

The decorative art of the Amur tribes / by Berthold Laufer.

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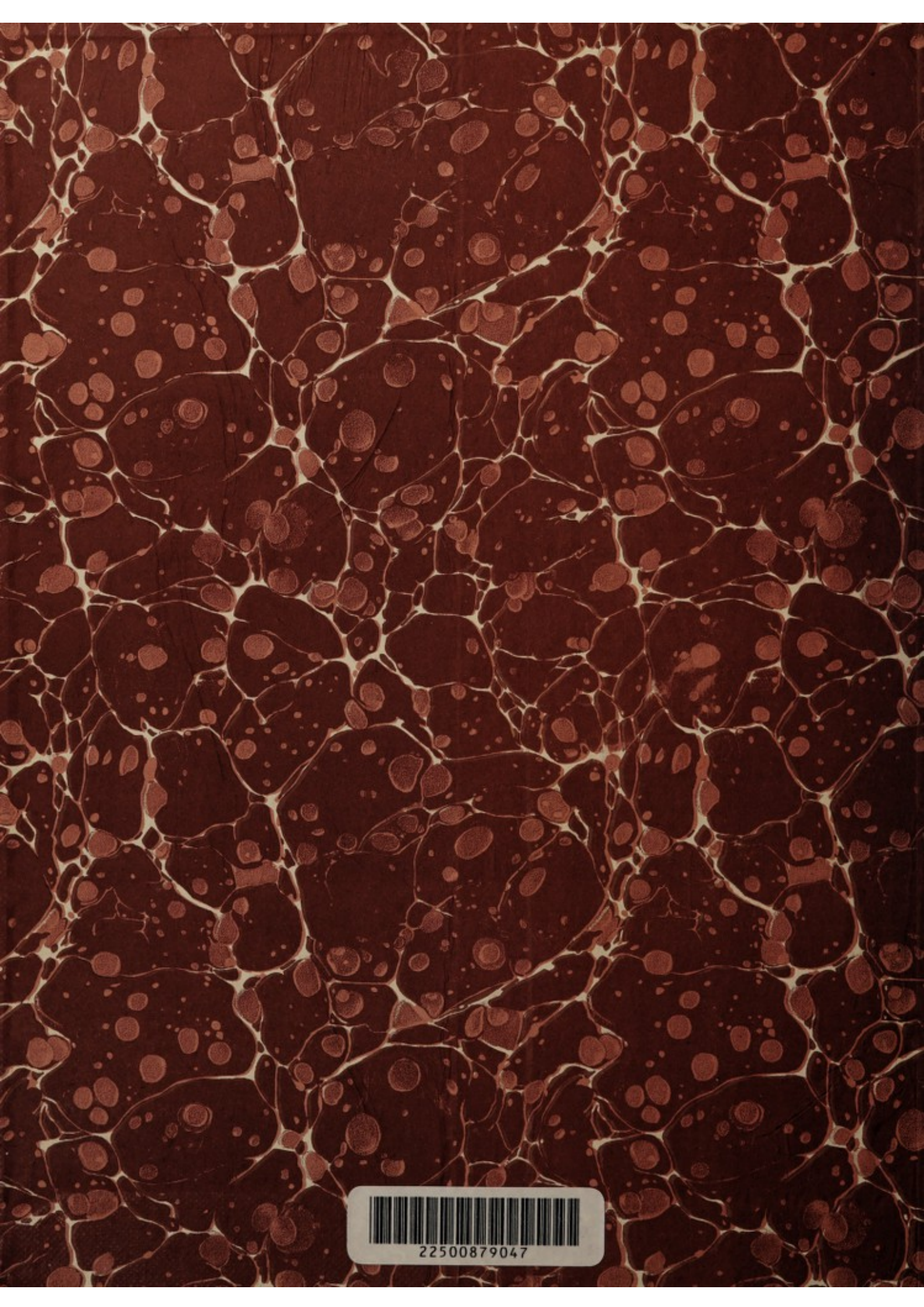
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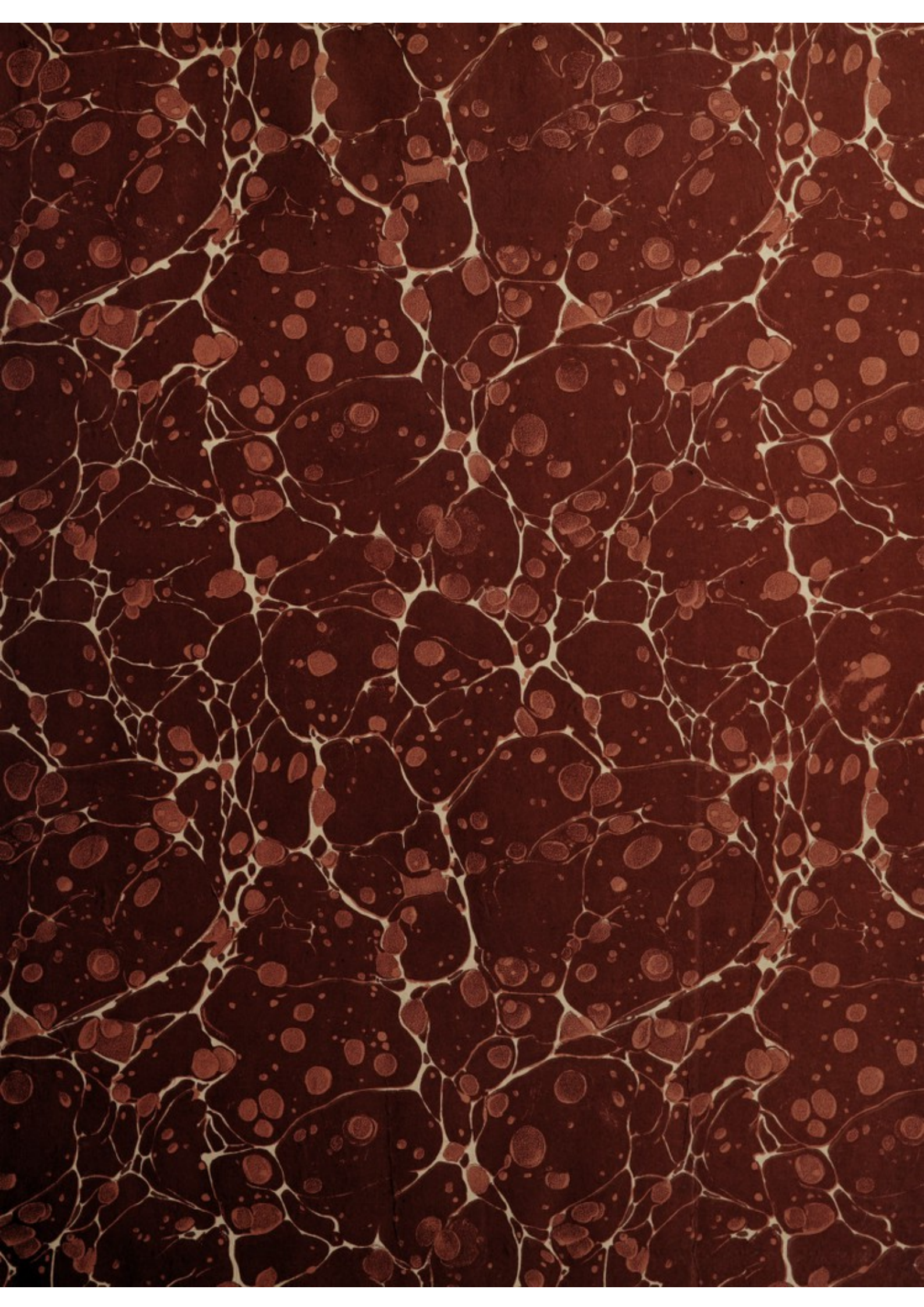
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THE JESUP NORTH PACIFIC EXPEDITION.

I.—The Decorative Art of the Amur Tribes.

BY BERTHOLD LAUFER.

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MEMOIRS
OF THE
AMERICAN MUSEUM OF NATURAL HISTORY.

The Jesup North Pacific Expedition.

I.—THE DECORATIVE ART OF THE AMUR TRIBES.

BY BERTHOLD LAUFER.

PLATES I-XXXIII.

THE material published and described in the following pages was obtained under the auspices of the Jesup North Pacific Expedition during my two years' researches among the various tribes of Saghalin Island and the Amur region.

There is not much literature as yet bearing on the decorative art of these tribes. Schrenck, in his fundamental work "Reisen und Forschungen im Amurlande" (Vol. III, pp. 399-401), makes a few remarks on the subject, emphasizing the peculiarity of the Gilyak ornaments, which are totally different from those of all other Siberian peoples. He sees in them an evident Chinese influence. No explanations of the ornamental figures are unfolded in his book. Further, H. Schurtz, in his paper "Zur Ornamentik der Aino" (Internationales Archiv für Ethnographie, Vol. IX, pp. 233-251), has considered to some extent the ornamentation of the Amur tribes so far as known to him. It would carry us too far to enter into a minute discussion of the leading problems there treated, the alleged solution and disentanglement of which fall to the ground when compared with the results of investigations in the field. I must confess, I adhere to the principle that ornaments should not be regarded as enigmas which can be easily puzzled out by the homely fireside. Neither are ornaments of primitive tribes like inscriptions, that may be deciphered: they are rather productions of their art, which can receive proper explanation only from the lips of their creators. They are comparable to modern symphonic compositions, that are incomprehensible without the printed synopsis in the hands of the auditors. The writing of such guides can only be accomplished by consulting the native artist as to his own fancy concerning the significance of the ornaments evolved from it. The human and bear heads which Schurtz claims to have ferreted out exist not in the

minds of the natives. Artistic representations of the bear in wood-carving are limited to the Gilyak, for use at their bear-festival. This animal, however, is never reproduced in drawings or paintings, either in natural or conventional form, according to the verbal testimony of both the Gilyak and Gold. Neither have I myself discovered even a trace of the bear-heads suggested by Schurtz. Of the existence of his eye-ornaments, apparently a mere outcome of his enthusiasm, my authorities were also entirely ignorant.

I am under obligations to Professor A. Bastian for permitting me to take advantage of those collections in the Königl. Museum für Völkerkunde in Berlin which relate to the Amur region, and which were made by Captain A. Jacobsen. I have also to thank the authorities of the Königl. Kunstgewerbe Museum in Berlin for placing at my disposal fourteen specimens of Chinese and Japanese weavings. These objects from the two Berlin museums have been drawn by Mr. W. von den Steinen; drawings for the other illustrations were prepared by Mr. Rudolf Weber. A list of plates is given at the end.

HISTORICAL ASPECT. — The history of the decorative art of the Amur tribes is shrouded in mystery, since no written records give any account of it; nevertheless we may be able to make some historical observations regarding its development. A comparison of the artistic material found in my collections with that obtained by Schrenck nearly half a century ago, and illustrated in his work "Reisen und Forschungen im Amur-Lande," affords instructive evidence that the forms of this sphere of art have remained unaltered up to the present time, notwithstanding all political turbulence and change that have affected the Amur region in the mean time. Although Russian influence is nowadays all-powerful, yet it has not been able to suppress or eradicate native art, nor to replace it by something better, for the apparent simple reason that the Russian settlers had indeed nothing better to offer. Whereas Russian "culture" tended to shatter the entire life of the natives, its effect is the more striking and remarkable in view of the fact that the native art has been retained pure and intact. From this we may be justified in inferring that their artistic conceptions have taken deep root in the hearts of the people, and have acquired a high value in their intellectual world. The tenacity with which the style of art survives should be counted as evidence of its national character, at least of an ancient naturalization on the soil in which it was planted. On the other hand, we observe at first that the forms and conceptions of this ornamentation are imbued, for the most part, with a Chinese spirit; but considering the historical feature just mentioned, and, moreover, the fact that the present aspect of the wide propagation and the skilful execution of this art all over the Amur region can be the result only of long-enduring tradition, it can hardly be designated *en masse* as a Chinese importation. Its basis rests undeniably in China. In the course of time the Amur tribes appropriated Chinese forms to themselves, and very likely further developed them independently. The introduction of Chinese devices must surely date as far back as the earliest connec-

tion of the Chinese with the Amur region and with Tungusian tribes. This art was perhaps first introduced as a mere fashion, which overruled taste, then gradually infused itself into the minds of the people, who in this way absorbed and assimilated a part of the Chinese art, as the nations of Europe imbibed classic art in the period of the Renaissance. It was due no less also to a congeniality of the minds of the two peoples. At present it is hardly possible to define exactly the historical relation between Chinese and East Siberian art, especially since the art of China, and particularly its ornamentation, has as yet been so little explored.

We read in the annals of Chinese history that the great body of Tungusians knew nothing further than the use of wooden tallies with certain rude conventional marks, which served as bonds in case of contracts; and that then A-paou-ke, the first emperor of the Liao Dynasty, employed a great number of Chinese; and they instructed him, by an adaptation of the official Chinese writing, with certain additions and contractions, how to construct several thousand characters, by which the engraved contract-tallies were replaced, these new forms referring to the beginning of the tenth century. Although the Khitans thus early took the lead, their example was not followed by their neighbors, at least not for many years; for up to the twelfth century we still find the Niüchi chiefs issuing their orders by the old device of an arrow with a notch in it, while matters of urgency were distinguished by three notches. On their establishment as the Kin Dynasty, however, they for the first time gained a knowledge of written characters.¹

Since writing forms a most important part of art, according to Chinese views, we may conclude that the introduction of ideograms among Tungusian tribes became at the same time the incentive for adopting also ornamental and decorative forms. So, too, we may be sure that the ornamentation of these Tungusian tribes can have been but very poor before; and from this point of view it is still more likely that they felt themselves under the necessity of adopting Chinese ornaments. From remote times the forms and figures of Chinese ornament may have been handed down among the Amur tribes for many centuries; and thus it may even be the case that traditions regarding the meaning of certain patterns are fuller, and have been better preserved in the minds of these naïve unlettered tribes than in the fast-fading memories of a writing nation. If the patterns of the Amur tribes were derived from China, it is most astounding that exactly corresponding devices have never before been discovered in that country, nor adequate explanations obtained for related ones. It is true that we know very little about Chinese ornaments; nevertheless, from the fact that the inhabitants of the Amur country have now given us the first clew to patterns of apparent Chinese origin, we seem to be justified in concluding that they are founded on a better-preserved oral tradition there. Further, we may infer that examples similar to those in our ornaments are necessarily still to be found in the large province of Sino-Japanese art. Those Chinese and Japanese designs which

¹ Wylie, *Chinese Researches*, Vol. II., p. 254.

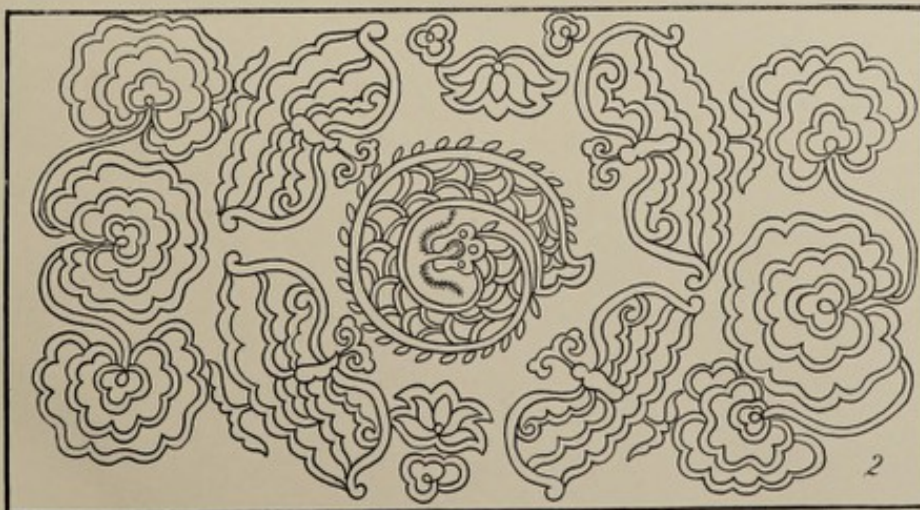
I shall here compare with our Siberian devices cannot prove, of course, the direct historical connection between the practices of both arts: they are merely material chosen to demonstrate some characteristic congruous features, which may bear witness, if not to the exact degree of relationship, yet to a general one.

What is necessary, first of all, to sift out, is the ornamental art of the Manchu, and those Chinese peoples in the northern part of the Celestial Kingdom bordering on Siberia. The source from which the Amur peoples have drawn may be discovered there. After all, it is clearly too intricate a problem, thus far, to distinguish accurately between what of their art the Amur tribes owe to their masters, and what to themselves. A great many features should be attributed to direct Chinese transmission. On the whole, therefore, the standpoint to be taken, in a consideration of the decorative art of these tribes, must for the present be one that looks upon it as an independent branch of East Asiatic art, which sprang from the Sino-Japanese cultural centre. The exact historical position of this domain of art in the grand framework of this culture has yet to be ascertained.

The dependence of the art of the Amur tribes on the Chinese arises, in the next place, from the fact that Chinese models are immediately copied by the Gold. The explanation of such reproductions can be drawn only from the realm of Chinese conceptions. Many Chinese designs are simply based on a play upon words; that is, abstract ideas are symbolized by an object the name of which is homonymous with that of the former, although written with different characters. On Plate 1 are combined three designs, apparently Goldian copies of Chinese originals. Fig. 1 represents somewhat more than half of a sleeping-mat covered with a silk embroidery. Around the central circle, surrounded by a key pattern, are grouped four bats and four butterflies, alternating with each other. The meander is repeated in semicircles in the four corners. The bat is called in Chinese *fu*; there is another word *fu* with the meaning "good luck." The butterfly is designated *tieh*; this same complex of sounds means also "aged." The abstract idea of this pattern is therefore that it may convey to the possessor old age and good luck. Fig. 2 shows the design on the top of a Goldian teatable. The centre is occupied by the dragon in the exact style of that seen so frequently on Chinese porcelain boxes and other objects. On either side it is beset by two bats. To the right and left of these is a vine bearing three blossoms. Fig. 3 represents a square kerchief of bluish-green silk lined with red cloth and edged with a black border. In the middle we see a conventionalized form of the Chinese character *shou* ("long life"). Around it are four butterflies hovering over plum-blossoms. They are embroidered in the most variegated colors. Plum-blossom is called *mei*, and is looked upon as the symbol of beauty, as *mei* also signifies "beautiful." This pattern presents, accordingly, an allusion to long life, old age, and beauty.¹

Among other Chinese forms which we meet with in East Siberian art we

¹ See W. Grube, *Zur Pekinger Volkskunde* (Veröffentl. aus dem Mus. f. Völkerkunde, Berlin, Vol. VII, p. 138).



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find the svastika and the triskeles. Furthermore, the animals which appear in the designs of the Amur natives are just like those which play an important part in Chinese art and mythology. It is indeed most remarkable that animals, such as the bear,¹ the sable, the otter, and many others which predominate in the household economy, and are favorite subjects in the traditions as well as in daily conversation, do not appear in art, whereas the ornaments are filled with Chinese mythological monsters which are but imperfectly understood. In the progress of this paper we shall see, further, that the cock, the fish, the dragon, and other creatures are also loans. As with the Chinese, the representations of animals are not connected with concrete ideas: they have merely an emblematic meaning, and they symbolize abstract conceptions. The art of the Amur peoples is lacking, therefore, in realistic character, and merges into the formative. Objects of nature are not reproduced; but foreign samples handed down from generation to generation, and at last assimilated, are continually being copied. Many women retain in their memories a great variety of patterns, and cut them out of paper with a speed and dexterity that are worthy of admiration.

SOME GENERAL CHARACTERISTICS OF ART AND ARTISTS. — Generally activity in the province of art is limited to the decoration of surfaces. The sense for plastic representations is lacking. These occur rarely, and are to be found only under exceptional circumstances. Animal carvings are met with on the richer sepulchral monuments of the Gilyak. Dishes and spoons, for use at the bear-festival, are adorned with carved bears. For a boy's toy, the bear is also crudely carved out of wood, and perforated above at the back to allow of a string passing through it, on which the figure is moved up and down. Other animals also — as, for instance, dogs, frogs, lizards, carp, salmon — are cut out of wood by the Gilyak as well as by the Gold, for use as playthings. To the prow of a boat is sometimes attached, especially among the Gold, a wooden duck, generally of rude workmanship. The wooden *burchans* — images of deities — which are manufactured according to the direction of the shaman, for the purpose of curing disease, — a new effigy on each occasion, — can by no means claim a place among works of art, since they embody only the particular attributes required in the special case in question, and, for the rest, remain a *rudis indigestaque moles*. Most striking is the lack of ability to draw human faces or forms; the more so, since, on prehistoric monuments of the Amur region, petroglyphs have been found which doubtless represent human heads. Where such occasionally occur, — as, for instance, in certain paintings on Goldian paper charms (so-called *boacht*), — they reveal an appalling crudeness. In fact, human faces are never met with in

¹ One of the principal faults of Schurtz's studies, cited on pp. 1 and 2, lies in the fact that the single forms of ornaments have been extricated from the larger groups in which they occur, and the connection they originally had has thus been dissolved. Ornamental forms have ever-varying significations, according to the combinations in which they are used. Fig. 1, on p. 235 of Schurtz's paper, borrowed from Schrenck, and interpreted by him as a bear's head, is the ingredient of a composition covering the back of a Goldian or Gilyak fish-skin garment. The whole figure should be inverted, and then we see obviously the cock with fish in its beak, and perched on an ornamental figure intended to represent a tree.

decorative art; and even where we should imagine they might be, they are earnestly disclaimed by competent native judges. Nevertheless, Schrenck states substantially, "Crude and primitive representations of the human face by means of a pair of circles with a point in the middle, a vertical line between them, and a horizontal below them, as eyes, nose, and mouth respectively, occur not seldom on utensils of the Gilyak, and owe their origin, I believe, to the idea that by placing them on an object the influence of evil spirits may be avoided, and the use of the implement attended with success."¹ I have not succeeded in discovering the slightest vestige of proof of such a statement.

The materials used by the Amur tribes for expressing their ornaments are wood, birch-bark, fish-skin (especially salmon and sturgeon skin), elk and reindeer skin, cotton, and silk. All decorations are executed by means of a long, sharp, pointed knife. As regards special points of technique, they will be found at the proper place.

All needlework is done by women, and clever embroiderers especially enjoy a high reputation among their countrymen. To be skilful in such work is regarded as a great merit, and increases exceedingly the value and esteem of a girl in the eyes of her father, who, a careful calculator, includes the amount brought in from this talent in the purchase-price due from his son-in-law. Men, on the other hand, aspire to possess a woman experienced in this line of art, and take great pride in her work; while wives are proud of dressing up their husbands with all the costly and gaudy art expedients available, and vie with their fellow-artists in their zeal to produce the most striking effects.

GEOGRAPHICAL ASPECT. — Schrenck, in his book previously mentioned, says (p. 401), that, besides among the Gilyak, the same style of ornamentation as is met with on clothing and other objects is also to be found among all other peoples of the lower Amur region, from the Gilyak upstream, along the main river as well as along its tributaries, as far as the Sungari River. "In spite of the fact that these tribes are of Tungusian origin," continues that author, "still they have nothing in common with the Russian-Siberian Tungus regarding the ornaments used by them, but follow the Chinese and Gilyak. In this connection one is struck by the fact that the sense for ornamentation, and its display in the Amur country, do not decrease, but increase, with distance from the most influential cultural people, the Chinese, and culminate among the Gilyak, who live farthest away from them." The reason for this is sought by Schrenck, not in the natural dispositions of the peoples in question, but in political conditions. The Gilyak remained independent of the rule of the Chinese, and thus attained to greater opulence than the Tungusian Amur tribes subject to the Chinese. Secure in their property, they were necessarily better able to enjoy it, and to feel an incentive to adorn and embellish their clothing and implements.

This statement and its accompanying hypothesis are decidedly erroneous.

¹ *Reisen und Forschungen im Amur-Lande*, Vol. III, p. 402.

Schrenck's investigations were unduly devoted to the Gilyak, and in his predilection for these he likes to hold them up as superior to all other tribes of the Amur country. As I visited first the east coast, and afterward the interior and the western part, of Saghalin Island, later the entire lower Amur region from the mouth of the river up to Khabarovsk, I had an opportunity to study and judge of the activity of the people in branches of art also from a geographical point of view. On my journeyings my observations led, first of all, to the deduction of a prevailing law: namely, that the nearer the people live to a centre of Chinese culture, the higher the development of their art; the farther they recede from it, the less their sense of the beautiful. The art of the Gilyak of Saghalin is very poor and undeveloped; they possess a limited number of ornaments, and are unable to produce complicated compositions like those found on the mainland, as they themselves assured me. The farther east one goes the more destitute, and the farther west the more gorgeous, is the display of art, which reaches its climax in and around Khabarovsk. Indeed, the most artistic embroideries of our collection all came from this metropolis, where the Gold dwell in the immediate neighborhood of the Chinese, and have frequent intercourse with them. It is evidently owing to this influence solely that the Gold have attained to such extraordinary skill in the art of silk-embroidery, the knowledge of which, in its highest degree of perfection, is restricted to those inhabiting that area.

This geographical observation confirms anew the establishment of the historical truth regarding the affiliation of the arts of both groups. As the Gold are generally the most talented representative of the Amur tribes, so they are also those who possess the best understanding of decorative art and the largest number of individual artists. From the correspondence of the Gold and Gilyak patterns, it may be concluded that the Gilyak have derived the greater part of their motives from the Gold. Perhaps only the band-ornaments belonged originally to the former. This tallies with other cultural phenomena, for in all probability the Gilyak have adopted a considerable portion of their material culture, as well as a large mass of traditions and religious conceptions and institutions, from the intellectually superior and more versatile Gold. The decorative art of the Amur tribes is accordingly to be regarded, on the whole, as that of the Gold, who occupy the most prominent place in it.

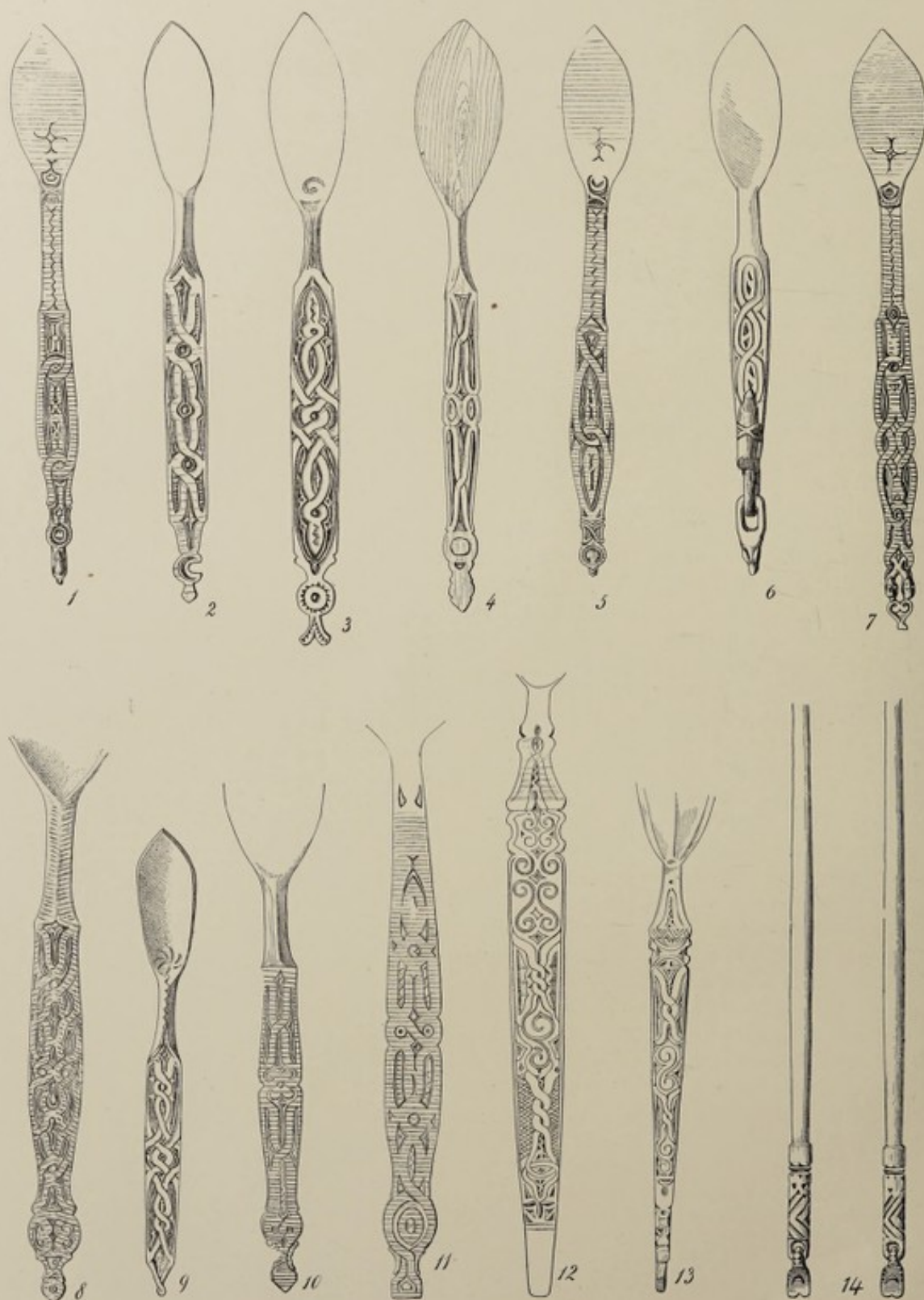
This manner of geographical dissemination explains the uniformity of character of this art; so that diversities, if any exist, lie much less in a varying distribution of the patterns over geographical provinces than in the different grades of execution dependent on the tendency of artists in one community to concentrate their individual minds on particular lines of work, in which, in the course of time, their unequally allotted talents have received special training. The Gold, as a rule, are well versed in all branches of art, and excel all other tribes in proficiency in embroidering; the Gilyak may be superior to others in wood-carving; and the Tungusian tribes of the Amgun and Ussuri Rivers

are unsurpassed in cutting ornaments for decorating birch-bark baskets. At all events, if we consider the geographical distribution of decorative design in these regions, the art industry carried on by the Gold in Khabarovsk and its environs remains the central circle from which the practices of the other tribes radiate, and lose in light and warmth toward the periphery.

Although the elaboration of ornaments is still actively going on, and in no more danger of dying out than the Gold and Gilyak themselves, yet the people, whose interests are more and more absorbed by recent demands of Russian intercourse, seem to overlook the relics of the past; at least at times they fail to understand their own singularity, for I came across but few individuals who were able to "read" their ornaments. To the great mass of the people they are indeed a mystery. Perhaps, however, they have never paid much attention to decoration, which may always have been confined to the initiated. If the common people are questioned as to the significance of a particular ornament, their usual answer is, accompanied by a shrug of the shoulders, that it is only for decorative purposes. Very few expert artists are able to give approximately satisfactory information, and even what they do give is fragmentary, and probably a mere skeleton of what must have been known about the subject in previous times; so that out of these shreds it is hard to piece together the perfect original fabric. The following account is an objective, although somewhat disconnected, record of the ideas which the native artists of to-day know how to develop on their productions. I think the clues obtained from this source of interpretation should form the impassable boundary to our knowledge in this domain of research, beyond which limit we should not attempt to go; for we should neither pretend nor strive to know more about things than the people who have made them. Gaps may in many cases be filled in, perhaps, by comparisons of single pieces one with another. An explanation for a definite form cannot be transferred unhesitatingly to another homologous one, except on the condition that the latter appears in the same connection of lines and structures as the former,—the same rule as holds regarding comparisons of traditions of various tribes. Just as in a fragmentary manuscript many a missing link may be guessed at, inferred, or even restored, so may it also happen in ornamentation; nevertheless one ought never to be off one's guard, but should adopt the expectant method until new sources are opened from allied provinces, be our present knowledge never so meagre and even in shreds.

Our investigation starts with an analysis of the simple component forms of this ornamentation, i. e., the band and the spiral, and will then deal with the usual forms of animals.

BANDS.—The fillet or band ornament occurs primarily on handles of spoons. Such decorated spoons are now things of the past. At the present day they are used only by the Gilyak, on the occasion of the bear-festival, having been superseded in every-day life by spoons of Russian make. The specimens represented



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in Figs. 1-11, Plate II, are old pieces from the most remote villages of the Liman, and have long been in use. These spoons are made by special artists, for particular use a short time previous to the bear-festival, and are characterized by their elegant and graceful shapes and by their elaborate ornamentation. The ends of the handles are carved into forms which, in most cases, have special reference to the bear-festival. Some present sculptured bear-figures, others figures of sun or moon. Before describing the bands, I will discuss these carvings.

The handles of the spoons illustrated in Figs. 5 and 9 of this plate were originally surmounted by bear-figures, which, unfortunately, had already been broken off when the specimens were obtained. Fig. 1 shows a bear in the act of walking, on top of which another bear originally stood, but it is now missing. The handle of Fig. 7 is surmounted by an open-work carving, the main portion of which consists of two bear-cubs side by side.

In Fig. 6, Plate II, is represented a very realistic scene bearing upon certain events of the feast itself. Near the end of the handle may be seen the image of a standing bear bound around its body with two ropes, which cross each other over the back. This has reference to the first of the ceremonies connected with the festival, when the bear is taken from its cage, tied with ropes, and led to the scene of festivities. The extreme end of the handle consists of a movable link carved out of the same piece of wood as the perforation through which it passes. This link terminates in the figure of a bear-head, which is intended to represent the head of the bear that is shot with bow and arrows at the close of the feast, and exhibited in the house of the host.

The bowls of the specimens, Figs. 1, 5, 7, Plate II, which are adorned with carved figures of bears, are further decorated with svastika-like figures, the central part having the form of a rhombus or lozenge. In the latter two there is a St. Andrew's cross within the lozenge. Each of the two vertical arms of the svastika branches off into two curved tips, while the extremities of the two horizontal arms bend upward (as in Fig. 7), or one curves upward and the other downward (as in Fig. 1), or both point downward (Fig. 5). At the base of the bowl is a primitive representation of the sun, which implies a symbolic meaning connected with that of the svastika and the bear-carvings. On Fig. 9 there is a variation of the svastika, perhaps developed by the insertion of a triskeles in such a way that its arms alternate with those of the svastika.

