

consider the gist of the whole problem to be its fearful money cost. Money spent on doing the same work twice over is money wasted.

Minnesota spends annually for her schools about \$15,000,000, and if 7.4 per cent. of this is spent on repeaters then the loss is \$1,110,000.

It is estimated that the nation similarly loses from 57 to 80 millions from the same cause.

We justly boast of our great school fund in Minnesota, of about \$27,000,000, but here is a sum two or three times as great wasted yearly in the United States because of loss and waste in our management of the public schools along this one line alone.

The True Loss.—The true loss, however, is the spiritual one, which refuses to submit to statistical investigation. The retarded pupils personally lose that fine spirit of initiative, of progress, of growth, of self reliance and of eagerness to achieve, which constitutes the chief glory of youth, and which sends him from school into life an effective member of society. By allowing him to become retarded that birth-right of the American boy is traded for the pottage of idleness, failure and self-distrust.

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AN ANTHROPOLOGICAL SURVEY OF CANADA

A STEP forward in the development of anthropological studies in America was taken September 1, 1910, by the establishment of a division of anthropology under the Geological Survey of Canada. This gives anthropology a government status in Canada similar to that which it enjoys in the United States, where the Bureau of American Ethnology is recognized as the most important body undertaking the study of aboriginal America. The establishment of the Canadian Division of Anthropology was due primarily to the activity of a committee of the British Association for the Advancement of Science, on the Ethnographical Survey of Canada. This committee, of which Rev. Dr. G. Bryce was chairman, was appointed in 1909 at the Winni-

peg meeting of the Association¹ and recommended to the Dominion Government the establishment of a systematic anthropological survey of Canada in connection with the opening of the new national museum. The recommendations of this committee were supported by delegations of the Archæological Institute of America and the Royal Society of Canada.² Though the actual governmental recognition of anthropological work in Canada is thus to be immediately credited to the efforts of these scientific societies, in a larger sense the anthropological division is the outcome of many years work on the part of Dr. G. M. Dawson, formerly the director of the Geological Survey, and Dr. Franz Boas. These may be said to have started the ball rolling, the former by the work on the natives of British Columbia that he did in connection with his geological surveys, the latter by the more systematic undertaking of ethnologic, physical anthropology, and linguistic studies in the same part of Canada in the eighties and nineties under the auspices of the British Association. The present affiliation of the division of anthropology with the Geological Survey is in a large measure due to the personality of Dr. Dawson, to whose earlier efforts, at last analysis, is mainly due the recognition by the Canadian government of the importance of anthropological work. The ethnological and archæological collections of the national museum have their nucleus in collections either obtained by Dawson himself or through his efforts. It is interesting in passing to note that the Bureau of American Ethnology at Washington began by affiliation with the United States Geological Survey, the connecting personality in that case being J. W. Powell.

At the present time the anthropological di-

¹ See Report of the 79th Meeting of the British Association for the Advancement of Science (Winnipeg, 1909), London, 1910, p. cxxxviii. See also Professor J. L. Myres's address to Section H, *ibid.*, pp. 616, 617.

² See Report of the 80th Meeting of the British Association for the Advancement of Science (Sheffield, 1910), London, 1911, pp. 265, 266.

vision consists of a scientific staff of three—the writer, who was put in charge as ethnologist and anthropologist on the date already given; Mr. C. M. Barbeau, whose appointment as assistant in anthropology began with January 1, 1911; and Mr. Harlan I. Smith, formerly of the American Museum of Natural History, New York, whose appointment as archeologist took place on June 15 of the same year. The appointment of three men to the scientific staff within a year is not to be taken as mere mushroom growth, but primarily as an evidence of the clear insight on the part of the Canadian government into the needs of anthropology; it was understood at the very beginning that the various scientific interests involved in the term anthropology could not well be successfully undertaken by one man. As it is, the services of a physical anthropologist are badly needed, and it is hoped that before a great lapse of time this important branch of anthropological work will also be adequately provided for.

