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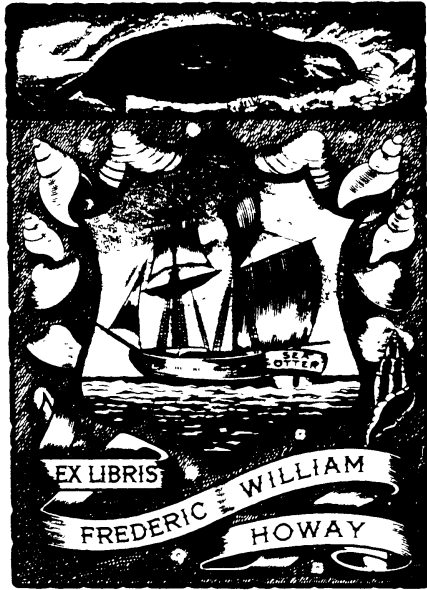
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Ball. a. 977. Sec.
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THE INDIANS OF BRITISH COLUMBIA.

BY

DR. FRANZ BOAS.

During the last seven years my studies of the North American Indians have led me frequently to the coast of British Columbia, into the recesses of its deep fjords and to the storm-beaten shores of its islands. In the following remarks I will describe some of the results of my studies and some experiences, but I will dwell particularly upon the interesting customs which it was my good fortune to observe in a cruise along the coast last winter.

Many are the tourists who nowadays in commodious steamers pass up and down the rugged coast of British Columbia on their tour to Alaska and many a time have the beautiful fjords, the snow-covered mountains the foot of which is clad in evergreen forests been described in vivid colors. But a different impression is left on the mind of him who in a small canoe passes through the intricate channels of the coast, tossed by tempestuous squalls which blow down the sides of the mountains and struggling against the rapid tides which in places rush like torrents through narrow openings. The overwhelming solitude and stillness of the shores, the monotony of the dark pines and cedars, of the channels and of the roaring cascades beget a longing for the sight of human work, of human habitation, that swallows the admiration of the magnificent scenery. Gladly welcomes the traveller the smoke which is seen to arise in the far distance, at a place where the steep coast line is interrupted by a small flat and which indicates the presence of an Indian village. While thus travelling from place to place with my Indian friends I had ample opportunity to become familiar with their life, their customs and their ideas.

Before describing the life of the Indians I may be permitted briefly to summarize what we know about their general appearance and their relationships to each other and to the rest of the American race. The casual visitor is first of all struck by the remarkable similarity of the natives of the North Pacific Coast with the races of Eastern Asia. Even after a long acquaintance with the people single individuals are found whom one might almost mistake for Asiatics. It happened to me even last winter that I met a broad-faced, light-complexioned person, with brownish, almost black hair,

attired in a sailor's suit, whom I was unable to classify for quite a while. Finally he happened to look sideways, which brought into prominence a very strongly Mongoloid eye—the peculiar eye, that we always see in Chinamen—and this settled in my mind that he must belong to Asia. In fact he proved to be a Japanese. This formation of the eye which is more strongly marked in the Mongol is sometimes the only means of detecting the difference between individuals belonging to the two races. Taken as a whole, however, the face of the Indian is much heavier built, his hair is not as coarse as that of Chinamen or Japanese. Young persons have the Chinese eye often just as strongly developed as the Chinese themselves. We may say that the people, particularly those of the northern parts of the territory, occupy a position intermediate between the Indians of the plains and the East Asiatic races.

But the tribes of this coast are by no means homogeneous. A few of them take quite an exceptional position. In most cases the noses and faces of these Indians are wide, but low. Among the southern tribes there are some, whose faces are, to the contrary, wide and very high, the noses being at the same time narrow and almost Roman in form. It is remarkable that as soon as we cross the mountains of southern British Columbia the characteristic Indian face becomes very prominent.

I must not omit to mention one peculiarity. We are accustomed to consider the Indians as possessed of black, straight hair, and as of a reddish complexion. The hair of the Indians of the North Pacific Coast is very frequently slightly wavy and brownish, his complexion is very light. There are even a few tribes among whom red hair and almost white complexions occur.

