:118.
[2] Editions G.P. Maisonneuve et Larose, 11 rue Victor Cousin, Paris V^e^.

un nouveau terroir, et établit un lieu de culte des ancêtres, le *fraga tiki*. Ils se réunissent à leur village d'origine pour conjurer le *kunu*, quand ils sont frappés de calamités.

Une étude exhaustive fondée non seulement sur les généalogies mais sur l'analyse du terroir, montre que ce fractionnement ne s'effectue pas en fonction de la segmentation apparente résultant du tableau généalogique, mais en fonction d'affinités personnelles. Deux individus qui, selon notre optique, appartiennent à des segments différents du lignage, pourront vivre dans le même village, ou inversement. Ce qui se comprend aisément puisque, répétons-le, les Boni ne se préoccupent pas des généalogies, amis seulement des liens "horizontaux" de parenté classificatoire. Pour un Boni, tout individu englobé dans ce système d'appellations et soumis au même *konu*, est son proche parent, et rien ne le sépare de lui, qu'on connaisse ou non le détail des liens généalogiques.

Ceci permet de comprendre qu'il y ait un certain flottement dans les termes employés par les Boni pour désigner le lignage. Ils emploient à peu près indifféremment les termes *bee*, "ventre", quand ils veulent insister sur l'origine commune matrilinéaire, et *lo*, "troupe", quand ils envisagent le groupement effectif des individus. Ce dernier terme peut être soit plus général, dans le cas où des étrangers vivent avec le lignage, soit plus restrictif, si le lignage est réparti en plusieurs villages.

Je reconnais que je n'ai pas cherché, au cours de l'ouvrage, à systématiser ces termes plus que ne le font les Boni eux-mêmes; ceci n'enlève rien à la clarté de l'exposé.

Au surplus — et ceci pose le problème général de la conduite d'une enquête — il est fort dangereux d'aborder une étude sur la structure sociale en recherchant des concepts rigoureusement définis et appliqués. Au cours de 15 missions effectuées auprès de 12 populations différentes, tant en Afrique Noire qu'en Guyane, j'ai rencontré cela fort rarement. Il y a partout des principes, qu'on obtient facilement par l'interrogatoire. Et il y a l'application pratique de ces principes, qui est toute autre chose. L'étude exhaustive des généalogies de l'habitat et du terroir d'un groupe de 1.000 à 1.500 personnes — les sociologues qui me lisent savent quel effort cela représente — peut seule permettre de mettre en évidence les tendances qui se font jour et leur évolution récente; encore cet effectif n'est-il pas toujours suffisant pour qu'on puisse conclure avec certitude, faute de cas particuliers révélateurs.

Je me suis efforcé de conduire l'enquête sur les Boni sans idée préconçue, et d'éviter surtout de transposer dans cette société formée dans des conditions si particulières tel ou tel concept africain bien connu. Dans une large mesure, la structure des Noirs Réfugiés est une création originale, et s'ils ont conservé des mots africains pour désigner certaines croyances, les concepts correspondant ont été modifiés ou transposés.

Je me suis gardé même de toute conclusion rigoureuse; le champ réduit de mon étude ne s'y prêtait pas. Quand les sociologues qui ont entrepris

l'étude des autres tribus des Noirs Réfugiés auront publié leurs travaux, on pourra confronter les divers témoignages, et formuler des conclusions sûres.

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Tom Pahbewash's Visions.

For the last three years an Indian Leadership Conference has been held in the spring at the University of Western Ontario. All the Indian bands in southern Ontario south of the French River have sent delegates to it. The author attended each year in the dual capacity of advisor and critic. In 1962 the author met an Ojibwa delegate Tom Pahbewash, elected Chief of a Band located near Nobel in the Parry Sound district on Georgian Bay. In May 1963 he returned again and at the first opportunity took the author to his room to reveal that he had for some time been in direct communication with "the great god" who had revealed to him the structure of the universe and a plan for human redemption, and charged him with the responsibility of spreading the good news and carrying out the necessary acts to ensure the salvation of all mankind. Trembling with excitement Tom produced three pages of notepaper covered with drawings and a stone he said contained treasure. Using the drawings he explained the revealed nature of the universe and, when that was done, related his apocalyptic vision. Later in the week the author had him repeat the story again and persuaded him to part with two of the sheets of drawings — but he would not part with a money stone or the third sheet which was a map showing how to get to the source of the money stones. Let us first examine the drawings.

Figure 1-A represents the Heavens. The larger circle in the center is the Earth and from it rises the ladder of knowledge to the Sun, which is represented by the smaller circle. The circle of dots between the Earth and the Sun was called by Tom the "Circle of the Stars". Between the Earth and the Sun rises the ladder of knowledge. The mark just short of halfway up, the third rung of the ladder, represents the limits that one may attain by education. Beyond that, so far as could be ascertained, one proceeded by a kind of spiritual experience up to the large platform at the top of the ladder upon which is another little platform that comes very close to the Sun. According to Tom, only one man besides himself has ever reached this level. This man was an unnamed President of the United States, probably Washington or Lincoln. The figures to the left of the Sun, as one looks at the page, represent the twelve Apostles. A small difficulty arises here because of course the figures number thirteen. Tom said that he was really unsure of their number, although he did identify these figures with the twelve Apostles and said there might easily be more. Tom several times mentioned the danger inherent in achieving to the third platform that is nearest to the Sun. He said more than once that he was in danger of falling over, but "He held me up" and by "He", Tom evidently meant "the Grear God" as he referred to the Deity.

Figue 1-B is a typical piece of Northern landscape. At the bottom we have an underlayer of clay and the heavier line above the clay represents the top soil. Out of this grow the six trees that are typical of the area, cedar, pine, balsam, birch, ironwood, and ash. To the extreme right of the figure and indistinctly represented are three stones. One is a stone with special magnetic properties, and the other two are "telephone stones" which permit communication between their possessors over a very great distance.

Figure 1-C, the beehive-shaped figure, represents the White population. When asked why it was arranged in a beehive and whether the figure was supposed to represent a hierarchal ordering of white society, Tom said it was simply a representation of numbers. This Figure is intimately identified with Figue 1-D which represents the Indian people. Tom has no clear idea of how many Indian people there are or of how many white people there are for that matter; he simply knows that their numbers are very different. Somewhere about the middle of Figure 1-C, there exists a group of people, perhaps twelve to fourteen in number, who correspond in some way that he couldn't clearly explain to the thirteen figures in the Spirit World to the left of the Sun in Figue 1-A. These are the white men who are to be selected to work closely with Tom in the development of a spacecraft, later to be described, and in bringing a message of peace and hope to the World. The author was somewhat startled to learn that he is among these thirteen or fourteen people and somehow or another identified with the twelve Apostles.

Figue 1-E is of course a bow and arrow, but a bow and arrow of unusual qualities. Tom, using the three magic stones in Figure 1-B arrived by a method of computation I could not understand at the year 542 in the Christian era in which, he said, there had been a great war among the Indian people in his area. During the war some warrior had invented a magic arrow. Its head was baked out of clay represented in Figure 1-B, and in it was imbedded a magic stone that was somehow identified with one of the magic stones in Figure 1-B. More can now be said about these stones. One of them has properties which perhaps should be described as magnetic although it will be seen later they are not precisely that. The other two represent stones which permit of communication between people at a distance to which the human voice will not carry. Tom called these telephone stones and they, too, play a part in the story to be told later.

Figue 1-F represents graphically the story of this magic arrow. The straight line indicates a distance of a mile and a quarter (and it is marked off in that way) over which the magic arrow flew to its target without losing any height at all. That is to say with an absolutely flat trajectory. The arrow also represents a spaceship that is going to take two people to the Moon. The head of the spaceship is made out of clay and in the head is embedded a magic stone with "magnetic" properties and it is this stone that furnishes the motive power of the spacecraft. The body of the craft — the shaft of the arrow — is to be made out of the six native words and to be capable of holding 200

people although but two will ride in it. The craft, according to Tom is simply pulled to the Moon by the attraction that the moon exercises upon the magic stone.

