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DU DIAMOND JENNESS

UPON THE POINT:
A PRELIMINARY INVESTIGATION OF ETHNICITY AS A
SOURCE OF METRIC VARIATION IN LITHIC PROJECTILE
POINTS

SHEILA GREAVES

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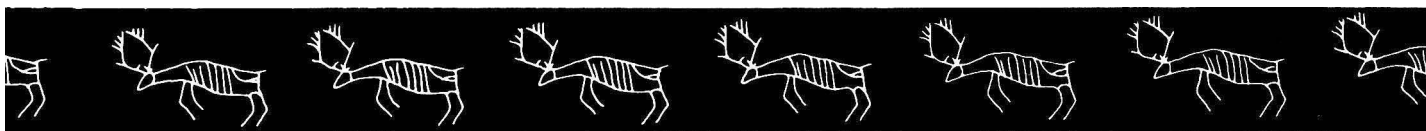
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DIAMOND JENNESS 1886-1969

A very modest man, a scholar and a gentleman quiet-spoken and self-effacing: that was the outward expression of a man of intellectual brilliance, physical courage and sharp wit who had a strong influence on anthropological studies in Canada and beyond--Diamond Jenness.

Canada's most distinguished anthropologist was born in New Zealand, graduated at Oxford, did his first ethnographic field work in the Pacific Islands, and then joined the Canadian Arctic Expedition in 1913 for three years in the Arctic. After overseas war service he became chief of the Anthropology Division of the National Museum. Besides proving himself a great eskimologist, Dr. Jenness conducted field work among various Indian Peoples, did archaeological work in Newfoundland and Alaska and wrote many books and papers. His book "The Indians of Canada" published in 1932 is still the Classis statement on Canadian Ethnology and his volumes on Eskimo administration are masterly studies which a

Un homme très modeste, un savant et un gentleman modéré et discret, voilà ce qu'on pouvait percevoir de cet homme d'une intelligence brillante, à l'esprit vif, d'une résistance physique et d'un courage à toute épreuve qui, au surplus, a eu une influence déterminante sur les études anthropologiques poursuivies au Canada et à l'étranger; voilà, en quelques mots, ce que fut Diamond Jenness.

L'anthropologue le plus éminent du Canada naquit en Nouvelle-Zélande et était diplômé d'Oxford. Il effectua ses premiers travaux d'ethnographie sur le terrain dans les îles du Pacifique et se joignit par la suite à l'Expédition canadienne de l'Arctique en 1913, et passa les trois années suivantes dans les régions polaires boréales. Après avoir servi outre-mer durant la guerre, il devint Chef de la division d'Anthropologie du Musée national. Spécialiste des cultures esquimaudes, Jenness fit aussi des recherches sur le terrain au sein de nombreuses populations indien-

scientist made absorbing to the layman.

The portrait above, painted by Robert Hyndman, was presented to Diamond Jenness on his 80th birthday in 1966 by friends and colleagues who held him in high esteem.

nes et se livra à des travaux d'archéologie à Terre-Neuve et en Alaska. Il est l'auteur d'un grand nombre d'articles et d'ouvrages dont "The Indians of Canada", édité en 1932, qui demeure une oeuvre classique de l'ethnologie canadienne. Ses écrits sur la gestion des affaires esquimaudes sont des études savantes que leur auteur a su rendre passionnantes même pour le lecteur non averti.

Le portrait ci-dessus, oeuvre de Robert Hyndman, fut offert à Diamond Jenness en 1966, à l'occasion de son 80^e anniversaire de naissance, par un groupe d'amis et de collègues qui le tenaient en haute estime.

CARIBOU BORDER MOTIF

A Dorset Culture motif was thought appropriate to this series since Diamond Jenness first named and defined this culture in 1925. Two-dimensional designs appropriate to a repeat motif are rare in Dorset collections. It was therefore a stroke of good luck that Father G.M. Rousselière, an Arctic archaeologist on contract with the Archaeological Survey of Canada, National Museum of Man, appeared at the appropriate moment with the example illustrated. The find, a portion of a composite bone box, discovered by a young Inuit girl, Martina Nubviak, at Hall Beach, is assigned to Late Dorset with a date about A.D. 1000.

