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Report of the Arctic Committee of the Anthropological Institute

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is to furnish information, not conjectures. In addition to the works above named, I enclose a copy of my "Gurre Kamilaroi".

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The DIRECTOR then read the following Report of the Arctic Committee, drawn up by Mr. Clements Markham, C.B.

*To the Council of the Anthropological Institute of Great Britain and Ireland.*

YOUR Committee, to whom was referred the annexed letter from the Royal Geographical Society, have agreed to the following Report :—

24th May, 1872.

SIR,—The President and Council of the Royal Geographical Society, after a careful consideration of a Report drawn up by a Committee of Arctic Officers\* belonging to their body, having come to the conclusion that the time has arrived for once more representing the important results to be derived from Arctic exploration to Her Majesty's Government; I have been directed to request that the following remarks may be laid before the President and Council of the Anthropological Institute.

In a letter to me signed by Mr. George E. Roberts, and dated May 8th, 1865, he was instructed to say that the Council of the Anthropological Society viewed with the deepest interest the prospect of an Arctic exploring expedition; believing that great advantage to their science would ensue from such an undertaking.

Strengthened by the willingness expressed by the Council of the Anthropological Institute to cooperate with the Royal Geographical Society in adopting such measures as might be considered advisable to induce Her Majesty's Government to accede to the proposal of fitting out an Arctic expedition, and by other expressions of cordial approval received from kindred scientific Societies, Sir Roderick Murchison brought the subject of North Polar exploration to the notice of the Duke of Somerset, then first Lord of the Admiralty, in a letter dated 19th of May, 1865; and the subject was discussed between his Grace and a deputation from the Council of the Royal Geographical Society, in an

the earliest home of the English at Port Jackson. The first colonists were told that the Commeroy would come down from the north and sweep them away. And, after all the wasting of the race, Kamilaroi-speaking aborigines are numerous and very widely spread. Whence the name and the people compare Kamilaroi, Cummilroy, Commeroy, with *Κυμμεριοι*, Cumbri, Cimbri, Kymri.

\* Sir George Back, Admiral Collinson, Admiral Ommanney, Admiral Sir L. M'Clintock, Admiral Richards, Captain Sherard Osborn, Dr. J. Rae, Mr. A. G. Findlay, Mr. Clements Markham (sec).

interview which took place on the 20th of June in the same year.

But at that time there was some difference of opinion among Arctic authorities on the subject of the best route to be adopted, and the Duke said that he would wish to be in possession of the results of the Swedish Expedition then engaged in exploring Spitzbergen, and of other information, before he could recommend an Arctic exploring expedition to the consideration of the Government.

In consequence of the view taken by his Grace, the Council of the Royal Geographical Society have carefully watched the results of expeditions undertaken by foreign countries, in order to be in a position to recommend one route as undoubtedly the best, before again pressing the subject upon the attention of the Government. Seven years have now passed, and during that time additional experience has been accumulated by the Swedes and Germans, which has enabled the Council to form an opinion that justifies a renewal of their representation made in 1865. The distinguished Arctic officers who are Members of the Geographical Council, and who have carefully considered the evidence accumulated since 1865 in a special Committee, are now unanimously of opinion that the route by Smith Sound is the one which should be adopted with a view to exploring the greatest extent of coast line, and of securing the most valuable scientific results. The conclusion thus arrived at by authorities of such eminence, has placed the Royal Geographical Society in a position which will enable its Council to represent to the Government that the conditions are now fulfilled which the first Lord of the Admiralty deemed essential in 1865, before he could entertain the project of North Polar Exploration.

I am, therefore, instructed to represent the very great importance of stating the scientific results to be derived from the exploration of the unknown North Polar Region in full detail, even in a first preliminary communication to the Government. It is believed that the success of any representation will depend to a considerable extent on the force and authority with which that portion of it is prepared, which enumerates the scientific results to be derived from the proposed expedition. I am to request that you will submit these views to the President and Council of the Anthropological Institute, and that they will be so good as to cause a statement to be drawn up and furnished to the Council of the Royal Geographical Society, embodying their views in detail, of the various ways in which the Science of Anthropology would be advanced by Arctic exploration.

I enclose for the information of the President and Council of the Institute, copies of a memorandum which has been prepared upon the subject, and of the papers which were read by Captain

Sherard Osborn in 1865 and 1872, advocating a renewal of Arctic exploration.

I have the honour to be, Sir, your obedient Servant,

CLEMENTS R. MARKHAM.

To the Secretary of the Anthropological Institute.