The most striking peculiarity exhibited by these tribes is the effect of the custom of artificially deforming their heads by closely bandaging and pressing the head of the infant as long as it is in the cradle. By this means growth of the head sideways is stopped and it grows backward and upward. The forehead becomes at the same time flat and receding.

It is very curious that in the region of which we are speaking a great many different methods of deforming the head are in use. Further to the south, instead of lengthening the head, the Indians flatten it. They bring a strong pressure to bear upon the forehead.

The custom of deforming the head is very widely spread, and was still more so in older times. In America it is still practiced on the coast of British Columbia and as far south as Oregon. The tribes of Kansas flatten their heads. Formerly all the people of

Colorado, of the lower Mississippi, of the West Indies, and the Peruvians deformed the heads of their children.

Outside of America the custom is found in several islands of the Pacific Ocean and, what seems hardly credible, in southern France. The last-named occurrence seems to be the only survival of a custom which in antiquity was practiced from the Caucasus through Hungary to southern France. It has often been asked what the meaning of this practice may have been. We must undoubtedly consider it simply as a fashion which grew up as other fashions do and as having no more nor less meaning than the deformation of the feet by the Chinese, of the teeth by the Africans, or of the waist by our own ladies.

If in regard to their physique these Indians are by no means uniform, they are still less so in regard to their languages. Seven radically distinct languages are spoken by them in this small area, and some of them are split up in subdivisions to a marvellous extent. When saying radically distinct languages, I mean that they differ as much in structure and in vocabulary as English and Turkish, which as we know are not related at all; while the subdivisions may differ as much as English and Greek, both of which belong to the Aryan stock. There is only one thing which these languages have in common, namely, their extreme harshness, superabundance of consonants and scarcity of vowels, combined with an extreme energy of pronunciation. The languages are in structure similar to other American languages. In this respect no affinity to Asiatic peoples is found. They fall naturally into a number of groups which show very interesting geographical relations. The languages of southern British Columbia resemble in structure somewhat those spoken on a belt which stretches along the Northern States and Southern Canada right across the continent. The languages of the north are, on the other hand, somewhat analogous to the languages spoken in the whole extreme northwestern portion of America; but each of these two groups is wholly unlike the other.

I will not enter into these somewhat difficult relations any further, but will describe that portion of my travels which seems to touch upon some of the most interesting problems of Indian history.

On several of my trips I had visited a tribe who bore the proud name of the Kwakiutl, the "smoke of the world." This name, I might say, almost characterizes the Indian. The "smoke of the world," that means that their hospitality is such that the smoke of their fire at which the food is being roasted fills the whole world, and that the fire is being kept burning all the time. When I first

visited the tribe my arrival gave rise to much speculation and distrust, which led to my being invited to attend a council at which the subject was to be discussed. At that time the minds of the Indians were much stirred by efforts of the Canadian Government to put a stop to certain dances and ceremonials, and every stranger was suspected as a Government agent with sinister designs. In the council I was addressed as follows by the chief of the village:

"We want to know whether you have come to stop our dances and feasts, as the missionaries and agents who live among our neighbors try to do. We do not want to have anybody here who will interfere with our customs. We were told that a man-of-war would come if we should continue to do as our grandfathers and great-grandfathers have done. But we do not mind such words. Is this the white-man's land? We are told it is the Queen's land; but no! it is mine! Where was the Queen when our God came down from heaven? Where was the Queen when our God gave the land to my grandfather and told him, 'This will be thine'? My father owned the land and was a mighty chief; now it is mine. And when your man-of-war comes let him destroy our houses. Do you see yon woods? Do you see yon trees? We shall cut them down and build new houses and live as our fathers did. We will dance when our laws command us to dance, we will feast when our hearts desire to feast. Do we ask the white man, 'Do as the Indian does'? No, we do not. Why then do you ask us, 'Do as the white man does'? It is a strict law that bids us dance. It is a strict law that bids us distribute our property among our friends and neighbors. It is a good law. Let the white man observe his law; we shall observe ours. And now, if you are come to forbid us to dance, begone; if not, you will be welcome to us."

