

NOTES ON DYEING AND WEAVING IN ANCIENT JAPAN.

1

Historical Outline

For Japan, just as for any other country in the world, it is impossible to know exactly when the arts of dyeing and weaving first began. A number of myths relating to the origin of these arts have come down to us, and we possess also various tales (monogatari) that throw a little light on the matter; for the time being, however, I should like to leave such myths and tales out of consideration. The textiles of the Asuka period (552-644 A.D.), examples of which have survived to the present day, are evidently products of an industry which had already undergone a long period of development: we are for this reason justified in assigning the genesis of dyeing and weaving in Japan to a date considerably earlier than the Asuka period.

In the national history compiled by Imperial command (Nihongi, also called Nihonshoki) we read that already in the 12th year of the reign of the Emperor Sujin, 86 B.C., an investigation into the production of textile fabrics was carried out with a view to imposing a national tax or corvée (i.e. a part of the fabrics produced was to be handed over to the state), which shows us how greatly the industry had developed(1). In the 2nd year of the reign of the Emperor Suinin, 28 B.C., the Japanese had so much confidence in their own products that they proudly offered a hundred bolts of red silk (akaginu) to one of the kings of Imna (Jap. Mimana, also called Benkan) in south Korea(2).

In considering how such results were achieved, we must not fail to bear in mind the great services rendered by the various hombe—the hatoribe, the kinunube, and the shitoribe—even though much about them still remains obscure. The members of these corporations had weaving and dyeing as their hereditary occupations: some of them prepared the threads, others did the weaving, while others again carried out the various processes of dyeing. From generation to generation they laboured at the task laid upon them, devoting themselves whole-heartedly to the advancement of their craft for the benefit of the Imperial Court; further, the hereditary nature of their work hastened their rate of progress and facilitated the acquisition of skill.

At the beginning of the 3rd century A.D., when Japanese dyers and weavers had acquired a certain measure of confidence in their own work, which was winning general approval, they received a powerful stimulus from that great undertaking of the Empress Jingo, the subjection of Korea; for, intercourse between Japan and Korea under favourable conditions having thus been established, Korean textiles of high quality were now sent to Japan as tribute year after year(3). We should doubtless be justified in saying that Japanese methods of textile production were influenced in no small degree by the

superior workmanship of the Korean materials thus made available; but what was most important was that it now became possible to obtain large numbers of highly skilled Korean materials thus made available; but what was most important was that it now became possible to obtain large numbers of highly skilled Korean experts. From the time of Emperor Ojin to that of the Emperor Yuryaku (3rd to 5th cents.) Korean textile experts immigrated to Japan in a continuous stream; they became naturalized Japanese subjects, and, by Imperial command, were settled chiefly in Yamato, especially in the provinces of Settsu, Kawachi, Yamashiro, and Ise(4). The result of this was that after a short time these places became the most important centres for dyeing and weaving in Japan, and that the textiles they produced were superior to anything that had been made there before(5). It was, therefore, not by chance that, at the beginning of the 6th century, during the closing years of the reign of the Emperor Buretsu, many in the upper classes of society sat on cushions (shikii) made of embroidered brocade and wore clothes of silk twill (aya) or of white, undyed silk (shiraginu) (6), for the textile industry had already reached so advanced a stage of development that rich and beautiful fabrics were available even for articles of daily use.

In the Asuka period, in the 13th year of the reign of the Emperor Kimmei, 552, Buddhism was introduced into Japan from the kingdom of P'ekche' (Kudara) in Korea; with the introduction of this new religion, which had reached Korea from China, the Japanese came to realize the necessity of entering into formal diplomatic relations with the latter country, and they took positive steps towards this end by sending, at the beginning of the 7th century, an ambassador to the Sui Court: it was this endeavour to introduce Chinese culture directly, and not through the intermediary of Korea, that was the outstanding characteristic of the Asuka period.--in the 11th year of the reign of the Empress Suiko, 603, the system of the twelve cap-ranks (kan'i junikai) was instituted, which not only shows that at this time distinctions of rank were clearly defined, but also throws some light on the state of the dyeing and weaving industries. The system prescribed what clothes should be worn, and of what colour they should be: the various ranks being distinguished by the use of purple, green (blue?), red, yellow, white, and black(7), the necessity of providing garments of these special colours must have exerted a considerable influence upon the development of the art of dyeing. Further, since it is recorded(8) that in the 16th year of the same reign, 608, when the Imperial Court welcomed an envoy from China and his suite, the Imperial princes, the other princes, and the ministers all wore garments of brocade(nishiki), and purple embroidery (shishuori), and various-coloured silk twills (aya) and gauzes (ra), it is easy for us to realize how far the arts of dyeing and weaving had progressed.