Figure 1-G labelled "M" by Tom is his graphic representation of the Moon. The rather book-like form that it takes is not observable to the human eye. All that we see from the Earth is the shining central part of the moon represented by the rather feathery circle somewhat towards one end. In the center of the shining circle is a square with a small dot on it and the square represents a trap-door into Hell. It is through this trap-door that according to Tom are dropped the souls of the wicked, especially those who have committed murder. Tom explained the phases of the Moon by the use of reflection. He said we don't see the Moon, not even the bright part of it directly, and he seemed to believe that the light goes directly from the Sun to the Moon. It is reflected back to the circle of the Stars and from the circle of the Stars to the Earth and, depending upon the relative position of the Moon, the Earth and the Sun, we have the various phases of the Moon, and when Sun, Earth and Moon are in the direct line, we have the dark of the Moon.

On the second sheet (Figure 2) is Tom's conception of an orbit (Figure 2-A) and of the planet Venus (Figure 2-B). Tom appeared to think that the orbit is a kind of heavenly body that floats around somewhere outside the circle of the Stars within about 200 miles of the planet Venus. He was remarkably unclear as to the nature of the orbit. The author didn't think to ask what, to him, the phrase "in orbit" meant, although it might be assumed from its shape, that to Tom being in orbit really meant being inside a figure of this particular shape. Since the Americans have recently put a space probe very near to the planet Venus, I imagine this is why that particular planet was in Tom's mind. He went on to explain the *real* importance of this figure; not only does this represent Venus, it also represents a kind of control tower that Tom will use to direct the flight of the space craft using the telephone stones to communicate when the craft is in flight.

The lower rectangle represents simply a hut or room with an open door not represented. In it at the time of the flight to the Moon and back will be the twelve or fourteen people from the White Pyramid (Figure 1-C), people who in Tom's mind are characterized by great learning. They have something unspecified to do with the success or failure of the mission. Tom at one time referred to them as his helpers, but was unable to say how they help. The square above the rectangle is a vast television screen upon which Tom will be able to view the course of the spacecraft going to the Moon and coming from it. The dome-like affair above the television screen is made out of a kind of fungus that grows on stumps, according to Tom. It is very likely one of the fungi that grow in shelf-like layers on tree stumps and glow with a mild phosphorence at night that is quite like the screen of a television set with the power on but no station tuned in. Tom could give it no name. The line going up from the top of the Dome to the rather indistinct figure above it (this is not certain), simply shows the connection between Venus as it looks in Tom's

mind and Venus as seen from the earth. In short, we have here at the very top, Venus as it appears to the naked eye and Venus as Tom apprehends it. The story that is illustrated by all these figures is as follows:

Beginning with Figure 1-A Tom said that the United States and Russia have been putting rockets into orbit for a long period of time now. If they continue to do so, within a period of three years, the rockets of one or other of these nations will break the circle of the stars. If that happens, pieces of the stars will come tumbling down to earth and many millions of people will be killed or injured. Without doubt, this represents Tom's conception of radio-active fall-out. "The Great God" has spoken to Tom and told him that he must construct a space ship in which two people, a White man (who may be the author) and an Indian, to be selected by Tom, will go to the Moon. The space-craft will take off from somewhere near the foot of the ladder of knowledge, it will then curve back inside the circle of the stars, follow along the inside, and break out through this permeable circle somewhere around seven o'clock. Outside the circle of the stars it passes between orbit and the planet Venus, (about a hundred miles from each) and ultimately lands upon the shiny part of the Moon. Once arrived, the two people get out of the space craft and take the magic stone out of the baked clay head and place it on the trap-door through which the souls of the wicked are dropped. This closes Hell forever, which doesn't matter because wickedness is to disappear anyway. They then pick up another stone on the Moon which has the same qualities as the one that took them there, except that in this stone the power of attraction is to the Earth. They put the stone in the head of the spacecraft and return to the earth in a somewhat Messiah-like fashion. They announce their return to the world (Tom's role in this was unclear) and it would seem that a state of primitive communism immediately ensues while the two races are in some way amalgamated. There will no longer be any real necessity to work, according to Tom, and each will be provided with all the goods and services that he needs. This is possible, because Tom has been made the custodian of what he called treasure stones. It was revealed to him in another vision that the early French explorers had left great treasures around the part of Ontario in which Tom lives and the way to discover these money stones was revealed to him too.

He had drawn a rather complicated map in which the major impression was one of a three-leafed clover. He had found one of these money stones and at one point showed it to me. It was about eight inches long, about five inches through, roughly oval in shape, and looked as if it had been to some degree water worn. It looked as if it might have been a sort of sand-stone or shale. It was very heavy in proportion to its size. Inside it, according to Tom, lay the treasure in the form of gold coins or gold. Tom had not yet discovered the way to open the stone although he was sure there was a way to do it. He was reluctant to break the stone, although it seemed evident that he had at least pried at some of the cracks and lines in it. The locations of money stones, Tom said, was to be progressively revealed to him, and it was his function in the world to come to distribute money from these money stones to all the

people in the world as they needed it. Tom must have had the essentials of his vision at least two years ago because the author learned he had told his story to some of the Indian people at the Indian conference in May, 1962. One of the men that he had talked to — a Chippewa from the Caradoc Agency — had given a verbal undertaking to construct the spacecraft according to Tom's direction and possibly was to be the Indian who flew in it.

Tom was finally given about fifteen minutes to explain his message to the delegates to the Indian Conference. He was handicapped by his inability to communicate. The most he could do was to show his money stone and telephone stones and the two sheets that are now in the author's possession and try to explain what their significance was. He proved unable to tell the story coherently so that his auditors were left without any real notion of what Tom was talking about at all. Insofar as they did understand it, the response was one of scepticism. How real this scepticism was, of course, is very difficult to say. However, it should be pointed out that the delegates to the conference came almost entirely from Bands and Reserves in southern Ontario. Most of them have had the advantage of some education and even those without formal education have become quite secular people by virtue of their exposure to radio and television, and a fairly free contact with the white community in southern Ontario. Of course, as is quite well known, most of the Bands do at least have a remnant of people who try to cling to the old ways and among these, Tom's story, if he were able to tell it, might have considerable impact. He told me he intends to travel around from Reserve to Reserve in Ontario telling his story to the Chiefs and Councillors so that they will be ready for the great event when it does take place.

A search of the literature reveals that the Ojibwa are not strangers to messianic cults. According to Mooney (1896) citing Warren and Tanner there was a great revival among them in 1808. It was inspired by the revelations of TENSKWATAWA the Shawano prophet and communicated via the Shawnee. It promised a revival of the dead and the return of the old way of life. In the 1890's a revival of religion traceable to Kanakuk the Kickapoo prophet is reported. Mooney makes it evident that time and again the Ojibwa were involved in religious movements that spread rapidly from tribe to tribe. Clearly Tom Pahbewash's vision is in the great messianic tradition of the North American Indian. The borrowing of many items from modern white culture and the fusion of these with native items into a coherent pattern is quite characteristic of the many post-contact revivals reported by Mooney and others. It has not yet been possible to discover if the native items, such as the magic arrow and the magic stones, are taken from Ojibwa folk history or are part of the revelation.

Cults come and go with bewildering rapidity in the lower reaches of modern urban society. It is quite possible that in proportion they are born and die as rapidly among native peoples. There is not much reason to suppose that Tom will be successful in speading his gospel and founding another enduring group such as Longhouse, but there is always the possibility. Should