The work being undertaken by the division is naturally confined in the first instance to Canada itself. However, it is clear that to draw a hard and fast line between Canada and Alaska, Greenland, and the United States is in many respects artificial. Owing to the necessity of including Alaska and Greenland in a general study of the Eskimos, it goes without saying that these territories will at least to a certain extent have to be included in the work of the division. In the case of tribes which, like the Ojibwa and Iroquois, are found within the borders of both Canada and the United States, it is clear that the division will be called upon from time to time to pass the boundary. In some cases, as in that of the Ottawas and Wyandots of Oklahoma, what were formerly Canadian tribes have moved far south well within the bounds of the United States; also in these cases "trespassing" is logically necessary.

So much for the geographical limits set. The subject matter of the work undertaken may be conveniently classed under the heads of ethnology, archeology, physical anthropology, for which, as already noted, there is at

present no adequate provision, and linguistics. While it is perfectly clear that cultural, physical and linguistic units do not need to, and in numerous instances actually do not, coincide, it should be emphasized that all three classes of units are to a large extent interwoven; not infrequently slim evidence for a point of reconstructed culture-history obtained from the study of one of these may be strengthened and even reduced to certainty by evidence derived from a study of one of the others. It is no mere accident that the Eskimos form a clearly established unit as regards culture, physical type and language. It is thus clear at the outset that any thoroughgoing attempt to attack the problems of aboriginal America must make use of all three units of classification.

To many it will seem that much has already been done in the study of Canadian ethnology. Relatively to other parts of the world that might be named this is true. The results of the Jesup North Pacific expedition have done much to clear up the cultural problems of the West Coast; the culture of the Eskimos in its main outlines and, in certain cases, even in detail can be said to be well ascertained through the researches undertaken, among others, by the Bureau of American Ethnology and the American Museum of Natural History; finally, the Plains and Eastern Woodlands cultures have been studied to a limited degree by Wissler and Hoffman, to mention but two of the ethnologists who have concerned themselves with these areas.* Relatively, however, to the standard that must be set for ethnological work both in completeness and thoroughness, the work already accomplished represents but a small fraction of what students of primitive cultures would like to see done. Each of the five culture areas into which it is customary to divide Canada (Eastern Woodlands, Arctic or Eskimo, Plains, Plateau-Mackenzie and West Coast) still present problems of great importance; in

* The late Dr. William Jones is known to have obtained a mass of valuable ethnological and linguistic data on the Ojibwa, but his results are as yet inaccessible to students.

some cases it may even be said that the satisfactory proof of the existence of the culture area as a definite unit in contrast to other areas still remains to be proved. This is particularly true of the Eastern Woodlands and Plateau-Mackenzie regions, both of which are perhaps more negatively than positively characterized by contrast to neighboring cultures that have a more definite individuality of their own. It is yet to be demonstrated whether there is really enough of fundamental importance in common to such widely differing tribes as the Nascopie, Iroquois and Ojibwa to warrant their inclusion in a single Eastern Woodlands culture area. This reservation may turn out to be justified also in the case of the Athabaskan tribes of the Mackenzie River region as compared with the Kootenay and Salish tribes of the plateau to the west.

Naturally, before these wider problems can be intelligently discussed, more explicit data than are now available must be obtained on such tribes. Outside of the work already referred to of Hoffman on the Ojibwa and Menominee, work moreover which concerns itself with tribes located within the borders of the United States, there is almost nothing published of great merit on the aboriginal cultures of the Eastern Woodlands. Nascopie, Montagnais, Malecite, Micmac, Abenaki, Algonkin, Ottawa, Cree are names frequently enough met with in ethnological literature, yet concerning which, when all is said and done, little enough is known. Even the Iroquois have been neglected to a most astonishing extent. Morgan's Iroquois work, as pioneer work, was invaluable and still commands high respect, yet, as is becoming increasingly evident, needs careful revision. Moreover, the scale on which he worked was much too small to satisfy the requirements of ethnological students to-day. Many problems of interest in the Eastern Woodlands await solution. Some of these are: The extent of influence of the Eskimos, if any, in the lower St. Lawrence region; the extent and characteristics of the birch-bark industry in this culture area; the establishment of the range of the various types of houses used; the clear understanding

of the distribution and development of the different types of social organization, from the apparently amorphous bands of the Crees to the complex organization of the Iroquois; the possibly intrusive character of the Iroquois culture itself in this area; the development of a distinctive maritime culture among the Micmacs.