My words in reply to this speech seem to have been taken very kindly, for since that time I have never been made more at home than among this tribe.

How much more friendly was my reception last year. On one of my later visits I had received an Indian name, Heiltsakuls, "The one who says the right thing." I was coming down the coast in a small steamer which, as it approached the village in the middle of the night, blew its whistle until a canoe came alongside. I was recognized at once and paddled ashore, and many were the welcomes that were offered to me that night.

I had arrived at a most opportune season for my studies. The whole tribe and a great many friends from neighboring villages were assembled to celebrate the great religious ceremonial which

takes place about midwinter. There was excitement in all the houses. Here preparations were made for feasts, there the approaching ceremonies were earnestly discussed. Others were busy collecting all their property in order to pay off debts, which is considered one of the most important transactions in the life of these Indians.

On the morning after my arrival I invited at once the whole tribe—about 250 souls in all—to a feast. It was a feast to *them*, although the provender which I furnished consisted of nothing but hard tack and molasses. Before the biscuits were distributed I had to make the formal speech depreciating my small feast and asking my guests to be happy and to eat to their hearts' desire. In return I was told that no feast like mine had ever been given and that I was a great chief. The figurative speech of the Kwakiutl Indians has it about like this: "You are the loaded canoe that has anchored in front of our village and is unloading its riches; you are the precipice of a mountain from which wealth is rolling down upon all the people of the whole world; you are the pillar supporting our world." And all this for a treat of hard tack and molasses. But the gross flattery of this speech must not be taken too seriously, as it is simply a stereotype formula used for expressing the thanks for a feast.

Custom requires that before the feast four songs are sung. The young men—the singers—sit in two or three rows in the rear of the house. Planks are laid in front of each row, and they carry short sticks to beat time with. As soon as the time for opening the song begins the singing master jumps upon a box and gives the signal to begin. At once the deafening noise of the beating of the boards begins, and then the chorus commences the song. I regret that I cannot give an example of this peculiar music. It has often been said that Indian music is no more than a meaningless and senseless howling, but to him who knows to listen to the music so imperfectly rendered by untrained voices, the weird strains soon gain a curious attraction. As the musical phrases repeat themselves and appear in new and unexpected combinations, the art of the native composer becomes clearer and clearer. As new rhythmical forms are introduced into the song we recognize beauties which were at first obscured by their imperfect rendition. The words of the songs also prove a deep poetical feeling, although this becomes not so apparent in feast songs, which are made distasteful to the refined ear by an incredible amount of brag on the one hand and of flattery on the other.

Let me give a few examples of this poetry in translation. Here is a feast song:

1. I am a great chief, famous all over the world. I am the highest chief among all the tribes. Chiefs are my servants. Chiefs are my messengers. Chiefs are to me like my ragged, torn blankets. Do not irritate me, else I will destroy your property and your lives. I am like to a mountain whom nobody can scale, towering over the chiefs of all mankind. I have destroyed a whole tribe. When I approach, a heavily loaded war canoe, chiefs wish to hide under ground. I destroyed the tribes at the north end of our world. -

2. Do not let my gaze behold you. Do not annoy ME, of whom you hear even at the edge of our world, else I shall tie your hands and hang you. You shall know my greatness: I am as powerful as one whole tribe; yea, I am as powerful as four tribes. I am the one who stands on top of the highest mountain. My face shines like red copper. I am the great mountain. I am the pillar of the world. I am the one who stems the tide; chiefs are my servants.

But I should convey a too unfavorable impression of my Indian friends if I did not also render to you one of their love songs which reveals a deep and passionate feeling:

1. Like pain of a burn is my love of you, my dear.
2. Like pain racking my whole body is my love of you, my dear.
3. Like sickness is my love of you, my dear.
4. Like a wound hurts me my love of you, my dear.
5. Like fire burns me my love of you, my dear.
6. I am thinking of the words that you spoke to me.
7. I am thinking of the love you bear me.
8. I am trembling before the power of your love.
9. Oh, what pain do you cause me.
10. Oh, where is my true love going, my dear?
11. Oh, my true love is going to leave me.
12. I feel faint on account of the words my true love spoke to me.
13. Good-bye, my true love, my dear.