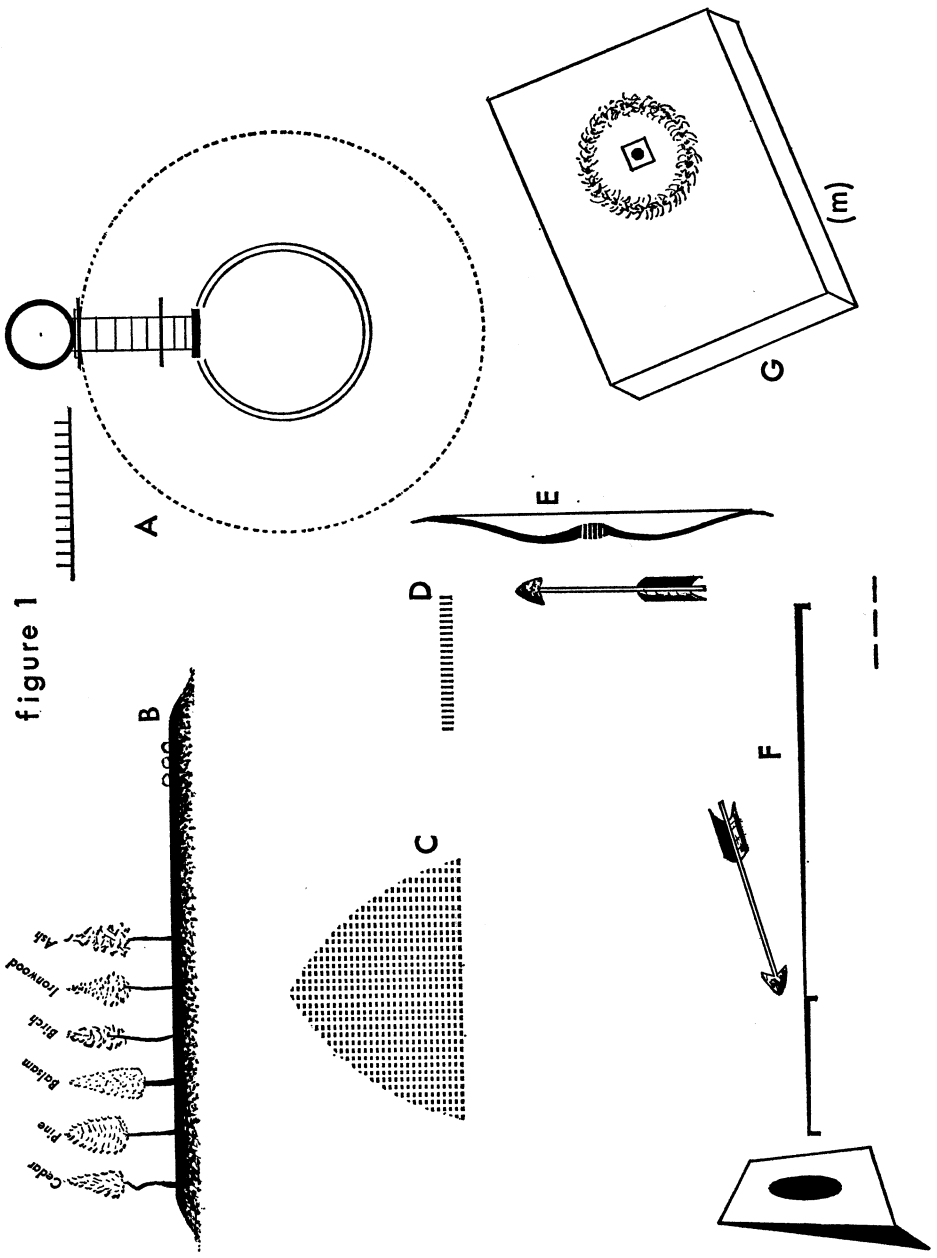

figure 1

there be even a modest and local acceptance, it would still provide an almost unique opportunity to study a messianic movement at first hand from its earliest period. The author hopes to be able to report again.

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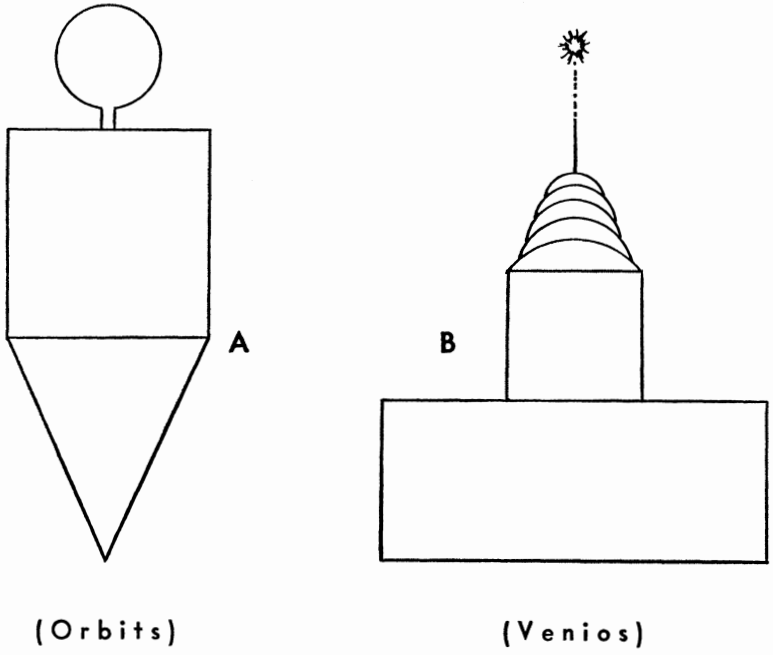
REFERENCE

MOONEY, J.
1896 The Ghost Dance Religion and the Sioux Outbreak of 1890. American Bureau of Ethnology Annual Report 14.

figure 2



Recensions - Book Reviews

The Cubeo Indians of the Northwest Amazon. Irving GOLDMAN. Urbana, The University of Illinois Press, 1963. 305 pp., illustrations.

Monsieur Irving Goldman nous donne avec "le Cubeo" Indiens du Nord Amazone, un solide ouvrage avant tout descriptif. Il se veut appartenir à ce courant de pensée qui recherche à travers l'étude d'une peuplade la caractérisation d'un type culturel distinctif plutôt que des généralités caractérisant les structures de modèle de conduite sociale.

Peu d'études systématiques des Indiens d'Amazonie ont été menées à bien. Il semble que les ethnologues soient plutôt attirés par les populations Andines. Il est temps de nous pencher sur les tristes tropiques car des tribus entières diparaissent ou se modifient radicalement.

Les "Cubeo", européanisation du mot Tucanoan "Kebewa": "les gens qui ne sont pas", est le terme évidemment employé par les indiens d'autres tribus pour désigner les nôtres qui n'ont en général pas conscience de cette dénomination ou alors ne l'apprécient pas du tout. Ils se connaissent comme les Pamiwa, c'est-à-dire les premiers d'entre les autres. Ils occupent une trentaine de sites d'habitation le long de la rivière Vaupes et de ses affluents le Cuduiari, le Querari, le Pirabaton. Ils vont déborder de la Colombie sur les frontières Nord du Brésil. Il y aura donc un carrefour de pénétration luso-hispanique qui se fera au moins sentir au niveau linguistique. Cette peuplade comporte une trentaine de clans groupés en trois confédérations ou phratries. L'auteur estime leur population à 2.500 individus mais fait état de difficultés de recensement dûes à la crainte des Indiens de voir leurs jeunes hommes enrégimentés. La proximité des voies fluviales commandera une existence de riverain plutôt qu'un véritable vie sylvestre.

L'ouvrage est divisé en une introduction et 12 chapitres; chaque chapitre à son tour subdivisé en rubriques sous-titrées. Regrettons tout de suite de ne pas retrouver dans une table des matières ce canevas. Un effort particulier a été fait dans la réalisation de l'index qui se révèle un excellent outil de travail pour les références diverses auquel cet ouvrage peut servir. Déplorons enfin le trop petit nombre de photographies qui accompagnent cet ouvrage. Sans souhaiter un album visant le sensationnel, les rares photos dont le tirage n'est pourtant pas excellent nous font regretter de ne pas voir davantage ce que l'auteur décrit avec autant d'alacrité. Les 11 premiers chapitres sont essentiellement descriptifs et couvrent successivement la communauté tribale, sa vie économique, le système clanique, les relations parentales et une mention toute particulière est faite pour le mariage. Les problèmes de leaderance et d'autorité sont examinés à part et 25 pages sont réservées aux conditions du développement de la personnalité. Trois études sur le culte des Ancêtres,

les beuveries rituelles et les rites funéraires nous amènent au onzième chapitre réservé à l'étude de la religion des Cubeos. C'est dans les 25 pages restantes qu'Irving Goldman nous livre ses réflexions inspirées par les pages précédentes essentiellement descriptives.

Une ombre subsiste pour nous. Car nous croyons savoir que les études générales qui ont été faites sur les Indiens de l'Amazonie Péruvienne par le Summer School of Puccalpa que l'acculturation est très rapide parmi les 30 nations d'Indiens qui peuplent ce secteur. Or, dans cet ouvrage, on n'évoque peut-être pas assez souvent ce processus de déstructuration-restructuration sous sa forme dynamique. Dans les rites funéraires il est dit que le visage du mort est recouvert par sa couverture, est-ce là le résultat d'une influence chrétienne? Les Huitoto ne pratiquent ce rite que depuis les contacts avec les Missions Catholiques. D'autre part, l'état sanitaire de cette peuplade est rapidement esquissé. Mise à part l'épidémie d'influenza de 1917, rien n'est dit sur les emprunts pathologiques que des contacts répétés avec les blancs et les métis sur les lieux de travail ne peuvent manquer de produire. La tuberculose, les maladies vénériennes etc... n'ont-elles pas provoqué les habituels ravages?...