The Eskimo, though, as already noted, already satisfactorily investigated, still present many problems of interest. Several of the less easily accessible tribes are as yet practically unknown. Until these have been investigated it will be difficult to undertake a satisfactory analysis of Eskimo culture as a whole, and, consequently, of its relations to the neighboring cultures.

In the Plains region the Sarcee and Western Cree are as yet hardly more than mere names. The Assiniboine have not yet been exhaustively treated, while Dr. Wissler's study of the Blackfeet, though promising from what he has already published to be eminently satisfactory, will doubtless leave something to be desired owing to the fact that his material was not obtained with the help of linguistic study.⁴ Naturally the religious, social and other problems of the Plains region can not be discussed without reference to the Plains tribes of the United States, yet at least two problems peculiar to the Canadian Plains may be pointed out. Both of them are studies of Plains influence exerted on an originally Woodlands tribe. Reference is had to the culture of the Plains Cree and to that of the Saulteaux or Plains Ojibwa.

The Plateau-Mackenzie area is known least satisfactorily of all. Teit's work on the interior Salish tribes of southern British Columbia

⁴It may be said incidentally that all investigation of native mythology, rituals, songs and allied subjects, undertaken without the help of linguistic study, must fail to result in a complete understanding of the native concepts involved. We would not think much, for instance, of a student of the history of the Roman Catholic church that knew no Latin, or of a discussion of German folk songs, even in their purely musical aspect, not based on some familiarity with German itself.

constitutes a model of ethnological research, but the tribes that he describes have been so much influenced by the West Coast and Plains cultures that they are presumably far less typical of the culture area than the Athabascan tribes of the Mackenzie Valley. A thorough investigation of these tribes (Chippewyan, Slaves, Yellow Knives, Dog Ribs, Hare and Loucheux) is probably the greatest single need of ethnological research in Canada. Among these tribes, if anywhere in the dominion, we may expect to find the simplest and most fundamental forms of aboriginal American culture, granted that there is such a thing as a fundamental American culture substratum. The Athabascan tribes to the west, including the various tribes of the interior of Alaska known as Kutchin, are also important in this connection. Similarities in culture which are likely to turn up between the Plateau-Mackenzie and Eastern Woodlands regions (one may instance the similarity in technic between the birch-bark basketry of the east and that in the west of Athabascan and Interior Salish tribes) may be explained as due either to the persistence of fundamental American traits in both regions—we would be here dealing with Dr. Boas's "marginal" theory—or to the secondary spread of such features from one region to the other.

In the West Coast area many cultural problems likewise await investigation. Only of the Kwakiutl can it be said that we have a really exhaustive series of studies, due to Dr. Boas's many years of research, accessible to the student. For the Haida and Tlingit much of fundamental value has been already published, notably by Dr. Swanton, yet here our knowledge is less complete. Of other important tribes of the area (Bella Coola, Bella Bella, Tsimshian, Coast Salish and Nootka) we are relatively uninformed, except in regard to particular points here and there. Further research on these latter tribes will not only serve to give us a more complete picture of the distinctive culture of this region, but may cause us to modify somewhat our idea of

certain fundamental elements of the culture. It may be pointed out, for instance, that the Nootka do not illustrate a pure system of paternal descent, for the writer found that all sorts of privileges, even of such purely masculine interest as rights to whaling secrets and rituals, could be inherited through the female as well as male line of descent.

Of scientific work in Canadian archeology there is doubtless even less at the disposal of students than of ethnology. If we except the work of Mr. Harlan I. Smith on the coast and interior of southern British Columbia, and some rather scattering work done by Boyle and others connected with him in Ontario, there is almost nothing to record that is worthy of serious consideration. An archeological survey of Canada must be of the greatest possible assistance to the student of Canadian aboriginal culture in estimating what elements of material culture are truly characteristic of any particular culture area and what on the other hand are due to secondary influence. It is to be expected that many problems touching the movements of population in early times and the centers of the dispersion of cultural elements will receive great aid from archeological methods.