On the bowl of Fig. 3, Plate II, we observe the figure of a crescent hooked at one end, while the handle is surmounted by a carved ring, the two incised concentric circles on which represent the sun. The outer circle is set with a row of small triangular figures symbolizing rays. A more primitive representation of the sun is to be seen on specimen Fig. 4, and a crescent surmounts the handle of Fig. 2.

On Fig. 6, Plate II, we meet with the simplest form of the fillet-ornament, which here runs around in two windings, forming three loops. If we take into consideration the earliest stages in the development of this special ornament, it

will at once be understood, that, owing to its form, it was readily employed on spoon-handles; for it is easily adapted to the space available, since it admits of lengthening or shortening to suit the decorative field, and, besides, contributes in a high degree to the gracefulness and elegance of the spoon; furthermore, if we regard the special purpose of these spoons, we may perceive a certain connection between this pattern and the representations of the bear. In the case of the spoon represented in Fig. 6 the fillet-ornament may be considered as the continuation of the ropes with which the carved standing bear is bound, and this may be the underlying reason for the employment of this ornament on spoons specially designed for use at the banquet of the bear-festival. Not alone from this example, but from other instances as well, may it be seen that a deeper connection exists between the fillet and the object, or the purpose of the object, on which it appears. At all events, the bear-figures in combination with the fillet-ornament should not be regarded as merely accidental. From this point of view, spoons decorated in similar style, but without bear-carvings, should be ascribed to a secondary stage of development.

In almost all spoons there is a narrow curved portion between the bowl and the handle proper. Seen from the side, this narrow section, in most cases, forms, with the edge of the bowl, nearly a half-circle. In Figs. 1, 5, 7, 9, Plate II, this part of the handle adjoining the bowl is decorated with a simple zigzag line, which appears to be a single thread drawn out from the main ribbon symbolizing the band-ornament. Among the spoons in the collection, this serpentine line occurs on those specimens only which have carvings of bear-figures in combination with the svastika. The majority, however, are undecorated on this part, while a few bear an incised figure composed of lines parallel with the curved line of the edge, as in Fig. 3. On the last-named specimen a short zigzag appears at the upper, and another at the lower, end of the handle proper, inside of the fillet. A few spoons, as those in Figs. 1, 5, 7, and 8, have rib-like designs on this part.

The Gold have no bear-festival, and naturally, therefore, possess no spoons decorated with symbols like those above described. Neither do we find any serpentine lines on their spoons.

The bands on these spoons are all formed of the raised portions lying between two parallel incised lines, the latter being of a negative character only; that is to say, the incised parts serve merely to outline the ornament, and in some cases also to fill in otherwise vacant spaces. In themselves they are not ornamental.

On Fig. 1, Plate II, we observe a band twisted at two points. Inside of this band are designs identical with those of the arm of the svastika on the bowls. On the next specimen (Fig. 2) two bands intertwine, forming two circular knots. The portion between the knots curves out at the centre on either side, admitting a third knot, indicated by an incised circle. The negative parts at both ends are filled up with short parallel horizontal lines, and in the centre with single vertical lines. The ornament in Fig. 3 consists of three bands. The middle one forms a circular knot at both ends and a large rhombus in the centre. Two short side-

bands are so intertwined as to form a circle within the rhombus. The ornamentation on the handle of Fig. 4 is made up of a pair of cords or lacings, one simply thrown over the other a short distance from either end, which form at the centre two contiguous ellipses. In Fig. 5 the same principle of the band-ornament is employed as in Fig. 1. In each of the two ellipses formed by the band-ornament are two peculiar designs which happen to look very much like old Assyrian cuneiforms. On Fig. 7 are three bands artistically twisted. One band runs along both sides of the handle, bending at the centre into two contiguous curves; the second band forms a rhombus in the middle; and the third intertwines with the first, and then continues in the direction of the bowl. The middle part of the handle of Fig. 8 is occupied by two bands interlaced with each other and closed at both ends. They are joined by a short double band at each end for the purpose of rounding off the ornament. The spoon in Fig. 9 is ornamented in a style similar to that in Fig. 3; the small rhombuses in the interstices also occur. The handle of Fig. 10 represents two double bands arranged in a manner similar to those on Fig. 4. They are interrupted in the centre, however, by a different figure. This ornament, which is also to be seen at the extremity of the handle of Fig. 8, occurs frequently in later examples in connection with the spiral.

The decoration represented on the ladle Fig. 11, Plate II, is likewise composed of the band-ornament, but it differs from the designs hitherto explained in that the band is indicated at two places only — once in the middle and again at the end — by short connecting lines, and that the negative parts, between which one has to look sharply to discover the band, are more prominent (*cf.* Figs. 4-6, Plate IV).

Figs. 12 and 13, Plate II, illustrate spoons of Goldian origin. The former represents the handle of a large fish-ladle; the latter, that of a spoon for eating. In the fillet on the Goldian spoons the pure and rigid forms of the Gilyak are not adhered to, and much less space is required for it, as it alternates with spiral-ornaments. Fig. 14 shows a pair of chopsticks, — a mere imitation, of course, of Chinese-Japanese work, — which are interesting here because they show an incised crescent at their ends, and terminate in movable pieces, as in Fig. 6. The decoration on the handle consists of short parallel converging lines which meet in acute angles. Chopsticks are used but seldom, and only by such of the wealthy and noble as lay great stress on etiquette and are fond of imitating foreign customs. The most common method of eating is to use one's fingers, and finally to lick the plate with the tongue.

SPIRALS. — We shall now enter into an examination of the kinds of spirals to be found in this sphere of artistry, and discuss a series of objects on which they occur.

Fig. 1, Plate III, represents an eye-protector, which is tied with a string around the forehead, and shades the eyes from the snow in sledge-driving. It is especially worn during the transition period between winter and spring, when the snow begins to melt. It is made of cloth, and has a simple spiral-ornament

stitched into it. There are two outer and two inner spirals corresponding to each other symmetrically, the latter two coinciding at the centre.

In Fig. 2 of this plate we see one of the two symmetrical halves of a design painted on the upper edge of a pair of leggings. The ornamentation is on a piece of fish-skin, which is sewed to the material of the leggings. The trapezoidal section across the top, the narrow stripe under it, and the lower border-line, as well as five of the large dots inside, are red; all the rest, deep black. The ornament starts with a spiral winding round to the left, the centre of which is indicated by a small thickened circle. To this spiral is attached, on the right-hand side, a figure the foundation of which appears as a simple wave-line from which proceed three scroll-like branchlets. The upper ones run in the same direction as the main spiral. The branch nearest the main spiral sends out a smaller offshoot in the form of a triskeles.

The wooden Gilyak box of cylindrical form, shown in Fig. 3, Plate III, is decorated with an ornament that offers a typical example of a compound spiral. From one and the same centre proceed two spiral bands, one within the other, and both running in the same direction. The line forming the spiral is made up of three incised lines, close together and parallel to each other, which throw out in relief the two intervening spaces. The spaces between these groups of lines form bands, which continue from one spiral into the next, producing alternately two knots and one knot, that serve to connect two adjoining spirals. In the upper and lower edge of the spirals are twisted knots; so that one may look upon this pattern also as a very artistic interlacement of bands, which sometimes results in knots, and sometimes in spirals. All together, there are four such spirals covering the convex surface of the cylinder. On the inside of the bottom of this box is found a peculiar variation of the svastika, in that the design has two additional arms on the sides.

Fig. 4, Plate III, shows the cover of a decorated tobacco-box. It is ornamented with three spirals, the central one smaller than the others, which are treated at the same time as band-ornaments. Each spiral figure is composed of two spiral lines of the same direction, one within the other. All three figures are solid spirals. In the spirals at the top and bottom the regular circuit of the windings is interrupted by two circular inlaid bands which cross the spiral lines at two places; that is to say, they run under them: in this way in one semicircle are combined eight parallel bands. The band of the central spiral is structurally connected with those on either side of it. To the left of this central spiral are two parallel, frequently interlaced bands, and to the right of it is a band plaited into three knots, and tied to a boat extending along the side of this pattern. This forms a conspicuous example of the essential principle of the band-ornament in connection with a realistic motive. Around the rim of this cover, which is not visible in the drawing, runs a continuous chain-band whose form corresponds to that on Fig. 6, Plate II.

In Fig. 5, Plate III, is represented a Goldian knife which was obtained in



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the village of Sakhacha-olen. This knife is used, especially by the women, in lieu of scissors, which they do not possess. The end of the handle is sloped off with a slight curve. The carving, which covers only one side of the handle, is very roughly and inartistically worked out: it consists of two groups of spirals. Above, nearest the blade, are two, below three, simple spirals combined into one figure, which are bordered on either side by semicircles parallel to them.

A Goldian fish-scraper made of elk-bone, and decorated with a combination of incised spirals, is seen in Fig. 6, Plate III. These spirals are composed of double lines between which are short cross-lines. The ornament is symmetrically distributed over both of the roof-like sides of the bone. If one looks at the object horizontally, the scheme of the ornament appears as a wave-line from which proceed spirals with one winding, that here and there have lateral offshoots.

Fig. 7, Plate III, shows a board of modern Goldian work, for cutting fish on. The end of the board is shaped into a fish-tail. The board proper is divided into three fields,—a square at each end, and a rectangle between them. The latter is unornamented, and serves to cut the fish on. Thus there are three decorated fields,—the fish-tail and the two squares. The incised lines stand out from the black background. The foundation of the ornament is the double spiral, which occurs six times, and is surrounded by equidistant curves which run out into little spirals on the upper end of the board. Here appear also some leaf-ornaments,—combinations of three and four lobed leaves, the latter occurring twice between two double spirals. In the square adjoining the fish-tail both the spirals are pointed toward that side, and consequently they correspond to the acute angle formed by the combination of the border-curves. On the other side, however, the spirals preserve their usual forms; whereas the border-lines do not meet, but are connected with each other by a short straight line to make room for a trifoliate leaf.

In Figs. 8–10 of this plate are represented metal objects of Yakut origin which are attached to the ceremonial garment of the shaman. They illustrate the use of the spiral farther in the interior of Siberia. Fig. 10 shows tendrils twining into spiral-like forms.

BAND AND SPIRAL ORNAMENTS.—In Fig. 1, Plate IV, we see a reel, the two horizontal arms of which are decorated on both sides alike. On the upper arm, in the middle, is a small rectangle bearing one link of a chain-ornament. On either side of it is a band-ornament consisting of a thrice-intertwined band. On the raised rectangle of the under arm is a knot similar to the one above, and the short pieces of bands on both sides show merely the single negative parts, whereas the connecting lines for indicating the direction of the band are missing. It is evident that also in this case a definite relation exists between the use of the band-ornament and the purpose of the object, which serves for winding up the ropes in netting.

The interlacement-band also occurs in the art of the Gold, although much less frequently than in the decorative art of the Gilyak. We meet with a band

of this kind on an awl made of elk-bone (Fig. 2, Plate IV). Just below the point of the instrument we observe two short bands plaited into a knot in the middle. From this point another band starts, and fits into the sides of one of the vertical acute angles. This band is plaited in the form of two lozenges, and ends with half of a third lozenge. The bands added on both sides of the lozenges would seem to indicate the continuation of the latter indefinitely on both sides. Inside of these rhomboids is a vertical row of three round dots, and on the bands themselves a series of smaller dots placed close together, and having the appearance of a dotted line. This kind of decoration should be considered in a symbolical sense, since it suggests the use to which the instrument is put.

Another symbolical device is met with in Fig. 3 of the same plate, which represents a girdle-ornament made of antler, and shows a simple double-knotted band. As this object serves to fasten the girdle, a reference to this purpose is obviously implied in the ornament.

Band-ornaments are especially employed on the ends of large dishes cut out of one piece of wood (Figs. 4-6, Plate IV), and used for fish and rice at large social gatherings. Both ends of each piece show the same ornamentation, the bands projecting in relief above the incisions. In Fig. 4 is represented a chain-band composed of three links and forming two knots. Of the two bands on the right and left sides, little more than half is visible, but it should be imagined that they continue in the same way as the middle one. The central band is linked to the two lateral ones, and is itself crossed in the middle.

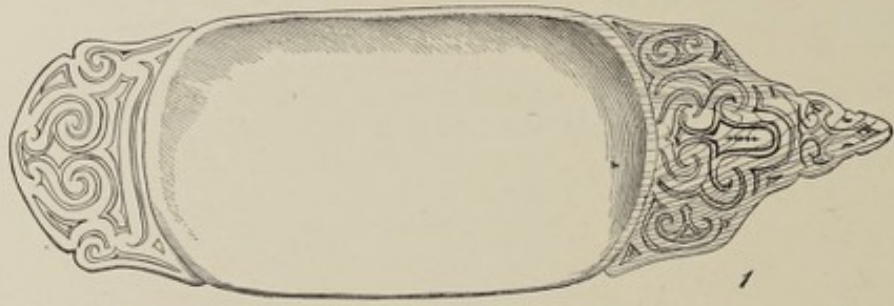
In Fig. 5, Plate IV, we see a band running up and down, alternating with a horizontal one. The former is twisted into two circular knots; the horizontal band is so treated that an ellipse is produced both above and below, the bands coinciding at the centre, the whole presenting a sort of flattened hourglass-shaped figure. To fill up the centre of the ornament a circular band, over which is a semicircle, is made use of. Fig. 6 shows two lateral bands, one crossed over the other, and a pair of horizontal bands twisted into a knot, which is indicated by a circle and two connecting strokes tangent to it. These two bands are coiled at their ends, forming four circles.

Next on this plate we see a dish (Fig. 7) which shows a different ornamentation on each end, due to their difference in form. On the trapezoidal-shaped piece are visible two interlaced bands which form a rhombus in the centre. In the triangle on the other side is a double ornament,—a simple band-ornament, and attached to it another band-ornament the negative parts of which are made up of two central combined facing spirals, a simple scroll on either side of them, and an engrailed line along the edge of the dish.

Fig. 8, Plate IV, represents a small square box with separate cover. The ornament on the side of the box consists of two double spirals treated as bands, and surrounded by a band following the windings of the spirals. The cover (Fig. 8 a) shows a combination of two pairs of simple facing band-spirals. The sides of the box seen in Fig. 9, which is shaped like a horse's hoof, are covered



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with a continuous series of compound double spirals. Whereas the cover (Fig. 9 a) shows the band-ornament in a very impressive way, the form of the compound spiral in the central rhombus reminds one strongly of the Japanese *futatsutomoye* (see Figs. 2-9, Plate XVI).

The dish shown in Fig. 1, Plate V, is decorated with a different pattern on each end. The arrangement of the band-ornament here differs widely from the other representations of it: on the end to the left is a continuous band formed by two parallel outlines, one of which is placed near to and parallel with the edge of the dish proper, the other being combined with the terminations of the two central facing spirals, resulting in a very strange figure, which has properly no ornamental or symbolical significance. In a similar way a still stranger figure is produced in the longer tapering end on the other side. The negative parts here require so much space that at first sight one might consider them as expressing the ornament proper. If, however, we bisect the four-armed figure longitudinally, we shall recognize that the arms with the adjoining outlines of the figure are simply portions of spirals, and that merely their combination, and their adaptation to the space available, have given rise to this peculiar kind of figure. Very striking is the lack of symmetry displayed in the two halves of this device. To an X-shaped figure on the one side corresponds a hammer-shaped figure on the other side, just as the condition of size varies. A combination of two such figures at the apex of this triangle is represented in an anchor-shaped figure, to which, however, no positive ornamental meaning is attributed, but it simply designates the course of the band. Fig. 2 of this plate is the cover of a tobacco-box of ellipsoidal shape. The central and lateral portions stand out a little beyond the two half-elliptical sections, which show the same ornamentation in corresponding symmetrical arrangement,—two double spirals treated as bands. In the middle raised part is a pair of intertwined bands which coil at the ends into band-spirals.

Figs. 3-5, Plate V, illustrate drills,—three old rare pieces from the village of Chomi on the Liman. While the upper and lower parts are ornamentally carved, the middle portion is covered with a band consisting of incised parallel oblique lines, to symbolize, as it were, the turning motion of the instrument. The patterns show again a combination of the band-ornament with the spiral. That the spiral however, is not to be considered as the fundamental element of the ornament, is seen from the neighboring auxiliary figures, which run parallel to the winding of the spiral, and have no other purpose than to indicate the direction of the band. Thus we see in the lower part of Fig. 3, in the centre, facing spirals surmounted by a pointed arch, the two curves of which run parallel to the windings of the spirals above; and under these facing spirals is a strangely shaped figure which has arisen through the four curves of which it consists being drawn parallel to the adjoining spirals in making room for the band. The circle symbolizes its terminal knot. On the upper part of this drill occurs again a similar combination of spiral and of interlacement-bands. The ornamentations on Figs. 4 and 5 are only

variations of the same principle, the lower part of Fig. 5 showing negative incisions similar to those in Fig. 5, Plate IV.

DECORATIONS ON BOATS. — The bows of wooden rowboats are sometimes



FIG. 1 ($\frac{2}{3}$). Birch-bark Stencil. Tribe, Gold. Length, 43 cm.

adorned, both inside and outside, with paintings. For this purpose, stencils are cut out of strong birch-bark, applied to the parts to be decorated, and brushed over with black paint. In all cases the negative cut-out parts, which naturally appear as the positive portions on the object to be decorated, should be regarded as the ornament proper. They have therefore been blackened in the drawings. The outline of the stencil is sometimes adapted in a certain degree to the form of the pattern. The most frequent motive employed in this case is the double-spiral fillet, although the compound spiral is also used.

The ornaments shown in Figs. 1 and 2 are constructed on one and the same principle. The two double spirals forming the main part of the pattern are surrounded by a simple band that runs parallel to the outer curves of the spirals. This band merges above, on either side, into

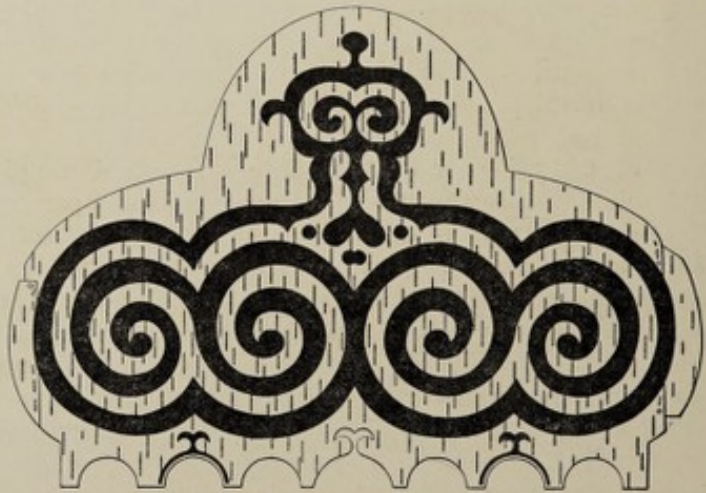


FIG. 2 ($\frac{2}{3}$). Birch-bark Stencil. Tribe, Gold. Length, 44 cm.

a central head-shaped ornament, the upper part of which consists of a pair of short symmetrical spirals, while the under part results from the combination of two conventionalized fishes.¹ The lower edge of the pattern is in the form

¹ See p. 29.

of an engrailed line. In Fig. 3 the band surrounding the two facing spirals is decorated with six small scrolls, which branch off from it at a tangent.

In Fig. 4, four pairs of facing spirals are placed around a star-like rosette (so-called "star-cross"). The design corresponds to or recalls the anchored or forked cross of mediæval heraldry with convoluted flukes. In Fig. 5 the spirals join a somewhat square-shaped figure, in the angles of which are found flower-buds with four circles in front of them, and in the centre a rhombus with curved sides.

Figs. 6 and 7 represent the beginnings of two decorations placed longitudinally in the interior of the prow of a boat. They may be extended at either end at will. Fig. 6 consists of a star-cross and a double design whose elements are formed according to a principle similar to that employed in Fig. 2, except that the spirals have only one winding, and face each other. Whereas Fig. 6 consists of a series of two different designs, Fig. 7 is composed of only one figure. As this ornament, like the preceding one, is executed with

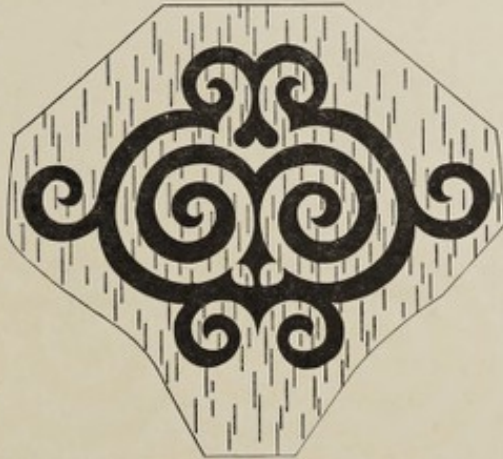


FIG. 3 (665). Birch-bark Stencil. Tribe, Gold. Greatest width, 31 cm.

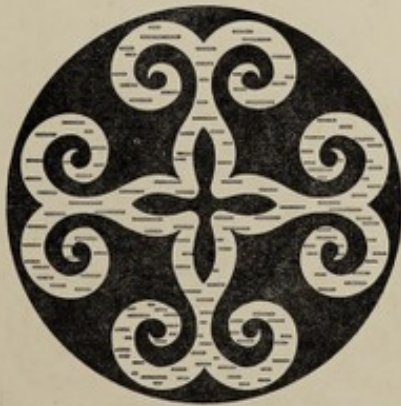


FIG. 4.



FIG. 5.

FIGS. 4 (711a), 5 (711a). Birch-bark Stencils. Tribe, Gold. Diameter, 20 cm., 18 cm., respectively.

perfect symmetry, there is but one motive, the scroll, which terminates in a horn-like offshoot with an adjoining semicircle.

OTHER BIRCH-BARK PATTERNS. — Figs. 8 and 9 are patterns cut out of birch-bark, used for embroidering ear-lappets. Both consist largely of spirals. In Fig. 8 is seen a lower row of four spirals surmounted by a triangular field filled with

fanciful figures that are characterized as derivations from the conventional form of the fish-ornament in so far as they do not appear at the outset to be mere space-fillers. This figure runs out into a face-shaped head-piece which at first sight

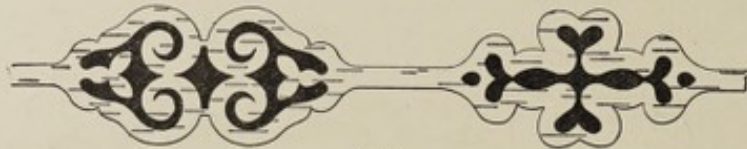


FIG. 6.



FIG. 7.

FIGS. 6, 7 (G¹¹ a, b). Birch-bark Stencils. Tribe, Gold. Length, 28 cm., 25 cm., respectively.

one might take to be a conventionalized human face: in this case the eyes would be denoted by spirals, the mouth by the figure connected with these, and the four tooth-like formations would represent tusks not unlike those identified by Hein¹ on the demon-shields of the Dayak. Nevertheless, in this as well as in the following figure (9), the Gilyak in the village of Chai on the northeast coast of Saghalin Island, from whom these patterns were obtained and information concerning them sought, decidedly denied that these figures have any relation to the human figure; and it seems also that the form of the outline of this pattern is solely due to an

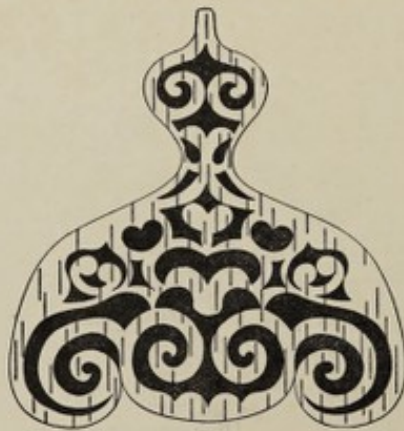


FIG. 8.

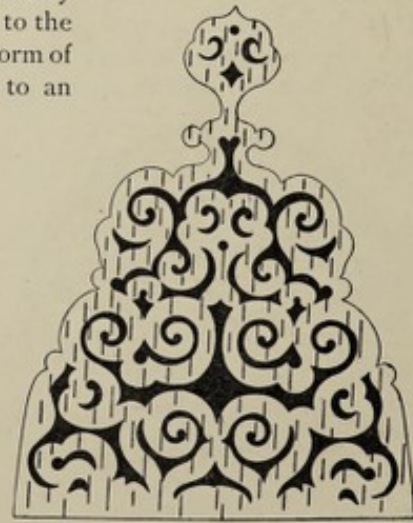


FIG. 9.

FIGS. 8, 9 (G¹¹ a, b). Birch-bark Patterns for Embroidery. Tribe, Gilyak. Height, 16 cm., 20 cm., respectively.

adaptation and assimilation to the space occupied by the object itself. Fig. 9 consists of a structure of spiral ornaments, whose width gradually lessens as it proceeds upward from the broad base, until it ends in a narrow neck surmounted

¹ A. R. Hein, *Die bildenden Künste bei den Dayaks auf Borneo* (Wien, 1890), pp. 41-85.

by a figure apparently treated like a face, but in semblance only, — a circle above, two crescents on the sides, their convex sides turned towards each other, and below them a lozenge standing on its point. In the trapezoidal under figure we observe three rows of spiral ornaments placed one above another. In this design are found numerous conventionalized fishes.

CIRCLE-ORNAMENTS. — In a few ornaments the circle is also used as a fundamental form. Figs. 10 and 11 are both Gilyak birch-bark patterns used for an embroidery that was plaited into the hair of little children in ancient times, but is now out of fashion. Both of these consist of combinations of circles and spirals. In Fig. 10 the motives are arranged in a series of horizontal rows, only two of

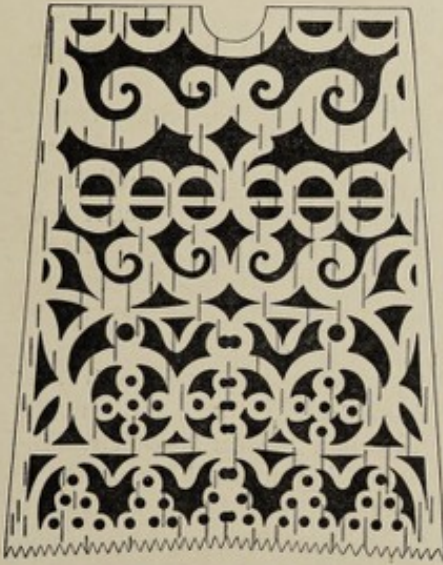


FIG. 10 (449 d). Birch-bark Pattern for Embroidery. Tribe, Gilyak. Height, 17 cm.



FIG. 11 (4487). Birch-bark Embroidery-Pattern. Tribe, Gilyak. Length, 26 cm.

which contain spirals. In Fig. 11 five rows may be distinguished, the two upper ones being perfectly symmetrical.

In Fig. 6, Plate xv, we observe a new motive of the circle-ornament, obtained by describing circles so that they intersect each other.

THE COCK. — The animal which plays a predominant part in the ornamental art of all the Amur peoples, and is more frequently reproduced than all other animals together, is the cock. This circumstance is the more conspicuous, since the cock is not a native of the Amur country, but was introduced from China, and recently, of course, by the Russians. Nowadays there are some Gold who raise poultry in their houses. The Gilyak on the northeastern coast of Saghalin, excepting a few who had chanced to see a Russian village, never saw a cock, but they know and explain it by their ornaments. They call it *päxx*, a word apparently derived from the Goldian and Olcha word *pökko*, that may be traced back to *fakira gasha* of the Manchu language. Another Goldian term, *chokó*, appears likewise in Manchu, and is perhaps allied to the Mongol *takiya*.

Since the cock is a new-comer in that region, it is not surprising that it plays no part in the mythology of the natives, as it does with the Chinese. In their opinion, the cock is a symbol of the sun, because it announces the rising of the sun. Besides the earthly cocks, there is a heavenly cock, which, perched on a tree, sings at sunrise. This tree is the willow, which also symbolizes the sun. The cock is sometimes called in Chinese "he who enlightens the night;" and the sun, "the golden cock." Besides, it belongs to the class of animals that protect man from the evil influences of demons. Live white cocks are sometimes used in funeral rites.

Regarding the representation of the cock in Chinese art, only a few general facts may be stated, as this branch of research is little explored, and investigations of ornaments have unfortunately been almost neglected. Japanese art is based wholly on Chinese, and the ground on which it stands is somewhat better known. The ordinary domestic fowls are frequently depicted by Japanese artists, the cock being the favorite among them. It is painted on hanging scrolls, and modelled in wood, bronze, porcelain, and other materials. Most frequent and admired is the painted design of a cock standing on a drum (*taikō*); and in this case the sides (or one side) of the drum are decorated with a triskeles (*tomoye* or *mitsutomoye*). This is the well-known circular diagram divided into three segments (see Figs. 2-9, Plate XVI).

Single Cocks. — On Plate VI we have four examples of the cock drawn true to nature. Fig. 1 shows the typical form of cock cut out of paper, and used as a pattern for embroidery. Head and eye are circular, the beak semicircular. On the head is a bipartite crest shaped like a fish-tail. To the back is attached a quadrifid wing, and a tripartite tail almost convoluted. The feet are missing. On the body is a conventionalized fish, the upper border-line of which runs parallel to the outline of the cock's body; the under border-line, shaped partly like a brace, partly like an inverted line, being composed of three portions, indicating head, body, and tail. Fig. 2 is an embroidery-pattern representing a similar type of cock, but with some remarkable differences. This cock holds a fish in its beak. The motive is, of course, far from being realistic. It does not convey the idea that the cock devours the fish: its meaning is purely emblematical. The wing-feathers are indicated by four teeth, projecting from a line generated from the beak, which line continues into a scroll parallel to the outline of the body, and representing a fish-tail. The tail-feathers are highly developed, showing six parallel flukes. The body is cut into a double spiral. The space between the beak and neck of the cock is so formed as to represent a bird's beak.

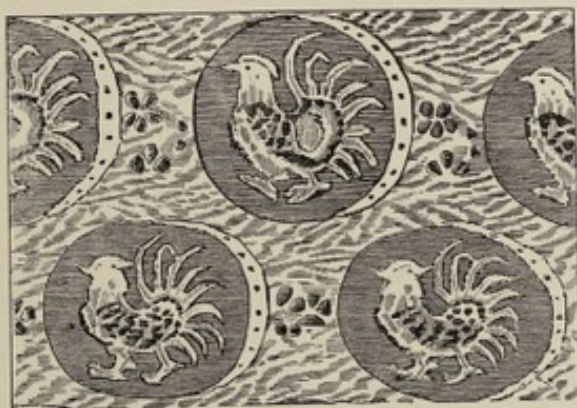
Fig. 3, Plate VI, is a weaving-pattern, whether of Chinese or Japanese provenience is uncertain. It consists of circular fields in which are designed realistic cocks, whose somewhat stiff forms are attributable to the technique of weaving. Comb, beak, eyes, feet, feathers, plumage, and, in all, nine wing and tail feathers, are indicated. There are slight but delicate differences in



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the forms of the bodies, the attitudes, and the manner of stepping, of the single birds.

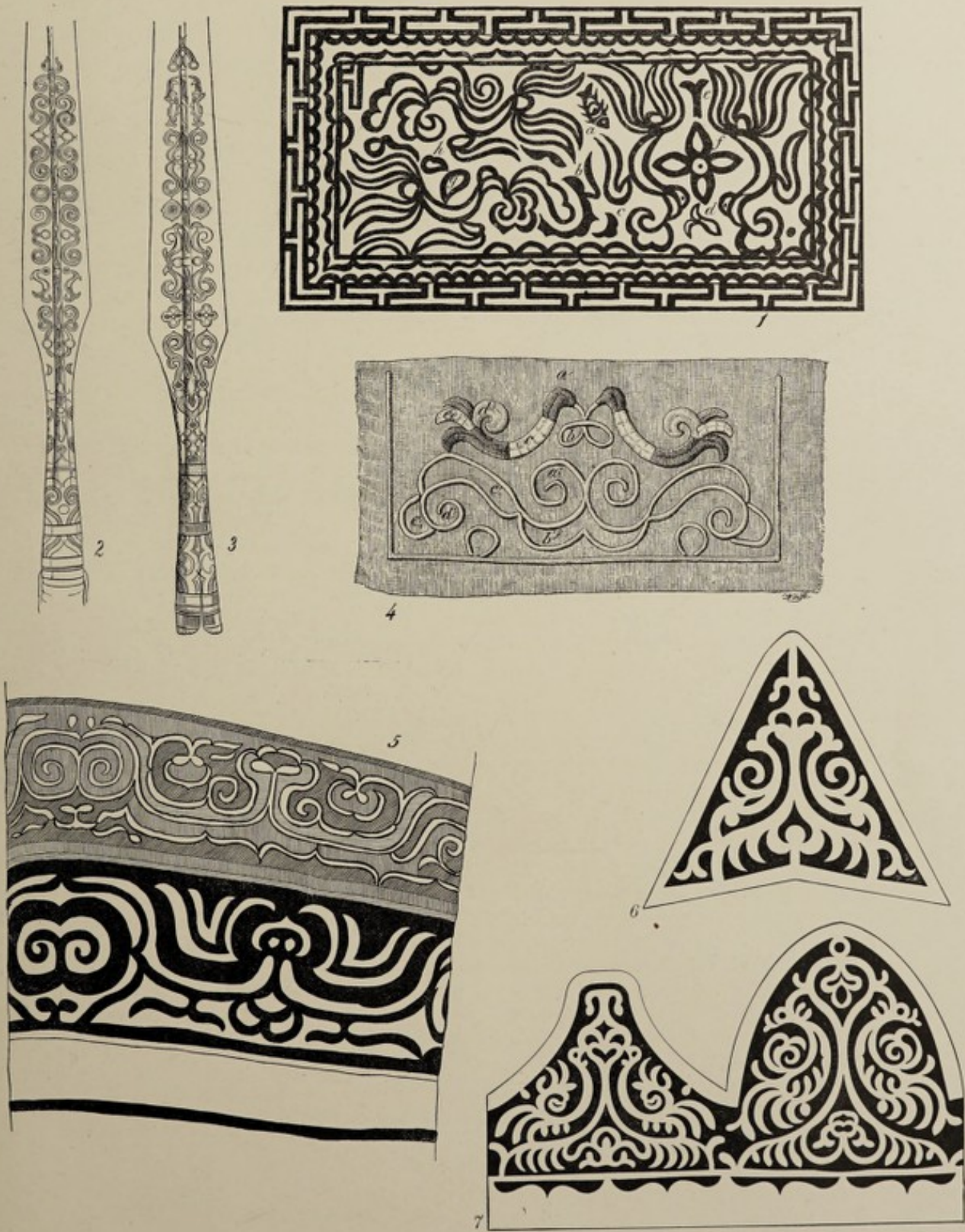
Fig. 4, Plate VI, is an ornamentation on the surface of a birch-bark hat, the rim of which is covered with an uninterrupted sequence of double spirals sending off little branchlets. In the main field three naturalistic cocks standing upright are observed, beak and eye being indicated, a circle being placed over their heads, and, what is most singular, two long stretched-out feet with spurs are to be seen. The pinions are represented by a semicircle with a recurved hook on one side; the tail, by a spiral with short appendage of a form similar to that on the rim, above which are three tail-feathers. On the body we see a picture of a fish consisting of two parts, — the head and the tapering body. It is worthy of note, in what graceful forms the outlines of the bodies of the two animals are adapted and assimilated to each other.