In the course of the feast many speeches are made which refer to the transactions of the daily life of the people. In order to explain this I must say a few words in regard to the curious economic system, that has arisen among the tribes. The coin and the unit of value of the Indians is the single blanket, formerly a fur blanket, but now a cheap woollen blanket. All their possessions are invested in blankets, and in these a system of credit has developed. The total number of blankets in a village may be a few hundred, while the accumulated wealth would amount to many thousands. As soon as a person receives blankets in payment for services or for sold objects he loans them out to those in need of blankets. They must be repaid with a high rate of interest, which ranges according to time and circumstances at from 25% to 300%. Thus the cautious and careful are able to build

up large fortunes in comparatively a short time, although they may not possess more than a few blankets at a time. At a certain time they may have to repay a considerable debt to some one individual. This is always done publicly, and is made the occasion of much ceremony. Often at the same time blankets are presented to other members of the tribe. These *must* accept the present, but by accepting it become debtors to double the amount received. Thus the seeming squandering of property is actually no more and no less than a profitable investment. Nevertheless a distribution of property brings honor and increased influence. I believe this is the most complex economic system that has developed anywhere among the native races of America, particularly in so far as it is based to a large extent upon credit.

It is clear that such a system, once established, must influence the social life of the people very considerably, and that is what we actually observe. The investment of property and its return with appropriate ceremonies is the one dominating thought of these people. As the frequent distributions of property are considered to raise the rank of the giver, they are also made occasions to bring forward the feats of the ancestors from whom the rank and position of the Indian is derived. Thus it happens that the family legends are related at such occasions with much pride and with great ceremony. In conclusion of the ceremony a young relative of the person who distributes the property is made to dance. These events mostly took place during the daytime, while the evenings were reserved for feasts. The second night of my stay a feast took place, which was very interesting in many respects. Everything had been going on very quietly and sedately as described before. The four songs had been sung and the host was delivering his speech when, all of a sudden, he was interrupted by an unearthly cry which came from among the people who were standing behind him. A youth rushed forward into the middle of the house in a state of greatest excitement. He fell down as though in a fit and suddenly he was seen to fly upward to the roof, to the right and to the left through the house, and now he had disappeared.

For a short time dead silence reigned. Then the voices of birds were heard on the roof and the youth's clothing, all covered with blood, fell down into the house. The father took it up, and amid the greatest excitement, exclaimed, "Do you know what this means? The spirits have taken away my son. He is being taken to their house at the north end of the world. They are going to

instil their desires into him and he will return a cannibal." The ensuing excitement was indescribable. There was a general screaming, speechifying and beating of boards. The medicine men danced around the fire, shaking with every limb of their bodies. The fire was extinguished and the people almost fled to their houses.

I must now explain what this disappearance of the youth meant. The origin of this custom, according to the folk-lore of the Kwakiutl, is derived from a number of spirits living in the woods. Among these one called Bakbakwalanukseewae—that means the cannibal at the north end of the world—is the most important. The following legend illustrates the ideas of the Indians in regard to this spirit:

Once upon a time there lived a man who had four sons. His name was Noakowa, the wise one. One day the sons were going to hunt mountain goat. Before they started Noakowa said, "When you go hunting you will reach a house from which a reddish smoke is rising; do not enter there; it is the house of the cannibal spirit Bakbakwalanukseewae." The sons promised to obey and started on their expedition.