Our knowledge of the native languages of Canada is far from complete, even where considerable masses of grammatical and text material are at our disposal. The quality of the work is not generally all that can be desired. Of Kwakiutl, Tsimshian and Haida we have a reasonably satisfactory knowledge, of the other languages of Canada we are in many cases already informed of the fundamental traits of structure and in some cases, as in that of Ojibwa, we even possess extensive dictionaries, yet a poor phonetical groundwork and a failure to grasp the traits of morphology from a purely objective standpoint vitiate the value of much of this material. Adopting a reasonably high standard of linguistic work, such as one might now adopt in discussing works dealing with Indogermanic or Semitic linguistics, we can safely say that, so far as represented in Canada, none of the Athabas-

can,⁵ Salish, Kootenay, Eskimo,⁶ Algonkin or Iroquois languages have as yet been adequately dealt with. The time is at hand when purely descriptive linguistic study in America will have to be supplemented by comparative and reconstructive work; it is becoming increasingly evident that such research requires the most minute attention to phonetic detail.

The physical anthropology of aboriginal Canada needs to be put on a sounder and wider basis than heretofore. Outside of Dr. Boas's work on the physical types of the West Coast and interior regions adjoining the coast, practically nothing has been accomplished in Canada with strict regard to scientific method. As a result all present attempts to classify the native physical types of the dominion must be merely approximate.

It can hardly be hoped that the newly established division of anthropology will be able unaided to make the ideally complete survey that has been outlined. The cooperation of other institutions and individuals interested in anthropological problems is not only welcome but necessary. Complaints are sometimes heard as to the duplication of field work among natives. Rightly considered such duplication should always be welcomed, for the personal equation in the investigation of social sciences is a feature which, though often tacitly ignored, must always be reckoned with.

The ethnological work already undertaken by the division embraces three distinct lines of inquiry. The first of these was undertaken by the writer among the Nootka, and resulted in the amassing of much material of linguistic and ethnological interest. It is intended to carry forward this work from year to year. The second line of inquiry is the analysis of the culture of the Iroquois, including under this term the Huron-Wyandots, who were never included in the league. This work was undertaken for the Huron-Wyandots by Mr. Barbeau, who, beginning

⁵ Yet Father Morice's grasp of Carrier phonetics seems excellent.

⁶ Except for Kleinschmidt's and Thalbitzer's work on Greenland Eskimo.

with the Hurons of Lorette and the few Wyandots still left in western Ontario, took up an intensive study of the most conservative group of Wyandots, those of Oklahoma. The study of the Iroquois proper, particularly from the point of view of social organization, was entrusted to Dr. A. A. Goldenweiser, of Columbia University, who has amassed much of value at Grand River Reserve. The third point of attack was the culture of the eastern Algonkin tribes. Here a beginning was made by Dr. Cyrus MacMillan, of McGill, among the Miemac, and by Mr. W. H. Mechling among the Malecite. It is hoped to begin systematic work among the Cree, Ojibwa, Plains tribes and tribes of the Plateau-Mackenzie region as soon as opportunity will permit. So far the archeological work of the division has been confined to a preliminary reconnaissance, by Mr. Smith, of the field in eastern Canada. Hand in hand with research and publication, which must naturally form the main activity of an anthropological survey of Canada, is the building up of an anthropological section of the national museum at Ottawa. At present the museum is relatively rich in West Coast ethnological and Ontario archeological material to the neglect of other fields. Persistent efforts are now being made to round out the resources of the museum.

The Canadian government is to be congratulated on having established a systematic survey of aboriginal Canada. Now or never is the time in which to collect from the natives what is still available for study. In some cases a tribe has already practically given up its aboriginal culture and what can be obtained is merely that which the older men still remember and care to impart. With the increasing material prosperity and industrial development of Canada the demoralization or civilization of the Indians will be going on at an ever increasing rate. No shortsighted policy of economy should be allowed to interfere with the thorough and rapid prosecution of the anthropological problems of the dominion. What is lost now will never be recovered again.

E. SAPIR

GEOLOGICAL SURVEY OF CANADA