A la question de savoir si la théorie des modèles donne une approche valable pour la compréhension de la culture l'auteur propose une démonstration portant sur 2 problèmes fondamentaux: celui de l'homéostasie sociale et de l'adaptation écologique. Il démontre en utilisant la riche documentation amoncelée au cours des 280 premières pages de l'ouvrage que le problème de l'adaptation culturelle à un milieu ne peut pas être simplement résolu par la relation descriptive d'un hypothétique modelage de la culture sur le milieu. Une étude des interactions demande une vision plus globale et dynamique des procédés. Par exemple, pourquoi l'Amazone du Nord-Ouest qui connaît le maïs et les haricots n'a pas comme les basses terres Mayas préféré ces plantes au manioc amer? Il semblerait qu'un système économique finisse par modifier les valeurs culturelles d'un milieu et le comportement de ses membres mais pour qu'il en soit ainsi il faut que la culture receveuse laisse une chance à ce système économique de prospérer. Ainsi Monsieur Irving Goldman conclut qu'une culture n'est que partie d'un plus vaste système fonctionnel en relation avec les besoins fondamentaux de l'être.

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A Guadalcanal Society: The Kaoka Speakers. Ian HOGBIN. Case Studies in Cultural Anthropology, New York, Holt, Rinehart and Inston, 1964. 103 pp., 1 map, 1 chart, 2 plates.

The Kaoka speakers occupy the eastern part of the northern coast of Guadalcanal Island, practice horticulture, and are divided into five "politically

autonomous villages" and five matrilineal "dispersed clans" which crosscut the villages. Hogbin uses the term "clan" in the British sense (defined in p. 102), but his subclan, composing the core of the hamlet, appears to satisfy Murdock's three criteria for compromise kin group and may be called avancu-clan, though the avanculocal residence is delayed until some years after the man's marriage and even then some measure of choice is open to him. The present volume is a welcome addition to this series of case studies, in that it brought to the easy access of the students an account of how a matrilineal society with avancular emphasis works. This possibility within the range of human social organization appears to be, from my experience, the hardest for North American students to comprehend.

The unilineal or compromise kin groups, however, are not directly described in this outline, since the author, probably for a good reason, chose to present social organizational data in a more operational framework. Clans are described in general terms in the introductory section to the chapter on social structure (pp. 4-5), and a section on "Kinship terms and behaviour" (pp. 10-14) lists and describes dyad relations remarkably clearly. Other than these, the information on kinship and kin groups is scattered, especially abundantly in chapter 2 (Sex and Marriage) and chapter 7 (Religion), presumably because these are the spheres of life in which kinship plays a greater role. In his attemps to construct a coherent picture of kin organization, the reader might be baffled at such reference as "the head of the subclan" (p. 84), whose function and recruitment, unlike those of the household head and village headman, are not elaborated.

The social units which receive explicit definition in the chapter on social structure are the village, the hamlet and the household. For each, composition of the group, activities connected, and symbolic associations such as religion or property ownership are described. In later chapters, however, references are often made to "communities" and "settlements", and which of the two territorial groups is meant by these terms was not always clear to this reviewer.

Socialization process and techniques are well covered in Chapter 3 (Rearing a Family) and economic and subsistence activities in Chapter 4 (Getting a Living). The latter chapter, also informative from the point of view of subclan organization and sexual division of labour, includes a section covering the trades of surplus goods with the interior of the islands as well as with neighbouring islands involving an organized overseas expedition. The political aspect of the native life is described in the next two chapters called "Conflict" and "The Headman", in which kinds of disputes, means of dissolving them at various levels of social units, and the nature and attainment of power are described. The author's clear and vivid prose helps a great deal in the description of this dynamic process.

An attempt is made to place this society in the broader background of Melanesian societies, with frequent comparative reference to the natives of Basuma, Manus, Malaita, New Guinea, Trobriand, etc. In addition, two

sections are devoted to the comparison of social structure and religion, respectively, with the hill people of Guadalcanal. The space allowed is naturally too limited for any convincing portrayal of the hill people, and one may wonder if the same space could not have been profitably utilized for a fuller exposition of the Kaoka speakers themselves.

While most of the information is based on the material obtained from the field work of 1933, the recent changes are covered in the final chapter drawn from the author's observation in 1945. It appears that there has been some change in social organization, while material aspect of life remained virtually the same. The author seems to feel that this "state of stagnation" with "the incompatibility of wants and the means of achieving them" led to the form of nativistic movement called Masinga Rule, in which the desired goal is the goods of Western manufacture delivered by the American wartime transports, to be attained by faith and ritual mainly of Puritanical inspiration. Since we are told that his material aspect came in at the later stage of the movement, which in the beginning had political objectives, the reviewer feels that the gap between the needs and their fulfilment should probably be interpreted in a much broader sense than just the material needs. The account of the movement, which is still in progress and involves the organization of people in a hithertofore unprecedented scale, is nevertheless very illuminating.

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"Hunters of the Buried Years". Alice B. KEHOE. School Aids & Text Book Publishing Co. Ltd, Regina — Toronto; N.D. 94 pp., 78 illustrations. $ 2.00.

Alice Kehoe's "Hunters of the Buried Years", is a most pleasurable and instructive book, devoted to the prehistoric peoples of the Prairie Provinces of Canada. The book is not long, 94 pages, many of which are taken up with photographs and drawings. Nevertheless, she has covered her topic from man's first arrival on the Plains until almost the present day most entertainingly. To do this she has five chapters, four detailing the prehistory of the Plains and one, the third, is concerned with the woodlands people. She begins with the early big game hunters, followed by the "foragers", next the "fishermen", and then those groups who abandoned their village life to hunt bison after the advent of the horse on the Northern Plains and finally a section on the historic period.

The book is intended for the interested layman rather than the professional archaeologist but even the latter might well benefit from reading it. Each of the five chapters begins with a hypothetical description of what the life of the people must have been like at the period under consideration, based upon archaeological discoveries and ethnographic parallels. These are well done,

bringing vividly alive the peoples described. I would, though, question whether Indians actually ate fish raw, which is so un-characteristic of the subarctic peoples (p. 55). Furthermore, whitefish do not spawn in the spring but rather in the fall (p. 56). These, however, are minor points. Following this sketch of what life must have been like at different times in the past, is a discussion of known factual data for each period.

There are several features of this book which add greatly to its attractiveness. The photographs are well chosen and illustrate clearly what they are meant to portray. In addition, line drawings are sometimes employed to supplement a particular photograph thereby enhancing its value while at the same time the photograph adds to an understanding of the drawing. There are other drawings, of artifacts and reconstructed scenes, which add to the pleasure of the reader.

What Mrs. Kehoe has to say regarding the training of archaeologists and their interpretation of archaeological remains is of considerable interest.

> "Part of an archaeologist's training is intensive study of artifacts and the descriptions of their manufacture and use that have been collected by ethnographers. Comparisons between excavated sites and the camps and villages of primitive peoples today are the means by which the archaeologist puts flesh upon the dry bones he digs up." (p. 10).

Much more stress should be given these two points by the archaeologist both as teacher and as excavator. Mrs. Kehoe, for example, has published in this book an aerial photograph of the Indian Days Celebration camp, Blackfoot Reserve, Montana in contrast to an aerial photograph, placed just below on the same page, of tipi rings (p. 65). This brings into sharp focus the possible use of ethnographic data.

Finally, Mrs. Kehoe's plea for the preservation of archaeological sites from vandalism presented in the "Epilogue" is well taken and it is hoped that this will be read widely and the advice followed. All in all, this is a very worthwhile book and one which the public should enjoy.

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Kabloona and Eskimo in the Central Keewatin. F.G. VALLEE, Northern Co-ordination and Research Centre, Department of Northern Affairs and National Resources, Ottawa, 1962. 218 pages.

Ostensibly a study of Eskimos in the Baker Lake region, *Kabloona and Eskimo in the Central Keewatin* is useful as a contribution to our under-

standing of Canadians. By describing "white" Canadians as *Kabloona,* the Eskimo term for them, Vallee stresses the interactional nature of any colonial situation, and seeks to show how Canadians and Eskimos get along amidst shifting winds both weathery and political.