REPORT of the ARCTIC COMMITTEE\* of the ANTHROPOLOGICAL INSTITUTE.

THE knowledge already acquired of the Arctic Regions, leads to the conclusion that the discovery of the unknown portion of the Greenland coasts will yield very important results in the science of Anthropology. Although barely one half of the Arctic Regions has been explored, yet abundant traces of former inhabitants are found throughout their most desert wastes, where now there is absolute solitude. These wilds have not been inhabited for centuries, yet they are covered with traces of wanderers or of sojourners of a bygone age. Here and there, in Greenland, in Boothia, on the shores of America, where existence is possible, the descendants of former wanderers are still to be found. The migrations of these people, the scanty notices of their origin and movements that are scattered through history, and the requirements of their existence, are all so many clues which, when carefully gathered together, throw light upon a most interesting subject. The migrations of man within the Arctic zone give rise to questions which are closely connected with the geography of the undiscovered portions of the Arctic Regions.

The extreme points which exploration has yet reached on the shore of Greenland, are in about  $80^{\circ}$  on the west, and in  $76^{\circ}$  on the eastern side; and these two points are about 600 miles apart. As there are inhabitants at both these points, and they are separated by an uninhabitable interval from the settlements further south, it may be inferred that the unknown interval further north is or has been inhabited. On the western side of Greenland it was discovered, in 1818, that a small tribe inhabited the rugged coast, between  $76^{\circ}$  and  $79^{\circ}$  N.; their range being bounded on the south by the glaciers of Melville Bay, which bar all progress in that direction, and on the north by the Humboldt glacier, while the *Sernik-sook* or great glacier of the interior, confines them to the sea-coast. These "Arctic Highlanders" number about 140 souls, and their existence depends on open pools and lanes of water throughout the winter, which attract animal life. Hence, it is certain that where such conditions exist man may be found. The question whether the unexplored coast of Greenland is inhabited, therefore, depends upon

\* This Committee consisted of Sir John Lubbock (President), Professor Busk, Captain Sherard Osborn, Captain Bedford Pim, Col. Lane Fox, Mr. Clements Markham, Mr. Flower, and Mr. Brabrook.

the existence of currents and other conditions such as prevail in the northern part of Baffin's Bay. But this question is not even now left entirely to conjecture. It is true that the "Arctic Highlanders" told Dr. Kane that they knew of no inhabitants beyond the Humboldt glacier, and this is the furthest point which was indicated by Kalahierua (the native lad who was on board the *Assistance*) on his wonderfully accurate chart. But neither did the Esquimaux of Upernavik know anything of natives north of Melville Bay until the first voyage of Sir John Ross. Yet now we know that there either are or have been inhabitants north of the Humboldt glacier, on the extreme verge of the unknown region; for Morton (Dr. Kane's steward) found the runner of a sledge made of bone lying on the beach on the northern side of it. There is a tradition, too, among the "Arctic Highlanders," that there are herds of musk oxen far to the north, on an island in an iceless sea. On the eastern side of Greenland there are similar indications. In 1823, Captain Clavering found twelve natives at Cape Borlase Warren in 76° N.; but when Captain Koldewey wintered in the same neighbourhood in 1869 none were to be found, though there were abundant traces of them, and ample means of subsistence. As the Melville Bay glaciers form an impassable barrier, preventing the "Arctic Highlanders" from wandering southwards on the west side; so the ice-bound coast on the east side, between Scoresby's discoveries and the Danebrog Isles, would prevent the people seen by Clavering from taking a southern course. The alternative is that, as they were gone at the time of Koldewey's visit, they must have gone north.

These considerations lead to the conclusion that there are or have been inhabitants in the unexplored region to the north of the known parts of Greenland. If this be the case, the study of all the characteristics of a people who have lived for generations in a state of complete isolation, would be an investigation of the highest scientific interest.

Light may not improbably be thrown upon the mysterious wanderings of these northern tribes, traces of which are found in every bay and on every cape in the cheerless Parry group; and these wanderings may be found to be the most distant waves of storms raised in far off centres, and among other races. Many circumstances connected with the still unknown northern tribes may tend to elucidate such inquiries. Thus, if they use the *igloo* they may be supposed to be kindred of the Greenlanders; snow huts will point to some devious wanderings from Boothian or American shores; while stone *yourts* would indicate a march from the coast of Siberia, across a wholly unknown region. The method of constructing sledges would be another indication of

origin, as would also be the weapons, clothes, and utensils. The study of the language of a long isolated tribe will also tend to elucidate questions of considerable interest; and its points of coincidence and divergence, when compared with Greenland, Labrador, Boothian, and Siberian dialects, will lead to discoveries which, probably, could not otherwise be made. Dr. Hooker has pointed out that the problem connected with the Arctic flora can probably be solved only by a study of the physical conditions of much higher latitudes than have hitherto been explored. In like manner, the unsolved puzzles connected with the wanderings of man within the Arctic zone may depend for their explanation upon the clues to be found in the conditions of a tribe or tribes in the far north.