Fig. 1, Plate VII, represents the side of a Goldian birch-bark basket. The decorative field is enclosed by a triple border consisting of a meander, an invected line, and a row of braces which are apparently derived from the form of the cock-spur, and which I have therefore styled "spur-ornaments." The rectangle is divided into two parts which are separated by three figures, — a carp realistically drawn (*a*), a large conventionalized fish with long prominent fin (*b*), and a small conventionalized fish (*c*). In the field on the right two cocks are visible, their heads turned downward, and in their beaks trichotomous fishes conventionalized in the same form as in *c*. The four tail-feathers are turned upward; and the bent feet, stretched out to both sides, are remarkably long. The feet of the bird on the right terminate in a mucronated process, in a style assimilated to that of the tail-feathers, whereas on the other side they run parallel to each other. The space between these two birds is filled with drawings of fishes, — between their heads the rather natural-looking fish *d*; between their tail-feathers the tail of a fish (*e*), apparently lacking a head; and between their bodies the rosette *f*, the four leaves of which show the same form as the fish-body in *d*. On the other side of this rectangular field we see two cocks, one above the other, the upper of which is looking toward the left, and the under one toward the right. The style of drawing of these two birds tallies with that of the other two, except that the eyes are not indicated by dots, as in those, and that they hold in their beaks, not one fish, but each two fishes. Both of these fishes are scalloped on the upper edge; but in the lower fish, that terminates in a scroll, the scallops are more sharply cut. In the body of the under fish the design of a bipartite fish is represented, and runs parallel to the outlines of the fish. In the upper cock the pinions are symbolized by a spiral, which, however, is disconnected from its body; whereas in the lower cock, in lieu of spirals, are two comma-shaped figures (*g*, *h*) which seem to be derived from the fish-body. To the extreme left, beyond *h*, is a very curious form of a conventionalized fish, made up of a circle and a curved serpentine stripe. The feet of the cocks are fashioned in the same way as those of the neighboring birds on the other side, except that here

an oval-shaped figure is inserted, connecting the body with the stripes indicating the feet.

Combined Cocks, Type A.—Figs. 2 and 3, Plate VII, represent two Gilyak bear-spears made of iron. The greater part of the design is inlaid with silver, and the portions shown in hachure are inlaid copper and brass. On the blade of Fig. 2 are two single cocks symmetrically arranged, each with a circle in front of the beak, the body and tail shaped like a fish. This circular object was explained to me by natives as a grain of wheat that the bird is about to swallow; but this explanation seems to have arisen after the true and original meaning had been forgotten. It is rather more probable that the circle which is generally between two cocks facing each other, or in front of a single one, represents the sun, which, according to Chinese mythology, belongs to the cock. In fact, the sun is represented on mythological pictures of the Gold as a simple circle, or as two concentric circles, with two diameters at right angles to each other. This particular type of single cock appears doubled in Fig. 3 in such a way that the two roosters face each other, and hold one circle in common between their beaks; this is the attitude called "combatant" in heraldry, and this frequently occurring typical device we shall designate for brevity "Type A." On this blade we see, all together, two symmetrical pairs of such combatant cocks, easily distinguished as birds, particularly by their crests; feet and wings being omitted, as in the preceding case, and only the tail-feathers denoted. Besides these approximately naturalistic cocks, which are explained and recognized as such also by the natives, there are other purely geometrical designs on these blades, which seem to have a certain connection with the cock-ornament, although we cannot prove that they are derived and developed directly from it. The native interpreters deny that they mean cocks, or have anything to do with them. In Fig. 2 we see, next to the single cock, a combined figure placed around a circle, and terminating in a helical line; if there were an indication of a comb, the components of this figure might be regarded as cocks. The following figures consist of a pair of combined triskeles connected by an oval, two arms of the triskeles being spirals. There is also a geometrical repetition of the combatant cocks on Fig. 3, the heads ending in simple scrolls, and the tails in convoluted forms. The animal at the upper end of this blade is explained to be a fox devouring a carp, and that on the raised medial line at the lower end is said to be a lizard. There is also a lizard on the corresponding part of the other spear, and, a little farther below, a flat fish.

Fig. 4, Plate VII, shows an embroidery made of reindeer-hair, probably of Yakut origin. We observe here the type of the two combatant footless cocks, whose beaks, heads, eyes, long-extended bodies, and four tail-feathers each, are distinctly marked. In the beak of each is an oval object, the two uniting into one figure. Under these cocks we observe a symmetrical geometric figure composed of spirals and curves, which, however, is nothing more than an ornamental sketch showing, as it were, the reflected images of the cocks above. Corresponding



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parts in the real image and its counterpart are designated by the same letters. The head of the cock *a*, for instance, is expressed by the spiral *a'*; the oval *b* corresponds to the portion *b'*, somewhat more extended, and connected with the body *c'*. The tail-feathers *d* and *e* are reproduced below in a scroll *d'*, with a semicircle *e'* attached to it.

Fig. 5, Plate VII, represents an ornament on the upper part of the leg of a pair of boots from the Orochon on Ussuri River. These boots are made of elk-skin. The decorated section consists of two fields, the upper ornaments being painted on fish-skin in red, blue, yellow, and black; those below being cut out of fish-skin dyed black, and attached with red, yellow, and blue thread to a piece of cloth, which is sewed to the elk-skin. There are two combatant cocks standing upright in the lower design, and, what is most remarkable, they even have spurs in the form of a brace, which is rarely found on other patterns. On the paintings the same picture is reproduced, showing the cocks also with spurs and a spiral and some strange figures in the body, the latter of which may perhaps be traced back in part to the design of a spur.

Fig. 6, Plate VII, is an embroidery-pattern cut out of paper, and is used on the upper of a woman's shoe. It shows the cocks, Type A, in a nearly heraldic attitude, the heads treated merely ornamentally, the wing-feather as a scroll, and the tail as a fish-tail. Fig. 7 is a paper pattern for embroidering gloves, the larger portion on the right being used on the back, and the other for the thumb, the motive being exactly the same as in the foregoing figure with slight modifications in form. These show how the same pattern is assimilated to an altered space, additions and omissions being made according to the variation in the space to be filled. In this way on the larger design the forms of the body, tail, and wings have been correspondingly enlarged. On the smaller piece the comb has been omitted on account of lack of space, and the two-lobed wattle of the larger cocks has shrunk into one small knob. In both groups, fishes are attached to the wing-feathers: on the right side of the pattern a little fish is clinging to the outer line of the scroll, whereas in the smaller cocks it lies inside of the scroll, and forms its starting-point. In both figures the cocks lean toward a wave-line, having on the under part curved prongs agreeing in form with the cock's tail-feathers. In Fig. 6, where the same motive occurs, we see a close connection between this part and the cock itself, so that they form a real unit. In Fig. 7, however, the cock itself has a highly developed tail-feather immediately adjoining its body, so that we meet with two tail-feathers, one above the other, on these designs. The question arises, Does the under tail-feather suggest the existence of another, strongly conventionalized cock, or is it merely an ornamental addition?

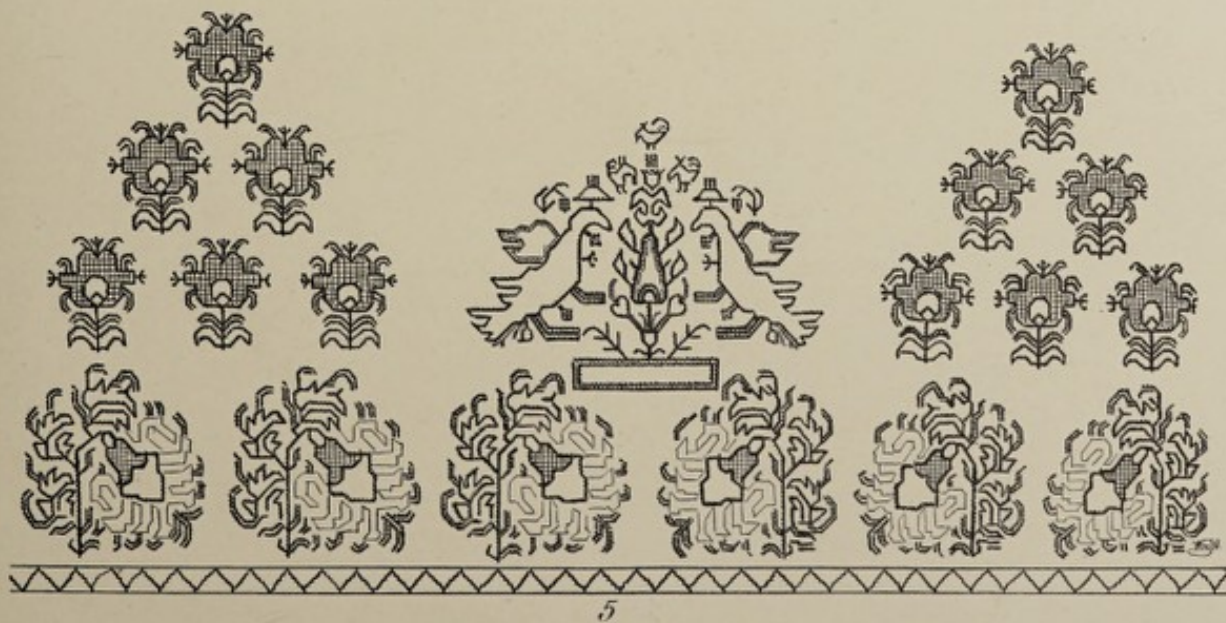
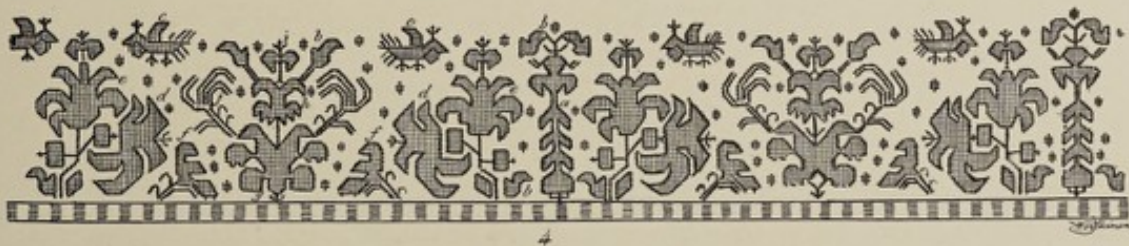
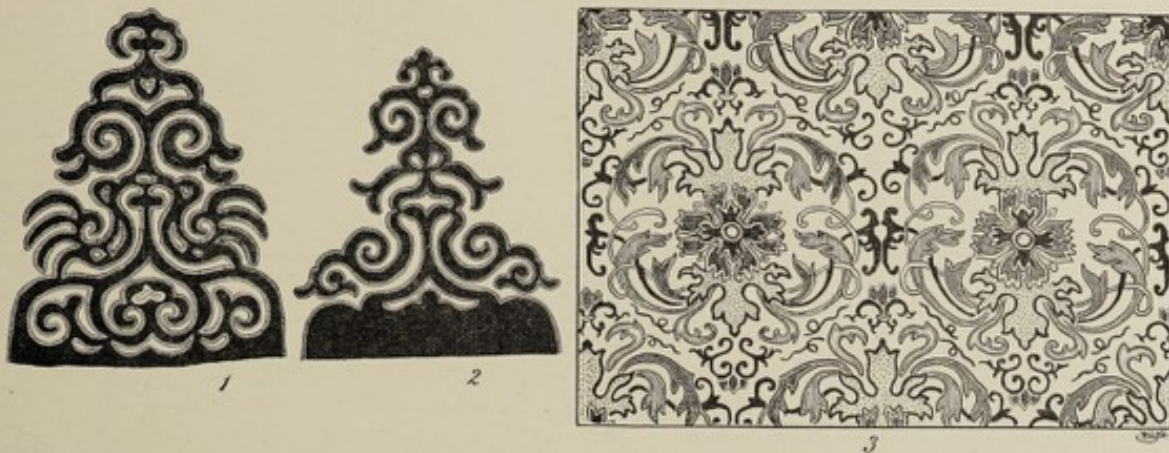
Figs. 1 and 2 on Plate VIII represent embroideries designed for trimming the pocket of a shirt. Here two combatant cocks are grouped around a central vertical axis. In the one figure, head, eye, body, wing and tail feathers, are clearly to be distinguished. The feet are missing, and on the body of each bird is a conventionalized fish, the head and tail of which are discernible as separate parts.

These two cocks are resting on a simple geometrical figure, which is perhaps to be regarded as a strong conventionalization of another cock. The pattern Fig. 2 becomes intelligible by comparing it with the preceding one. It represents a stage of conventionalization much further advanced than is seen in the first one. The body is merely indicated by a spiral, neck and head simply by the continuation of the scroll-line bent upward and slightly curved to the side, the tail being in the form of an ornamental double fish-tail. The bifurcated arms projecting on either side above the two cocks are meant for fishes, which are essentially characterized by the form of the tail.

The question as to how the motives hitherto discussed, especially the combatant cocks, were derived from Chinese art, whether entirely or partially, cannot as yet be satisfactorily answered. Notwithstanding this fact, some material may be adduced from which to draw nearer to the solution of this problem.

Some Chinese Prototypes.— Fig. 3, Plate VIII, a Chinese weaving-pattern of the nineteenth century, is inserted here simply to illustrate the idea of the combatant birds as employed in Chinese art. Here two pairs of such birds are grouped around a floral device, so that the style of the head and the body of the bird depends largely on that of the foiling, and thus shows certain deviations from the forms seen in our Siberian patterns.

Figs. 4 and 5 of the same plate are likewise weaving-designs, from the Königl. Kunstgewerbe Museum in Berlin. Although the origin of these fabrics is given in the catalogue as "Orient, 17th-18th centuries," yet without doubt they are of Chinese creation, at least as regards the pattern. In the centre of Fig. 4 we see a conventionalized tree (*a*), at the top of which are two bird-heads (*b*) beak to beak. Two heads of the same style are visible at the foot of the tree, but at a short distance from each other. A perfect representation of the cock appears in *c*: the comb (designated by three lines), the pinions, the tail-feathers, the feet (indicated in a way similar to that of the comb), are all shown. Under the throat is a rectangle, which seems to correspond to the circular object that the bird usually holds in its beak in the Siberian designs. That all forms are square here which are round there, is due solely to the technique of weaving. The cock with outspread wings, its head stretched forward, is represented in the figures marked *d*; whereas *e* reproduces the bird in a walking attitude, with head erect. Both these cocks (*d* and *e*) are placed sideways, so that their heads nearly touch each other. In the corresponding figures, *f*, one may recognize the cock in a standing or squatting position, the two being combined in the picture *g* into one escutcheon-like unit, the heads looking in opposite directions. The smaller design above (*h*) shows an advanced stage of conventionalization of the same conception; and in *i*, still farther above, only the head and crest of the cock are distinguishable. The combination of these three figures, *g*, *h*, and *i*, together with the lateral types *b* and the additional ramifications (*j*) on either side, seem to indicate that the artist may have intended to suggest, in the figure as a whole, a tree. On this pattern, then, we meet with five different types of cock. The style of design shown in



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Fig. 5 is allied to the preceding. In the centre are two birds perching to the right and left of a tree. Very likely a cock is intended in this case, the crest on the head being visible, the wattle under the throat, the feet, the outspread wings, and the tail-feathers. Above the tree and the two large birds we observe three small birds, one of which seems to be perched on the top of the tree, which recalls perfectly the perching cocks on Siberian fish-skin garments (see Plates xxix and xxx). The form of the tail, and, still more, the object held in the beak, admit no doubt as to its significance. Also the various patterns employed on either side of this picture remind one, in their exterior form, of some compositions occurring on the fish-skin garments, although an exact identification is impossible. The parts projecting from the hatched portions, and particularly those branching off from the vertical line below, appear to represent bird-heads. Still more difficult to explain is the row of six figures across the bottom. In the upper part of these may be recognized cocks, which in the three figures on the right-hand side hold their heads bent to the right, and on the other side to the left. In the rooster on the left the eye is missing, which is not the case in the birds on the right side. Slight deviations from symmetry may also be noticed in the figures above. It is possible, and very probable too, that other pictures of cocks or other birds may be contained in this composition.

Combined Cocks, Type B. — There are also combinations of two cocks, their backs contiguous, and necks bent in opposite directions, which for convenience we shall call "Type B." This occurs on Fig. 1, Plate ix, a pattern cut out of birch-bark, that serves as a foundation for an embroidered pocket. The bodies of the birds consist here of mere compound spirals. The heads are not represented, from lack of space, but the oval objects belonging to them are visible. The curved offshoots at the bottom of the spirals seem to indicate feet.

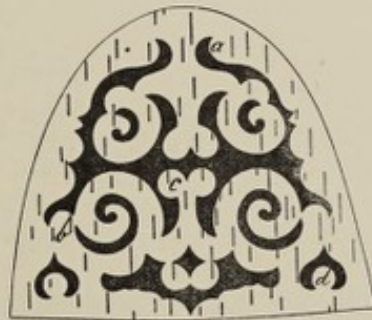
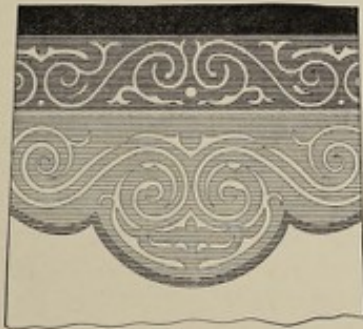
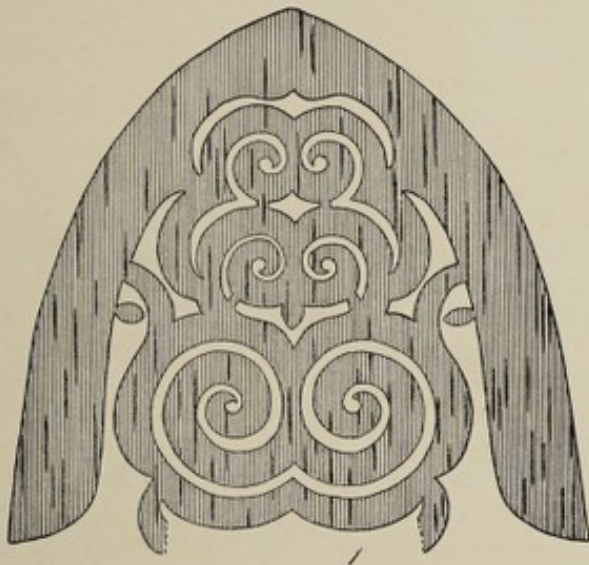
The ornaments represented in Fig. 2, Plate ix, are cut out of birch-bark and sewed to a birch-bark hat. They are put on in three rows around the hat, each row containing four double cocks executed in an ornamental style. In the outermost row on the border the tail-feathers are easily discerned. The body is indicated by a spiral, to which a circle is joined. The two heads are placed together so as to form a rhomboidal figure. These eight cocks are dyed blue. On the edge between the tail-feathers are four single pieces dyed black. These are ornamental survivals of the cock's spurs. The cocks in the middle row have their heads distinctly marked, and two circles on each side of the neck. Their bodies have nearly the shape of the triskeles. These are colored red, but the heads are not dyed at all. The circles are blackened. The cocks of this row are ornamentally connected with those in the outer circle at their heads, and with those of the inner row at their tails. This central row shows the most conventionalized forms of the cock. If we imagine a line drawn through the two points where the tail-feathers of the outer row come in contact and where those of the middle row meet, we shall be able to distinguish the two united cocks of the third row. Here the two heads have coalesced into an ellipsoid which has a circle on either

side, and the bodies are adapted to the top of the conical hat. Heads and circles are colored blue, and the other parts are blackened.

In Fig. 3, Plate IX, is reproduced a painting on the upper part of a pair of fish-skin leggings. Across the extreme upper edge is a border of black; and of the two ornamented fields below, the upper is red, the under one blue. The latter is edged with a narrow red band. The lines of the pattern are painted with black China ink. In the illustration, only a portion of the leggings is represented. The ornament, however, is continued to both sides, and terminates at some distance from the seam. The design is painted on a special piece of fish-skin, which is sewed to the material of the leggings proper. In the under section we see on the extreme sides a band-spiral terminating in a fish-tail. This one is continued toward the other side so as to form a double spiral, one of which is disconnected and represents a conventionalized fish of semicircular form. Under the central pair of spirals are three pairs of corresponding fishes, one below another, the undermost of which is connected with the spirals by a hook resembling a bird-head. The upper of these three pairs of fishes finds its counterpart in the figure placed above the central spirals by way of rounding off the design. That this device also has arisen from the combination of two conventionalized fishes, is perceived by a glance at the corresponding design on the upper section, in which the head of the fish is distinctly marked off from its body. On this border we see spirals connected with fish-tails, and in the centre compound but disconnected spirals. Above, on the spirals, are visible tiny offshoots, looking, as it were, like survivals of bird-heads.

An embroidery-pattern made of birch-bark, for use on an ear-lappet, is shown in Fig. 4, Plate IX. Above and at the base of this pattern are two distinct groups of roosters. In the upper group the heads (*a*) are turned upward and away from each other; the body is represented by a closed spiral, the interior of which assumes the conventional form of a fish. In the under group the head of the cock (*b*) is cut out of birch-bark, body and feet being likewise indicated, and the pinions by an exaggeratedly large spiral. Here also occurs the type B. What significance the additional arms terminating in the circles *c*, in the centre of the figure, may have, is hard to decide: they are either ornamental fillings, or perhaps reminiscences of the circular figures connected with the cock. The same may be said of the circular forms *d*.

Fig. 5, Plate IX, represents a boot, the leg of which is made of cloth, the foot part of seal-skin, and the upper, the ornaments on which are cut out in relief, of sturgeon-skin. The lower part of this ornament is made up of two pairs of facing spirals, which are connected with each other by a heart-shaped figure. On this heart are drawn two ovals combined as in an 8, that is usually placed between the beaks of two combatant cocks. For this reason it may very probably be correct to suggest that the two curves bent toward the border-lines to the right and left represent birds' necks, and that we have here the same cock type as occurs in Fig. 1 of this plate. The upper double spirals continue



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into figures resembling the capital letter R. In this appendage the usual form of the conventionalized fish may easily be recognized.

The knife-case seen in Fig. 6, Plate IX, is manufactured of sturgeon-skin. The lines of the decorative design, which stand out in relief, are produced by cutting the cuticle away with a knife. Considering the brittleness of the material and the difficulty of its execution, the regularity of the forms and the graceful sweep of the lines are most admirable. The ornamentation consists of a clever combination of compound spirals and conventionalized fishes, so arranged that the whole forms a coherent structure. Above are to be noted two conventionalized fishes with round heads at both ends. Then follow two spirals of four windings each, terminating in a double loop. Below them is a palmetto-like figure, from which spirals arise on both sides, and under these are single conventionalized fishes. Then follow two spirals joined to the figure above, which seem to be conceived of as cock-bodies, since the curved band evolving from them corresponds to the form of the cock's neck.

A tapestry of rather old Japanese workmanship is represented in Fig. 7, Plate IX. The motive of the pattern is a double spiral, of a somewhat angular form, due to the technique of weaving. Here are seen spirals with two offshoots, and again others in pairs, one of which has four branchlets and the other one branchlet. These embellished spirals appear in the same manner on our Siberian patterns, where they have undoubtedly been proved to be closely connected with the cock-ornaments. This Japanese pattern may also tend to symbolize conventionalized birds, in which heads, body-spirals, and feet may be discerned.

Fig. 1, Plate X, shows part of the decoration on the side of a birch-bark basket. The leading motive is the realistic representation of cocks of Type B, the tail-feathers being turned toward each other, and the heads on opposite sides, but so turned that the birds look at each other. Under each of their beaks is a circle. The wing-feathers are characterized by three, the tail-feathers by four, lobes. Fishes are drawn on their bodies, but of two different forms, which agree in the two outer and two inner cocks respectively. In the former the tail tapers to a point, while in the latter it is bifurcated. The two inner cocks have, besides, a circular figure just below the neck, which is missing in those placed outside. The cocks are encircled by double lines, which are gracefully adapted to the form of the body, and are adorned above with flame-shaped lobes approaching in form those representing wing and tail feathers. In the centre of the design are two strongly conventionalized cocks, whose heads lie on the extreme sides, turned in the direction of the cocks above mentioned. Body and wing-feathers are marked by two equal spirals. This entire decoration is bordered above and below by a chessboard-like pattern. The vivid power of motion which pervades this whole composition shows a wonderful degree of artistic ingenuity.

In the next illustration (Fig. 2, Plate X) is seen a painting across the top of the right-hand portion of a pair of fish-skin leggings. The ornament itself is

blue; the two under border-lines, blue and red. In the centre we see two roosters with distinctly marked heads and eyes. The body is symbolized by a band-spiral which starts from a circle in the centre. The neck is a continuation of the border-line running parallel to the winding of this spiral. To the beak of each rooster is attached a spiral wound to the right, the termination of which is made into a bird's beak with a circle just like the central spiral. Above it is a conventionalized fish with distinct tail; and below it a scroll rolled into a beak at the end, with a circle at its tip. Particularly worthy of note is the abrupt manner in which the well-executed head of a cock, with the usual oval object in front of it, is placed under the scroll to the right, — another evidence of the fact that any spiral can be made to symbolize a cock's body.

Fig. 3, Plate x, represents an embroidery on the upper part of a pair of leggings made of Chinese silk. The background consists of black silk cloth (hatched in the drawing), the spaces between the embroidered lines being covered with white silk. This design is mainly filled up with two opposite swans fashioned like cocks, the long arched necks running parallel to their oval-shaped bodies. The heads, treated in the form of scrolls, are turned away from each other, and are provided with beaks stretched outward. Each body is divided into halves for the purpose of ornamentation. In the outer half are designed neck and head of a cock, a circle in front of the latter; the inner halves are formed of simply-wound spirals. Between the two halves is inserted a conventionalized fish, which continues above into another, tripartite fish, standing upright. It is an example of the same kind of opposite fishes rampant as in Figs. 1 and 9 (pp. 16, 18), and frequently elsewhere. The ornament is bordered above by a spur-line embroidered in green. On the upper edge are represented triskeles, singly and combined.

Fig. 4, Plate x, represents part of an ornament embroidered on a girdle of black velvet, out of which the patterns are cut. The edge of the velvet is seamed with chain-stitching. The threads selected are all of dull colors. All negative parts are filled up with light yellow cloth (hatched in the drawing); the positive ornament, therefore, is formed by the cut velvet parts. It is a device composed of a succession of two different figures, one of which has a circular form, the other an ellipsoidal. Complete symmetry is carried out inside of these figures on either side, as well as above and below. The velvet, being a somewhat stiff and unhandy material, is not favorable to the formation of lines, and thus a degree of conventionalization is attained that makes the development of the ornament in the oval drawing hardly recognizable. What we observe are a fish-tail, an oval body, and a figure distributed symmetrically on both sides, in which, as a rule, the beaks of the opposite cocks are united. If we take for granted that the cock's head is in this part, its tail must needs be recognized in the fish-tail, which occurs not rarely. If, however, which is also possible, we see the cock's head in the smaller, under branch of the fish-tail, and attribute to the larger branch perhaps the hint of a wing-feather, then we have here also the type of the opposite cocks, as in Figs. 1, 2, etc. It is therefore possible to recognize in this case the head of



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4



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6

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the cock at both ends of the body, a kind of Janus-cock. A still more striking example of the same case is met with in the two following specimens.

These are the decorated sides of birch-bark boxes. In Fig. 5, Plate x, the whole trapezoidal piece is divided into three fields; the narrow strip below, along the edge, being filled up with a spur-ornament. The trapezoid above it contains two peculiarly conventionalized cocks of Type B. The two outer cocks have their heads turned downward, and on their bodies a realistic fish, in which eye, gill, and the conventional picture of a fish are drawn. The tail of the fish is identical with the cock's head. Each of the two inner cocks shows two spirals, the larger of which seems to denote the tail-feathers, and the smaller one the pinions, completed by two parallel projections above it. The upper of these is shaped into the conventional form of a fish by the addition of a semicircular figure indicating the fish's head. The two cocks in either half of this symmetrical ornament are combined with each other by a wave-line, the concavities of which the cocks occupy. The same motive is met with in the ornaments above this trapezoid, only that here conventionalization has advanced much further. The heads may easily be found by a comparison with the cocks in the centre below, the bodies being spirals, and the tail-feathers joining above in purely geometrical figures. On the ground of this stage of conventionalization, also, the two tapering figures in the right and left corners are to be explained. These corner figures proceed below, and each forms here a fish rather true to nature, although placed in a kind of scroll. Head, eye, the curved body, a ventral fin, and the bipartite tail are discernible.

The pattern Fig. 6, Plate x, is doubly symmetrical above and below, as well as on the right and the left. The whole ornament can be traced back to a figure which represents a wave-line, in the hollows of which two types of cock are placed. One of these types has a remarkably long process at the end of the head, a conventionalized fish between the head and this part, its body being indicated by a spiral. The other type strongly approaches that in Fig. 5, in the interior of the central trapezoid, with the fish-body attached to the back part of the head, as there. The wing-feather has here become a spiral, as have also the body and the tail.

THE FISH. — That the fish plays a very important part in the decorative art of the Amur tribes has already become evident from various examples in which it occurred in connection with the cock, sometimes drawn on its body, mostly in strongly conventionalized form. We shall now enter upon a special examination of the subject, and demonstrate by some designs how this conventionalization has developed from the realistic picture of the fish.

In Figs. 1 and 1a, Plate xi, the long and short sides of a birch-bark basket of the Gold are represented, in which portions of the pattern are cut out of bark and sewed on the bark forming the basket. In Fig. 1 the arrangement of the pattern is very gracefully executed by a finely drawn wave-line, the course of which is interrupted in the centre by two combatant cocks designed almost true

to nature. Their beaks cohere. The tops of their heads are combined by a figure composed of two fish-bodies. Besides, in the body of the two cocks conventionalized fishes are incised, and from under their throats depend two fishes with heads downward, the eyes of which are clearly distinguished. The pinions are symbolized by a simple scroll. These latter parts described as such have at the same time another function: they form the body of a conventionalized cock, being above the realistic one and cut out of bark. The long outstretched heads of this pair of cocks almost touch each other; to the head is attached the upper outline of the body in a slight curve, which joins an upward-extending hook indicating the tail. Over these combined figures of cocks are two odd independent bird-heads, obviously with crooked beaks. To the right and left of this central group we see a repetition of the same picture. Here we are immediately confronted by two naturalistic fishes that were explained as carp. In these the head, the eyes, the ventral fins, and the tail are expressed. Incised on these carp is the image of a conventionalized fish, whose tail is turned toward the eye of the realistic fish. The form of the body of the latter is assimilated to the wave-line above it, which runs off below into a scroll. The knob forming the starting-point of this scroll represents at the same time the round object held in the cock's beak; and this cock's head is really represented in the succeeding circuit of the curve. These cocks' heads, in their turn, rest on the spirals below, symbolizing their bodies; and these spirals are executed in such a way that in their interior a fish-body with plainly distinguished head, body, and tapering tail, is clinging closely to them. Furthermore, the spirals above, surrounding the realistic carp, are at the same time symbolical representatives of a cock's body, except that here, unlike the case below, the cocks' heads are put in a realistic design, but in a manner similar to that in the upper part of the central figure, in which conventionalized heads are shown ornamentally connected with the adjoining diametrical line of the body and tail. The short side of the basket (Fig. 1a) is bisected by wave-lines of a form allied to that in Fig. 1. The separation of the fields is effected by a cluster of three downward-extending fish-heads. On either side of these are two standing realistic roosters with hooked beaks, triskeles-shaped pinions, fishtail-formed tail-feathers, and feet. On both the extreme ends are drawn two carp true to nature, in an attitude as if about to dive. They are components at the same time of a spiral; the form of their triskeles-shaped tails is nearly identical with the pinions of the two central roosters. In the body of both carps is seen again a conventionalized bipartite fish. The whole of this fish-spiral symbolizes at the same time the body of a cock, as is clearly pointed out by the incised bird-heads visible above it.