Vallee's research methods and concepts lend confidence to his findings. His study is informed by that sensitivity and flexibility without which research of this nature becomes administration, not science. Though the Federal Government sponsored the project, Vallee has struck a pleasantly independent note in his analysis and investigation. And while the report should arouse no very hard feelings on either side of the Northern Affairs officer's desk, it has nonetheless a quiet contentiousness which should be useful in stimulating some reconsideration of the overall situation. His excellent discussion of social control, for example, must precede any humane attemps to affect by law and usage the basic tone and meaning of Eskimo society. His comments on Eskimo economy, while "economically naive" as he himself stresses, clearly underline the importance of managing racial and psychological factors first, and he properly indicates that any form of Kabloona economic assistance to the Eskimo which maintains the present attitude of psychological dependency is in the long run uneconomic and bleakly unrewarding to both groups. And though in the *Introduction* there is an over-modest evaluation of his findings as "rather superficial" it is apparent that Vallee's style of analysis is deftly appropriate to the present situation.

Best of all, the report should stimulate the kind of discussion which follows here. Possibly Vallee has not gone far enough in his assessment of some of the political-racial implications of official policy. The contemporary situation, whatever the handbooks say, uncomfortably resembles a rudimentary colonial situation, if not in practice at least in values. There is a belief (not supported in Vallee's work), that the Kabloona somehow represent a more agreeable form of society, and because of numerical and economic inferiority Eskimos are amenable to control by Kabloona. At the profoundest level, whatever the individual merits of clerical personnel, it is difficult, for example, to draw another conclusion from the sanctioned effort of missionaries to convert "pagans" with such fatuous gallantry that "...most Eskimos... attend chapel services for between seven and ten hours per week." (p. 178) The lack of genuine physical intermingling between Kabloona and Eskimo, the frequently expressed need for the Kabloona to keep up racial face lest Eskimos doubt the idealized picture of Kabloona society offered them, the ban on fraternization in some larger communities, suggest an attitude which if not altogether appropriate to a caste situation, nonetheless implies an amount of racial aggression incompatible with official theory that all Canadians are equal.

Vallee carefully points out that the Central Keewatin situation may be milder in this respect than in larger communities such as Frobisher Bay. I spent two summers at Frobisher during the construction of the DEW Line during 1955-57 and it was there simply impermissible to have normal human relations with Eskimos on any other than purely official bases. While there

may not have been an official ban on contacts, it was believed there was; the Eskimo town was clearly out-of-bounds, and Kabloona certainly felt that something akin to a caste distinction was to be maintained between Kabloona and Eskimo. The effect of this was to reinforce racial biases among the Kabloona and probably to affirm for Eskimos that they had some special and second-class relationship to Canadian society. While no one said Eskimos were second-class citizens, they were clearly different; in any relationship with Kabloona, a paternalistic racialism was the dominant mode of hierarchy. While the word may have been unknown in Keewatin, Eskimos in Frobisher were "Skeemos", to non-official whites at least, and the far-from-residual racial attitudes implied in this term and the nature of its use, did not conduce to confidence in the broad genuineness of white pretence to liberality. While this was far less marked among officials in the area, the overall situation could not help but be defined in fairly crude racial terms. And Vallee's description of official behaviour in Keewatin implies a set of underlying attitudes distressingly comparable to those maintained by pre-Independence officials in some West African territories; the practical and ethnical irrelevance of these views has been rapidly demonstrated, and the fatherly goodwill which accompanied them in many individual cases was properly regarded as no excuse for permitting them to persist.

In short, with respect to Eskimos as well as Nigerians or Algerians, there is no legitimate white man's burden. While there are obviously serious and trying responsibilities which Canadians of any genetic endowment must face in the Arctic, there seems little reason in view of contemporary racial sophistication to ignore an important reality of Arctic social life — its assumptions of racial competence and incompetence. In this connection, Mannoni's candidly provocative examination of the colonialist mentality,[1] should be required reading for all officials involved in Eskimo (and Indian) affairs and for those social scientists who believe that these groups suggest scientific and practical problems of uniquely powerful poignancy.

Contained in Vallee's report are hopeful indications of possible change. Revised patterns of Federally-supported secular education should inject the younger generation with healthy reality and a relatively cogent view of the nature of inter-group relations. Increased technical and administrative sophistication of Eskimos — or, rather, the increased use and equal rewarding of the competence which obviously exists in the Eskimo community — should conduce to changes toward less unbalanced society. In this connection, the strange belief that Eskimos are incapable of handling money and must have their credit supervised for them by the Hudson's Bay Company, suggests 1) an unpleasant consequence of a monopoly trading position, whatever its economic justification, and 2) contains a dynamic for retention of the system; the self-fulfilling prophecy will function perfectly. While there would no doubt be periods of stress while self-governed expenditure became common among

[1] I.O. MANNONI, *Prospero and Caliban; A Study in the Psychology of Colonization,* Methuen, London, 1956.

Eskimos, the long-run loss in understanding and dignity implied in the present system seems too important to ignore; anyway, *who* says "the natives are not ready for self-government?"

It may be felt that what is needed in the Arctic is further research. But while reports of the quality of Professor Vallee's are obviously of great utility, they should not be regarded as substitutes for more sensitive and unbiased Kabloona official behaviour. Less research might even be desirable, if this would affirm that the Eskimo problem is also a Kabloona problem, not some special grand responsibility of a racially charged nature.

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The Kapauku Papuans of West New Guinea. Leopold POSPISIL. Case Studies in Cultural Anthropology. New York, Holt, Rinehart and Winston, 1964. 101 pp., 1 map, 2 plates.

If one is looking for an account of a native people which strongly contradicts a popular image of a native tribe, this new addition to the Case Studies in Cultural Anthropology should fulfil the purpose. At least it appears to be the intention of the author to challenge the preconceived ideas on native life in the spheres of economy, political and legal structure, ceremonial activities and world view. This theme is clearly stated in the "Introduction" (pp. 3-4), and is consistently carried throughout the book.

Thus we are told that instead of a "primitive communism", the Kapauku economy resembles something that may be better labelled as "primitive capitalism". The cowrie shell money which comes in various "denominations" would purchase all the agricultural produce, of which sweet potatoes are of major importance, either after the harvest or while growing in the field. Pigs, fed on the sweet potatoes, have economic and social significance in the society, and they again may change ownership in exchange for certain amount of shell money, or may be farmed out for care for monetary compensation. The shell money is used not only for the purchase of tangibles, such as artifacts, but also for labour in the gardens, service of a wife, various specialist services, lease of land, and compensations for criminal and contractual delicts. While the gift in the strict sense does not exist among the Kapauku, it is mainly through effective lending of shell money that an individual could rise to the position of political leadership, as the debtors, for fear of demand of repayment or withdrawal of future loans, would form a following for the creditor.

This "complex and rather sophisticated type of true money economy", matched with a highly developed numerical system, is said to be co-existent with a most primitive technology. While agricultural methods are rather elaborate, material culture is quite simple and carrying-nets are the only

artifacts with decorative designs. In the absence of large game, agriculture and pig breeding are supplemented by the collecting of amphibians and insects.

In the first chapter on "Economy", the natives' numerical obsession is matched by the author's strong quantitative orientation. It should be instructive to expose the students to this trend in social anthropology, in which the size of cultivated land is compared with the size of various social units to obtain significant correlation, or the man-hours expended in various methods and phases of agricultural activity are compared with the final yields. In the second chapter on "Social Organization", however, the author's methodological approach may be more confusing than profitable for beginning students. The social organization is discussed under two headings, Social structure and societal structure. The social structure, which pertains to Ego's relation to the other members of society, includes several social categories, social quasi-groups and marriage. The societal structure, focusing on the relationship of the various segments of the society, is described in terms of "traditional unilineal kinship groups", "localized unilineal kinship groups", "corporate nonunilineal kinship groups", "residential groups", "economic groups" and "political groups".

In the third chapter on "Political Organization", a claim of no leadership by resident European observers is regarded as mistaken, and so is the popular notion of primitive legal system as being single and well-integrated. The illusion of no leadership is explained as being derived from the absence of any compulsion due to the strong Kapauku belief in individual freedom, the infringement of which is believed to endanger the life of the victim. The leadership does exist, on the levels of the household, the sublineage, lineage and the political confederacy composed of several lineages, while the patrilineal, exogamous and totemic sibs and subsibs remain without political cohesion. The leadership is attained, not ascribed, on the basis of wealth, ambition, and verbal courage, and is hierarchically stratified according to the inclusiveness of the social unit which the leader represents.