These are speculations which the results gained by Polar discovery would probably, but not certainly show to be well founded. But there are other investigations which would undoubtedly yield valuable materials for the student of man. Such would be carefully prepared notes on the skulls, the features, the stature, the dimensions of limbs, the intellectual and moral state of individuals belonging to a hitherto isolated and unknown tribe; also on their religious ideas, on their superstitions, laws, language, songs, and traditions; on their weapons and methods of hunting; and on their skill in delineating the topography of the region within the range of their wanderings. There are also several questions which need investigation, having reference to marks and notches upon arrows and other weapons, and to their signification. A series of questions has been prepared by Dr. Barnard Davis, Mr. Tylor, Col. Lane Fox, and others, on these and other points,\* attention to which would undoubtedly result in the collection of much exceedingly valuable information.

The condition of an isolated tribe, deprived of the use of wood or metals, and dependent entirely upon bone and stone for the construction of all implements and utensils, is also a subject of study with reference to the condition of mankind in the stone age of the world; and a careful comparison of the former, as re-

\* 1. Instructions of Dr. Barnard Davis.

2. Enquiries as to Religion, Mythology, and Sociology of Esquimaux Tribes, by E. B. Tylor, Esq., F.R.S.

3. Enquiries relating to Mammalia, Vegetation, etc., by W. Boyd Dawkins, Esq., F.R.S.

4. Enquiries into Customs relating to War, by Col. A. Lane Fox.

4a. Enquiries relating to certain Arrow-marks and other Signs in use among the Esquimaux.

4b. Enquiries relating to Drawing, Carving, etc., by Col. A. Lane Fox.

5. Enquiries as to Ethnology, by A. W. Franks, Esq.

6. Enquiries relating to the Physical Characteristics of the Esquimaux, by Dr. J. Beddoe.

7. Further Ethnological Enquiries, by Professor W. Turner.

8. Instructions suggested by Captain Bedford Pim, R.N.

ported by explorers, with the latter, as deduced from the contents of tumuli and caves, will probably be of great importance in the advancement of the science of man.

For the above reasons there cannot be a doubt that the despatch of an expedition to discover the northern shores of Greenland would lead to the collection of many important facts, and to the elucidation of deeply interesting questions connected with anthropology.

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## APPENDIX.

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### QUESTIONS FOR EXPLORERS.

(*With Special Reference to Arctic Exploration.*)

I.—GENERAL. By J. BARNARD DAVIS, M.D., F.R.S.

1. *Names of Tribes*, indicating their divisions, and at the same time marking any peculiarities of any kind which distinguish them. This will embrace Tribal marks.

2. *Stature of Men and Women*.—For this purpose the traveller should be provided with a measuring-tape or other instrument. Measure twenty-five of each, if he can.

3. *Colours of Skin, Eyes, and Hair*.—These are easily determined by Broca's Tables.

4. *Hair, Texture of and Mode of Wearing*.—Specimen locks, tied up separately and accurately labelled, if possible.

5. *Deformations* carefully observed and accurately described. Those of the heads of infants impressed in nursing, if any; those of the teeth produced by chipping, filing, etc.; those of the skin done by tattooing, incisions, scars, wheals, etc., correctly described.

6. *Crania* diligently collected. These should always be procured as perfect as possible, never leaving anything behind, particularly not lower jaws and teeth. On collection, they should be at once marked with tribal name, *in ink* if possible, to prevent confusion.

7. *Diseases*.—Careful observations upon their names, natures, peculiarities, etc., and their modes of treatment, if they can be ascertained.

8. *Careful Observations* of the habits and modes of life of the people; their social, intellectual, and moral state.

9. *Portraits*, by drawing or photography, should not on any account be omitted, if attainable.

10. *Articles* of dress, implements, etc., should be collected.

11. *Systems of Relationship*.—(See *Journal of Anthropological Institute* (vol. i, p. 1), paper by Sir J. Lubbock, President.)

12. *Language*.—As complete a vocabulary as circumstances will allow should be recorded.