After a while they saw a house, from the roof of which black smoke was rising. It was the abode of the black bear. They proceeded, and after a short while they found another house from which white smoke was rising. They entered and saw that it was the house of the mountain goat. Having rested they proceeded, and at last they saw a house from which a reddish smoke was rising. They stopped and spoke unto each other, "Shall we pass by this house? Let us enter and see who lives in it." This they did, and found a woman who was rocking her baby. Opposite her sat a boy with an enormously large head. The four brothers stepped up to the fire and sat down on a box. In doing so the eldest one hurt his leg, and blood dripped from it. The boy with the large head nudged his mother and whispered, "O, mother, how I should like to lick that blood!" When his mother told him not to do it he scratched his head and soon began, notwithstanding her command, to wipe off the blood and to lick it from his finger. Then the eldest brother nudged the youngest one and said, "O, I think father was right. I wish we had followed his advice." Meanwhile the boy licked the blood more and more eagerly.

The eldest of the brothers mustered courage. He took an arrow from his quiver and shot it through the door of the house, then he told his youngest brother to go and fetch the arrow; he

obeyed, but as soon as he had left the house he ran away towards his home. After a little while the eldest of the brothers took another arrow from his quiver and shot it through the door of the house. He told the next brother to fetch it, and he also made his escape. When he had shot a third arrow the third brother escaped. Then the boy with the large head began to cry, for he was afraid of the eldest of the brothers. The woman asked, "Where have your brothers gone? I hope they will be back soon." "O, yes," replied the young man, "they have only gone to fetch my arrows." So saying, he took another arrow from his quiver and shot it through the doorway of the house; then he went himself to fetch it. As soon as he had left the house he followed his brothers. After a short while, when the youths did not return, the old hag knew that her guests had escaped. She stepped to the door and cried, ("Bakbakwalanukseewae, come! oh, come! I have allowed your good dinner to run away." Her husband, although far away, heard her cries and quickly approached. The four brothers heard him approaching and ran as fast as their legs would carry them. The eldest was carrying a whetstone, a comb and some fish grease, which he used for anointing his hair. When the cannibal had almost reached them, he threw the whetstone over his shoulder, and lo! it was transformed into a steep mountain which compelled the pursuer to go round about it. But soon he came again near the fugitives. Now the young man poured out over his shoulder the hair oil, which was transformed into a large lake. While the pursuer had to go around it the young men gained a good start on him. When he had almost reached them for the third time, the eldest of the brothers threw over his shoulder his comb, which was transformed into a thicket of young trees, which their pursuer was unable to penetrate. Before he could pass around it the young men had reached their father's house. They had hardly entered and bolted the door when the cannibal arrived and demanded entrance.

Noakowa, the father of the brothers, killed a dog, carved it and collected its blood in a dish. Then he called the cannibal to come to a knothole in the wall of the house, gave him the dish and said: "This is the blood of my sons. Take it and carry it home to your wife. I invite you to a feast to-night, and be sure to come with your wife and your children. You may feast upon my sons." The cannibal promised to come.

As soon as he had gone, Noakowa and his sons dug a deep pit near the fireplace and built a large fire. They put stones into it,

which they threw into the pit as soon as they were red hot. They concealed the pit by spreading a skin in front of it. These preparations were hardly finished when the cannibal arrived in his canoe, accompanied by his wife and his three children. One of them he left in the canoe as a watchman, while the others went into the house.

Then Noakowa made them sit down in the seat of honor, near the fire, their backs turned towards the skin which concealed the pit. When the cannibal had settled down comfortably, and the meat was boiling in the large wooden kettle, he said: "Noakowa, you know how everything happened in the beginning of the world. Tell me what you know." Noakowa replied: "I shall tell you this," and beating time with his *baton* he sang:

"What shall I tell you of olden times, my grandchildren? Yon cloud was lying on the mountains."

When he had sung this spell twice the cannibal and his family felt drowsy, and when he had sung it four times they slept sound and fast. Now Noakowa removed the skin and plunged his guests headlong into the pit. Twice the cannibal cried *ham, ham!* then he was dead. When all had perished, Noakowa tied a rope around their bodies and pulled them out of the pit. The old cannibal's body he cut into pieces, which he threw in all directions, singing: "In course of time you will pursue man." They were transformed into mosquitoes. The boy who had remained in the canoe made his escape and lives since that time in the woods.