The ceremonial life, described in the fourth chapter, is characterized as being simple, secular and economy-oriented. The author challenges the notion of the primitive preocupation with the supernatural and ritual, as the only ceremony connected with the supernatural among the Kapauku are the magical ones connected with witchcraft, while even the life cycle ceremonies, such as weddings, are, according to the author, strongly economy-oriented. The more straightforward economic ceremonies are the fund-raising ceremony, pig-market, and the pig-feast which is vividly described in detail. We are told that the Western belief in "prelogical mentality" of the primitives does not apply to the Kapauku, since they exhibit a very logical and rational world view, sometimes more so than the Westerners with religious dogma.

The final chapter is devoted to the recapitulation of the major points of discussion raised in the previous four chapters. The extremely well-coordinated presentation of the material, somewhat repetitious at times, should compen-

sate for the terminological and conceptual difficulties which may be suffered by an uninitiated reader. It is a pity that this edition has so many typographical and editorial errors (*e.g.*, the fifth word of the first line of the last paragraph on p. 94 should read "objectivity" if the sentence is to make sense; with reference to the definition of the fifth item on p. 100, "paternal-parallel cousins" and "paternal-parallel nephew and nieces" are defined *below* not *above*, while "paternal-parallel uncles" are not defined anywhere contrary to the parenthetical insert). But these are minor quibbles for an excellent book.

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The Old Stone Age. A Study of Palaeolithic Times. Miles BURKITT. 1st Atheneum edition, New York, 1963. 270 pp., 30 ill. $ 1.45.

This is the paperback version of the fourth edition of a book originally published in 1933 and subsequently reissued in second and third editions in 1949 and 1956. In his preface the author states that it is intended for beginners.

It is one of the curious features of Old World prehistory that no one any longer writes those meaty volumes introducing students in detail to the subject which were so prevalent and useful to an earlier generation. Perhaps the field has now become too complex for the production of such grand old English-language classics as Lubbock's *Prehistoric Times*, McCurdy's *Human Origins*, Osborn's *Men of the Old Stone Age*, Obermaier's *Fossil Man in Spain*, Sollas' *Ancient Hunters* or Macalister's *Textbook of European Archaeology;* but complexity does not seem to have daunted writers in other branches of archaeology and anthropology. Whatever the reason, Professor Burkitt's book, which occupied an honourable place among these classics when it first came out as a good introduction to the Palaeolithic, no longer can be considered in that light and fails to fill the present need for such an introductory work.

The author states in advance that he has made "one or two major changes in this edition and some minor additions and alterations to bring the volume as far as possible up to date." The trouble is that one or two major changes are not enough; what is needed today is a wholly new book and the present one, as even a glance at the table of contents shows, is very little changed in treatment from the previous three editions. The book carries on in the tradition of thinking in Palaeolithic archaeology which was understandable perhaps before World War II but which is far behind the times today. It is a pity, because few prehistorians living today have the wide range of experience of Professor Burkitt who was trained in Palaeolithic studies by the Abbé Breuil over half a century ago.

Perhaps the greatest fault in the book is that although it purports to introduce the reader to the Old Stone Age, it in fact restricts this introduction

almost entirely to the Palaeolithic of Western Europe and particularly of England and France. Africa and Asia are barely mentioned, yet four of the fifteen chapters are devoted to the Upper Palaeolithic art of Western Europe. This attitude might have been justified thirty years ago, but it seems dreadfully parochial today when it is apparent that for most of Palaeolithic times Europe was of relatively little consequence in world cultural or physical evolution. (Yet Professor Burkitt has himself published important works on areas outside Europe; one has only to think of his *South Africa's Past in Stone and Paint,* a most valuable contribution when it appeared in 1928.) Indeed, one has a certain feeling of timelessness in reading this edition, as if the subject had remained nearly stationary for the past three decades. The Kanam and Kanjera fossils are suggested as evidence of very early *Homo sapiens* (p. 135); only with the greatest reluctance, one feels, is Piltdown man put aside, since on p. 132 we are told that the Heidelberg jaw "is quite unlike the one found at Piltdown"; and how many "beginners" will recognize that optimistic fossil of the Gay Twenties, M. Coué, who is brought in on p. 224 to illustrate the power of suggestion in Palaeolithic art? Simple slips in editing the latest edition, perhaps; but when such anachronisms occur in such large numbers it convinces one that what was needed was a complete rewriting job rather than what Collingwood would call a scissors-and-paste job of amending here and there. (Typical of the casual attitude is the fact that an error in the 1933 edition, which describes a Saharan site as being located 1800 miles *east* of the Nile, has remained uncorrected in all editions since and stands out unrepentantly on p. 247 of the present book.)

There are more serious anachronisms. There is a nostalgic note in the statement that the earliest artifacts in Europe belong to the "Eolithic Period", and the Cromerian "industry" is offered as an example in spite of the refusal of Oakley, Warren and Barnes to accept it or the Sub-Crag flints as due to hominid workmanship. The Levalloisian is still referred to as a distinct industry although there is abundant evidence nowadays to show it is only a technique of knapping which cuts across a number of industries on several continents; the Magdalenian is put in Wurm II times; Capsian is described as belonging to the Aurignacian group in spite of adequate evidence that it is a post-Pleistocene "Mesolithic" phenomenon; the old chestnut of the Solutreans as armed invaders from the East who subjugated the previous peoples of Western Europe and maintained themselves as a "dominant caste" is kept in circulation. The maps of cultural distributions have not changed, as far as I can see, from those in the first edition and they refer only to the European, North African and Middle Eastern areas.

On the credit side, the book is clearly and attractively written with no serious lapses into jargon. There is a useful illustrated chapter on the typology of stone and bone tools, and the chapters on art, though disproportionately long, are an interesting introduction. Sympathetic magic is suggested as the main impulse for the wall art, though art for art's sake or for pleasure is not excluded, especially for portable art. The Eastern Spanish art is attributed to

North African influence from the Capsian — an hypothesis of dubious value at the present time.

Publishers nowadays, as the pool of classics which can be reprinted dries up, are notoriously eager to transform virtually any hardcover book into a paperback if there is any chance of tapping the student or popular market. As a teacher of this subject I am continually hamstrung by the lack of a good, detailed text in English which can serve as the nucleus for courses involving the Palaeolithic. But if this book is intended as such an introduction to the Old Stone Age, as its sub-title suggests, it certainly does not fill the bill as far as university students are concerned. If meant for laymen it might be more acceptable, though I prefer to recommend a book such as J.G.D. Clark's *World Prehistory — An Outline* which, although treating the Palaeolithic in a much shorter space, is far more up to date. Putting out slightly revised editions of old stand-bys is no longer good enough. To paraphrase W.W. Howells, we need not revised versions of old books but new books by revised authors. The attitude of the publishers in the present case is well demonstrated on the cover: with the whole range of Palaeolithic art to select from, they blithely abandon any attempt at consistency and choose to decorate the cover with what looks to me like a modern artist's version of a Bronze Age hunting scene.

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Papago Indian Pottery. Bernard L. FONTANA, William J. ROBINSON, Charles W. CORMACK, Ernest E. LEAVITT, Jr. The American Ethnological Society. Viola E. Garfield, Editor, 1962, xviii-163 pp., 129 illustrations. $5.75.

The four authors have produced a very useful study of pottery made by the Papago Indians of southern Arizona. The Papago are an interesting group archaeologically, since they are close relatives of the Pima who occupy the land around the famous "greathouse" ruin of Casa Grande. There has been much discussion as to whether the Pimans (Pima and Papago) could have built the greathouse, could have been its destroyers, or whether they were simply humble residents of the area pushed into the background by successive conquerors. It was hoped that a careful study of Papago pottery and a comparison with that made by Casa Grande people would throw light on the problem. The authors also felt that a description of pottery making and disposal would be useful in the study of Papago social life, both past and present.