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II.—ENQUIRIES *as to RELIGION, MYTHOLOGY, and SOCIOLOGY of*  
ESQUIMAUX TRIBES. By E. B. TYLOR, Esq., F.R.S.

1. What ideas have they as to souls and other spirits? What do they think of dreams and visions? are they appearances of spirits? Are trances, etc., set down to exit of soul? Are hysterics, convulsions, etc., ascribed to demoniacal possession?

2. Does the soul continue to exist after death? is there any difference made in the fate of souls? and, if so, is the difference due to their conduct in life? Is there any transmigration of souls?

3. Are there spirits in rocks, springs, mountains, etc.? if so, what are their appearance, functions, and names?

4. Are there any great gods believed in (*e.g.*, a sun god), etc.? Especially is there one called Torngarsuk, or Great Spirit? and, if so, did they hear of him from the Kablunat (white men) or know him before?

5. What prayers, sacrifices, fasts, ceremonial dances, religious festivals, etc., have they?

6. What sorcerers or seers have they? how brought up, and practising what crafts? What necromancy, divinations, and other magic arts have they?

7. What legends of gods and heroes have they? What stories which seem to relate to personified natural phenomena, sun, moon, etc.?

8. What actions and dispositions are considered good and bad, virtuous and vicious? Does public opinion make much difference in treatment of virtuous and vicious? Are there any set laws and penalties? what restraint is there on theft, murder, adultery, etc.? Do acts count as criminal differently when done on a member of the tribe or foreigners? What is the native law or custom as to vengeance? What are the laws or customs as to marriage, inheritance, and clanship?

9. What recognition of chiefship and what form of civil government can be traced? Are the old men rulers, and do the strong men displace them? What is the treatment of women and children, and of the sick and aged?

10. How far do the accounts of Egede, Cranz, Rae, Hall, etc., apply still? What traces are there of the old state of things before contact with whites?

11. Is it possible to trace any influence in custom, belief, etc., as derived from the very early intercourse with the Northmen? What traditions of the old Northmen, like those published in Danish by Rink?

12. What difference in the language of different districts? N.B.—Mere short vocabularies are of no sufficient bearing; the etymology and grammatical structure should be gone into, and long pieces, such as native legends, taken down, and construed thoroughly.

13. Are there ancient tunes sung? The melody should be carefully noted, and it is desirable to go thoroughly into such metre as is observable.



III.—QUESTIONS relating to the MAMMALIA, the VEGETATION, and the REMAINS of ANCIENT RACES. By W. BOYD DAWKINS, M.A., F.R.S.

Where do the Esquimaux obtain the ivory which they use for handles to their scrapers and for other purposes? Besides the walrus ivory they use the tusks of the mammoth: how do they know where to seek for these, and have they any legends in connection with them? The conditions under which these tusks occur in the regions bordering on the great Arctic Sea are of the highest importance as throwing light on similar remains in Northern and Central Europe. The bones and teeth of the smaller animals, which most probably occur in the same strata as the mammoth ivory, should be preserved, for there is reason to believe that at a time comparatively recent, zoologically speaking, the climate of the extreme north was far less severe than now.

The sources from which the Esquimaux obtained their wood should be carefully ascertained. Is it drift-wood brought down by great rivers, like the Obi or the Mackenzie, from more southern latitudes? or is it derived from ancient forests which once flourished where at the present time no trees will grow?

Have the Esquimaux any legends relating to other lands than those in which they now live; in other words, what was their golden age?

Have the Esquimaux any legends relating to the musk sheep, *Ovibos moschatus*?

IV.—ENQUIRIES into CUSTOMS RELATING to WAR. By Col. LANE FOX.

1. *Tactics*.—Have the tribes any disposition or order of battle? are the young or the weak placed in front? are they courageous? have they any war cries, war songs, or war dances, and if so give a detailed account of them? Do they employ noise as a means of encouragement, or do they preserve silence in conflict? Do they stand and abuse each other before fighting, or boast of their warlike achievements? Do they rely on the use of missile-weapons or hand-weapons? have they any special disposition for these in battle? have they any knowledge of the advantages of ground or position in battle, as suggested by Capt. Beechey? have they any sham fights with blunt and pointless weapons, such as are described by Vancouver in Owhyhee and amongst the Hottentots? How is the march of a party conducted? do they move in a body with a broad front or in file, and do they send forward advanced parties? do they make night attacks? have they any stratagems for concealing their trail from the enemy? Have they any superstitious customs or omens in connection with war, and if so give an account of them? What is the meaning of the custom of shooting an arrow with a tuft of feathers attached, mentioned by Capt. Beechey, and supposed to be a declaration of war? (the custom of shooting an arrow towards an enemy as a declaration of war formerly existed in Persia.) Do they employ treachery, concealment, or ambush, and if so, what is their usual mode of proceeding?