It is this spirit who initiates the new cannibal. After his disappearance he is supposed to stay with the spirit for a long time. When the time of his stay is nearly up the father of the novice invites all the people to his house, in order to try to bring back the lost man. I can describe only a few of the more striking features of this elaborate ceremonial, which is based on the theory that certain songs or performances will attract the novice from his distant abode and induce him to come back. As it is not known what performance may attract him, all conceivable ceremonies are shown during that night in order to try which will be effective.

There are a considerable number of dancing societies, as we might call them, each of which owns a certain ceremonial, and all of them come into activity in the endeavor to bring back the novice. Therefore this event is one of the most interesting performances to witness.

Among the secret societies there are a number whose duty it is to see that no mistakes from the prescribed ceremonial are made by

the dancers or by the audience. These are mainly the cannibals, who are initiated by the cannibal spirit, the bear dancers, who always wear bear's claws, and the madman dancers, who are armed with clubs and lances. They sit on an elevated seat in the rear of the house, and as soon as a mistake is made in a rhythm, tune or in a dance, they attack the unfortunate one who was guilty of this crime. The cannibals bite pieces of flesh out of his arm, the bears scratch him, and the madman dancers stab him. In very serious cases he may even be killed.

When the people are assembled, one dancer after another enters the house. The ceremony begins in the evening and often lasts until daylight of the following morning. I cannot describe all the masks which appear representing the protectors of the various societies, such as the wolf, the bear, the eagle, and other animals. I will at once proceed to describe those dances or ceremonies which are likely to bring back the novice and which possess a greater interest. Among these are the so-called war dances. Two messengers who are stationed at the door announce the arrival of the dancer by shaking their rattles. At once the singers begin to beat the planks. He enters dressed with an apron of hemlock branches, his trunk is naked except a wide neck-ring of hemlock branches, and he wears a crown of the same material. He carries in his hands a formidable club, the point of which is set with long spikes. He dances around the fire and suddenly drives the spikes of his club into his head and then into his neck. Blood is seen to flow down and he feigns to collapse. Then the medicine men are called up and after some incantations leave him hale and well. This performance is accomplished in the following way: The head-ring and neck-ring are wound around pipes made of the hollow stems of kelp, which are filled with blood. As soon as the spike enters the kelp the blood flows down. Another war dance is managed in a similar manner. The dancer is pierced by a lance—which actually slides back into its handle and which apparently produces a wound at the opposite side of the body.

In still another dance the performer appears naked. Deep gashes are cut in his back through which ropes made of cedar bark are passed. He carries a knife with which he is stabbing his head. Thus he is led about the fire. Then the ropes are passed over the beams of the house and he is pulled up. When he is thus dangling in the air, the madman dancers gather right under the place where he is hanging and hold their lances upright, so that, if the flesh should give way, the war dancer would fall on the lance points and

be killed. This cruel performance is gone through, with an astonishing amount of bravery. While the man is hanging from the beams he sings and stabs his head so that the blood flows freely.

When even *this* dance does not bring back the novice, the ghost dance is performed. A person, who, at a former time, was initiated by the ghost, enters the house dancing and singing. By his song he conjures the ghost. Suddenly the earth is seen to open. A skeleton rises from under ground, takes hold of the dancer and drags him down. His friends rush up to him and try to hold him, but in vain. One person, who succeeded in grasping his shoulders, is dragged under ground as far as his elbows, and is then seen to be dragged by his departing friend all through the house, ploughing up the floor with his arms. It is very curious to see him going through the house in this manner. It really looks as though he was being dragged, while in reality he pulls himself along a rope which is buried beneath the floor of the house and is covered with loose dirt. Finally, he lets go his hold. His friend has departed to the under world. Then the voice of the chief of the ghosts is heard to chant right from the middle of the fire. In order to produce this effect, speaking tubes made of kelp are laid from a hidden corner of the house under ground to the middle of the fireplace. After a while, the ground opens again and the dancer reappears from under ground. When he has finished his dance, the people begin a song in his honor. As soon as in this song the word "ghost" is pronounced, a terrible noise is heard on the roof. Four times it moves around on top of the house, then the planks are thrown aside and the novice is seen, pale and haggard. He stretches his trembling hands down into the room crying, *hap, hap*, the cry of the cannibal spirit. The people jump up and try to take hold of him, but when they reach the roof he has disappeared again. Now the father announces that, on the following day, the novice will come back.