Figs. 2 and 2 a, Plate XI, represent the ornaments on the rim of the cover of a lacquered tobacco-box, the cover of which is seen in Fig. 18. They are painted red and light green, and bordered by black lines. On the front side of the rim (Fig. 2) we observe two small and five large equal triangles. In the small triangle to the left there is a fancifully combined figure, showing in its centre the



1



1a



2



2^a



7



5



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picture of a fish, from which radiate three cock-heads with circles before their beaks. The two on the left side are shaped like triskeles, the lower one ending in a fish-tail. The bird branching off from the fish on the right side holds its head turned downward to the left, wing and feet being slightly symbolized by a short crooked foil, and terminating in a disproportionately extended fish-tail. The following isosceles is occupied by two conventional, almost heraldic forms of animals explained by natives as musk-deer (see p. 41), whose bodies are usually treated like that of the cock, their ears standing upright, their faces turned away from each other, two legs being indicated above the body, and the other two below it; the tail a bushy tuft consisting of five curved broaches. The animal is shaped intentionally in the form of a spiral; its mouth being the starting-point, and one of the fore-legs the terminus. Its body is in the form of a fish, and, besides, in its interior is a bipartite fish adapted to the outline of the body. The head of this fish is directed downward, its eye distinctly marked by a circle and its gill by a crescent, which is somewhat bigger in the animal on the right side. The tendency to introduce fishes into these decorations goes so far as to affect even the clearness of the fundamental design. In this case the ends of the foremost lobe of the tail and of the adjoining hind-leg are so connected with each other as to leave space for the design of a conventional form of a fish on the hind part of the deer. To see to advantage the picture contained in the third triangle, one should invert the illustration. Then it is possible to observe the two long-stretched heads of the roosters holding a green-colored circle between their beaks, the pinions being duly indicated by a tricornered branch, the bodies being formed by graceful wave-lines to which cling two carp full of life and vigor, characterized in the usual way, and having, besides, a spinal fin. To the tail of each is joined an S-shaped fish, to the head of which is attached another fish with a triskeles-like tail. Only one half of the following central triangle is shown in the figure: consequently it contains but one of the combatant cocks. In front of its beak is visible a conventionalized tripartite fish with a bifurcated tail. From below the head of the bird branches out to the left a conventionalized fish consisting of head and body. From the same point proceeds a curve representing the bird's breast, and continuing to the left into the pinions, sending three prongs to the left and one to the right. The last two offshoots form jointly a fish-tail. Oddly enough, the foot is symbolized by a three-lobed leaf joined on either side by a branchlet which seems to signify part of a spur. The body, horizontally placed, follows the outlines of the fish drawn into it. The tail attached to this part is formed in a style widely different from the usual cock-tail, being simply an imitation, or rather adaptation, of the musk-deer tail in the preceding triangle.

Fig. 2 a shows a portion of the ornamentation a continuation of which constitutes the back of the same rim. The division of the ornamented surface is executed here by an elegant sweep of a wave-line. In the first concavity the under part of this wave-line forms at the same time the outline of a fish that clings

closely to it (*a*). The head of the fish is surmounted by a slight curve terminating in two parallel branchlets to the right (*b*) and a beak-like figure to the left (*c*). It is hard to decide whether this part is intended for an independent cock, or merely for the tail-feathers of that larger cock whose head joins the body of the spiral-formed fish (*d*) and sends off a long beak (*e*) in the form of a semicircular wave. On its head is a crest, the shorter component of which is treated as a cock's beak (*f*), with an oval in front of it; the other makes a wide curve terminating in a fish-tail (*g*), one branch of which contains a dot for an eye, thus indicating a bird's beak, which is corroborated by placing an ellipsoid in front of it. This whole offshoot has the shape of a triskeles. Returning to the large cock filling the middle ground of this area, we see the outlines of its body rendered true to nature, and a scroll on its hind part (*d*), to which two feathers are attached, indicating the tail, or, if the figure above the fish-head is correctly to be interpreted as a cock's tail, the pinions. In the smaller intervening part the two cocks rampant are easily discernible, their feet united, the long falciform beaks directed upward and the tails downward, the latter being connected by a pair of small ellipsoids. In accordance with this, the remainder of this ornament is self-explanatory: the cock rampant is to be seen single in one of the following fields.

Fig. 3, Plate XI, is an ornament cut out of paper, which was to serve as an embroidery-pattern of a bag for a strike-a-light. The exquisite gracefulness of lines and the fine taste here displayed deserve special mention. The two artistic fishes in the extreme lobes are explained as crucians, with ciliated mouth; the whiskers are formed like a cock's comb, the under arm having the shape of a conventionalized fish. The middle of the centre is filled up with two large cocks rampant, facing each other, heads and necks recurved, their beaks joining in a long curve to which two conventionalized fishes are attached. The outline of the body of this cock, generally speaking, has the form of a spiral, and is a well-designed fish at the same time. Above the head of this fish is a spiral with a closely adjoining strongly conventional form of a fish, this whole figure being already familiar to us as symbolizing the cock's wing-feathers. Below the eye of the fish we note a conspicuous crescent accompanied by an ellipse, apparently derived from the cock's beak. Close by it is a well-developed fish-tail, which, if the drawing be inverted, signifies the tail of this latter cock; in this case the spiral containing the fish should be considered as its body.

Fig. 4, Plate XI, is an ornament cut out of red paper and pasted on a triangular cartoon. This object, hung to the wall, was used as a holder for newspapers by a rich Gold living in Khabarovsk, who, as a gentleman, was proud of having Russian papers, although he could neither read nor write. The ornament spread out along the border consists of a succession of spiral triskeles. The main field is occupied by two spirals with two fishes adapted to the outline of the first winding. Attached to the ends of these spirals is a triskeles with two long arms and one short one. The outer arm is continued by a double triskeles below; the longer arm of the latter, as well as the adjoining one of the

preceding, has the form of the cock's beak and neck. These two arms form a rounding whose space is filled up by a kind of trident. In the upper part of this decoration two triskeles, with one part shaped like a fish-tail and the other like a cock's head, are placed together in a way similar to that below.

Fig. 5, Plate XI, is an embroidery-pattern the ornament on the under part of which consists of four spirals. To the outside of each of the inner spirals clings a conventionalized fish, the form of which has become somewhat stiff owing to the kind of work. To the outer spirals below is added a triskeles of the well-known fish-tail form, and at the extreme ends a conventionalized fish holding the head downward. In the upper part of this ornament we note double combinations of triskeles in which one arm is rolled in like a scroll, and to which ovals or circles are joined, as they appear elsewhere in front of the cocks' beaks, so that here the idea of conventionalized cocks may be the underlying conception.

Fig. 6, Plate XI, shows an embroidered collar. The ornament consists of a double row. The element of the inner row is formed by a wave-line, which joins in the centre in a pair of spirals. In the concavities on either side are two distinctly designed cocks with fishes for their bodies. In this case, the plumage is marked on the body, not, as elsewhere, outside of it. The outer row of ornaments is composed of single pieces reproducing, as it were, diagrams of the cock holding the fish in its mouth, the heads of the cocks being recurved so that they are turned toward each other; the fishes have the shape of the triskeles.

Fig. 7, Plate XI, represents the embroidery on a wristlet, the design exemplifying a very curious amalgamation of the cock with the fish. The beak of the cock with the circular object under it is clearly visible, as well as the form of its body. All the remaining parts, however, are shaped like a fish,—two dorsal fins, at the same time the bird's pinions; the bipartite fish-tail, at the same time the cock's tail-feathers. The close association of both animals, and their ornamental harmony, have advanced to such a degree, that one might speak in this case of a cock-fish or a fish-cock, according to the predominance of the one or the other element. The other spirals occurring here, and the S-shaped cocks with two circles between their beaks, require no further explanation.

Fig. 1, Plate XII, represents the ornamentation on the inside of a birch-bark basket. It consists of three rows, one above another, the uppermost and undermost containing the same design. The middle field shows at both ends two naturalistic cocks with long, bent beaks, and bodies in the form of fishes; the head of the latter is indicated by a scroll. This fish-body is embedded in the curve of the wave-line, between the upper end of which and the cock's head is the design of a crescent-like conventionalized fish, indicating at the same time pinions. To recognize the pictures in the two central hollows, the plate must be inverted. Then we see the cock, Type B. It is worthy of note that the conventionalized bipartite fishes are attached to the neck of the cock in the rounding between the neck and the spiral body. In the edge ornaments we observe again a series of fish-spirals. The fishes form here the starting-point of the spirals;

their heads, eyes, gills, bodies, and tapering tails are plainly marked by black lines. These somewhat angular spirals are rounded off above by a projection in which a conventionalized fish is drawn.

Fig. 2, Plate XII, is an embroidery for trimming the front and upper edges of a garment. This is a very good example for illustrating the amalgamation of the fish and spiral. It is a continuous fish-spiral pattern. The basis of this ornament is a combination of a pair of double spirals contiguous to each other in the corner between the upper and front edges. In these spirals we see head

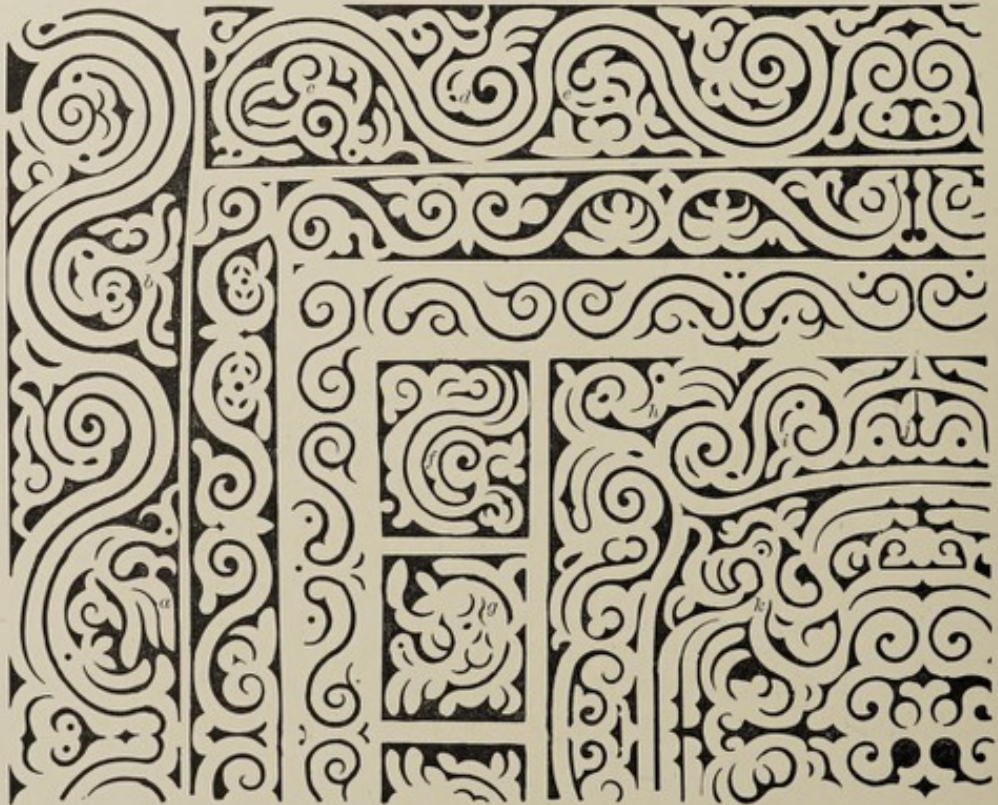


FIG. 12 (474). Section of Paper Pattern. Tribe, Gold. $\frac{1}{2}$ nat. size.

body, and tail of the fishes thoroughly characterized. In the pair of spirals next below this corner the spirals retain their rigid forms, and the conventionalized fishes combined with each other are placed around them independently. Their forms have the usual fish-outlines, as shown by a comparison with the preceding fishes. The next spiral below differs from the corresponding first one in that the head is not separated by a special line from the trunk, but only indicated in its form.

The principle of the ornament on the embroidery-pattern in Fig. 3, Plate XII, is based on the combination of facing spirals, treated partly as cocks, partly

as fishes. In the pair at the upper end we see the type B inverted; beak and head shaped like a fish-tail, a bifurcation forming the pinions, and leaving between them and the head a space outlining the conventional form of a fish. The ovals, semicircular curves, and the compound braces placed around the spirals are well-known appearances to be traced back to the cock-ornament. The next pair of spirals shows the pronounced figure of a fish, its two sides running parallel to each other, its head not being especially marked off, as in that seen in Fig. 2 of this plate. The left side ends in a fish-tail, to which is closely joined a triskeles or a triskeles-shaped fish, suggesting perhaps that the short hook of the first-mentioned tail should be regarded as at the same time the beak of a cock holding a fish.

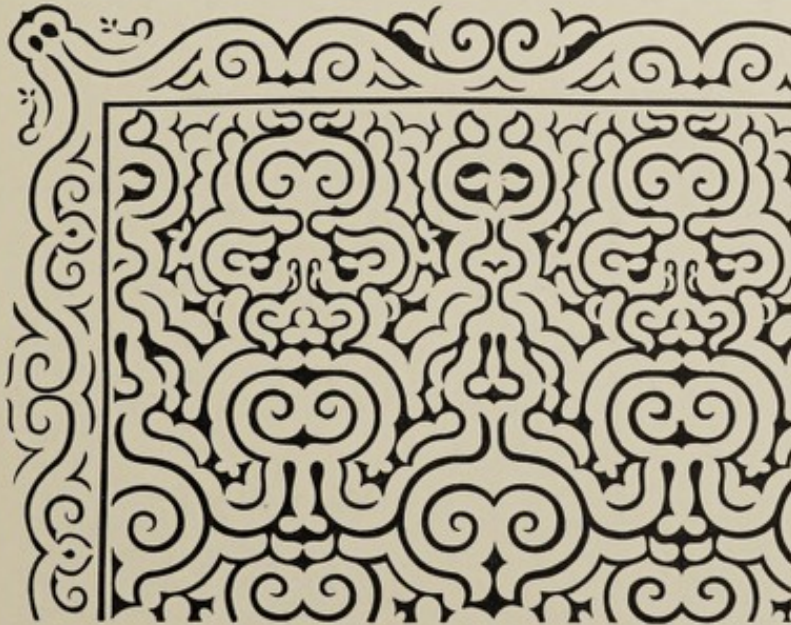


FIG. 12 (2/2). Section of Paper Pattern. Tribe, Gold. About 1/2 nat. size.

Fig. 12 offers a very interesting pattern as showing the predominating, all-governing influence of the fish-ornament, for the sake of which all other forms are remodelled. In *a* the cock is clearly to be recognized as a bird; its beak, however, assumes the form of a fish-tail. On the left, to its trisulcate wing-feather a conventionalized bipartite fish is attached. Its body is, of course, conceived of as a fish, and ends above in a fish-tail. In *b* we see a figure to be defined neither as cock nor as fish, but to be designated only as cock-fish. The body has the outer form of a cock's body and a fish incised on it. To the right, in the interior of the spiral, a fish-head is appended, whereas to its narrow neck two conventionalized fishes are annexed. Between *a* and *b* we see a spiral to which

a fish-body is clinging, with a head at each end. *c* is a variation of the type seen in *a*. *d* is a cock without tail-feathers. *e* is allied to *b*, but adorned with leaf motives. Also *f* is a cock-formation composed of fishes. In *g*, *h*, and *i*, fishes and cocks are, as it were, like arabesques, amalgamated into one composite whole, the separate parts of which are hard to single out, since one always glides into the other. *j* and *k* show the principle of the cocks of Type B. In *j* the backs of the cocks, strange to say, are replaced by two conventionalized bipartite fishes rampant. The acme of all these phenomena of cock and fish is reached, however, in *g*. Here we observe in the middle a large realistic carp, on the tail of which is drawn again a fish. At three points this carp is ornamented with bird-beaks and the usual ovals; so that this design, when viewed from three different sides, has the appearance of as many cocks.

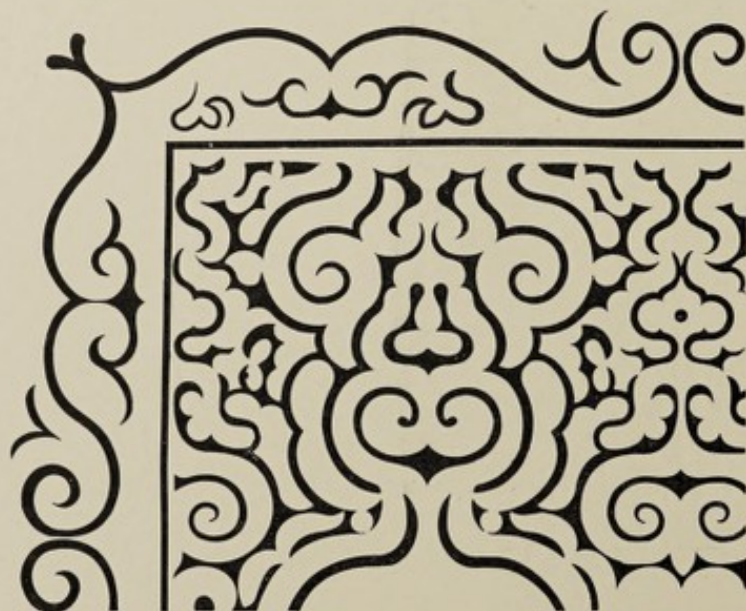
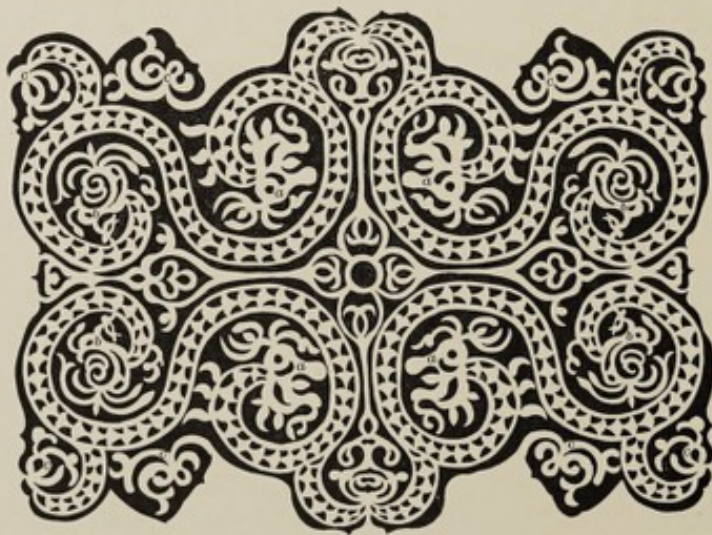


FIG. 14 (*1/2*). Section of Paper Pattern. Tribe, Gold. About $\frac{1}{2}$ nat. size.

Figs. 13-17 are likewise large compositions based on the principle of the combination of conventionalized, mostly bipartite, fishes with spiral and cock ornaments. In these conglomerations are shown the endless variation of which this ornament is capable, and the great effectiveness of the forms in the composition of larger structures. In Fig. 16, moreover, a lavish use is made of leaf and floral ornaments. In special beauty of forms the large realistic cock on the left side of Fig. 17 excels.

THE DRAGON.—The Chinese dragon (*lung*; Gold, *mudur*) holds a prominent place in the mythology of the Gold, and is believed by both these peoples to



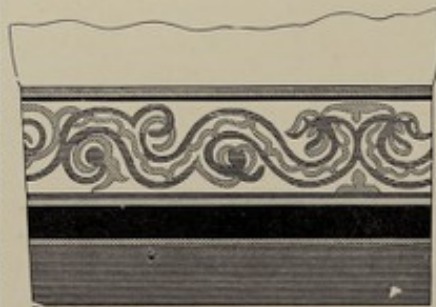
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produce rain and thunder. This monster is very popular throughout eastern Asia, and is a favorite subject in ornamentation.¹

Fig. 4, Plate XII, is a decoration cut out of paper, in which the picture of the dragon is repeated four times. It is laid out in the form of a double spiral, the starting-point of which is, on the one side its head, on the other side its tail. To the single spirals are now added offshoots representing the legs of the monster, so that one might distinguish the form of the dragon as well as the combination of two triskeles. The curved lines outlining the dragon's body run parallel to each other,

and are covered with a row of small triangles indicating scales. The upper part of the head has almost a helmet-like shape, its mouth being strongly prominent, and its tongue quivering. On the face of the dragon (*a*) there is a very remarkable design: in the three objects, eye, semicircle, body, is reproduced the image of the conventionalized fish as it usually appears on the naturalistic fish-body or the cock. The conventionalized fish oc-

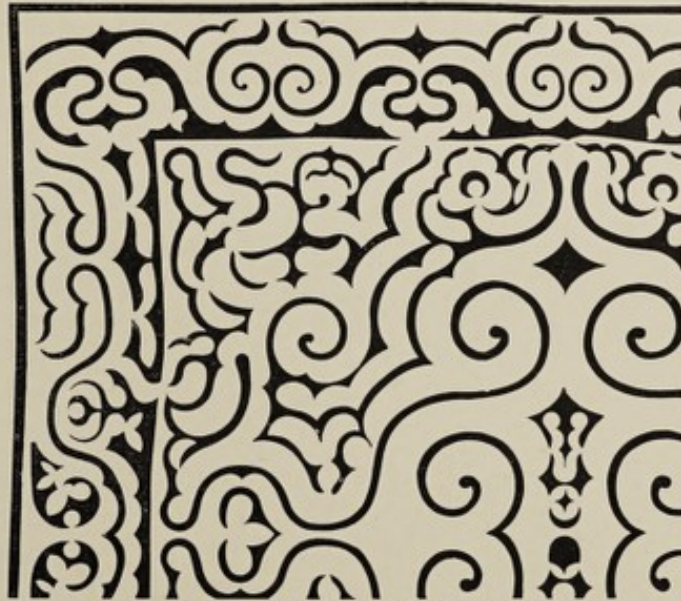


FIG. 15 (1/4). Section of Paper Pattern. Tribe, Gold. About 1/4 nat. size.

occurs once again under the head, where it is formed by the outline of the latter and an added triskeles, representing in this case the whiskers of that mythical creature. The horns on its head are so shaped as to remind one of the cock's tail-feathers. The one four-broached portion of the horns is also identical with the design of the dragon's tail on other pictures. On its neck are three claws, representing its wings or flag-feathers. It is a striking fact that the four fields at the ends of the dragon-tails are filled with cocks (*b*), each holding a fish in its beak, and having their bodies formed like fishes, the symbolical design of the conventionalized fish being cut out of them. This is placed also around the spiral wing-feathers in the characteristic manner. The tail belongs rather to the dragon than to the bird, for it consists, which is unusual for a cock's tail, of two bisected parts, each made up of two offshoots. The picture marked *c* may be interpreted as showing certain stages in the development of the cock-fish ornament.

¹ The dragon of purely Chinese type has already been referred to on p. 4.

Fig. 5, Plate XII, is another paper pattern representing dragons, likewise in the form of double spirals, but in much simpler form than in the preceding case. The head (*a*) is extended, and has only one horn of the shape of the familiar conventionalized bipartite fish. The mouth projects and is wide open. An oval figure is put under its lower jaw, significant of a bright pearl.¹ The serpentine body is covered, not with scales, but with an ornamental spur-line. The tail (*b*) is a bushy tuft with four branches, one of which corresponds to the form of a conventionalized fish. Feet and claws are not indicated.

Fig. 6, Plate XII, shows a painting on the upper edge of a pair of leggings, colored in red and black. In this case two dragons are placed side by side, the

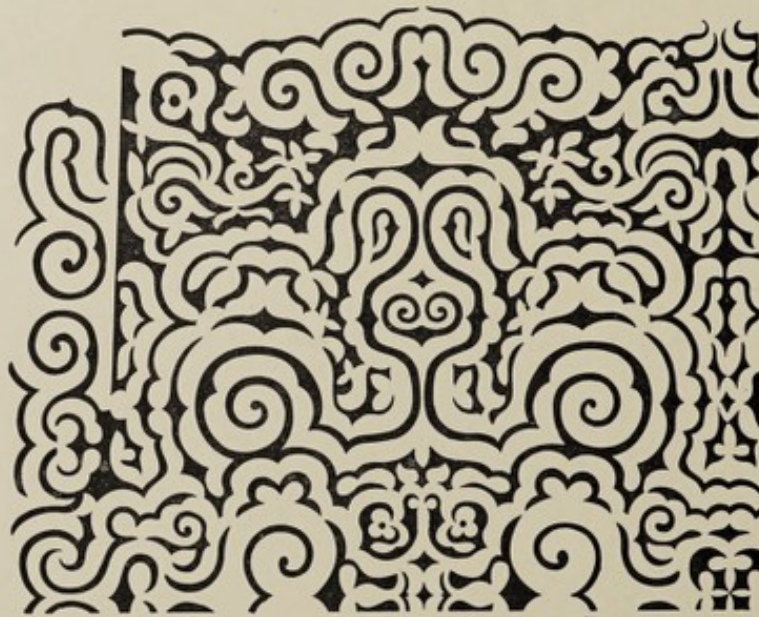


FIG. 16 (1/4). Section of Paper Pattern. Tribe, Gold. About 1/4 nat. size.

faces turned away from each other. These are strongly conventionalized, indicating in reality only the open jaws, the scales marked as in the foregoing example. The tops of the heads are connected by a brace. Both above and below the body is a foot with claw. The tail consists of a circle and adjoining triskeles-shaped fish-tail.

Fig. 2, Plate XIII, represents half of the decoration on the cover of a lacquered tobacco-box, the edge of which is adorned with a conventionalized design of eight dragons in the form of spirals. These are paired so that their faces, which consist of bifid ovals, are turned away from each other. The horns are fashioned after the cock's tail-feathers. The heads of the dragons on the long

¹ See Grünwedel in *Sitzungsberichte der preussischen Akademie der Wissenschaften in Berlin*, 1901, p. 215.

side are connected by a brace. Six dentiform projections stand out from the back. The body terminates in a fish-tail, the shorter arm of which signifies a foot with four sharp claws, the other being supplied with a bushy tail resem-



FIG. 17 ($\frac{1}{16}$). Section of Paper Pattern. Tribe, Gold. About $\frac{1}{4}$ nat. size.

bling cock-feathers. In the centre of the middle field is a rosette, the elements of which are made up of conventional designs of fishes. Above follow two cock-fishes, each in a spiral. Connected with the central rosette by a narrow band is an elliptical figure with an ornamental ring inside, between which and the periphery of the ellipse are delineated triskeles and conventionalized cocks. Beyond this figure are two opposite dragon-heads.

Fig. 18 is also a decoration on the cover of a lacquered tobacco-box, but here the main field is taken up by eight large finely drawn dragons. This type approaches in its form very nearly that of the cock-ornament. On each side of the cover the two dragons above and below are placed in the form of a double spiral, tails contiguous, faces turned so that they look at each other. At the end of both the upper and the lower jaw is a triskeles, apparently signifying cocks,



FIG. 18 ($\frac{1}{16}$). Cover of a Tobacco-box. Tribe, Gold. Extreme length, 54 cm.

as the upper ones have ovals connected with them. Likewise the horns on one side are characterized by a triskeles in the form of a fish-tail. The two central dragons are connected by two combatant carp. The dragon-tails are wholly fashioned after the form of the cock-tails. These may be designated either as dragons or as cocks with dragon-bodies, so that one may speak of cock-dragons as well as of dragon-cocks.

On Fig. 1, Plate XIII, a dragon in front view is sprawled over the cover of a Goldian tobacco-box, the greater part of which it occupies, in fanciful connection with a chain-band pattern. The head looks similar to that of an elephant. In the mouth are designed a pointed tongue and two pairs of front teeth. In general the ornamental treatment recedes as much as possible into the background, that the animal character may receive more emphasis. Ingenuity is given free scope, in this case, by the introduction of the perfect representations of the four feet stretched out to both sides, each with four claws.¹ The bobtail also is not a decorative part, but consists simply of seven natural-looking furcations. Between the two hindmost claws on each foot is inserted an oblong object which they seem to hold. The band-ornament along the edge of the cover is so placed around the monster as to suggest that the animal might be bound with ropes. The bands start from the ends of the upper and under jaw, and are twisted into three loops above and three below, which show two, and in one case four, prominent tips. Several S-shaped figures, which also presumably represent portions of the band, are inserted between the single knots.

This monster, conveying the impression rather of an enormous python, is very likely the embodiment of the rain-dragon soaring in the clouds, but hampered by its fetters in pouring out its blessings on the thirsty land. In this connection mention should be made of the Chinese and Japanese "cloud-and-rain patterns," simple illustrations of which are given in Fig. 3, Plate XIII, and in Fig. 1, Plate XIV. The former is a cloud pattern composed of spirals with cocks resting on them, and of clusters formed by a central spiral with six scrolls around it. The latter is the device on a Japanese weaving belonging to the period between the eighteenth and the nineteenth centuries. It is constructed of a combination of semicircles and spirals, and adds another to the already wide range of objects for which the spiral is a symbol, as, in this case, for cloud-formation.

Fig. 4, Plate XIII, an old Chinese weaving-pattern, gives a somewhat more graphic account of Chinese notions of atmospheric phenomena. The upper and lower edges are taken up with two variations of the meander, while the intervening part is occupied with an evidently emblematic effigy. This special representation is designated in Chinese art as a "cloud-and-thunder picture." It reproduces a dragon, which, as Hirth² sets forth, in its aerial abode starts the thunder a-rolling with its hind-paw upraised and stretched backward. The

¹ Five-clawed feet are only accorded to the Imperial dragon.

² See Hirth, *Verhandlungen der Berliner Anthropologischen Gesellschaft*, 1889, p. 493.

thunder is symbolically characterized by a triskeles, one arm of which is enclosed in a semicircle. Below it the lightning is represented by a trident. The meandrian patterns are also a symbolical equivalent for thunder, so that this whole representation might be called the best illustration of the deductions of Hirth in the paper quoted before.

THE MUSK-DEER. — Foremost among the animals which play an important part in the productions of this art, after the cock and the dragon, is the musk-deer; at least the creature portrayed in the following examples is explained by the natives as such. It is rather naturalistic on some of the larger zoöphoric compositions; but, under the pressure of the leading gallinaceous motive, it undergoes such conventional transformations, especially in its double character, that the difference between the construction of its forms and those of the cock is hardly perceptible.

In Fig. 2, Plate XIV, not only has the deer retained the form of head of the cock, but it has also been invested with its beak grasping the fish. The head is adorned with antlers which are made up of two triskeles joined by a heavy dot. On the body, and parallel with its outline, are cut out two conventionalized fishes side by side. The two hind-legs are formed in the same way as the tail, consisting of two slightly undulating curves. The two animals are rampant, their fore-legs united in a straight bar.

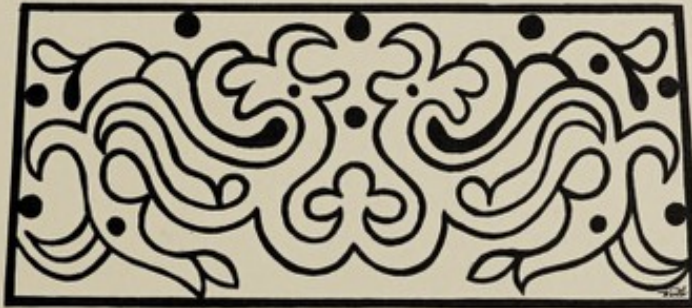


FIG. 19. Side of Birch-bark Basket. (From Museum für Völkerkunde, Berlin, Cat. No. 1A 1207.)
Tribe, Gold. Length, 21 cm.

Fig. 3, Plate XIV, represents a paper pattern for embroidering a pair of ear-lappets. The two figures (*a*) on both sides are combatant musk-deer of more conventionalized form than the preceding ones; only their heads, with ears upright and mouths open, have a somewhat natural appearance. Their bodies are shaped like the fish whose form is cut out of them. Two large dots serve to express the feet. The tails consist of one falcation and a combination of two triskeles with an oval knob. The lines *b* are wave-lines ending below in a form reminding one of the cock's tail-feathers. The ornamental figures *c* and *d* signify the last stage of development of the cocks of Type A, that is, of the combatant cocks, *d* showing two combatant fishes in lieu of cocks' bodies. The oblong crenations (*e*) around the edge are apparently derived from the constituents of the cock's wing-feathers.

On the side of a birch-bark basket (Fig. 19), are delineated two combatant

musk-deer in crouching attitude, and invested with cocks' crests. The feet unite below in a trefoil. On their bodies are fishes, gracefully outlined. Each deer runs out into a fish-body, the forked tail of which is visible, and to which a collateral fin is attached. The style of execution of these fishes is such, that the space between them and the body of the musk-deer remains the usual conventional form of the fish.

ANIMAL PIECES. — Of other animals which occur in the ornamentation of these tribes, aside from those hitherto noted, the following deserve mention: wild duck, wild goose, swan, eagle, swallow, elk, reindeer, roe, fox, dog, crucian, lizard, frog, snake, and insects. The following animal pieces demonstrate the supreme degree of zoöphily innate in the minds of these people, who display such a wonderful amount of creative power in these productions so full of freak and fancy.

Fig. 4, Plate XIV, shows a pattern cut out of paper, which is divided by winding curves into ornamental fields. The birds marked *a* were explained as wild ducks. In form they can hardly be distinguished from the cock. The bird seems to be conceived of by the artist as swimming. On its head is a horn-like piece, formed on the one side by a conventionalized fish, on the other by two parallel pikes. A conventionalized fish, consisting of two separate parts, is cut into the body as in the cock. The wing-feather is a scroll; the tail, of the conventional fish-form. The figures *b* are two circle-ornaments to which are attached, above and below, birds' heads.

In the paper pattern, Fig. 5, Plate XIV, we see a very remarkable, graceful combination of various animals. In the centre, four musk-deer (*a*) are grouped around a lozenge-shaped figure. The head is formed in exactly the same style as that in Fig. 3 of this plate. The body looks very odd, because it is moulded like that of a fish, to the head of which cock-spurs are added to indicate the feet of the deer. In the heart-shaped fields above and below are two frogs (*c*) with four outstretched legs formed like fishes, and with two fishes indicated on their bodies. At the extreme ends are four crucians (*b*), covered with triangular scales. Between these and the musk-deer are placed four pairs of wild swans, each pair having one body in common, but distinct necks and heads, — one naturalistic head turned inward, whose gracefully arched neck rests on a wave-line, giving at the same time the outline for the bird's body; the other head, turned outward, being ornamentally conventionalized.

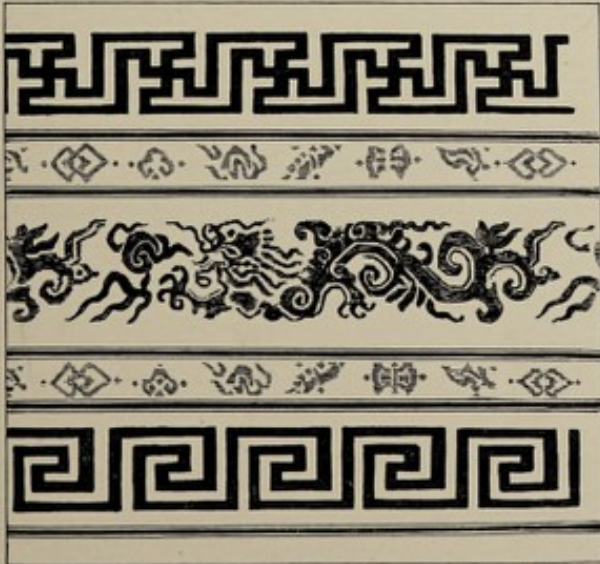
Fig. 6, Plate XIV, represents a paper pattern showing a design for embroidering a shirt. In the centre is a circle, around which are grouped four tortoises (*a*), strongly conventionalized. Around it, on both sides, two bands forming four circles and two ellipses are symmetrically arranged. In every circle there is a roe (*Cervus capreolus* L.), *b*; two snakes (*muiki*), *d*; and a bird (*c*), called *tewerkó*, the species of which I have not yet been able to determine. Each ellipse contains a frog (*Rana temporaria* L.), *e*; two spiders (*atkomama*), *f*; and two gadflies (*shigaxtdá*), *g*. Outside of these figures a number of animals are



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represented standing along the edges of the pattern. There are four mosquitoes, *h*; four chimney-swallows (*Hirundo rustica* L.), *i*; four snakes, *d*; four stags (*Cervus elaphus* L.), *j*; and four fawns (*Cervus capreolus* L.), *k*.