Are their dogs employed in war? Are their treaties with other tribes binding? Do they form alliances with other tribes, and if so, to what extent do they act in concert, and under what leadership? Are personal conflicts common between men of the same tribe, and if so, what is their usual mode of proceeding?

2. *Weapons*.—What are their war weapons? are the same weapons used in war and the chase? What is the exact nature of their defensive armour, especially that described as being made of pieces of wood fastened together? Is the throwing stick used in war? what is the accuracy, range, and penetration of a lance projected by this means? is there any evidence of its being a more ancient weapon than the bow? is it an indigenous weapon or derived from without? What are the difficulties in the construction of the bow from the absence of suitable elastic wood? is the practice of giving elasticity to the bow by means of sinews attached to it an independent invention or derived from the Asiatic Continent? what is the accuracy, range, and penetration of the bow? In what manner are the performances of their weapons handed down from father to son, as is said to be the case? What is the exact meaning of the marks scored on their arrows and their weapons (with drawings of them)? Have they any means of giving a rotation to their arrows or other missile-weapons? Have they any regular system of training to the use of the bow and other weapons? At what age do the children commence the use of the bow? Are the Esquimaux expert in throwing stones with the hand, and if so, how far can they throw with accuracy and force, and for what purpose do they throw stones? Is the bow drawn to the shoulder or the chest? is it held horizontally or vertically? Are the women trained to the use of weapons? What are the varieties of the weapons employed in different tribes and what is the cause of variation? to what extent do the weapons vary in form in each tribe? Have they anything resembling a standard, or state halbard, or fetish for war purposes, as suggested by Capt. Beechey? (Careful drawings and collections of all the varieties of weapons are very necessary.) To what extent have the natives abandoned their ancient arms, and taken to those of civilised nations introduced among them? Do they readily adopt European weapons?

3. *Leaders and Discipline*.—How are their leaders appointed? are they identical with the chiefs and *Angekos*? have they any marks or distinctions of dress (with drawings)? are they the strongest and most courageous? have they any rewards for warlike achievements? have they any subordinate leaders, and how are they appointed? have the chiefs any aids or runners to carry messages?

\* It appears desirable that some test of accuracy should be established. If the natives can be induced to shoot at a target, the distance of each shot from the point aimed at should be measured, added, and divided by the number of shots. The figure of merit obtained by this means would enable a comparison to be made with the shooting of other races. A target composed of grass bands, not less than six feet in diameter, might be used. Misses should be scored with a deviation of four feet; distances, fifty, one hundred, one hundred and fifty, and two hundred paces of thirty inches.

What kind of discipline is preserved? Have they any punishments for offences in war? what is the function of the women in war? are any of the adult males reserved from war for employment in other duties that are necessary for the tribe, and if so, how is that arranged?

4. *Fortifications and Outposts.*—Have they any intrenchments, earth, or snow works or defensive pits, as described by Capt. Beechey, and if so, give plans and sections of them drawn to scale? Do they employ pitfalls in war or the chase, and if so, give plans and sections? Have they any knowledge of forming inundations for defensive purposes? Have they any use of stakes for defence, or stockades, or abatis? Do they employ caltraps (small spikes of wood fixed into the ground to wound the feet)? Do they ever build on raised piles for defence, as is practised in some parts of the N.W. Coast? Do they occupy isolated positions, or hills, or promontories for the defence of their villages? Do they fortify their villages or have they other strong places to resort to in case of attack which are not usually inhabited? Have they scouts and outposts, and are they arranged on any kind of regular system? Have they any special signals for war? do they employ special men on these duties?

5. *Supply.*—How do they supply themselves during war? does each man provide for himself or is there any general arrangement, and under what management? Are their proceedings much hampered by the difficulty of supply? How do they carry their food, water, and baggage?

6. *Causes and Effects of War.*—What are the chief causes of war? Do feuds last long between tribes? How do they treat their prisoners? have they any special customs with regard to the first prisoner that falls into their hands? Do conquered tribes amalgamate? How are the women of the conquered tribes dealt with? How do they divide the spoil? Are their attacks always succeeded by retreat or do they follow up a victory? Is it likely that a knowledge of the arts, culture, etc., of other tribes has been spread by means of war? To what extent has the increase of the population been checked by wars? Has migration been promoted to any great extent by warlike expeditions?

