identical with that of others from Java as to suggest an ethnic or historical affinity between their makers. This close identity between instruments of distant countries, discovered after an interval of years, bears strong testimony at once to native skill and to the accuracy of the methods employed in these studies and to the competence of the students.

To much non-European music the word primitive is wholly inapplicable. An immense development has led up to the isotonic octave. The choice of seven steps is referred by Professor Stumpf to mystic ideas of number; but he also suggests that a diatonic scale, the result of tuning by a chain of fourths, may have preceded the Siamese order. If so, the European scale, which still approximates such a tuning, is the less developed of the two. That of eastern Asia is a modification too radical to have completed itself in less than ages of progress.

Besides its frequent high refinement and artificiality, non-European music has an artistic rank of which it is hard for us to convince ourselves. Rank to its makers, be it added at once; and herein lies the widest lesson of the whole inquiry. This may be described in a phrase as the discovery of how great a part is played by the mind in apprehending a work of art; and how little of the veritable creation can often be grasped by an alien. Professor Stumpf cites a striking example. Since c-e-g on our instruments is a major chord and e-g-b a minor, the two sound to us major and minor, respectively, on a Siamese xylophone, where they are, nevertheless, identical combinations. In like manner a comparison of the tone-material in phonographic records with the same melodies heard currently makes it apparent that Europeans apprehend all music in the diatonic terms familiar to their ears. From the first employment of the instrument doubt began to be thrown on the earlier notations by ear which exhibited exotic music generally as a poor relation of the European family. Psychologically, the value of these results as a notable instance of the dependence of sense on fancy is very great. As a discipline in liberal culture compelling us to seek for the standpoint of other minds, they will be invaluable to all privileged to follow them. It is our own ears that are oftenest at fault when we hear in exotic music only a strident monotony or a dismal uproar to be avoided and forgotten. To most non-Europeans their music is as passionate and sacred as ours to us and among many it is an equally elaborate and all-pervading art.

The influence of European music becomes every day more audible in the singing and playing of non-European peoples. The time seems not far off when the task of dissecting out aboriginal elements will become impossible. As the ornament in Queen Ti's tomb fell to dust at the entry of the explorer, so exotic music is already dying on the ears of its discoverers. The life of the science has inexorable limits, and if it is to yield what it might, the number of those who pursue it and the money at their command must at once be greatly increased. The results of a few years' work by a few students sufficiently show the absorbing interest and the wide-reaching value of the study; and should bring out both material and personal aid in plenty from lovers of music, of ethnology and of the humanities. What men of means or of science will offer their fortunes or themselves for this imperative labor?

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THE RELATIONSHIPS OF THE ESKIMOS OF EAST GREENLAND

DR. W. THALBITZER describes in the "Meddelelser om Grønland," Vol. XXVIII., the Amdrup collection from east Greenland, which comprises objects found between the sixty-eighth and seventy-fifth degrees of north latitude. The publication is of great interest, because it brings out conclusively the close relationship between the culture of the northeast coast of Greenland and that of Ellesmere Land, northern Baffin Land and the northwestern part of Hudson Bay. The similarities are so far-reaching that I do not hesitate to express the opinion that the line of migration and cultural connection between northeast Greenland and the more southwest-

erly regions must have followed the shores of Ellesmere Land, the northern coast of Greenland, and then southward along the east coast. One of most suggestive types found in Dr. Thalbitzer's publication is the needle-case figured on page 421. I have called attention to the distribution of this type of needle-case in my paper on the "Eskimo of Baffin Land and Hudson Bay,"[1] and in a discussion of the decorative designs of Alaskan needle-cases.[2] The specimens described in these two publications are from Frozen Strait in Hudson Bay, Ponds Bay and Smith Sound. Later on I published another needle-case of the same type from Rawlings Bay in Ellesmere Land. Among these specimens only those from Ponds Bay and Smith Sound are found in actual use, while the others were collected from ancient house-sites. Two similar specimens are figured by Dr. Thalbitzer (p. 527). These were found in the region of northwestern Greenland, that is, near the island of Disco. It is important to note that the ornamentation on the large specimen here figured is identical with the alternating spur decoration which was discussed by Stolpe in his studies of American ornament, and by myself in the discussion of Alaskan needle-cases before referred to. The same ornament occurs in the ornamentation of a comb shown on page 472 of Dr. Thalbitzer's publication.

Among the other specimens, sealing-stools (pp. 430, 431) seem to be particularly important. They are very similar in form to a specimen found by Peary in Grinnell Land.[3] The ice-scraper of bone figured on page 438 must be compared with the set of implements shown on page 409, "Eskimo of Baffin Land and Hudson Bay." Even the perforation for suspending the scraper agrees with those of specimens from Southampton Island. There seems to me little doubt that the hammer-like implement illustrated on page 442 of Dr. Thalbitzer's publication is a blubber-pounder similar to those made of musk-ox horn illustrated on page 402 of my paper on the "Eskimo of Baffin Land." The bone heads of adzes[4] agree fairly well with those shown on page 381.[5] The decoration on the handles of the bodkins[6] may perhaps be compared to the handles of the wick-trimmers from Melville Peninsula.[7]

All these types which show close correspondence in form are so much specialized that they must be considered as evidence of old contact or of sameness of origin. So far as I am aware, none of these types have been found in the region between Disco and Cape Farewell, nor do they occur in Angmagsalik. If this is true, the conclusion seems unavoidable that the Eskimos reached the northeast coast of Greenland by way of the north coast.

C. Ryder has called attention to the similarity of some of the east Greenland types to those from Alaska, and Thalbitzer again calls attention to the similarity of the harpoon-shafts to those of Point Barrow (p. 444). I have called attention to several other similarities of this kind, particularly the alternating spur decoration, to which Thalbitzer also refers (p. 472), and the forms of several specimens.[8] Similarities between the Ponds Bay region and the western regions have also been pointed out by Dr. Wissler in his description of a collection made by Capt. Mutch at my instance in that region.[9] The distribution of types suggests very strongly that a line of migration or of cultural contact may have extended from the Mackenzie region northeastward over the Arctic Archipelago to north Greenland, passing over the most northerly part of Baffin Land, and that the culture of southwestern Greenland, and that of southeastern Baffin Land and of Labrador, must be considered as specialized types.

FRANZ BOAS

[1] *Bulletin American Museum of Natural History*, Vol. XV., part 2, p. 433.

[2] *Proceedings of the U. S. National Museum*, Vol. XXXIV., p. 326.

[3] "Eskimo of Baffin Land and Hudson Bay," p. 463.

[4] Thalbitzer, p. 449.

[5] Boas; compare also *ibid.*, p. 416.

[6] Thalbitzer, p. 399.

[7] Boas, p. 403.

[8] Boas, pp. 461–464.

[9] Anthropological Papers of the American Museum of Natural History, Vol. II., Part III., pp. 316–318.