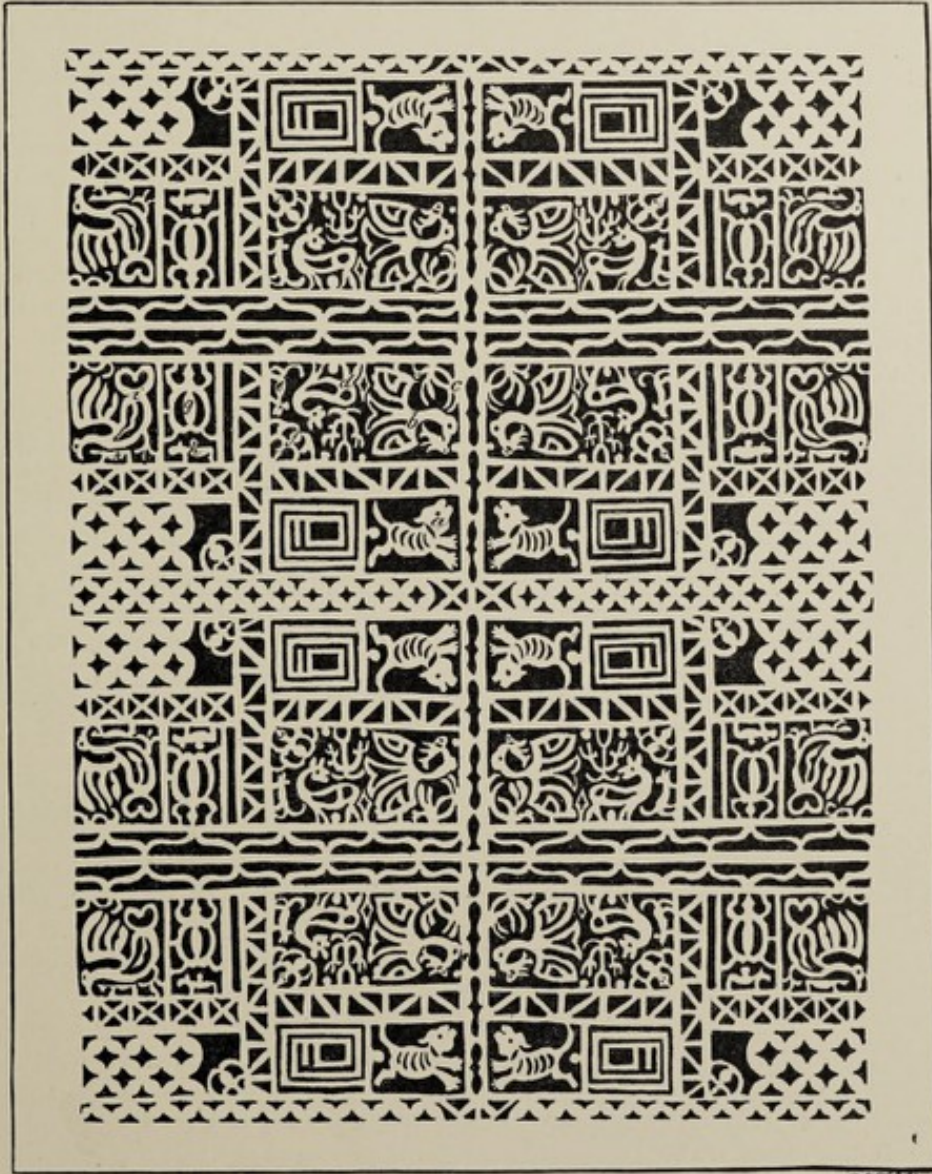


FIG. 20 (455). Paper Pattern. Tribe, Gold. $\frac{1}{4}$ nat. size.

In the paper pattern shown in Fig. 20 the same picture is represented eight times. In it the following animals are represented: a jumping tiger (*a*) with open

jaws, the fore-legs with paws outstretched, with only one hind-leg, and tail upturned; an eagle grasping a fish in its beak (*b*), this conception being very likely derived from the cock holding the same little creature in its beak; a flying wild duck (*c*); a musk-deer with a design of a conventionalized bipartite fish on its body (*d*); a fox lying in ambush (*e*); frogs (*f* and *g*); a horse and its rider (*h*); an eagle flapping its wing and having a foot with three outstretched claws (*i*); what is said to be a glutton (*k*).

Fig. 21 represents nearly one-fourth part of a paper pattern that is divided again into two symmetrical parts. The ornaments are distributed over four large and twenty-six small quadrangular and ten triangular fields. In the large rectangle to the left are united four strongly conventionalized dragons, whose heads merge into the geometrical figure *a*, and whose tails are distinctly marked in the palmate figure *b*. The body itself is not drawn, but merely symbolized by spiral windings.

On the small squares surrounding the large figure just described, a number of animals are shown. The three small squares designated as *c* contain representations of spiders formed in a way similar to that of the dragon's tail. In one of them are drawn the outlines of three conventionalized fishes. *d* represents a raccoon-like dog (*Canis procyonoides* or *viverrinus*) with five cross-stripes; *e* is a young musk-deer; *f*, a frog; and *g* is a wild duck in the act of flying, the wing being marked by a trapezoid containing an inscribed smaller trapezoid; *h* is a roe with neck turned backward; *i*, a cock with outspread wing and erect tail-feathers; *j* is a wild reindeer; *k* is identical with *d*; *l* is a wolf; and *m* represents a wild goose.

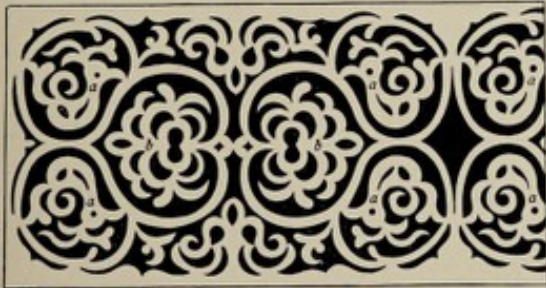
Proceeding to the triangles at the bottom of the design, we find a doe looking backward (*n*); to the left of it a conventionalized deer with recurved cock-neck; *o* is a lizard.

The large squares on the right are divided by bands into a number of fields, which are also filled with animal figures. In the lower square we find to the left an elk (*p*), above which are three quadrupeds, one of them a stag; *q* is a double eagle with body in common and outspread wings; *r* is a wild duck; *s* is a panther; and *t*, a jumping tiger. In the second square are seen roes (*u*) with rebent necks; *v*, a duck; *w*, a swallow; *x*, a frog; *y*, a flying wild duck (cf. *g*); *z*, a galloping hound.

Fig. 22 is a pattern for a blanket, cut out of paper. There is a central piece with an upper and lower edge. The main ground is taken up with two dragons wound in the form of spirals, the heads (*a*) of which lie in the termini of these spirals. The space inside of the dragon-spirals is occupied by representations of animals, which correspond to each other on both sides. As a sort of decorative cæsura, a large frog (*b*) and a smaller adjoining one are inserted. The intervening spaces between the dragons above and those below are filled up with four tortoises (*c*). Close against the dragon's head a fox is leaning, followed by a wild duck (*d*) on the other side of the head. In *e* is represented a branch



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consisting of three parts, with leaves and blossoms. *f* is a musk-deer; *g*, a stag; *h*, the cock running out into a fish-body; *i*, a conventionalized bird; *j*, a roe. Outside of the dragons we observe a conventionalized tree with roots (three

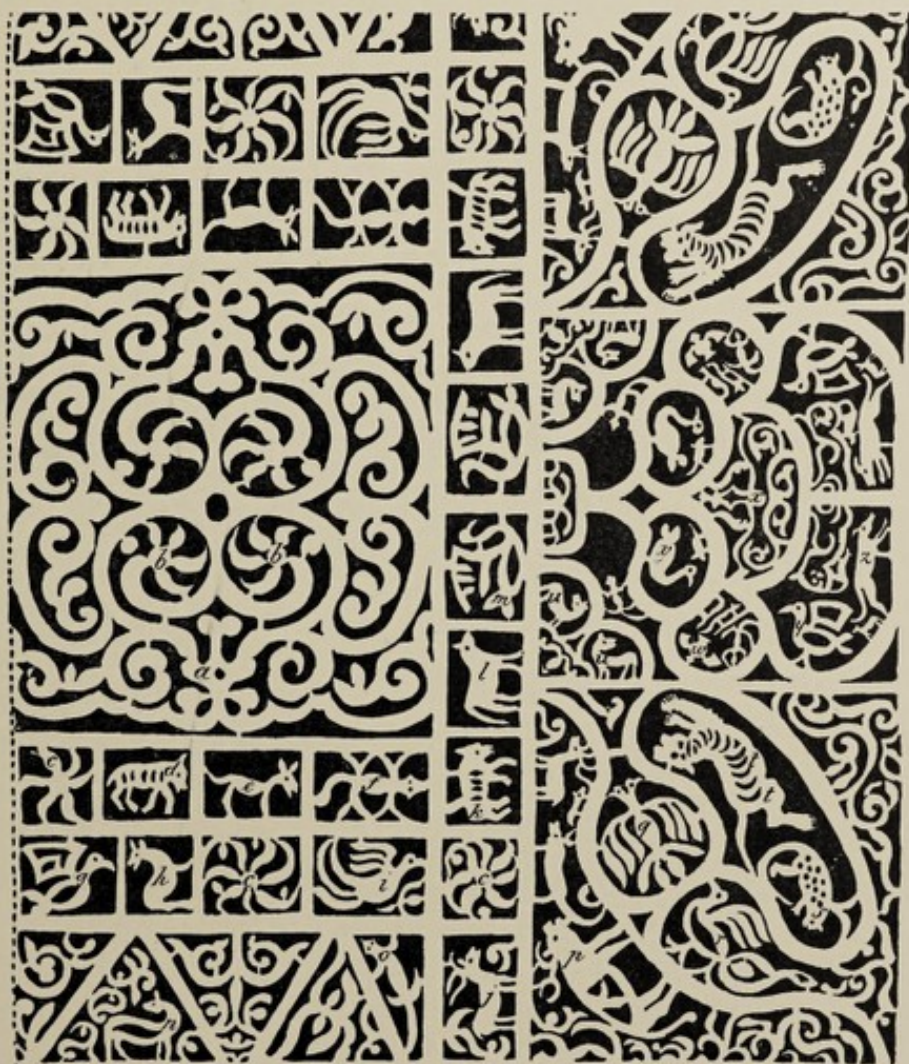


FIG. 21 (477.) Paper Pattern. Tribe, Gold. [nat. size.]

semicircles in succession), trunk, boughs, and foliage, by which is indicated symbolically the primeval forest, the so-called taigá, where the whole animal kingdom nests. *k* denotes a swan floating on the surface of the water, with a

cross on its body¹ (the ellipse forming the body is repeated to furnish the connection with the dragon); above it is the design of a squirrel (*l*). *m* is a duck with a fish in its bill; *n*, a lizard; *o*, an elk; *p*, a musk-deer; *q*, a cock; *r*, a duck perching on the side-branch of a tree, as on the fish-skin garments; *s*, a lizard; *t*, a carp; *u*, a swan with open, upturned beak; *v*, a roe. The edge is cut by means of jagged lines into rectangles, and each of these again into four triangles. In the first triangle at the extreme left is an eagle with outspread

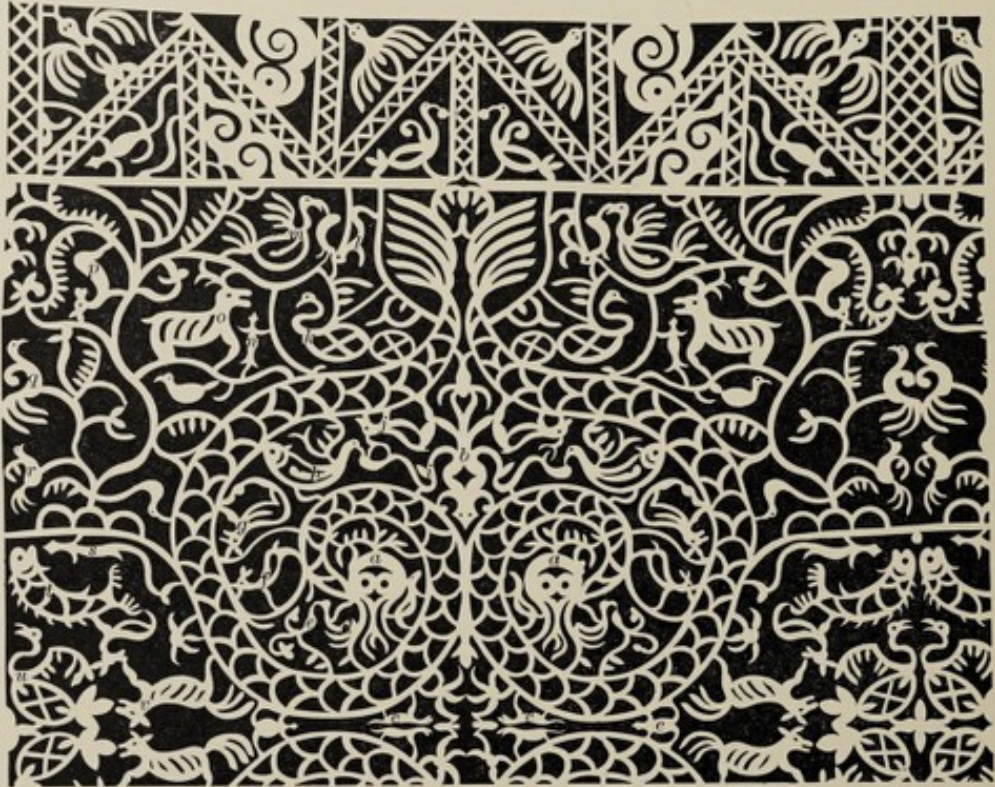
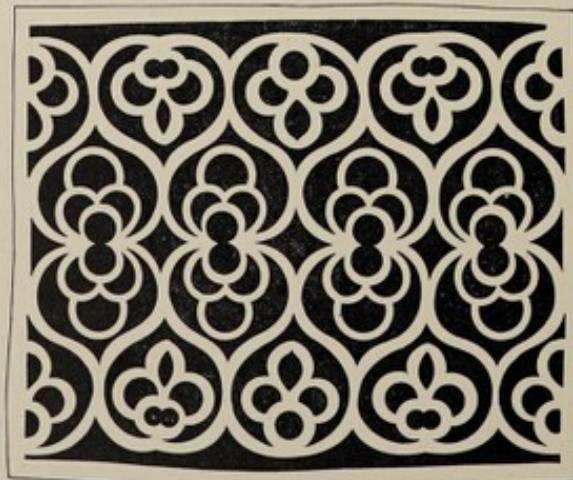
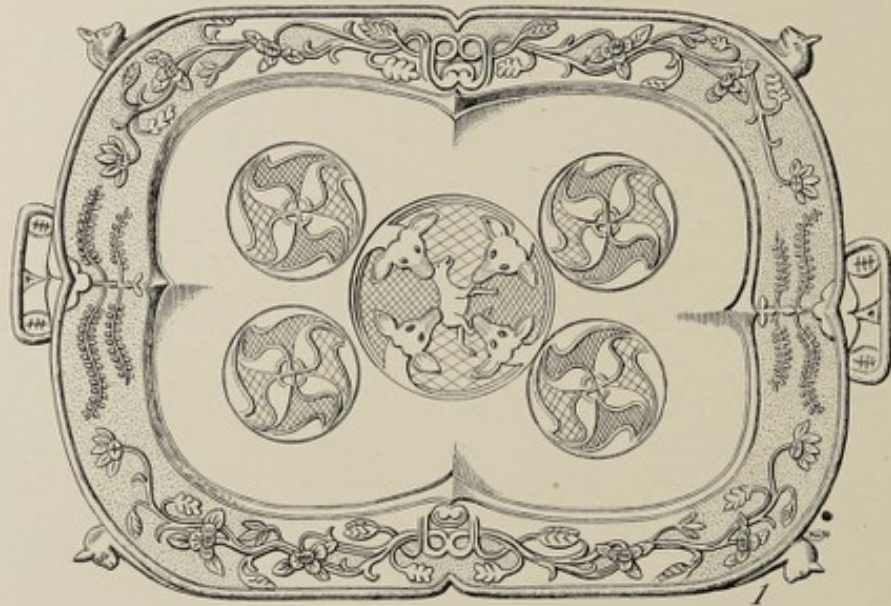


FIG. 22 (22). Section of Paper Pattern. Tribe, Gold. About $\frac{1}{2}$ nat. size.

pinions, almost in the fashion of our escutcheon eagle. In the opposite triangle there is a lizard, and below it a snake. In the two central triangles are two eagles and two roosters standing opposite each other.

LEAF AND FLORAL ORNAMENTS. — Not only does the delineator manifest his artistic spirit as a skilful faunist, but, to a certain extent, the flora also occupies his attention. Leaves and floral forms occur partly as independent ornaments in connection with other elements, partly in close combination with the cock and fish ornaments. Especially single portions connected with the latter are treated

¹ See Globus, Vol. LXXIX, 1901, p. 70, and cf. Figs. 3 and 14.



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as leaves, chiefly the heads of conventionalized fishes, and the round object held in the beak of the cock.

Fig. 1, Plate xv, represents a carved Goldian wooden dish. In the middle, around a large circle, are grouped four smaller ones showing peculiar forms of svastika. Two opposite fields inside of these have coarse cross-hatchings, two others fine ones. The same kind of hatching occurs in the central circle, which shows the heads of four realistic does holding in their mouths a young fawn. One of the large animals has seized it by the head, a second by the tail, a third by the fore-leg, and the fourth by a hind-leg. The deer are so drawn that their outlines form likewise a svastika. The rim of this dish is covered on the sides with clinging vines, leaves, and blossoms of various kinds and forms, and, on the ends, with flower-spikes. To the four corners at the extreme ends are attached four animal heads in open-work carving. It is hard to say what species of animal is meant.

In Fig. 2, Plate xv, is seen the cover of a wooden box. This composition is remarkable for the reason that the middle piece of the ornament is not shaped symmetrically, the only symmetry visible being in the arrangement of the ornaments across the upper and lower ends. Below we see a three-lobed leaf. Two leaves of the same kind, though not of the same rigid geometrical form, are found in the central part. The whole is intended, perhaps, to signify the bough of a tree, whence perhaps also arises the irregular arrangement of the single parts.

The next design shown on Plate xv (Fig. 3) is that of an embroidered tobacco-pouch, the edge of which is trimmed with sable. The stitches employed on the edge are a triple row composed of feather-stitch in the centre with chain-stitch either side of it. In the middle field chain-stitches are mostly used, the leaf parts being worked in satin-stitch. In the right and left upper corners of the central rectangle we observe two three-lobed leaves, under which are two cocks holding triskeles-shaped fishes. There is a red leaf near the fish and a light-green leaf on the cock's body, both seeming to represent the well-known round object. From these cocks branch off toward the middle two double spirals. The smaller, outer spiral has its starting-point in a large two-lobed leaf held in the beak of the cock; the other, inner spiral, from a petal with three lobes grouped, rosette-like, around a circle. Within this spiral is delineated a conventionalized fish, whose body is assimilated to the winding of the spiral, and whose tail tapers to a point. The heads of these fishes are worked in satin-stitch, in the same manner as the leaves, with dark red. On the lower edge of the rectangle are placed blossoms consisting of five petals in pyramidal arrangement.

Fig. 4, Plate xv, represents an embroidered border. In the lower part, on a black ground, we see leaf-forms in connection with triskeles, and in the centre two rosette-like blossoms at the starting-points of two spirals. In the upper portion, with red background, all fish-heads and circular forms are treated as leaves, their surface being filled in with satin-stitches, while the remaining parts are

merely represented by lines of white chain-stitching. This process is therefore at the same time a device by which to make out easily the somewhat obscure cocks and the fishes.

The embroidered waistband, Fig. 5, Plate xv, consists of a rectangular central field and an ornamental border. In the central field a very interesting geometrical formation of the cock is met with, combined with single small curves and triskeles. In the illustration the outlines of this cock have been strengthened to show more clearly the type of this bird. The border is composed of a succession of continuous double spirals connected with two and three lobed flowers. At the same time the spirals symbolize cocks' bodies.

Fig. 1, Plate xvi, represents the upper front border of the half of a collar of a woman's embroidered dress. The ornament shows clearly the way in which leaves and blossoms appear in connection with spirals. One of the arms of the triskeles attached to the spirals is treated like a leaf.

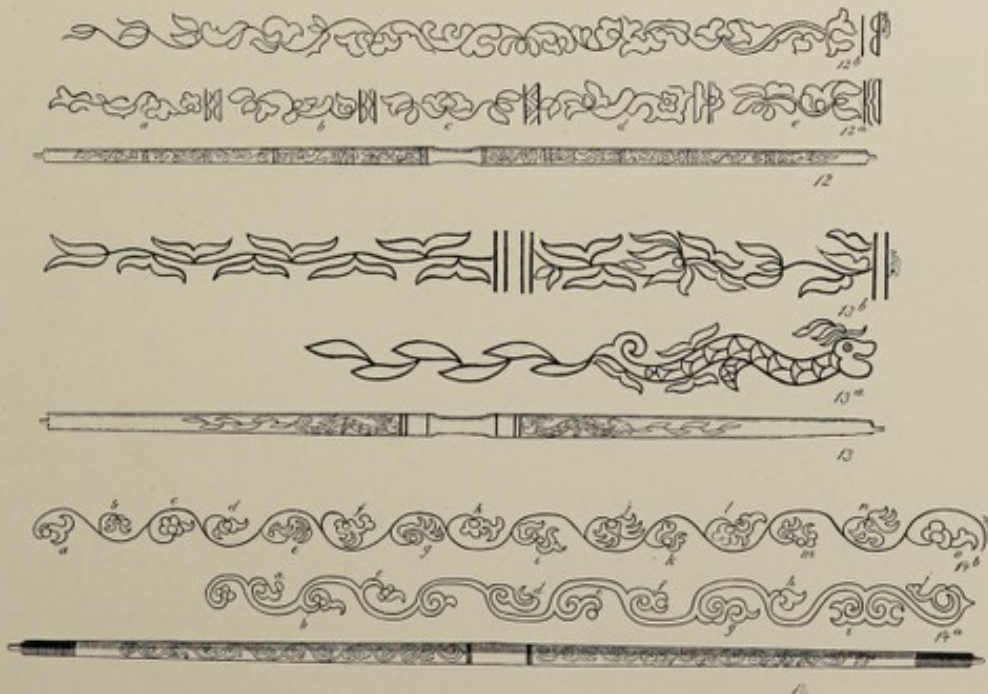
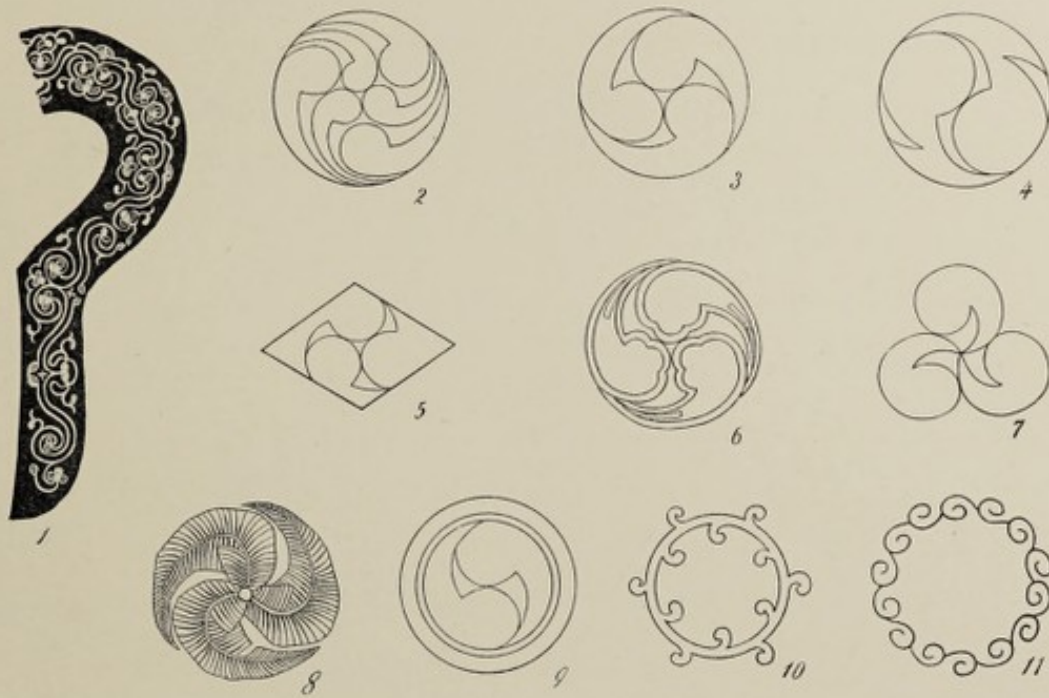
Fig. 6, Plate xv, shows a paper pattern presenting a purely geometrical formation of flowers or blossoms, the single parts of which are circles, semicircles, and ovals.¹

There is a certain power of attraction between cock and plant ornaments, leading sometimes to a perfect amalgamation, which may be illustrated in the following specimens.

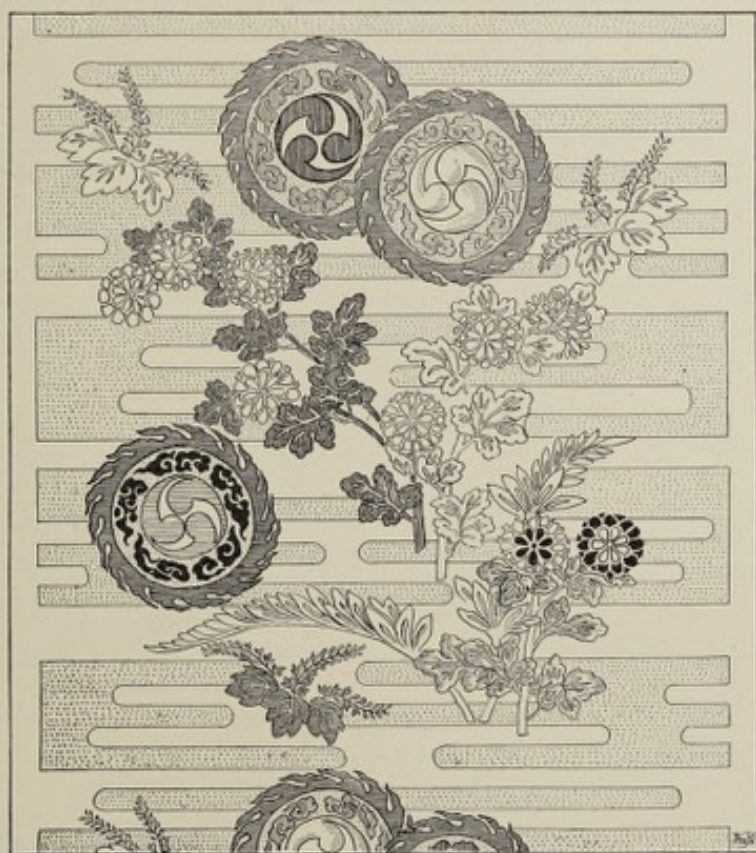
In Figs. 12-14, Plate xvi, are reproduced paintings on three Goldian bows. Fig. 12 shows a combination of a tendril-like ornament with a cock-ornament. The outer side of the bow (Fig. 12 a) is divided into ten fields; but the five fields on the one side do not symmetrically correspond to the five on the other side, in which the same ornamental parts appear in different combinations. In this pattern the motives of the cock and of the fish ornament are so strangely mixed up with leaf and floral designs, and the two are so closely assimilated to each other, that it is sometimes hard to decide what is an ingredient of the cock and what of the plant ornament. In the centre of the field *a* (Fig. 12 a) there is an obvious representation of the cock, with head, body, and spur, holding a conventionalized fish in its beak, to which is attached, on the right, a petal. It would be difficult, however, to determine whether the first design on the left is meant to represent a leaf or a fish. In the field *b* we observe likewise a cirrose leaf, in the middle a conventionalized fish of the characteristic form, whereas all plant portions are adapted to this style of the fish, both here and in the central field *c*. In *d* we see another cock with a fish in its beak. Its tail-feathers, which in design are like a fish-tail, form at the same time the component of a petal. In a similar way, in field *e* is a cock with a fish, on a stalk proceeding from a five-lobed leaf. This ornament terminates at the other end in a trifoliate leaf.

On the inner side of this bow (Fig. 12 b, Plate xvi) the ornament on the left-hand side begins with a leaf-tendril, which is continued to the end by a long undulating line. It may be that in this wave-ornament the curve itself is con-

¹ Cf. what is said about the circle-ornament, p. 19.



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ceived of as something real, as it is entirely filled with conventionalized fishes, or, if one prefers, with leaves which have adopted their forms. These patterns coincide to such a degree, that, in the two designs terminating this ornament on the right side, it might appear doubtful whether they are to be looked upon as cocks, fishes, or leaves: they combine in their forms all three meanings.

The outer side of the specimen represented in Fig. 13, Plate XVI, is divided, for the purpose of decoration, into two fields, each of which contains the painting of a scaled dragon. The parts of its horns have the form of conventionalized fishes (Fig. 13 a). On the body, below, is visible a foot with scales like those on the body. To its body are attached, besides, three cock-spurs, which would here seem to indicate feet. The tail is coiled around into a spiral, as in the cock, and connected with it is a stem bearing six leaves. The inner side of the bow is divided into two unequal parts (Fig. 13 b). The element in the left field is a wave-line. Inside of each curve of the line, both above and below, is a cock-spur, which, in this connection, is meant to represent a leaf. This is one of the remarkable instances where the function of the ornament is different from what it would appear to be. In the field on the right side are represented similar figures, but with freer arrangement. Three oval-shaped leaves are added, and a flower-bud with two petals on either side of a central ovary. This ornament is completed on the right by the representation of three conventionalized fishes.

In Fig. 14, Plate XVI, is reproduced a bow, the outer side of which is separated into two equal parts in the same way as the others. The fundamental motive of this ornament is a wave-line from which extend either simple curved branchlets or ornaments in the form of triskeles. Connected with one of these triskeles we see a conventionalized fish (Fig. 14 a, *a*), whereas in the branchlets *b* and *c* we recognize heads of cocks, from the typical figure of the fish connected with it, and from the circle drawn in the fish. The head of the cock connected with the fish is easier to recognize in *d*; in *e* the figure of the circle appears at the point of the beak. In *f* a new combination is reached through the addition of a semicircle to the spiral, which forms with it nearly an X. *g* and *h* show the same type of cock with the fish, only in *g* the wing-feathers are indicated by the addition of a spiral. The fish in the beak has in both cases the same well-known form, the only part properly indicated being the bipartite tail. In *i* we see two triskeles united into one figure; and in *j* a new style of conventionalization of the cock-ornament. It is most remarkable that the artist has used new forms at each offshoot of this wave-line, and exercised his imagination to a great extent to obtain new and varied modifications of the same theme.

Fig. 14 b, Plate XVI, represents the decoration on the inner side of the same bow. In this case also there is no symmetrical treatment inside of the wave-line, but the maker has striven to vary as much as possible the motive in each concavity. This illustration is of great value for the study of the evolution of the cock-ornament, for it shows a great many stages in its development. At *a* we observe the beak of the cock holding a round object and at the same time the

fish, the dimensions of whose tail are exaggerated in comparison with the other parts of the ornament. In the field *b* may be seen, suspended from a tendril, two graceful little cocks rampant, under the beaks of which is a circle. Their bodies approach closely the fish-ornament. At first sight the figure *c* might seem to convey the impression of a leaf or flower ornament; but the horn-like offshoot on the right side of this leaf cannot be explained in this case: it is obviously to be regarded as a cock holding a fish, as is especially shown on comparison with the following ornament; the seeming flower-bud is a combination of fish-heads, and the circle drawn into it is that belonging to the cock. In *d* are reproduced two combatant cocks, which, however, are distinguished from those in *b* by being joined together and placed around a circle. The cock to the right has its tail turned upward, and that on the left side downward. In the field *e* the cock may be recognized as drawn true to nature, with eye indicated, the circle at its beak. Feet and spurs are designated by a long lobe. The end of the tail terminates, strange to say, with the body of a fish. *f* shows the cock, in spite of its conventionalization, clearly outlined: the circle in front of its beak, and in front of the circle the fish, consisting of three parts, — head, body, and curved tail. Parallel to the fish-tail run the cock's feet, which are indicated by a long falcation, as in *d*. The tail-feathers of the cock are conventionalized like the fish-tail. In *g*, head, neck, four tail-feathers, and two concentric circles around the beak of the bird, are visible. *h* represents a cock with fish, closely allied to that in *c*, the cock terminating in a fish-tail disproportionately large. In *i* is shown one of the most remarkable and instructive designs within the scope of this entire ornamentation: there are two triskeles here, in one of which one arm is much shortened through adaptation to the available space; that these pure triskeles, however, are interpreted as cocks, or at least were formerly so conceived, results from the fact that between them are two circles, as usually appear with combatant cocks. *j* illustrates a type of combatant cocks with the circle between their beaks, but, for the rest, soaring with outspread wings, three feathers of which are indicated. *k* presents the two cocks again in the form of pure triskeles in a way similar to that in *i*; here, however, only one circle appears between them. The field *l* offers a design analogous to *k*, except that in the former the fish-tail is turned upward, and to the cock to the right a prong indicating feet has been added. The form *m* is allied to those in *i* and *k*, only that here three circles — two greater ones surrounding a lesser middle one — are represented. The general style of form of the ornament in *n* is nearly identical with that in *j*, but with some slight modifications, while *o* is intermediate between the designs of *c* and *h*.