BORDURE A MOTIF DE CARIBOU

Nous avons cru qu'il conviendrait d'identifier la présente collection par un motif décoratif propre à la culture de Dorset, puisque Diamond Jenness a été le premier à nommer et décrire cette culture en 1925. Les décorations bidimensionnelles se prêtant à un motif répétitif sont rares parmi les collections de Dorset. Il convient donc de se réjouir de ce que le Père G.M. Rousselière, archéologue de l'Arctique, et collaborateur à forfait de la Commission archéologique du Canada, Musée national de l'Homme, ait fait surgir à point nommé le dessin reproduit. Il s'agit d'une portion de la décoration d'un aiguillier en os, découvert par une jeune fille inuit, Martina Nubviak, à Hall Beach, et attribué au Dorset récent, vers l'an 1000 de notre ère.

ABSTRACT

This thesis tests the hypothesis that ethnic affiliation is a source of metric variability in Late Plains Side Notched projectile points. Twenty-four discrete variables were recorded on 348 projectile points from 12 sites, previously identified by some archaeologists as Blackfoot, Crow, Shoshoni or Kutenai. Multivariate statistical techniques were applied to the data in order to discover whether quantifiable variability existed both between groups and between sites. Factor analysis demonstrated that the number of variables contributing the major portion of variance is significantly fewer than the number recorded. Results from the discriminant function analysis support the hypothesis tested. It is possible to discriminate between groups with all sources of recorded variance controlled for with the exception of ethnicity. Cluster analysis confirms the author's belief that the construction of a typology is not necessarily the most productive method for examining variability in lithic tools. It is concluded that ethnic affiliation produced quantifiable variability which can be utilized, within certain spatial and chronological limits, to discriminate between assemblages from sites of either known or unknown ethnic affiliation.

RESUME

L'auteur vérifie l'hypothèse selon laquelle l'origine ethnique est une source de variations dans la taille des pointes de projectiles à encoches latérales se rattachant à la période tardive de la culture des Plaines. On a reconnu 24 variables discrètes sur 348 pointes de projectiles en provenance de 12 sites qui, selon certains archéologues, ont été occupés par les Pieds-Noirs, les Gens des Corbeaux, les Shoshones ou les Kutenais. Les données ont été traitées au moyen de techniques statistiques multivariées pour qu'on puisse déterminer s'il existe des variations quantifiables, à la fois entre les groupes et entre les sites. L'analyse factorielle a par ailleurs démontré que le nombre des variables significatives ne représente qu'une faible proportion du total. Les résultats de l'analyse discriminante viennent à l'appui de l'hypothèse de départ. Il est possible en effet d'établir de nouvelles distinctions entre des groupes pour lesquels on a déjà examiné toutes les sources connues de variance, à l'exception de l'origine ethnique. L'analyse de grappes confirme l'opinion de l'auteur, à savoir que l'élaboration d'une typologie n'est pas nécessairement la méthode la plus efficace pour examiner les variations que présentent les outils de pierre. En conclusion, l'auteur estime que les différentes origines ethniques ont entraîné des variations quantifiables qui peuvent servir, à l'intérieur de certaines limites spatio-temporelles, à établir des distinctions entre des ensembles provenant de sites divers, que les occupants de ces sites aient été identifiés ou non.

Les personnes désireuses de recevoir en français de plus amples renseignements sur cette publication sont priées d'adresser leurs demandes à:

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UPON THE POINT:

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OF METRIC VARIATION IN LITHIC PROJECTILE POINTS

by

SHEILA GREAVES

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE

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TABLE OF CONTENTS

ABSTRACT	Page v
ACKNOWLEDGEMENTS	viii
LIST OF TABLES	xi
LIST OF FIGURES	xiii
CHAPTER	
1. INTRODUCTION	1
2. ETHNICITY AND ARCHAEOLOGY	6
Introduction	6
Ethnicity	7
Previous Research into the Ethnic	
Identification of Archaeological Remains	10
Ethnic Identification of Late Plains	
Projectile Points	18
Summary and Discussion	21
3. METHOD	23
Selection of Sites	24
The Sites	29
Measurement Variables and Method	45
4. ANALYSIS OF DATA	49
Factor Analysis	50
1. Introduction	50
2. Application	52
Total Projectile Point Sample	52
Unbroken Projectile Point Sample	55
3. Summary and Discussion	55
Discriminant Function Analysis	62
1. Introduction	62
2. Application	63
Inter-group Tests	63
Total Projectile Point Sample	63
Unbroken Projectile Point Sample	68
Inter-site Tests	72
Unbroken Projectile Point Sample	74
Total Projectile Point Sample	77
Tri-notched Projectile Point Sample	82
3. Summary and Discussion	82