But how much more eloquently than such records do the actual surviving examples of Asuka textile art speak to us! When we look at such glorious remains as the Tenjukokumandara, preserved by the Chuguji nennery, or that treasure of the Horyuji, the brocade with the lion-hunting design, or the taishikanco of the Shosoin,*1, we cannot but feel that of

the great achievements of the Asuka period in dyeing and weaving the best had happily come down to us.

In the Nara period (645-780), as Japan's intercourse with T'ang China developed, the Buddhist faith became more and more widely spread and this in turn created a much greater demand for dyed and woven articles than had existed before; constructive steps being necessary to meet this demand, the dyeing and weaving industries were placed under dysyr vonytol(9), and the various ways in which improvements might be made were carefully considered(10). The Imperial Court took an active interest in the advancement of these industries(11), with the result that, though concentrated in the former age in the central provinces, they now began to develop throughout the whole country. What is particularly noteworthy in this period is the great progress that was made in the art of dyeing,—the acquirement of the three methods of dyeing known as sankechi. Sankechi is a collective term for the three methods of dyeing called in ancient times rokechi, kyokechi, and kokechi. It now became possible to work out most beautiful designs, entirely different from anything that had been produced in Japan before. Further, we must not forget that saiga and surimoyo also existed in this period, which might well be called the golden age of dyeing and weaving in Japan.

To appreciate the perfection to which the technique of this age had attained one has only to examine the textiles gomotsugire (gomotsu, also read gyobutsu, an Imperial treasure) of the Shosoin, such as, among the brocades, that with a large floral pattern on a pale blue (asahanada) ground, or that with a hexagonal design (kikkomon) on a purple ground, or that with a grape-vine design on a purple ground, or the brocade with a shikame pattern; among the twills, that with a grape-vine design on a pale brown (shiracha) ground, or that with designs of dragons vis-a-vis on a scarlet (hi) ground, or that with a floral design on a green ground; among the pongees (ashiginu), etc., that with flowers and birds on a scarlet ground, in rokechi, reproduced as plate II of this article), or that with a floral pattern on a light green (moegi) ground, in rokechi the gauze with flowers and birds on a black ground, in kyokechi; the blue linen, in kyokechi, the yellowish brown (kicha) pongee, in kokechi, the scarlet linen, in kokechi, and among the embroideries (shishu), that with a floral design, or that with a design of lions' heads, or that with an embroidered Buddha. Of ancient Japanese textiles, these gomotsugire of the Shosoin, the gomotsugire, formerly possessed by the Horyuji and those now in the Imperial Household Museum (Teishitsu hakubutsukan) are carefully preserved by the Imperial Household as precious remains of the art of the Asuka and Nara periods, of which, apart from these, but very little has survived.

(For convenience' sake I set down here the references to dyeing and weaving occurring in ancient Japanese texts (already cited above):

- 4
- (1) Nihonshoki.
 - (2) Nihonshoki.
 - (3) Nihonshoki. Jingo-kogo-ki.
 - (4) Nihonshoke. Emperor Ojin, 14th year, spring,
2nd month. Id., 37th year, spring, 2nd month,
1st day.
Id., 41st year, spring, 2nd month, 15th day.
Emperor Yuryaku, 14th year, spring, 1st month,
13th day.
 - (5) Kogoshui.
 - (6) Nihonshoki. Emperor Buretsu, 8th year, spring,
3rd month.
 - (7) Nihonshoki. Empress Suiko, 11th year, 12th
month, 5th day.
 - (8) Nihonshoki. Empress Suiko, 16th year, autumn,
8th month, 12th day.
 - (9) Taihoryo, shokuinryo (official appointments,
fuekiryo (labour tax); Koninshiki, shuzie.
 - (10) Shokunihongi. Empress Gimmyo, Wado 6, 713, 6th
month, —day.
Wado 6, 11th month, —day.

5.