ENQUIRIES RELATING to CERTAIN ARROW MARKS *and other SIGNS in USE AMONGST the ESQUIMAUX.* By COL. A. LANE FOX.

1. Capt. Hall speaks of mysterious signs consisting of "particolored patches sewn on to seal skins, and hung up near the dwelling of the Angeko for the information of *strange* Innuït travellers, and to direct them what to do". Are these signs for *strange Innuït travellers* generally understood by the Esquimaux race? what is their object and significance? are they generally understood by the people or only by the Angekos? Drawings and explanations of these signs would be desirable.

2. Sir Edward Belcher, in the "Transactions of the Ethnological Society", vol. i, p. 135, new series, gives his opinion that the Esquimaux "are not without the means of recording events", and that "the

use of notched sticks and working of the fingers has a deeper signification than mere numerals." What is the exact meaning of these marks? are they confined to particular tribes or common to the whole race? Drawings and collections of these notches would be desirable.

3. In our Ethnographical Museums identical marks upon horn-pointed arrows appear to be derived from different localities and at different times, so as to preclude the possibility of their having belonged to the same owner. Some of these marks appear to be pictographic, although consisting of straight lines representing a man or an animal; others are evidently not pictographic, and consist of a longitudinal line with other short lines branching from it, or an edge of the horn-point serves the purpose of the longitudinal lines, and the short lines are marked upon it. Their resemblance to Runes has been noticed. What is the exact meaning of each of these marks? are they the marks of the owner or do they record the performances of the weapon, or have they any other significance? are there similar marks upon other weapons and utensils or upon rocks? are they understood beyond the tribe? is there any probability of their having been derived from the Scandinavian Settlers in Greenland? Drawings and collections of these, and any other similar marks, with the exact meaning of each mark, would be desirable.

ENQUIRIES RELATING *to* DRAWING, CARVING, *and* ORNAMENTATION.  
By COL. A. LANE FOX.

Have the natives a natural aptitude for drawing? do they draw living animals in preference to other forms? are the heads of men and animals usually represented larger in proportion than the other parts of the body? Have they the least knowledge of perspective? Are the most distant objects drawn smaller than those nearer? are the more important personages or objects drawn larger than the others? Do their drawings represent imaginary animals or animals now extinct? Do they show any tendency to represent irregular objects, such as branching trees symmetrically so as to produce a conventional pattern? Are the drawings generally historical, or merely drawn for amusement or for ornament? Are events of different periods depicted in the same drawing? Have they any conventional modes of representing certain objects? Do they draw from nature or copy each other's drawings? Do they in copying from one another vary the forms through negligence, inability, or to save trouble, so as to lose sight of the original object and produce conventional forms, the nature of which is otherwise inexplicable? if so, it would be of great interest to obtain several series of such drawings, shewing the gradual departure from the originals. Do they readily understand and appreciate European drawings? do they show any aptitude in copying European drawings? Do they draw with coloured earths besides the drawings engraved on bone? With what tools are these engravings made? Have they special artists who draw for the whole tribe or does each man ornament his own property? Do any of the natives show special talent for drawing, if so, in what direction

does such talent shew itself? Is drawing more practised in some tribes than others, and if so, does this arise from inclination or from traditional custom? Do they draw plans or maps? Do they understand European maps? At what age do the children commence drawing? are they encouraged to draw at an early age (a series of drawings of natives of different ages, from five or six upwards, would be interesting as a means of comparison with the development of artistic skill in Europeans)? Do they ornament with geometrical patterns, such as zigzags, concentric circles, contiguous circles, coils, spirals, punch marks, lozenge patterns, herring bone patterns, etc.? Do they use the continuous looped coil pattern in ornamentation? Are such geometrical patterns in any case copies of mechanical contrivances, such as the binding of an arrow-head, the strings supporting a vessel, etc., represented by incised lines? Are there any ancient drawings upon rocks, etc.? and, if so, in what respects do they differ from those of the existing natives? Copies to scale of any drawings which cannot be brought away would be very desirable.

V.—FURTHER ENQUIRIES *and* OBSERVATIONS *on* ETHNOLOGICAL QUESTIONS *connected with* ARCTIC EXPLORATION. By A. W. FRANKS, F.S.A., Keeper of Ethnography, etc., British Museum.