Cluster Analysis	89
1. Introduction	89
2. Application	90
3. Summary and Discussion	91
5. SUMMARY AND DISCUSSION	96
Summary	96
Discussion	99
REFERENCES CITED	110

LIST OF TABLES

Table	Page
1 Projectile Point Samples	25
2 Total Point Sample: Initial Factors	53
3 Total Point Sample: Rotated Factor Matrix	54
4 Unbroken Point Sample: Initial Factors	56
5 Unbroken Point Sample: Rotated Factor Matrix	57
6 Inter-group Test, Total Point Sample, Direct Method: Discriminant Functions	64
7 Inter-group Test, Total Point Sample, Direct Method: Classification Results	64
8 Inter-group Test, Total Point Sample, Step-wise Method: Discriminant Functions	65
9 Inter-group Test, Total Point Sample, Step-wise Method: Classification Results	65
10 Inter-group Test, Total Point Sample, Variable M5 Deleted: Discriminant Functions	67
11 Inter-group Test, Total Point Sample, Variable M5 Deleted: Classification Results	67
12 Inter-group Test, Unbroken Point Sample, Direct Method: Discriminant Functions	69
13 Inter-group Test, Unbroken Point Sample, Direct Method: Classification Results	70
14 Inter-group Test, Unbroken Point Sample, Step-wise Method: Discriminant Functions	71
15 Inter-group Test, Unbroken Point Sample, Step-wise Method: Classification Results	71
16 Inter-group Test, Unbroken Point Sample, Groups 1 to 3: Discriminant Functions	73
17 Inter-group Test, Unbroken Point Sample, Groups 1 to 3: Classification Results	73

18	Inter-site Test, Unbroken Point Sample: Discriminant Functions	75
19	Inter-site Test, Unbroken Point Sample: Classification Results	76
20	Inter-site Test, Total Point Sample: Discriminant Functions	78
21	Inter-site Test, Total Point Sample: Classification Results	79
22	Inter-site Test, Unbroken Point Sample, Groups 1 to 6: Discriminant Functions	80
23	Inter-site Test, Unbroken Point Sample, Groups 1 to 6: Classification Results	80
24	Distribution of M1 (Length Shoulder to Base)	81
25	Tri-notched Test, Total Point Sample: Classification Results	83
26	Tri-notched Test, Unbroken Point Sample: Classification Results	83
27	Cluster Analysis: Composition of Clusters	94
28	Total Point Sample: Classification Coefficients	101
29	Total Point Sample: Group Centroids	101
30	Unbroken Point Sample: Classification Coefficients	102
31	Unbroken Point Sample: Group Centroids	102
32	Distribution of M24 (Body Length) by Group	104
33	Distribution of M24 (Body Length) by Site	104

LIST OF FIGURES

Figure	Page
1 Location of Sites	28
2 Random Sample of Projectile Points from those Sites Identified as Blackfoot	30
3 Random Sample of Projectile Points from those Sites Identified as Crow	34
4 Random Sample of Projectile Points from those Sites Identified as Shoshoni	38
5 Random Sample of Projectile Points from those Sites Identified as Kutenai	42
6 Measurement Variables and Coding Format	46
7 Total Point Sample: Descriptive Perspective of Factors	59
8 Unbroken Point Sample: Descriptive Perspective of Factors	61
9 Cluster Analysis: Dendrogram	92
10 Cluster Groupings Plotted against Similarity Distance	93

CHAPTER 1

INTRODUCTION

An examination of the ethnographic and historic literature concerning the Northwestern Plains and adjacent Rocky Mountains indicates the presence of several tribal groups with diverse and distinctive social and cultural traits. Yet interpretation of the Protohistoric and Late Prehistoric Periods is based on an amorphous archaeological record with any reliable distinction between groups being impossible. Consequently, the entire area of cultural interaction, that is, migration, diffusion of traits, in situ development, trade and craft specialization, is left unexplored since one must firstly define and isolate the groups in order to examine inter-group relationships. In addition, it is extremely difficult to produce testable hypotheses concerning seasonal adaptations or to establish single group chronological sequences when the number of distinct groups which, in the past, occupied a site or region cannot be clearly established.