Textiles (orimono)

Before giving any account of the various kinds of textiles that existed in ancient Japan, I ought first to go into the matter of what yarns were used; as it is, however, not convenient for me to take this up now, I will leave it for some later occasion. An investigation of ancient Japanese literary sources has shown that the following are the most frequently occurring names of textiles (sources: Taihoryo, Engishiki, RYō no gige, Ruijusandaikaku, Nihonshoki):

- A { ashiginu, futoginu, suzushiginu,
katori,
suzushi,
kinu,
- B { aratae,
shirotae,
asanuno, tetsukuri, tetsurinuno, karamushi,
taku,
tafu,
fuji,
- C { usuki tsumugi,
atsuki tsumugi

D) usumono (also called ra)

E = aya

F = nishiki

It should be observed that the above names fall into two categories: (a) those in which distinctions are made on the basis of the varying materials employed, and (b) those in which differences in texture or in the mode of weaving are referred to. Thus, A comprises the names of various silk textiles, B those of textiles made from different kinds of vegetable fibre, C those of tsumugi of plain fabrics; usumono is the name of fabrics woven by a particular method, while aya is the general term for twills; the designation nishiki also probably derives from the special mode of weaving used in the manufacture of this material.

Any attempt to explain exactly how these various materials differ from one another would take us too far into the minutiae of the technical study of weaving, so I should like to leave this matter out of consideration here. It will be sufficient if we remember that the names of textile fabrics in ancient Japan can, as we have just seen, be divided into two classes, namely those which derive from the materials employed, and those which have reference to some particular method of weaving. Bearing this in mind, let us now consider those remains of old fabrics known as tempyogire (fabrics of the Tempyo era (729-748)) -- remains of which we are justly proud.

The so-called tempyogire are now nearly all in the possession of various private persons or companies; not a few of them, however, are known to have originally belonged to the Shosoin (Todaijigior, the Horyuji, and for this reason they are also called Todaijigire, Shosoingire, or Horyujigire. Having undergone the vicissitudes of more than a thousand years, they consist for the most part of quite small fragments, and some are in what can only be described as an extremely pitiable condition. They are not to be compared with the gomotsugire treasured by the Imperial Household, for these are fine large pieces of cloth, preserved with the utmost care, and which would seem, even today, to have lost but little of their pristine beauty.

As I feel that I am highly privileged in being allowed to pursue my studies by direct examination of the Shosoin and of those presented by the Horyuji to the Imperial Household, I should like to give here a brief account of what I have learned from my examination of these textiles. Before doing so, however, I must say a few words about the origin of these gomotsugire.

Most of the textiles still preserved by the Shosoin are known to be of two different provenances: one group consists of various articles (articles used in Buddhist ceremonies, brocade or embroidered banners, streamer, etc.) used in connexion with the great ceremony (saibaie) of 'opening Buddha's eyes (Daibutsukaigen) which took place on the 9th day of the 4th month of Tempyoshoho 4, May 26, 752, when the Empress Koken, attended by numerous officials, went to worship the Rushanadaibutsu (sk. Vairocana, Birushana) of the Todaiji (12); the other group is made up of articles having belonged to the Emperor Shomu which the Empress Dowager Komyo, on the 21st day of the 6th month of Tempyoshoho 8, July 22, 756 (the 49th day after the Emperor's death, dedicated to the Todaiji Vairocana as an offering for the repose of her dead consort's soul (13). Among the treasures left by the Emperor Shomu there are, of course, very many articles other than textiles: mirrors, screen, musical instruments, arms and armour, etc. have also been preserved. All these objects being of the 8th century or earlier, their value as materials for the cultural history of ancient Japan is indeed inestimable.

As for the Horyujigire presented to the Imperial Household, although we do not possess any exact records concerning them, they are considered to be products of the Asuka period (14) and are undoubtedly the oldest surviving textile fabrics of Japanese manufacture. These and the Shosoingire are like two matchless jewels and we cannot but feel deeply grateful to the Imperial Family, through whose august virtue they have been preserved for us. Brief though the above exposition is, it suffices perhaps to show how truly precious the textiles of the Shosoin and the Horyuji are: I should now like to give a short account of the special characteristics of these ancient textiles.

Nishiki (Brocade) is the name of an elaborate figured material (mon'orimono) woven of silk: in the ancient specimens of this which we are now considering, the ground (ji) is of a very delicate and minute weave, either plain or twill,

while the inwoven designs are of a different colour or colours from that of the ground. An examination of the gomotsugire of the Shosoin and the Horyuji shows us that, with a few exceptions, in the brocades of the Asuka period those in which both the ground and the designs are with the warp (tateito) only far exceed in number those in which the designs are with the weft (yokoito). The so-called shokkonishiki (reproduced as plate 1Vb of this article) are excellent examples of the former method (15). But when we come to the Nara period, which saw the art of weaving in Japan reach its zenith, we find that brocades woven by this method are comparatively rare, those in which the designs are with the weft being now far more numerous. (Among the gomotsugire of the Shosoin the brocade with a hexagonal design on a purple ground and that with a grape-vine design on a purple ground should be noted as particularly fine examples of the method.) Further, we find that the method of making the designs with the warp tends to become restricted to the manufacture of striped materials (striped brocades are called chohankin) and of materials where the colours are arranged in gradation (ungenzaishiki). I must also draw attention to the fact that in the Nara period many different kinds of nishiki were produced: apart from those I have already mentioned, there were ryomennishiki, tsuzurenishiki, and yamatonishiki, as well as, occasionally, nishiki of 'floating weaves' (ukiori).