ON reading over the enquiries suggested by the distinguished members of the Anthropological Institute, Dr. Barnard Davis, Mr. Tylor, Mr. Boyd Dawkins, and Col. Lane Fox, the following additional points of enquiry have suggested themselves.

*Anthropological Details.*—Some uniform mode of measurement should be adopted, and careful instructions would no doubt be furnished by Dr. Barnard Davis. It would also be desirable to ascertain the strength of the natives in lifting and throwing weights, and pulling against weights, as compared with Europeans; also their speed in running.

*Mental Qualities.*—Evidences of quick understanding or the reverse. Habits of providence or the reverse. Knowledge of numeration and weights. Capability of understanding European pictures of animals, and especially of landscapes. Comprehension of the advantages of writing. Any knowledge of astronomy?

*Marriage and Funeral Customs.*—Is any ceremony observed with either sex on attaining puberty? Are wives obtained by courtship, capture, or purchase? if by the former, are there any surviving symbols of either of the two latter modes, as in Russia? At what age are marriages usually entered into? and are there any prohibited degrees of relationship? Are there any ceremonies at marriage or on childbirth? Is the name of the child ancestral? has it any special meaning? and is it changed at any time? How are the dead buried? are their weapons and food deposited with them? and if so, are they broken or rendered useless before being deposited? Is there any ceremony on receiving friends or strangers?

*Arts and Manufactures.*—Any particulars on these points will be

of special value, as possibly illustrating prehistoric periods. How is the carving in ivory or bone executed? is any method employed to soften the material? Have the ornamental designs on the implements any particular meaning? How are the skins tanned? are there any varieties in the fashions of dresses? and are these tribal or dependent on individual fancy? How is the sinew thread made? Are labrets in use? and is tattooing employed by either sex? Is there any native explanation of either custom? It would be desirable to obtain the native names of the various tools, and to be especially attentive to the use of stone implements. Is meteoric iron employed for implements? and where is it obtained? The native names of metals employed? Are there special persons who manufacture a distinct class of objects or does each family supply its own wants? Is tobacco in use? where is it obtained? and is any other substance used with it or substituted for it? How are the tobacco pipes made? and especially how are the bowls and stems bored?

*Hunting and Fishing, etc.*—The use of lures and stratagems. Are any tallies employed to record the number of animals killed? Is there any distinction in the form of paddles used by different sexes? do the rowers keep time?

*Food.*—Are any ceremonies used at their meals or feasts? Is there any offering to the deceased or to spirits? Is there any particular order in the succession of various kinds of food at such meals? Mode of feeding? especially as to the cutting off at the mouth the food. Do the teeth become much worn down by the nature of the food or the mode of eating?

*Collections.*—It is most desirable to make as complete a collection as possible of everything illustrating the Arctic tribes; for the intercourse with Europeans must in time modify or extinguish many of their peculiar implements, weapons, or dress, and it is believed that the Arctic races would furnish valuable illustrations of the condition of the ancient inhabitants of the South of France, etc., during the cave period. It would be well also to search in the walls and floors of ruined houses for stone and bone implements left by the former inhabitants. The specimens should be, as soon as possible, carefully labelled and marked; where marked by adhesive labels or by cards tied on, something should be written on the specimen itself, in ink or pencil, so that if the label should drop off or become detached there may be no doubt as to the specimen to which it belonged.

There is, however, a point of great importance which relates to the disposal of the collections when they are brought back. It has been too much the habit to consider such objects the property of the officers of the expedition, to be disposed of according to their wish. Should, however, such collections be made by a scientific expedition, there should be clear directions that it should be placed at the disposal of the government to be deposited in the national museum, and the commander of the expedition should see that the main collection contains the best illustrations of the subject.

To shew the evil effects of the contrary practice, it may be noticed

that the greatest of English explorers, Captain Cook, must have made very large collections, as specimens obtained by him are to be found in many museums and private collections both in England and abroad. Unfortunately, the value of his specimens is much diminished by the absence of any proper account of the places from which they were derived; and it is somewhat curious that although the British Museum is supposed to have the principal part of his collections, many of the finest specimens are not to be found there, but in other collections.