Early the next morning, the madman dancers assemble in the woods at a clearing which is set aside for their meetings. They are painted with their peculiar designs and wear their weapons. Then they dance and instigate each other to watch for mistakes which may be made and to have no pity upon the guilty ones. The people remain in anxious expectation in their houses awaiting the arrival of the novice. Suddenly his cries are heard on the beach, not far from the village. All rush out of the house, run up to him and hold him. He is in a state of ecstasy and sings the new song which he received from the spirit. The people sit down around him and

learn the new song. At the same time they gather hemlock branches which they wind around their heads and around their necks. After they have learned the songs, the men take up a plank on which they beat time to accompany the tune. The women walk ahead and dance in honor of the novice, while he himself goes forward dancing the peculiar cannibal dance. He is surrounded by a number of assistants who shake rattles which are believed to have the effect of quieting him. Thus they slowly approach the village and arrange themselves in front of the dancing house, where the master of ceremonies and his speaker await their arrival. The former has the general charge of the ceremony. He arranges the dances, and now he hails the return of the novice, praising the power of the spirit who initiated him. But the novice is possessed of the desire of devouring men. He does not want to enter the house and all the singing of the people does not avail. Then one of his assistants strips off his clothing and offers to the cannibal his chest, his arms and his legs. He is called "the bait of the cannibal," because he offers himself to him as a bait is offered to a fish. The cannibal bites his arm and is then led into the house. Finally, he bites a piece of flesh out of the arm and then begins his dance. He dances in a squatting position, his arms first extended to the right, then to the left. He tries to attack the people, but is held by two assistants, who hold him by his neck-ring and shake their rattles in order to quiet him. Thus he dances around the fire four times. Then suddenly he disappears and comes forth again, wearing the mask of the spirit which initiated him. The dancer who wears the mask is crouching down and chattering with the movable jaw of the mask, while he shouts at the same time, *hap, hap!* the cry of the cannibal spirit. In this dance the novice personates the spirit which protects him. The two dances are repeated in the same order. During all this time the people sing and dance in order to appease the novice, who is getting more and more quiet, and finally disappears in a room which is set apart for his use. Then his father invites the people to stay in the house and gives them a feast.

Meanwhile, the novice must remain in his secret room. In the evening the people assemble again and he repeats his dances of the morning, again biting the people. In olden times—and that not very long ago—slaves were slain at this occasion and eaten by the new cannibal, who ate the first morsel, to be then joined by the other older cannibals. For four nights these ceremonies are repeated. Then the cannibal has become calmer and his holy fury begins to leave him. He has no further desire for human flesh, and all that

remains to be done is to cleanse him. This is a long and elaborate ceremony, which is performed in the dead of night, few witnesses only being admitted. The whole body of the cannibal is washed in a prescribed manner. Then he is wiped and finally smoked. Even after this cleansing he must abstain from many actions. He must not eat with other people, he must not touch the brim of a cup, but drink through the wing-bone of an eagle; he must not go out of the door of the house, but use a separate entrance, until finally, after four months, he is free again to join the rest of his tribe.

In conclusion I wish to make a few remarks on the history of the curious ceremonial which I have here described in hasty outlines. An inquiry into its origin reveals facts which throw a new light upon a great part of the early history of the North American aborigines, and which are also suggestive for a proper understanding of the development of religious ceremonial. I indicated before that the whole ceremonial is based upon legends, many of which convey the impression of great antiquity. Many of the stories which are told to account for the origin of portions of the ceremonial are ancient legends, which we are accustomed to consider as part of the oldest lore of mankind. Therefore the inference seems justified that the greater portion of the ceremonial must be very old.