What we call aya (twill) is a textile fabric in which both the obverse and the reverse of the cloth have oblique lines (shasen) running across them in some fixed direction (these are the so-called twill lines (shamonsen)); this method of weaving, which is entirely different from plain weaving, is called shamon'ori. But on closely examining the tempyogire we find that the word aya was formerly applied to two quite differently constituted kinds of material. In the one, the weave of the designed or figured part runs counter to that of the ground, with the result that, from whatever direction it may be regarded, the design always remains clearly visible and stands out in any light: unlike the aya of later periods, in which the twills forming the design usually run in the same direction as the ground, and the designs can often be distinguished only with difficulty, the aya of the Tempyo era, with their clear, sharp-cut designs reveal unequalled beauty and perfection of technique. To appreciate this beauty and perfection one has only to look at such aya as that with a design of paired birds (phoenixes) vis-a-vis on a yellow ground, or that with paired phoenixes vis-a-vis on a scarlet ground; or that with an ishidatami design on a red ground, or that with a 'thunder design' on a pale moegi ground. The other material to which the name aya was formerly applied is, as has been pointed out by Mr. Akashi-Kunisuke (16), something quite different from what we understand by aya today: such aya were not twills, but simple figured materials, usually of plain weave. The aya with a floral design on a green ground, and that with dragons on a green ground are examples of this second kind.

ra or usumono is 'thin material', gauze. It is interesting to note that the Japanese of the Heian period (9th to 12th cents.) sometimes read the character ami ('net, network'): this is indeed a good comparison, for it shows us how thin ~~net~~ and net-like ra was, and enables us to have a general idea of its appearance. To describe this textile as network would probably be an exaggeration, but we can at least say that it was a kind of lace. Ra existed in two varieties, figured kind, having invariably a lozenge(hishigata) design, tends to lose its reticulate appearance. The lozenges vary in accordance with the simplicity or complexity of the design: there are patterns of small lozenges (kobishi), or of large lozenges composed each of four small ones(yotsubishi), or of so-called irikobishi (each lozenge is twofold(futae) or threefold (mie) the smaller ones fitting inside the larger ones, like a nest of boxes(iriko); the central space sometimes has a floral design); again, there are also ra with the design known as miedasuki, and matsukawabishi 'pine-bark lozenge', as well as sosekira. As good materials for the study of ra I should refer to the madder-dyed figured ra and the purple sosekira** The weaving of ra was most practised in the Nara period; at the beginning of the Heian period, although a certain amount of ra was still produced, the demand for it had considerably fallen off; later, other materials gradually came to replace it, until finally even the method of its manufacture was forgotten.

Let us now consider the characters ~~絹~~ and ~~糸~~. From about the middle of the Nara period it was explained that ~~絹~~ meant fine silk and ~~糸~~ coarse silk(17), which shows that a distinction between fine and coarse silk was undoubtedly made; but, on the other hand, since it had become necessary to indicate the difference between the two characters, we are probably justified in assuming that the distinction was becoming lost. In literary sources there occur examples of ~~糸~~ being read kinu(18) (instead of ashiginu); again, when we examine the actual textiles of the period we find that many of those described as ~~糸~~ are in reality of very fine texture. For these reasons it is, I think, hardly necessary for us to accept the distinction ~~readily~~ made between ~~絹~~ and ~~糸~~, nor need we endeavour to define exactly how kinu and ashiginu differed: we should rather remember that even in the tempyogire they are not clearly distinguished. In any case, both were silk fabrics of plain weave, and both were produced in all parts of the country as ~~言布~~ chofu (cloth to be handed over to the state as tribute or tax) in compliance with the national taxation laws. Manufacture being thus carried on in many different places, the silk produced showed considerable variations in quality, and we find that some of the better kinds were distinguished by addition of the name of their place of origin, as ~~美濃の糸~~ Mino no ashiginu, Mino silk. ~~常陸の長幡部の糸~~ Hitachi no nagahatabe no ashiginu, silk made by the nagahatabe of Hitachi, etc.(19)