There are some thirty potters scattered among the Papago villages. The authors interviewed them all, and one they watched and photographed through

the whole process. I was interested to see that this process has changed very little since I saw it thirty years ago, in spite of the new materials available. One old custom seems to have lapsed. That is the apology to the clay when it is dug and the promise that the potter will not dig roughly or take more than she needs. Papagos made this comradely explanation to all things in nature — clay, rocks, plants or animals. "I need you for my work," they would say gently, for among the Desert People, even men did not raise their voices.

After the clay is brought home (probably in a car), the process of sifting, moistening, tempering and molding goes on. Students of primitive pottery made without a wheel generally classify the methods as either coiling or paddle and anvil. I had not supposed the two could be combined until I saw the Papago. They shape the bottom of the pot over a mold, then thin and enlarge it by paddle and anvil. That is, a stone is held inside the vessel wall while a wooden paddle taps it on the outside. When this starting portion of the pot is ready, the main body is laid on by coiling, that is, building up the walls by ropes of clay laid one above the other. This is the method used in the Pueblos, which were once considered typical of the whole Southwest. The Pueblo potter smooths her pot walls on the outside with a stone, but the Papago resorts again to paddle and anvil. Each step of the work is described and photographed so that an amateur could probably produce a fair sample of Papago pottery by following the directions.

Papago pottery is not finely textured or highly decorated. The coarse clay of which it is made turns red or reddish brown after firing. Rarely, it is slipped with heamatite or chalk. The decoration, when there is any, is curving black lines made from a decoction of mesquite bark and gum. The shapes made for Papago use are the same which I saw thirty years ago and which have probably been the same for centuries. There is the swollen bodied olla, or water jar, made porous on purpose so that the water will evaporate and thus keep reasonably cool. There are the narrow necked canteens, meant for carrying water from the spring in the woman's carrying net. There are the bean pots, the storage jars, the little duck shaped vessel from whose beak the baby drinks.

This pottery, in the authors' opinion, shows little similarity to that of the Hohokam or All-Gone-People as the Pimans call them. On this subject there has been much discussion which can only be ended by further excavation. One reasonable opinion is that of Di Peso, who has done much excavation in this area and in Mexico. According to him, Pimans have been residents of the area since, perhaps, the beginning of our era. The Hohokam arrived from Mexico, perhaps around A.D. 1000, and took over the river valleys, where they enlarged the irrigation canals begun by the Pima. Some time between A.D. 1250 and 1300 they were driven out, perhaps by the Pimans. Other invaders from the north were the greathouse builders who also were driven out. The culture of both these groups was decidedly different from that of the

indigenous Pimans. Other archaeologists disagree, and it is plain that more data are needed.

The authors were interested in the present uses of Papago pottery which are of two very different sorts. The old styles just described are bought or, rather, traded for by Papago housewives. This gives opportunity for social communication by both potters and purchasers. It keeps the potter from feeling left behind as her husband deserts the old way of life for wage work. Potters are also beginning to make knicknacks for sale to tourists and the money received is a further help to their budgets and their self esteem.

One young woman has gone completely modern. A ceramist visiting at the nearby Catholic mission bought her a kiln and gave her metal molds. The mission built her a studio which is warm in winter so that she can work the year round. (The old style potters work out of doors in the summer sun). This innovator makes some pots in the old shapes, but also she molds ash trays and little images. Too, she makes candlesticks and saints' images for the church. Other women, too, are being encouraged to try altar furnishings, and this may point to a new opening for Papago ceramics.

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Les Singes actuels et fossiles. E. GENET-VARCIN. Paris, Boubée, 1963. 240 pp., 97 figs., 24 pl., 6 tabl. — 60 NF.

S'il y a plus de deux siècles maintenant que l'ordre des Primates a été constitué par Linné, il faut reconnaître que notre information à son sujet, tant sur le plan de la néontologie que de son histoire phylétique est longtemps restée déficiente. Dans ce secteur paléontologique en particulier, le premier primate fossile n'est découvert qu'en 1836 dans le Miocène des Siwaliks: *Semnopithecus subhimalayanus,* suivi bientôt il est vrai par les documents plus extensifs exhumés dans le sud-ouest européen à la faveur des fouilles de Gervais et Lartet. Mais il fallut attendre les explorations systématiques du Paléogène des Montagnes Rocheuses et celles du Fayoum d'Egypte, les expéditions américaines en Inde, Birmanie et Mongolie, et les prospections des horizons subfossilifères de Madagascar pour voir se dégager les lignes maîtresses de l'évolution du groupe des Primates.

Si le branle fut lent et tardif, en revanche un matériel étonnant a été accumulé dans les dernières décades: de nouveaux champs de fouille sont exploités en Afrique orientale (sur les bords du grand Rift et jusqu'aux rives du lac Rodolphe), aussi bien qu'en Extrême Orient, dans le Kwangsi, le secteur de Liu-Cheng et la province de Honan; tandis que d'anciens gisements sont réétudiés dans le bassin de Vienne, le lignite de Toscane, le Thanétien de Cernay, le Paléocène du Wyoming et du Montana. Les documents nouveaux

et leur étude minutieuse appelaient parallèlement une reconsidération des pièces plus anciennes: çà et là ce sont des interprétations foncièrement neuves et révolutionnaires qui sont proposées, et il suffit de citer entre autres productions récentes, celles de Chow Min Chen, Davis, Ferembach, Hill, Hürzeler, Kälin, LeGros Clark, Mc Kenna, Napier, Olivier, Pei, Piveteau, Russell, Schultz, Simons, Zapfe pour réaliser les progrès spectaculaires opérés depuis 10 ans, dans le domaine de la primatologie des non-Hominidés.

Tout ce matériel récemment découvert ou réinterprété n'était guère accessible qu'à travers des dizaines de publications originales, éparpillées à travers d'autres dizaines de revues. Les récents Traités de Hofer, Schultz et Starck, d'Osman Hill et de Piveteau offraient sans doute depuis 1953, sur certains points, de très appréciables synthèses. Mais outre que les découvertes se succèdent trop rapides pour ne point exiger de constantes mises au point, il était nécessaire de présenter aux fervents de la primatologie un volume sérieux et modeste à la fois, et qui tienne compte tout ensemble de l'aspect actuel et fossile du problème de l'évolution des Primates. Ce fut l'objectif de Mme Genet-Varcin dans ses "Eléments de Primatologie" qui, sans vouloir "retracer l'histoire complète des singes fossiles", entendent "mettre à la disposition des étudiants et des curieux de la paléontologie des primates un ensemble de données réparties dans les traités importants et de les présenter de manière simple tout en tenant compte des découvertes récentes". Disons d'emblée que l'A. a largement atteint son but et que l'ouvrage qu'elle nous livre aujourd'hui comble très heureusement une véritable lacune.

Le livre traite des "singes": il faut entendre les *primates, — apes, monkeys* et *prosimians* des auteurs anglo-saxons, *Affen* et *Halbaffen* des allemands, anthropoidea et prosimii, à l'exception de la famille des Hominidés (au sein de laquelle l'A. place bien sûr les Australopithecinae, mais encore *Oreopithecus,* qui ne sont donc pas envisagés dans la présente revue); "actuels et fossiles": la perspective est donc délibérément évolutive; elle est aussi exclusivement anatomique, ou plus exactement ostéologique et odontologique.

Le premier tiers de l'ouvrage est consacré à une étude anatomique des primates actuels, proposant succinctement les caractéristiques essentielles des diverses familles ou sous-familles. La seconde partie du volume — la plus importante — s'attache à l'étude des primates fossiles non-hominidés; ici encore le plan est suggéré par la taxonomie: Prosimii et Anthropoidea se partagent à peu près équitablement la place disponible, ceux-là avec leurs trois infra-ordres et la succession de leurs diverses sous-familles, des Anagalinae de Mongolie aux Necrolemurinae de l'Eocène européen, — ceux-ci répartis en Platyrhiniens ceboidea (encore rares et mal connus dans leurs représentants fossiles, et dont l'A. ne considère guère qu'*Homunculus)* et Catarhiniens cynomorphes et anthropomorphes; c'est cette dernière super-famille qui est traitée le plus généreusement (75 pages) et dès lors aussi de la manière la plus personnelle.