An instance connected with Arctic exploration may be noticed. In the well-known expedition in the *Blossom*, under Capt. Beechey, 1825-28, a number of specimens was obtained. Some of the specimens were given by Capt. Beechey to the Ashmolean Museum; others were presented by the officers to Mr. Barrow, and are now in the British Museum. Sir Edward Belcher gave some of his specimens to the United Service Institution, which on the sale of a part of that museum were dispersed; unfortunately, they were not properly labelled, and their value is much impaired. The bulk of Sir Edward Belcher's collection has since been sold, and though by a fortunate accident some of the most interesting specimens have been secured for the Christy Collection, the value of the series as a whole is taken away. Others seem to have been given by Surgeon Collie to the Haslar Hospital, and on the breaking up of a portion of that museum were sent to the British Museum; scarcely any of them were labelled, and it is only by accident that the probable origin of them has been traced. If a careful selection had been made at the time for the national collection, the manners, customs, and arts of the western Esquimaux would have received a full illustration.

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VI.—QUESTIONS relating to the PHYSICAL CHARACTERISTICS of the ESQUIMAUX, etc. By JOHN BEDDOE, M.D.

A. The following measurements should be obtained from as many adults of the two sexes as possible.

1. Stature: best gotten by means of a graduated rod, in erect posture. Mention whether shoes are worn, and of what thickness.
  2. Greatest length of head, from the eminence between the eyebrows; with index or other callipers.
  3. Greatest breadth of head, wherever found, with callipers.
  4. Greatest breadth of zygomata, also with callipers.
  5. Span—*i.e.*, distance between tips of middle fingers, arms being expanded.
  6. Circumference of chest at nipple (in men).
  7. Ditto after full expansion by forced inspiration (in men).
  8. Circumference of thigh at fork.
  9. Distance from fork to ground.
- 1, 6, and 9, are most important.

B. The colours of *hair*, *eyes*, and *skin*, may be best expressed by means of Broca's scale; but in its absence the

1. *Eyes* may be designated as light (blue, light grey, light green), neutral (dark grey, dark green, yellowish gray), or dark (hazel, brown).

2. *Hair* as red, fair, brown, dark brown, rusty black, or coal-black.

3. It should be noted whether there is any beard, and, if so, of what colour, or whether it is extirpated.

4. Is grey hair observed?

5. Or baldness?

6. Or the *arcus senilis*?

7. Is the hair lighter in children than in adults?

8. Is the body less hairy than in Europeans?

C.1. What is the temperature of the body, taken with a "clinical thermometer" kept in the axilla fully five minutes? This should be observed in four or five persons.

2. Does the hand appear to be notably smaller than in Europeans?

For use in the observations above, a graduated rod, six feet long, with a sliding cross-piece, index callipers, graduated tapes, and a clinical thermometer, will be desirable.

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VII.—FURTHER ETHNOLOGICAL ENQUIRIES, *more especially connected with the WESTERN ESQUIMAUX.* By WILLIAM TURNER, Professor of Anatomy, University of Edinburgh.

1. Should the expedition visit the western part of the north coast of America, it would be very desirable to ascertain if any traditions linger amongst the Esquimaux tribes of a migration of their ancestors across Behring's Straits.

2. It would also be desirable to ascertain if any communication takes place between the Esquimaux and the most northerly tribes of North American Indians, either for purposes of trade or war; or if the Esquimaux or Indian tribes intermarry.

3. Collections of crania of the tribes occupying the land on the eastern and western sides of Behring's Straits would be of great value. Careful notes should also be taken of the physical characteristics of the people, of their habits and modes of life, their tools, weapons, etc.

4. A collection of crania from the district around Kotzebue Sound would be also prized, as there is reason to think, from a few specimens already in this country, that the cranial configuration of the people of this region differs from that of the tribes on the eastern side of the American continent.

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VIII.—INSTRUCTIONS SUGGESTED BY CAPT. BEDFORD PIM, R.N.

1. Make full inquiries as to the shape, length, breadth, depth, and capacity of the baidars; the covering, the lashing, size of the ribs and timbers, and the dimensions of the paddles.



2. How many persons can the baidar carry? with how much weight inside will they float when swamped?

3. What amount of provisions for its occupants can the baidar carry? what is the nature of those provisions, and how many days will they last?

4. What is the utmost speed of a baidar under paddles, paddles and sail (if any), or sail (if any) alone?

5. How many miles can be paddled in four hours? ditto eight hours? ditto twelve hours, with the view to arrive at the length of a day's journey?

6. These questions to apply equally to the kyack.

7. Especially make inquiries with reference to the capability of the baidar, or of two kyacks lashed together, to cross from Labrador to Greenland; and their ability to encounter heavy weather.

8. Also if women can paddle the kyack as well as the men.

9. Make particular inquiries about the weapons of the chase used both on land and water.

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The PRESIDENT having stated that next session the meetings of the Institute would be held on Tuesdays instead of Mondays, adjourned the present meeting till November.