The textiles which I have discussed above, all of them fabrics made of silk, are those to which reference must be made even in the simplest account of the dyeing and weaving industries of ancient Japan. There are also many other textiles with which I ought to deal here, but I prefer to leave the treatment of these to some later date. Only I must say something about the textiles given under B. These are textiles made of vegetable fibre, and to which the word 布 nuno (on reading fu) was specially applied. The various fabrics were distinguished by the use of different names: thus, cloth made of 紵 o (o, which is also written 苧, is fibre obtained from 麻 asa Cannabis sativa, L., hemp or from 苧 karamushi Boehmeria frutescens Thunb., ramie) was called asanuno, or tetsurinuno; and that made from the bark of the 楮 kozu (Broussonetia Kazinoki Sieb., 'paper tree') etc. was known as tafu (now usually written 太布 or 答布). As far as their texture is concerned, they have one quality in common in that they are all plain weaves.

Before concluding this section of my essay I should like to make also a few remarks about the 紵織成 shokusei, which would seem to designate a particular technique in weaving. I refer to such expressions as 樹皮色織成 (juhishoku shokusei, 七條織成樹皮色袈裟 shichijoshokusei juhishokukesa, ichiryo, one shokusei kesa (sk. kasaya, a Buddhist sacerdotal robe) of tree-bark colour in seven strips (20). Certain scholars (21) consider shokusei to have been the same as tsuzurenishiki, but I find it difficult to share their opinion. The word 紵 tsumugi is clearly attested in ancient writings, and I am inclined to look upon shokusei as being a kind of twumugi. The texture of the fabrics described as shokusei cannot, in my opinion, be identified with that of tsuzure, but rather resembles that of twumugi. And it seems to me that also in the thickness of its threads and the consequent thickness of the material shokusei approaches most closely to tsumugi. In the Nara period the character 紵 was read 'atsuki tsumugi' thick tsumugi; in the Todajjikemotsucho there is reference to a kesa made of tsumugi 七條褐色紵袈裟 thus kesa were not necessarily made of fine materials.--I have taken this opportunity of expressing my doubt about the correctness of the interpretation that shokusei is the same as tsuzure.

III

Dyeing (染色 senshoku)

The attraction which we feel towards the beauty of colour is doubtless to be regarded as one of man's primary instincts. Man's reactions to the ever changing colours in the world around him have found partial expression in his literature, and it is there perhaps that they can be best studied and appreciated. The time when, having become fully conscious of the value of colour, the Japanese first began to search for pigments belongs to the distant past, for it is known that they dyed cloth from long before the Asuka period; in this essay, however, I do not wish to inquire into the origin of dyeing in Japan, but would rather attempt a brief discussion of what dyes, and what methods of dyeing, were used in producing the beautiful Asuka and Nara textiles we are now considering. It will not, however, be possible for me to treat this subject in proper detail.--From the evidence contained in our oldest historical records I am referring to such facts as the presentation, in the year 28 B.C., of bolts of red silk to Mimana, the establishment of a system of cap-ranks with caps of different colours, the revisions of this system, by which the ranks (位階 ikai), and the colours distinguishing them, became more numerous--we have some knowledge of what colours were employed. What we must look into more closely are from what these colours were obtained and how they were used. I should, however, like to give, first of all, a list of the principal colours in use in the Asuka and Nara periods(22).

白 shiro (white);

黄丹 otan (yellowish red: note that in most cases the translations of these colour-names are the merest approximations);

黄 ki (yellow);

黄檗 kitsurubami (a yellowish brown (黄褐色) Uemura & tatsumi op. cit. 28); according to some authors, pale black with a yellowish tinge);

紫 murasaki (purple with a strong reddish tinge);

菼陶 ebizome (pale purple: (Ryo no gige; today usually written simply

蘇芳 suo (a red obtained by boiling the bark of suo Caesalpinia Sappan, L., sapan in water; also written or

緋 ake (red scarlet);

紅 hi, kurenai (bright red, crimson(?));

纁 hiso (pale red;);

- 緑 midore (green);
 標 hanada (pale indigo, (light)blue);
 紺 kon (dark Blue);
 墨 sumizome (black, as if dyed with 墨 sumi sumi indian ink);
 橡 tsurubami (a (bluish) black(紺黑) a dye obtained from the husks (栲 kasa) of the acorns of the 栲 kunugi Quercus acutissima Carr. a species of oak; tsurubami is an old name for this tree and its fruit);
 蓼 harisome (a blackish colour);
 桑 kuwazome ('peach*dyeing': a pale yellowish brown; according to some authors, a pale green, = moegi(?))
 桃染 momozome ('peach-dyeing': a pale red);
 色 kuro or kuri (black; a dye obtained from mud; 水中黒土也 ; also written 涅).