Les formes éocènes demeurent toujours énigmatiques: *Alsaticopithecus* (du Lutétien de Bouxviller) qu'il faut peut-être rapprocher de *Cynodontomys*

du Wasatchien de Four Mile (?), *Amphipithecus* et *Pondaungia* des sables éocènes de Birmanie, posent encore plus de questions qu'ils n'aident à en résoudre! A propos de *Parapithecus* et de *Propliopithecus* (Olig. du Fayoum) l'A. propose les conclusions de la récente et foncière réinterprétation de Kälin. De nouveaux primates pourtant viennent d'être signalés par Simons dans ces mêmes horizons décidément très riches, et on peut espérer que notre documentation accrue éclairera bientôt ce "champ morphogénétique transitoire" en direction du type proto catarhinien synthétique encore si mal connu...

Ce n'est guère qu'à partir du Miocène que l'échantillonage fossile permet des reconstitutions phylétiques moins hasardeuses: *Limnopithecus, Pliopithecus, Proconsul, Dryopithecus* et les formes affines, *Sivapithecus* et *Gigantopithecus,* à propos desquels l'A. propose une très heureuse synthèse de nos connaissances actuelles: au niveau de *Proconsul* en particulier les progrès récents de l'étude primatologique et les positions nouvelles sont habilement mis en lumière. De plus en plus en effet — les études de Napier et Davis signalées avec beaucoup d'actualité par Genet-Varcin sont parfaitement explicites en cette matière — on voit dans *Proconsul* une forme évolutive de passage: un quadrupède qui développe les caractéristiques d'un brachiateur fonctionnel. Peut-être l'A. sous-estime-t-il pourtant le caractère hybride de l'association des particularités primitives et progressistes chez Proconsul... Les fouilles poursuivies depuis quelques années par Allbrook, Bishop et Whyte en Uganda (à Napak et Moroto en particulier) risquent d'éclairer bientôt de quelque jour nouveau la signification de ce genre miocène est-africain, si prolifique: on peut regretter que l'A. n'y fasse pas allusion. Par contre on appréciera l'information très à jour dans la question du Gigantopithèque et des fouilles de la colline de Liu-Cheng.

L'ouvrage de Mme Genet-Varcin a ses limites: l'A. n'a pas voulu dépasser le cadre ostéologique et odontologique de la stricte anatomie que lui suggérait sa perspective délibérément paléontologique; il n'a pas cru devoir s'aventurer dans les sables mouvants de la discussion des facteurs évolutifs, bien qu'au niveau même de l'étude paléontologique, certaines considérations écologiques occupent aujourd'hui le premier plan de la recherche. Mais dans ce cadre limité lui-même auquel l'A. a voulu se tenir, on pense que l'ouvrage rencontrera un très franc succès: son information est sûre, précise, généralement très à jour; c'est ainsi par exemple que les spécialistes de l'anatomie comparée seront heureusement surpris de retrouver largement exposées les conclusions toutes récentes et si originales de Vandebroek sur la formation des dents jugales des mammifères primitifs. On comprendra par ailleurs les raisons "pédagogiques" qu'il y avait à n'en point faire ultérieurement l'application concrète dans le cours du volume: le lecteur non spécialisé eut été complètement désorienté...

Les questions brûlantes essentielles sont bien dégagées. Le regroupement cohérent qu'appelait l'encombrement et la dispersion de la littérature primatologique est habilement opéré: ainsi que l'exprime le professeur Piveteau dans sa Préface, "ce livre si original marque un jour nouveau dans nos études: il

est à la fois synthèse des connaissances acquises et ouverture sur les recherches futures". C'est le plus bel éloge que pouvait souhaiter son auteur.

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Understanding Culture. John J. Honigmann. New York, Harper & Row, Publishers, 1963. viii-468 pp., ill. $6.75.

Though this book has certain similarities to Honigmann's earlier compendium *The World of Man* (1959), it is not just a condensation. *Understanding Culture* is a completely reorganized and rewritten introduction to cultural anthropology. It is being advertised as a text and I believe it should be considered primarily with this in mind.

What is there to understanding culture? Several theories such as evolutionism, Freudian psychology and the like are reviewed. While the discussion of these is a bit sketchy in places, Honigmann leaves no doubt that for him at least the most useful approach is functionalism which he says "dominates contemporary anthropology," p. 13. For Honigmann culture is instrumental — it is man's way of coping. Understanding of it comes about through observing how societies meet their problems. Honigmann begins by introducing the student to the significance of the food quest. There follow detailed descriptions of the subsistence patterns of three social systems: the Kaska, the Hopi and the Pathans of Swat. Cross-cultural data representing these three societies appear in virtually all of the 15 chapters devoted to exploring the range of culture from witchcraft to community studies. Their inclusion strengthens Honigmann's presentation in several ways. For one thing these peoples exemplify quite different levels of cultural complexity. For another they provide a very meaningful comparative continuity so often absent in introductory texts.

The book is nicely done. Honigmann is a provocative writer. His formulation is clear, and the style easy yet vigorous. The order of the chapters is logical, although the titles of some may bother the more traditionally-minded. Each chapter also contains a well-selected bibliography. Charts, diagrams and photographs are numerous and well-labelled. A number of quotations extracted from original sources have also been included. These and other cross-cultural examples taken from the world's ethnographic literature add immeasurably to the clarity of the text.

As to criticisms, undoubtedly some will wish to challenge Honigmann's particular brand of functionalism. Certainly his time dimension is not always as precise as it might be, particularly in chapters 16 and 17 which touch upon the processes of social change. Again, one might question whether

Honigmann is describing society or culture or, indeed, if he feels they are essentially separable concepts. My real misgivings about the book concern the last two chapters, 18 and 19. These outline biological evolution and prehistory — New and Old World. The former is somewhat faulty in its conception and also not unexpectedly incomplete; the latter is so compressed that it would be useless to begin citing its inadequacies. These two chapters seem almost totally unrelated to the remainder of the book. It would be my suggestion, therefore, that they be eliminated in future editions. Furthermore, I doubt that anyone nowadays would attempt to offer either physical anthropology or archaeology as part of an introductory course on the basis of these chapters alone.

Despite these reservations, I am enthusiastic about this text. I have used it in a large first-year course with considerable success. Its organization and flexibility are particularly appealing. Also the class responses have been very positive. *Understanding Culture* seems to be a text that students can understand and find meaningful. Can there be a better recommendation than this?

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Notes bibliographiques - Book Notes

Institutions of the USSR Active in Arctic Research and Development. Revised and enlarged by Vladas STANKA; edited by Natali Wood. Washington, D.C., Arctic Institute of North America, 1963. xi-195 pp.

"A brief analysis is offered of the institutional structure of Soviet research, and followed by a listing of 756 Soviet scientific institutions operating in the Arctic or doing research on arctic problems in the fields of physical, natural, and social sciences. All available data on their development, affiliations, scope of study, and serial publications are included. A roster of 228 mainland, inland, and drifting stations (with co-ordinates) is appended."

Religions de Salut. Armand ABEL, Luc DE HEUSCH, *et al.* Annales du Centre d'Etude des Religions 2. Bruxelles, Institut de Sociologie, Université Libre de Bruxelles, 1962. 228 pp.

Ce volume contient douze essais sur la notion de salut dans des civilisations fort différentes, par exemple dans la religion égyptienne, l'Islam, la Grande Société de Médecine des Indiens Ojibway, le vaudou haïtien, le culte dahoméen des vodun.

The Science of Man. Mischa TITIEV. New York, Holt, Rinehart & Winston, rev. ed., 1963. xiv-668 pp., ill. $ 7.50

First published in 1954, this introductory textbook to Anthropology has been revised and enlarged to incorporate the latest findings in the field of Anthropology. Man and his works are presented from a bio-cultural viewpoint.

The Sherpas of Nepal: Buddhist Highlanders. C. Von FÜRER-HAIMENDORF. Berkeley, University of California Press, 1964. xix-298 pp., ill. $ 6.50.

Cette monographie décrit une communauté bouddhiste, les Sherpas, vivant au pied du mont Everest.

The Vanishing Village: A Danish Maritime Community. Robert T. and Barbara Gallatin ANDERSON. Seattle, University of Washington Press, 1964. xii-148 pp., map. $ 5.00.

Cette étude décrit les transformations socio-culturelles qui se sont opérées, durant la première moitié du 20e siècle, dans la communauté du village de Dragor, près de Copenhague, et en analyse les processus.

The World of the Shining Prince: Court Life in Ancient Japan. Ivan MORRIS. New York, Knopf, 1964. xv-336 pp. $ 5.95.

Based on the literature of the time, especially "The Table of Genji" and "Pillow Book", this study describes court life in Japan during the Heian Period, 10th century.

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