One would hardly imagine that the leaf-patterns thus far treated were originally invented by the East Siberian tribes. The purely conventional forms in which they appear, as well as their connection with other ornamental parts, make their derivation from Sino-Japanese art very probable. Primitive tribes generally pay little attention to the vegetable world; and the Gilyak, and especially the Gold, reveal a surprising degree of ignorance concerning the plants in their immediate

neighborhood, not to mention the large trees the wood of which is valuable to them as timber. As soon as I tried to gather information regarding the names of plants, I was directed in both tribes to consult the women, who indeed proved to have a much more detailed and deeper acquaintance with flowers and fruits than the men, apparently because they are accustomed to collect berries, roots, and certain herbs and leaves, as food for the household. This inefficient knowledge of the flora makes it difficult to realize that these peoples should have made an independent attempt to allot a space to plants in their ornamentation; and since the groundwork on which all its other parts rest is borrowed from their teachers, one would hardly err in supposing that this element also originated



FIG. 23. Japanese Weaving-Pattern. (From Kunstgewerbe Museum, Berlin, Cat. No. 81,650.)

from the same source. Although I am unable at this time to present exactly corresponding patterns from the realm of Chinese art, the weaving-patterns on Plates xvii, xviii, and in Fig. 23, point out sufficiently well that leaf and floral ornaments occur in China and Japan in combination with spirals and triskeles, no less than on the Amur.

The Japanese weaving-pattern in Fig. 1, Plate xvii, is a composition of maple-leaves and chrysanthemums. The most remarkable feature here is the association of the conventionalized plants with the *mitsutomoye*. These *tomoye* seem to be devised in their outlines as serrated leaves. They are surrounded by a border showing forms of single and compound triskeles in exact accord with formations on our ornaments. A close connection, consequently, may exist between the triskeles and the *tomoye*. A selection of the latter, obtained from a native

Japanese book, is presented in Figs. 2-9, Plate XVI; and in Figs. 10 and 11 of that plate are shown arabesque rings derived from the same source.

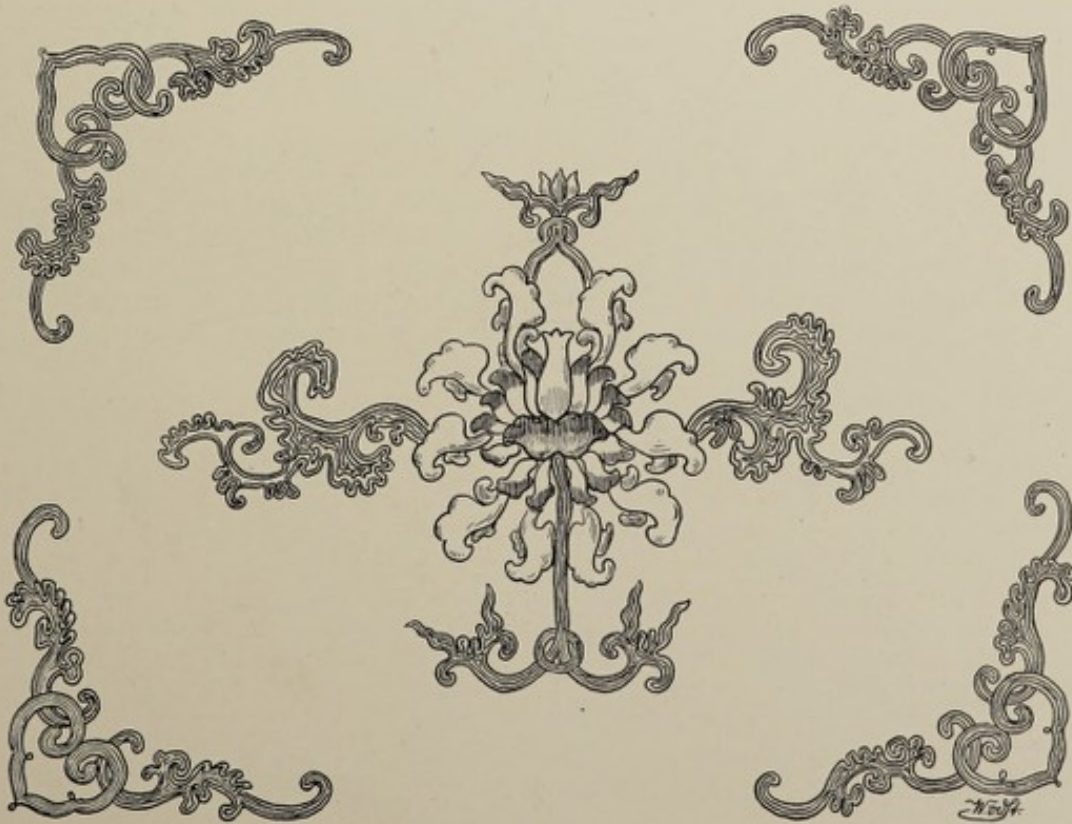
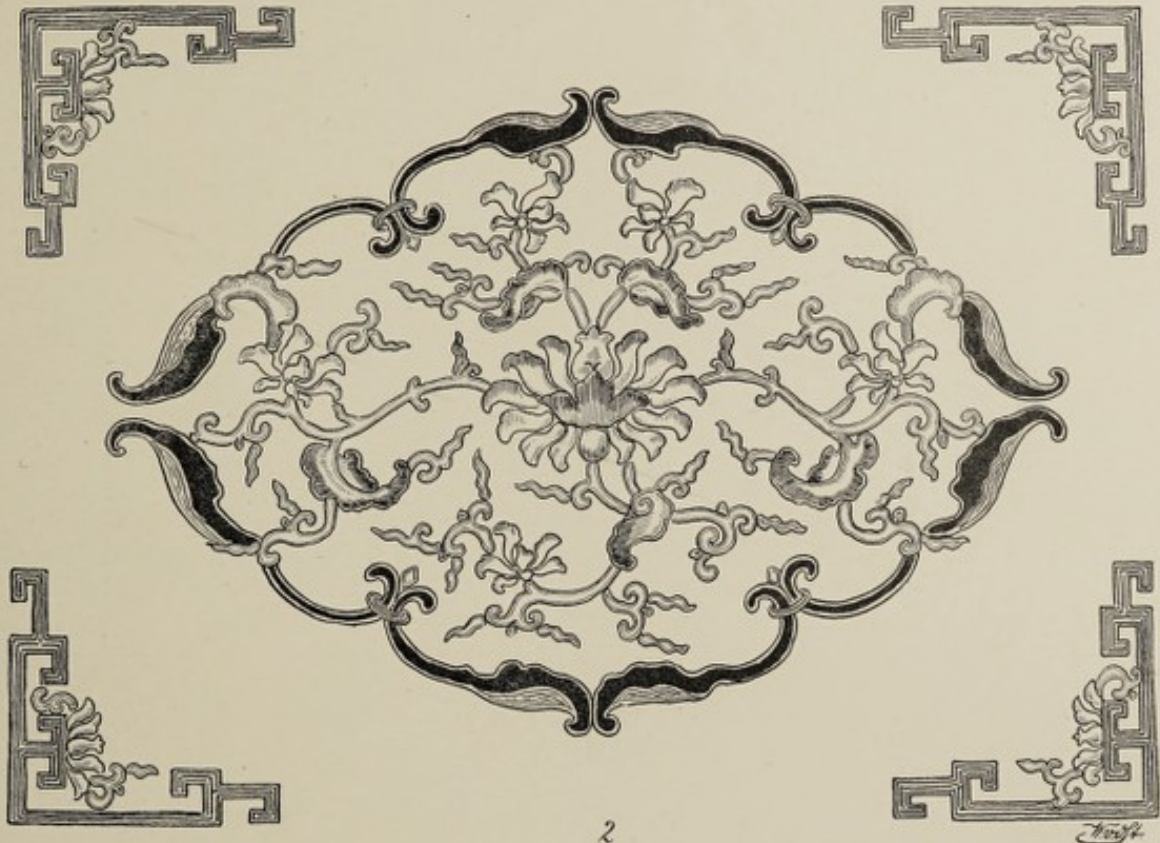
Fig. 2, Plate XVII, represents clusters of leaves as well as of triskeles, both arranged inside of circles. The foliage reproduced in Fig. 1, Plate XVIII, has developed shapes reminding one of the forms of our cock-ornaments. The two confronting creatures in its centre may be prototypes of our musk-deer. As to Fig. 2, Plate XVIII, as well as the ornamentally related Fig. 23, conventionalized cocks seem to be interwoven with vegetable ingredients; the latter, particularly, illustrate stages of development almost identical with those represented on the Goldian bows on Plate XVI.

Up to this point in our investigations we have treated our subject from an analytical standpoint, defining the different elements as they occur in ornamentation. We shall now take into consideration its synthetical side, and show how the various motives are employed on different groups of ethnological objects.

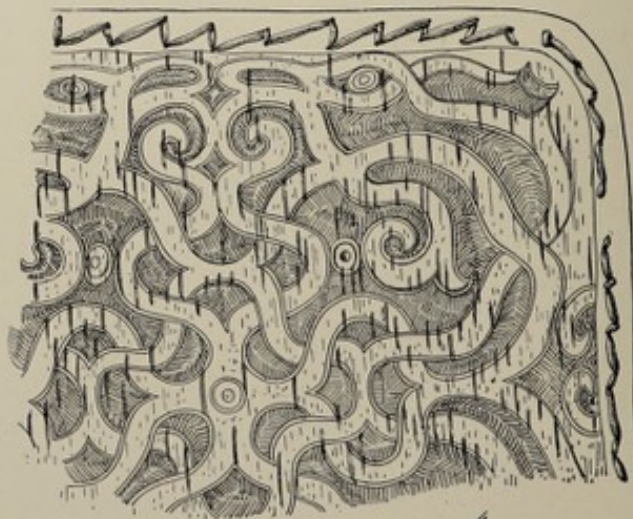
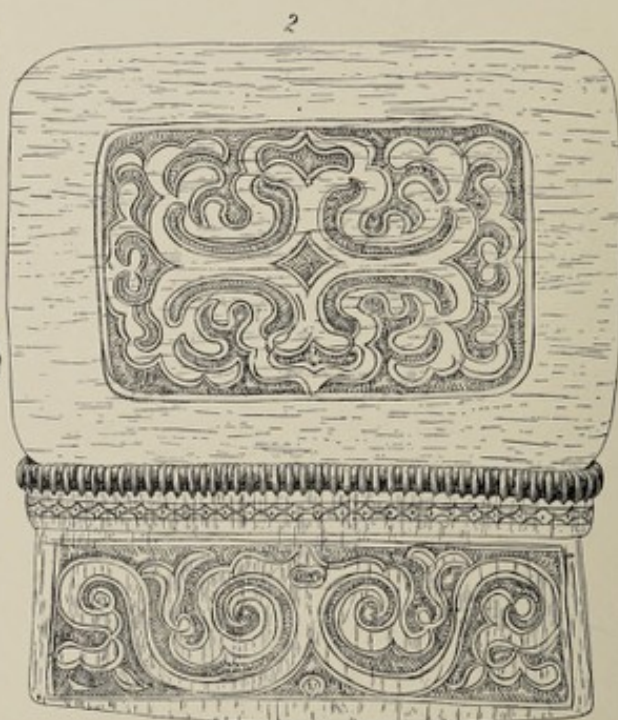
BASKETS. — As to the technical methods employed in the designs on birch-bark baskets, the following occur: 1. The lines are incised in the bark material with the sharp point of a knife, and these incisions are sometimes partially dyed (Plate XIX); 2. Patterns are cut out of thick bark and sewed to the bark of the basket with a few short, hardly visible stitches; 3. Only the uppermost layer of the bark is cut out, so that the ornament stands out in relief from the lower bark layer; in this case the raised parts are usually blackened (Plates XX, XXI).

The ornamentation around the basket shown in Fig. 1, Plate XIX, is made up of two closely joined constituents. On the left side there is a pair of facing spirals, symbolical representatives of cocks' bodies, as suggested by the two down-stretched heads with pointed beaks, surmounted by two round figures. In the centre of the design on the right-hand side we note two lozenge-shaped figures placed one above the other, the upper one being connected on either side with a large triskeles, and forming with it the bipartite form of a conventionalized fish. These triskeles may stand as an abbreviation for the cock. They terminate below in a knob, the course of the spiral which might here be expected being interrupted, and a cock-spur inserted to fill the space. From the under lozenge a pair of facing spirals of one winding proceed downward. The edge above the main design is decorated with a continuous spur-line.

Fig. 2, Plate XIX, shows a design on the cover, and 2 a that on the side, of a box. The former is divided into four rectangular fields grouped around a lozenge. The two fields above and the two below contain two combatant cocks (white), the tips of whose beaks are connected by an ornamental figure the extremities of which are formed like cock-heads with pointed beaks. The body has an ellipsoidal form. A thickened knob and a somewhat larger projection apparently characterize the wing-feather. We see the tail in the shape of a fish-tail, one lobe being fashioned into a conventionalized bipartite fish, the other having the form of a bird's head and neck, under which another conventionalized fish is visible.



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To the latter is attached a bird's beak with an oval under it, forming, with the adjoining corresponding figure in the field below, a geometrical, almost heart-shaped design.

The foundation of the ornament in Fig. 2 a, Plate XIX, based on simple symmetry only, is a double spiral; the body of the inverted cock, Type B, whose collateral curved branchlet distinctly marks the head, being formed by the inner spiral, the beak grasping a fish with down-stretched circular head, and tail upturned. The interior of the outer spiral may be described as a triskeles, or, better, as a fish-tail the two lobes of which are shaped like cock-beaks. The upper one holds a circle; the under one, a trichotomous fish, which it grasps between body and tail. There is a violation of the rules of symmetry here, in that the negative space between this fish and the cock's beak forms a bipartite fish on the right side only.

In Fig. 3, Plate XIX, is seen a front view, and in Fig. 3 a a back view, of a basket. The central figure on Fig. 3 was explained to me by a native as a human face; nevertheless I am distrustful of such an interpretation, which stands quite alone, and seems to be merely an invention of my informant. The ears and mouth would then be indicated by scrolls. On either side of this design are grouped several fishes in graceful arrangement. Above is a fish with broadened head. This head bears an incised conventionalized bipartite fish, which is above the large fish to the right of an incised fish-tail, and another in the lower right-hand corner. Under the large fish we observe a coiled fish with a roundish head.

In the upper part of the ornamentation on Fig. 3 a are two cocks rampant, having affixed to their beaks circles which coalesce with them. In the negative sections we see a cock's beak between this circle and the positive cock, and another beyond its neck and resting on the outline of its back. On the body, extended forward, is incised a conventionalized fish with tapering tail, which — a deviation from symmetry — cuts the whole body on the left-hand side only. The tail is formed of two parts, — a scroll, with a fish-tail cut out inside of it; and a long projection below, representing a bird's beak with attached head and large incised circular eye. From this head a spiral winds off downward, symbolizing, as it were, the body of this cock. The centre is taken up by a perforated lozenge-shaped figure, from which extend on both sides two conventionalized bipartite fishes. The two triskeles in the extreme corners at the base also represent fishes with scroll-like heads. The manner in which the negative portions are reflected from the positive images, in designs of this kind, is very remarkable.

Fig. 4, Plate XIX, which represents approximately a quarter of a birch-bark tray, shows the design incised on its bottom. It is reproduced here not so much because it offers especially characteristic features in this connection, but rather on account of its eminent beauty and the careful execution of work of similar technique. It belongs to the same category as the band and chain patterns already described.

The eye-like circles serve to mark certain termini and resting-places for the bands. Some of the negative portions have assumed the shape of fishes.

The ornament which occurs on the side of the basket shown in Fig. 1, Plate xx, is composed of three sections. The upper starts with a brace in the middle, forming on each side the upturned heads of two cocks with a circle in front of their beaks, except in the case of the cock on the extreme left, where it is missing. These facing birds are connected by two curves, producing a spur. The middle ornamental portion commences under the point of the brace above with two conventionalized bipartite fishes, whose long-extended bodies follow the outline of the upper brace-line, and finally terminate in a compound spiral. Three heavy dots, one between the heads, another on the body, the third over the coiled tail, denote the course of this ornamental fish. The third and lowest row in this design starts in the centre with two scrolls, appended to each of which is a fish-tail in triskeles form. Farther along, the outer winding of these spirals runs parallel to the fish-body above it, to form on the other side the outlines of a conventionalized bipartite fish. This is completed by a parabolic curve to which three leaves are attached; and this figure is so combined with the cock's head above, that it forms at the same time the body, tail, and wing-feathers of that bird.

In the centre of the decoration on another basket (Fig. 2, Plate xx) we observe a vertical axis to which are fastened two cocks (*a*) of Type B, standing erect, recognizable as such only by their attitude and feet. As for the rest, head and body bear the form of fishes. The same type, devised as fishes, is shown in *e* and *f*. The tail of *e* ends in two lobes, so arranged that its outlines form a conventionalized bipartite fish. The fishes at *f* are combined into a purely ornamental design. In *b* we see a different but simple style of fish. This figure forms, with the adjoining scroll, another fish. Between *a* and *b* is inserted a spiral, whose starting-point is adorned with two leaves. It passes over into another spiral (*d*.) This second spiral seems to symbolize the body of a cock, whose head lies in the base below, its beak holding the triskeles-shaped fish *c*.

The foundation of the ornament on the basket represented in Fig. 3, Plate xx, is based on the double spiral, whose ingredients *b* and *g* are doubled so as to form facing spirals. *b* is a compound spiral starting in a rounded fish-head, and is at the same time the symbolical expression for a cock's body, with head visible at *a*. The oval *c*, placed under the throat, is the same object which, in other cases, the bird seizes in its beak. The two opponent birds are connected by an arc consisting of two spurs, and sending down in the middle a cross-formed trefoil (*d*) which has its counterpart below, resting on a wave-line. The other spiral (*g*) is so shaped that it includes a fish, the head of which joins the two united triskeles *e* and *f*, the latter of which forms, with the adjoining curve, a conventionalized fish.

Fig. 4, Plate xx, shows a tall basket for holding spoons and chopsticks. It is usually suspended from the wall. The upper half has a cylindrical form; the lower, a quadrangular. There is a double ornament here. The upper one is cut



1



2



3



4



5



5^a

out of a piece of blackened bark, which is sewed around the basket; the under design is incised into the bark. Between the double spirals *d* and *f* of the upper ornament is inserted the picture of a cock: its head (*a*) sending forth a long falcate beak; the usual oval (*b*) under its throat; its pinions symbolized by the scroll *c*, over which a crescent-like spur is placed; its spurred feet marked by a triskeles. Enclosed in the spiral *d* we see two conventionalized bipartite fishes, their heads contiguous. Under this spiral is the figure of a spur (*e*), which suggests that this spiral is considered as a cock's body. The scroll *f* symbolizes likewise a cock's body, as is indicated by the two parallel falcations with adjoining oval, in *g*, apparently signifying the bird's head and beak. The circle *h* above this spiral is the object usually found in connection with the cock, and above it is in reality a cock's head cut out of the bark, over which is placed the conventionalized bipartite fish with head turned downward; so that here a double cock is united in the same spiral. The design on the under portion is a triple structure. The central field is occupied by two cocks, heads pointed downward, an oval under each of their throats, the bodies indicated by scrolls, each encircling a conventionalized bipartite fish, the tails being simply prominent knobs. Above and under this bird are triskeles-shaped fish-tails, the outer arm of the upper one being shaped like a bird's beak, and the inner arm of the under one wound into a scroll.

Figs. 5, 5a, Plate xx, and Figs. 1, 1a, Plate xx1, represent the four sides of a basket. In Figs. 5 and 5a the under and side edges are covered with key-ornaments; the upper edges with a chess-board decoration, which latter also appears in Fig. 1, Plate xx1. On these three designs the frequent use of the St. Andrew's cross is particularly noticeable. In Fig. 5 are two conventionalized cocks in the form of double spirals placed longitudinally, and combined ornamentally in a medial vertical axis. The heads are in the form of fish-tails, the beaks being characterized by prolongations of their under arms. The tail is a long tapering falcation stretched downward tangent to the circle filling the under half of the trapezoid. A similar type is met with in Fig. 1, Plate xx1.

The concavities in the upper part of Fig. 5, Plate xx, are taken up by two realistic carp, each with a crescent-like fin. It is rather singular that the drawing on these fishes should vary on the two sides. On the right, fish-head and eye are distinguished by two concentric circles. The conventionalized fish on its body shows a distinct head in circular form, and the body under it has the comma shape of the Japanese *magatama*. The head of the carp on the left-hand side is of ellipsoidal shape, its gill being specially indicated by a brace, one arm of which is prolonged into a semicircle from which depend two successive loops, — one large, the other small. Another remarkable departure from symmetry may be observed in Fig. 5a, where are seen two conventionalized cocks, each holding two circles in its down-stretched beak. The right one shows the conventionalized bipartite fish under the tail, while in the left one the bipartition is replaced by the simple rounded fish.

The general framework of the ornament presented in Fig. 1, Plate XXI, is almost the same as that shown in Fig. 5, Plate XX, but particularly in the lower portion, where two facing scrolls are surrounded by two conventionalized fishes having a curved body in common. The cocks above have two circles in their mouths, as in Fig. 5 a, Plate XX. The field represented in Fig. 1a is treated merely in a geometrical way, two wave-lines filled in with triskeles extending along both sides.

On the basket, Fig. 2, Plate XXI, the ornamented portions are cut out of bark and appliquéd to the box. The ornaments are symmetrically arranged above and below, as is shown by the inserted auxiliary lines. The rectangle enclosed by them is the fundamental ingredient of the whole series; slightly varied, however, in the corresponding design beyond the vertical medial axis. Here occurs the interesting case of two cocks united in one figure. At the points *a* and *b* two combatant cocks meet, the right one (*a*) running out into a scroll to which the body of the cock *b* runs parallel, whereas on the other side the body of the cock corresponding to *a* only borders on the scroll which belongs to the body of the cock *b* on that side. To speak from a purely ornamental point of view, there is a lozenge in the centre (*c*) with two perforations, which sends forth four scrolls to the sides and a three-scalloped figure above and below.

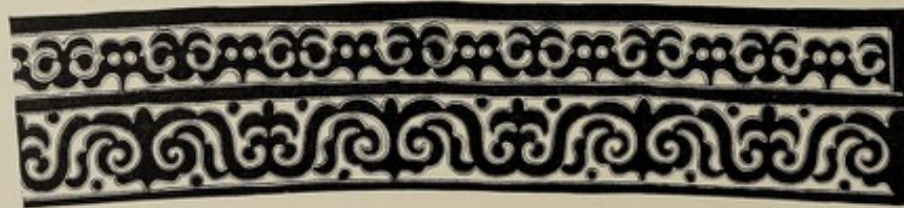
Fig. 3 of the same plate represents a profusely and richly decorated basket, colored in red, black, and blue. The upper edge (*a*), divided into small sections, contains strongly conventionalized cocks of Type B. Those in the hatched parts have their necks, heads, and beaks lying at the extreme ends of a wave-line, their bodies being indicated by two united triskeles. In the other, larger fields the beaks are recurved; and between neck and spiral body is a circle, which seems to hint at a misplacement of the circle usual in front of the beak. In the central part there are several large fields (*b*, *c*, *d*) bounded by a wave-line. In field *c* there is a pair of facing spirals in the centre, framed by combined semicircles. Above this figure are two confronting cocks; under their two circles, a two-lobed leaf. There is a three-lobed leaf under the two spirals. On either side of these is a pair of fishes with heads contiguous. In field *d* prevails a tasteful composition of spirals, two upright fish-heads being inserted below. The lower edge (*e*) is composed of double spirals shaped into triskeles by tangential offshoots.

Fig. 3a is the cover to the box represented in Fig. 3, the edge being adorned with the same decorative line as in Fig. 3, *e*. The central field shows in the middle the same spiral structure as in Fig. 3, *c*, around which six scrolls are grouped.

EMBROIDERY-PATTERNS.— Fig. 1, Plate XXII, is an embroidered border covered with a double row of ornaments. The upper row is based on a combination of two figures, — two conventionalized combatant fishes and two united cock-heads shaped like the letter X, large ovals being attached to the middle piece which joins them. In the under row there is a wave-line, the single components of which are fashioned like bird-heads with pointed beaks. A similar formation



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is added to the facing spirals filling the hollows of the wave-line that open downward, while in those opening upward appears a doubling of the same figure as that in the upper row; that is to say, from the middle vertical axis proceed two pairs of beaks to both sides, the lower, smaller ones being adorned with ovals.

On the collar in Fig. 2, Plate XXII, occurs a design of similar style, except that in the under part the two ovals are put side by side between the two outstretched heads. The border (Fig. 2 a), made for the same robe as the collar, is embroidered with a double pattern. In that to the left the wave-line is formed likewise of cock-heads, between which are confronting conventionalized fishes of two different forms alternating with each other.

In the following embroideries the single parts constituting cock and fish ornaments are more or less torn apart, displaced, and partly distorted; so that it is hard to define in every case exactly what represents a cock or a fish, or where the beginning or ending of these creatures is. We see, for instance, in Figs. 3, 4, 4 a, and 5, Plate XXII, simple and compound triskeles in various styles and combinations, grouped together with spirals. A comparison with the forms hitherto described undoubtedly proves them to be derived from components of the cock. The high degree of distortion gives so much individual freedom of choice as to interpretation, considering the ambiguity of the significance of the single pieces, that it would be a hopeless task not only for the Western student of these ornaments, but also for the cleverest native connoisseur, to draw any conclusion as to the details of this ornament. At this point a geometrical stage opens up, where realistic explanation is hopeless, and beyond the pale of which no one can go. That there is, however, an undeniably close continuity between these various degrees of evolution is evidently shown by Figs. 6, 6 a, 6 b, all patterns belonging to the same garment. While, as regards Fig. 6, we can but feel like declaring our *non possumus*, still we are able to decipher the two cocks with their downward-bent beaks and oval bodies in Fig. 6 a, and even the two conventionalized fishes placed together in a figure the geometrical character of which seems to be strongly emphasized, at first sight, in the upper part of this ornament. In Fig. 6 b it might be possible to distinguish the cock-beaks, through the circles placed in front of them, on the spiral to the left, as well as the cock filling the concavity of the following wave-line; but in this case it is next to impossible to state with certainty which part is to be looked upon as head or tail, granting that these two possibilities are admissible.

The preceding remarks apply also to Figs. 1-3, Plate XXIII. Only the two combatant cocks over the last pair of spirals in Fig. 2, and the two conventionalized fishes turned away from each other in Fig. 3, may be recognized as such with any degree of certainty.

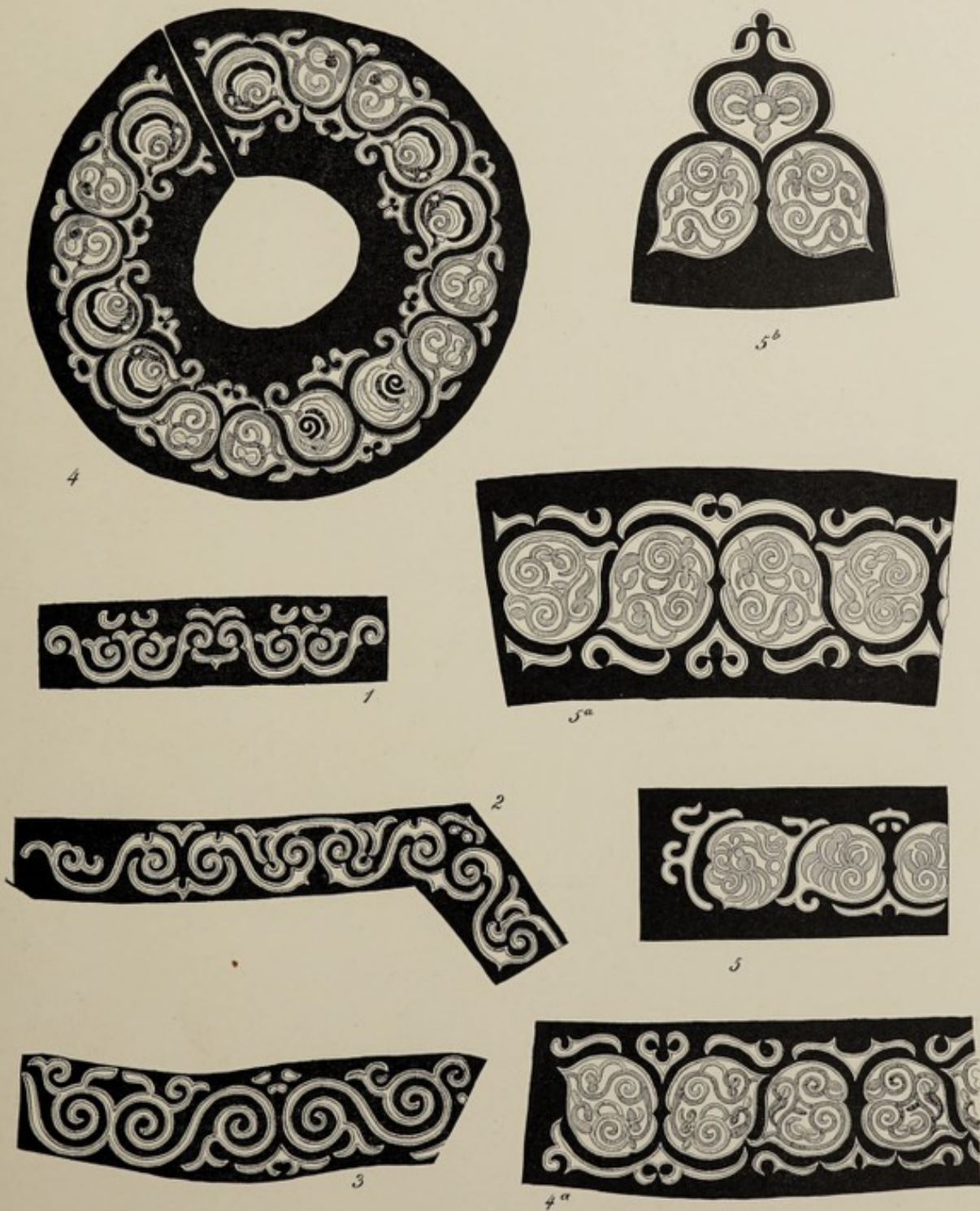
In the following designs a definite group of ornamentations is exhibited. There is a double principle active in them,—that of displacement and that of combination.

Fig. 4, Plate XXIII, shows a silk collar. The design consists of two ele-

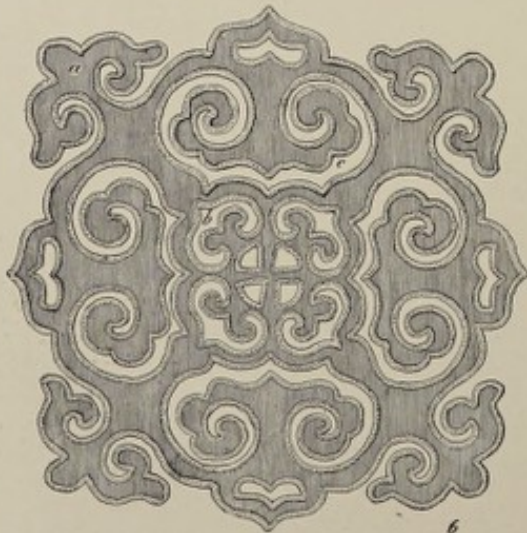
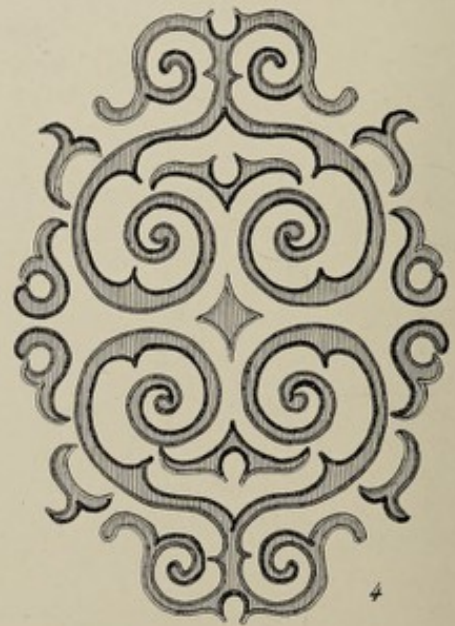
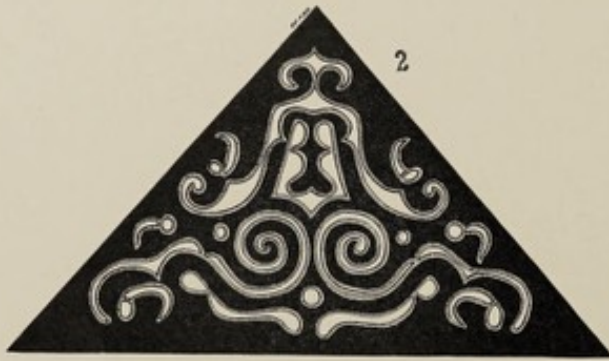
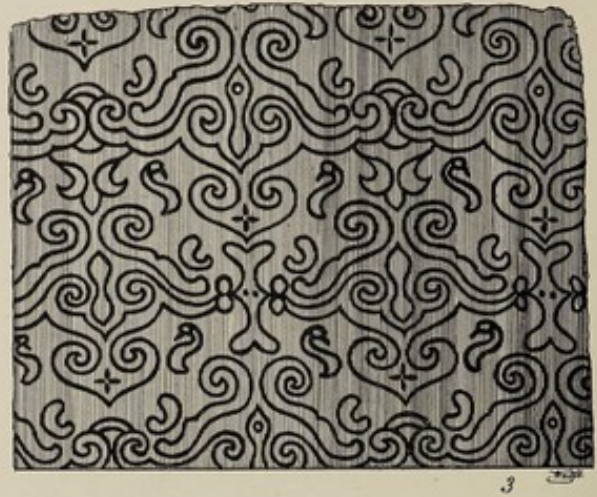
ments, — one being the figures cut out and buttonhole-stitched to the foundation; the other, the designs embroidered on these pieces. The former consists of two pairs of cocks in disconnected parts. The heads and beaks of the two are formed by two triskeles united into one figure; the bodies consist of two of the cordate figures with appended fish-tails or scrolls. The embroidery on these body-pieces is composed of representations of contiguous cocks in two different forms. In both cases the animal is adapted to the cordate leaf on which it is worked. As to the one form, the neck is recurved in an arch. A fish is substituted for the body; a spiral with an adjacent parallel lobe, for the wing-feathers; and two huge, almost circular falcations, cleft in the middle, for the tail-feathers. The other type has as body a spiral, the prolonged outer winding of which forms the upstretched neck, whereas the plumage is indicated by an annexed semicircle with an attached offshoot running downward and closing a two-foliated leaf. These two forms of cocks, so far as their relation to each other is concerned, represent Type B. The graceful cordate leaf-forms are reproduced in Figs. 4 a, 5, 5 a, 5 b, but more freedom is displayed in the use of foliage in the figures inside of them. In Fig. 4 a, even the fishes held in the cock's beak are embroidered in the same style as leaves. In the first two fields are two cocks curiously placed one above the other, and connected with each other on the inner side by an arc.