It seems hardly necessary to point out that the dye-stuffs from which these beautiful colours were obtained were principally of vegetable origin.. Some of the dyes were extracted from the petals of flowers, others from the bark of certain trees, and others again from roots, while the mordants employed for fixing the colours were lye and vinegar. Thus, for example, among the reds, 紅 kurenai was derived from the 紅花 (also written 紅藍) benibana Carthamus tinctorius, L., safflower; 緋 aka from 茜 akane madder; 蘇芳 suo from sapan bark; among the yellows, the dyes most used were those obtained from the 莉安草 (usually written 刈安草 kariyasu(gusa) Miscanthus tinctorius, Hack., the 黃蘗 kiwada (or obaku) Phellodendron amurense, Rupr. 'Siberian cork tree', and the 支子 (now usually written 梔子) kuchinashi Gardenia jasminoides, Ellis, var. grandiflora, Nakai, 'Cape jasmine'; for the blues the chief source was 藍 ai Polygonum tinctorium. Lour., indigo, which, by a suitable admixture of kariyasu and kiwada dyes, also provided 緑 midori green and 標 hanada light blue. Unfortunately we do not possess any exact details about the amounts of mordant used in the Asuka and Nara periods. The Engishiki, however, contains a very full and valuable account of the production of dye-stuffs, from which we can form a fairly clear idea of the processes employed at the time of its compilation; this work belongs to a somewhat later period (it was completed only in the second half of the 10th cent.), but we should perhaps be justified in supposing that at this time dye-stuffs were still being produced by very much the same processes as in the 7th and 8th centuries.

In the Nara period, when the art of dyeing in Japan had already undergone a development of many centuries, the Japanese were,^{as} we have seen, no longer content to employ merely the three primary colours, nor yet to use only plain, unfigured materials for their clothes: by experimenting with the dyes at their disposal, they had succeeded in evolving many new colours and in dyeing their materials in various designs. It is evident that figured materials were very popular in the Nara period, and for the purpose of producing designs at least five different methods of dyeing were employed,—the three methods known by the term of 三續染 sankechizome, 彩畫 saiga or 彩繪 iroe, and 摺文 surimoyo. The sankechi seem to have been most in favour, for among the surviving textiles of the Nara period those dyed by the sankechi methods are by far the most numerous. Below I will give a short account of these three methods.

(1) 臈續染 rokechi, 臈續染 rokechizome, batik.

It is not known by what intermediary this method of dyeing reached Japan, but it is almost certain that it originated in India(23), whence it gradually spread westwards to Persia and Egypt, southwards to the various countries of the South Seas, and eastwards to China, finally arriving in our country, where it was named rokechizome. It is also not known when it was first introduced into Japan, but we have reason to suppose that it was being practised already at the beginning of the Nara period (8th cent.). The method of rokechizome was roughly as follows: a liquid containing vegetable or bee's was in solution having been prepared, the design was drawn or painted with this on the material to be dyed, which was then dipped into the dye; the wax was afterwards removed, when the design appeared in the original colour of the material to be dyed, which was then dipped into the dye; the wax was afterwards removed, when the design appeared into the dye; the wax was afterwards removed, when the design appeared in the original colour of the material, the wax coating having prevented it from being affected by the dye (the so-called 臘防染法 robosempo method). A close examination of the surviving examples of rokechi leads us to believe that two different methods were followed. In the one, the design was drawn with the wax solution, and the material afterwards dyed; in the other, recourse was had to an 繪型 this was smeared with the wax solution and used for stamping (印花す inka suru) the design on the cloth, or again the wax solution was poured inside it after it had been laid on the cloth. In the extant examples of the former method, where the drawing was done by hand, the designs are not very skilfully executed, but they are attractive in their freedom of line; in those of the latter, mechanical devices having been employed the designs are marked by beauty of regularity, but on the other hand they want variety. It should be noted that the artists themselves were aware of this defect of the latter method, for they endeavoured to avoid monotony of design by placing their patterns in uncommon positions. Among the surviving textiles, striking examples of the former method are the ashiginu with flowers and birds on a scarlet ground (緋地花鳥交臈續染), and the sapan-dyed ashiginu with a design of flowers, birds and mist

egata--

on a dark brown (焦茶 kogecha) ground 焦茶地花鳥霞縵文 (the ashiginu with a floral design on a pale green (萌黄) ground (萌黄地唐花文鵲縵糸), and the ashiginu with a stylized design of birds, butterflies and foliage (the so-called 鸚鵡武鳥形 omugata 'parrot design') on a light scarlet ground (淺緋地雙鳥蝶花文鵲縵糸).