A comparative study of the fundamental legends shows, however, that this view is quite untenable. When scanning collections of traditions from neighboring tribes and from others who live in remoter territories and to whom the ceremonials of the Kwakiutl are entirely unknown, we find many a one which is in all essential parts identical with those of the Kwakiutl, and very often the weight of the evidence is such that we must assume that the legend was borrowed by the Kwakiutl from a foreign tribe and introduced into the winter ceremonial. I have carried out this inquiry in great detail and reached the conclusion that many of these tales were carried down Columbia River after having crossed the Rocky Mountains. Then they spread along the Pacific Coast until finally they reached the Kwakiutl. But this is not all. There are quite a number of points of resemblance, even of identity, which clearly point to an importation of ideas from Asia. I told before of a story of the magic flight of four brothers, one of whom threw a whetstone, a bottle of oil and a comb over his shoulder, which were transformed into a mountain, a lake and a thicket. In Indian tales we find a fleeing couple throwing earth, water, thorns and fire over their shoulders. We find the same incident in a story from the Scotch Highlands and in another one from the Samoyedes; in fact,

it is one of the most widely spread tales of the Old World, and since, in America, it seems to be confined to the North Pacific Coast, which is so near Asia, I conclude that it was imported there from the Old World. We conclude from these facts that the mythology explaining the ritual of the winter dances is not as old as it seems, but brought together from numerous sources, and comparatively recently. Although apparently the ritual is based on the myths, it seems that much more probably the myths of foreign peoples were appropriated in order to explain and develop a ritual which originally consisted only of disconnected dances. In order to give it greater weight it was connected with these myths and thus by degrees an elaborate ceremonial and an elaborate mythology developed from insignificant sources, the one sustaining the other. This phenomenon may be observed often in studies of the ceremonials and rituals of mankind, and we may pronounce it a general law that wherever a ritual is found, a mythology will begin to form around it and will in its turn enrich and diversify the ritual.

The geographer, from the study of our small groups of phenomena, derives the conclusion that transmittance of culture by intertribal trade has taken place all over the American Continent and that points of contact between the Pacific Coast of the Old World and of the New World must have existed for very long periods.

THE AMERICAN ASSOCIATION.

The forty-fifth meeting of the American Association for the Advancement of Science was held in Buffalo beginning with the meeting of the Council on Saturday, August 22d. The general sessions opened on Monday and the meeting continued throughout the week until Saturday, which was given to excursions. It is worthy of note that this was the fourth meeting held in Buffalo, the Association having met there every tenth year since 1866.

At the first general session the retiring President, Professor Edward W. Morley, called the meeting to order and introduced the President-elect, Professor Edward D. Cope. Bishop Charles H. Fowler, D.D., pronounced the invocation. The Hon. Edgar B. Jewett, Mayor of Buffalo, delivered the address of welcome from the city, and Professor Cope responded. In the afternoon eight vice-presidents delivered addresses before their respective sections; and in the evening the retiring President gave a learned address before the Association on the subject, "A Completed Chapter in the History of the Atomic Theory."

Vice-President B. K. Emerson, of Amherst, Mass., chose for the subject of his address before the Section of Geology and Geography, "Geologic Myths." He announced that he would speak of "The Chimaera, or the poetry of petroleum; of the Niobe, or the tragic side of calcareous tufa; of Lot's wife, or the indirect effect of cliff erosion; and of Noah's flood, or the possibilities of the cyclone and the earthquake wave working in harmony."

The myth of the Chimaera, he said, was told in its earliest form by Hesiod, who lived about nine centuries before the Christian era; and a little later by Homer. In each of these verses, which he quoted, the Chimaera is represented as a huge monster having the head of a goat, the body of a lion and the tail of a serpent, from whose mouth and nostrils issue flames of fire. Tracing the origin and development of this myth, Professor Emerson showed that it was derived from the remarkable geological phenomenon of natural gas burning on the peak of a mountain of serpentine and limestone in Lycia. This burning mountain was seen by Admiral Beaufort while off the coast of Lycia toward the end of the seventeenth century; and according to tradition it has burned there for nearly 3,000 years. "Ruins of an ancient temple of Vulcan near by and a little Byzantine church show how strongly it has impressed the inhabit-