Figs. 5, 5 a, and 5 b, Plate XXIII, show the foundations of an embroidery-pattern, the ornaments being cut out of paper and pasted on the underlying cloth, to be worked around. In the first leaf on the left-hand side of Fig. 5 the combination of two cocks is clearly visible. The one cock holds a realistic spiral-formed fish in its beak, and has a fish-body whose head is indicated by a spiral and the tail by a semicircular appendage. The adjoining cock has seized in its beak two circular objects adapted for embroidering as leaves, and has a strongly marked tail of three long prongs. In the following leaf the two cocks are united, and hold between their beaks a large bipartite fish, while the three wing-feathers of the lower cock have adopted the form of this same fish-body. Also in Fig. 5 a we meet with a field containing two superposed cocks. In the two central leaf-forms the upper birds are combatant, the lower ones opponent and inverted. The upper cock has one leaf above, and another under, its neck, the origin of which is to be explained by the fact that the upper leaf represents the leaf-like treatment of the head, the under one that of the well-known circle. For the body of this cock is substituted a fish, and another realistic fish with recurved tail is attached to the spiral above it. At the place where the tail turns upward is a leaf. Two leaves supply the place of a scroll in the body of the lower cock. On the outer leaf the lower, inverted cock holds in its beak a bipartite fish with the tail pointing upward. Its spiral-formed body sends off to the side a branchlet in the form of a bird's head with an oval under it, so that here again a cock seems to be intended. The superposed figure resembles one of the forms seen in Fig. 4 of this plate.

Fig. 5 b, Plate XXIII, is constructed of three cordate leaves, so arranged



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that the outlines of the three form another heart-shaped figure. Under the indentation of the upper heart is a circle, three oblong leaves radiating from it, — one below, and two on the sides. Its two crescent-shaped lobes are occupied by two confronting fishes coiled into spiral form with tapering body and tail. The two lower hearts agree, in the representations on them, with the two central ones in Fig. 5 a.

Fig. 1, Plate XXIV, is an embroidered pattern. The upper part is taken up by two facing cocks rampant, head and body formed after the fish type. As cocks they are recognizable merely by their two feet. Between these feet are two bird-beaks combined into a geometrical figure in the centre of the lower, wider section of the design, bearing a triskeles, one arm of which is likewise beak-formed, and the other two convoluted into a scroll. The oval into which the under arm runs out is at the same time the head of a conventionalized bipartite fish, which, as it would seem, is drawn on a cock's body whose tail is formed by the triskeles just referred to. The beak is lowered as if about to touch the circle under the throat. The branches intended to indicate crest and pinions are above the head. The remarkable features in this representation are the manner in which the single portions making up the three cocks merge into one another, and the fact that many parts belong to the three types in common.

Fig. 2, Plate XXIV, is an embroidered pattern in triangular form. In this pattern we observe on both sides three distinct single cock-beaks, — the uppermost bent upward, the middle one outward, the undermost still more curved and turned inward,—all three set with ovals or circles, probably survivals of head and eye. On the edge below are two separate long-stretched conventionalized tripartite fishes with spoon-formed tails. The same types, standing upright, and connected below with each other, appear in the upper part of this ornament. Also the long branches of the two facing spirals under them are composed of two pairs of cock-beaks which join at their points. In verification of the fact that this principle of displacement occurs also in the area of Sino-Japanese art, a Japanese weaving-pattern is represented in Fig. 3, in which bird-heads having only a long neck are placed parallel to spirals and alternating with them, as in our ornaments. Also the long offshoots of the spirals agree with our conventionalized fishes, as well as the adjoining bipartite figures.

The next three embroideries (Figs. 4, 5, 6, Plate XXIV), each of double symmetry, are usually united into groups of four, and sewed to sleeping-mats. In Fig. 4 there is a lozenge in the middle, around which cluster four compound spirals, between the inner and outer windings of which are spur-lines. At the upper and lower extremities of this pattern are two smaller triskeles-spirals which proceed from the larger ones. On either side of the large spirals two triskeles are placed, the two outer ones striving after the fish-form, the other two after the cock-form. The square patterns seen in Figs. 5 and 6 are cut out of velvet and outlined in chain-stitch. If we look at one of the quarters from one of its outer corners in the direction of its diagonal, we shall see that the fundamental

element of the ornament in Fig. 5 consists of two superposed confronting cocks. The spirals which represent the tails are rolled outside in the upper pair, and inside in the lower ones. On either side of the upper cock is a conventionalized bipartite fish. Both of these and also the large cocks form ornamental figures with the adjacent corresponding cocks or fishes of the neighboring rectangles. Fig. 6 illustrates a structure related to that of the preceding one. Four heart-shaped figures (*b*) are clustered in the centre in a square. Above their points, in the direction of the diagonal of the square, in each of the four quarters, is a cross, its two side-arms terminating in spirals (*c*), and its rounded extremity (*a*) being adorned with a pair of fishtail-formed triskeles.

Fig. 1, Plate xxv, represents an embroidered quadrangular piece placed on its point, used on the cape of a winter hood. The ornament represents a spiral structure that decreases in size as it proceeds upward. In the centre (black) are two cocks rampant developed from the fish-form; to the right and left of these, two conventionalized birds, their necks and heads stretched upward. The confusion of the single ornamental parts here has been carried to such an extent that the circular object has been taken away from the beak and placed in front of the two falcations of the tail, which thus convey the impression that they are beaks. In corroboration of the idea of the wing-feathers, which are expressed by the upper of the two tail-flukes, appears by the side of it a parallel crescent. This distortion proves sufficiently well that the conception of the original meaning of the ornament has diminished in clearness. Almost all elements of this decoration, aside from the pure spirals, are either birds' necks with beaks, or spurs, or small ovals. The original types are on the verge of being dissolved into single disconnected and sometimes misunderstood parts: the principle of symmetrical and tasteful arrangement, however, is still observed.

An embroidered pattern for a pair of wrists is shown in Fig. 2 of this plate. The edges are decorated with single spur-lines above and below. The same style of line is also used to surround other figures. In the uppermost section of the ornamentation we find two facing combatant fishes, ending below in spirals, their heads surrounded by a figure formed of two spur-lines. Below them is a four-leaved rosette. Between two pairs of facing spirals are observed two conventionalized bipartite fishes in the act of swimming; farther below, two cocks rampant whose heads are connected by a semicircle. Over the spirals forming the tails of these birds are bipartite fishes.

We will now turn to some fantastic compositions occurring on embroidered material. On the triangular pattern of raised embroidery (Fig. 3, Plate xxv) are, in the upper part, two combatant musk-deer with two legs and scrolled tails. To the right and left of the compound facing spirals under them we see two long outstretched bird-heads, the upper line of which is formed by a brace. The outlines constituting the head continue downward into two parallel spirals. The ornament on the embroidered band (Fig. 4) is made up of two semicircles. In the two ends of each are visible two cock-heads side by side, with two circles



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in front of them forming together the figure 8. Their bodies are composed of a spiral with a semicircle resting on it. The two symmetrical figures are combined below by a spur, which they have in common.

On the collar (Fig. 5, Plate xxv) belonging to the same series of patterns, we observe, in the centre, two confronting upright fish-cocks. On either side of them are two others, whose bodies are produced by placing two fishes together in the form of a spiral. In the lower field the cock-beaks hold, instead of the usual fish, the figure of a plant-form, — a kind of trefoil.

The riband seen in Fig. 6, Plate xxv, belongs to the same garment as the collar above mentioned. Here are facing spirals. From the sides of those rolled upward project cock-heads with semicircles under the throats, resting on the outer windings of the spirals; from those rolled downward issue inverted cock-heads with ovals placed on the backs of their necks.

The ornaments on the following patterns (Figs. 7-10, Plate xxv,) are treated in arboreal style. The figures represented are used to trim shirt-pockets. Fig. 7 shows two cock-beaks turned downward, and encompassed on the sides by spur-lines, both holding a three-lobed rosette. At the lower extremities of the under arcs are two leaves, consisting of three circles each; and near the same ends of the arcs are two fishes moulded in the style of leaves. In Fig. 8 four different forms of conventionalized fishes lie close together (*a, b, c, d*), three of them (*b, c, d*) clustered around a circle. Farther below is a conventionalized tripartite fish (*e*); *f* is also an imitation of the fish-body, but is here developed into a palmetto-like floral pattern. A figure of similar character occurs in the lower part of Fig. 9. The latter was evidently intended for the trunk of a tree sending off spiral-formed boughs, the edges of which are adorned with three single leaves. Fig. 10 illustrates a plant-like design of allied style in the under part of the ornament, the lateral branches being indicated by long, narrow fish-forms (large ribbed leaves), and the centre filled with a small two-lobed leaf, below which issues another large one. In the upper part we have two conventionalized fishes attached to a pair of facing spirals. In the corners beyond the fishes are two triskeles-shaped cocks characterized as such by the conventional form of the fish in their respective beaks.

Fig. 11, Plate xxv, is added here because it shows a pattern pertaining to the same robe as the four preceding ones. There is a palmetto-like figure in the centre, from which branch off on both sides arabesques built up of triskeles.

Figs. 1 and 1a, Plate xxvi, show a woman's embroidered mitten made of reindeer-skin covered with cloth. The former represents the back, and the latter the palm. The spaces between the single lines are filled up with zigzag stitches. On the back of the mitten is a tree-like formation, in which two two-lobed leaves are attached to opposite sides of a stem, the two on the left being embroidered in green satin-stitch, those on the right in lilac. This tree is crowned with a heart-shaped figure enclosing a bifoliate red-colored leaf. The five leaves contained in the ellipse below are all light green. Tendrils adorned with triskeles grow round

this tree. On Fig. 1a the embroidery is placed on the thumb of the mitten. The motive is here the same, — composed of a triskeles form, an S-shaped figure, the under part of which is cordate in shape and encloses two leaves in red.

The skin glove pictured in Fig. 2 of the same plate is covered with velvet bearing a chain-stitch embroidery in silk. The pattern is an artistic structure of fanciful combinations. On the top are two heraldic combatant cocks, whose heads are formed by an oval (*a*), from which the plumage goes off into three depending branches. On the marginal branches (*b*) is drawn, with the aid of a spur-line, a bipartite fish; and a similar figure occurs also in *c* and *d* in connection with spirals. In *e* two leaves are enclosed again in a heart-form. *f* is the head of a cock placed sideways, and *g* its tail. In the pointed end of *h* are united two cock-heads holding in common the leaf *i*, while on the outside appears the exquisitely curved bird-neck *j* bearing the leaf *k*. In the interior of the undermost spiral is the body of a conventionalized bipartite fish embroidered as a leaf (*l*), the head of this fish being held by the beak *m*. This figure is surrounded by a line.

Fig. 3, Plate xxvi, represents an elk-skin garment, obtained from the Tungus on the Ussuri. A series of figures is spread over the surface of the back, the decorations being painted in blue, red, and yellow. Only the part over the hips is cut out of fish-skin and appliquéd to the garment. In *a* we see two opposite single cocks, built up essentially from purely geometrical ingredients. The head consists of two superposed semicircles, the lower of which runs out into a recurved arc. From that issues a branch in the opposite direction, to form with the scroll a triskeles, expressing the fish held in the cock's beak. The body is formed of three semicircles which unite at their ends, and enclose two crescent-like fishes. The feet are in the shape of an anchor-formed combination of two triskeles; the outer arm of the outer triskeles in both cocks being shortened into a knob, the inner forming a semicircular claw. The cock on the right side has below it an additional figure that repeats a schematic outline of the foot. The tail is a very intricate formation,—below a spiral, which appears as a continuation of the under outline of the body. The upper outline is continued into a strongly conventionalized cock with a circle on its head and a fish-tail beyond. Between the tails of the principal cocks and those appended appear the R-formed figures enclosing the image of a bipartite fish. The cocks *b* and *c* stand sideways, and also consist of geometrical elements. The manner in which they are evolved is shown by a comparison of these figures with *d*. At the sides of *d* we observe anchor-formed appendages. These are carried out in *b* and *c* in such a way that one arm of the anchor forms the head and neck, the other the tail, of the cock. Whether the anchor-formed type *d* has been developed from *b* and *c*, or, better, whether *d* is a prius which served as a foundation for building up *b* and *c*, must still be regarded as an unsolved problem. In the same figures two additional groups have been produced, the one in the middle in combatant attitude with spiral body, the other at the top with recurved beaks. This latter, inverted



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form appears in normal position in the under portion of *e*, only that here a slight wave occurs in the comparatively long neck. The point of this figure (*e*) is crowned by a trefoil, under which, in the figure on the right-hand side, is a cock type closely allied to the under one, except that here the beaks are more extended in a downward direction without tapering. On the left-hand side is a case of asymmetry, since there, instead of thick lines like those in the figure on the right, occur simple lines of the same form, but inverted. There are five figures exactly alike (*f*). These form, above and below, a narrow tapering structure. In this picture the negative parts show the type of the confronting tripartite cocks in the fish style, which is so hard to distinguish from the conventionalized fishes themselves.

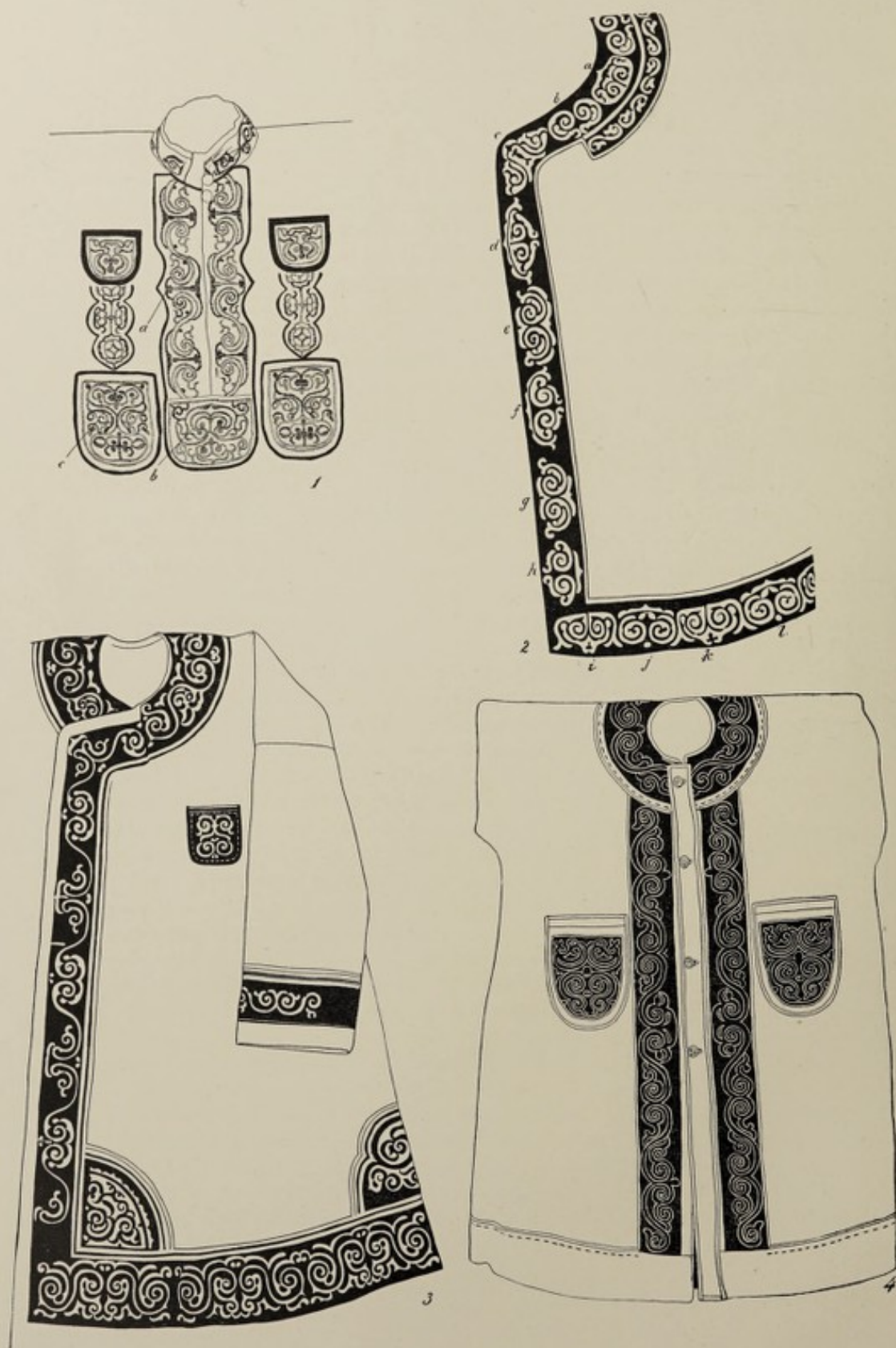
Fig. 4, Plate xxvi, represents a painting on the upper part of a pair of leggings made of elk-skin. The ornamental organization is executed here by two opposite double spirals near the upper edge, separated from each other by a longitudinal wedge, the fish-tail end of which joins a pair of facing spirals. Over the left double spiral is a long-stretched cock (*a*) in green, with a tail like that of a pheasant. The lozenge shape of the body and the engrailed line forming its edge are most remarkable. Strange and unique in its kind is the fact that this horizontally placed cock (*a*) occurs in combatant attitude with the vertically placed cock (*b*), whose body likewise is shaped like a lozenge; the latter, however, does not run out into a tail, but into another inverted cock-head turned to the left, which, in its turn, is represented in combatant position with an inverted cock (*c*), whose body, also lozenge-shaped, runs off above into a fish-tail. We are again surprised in this design to note, on the corresponding side, an arrangement of types bearing the same relation to each other as *a* to *b*, but the two cocks *d* and *e* are placed on a horizontal plane. The cock *d* has likewise the tail of a pheasant. The line forming the back, however, is an uninterrupted curve, as the proper form of the cock's body is in general retained here in a much higher degree than in *a* and *b*. *d* and *e* have an engrailed line consisting of three arcs, marked more strongly in *e* than in *d*. Over *d* and *e* are two combatant cocks of more distinct forms than the two birds over *a*. The fish-like cock is represented in the designs *f* and *g*. Each of these holds two fishes in its beak,—a conventionalized one (*h*, *i*), and a rather realistic one (*j*, *k*) with the eyes marked. Worthy of note is the asymmetry between the two space-filling conventionalized fishes *l* and *m* on the one side, and the fishes *n* and *o* on the other. It is hardly necessary to call special attention to the cock-heads united in the figure *p*, nor to those on the adjoining leaf-forms below.

The embroidery in Fig. 5, Plate xxvi, is worked on the lower part of the back of a garment. The same design is found on both sides. In the middle is the trunk of a tree with an ornamental top, and sending off three main boughs to both sides. Two musk-deer with heads turned so that they face each other are embroidered at the place where the lowest pair of boughs branch off. The tips of these boughs are adorned with trifoliates; on their sides are two roes which

seem to be climbing up. On the second boughs blossom two quinquefoliate flowers, the petals of which are grouped in the form of hooks around a circle. Between the two flowers are two large tortoises; over these, cocks placed sideways, with a two-lobed leaf behind them. To the right and left of the large tree-trunk are two smaller trees decorated at their tops with a trefoil surrounded by triskeles-formed branches. From the trunks of these trees proceed to both sides cocks that appear, as it were, to be growing out from the tree. The ground on which the trees stand is characterized by a line sending off downwards at both ends four offshoots corresponding to the cocks' plumage. At a short distance from the tops of the small trees are two elks with antlers. In the escutcheon-like piece in the upper right-hand corner of the embroidery are to be seen two conventional forms of musk-deer with faces turned away from each other.

Fig. 6, Plate XXVI, represents an embroidered shirt. In the centre of the longitudinal border (*a*) are two combatant fish-cocks with a bifid crest on their heads and a spur-line combining these. In the other concavities are pairs of strongly conventionalized opposite musk-deer, their necks recurved so that they face each other, with erect ears, spiral bodies, and two long curved legs. This type is nearest to that described in the preceding figure. The ornament on the two pockets (*b*) is composed of two portions. The upper part contains two scrolls, oval in shape, the outer winding of which continues in the form of a conventionalized bipartite fish, the ends of which are connected by a spur-line. Lying within the scrolls are two inverted cocks, whose type is derived from that of the fish just mentioned, except that here a tripartition is employed. Both from this fact and from the crest marked on the head, the gallinaceous character of this theme is indicated. The under part is taken up by a group of two parallel tendrils, the lower of which encloses a quadrifoil; and the upper, four spirals grouped around a lozenge-like rosette. In the two under lateral tendrils, which issue from a branch, the conventionalized bipartite fish is used to connect the two. The field *c* shows an interesting variety of the conventional dragon. There are two creatures represented in confronting attitude. The heads are two simple scrolls. The bodies are indicated by spirals wound three times. In the outer windings a portion is marked off on which the scales are characterized by three short teeth. The outer spirals, forming double spirals with the dragon bodies, are set with three claws to indicate the feet. Over them the tail of the dragon is symbolized by three cock-feathers. The two serpentine lines lying between the tails and the bodies are explained as snakes, a further ornamental expedient to characterize the animal nature of this creature.

Fig. 1, Plate XXVII, represents an embroidered shirt of the Gold. From the collar, down both sides of the front opening, is a border (*a*) composed of double spirals consisting of two parallel lines. These double spirals are so interlocked that the outer winding of the scroll at one end merges into the inner line of that at the other end, and *vice versa*, the outer line of both scrolls being adorned with a double triskeles. In the fields *b* and *c* ornamental trees are



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designed. Two opposite hearts divide the latter field. In the upper heart are four semicircles used as supports for leaves; the under heart shows a tree-trunk, the top of which is adorned with an oval leaf; while semicircles, crescents, and ovals are represented as leaf-bearing boughs. The lateral fields are occupied by fish-cocks with one head at the end of the fish-tail and two heads superposed over the fish-head. In *b* two branches are carried out as bird-beaks, each holding two leaves. There is a similar motive on the upper, smaller pockets, only there a cruciform leaf-cluster appears between the two deflected beaks.

On the border extending from the collar to the bottom of the woman's embroidered silk dress seen in Fig. 2, Plate xxvii, the artist has pictured single groups of facing spirals connected with conventionalized fishes, displaying the enormous variations of which these simple forms are capable. Among the twelve consecutive groups *a-l*, there are only three corresponding pairs; viz., *e* and *g*, *i* and *k*, *j* and *l*.

On the garment in Fig. 3, Plate xxvii, we see combinations of two fish-spirals. One of them contains the same motive as *i* in Fig. 2; that is, spirals with two conventionalized bipartite fishes united into one figure and placed around them. The other motive is a recurved spiral worked out as a fish-body, with tail in the form of a triskeles. On the bottom edge, fish-bodies are gracefully twined close around the spirals, that terminate alternately, below, in cock's heads.

Fig. 4, Plate xxvii, shows a dress embroidered with white chain-stitching on a black background. The ornaments on the two longitudinal borders might be designated as continuous cock-spirals, for, in spite of their scroll character, the original cock motive is still rather conspicuous. Exactly in the middle we observe what are obviously cocks of Type B, their backs turned toward each other. The beaks are strongly marked. The ovals are under the throats, and the two bodies are connected above by an arc, inside of which two conventionalized fishes are designed. At the beginning no less than at the end of this pattern the beak with the roundish object in front of it is distinctly visible in the fishtail-shaped triskeles; also in the other triskeles next to the central figure the head stands out distinct from the beak of the bird, and this motive occurs also on the collar. On the upper part of the pockets sewed to both sides we note an odd figure not as yet met with. Within two crescents we find two conventionalized fishes, and over their heads the head, eye, and beak of a cock; while over each fish-tail rises the head of a musk-deer, its two ears erect. Two combatant cocks and two deer, their heads turned so that they are looking at each other, are accordingly united in this one figure.

In Fig. 1, Plate xxviii, is represented a woman's silk-embroidered coat. On it are seen two perching cocks (*a*) standing opposite each other, and holding fishes in their mouths. Under each of these single cocks is a pair of combatant cocks (*b*) showing a much more advanced stage of conventionalization. In the cocks placed sideways (*c*) the pinions as well as the tail-feathers are expressed

by conventionalized cocks. *d* is the terminating figure of a wave-line,—a spiral, with a fish-body attached below, and two cock-feathers above. The same motive is employed in the representation of the cock *e*. *f* shows the type of two inverted combatant cocks. The body is formed here by a fish, which continues into another fish placed around the spiral of the wing. The tail is indicated by three feathers, and the feet by a scroll with lateral offshoot. *g* corresponds almost to the type B, only that here the head of the fish in the bird's body is placed above, and its body below. Besides, the spaces between the cocks' bodies and the separating vertical axis form again conventionalized fishes. In *h*, *i*, and *j* are to be seen spirals adorned with cocks' wing and tail feathers. A remarkable design is *k*, where the two cock-feathers in the interior of the oval figures represent the missing spiral lines. Finally, in *l* leaf-ornaments have also been employed, partly in the form of two contiguous circles, partly in that of ellipses enclosing a heart-shaped figure.

SPECIMENS MADE OF FISH-SKIN. — We have several times met with chess-board patterns (see Fig. 1, Plate X; Figs. 5, 5 a, Plate XX; Fig. 1, Plate XXI), notwithstanding the fact that the game of chess is not known to any of the tribes of the Amur region. Two other examples follow here.

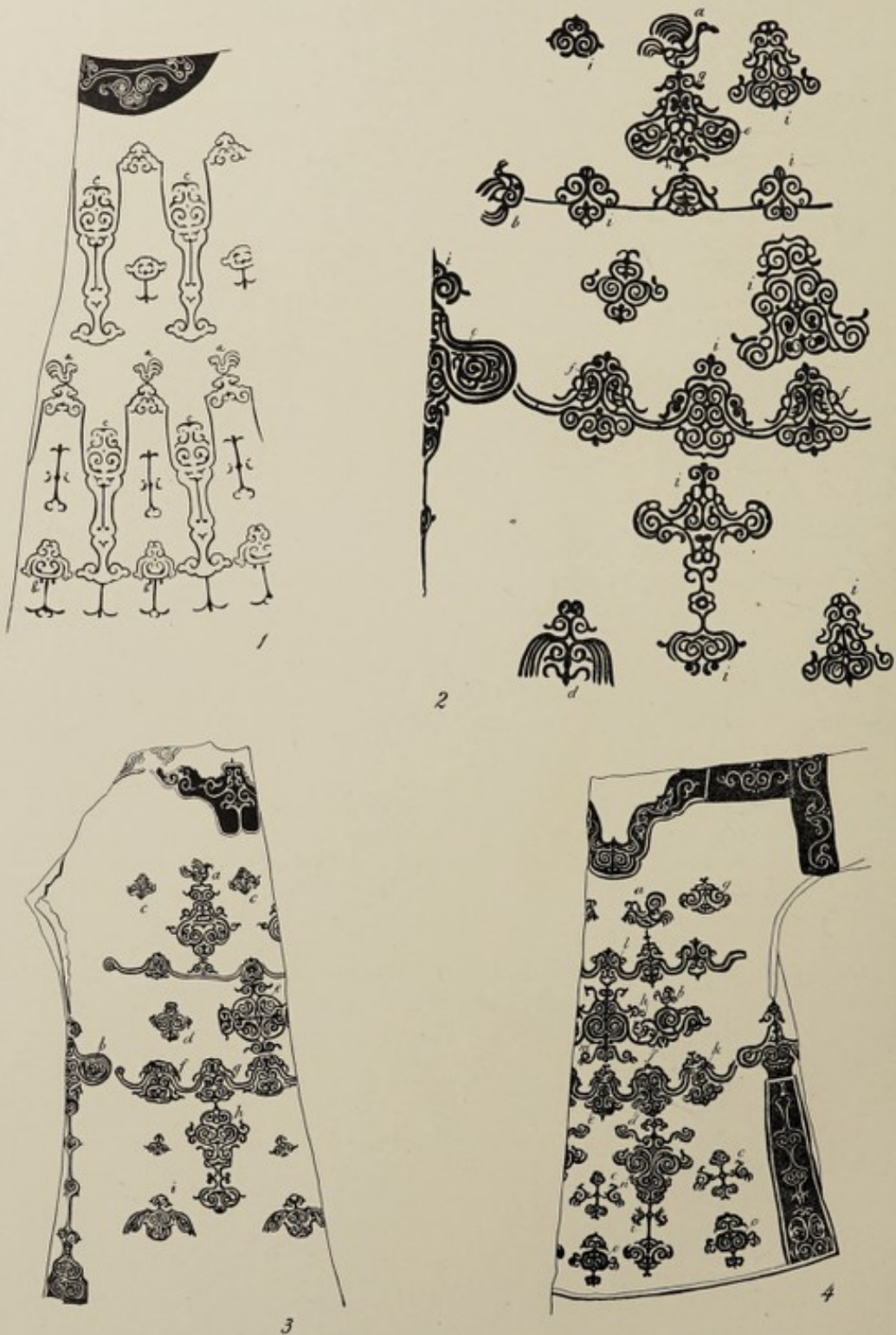
Fig. 2, Plate XXVIII, shows the design on a tobacco-pouch made of roe-skin, the interior of which is covered with fish-skin. Here are quadrangular fields covered with chess-board patterns composed of pieces of white and black fish-skin, which alternate with other fields of plain roe-skin. The ornament cut out of fish-skin on the inner side of the lappet is subdivided into three parts. The upper part contains a pair of facing spirals, around which cling two conventionalized bipartite fishes, the eyes marked by small circles. Between their bodies is a trefoil. In each of the two lower symmetrical fields are two superposed spiral cocks, each of the under ones holding a trefoil in its beak.

Fig. 3 of this plate represents an apron which is a kind of fish-skin patchwork. There are three rows of squares containing alternately chess-board patterns and other decorations. In the former, light and dark strips are interlaced as in braid-work, the number of checks varying from seven to nine. The spaces between the squares and the separate rows are filled up with long stripes, alternately white and black, arranged in most cases diagonally. There are two different ornamental figures in the other squares. In the one are four pairs of facing spirals, grouped like a rosette around a figure consisting of two trefoils. This ornament is cut out of fish-skin and sewed on a piece of dark-red cloth; the other figure is sewed on black cloth. In this latter, four conventionalized cocks are grouped around a lozenge. The figures across the lower edge are likewise cut out of fish-skin, sewed on, and colored alternately light brown and bluish green. The fish-skin threads used here are red, green, blue, lilac, and violet.

Fig. 4, Plate XXVIII, is a Goldian hunter's cap made of roe-skin, lined with blue Chinese cotton. The crown is topped with two tassels and a sable-tail.



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The edge is covered with a strip of black and one of red cloth, between which are narrow stripes of yellow. These, as well as the ear-lappets, are trimmed with appliqué ornaments cut out of fish-skin. The elements of the ornament running around this cap are distorted cocks, arranged in pairs around trefoils in the lower row, and in double pairs attached to the upper and lower points of a quadrifoliate lozenge in the upper row. This case, together with the two preceding ones, proves that fish-skin is sometimes used merely as decorative material.

On Plates XXIX and XXX we have eight representations of decorated fish-skin garments, which are worn exclusively by women. The ornaments are cut out of pieces of fish-skin, and are generally colored blue; they are then sewed with fish-skin thread to a piece of fish-skin of a shape adapted to the size and form of the ornament. A great number of such single patterns are then symmetrically put together on the garment itself. A different method is employed only on the garment in Fig. 1, Plate XXIX. Here we have three layers of fish-skin, the undermost representing the skin of the garment proper; the uppermost showing the ornaments in their cut-out forms. Between these two layers is inserted a middle layer, which serves as a background to the ornament proper, throwing out distinctly the negative parts as well as the outline of the ornament. It extends a little beyond the edges of the uppermost layer, which is sewed to this one. The middle layer is dyed partly light red, partly blue, so that the edges of the negative parts of the ornaments appear in these colors, setting off the monotonous color of the underlying plain fish-skin. There are three neat naturalistic perching cocks (*a*) with trisulcate tails and open beaks. Very curious are the downward-stretched cock-heads in *b*, alternating in the intervening figures with triskeles corresponding to them. If the eye were marked in the latter, they could hardly be distinguished from these realistic heads. The constituents of the long-extended figures marked *c* may be analyzed in a similar way. There is an embroidery on the collar of this garment showing various two-lobed leaves and a trefoil surrounded by the outlines of a heart.