Although such excellent materials were produced in the Nara period, in the 藤原 Fujiwara period (897-1086-main period), 1086-1185 -late period) the arts of dyeing and weaving steadily declined. In the Edo period, when a renaissance of these arts was witnessed, rokchizome was revived, but with a new technique, and under a new name: instead of a wax solution, size (糊 nori) was employed and this method of dyeing was now called, not rokechizome, but 茶屋染 chayazome or 友禪染 yuzenae. But in the use of some substance to prevent certain parts of the material from being affected by the dye (防染 bosen) the technique is the same; it should be noted, however, that an advance had been made, for size is much easier to prepare than a wax solution, and much less time is required. Thus, the ancient method of wax-dyeing died out completely.

(2) 夾縵 kyokechi, 夾縵染 kyokechizome. Like rokechizome, this method of dyeing, which is also supposed to have originated (24)(25) either in India or in China, also had as its object the prevention of the dye from affecting certain parts of the material, but, instead of wax, perforated boards (型板 kataita, a thin board perforated with a given design) were used (the general term for methods of dyeing in which the cloth is tightly pressed between perforated boards is 板締 (染) itajime(zome)).

There were two different methods of kyokechizome. In the one, the cloth was clamped between two boards carved in half relief (半肉彫 hannikubore), in the other, between two boards carved in open relief (透彫 sukashibore), before being dipped in the dye. An outstanding peculiarity of this method is that perfectly symmetrical patterns can be obtained quite easily: all that it is necessary to do is to fold the material two or more times before clamping it between the boards. The designs produced by this method are, on the whole, extremely well executed. Sometimes the dyeing was not done in a single colour, but two or three different colours were employed; again, in order to relieve the monotony to which kyokechi is subject, colour was occasionally added (加彩する kasai suru) after the dyeing by the kyokechi method had been completed, or, for dyeing a single piece of cloth, the rokechi and kyokechi methods were employed together: thus the Japanese people of the Nara period experimented with these two methods in various ways, and achieved great successes.

For rokechizome it was, as we have seen, necessary to employ a wax solution: could be applied without injuring them. Fabrics such as ra were hardly suitable for rokechi, which was restricted for the most part to materials of fine texture like ashiginu and silks of plain weave (平絹 hiraginu): no specimens of ra dyed by rokechi survive, whereas there are many of ashiginu and

and hiraginu. But by the kyokechi method any material could be satisfactorily dyed, even open weaves like linen (麻布, asanuno, mafu). Three excellent examples of kyokechi work are the ra with birds and flowers on a black ground (黒地花鳥文綴羅), the blue linen (綴麻布), and the ashiginu with a floral design on a brown (茶地唐花文綴絁) ground (茶地唐花文綴絁).

Although many really beautiful specimens of kyokechi work were produced in the Nara period, this method of dyeing survived for only a comparatively short period of time. It had begun to decline already in the early part of the Fujiwara period (26), and it seems to have disappeared altogether by the time the Fujiwara family was at the zenith of its power. We do not know why this art which produced so much exquisite work, enjoyed but so short a life, but it is suspected that it was because it suffered from the defect of having to use kataita, which were by no means easy to make. It must also be remembered that the people of the Fujiwara period had a passion for new fashions in clothes, and were ever seeking to create new designs: it was thus quite natural that kyokechi should have come to be considered as unsuitable for the demands of the age. One of the reasons why kokechizome with which I shall deal below, survived for so long is, in my opinion, the fact that it was a very simple method and one that could be carried out by ordinary people in their own homes. Whatever may have been the reasons for its disappearance, kyokechi was at any rate quite short-lived; and although it was revived in the Edo period, under the name of 板締染 ita-jimezome, it did not at any time acquire a dominant position among the various methods of dyeing practised in this period.