Forbis (1963) examined current methodology for associating historic tribes and prehistoric archaeological remains and concluded that, on the Canadian prairie, the Direct Ethnological Approach and Inferential Historical Approach are potentially more productive than the Direct Historical Approach. The Direct Historical Approach fails

because descriptions of site locations are vague and inaccurate, remains are insubstantial and the historic material cultural complex differs so greatly from that of the prehistoric period that tracing back in time, even to the Protohistoric, is difficult if not impossible. While the Direct Ethnological Approach correlates native explanations for tribal movements and site function, this method does not advance ethnic differentiation of archaeological remains. The Inferential Historical Approach depends on written sources which document the geographic distribution of historic tribes and prehistoric sites. But, as Forbis points out, mere coincident distribution does not prove conclusively that the sites in question were occupied by any specific historic tribe. Artifact typology is mentioned as a method which may prove to be useful for implementing the Inferential Historical Approach. However, the emphasis has hitherto been placed on ceramic remains which appear both sporadically and late in the Northwestern Plains.

Some attempts have been made to associate specific sites and complexes with historic tribes on the Northwestern Plains. Forbis (1957, 1960) tentatively identifies the most recent levels at the Old Women's Buffalo Jump in southern Alberta as Blackfoot. Reeves (1970a) proposes that the Old Women's Phase, particularly as represented at the Head-Smashed-In Buffalo Jump, is also protohistoric

Blackfoot. Farther south, the Narrows site in Waterton National Park (Brumley 1971) and the Dancehall site in the Crowsnest Pass (Loveseth 1980) have been associated with the Kutenai while the same tribal identification has been inferred for Libby Reservoir sites in Montana (Brown n.d.). The most recent level of the Antonsen site (Davis and Zeir 1978) and the Eden-Farson site (Frison 1971) in Wyoming are apparently Shoshoni. Finally, Frison (1967a,1967b) associates the most recent levels of the Piney Creek and Big Goose Creek sites in northern Wyoming with Crow occupations.

The method utilized to associate these sites and complexes with specific historic tribes is a combination of the Direct Historical Approach and the Inferential Historical approach, mentioned above. Artifact typology is considered, but researchers, other than Reeves (1970a), tend to rely on ceramic rather than lithic technology. However, the latest component of each site contains the ubiquitous small Late Plains Side Notched projectile point, with various combinations of side and basal notches.

The Present Study

One promising approach to resolving the problem of ethnic identification of archaeological remains on the Northwestern Plains is through re-examination of its most abundant prehistoric resource - lithic artifacts. More specifically, the most extensive analysis has been conducted

with one particular set of lithic remains - the projectile point - thus forming a comparatively large and accessible data base. The hypothesis to be tested in this thesis is as follows: is ethnic group affiliation a source of variability in Late Plains Side Notched projectile points? If the variability is isolated and quantified, is it possible to discriminate between ethnic groups solely on the basis of projectile point morphology? Since these particular points are most recent on the Northwestern Plains, this thesis will attempt to isolate metric variability which is clearly associated with the geographical locations of protohistoric and prehistoric groups or tribes.

Chapter 2 briefly examines the concept of ethnicity and its expression in the archaeological record. Earlier attempts at quantifying traits thought to be associated with the ethnic origin of the makers of the artifacts are discussed and evaluated. The various typological classification schemes for the small Side Notched projectile point from the Northwestern Plains are presented. The chapter concludes with a discussion of associations between specific varieties of Late Side Notched points and certain ethnic groups, previously proposed by others.

Chapter 3 provides a description of the method utilized to test the hypotheses presented above. A summary of the salient features of each site selected is given to emphasize the control of variables other than ethnic

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