Nearly all forms of cock and fish ornaments are represented on the following specimens. We observe the cock with wings outstretched, in *a* of Fig. 2, Plate XXIX, probably perched on an ornamentally devised tree, and crowing, for its beak is open. Its body is shaped like a fish, the head of which, formed by a circle, lies in the back part; and another fish, enclosing a large dot, is marked off in this same body. The cock placed sideways (*b*) is similarly formed. It is likewise crowing; but tail-feathers and wing-feathers are represented by only three curved lines, whereas the former (*a*) shows four parallel curves for the tail, and even six for the wing. Inside of the fish-formed body *b* the head of the fish is marked by a scroll and a circle similar to that in *a* above it. The cock on the border to the left side (*c*) has undergone some further alterations, because the artist was obliged to adapt its shape to the double circular lines which enclose it. It shows a wattle under its throat, and has a fish-body. Its pinion is formed by a

composition of two adjoining beaks, at the end of which is a two-lobed leaf. The form of the tail deviates from all other hitherto known forms, and is merely the product of a purely ornamental assimilation to the given space. The pattern *d* deals in a striking way with the subject of the two combatant cocks. The heads are distorted, and have shrunk into scrolls, including the circles attached to them. The wing-feathers placed under the heads are symbolized by spirals, each with a lateral process; i. e., the spiral-triskeles; but the symbolic expression of the tails claims an undue amount of space, quite out of proportion to that occupied by the parts just described. Four exaggeratedly long tail-feathers are indicated on either side, the space between them being filled with a pair of united triskeles, and under them a hook-formed figure. In the interior of the figure suggestive of an ornamental tree, below the cock *a*, we observe two realistic fishes (*e*), whose eyes and gills are characterized in the usual way; on their bodies is a conventionalized bipartite fish, the tail extending out into a compound triskeles, one of the arms of which is continued into a scroll. The figure which separates these fishes contains in its negative parts two upright bipartite fishes, which occur also on the sides of the design *f* in the familiar R-form. In the middle of *f* are two naturalistic fishes rampant, without any spirals on their bodies, but marked with two parallel ventral fins. The R-formed fishes are also to be found under the two facing triskeles marked *g*. In *h* two triskeles are conceived of as two combatant cocks, chiefly characterized by the two combined circles, one of them being held by each. The large figures marked *i* are compound, rather complicated, ornamental arrangements, which are built up of spirals, trigrams, leaves, and conventionalized fishes, and elements of the cock-ornaments.

The garment represented in Fig. 3, Plate XXIX, in general resembles very much that in the preceding figure. There is a perching cock (*a*) with open beak and trichotomous wing and tail feathers. At the end of the fish-shaped body is a spiral, and on the under outline a small solid circle. The enclosed cock (*b*) with fish-body and oddly ornamental tail tallies exactly with the bird in *c*, Fig. 2. There are two inverted fish-cocks in *c*, a pair of fish-spirals in *d*. A very graceful group of four fishes is placed in the form of a spiral around a quadrifoil (*e*). Inside of *f* lie two fishes united in a horizontal position over a pair of facing spirals, the upper outline of the fishes forming a brace. In *g*, fishes of the same type are situated under the spirals; further, in the upper part are two opposite fishes rampant. Here as well as in *h* occur two-lobed leaves. There are two conventionalized lateral cocks in the design *h*. *i* should be compared with *d* in the preceding figure. The tail and wing feathers are ornamentally fashioned by the aid of spirals, triskeles, and leaves.

Whereas the ornamentation of the garments in Figs. 2 and 3, Plate XXIX, is based on two horizontal rows, that of Fig. 4 of the same plate is composed of three rows. The cock *a* holds a distinctly marked fish in its beak; furthermore, a conventionalized fish is designed on its body, and another added to one division

of its comb. To the spiral forming the pinion is attached a cock's beak turned to the right, with a circle below it. In the second row is the representation of another erect realistic cock (*b*) with bent beak and bipartite tail. In the two figures *c* we note a conventionalized tree, on the two side-branches of which two cocks are perching. Of very peculiar shape are the cock-fishes *d*. Their heads and bodies have fish shapes; they terminate, however, in a three-lobed cock-tail. Their heads are turned away from each other. There are spiral fishes to be met with in *e*, *f*, and *g*. *h* is a musk-deer with fish-body; its hind-leg is a cock's beak with the oval. In *i* are represented two cocks with their heads turned downward, which bear, strange to say, triskeles-formed fishes on their heads, and have, besides, fish-shaped bodies. The fish-heads in which they end have two small erect prongs of the same form as the ears of the musk-deer. In *k* and *l* the double wave-lines are made use of as supports for cock-heads, of naturalistic representation in *k*, of conventional form in *l*. *m* and *n* show the use of the facing spirals, which are joined in *n* to fish-bodies above, and on the sides to conventionalized cocks. In *o* the negative portions of the inner facing spirals are two conventionalized bipartite fishes; on either side of them, and at the bottom of this figure, are two strongly conventionalized cocks holding circles in their beaks.

As regards the ornamentation on the garment in Fig. 1, Plate xxx, the rather naturalistic cock *a* is represented with four-pronged pinions and tail-feathers. A conventionalized bipartite fish is designed on its body. Exactly the same forms are shown in cock *b*, placed sideways. *c*, *d*, and *e* illustrate the combatant cocks fashioned as on an escutcheon. They are most elaborate in *c*. Here the head of the cock is designated by a heavy dot surmounted by a semicircle, the beak being characterized by a smaller semicircle. Attached over its head is a triskeles-shaped fish. The bodies of the two cocks are united into a heart-shaped figure, to which are joined on either side the strongly marked, long wing-feathers. The tail added under the cordate figure is treated as an independent ornamental element, in which, properly speaking, a conventionalized cock with fish-shaped body, wing and tail feathers, is to be recognized. *d* represents heads and bodies of cocks in the form of erect fishes. Their gallinaceous character, however, is sufficiently preserved by the four-lobed tail and the spur below it, which latter they have in common. In *e* the heads have vanished; the heart-formed body, as in *c*, a spiral wing-feather, and a double-toothed tail-feather, are visible. In *f* are two inverted conventionalized fishes placed around facing spirals, just as in *g*: in the latter case, however, the fish-heads are set with cock-beaks which run parallel to the winding of the spiral. Of the different representations of the fish, the following are to be found here. *h* contains two confronting erect fishes of naturalistic forms, with eyes, gills, a design on their backs, fins, and spiral-formed tails. In *i* we see two fishes projecting from the sides in an almost straight horizontal direction, whose heads are set with two offshoots formed like cock-feathers. In *j* the fishes arise likewise from the sides, but the heads are turned upward, and the bodies are coiled and have four fins.

Another fish proceeding from a wave-line is *k*. Here the semicircular hook on the head, continuing the line of the gill, is placed toward the outside. The two outlines making up the body do not unite to form the tail, but run parallel to each other. Another group of fishes is connected with spirals, as, for instance, in *l*. They are used as continuations of two facing spirals, together with which they are enclosed in a figure. In *m* seems to occur a fish-cock, as the two hook-like offshoots from the head of the fish appear to show; perhaps the same is the case in *n*. In *o* the fish joining the spiral is not completely drawn, as its outer edge line remains parallel to the winding of the spiral. The most conventionalized design of all is *p*, the characteristics of which afford insufficient ground for explaining it positively as fish or cock.

The cock *a* in Fig. 2, Plate xxx, is composed in a striking way. It holds a triskeles-formed fish in its beak; its body is shaped like a fish. Its pinion is represented as a cock-beak with a circle under the throat. The tail consists of two sections. The upper circular curve is combined with two conventionalized fishes (not visible in the illustration); the lower part is a cock-beak holding a fish, both so connected that they enclose a small circle. In the same way is built up the cock *b*, which is placed sideways. In *c* a conventionalized cock joins a spiral. *d* and *e* are designs constructed from single ingredients of the cock and fish ornaments. *f* shows in the interior two confronting bipartite fishes in an upright position and two bipartite fishes proceeding from the scrolls on the outside. In *g* two conventionalized combatant cocks unite in an ornamental device in the pointed upper structure. The figure *h* below is identical with *e*. In *i* we observe four coiled fishes grouped around a central lozenge. Their bodies are scaled like that of the dragon. Just as here, so in *j* we meet with two scaled, very realistically formed fishes in the concavities of the wave-line. At its terminus sits a dragon (*l*) with open jaws and two three-clawed feet. Its tail is a fish. In form it is like two combined triskeles.

The back of the garment in Fig. 3, Plate xxx, is covered with a series of more compact figures. The single ingredients of the same are generally to be traced back to cock-ornaments. In *a* the heads of the two cocks side by side are turned away from each other, and a circular object is held in each of their beaks; while in *b* the beaks are turned toward each other, and between them are two objects, just as in *c*, where the tails are better characterized. *d* is composed of two pairs of superposed cocks, the lower of which are surrounded by borderlines. In the figures *e*, *f*, and *g* the principle of the four spirals grouped around a lozenge comes into play. In *f* two lateral cocks are added to the under spirals; and underneath, two opponent cocks with conventionalized fishes in their beaks. Fig. *h* is identical with *d*. An odder variation of the fish-cock is visible in *i*. There is here a spirally wound fish with a bipartite crest. It terminates in a spiral tail, and has two cock feet placed as if in the act of walking; *j* is a distorted cock in which the principle of misplacement is conspicuous.

The whole design of Fig. 4, Plate xxx, is built up of vertical and horizontal



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rows. On the top is perched a crowing cock (*a*), with open beak and a fish on its body. Next to this in form come the cock placed sideways (*b*) and one flying (*c*); the latter surrounded by a line, its tail quadrilobate and its wing-feather trisulcate, whereas the reverse is the case in *a*. Of fishes, we see four realistic ones coiled around four spirals (*d*); two appearing as continuations of spirals, and each enclosed in an oval (*e*); the cock-fishes with heads downward (*f*); and the fishes adjoining the spiral in *g*, consisting of one piece only. As regards the design seen in *h*, it should be compared with *c* (Fig. 1) and *h* (Fig. 3) of this plate, and especially with *i* in Fig. 3, Plate XXIX.

AINU ORNAMENTATION. — We will now cast a brief glance at the ornaments of the Ainu. This tribe still holds a rather exceptional position, due, on the one hand, to their isolation in the southern part of the Island of Saghalin, and, on the other hand, to their indolent, passive character. Notwithstanding their resemblance to the neighboring Gilyak, many an invention and many an idea is met with which is wholly their own, and is not found in any other tribe. Generally speaking, the subject of ornamentation among these people is a very intricate one, since three blended elements must be distinguished, — a special overwhelming Japanese influence; loans from the neighboring Amur tribes; and perhaps certain dregs of their artistic ideas, which are to be considered as almost wholly their own property. There is no doubt that a great many figures and patterns might receive proper explanation by comparing them with the art of the Gilyak and the Gold.

Fig. 24 represents the coat of an Ainu chief from the east coast of Saghalin. It is of home make, and woven from nettle-fibres. The edges are adorned with dark blue, yellow, medium blue, and dark blue stripes of Japanese cotton, arranged somewhat like a key pattern. The dark blue stripes are broad along the inner side or slit of the garment, and narrow along the outer edge of the border. The broad ones are covered with a design in embroidery, as are also the narrow ones in the under part of the coat. The stitch used here is the so-called "couching-stitch." The narrow band in the lower part shows what is called in our Goldian

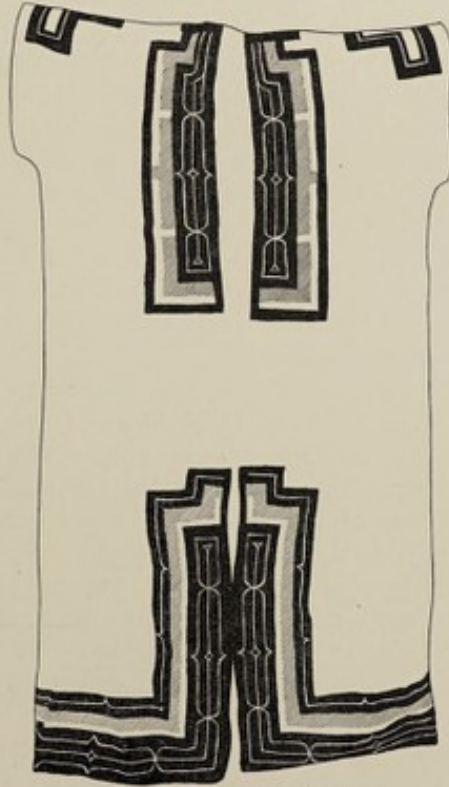


FIG. 24 (2/3). Coat of Ainu Chief.

ornaments a continuous spur-line. This motive, only double, is employed likewise on the other borders, and so intertwined that a long-extended oval figure is produced. Through the middle of this figure is a red line forming a lozenge in the centre. The ornamentation across the bottom goes all the way around. This form of decoration is the typical style for all Ainu clothing. On the upper part of the back is a crest after Japanese fashion, showing a quadrifoil the leaves of which are cut out of bright red cloth, and edged with purple.

Fig. 1, Plate XXXI, shows a decorated attachment for a belt. Two such pieces are generally worn together, suspended from the side. A trapezoidal piece of whalebone is covered with dark red cloth, at both sides with a section of black cloth, and the upper and lower edges are set with blue glass beads fastened in clusters of three. The two ornaments sewed on with chain-stitching are applied in the same manner to both sides of the object. Both forms we have met with in the ornamentation of the Amur tribes. The same is applicable also to the decoration on Fig. 2, a bone implement for untying knots, which is adorned with a band-ornament showing, above and below, two knots especially marked by round incised hollows. Also here, as in the related objects of the Gilyak previously described, we see a connection between the ornament and the purpose of the object on which it occurs.

In Fig. 3 of the same plate is shown a knife-case inlaid with bone, obtained by Professor Bickmore from the Island of Yezo. On the middle longitudinal bone there are cross-hatched triangles. The other decorations are simple band-ornaments, the negative portions of which are indicated either by lozenges or by cross-hachures.

Fig. 4, Plate XXXI, represents a knife-case, from which the handle of the knife projects. It is likewise from Yezo, and was declared to be an old piece. The plant-ornament on the handle, the end of which is cut off slanting like a Gilyak knife, is incised, likewise the flower on the upper part of the case; but the group of leaves on the hatched part, like the leaves in the form of superposed semicircles, stand out in relief. These floral ornaments manifest, in both style and technique, an obvious Japanese influence.

Figs. 5-20, Plate XXXI, represent small wooden sticks (*ikuni* on Saghalin, *ikubashui* on Yezo) used in ceremonial drinking-bouts to lift the mustache and beard to prevent them from getting wet. The pieces represented in Figs. 5-9 were obtained by me on Saghalin. They are old family heirlooms, given away by their possessors only with reluctance. The following are explanations as to the carvings on them. The design on Fig. 5 is said to represent a human face wearing a pair of spectacles. Each of the two glasses is indicated by two concentric circles having a round hole in the middle. The connecting-piece between them is likewise cut through, forming a slit. The half-perforated oval projecting above the upper glass of the spectacles is supposed to be an eye, while below the spectacles two pairs of nostrils are represented in the form of pointed arches. The lowest larger hole, the point of which turns upward, indicates the outline of



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the nose. On the specimen, Fig. 6, were three incised open-carved seals, one of which is unfortunately broken off: that in the middle is floating on the surface of the sea, which is symbolized by diagonally cross-hatched lines; the other two animals are resting on shore, the beach being shown by parallel oblique lines on either side, enclosed in segments. Fig. 7 was interpreted as the representation of a landscape. All hatched parts signify mountains; the hatchings themselves, grass and wood; and the serpentine lines, valleys and roads. From a merely ornamental point of view, an irregular interlacement of bands is here presented, the negative parts of which are taken up with parallel lines. On the lower half of Fig. 8 is a netting-needle, above it the picture of a sturgeon. Its head is represented in raised work in the form of a long rectangle. The eye is in the middle, and the extended head with jaws is reproduced rather naturally in spite of the geometric treatment. The body is symbolized by a spiral, adjoining which is the tail,—a rather realistic design with four rings and two crosses. Fig. 9 portrays two sledges driving over the ice, one behind the other. The back parts of the sledges rise over the stick in open-work carving. In the centre there is a quadrifoil, the upper outlines of which are connected by means of a band with a sledge above it. From the mere consideration of these five mustache-lifters it may be seen that the Ainu have a predilection for open-work sculpture, and use for representations the fauna of their surroundings and other objects familiar to them. Moreover, it becomes clear that the forms are partially the same as with the Amur peoples, and that these very same forms are made to serve as the basis for a symbolical interpretation. The explanations of these *ikuni* are of a purely personal character, being kept in the same family and handed down together with the ceremonial sticks; so that under certain circumstances the same pattern might have different explanations in different families. The pieces from Yezo (Figs. 10-20), in the collection of Mr. A. C. James, are given place here partly for comparison with those from Saghalin, partly as an incentive to further research regarding the peculiar ornamentation of these sticks, and in general of that of the Ainu. There is certainly no specimen among those from Japan that shows so realistic and characteristic a mould as ours from Saghalin. Particularly Figs. 11, 13, 15, 16, 17, and 18 show a strongly geometrical cast, owing to the continuous repetition of the same forms; while others, like Figs. 10, 12, and 14, seem to tend towards realistic conventionalizations. Chain-bands occur very frequently on drinking-sticks. There are two such running side by side in open carving in Fig. 19. On the stick, Fig. 20, from the lower left side proceeds a natural scion; very interesting are four trefoils on it, the forms of which exactly agree with those on our Amur ornaments.

COLORING. — As already stated, a great number of the decorated specimens are very rich, and even extravagant, in the variety of their colors, which reaches its climax in the embroideries, since here the most beautiful dyed Chinese embroidery-silks are at the disposal of the artist. These silks abound in all imaginable

tints and shades, whereas the selection of the pigments for painting purposes is, of course, not nearly so diverse. From the very fact that the silks as well as the coloring-matters are traded from the Chinese, we may infer that also in tasteful and artistic arrangement of colors this people has been the instructor of the Amur tribes. This statement is confirmed, moreover, by the fact derived from actual observation, that the more the natives are in contact with the Chinese, the nearer they dwell to a centre of Chinese culture, the more splendidly developed in beauty of color are their works; while the farther one recedes from that centre, the poorer the color-sense seems to grow, and at last to vanish almost entirely. The choice of colors is not arbitrary, but subject to certain rules of taste, although no definite formulas can be deduced. It may be asserted that, throughout, to the symmetry of the pattern corresponds the symmetry of the colors. This symmetry, however, is not so strictly observed that symmetrical parts must be adorned in all cases with precisely identical colors: there should be different shades of the same ground-color, or even sometimes contrasting hues. There may also be the same set of colors in two symmetrical figures, but with a change in the arrangement. The brilliant colors occur mostly on shirt-embroideries with white background; and the duller hues, in their various shades, on coats and other clothing. A better knowledge of Chinese art will no doubt throw more light also on this most attractive side of the Goldian works of art.

To illustrate the appearance and the effect of the colors, five paintings have been selected for reproduction here (Plates XXXII, XXXIII).

Fig. 1, Plate XXXII, represents the lateral continuation of the ornament shown in Fig. 4, Plate XXVI. I have already pointed out the peculiarity of the composition of this design; here also is shown an entirely new motive not elsewhere observed: in the centre are two cocks (*a* and *b*), — *a* of red color; *b*, one half red, the other half deep magenta, or the shade "American beauty," so called. Although the two cocks correspond to each other in their position, they are not constructed in symmetrical agreement, since the whole composition narrows off toward the side. The cock *a* is therefore in erect vertical, and *b* in reclining horizontal, attitude, the latter running out into a long body, with tail coiled into a spiral. The upper outline is here also an engrailed line, which causes an irregular lozenge to spring up in the middle of the body. The beaks of the two cocks *a* and *b* are curved downward and then recurved, and each holds a conventionalized bipartite yellow fish, grasping it at a point between head and body. Between the bodies of the fishes and cocks are two greenish cocks whose forms are assimilated to those of the adjoining cocks above. That below *a* is accordingly represented standing, and that belonging to *b* in a sitting position. In this way also the ends of the yellow fishes depend upon the forms of the cocks, and are influenced by them: the body of the fish *a* runs parallel to that of its cock, and terminates, like that one, in a broad plane; whereas *b* tapers into a point at the tail, like the green cock belonging to it. The red cock *a* is joined by a yellow inverted cock, which sends off farther below a blue-colored fish. To the left of this one is a magenta



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cock-head, whose beak seizes a green fish. There are two fishes over the two cocks *a* and *b*. That above *a* has the head green, the body blue; that above *b*, the head yellow, and the body blue. In this case, consequently, we can speak, at most, of a harmony, not of a symmetry, of colors. There is, for instance, the cock *c*, green as to neck and beak, while the rest of the body is yellow. On the other hand, the opposite cock is green, and only its upper tail-feather of a red hue.

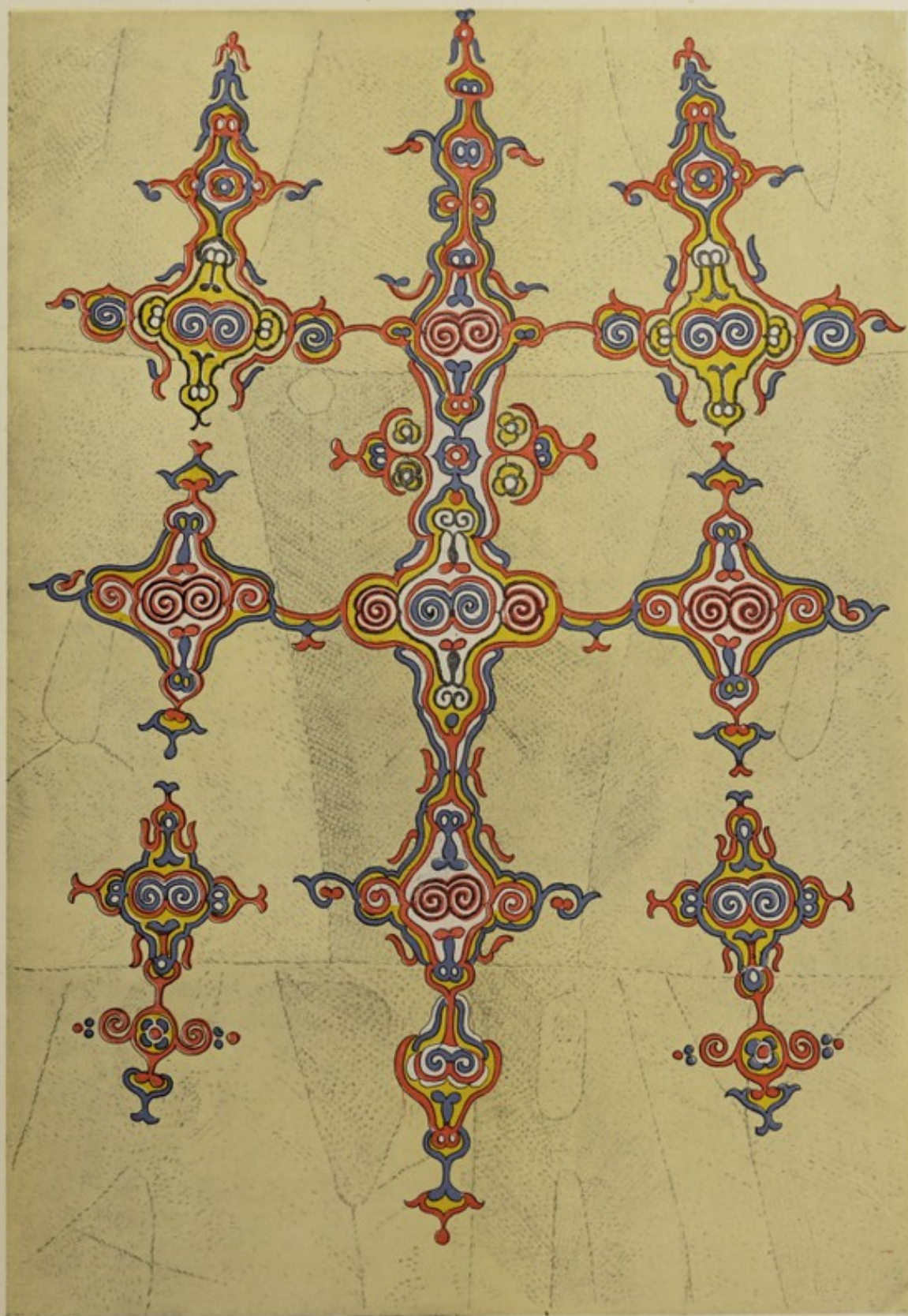
Fig. 2, Plate xxxii, represents the painting on the upper edge of a boot made of elk-skin, the outside of which is tanned, while inside the hair is left on. The decoration is painted on a piece of salmon-skin which is sewed to the elk-skin. A comparison of this with the preceding specimen shows that fish-skin is a much better substance for painting, and gives the colors a brighter and more resplendent effect. An extraordinary feature of this ornament is, that parts of continuous geometrical arabesques, without stepping beyond the pale of their ornamental character, are shaped into fishes and cocks. Thus the spiral ornament at the lower edge starts with a bird-head (*a*) and terminates in a fish-head (*b*). Just so a merely ornamental line (*c*) is treated as cock-head and beak holding an inverted bipartite lavender-colored fish. Around the spirals are distributed a series of conventionalized cocks, all of which represent different variations of the same forms, that is, *d*, *e*, *f*, *g*, *h*. In *f* and *g* the feet of the cocks are fashioned as two-lobed leaves. To the pure spiral *i* corresponds the spiral *j*, the interior of which is formed like a cock. From the lavender-colored spiral line stand off conspicuously the red curved beak and the semicircular head-line. Here is demonstrated one of the reasons for the employment of contrasting colors to mark off distinctly one part of the body from another, and thus bring it into prominence. Another characteristic feature appears in the fact that the black tint serves to mark the wave-line terminating in scrolls, which helps to analyze the composition into its subdivisions: it affords, as it were, a frame for miniature pictures. To the yellow color is attributed merely a secondary significance: it serves as a filling for negative portions, mostly for narrow stripes. Of paramount importance is the color red, with which the essential parts are painted; with it is interchanged, very happily and tastefully, a lavender color, which softens the glare of the red in a most agreeable way, lending a restful and harmonious effect to the whole composition.

Fig. 3, Plate xxxii, represents the upper front edge of a fish-skin garment which came originally, like the preceding specimen, from the Ussuri River. As regards the use of the colors in this ornamentation, first of all, it should be pointed out that a difference is made between spirals which serve exclusively for decorative purposes and those which claim, besides, a symbolical meaning. The former are painted with black China ink and surrounded with red lines, the latter with red color and black border-lines. For the representation of the cock, either red or blue, or both colors at the same time, are in use, while yellow is limited again to the filling of intervening spaces and stripes. In this way bipartite fishes, some of which occupy negative spaces, are better brought out.

Fig. 4, Plate XXXII, is a painting on the upper edge of a pair of leggings made of fish-skin. The picture is remarkable on account of its peculiar coloring,—a light red for the wave-line ending in scrolls, which effects the ornamental division; an exquisite magenta for the conventionalized cocks of the type B; and a light blue for the figures under the wave-line, which are composed of two united cocks, their heads being circles and running out into fish-tails; a greenish blue for circles, ovals, and united bird-beaks in the form of a crescent. The background is of a light buff hue; lemon-yellow is twice applied to the circular objects of the crescent-shaped cocks and for negative portions, twice for the heads of conventionalized fishes.

Plate XXXIII represents the back of a woman's dress of fish-skin. Part of the front edge of the same specimen was shown in Fig. 3 of the foregoing plate. The whole surface is covered with a magnificent painting. The decoration consists of three vertical rows, the two outer of which tally and are composed of three single figures each, while the middle series presents a coherent structure. The ornamental principle from which these have arisen is very simple: there is a pair of facing spirals in the middle, above and below them are two erect conventionalized bipartite fishes, and the whole is surrounded by a line corresponding to their forms. Whereas this figure remains constantly the same, the appendages on its sides, components of the cock-ornament, vary. Not to this formal change is due the special charm which this design offers, but rather to the harmonious variation of its colors, especially of red, blue, and black.

SOME GENERAL RESULTS.—If we cast a retrospective glance at the decorative art of the Amur tribes, we are struck most forcibly by the predominance of the cock and the fish, the manifold combinations in which these two motives appear, and the strange mingling of the two. These two inventions stamp the character of the whole ornamentation. If we ask for the reason, no other explanation can be found than that these particular animals have an extremely ornamental character because of the great permutations of their graceful motions, and thus lend themselves admirably to the spirit which strives after beauty of form. The reason, then, lies in their unquestionable availability for the ornamental. It is to their gracefulness and beauty of form that the cock and fish owe their popularity among artists, here as well as in the Chinese and Japanese pictorial arts. The part which the cock plays in the mythology and household economy of the Chinese is not so important as to justify so abundant a use of it in ornature. Since, besides, in the life of the Amur tribes it plays no part whatever, the mere artistic reason of its adaptability has decided its use. That such is exclusively the case is seen from all the various positions of fish and cock which are suggested solely by the tendency to create new and æsthetically effective forms. This strongly developed form-perception prevents the production of realistic representations,—which exist without doubt in embryo, and in early times existed perhaps to a much greater extent,—



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as shown in the designs of numerous animals, none of which have endured in their natural forms, but rather have deteriorated into a style of conventionality adapted to the cock and fish ornaments, as the musk-deer, the dragon, and so on. It would almost seem that other groups of animals gain favor and meet with approval, only so far as they are capable of conforming to the cock and fish pattern. In these last-mentioned figures we recognize at the same time stages, second in point of time, which probably arose after the development of the first-described ornaments.

If we now take into consideration the evolution of the cock and fish ornaments, we are impressed first by the fact that such differing and numerous stages of development are met with, frequently even in the same design; so that the development appears almost to be based on a juxtaposition in space rather than on a succession in time. In other words, the question arises, Are we correct in supposing a definite scale of gradation in the stages of development, from the cock and fish true to nature, down to the hardly recognizable conventional patterns? The whole series of forms does undeniably occur. These, however, should under no circumstances be regarded as of chronological sequence; for it is by no means true that the natural picture of the cock or fish is sunk in oblivion, and that the conventional form has exclusively taken its place. On the contrary, we see that the single phases of development are nothing more nor less than various forms of different kinds of adaptation to certain spaces or given geometrical forms, mostly spiral. This process of adaptation, constantly repeating itself in multitudinous ways, has created a large number of varieties, all co-existing side by side, like the varieties of a zoölogical species. One does not exclude the other, but each retains its separate existence, because art indulges in a wealth of forms, and requires an abundance of varieties for building up large ornamental compositions.

The strong inward impulse to create new forms is the primary underlying cause for the rise of the various degrees of conventionalization. Moreover, it is a further incentive to the simultaneous retention of all these manifold forms, a great number of which, without the influence of this law, would have perished. The form-character of this ornamentation had therefore a conservative effect, and is consequently responsible for its offspring. In spite of this form-character, however, conventionality is by no means a production of a purely rationalistic method of speculation. It should not be imagined that the creations of animal life continued to lose more and more of their original forms, and gradually shrunk into geometrical devices. On the contrary, the multifarious kinds of conventionalization have their final cause, last but not least, in a faithful observation of nature, especially in the ability to watch motions, so highly developed in the East Asiatic mind. The conception of a fish in the form of a spiral is based on a true observation of that animal in its natural state; it would never have been drawn in spiral form, never have clung to a spiral, without a foundation of fact. This very capacity of the fish for motion, together with the highly cultivated power of

the people to observe its motions, formed the reason for its adoption in ornamentation. The same remark holds good for the cock. Here we have, perhaps, not a primitive form from which all others have genetically originated; rather, a long series of fundamental forms exists, based on the observation of the various natural attitudes and motions of this ever-moving bird. We have distinguished a series of types; we have found standing, reclining, perching, and perfectly erect cocks, some with beaks turned downward, others with heads looking backward, all types which exist side by side, without having developed one from another. The conventionalizations proper have arisen only through the influence of the fish-ornament on the cock-type. This is the same process which was above designated, in a more general style, as an assimilation to existing forms. Thus the cock, for instance, assumes a fish-body to get a spiral form more suitable for the entire ornament; or its tail is represented as a fish-tail, its pinion as a spiral. Finally, forms are even found in which the whole cock is composed of geometrical constituents. These have not been evolved from the form of the cock, but they are the primary element, the material from which it is constructed. This ensues—and here we touch another important theoretical point regarding our ornaments—from the diversity of function of the geometrical components. The spiral, for instance, may symbolically express all possible things. It may serve to indicate the cock's body, its pinion, its tail-feather. It may even perform two or more functions. In Fig. 1, Plate XI, the large curve of a spiral is, first, a geometrical element; secondly, part of a wave-line serving to distinguish ornamental subdivisions; thirdly, it forms the upper outline for the body of a fish below, naturalistically drawn; fourthly, it outlines the body of a cock, the other parts of which are drawn above it. It would be absurd to infer from this that the spiral is the final result of the gradual conventionalization of such realistic images: it is rather a given prius,—the origin of which is of no consequence here,—which is employed for the symbolical expression of the most varied things, since its forms are so convenient for this particular purpose. Another example is offered in the brace, signifying the cock-spur; this symbol indicates also the feet of the musk-deer (Fig. 5, Plate XIV), the feet of the dragon (Fig. 13 a, Plate XVI), and even the scales on the dragon's body (Fig. 5, Plate XII). If a conventionalized fish appears in place of the body of a cock or even of a musk-deer, or if it even serves to indicate the horn of a dragon, no one, perhaps, will conclude from this fact that the conventionalized fish has resulted from the cock or deer body, but only that this particular form is used as the means to an end, as an easy expedient for ornamental symbolism of the parts of the bodies of other animals.

From this proof proceeds another very important and far-reaching conclusion as regards the triskeles. This also is a given factum used as a foundation upon which to build other ornaments. The supposition that the triskeles has developed from the outlines of the cock does not prove true at all for the tribes of the Amur. In no case is the cock represented as a purely geometrical triskeles. In

a few cases, as for instance on the spears and bows, where the cock has a triskeles-like appearance, it is always determined, first of all, by the added circle; secondly, the single arms of it are shaped in such a way that they admit of recognizing, in truth, the forms of the bird. We may clearly distinguish also, in these cases, beak, body, and feet. In the formation of the cocks and fishes the triskeles plays an active rôle for indicating single parts of the body, but not the whole creature, and so its functions are extensive. It sometimes interchanges with the spiral. It symbolizes the pinions of the cock, sometimes the fish-tail, sometimes the fish itself held in the cock's beak; in fact, even the horn of the musk-deer and the dragon's whiskers. As an independent element, having a definite meaning, however, the triskeles never occurs. It is rather a secondary expedient of multifarious significations, which, however, by no means appears as a resultant from the phases of the cock itself. This fact of the multiplicity of the functions of geometrical formations confirms again the thorough form-character of this decorative art, which sacrifices everything to the beauty of lines and forms.

The question may arise as to whether people like the Gold, who are able to produce such fine work, may justly be classified among primitive tribes. The Gold, at all events, are promising, and some time or other will undeniably advance to the rank of a civilized nation, like their ancestral relations the Niüchi and Manchu, but under more peaceable circumstances, relying on the cultivation of the soil, industry, and fine arts. There is no doubt but that they are chosen for their share in civilization, and that they will have a future, if only the Russian Government will continue to lend its assistance in improving the economic life-conditions of this intelligent tribe, which numbers so many good-natured and highly gifted individuals.

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