(2) 綴 綴 kokechi, 綴 綴 染 kokechizome, tie-dyeing. The technique of the kokechi method is similar to that of the kyokechi in that steps are taken to prevent certain parts of the material from being affected by the dye. The material is tightly tied with thread in various places and then dipped into the dye, the parts held tight under the thread remaining undyed.-- The character 綴 when standing alone was often read yuhata (27); since yuhata also means a kind of tie-dyeing (括染 kukurizome, 絞染 shiborizome) we are probable justified in assuming that 綴 yuhata and 綴 綴 kokechi method are the scarlet linen, in kokechi (緋綴綴布) and the purple pongee (紫地綴綴絁).

In the Fujiwara period the kokechi method of dyeing was known as 目染 mezome or 括染 kukurizome (28), or the character 絞 (shibore, shiboru) was employed to designate this method; in the late 室町 Muromachi period there existed a very beautiful method of dyeing known as 辻ヶ花 (染) tsujigahana (zome), (29) which shows a very similar technique to that of kokechi, and the 正田鹿子絞染 hikitakanokoshiborizome of the Edo period belongs to the same tradition.

The above explanations, imperfect though they are, have perhaps sufficed to give the reader some idea of the three principal methods of dyeing--the sankechi--employed in the Nara period. I do not wish to make this part of my essay any longer, but I should like, in conclusion, to put down here what the distinguishing characteristics of these three methods are, or, as I should perhaps say, what, after many years of familiarity with these textiles, they seem to me to be. The excellence or charm of rokechi lies in the chasteness and austerity of its designs; kyokechi is distinguished by its regularity and gorgeous colouring; what attracts me in kokechi is its neatness and simplicity. In my opinion, it is kyokechi that represents the greatest achievement of Japanese textile art.

IV.

The Designs

From a practical point of view textiles to be made into clothes must be not only strong and lasting but also soft and agreeable to the touch. This is, however, not all: in addition to these qualities, they must also possess aesthetic value, and it was in this necessity for beauty that the demand for designs arose. Design plays an extraordinarily important part in the production of textiles, and the success or failure of any given textile is in most cases determined by its design. Thus textile designs are not necessarily fixed and unchanging, but vary with each succeeding age. Designs are appreciated for their special characteristics, for their difference from the ordinary. Drawings of the same object show considerable variations according to the time and place at which they were executed. In such industrial arts as dyeing and weaving one would expect that various representations of the same object would show but few variations, but here too it is impossible to escape from the influence of temporal and spatial relations. For this reason, in studying designs, it is necessary to cover a very wide field, but as I have not space to go into that matter fully here, I shall content myself with a description of some of the more commonly used designs of the Asuka and Nara periods.

狩獵文

shuryomon, hunting design, and 連壁文

rempekimon, circular design consisting of bosses or circlets. When hunting designs (狩獵文 shuryomon) are mentioned, one immediately thinks of the Shitennomonkin of the Horyuji (reproduced as plate IV); there is, however, also a brocade with the same design in the Shosoin: this is a design which was known in Alexandria and Syria, and which appears in Byzantine textiles of the 6th and 7th centuries: there is no need for me to attempt to trace the road this design followed, for this is a subject to which numerous scholars have already given due attention (30). But I should like to point out, even at the risk of being considered redundant, that this design is found in Japan for the most part only in the Asuka period and occurs, among the surviving examples of ancient textile art, only in the brocades. Although this hunting scene has a great charm for us today, it seems to have hardly survived beyond the Asuka period, the reason for this being perhaps that the hunting there depicted had but very little connexion with the actual life of the age. I am not of course implying that hunting was not practised in this period: it had, however, already sunk to the level of a game or pastime, and the number of people able to appreciate hunting of the kind represented in this design must have been extremely few. Accordingly, there was, we may imagine, but little demand for such work, which probably originated in China; the rare examples of it in Japan were probably treasured only by the Imperial Court and some noble families, but it never acquired any great popularity. The origin of this design must be sought outside of Japan. When we compare from the point of view of design the Horyuji and Shosoin brocades and the other brocades in which a hunting motif appears, we find considerable differences in the execution, which proves that this kind of brocade was also made in Japan; designs tend to break up with time, and we may assume that the brocades in which the design has undergone modifications are products of a

later period; among these there are several which show every sign of having been produced in Japan. I prefer, however, not to make any definite assertions about this matter here. The hunting design is always encircled by rempekimon(連璧文) or renjumon(連珠文) that is circular design consisting of bosses or circlets. Just as the hunting design is encircled with rempekimon(連璧文) and marked by contraposition, so also are the designs known as 雙鳳文 (sohomon) and 雙龍文 (soryumon), in which respectively two phoenixes and two dragons are depicted confronting each other. We may consider from their biplicity that these designs belong to the same family as the hunting design; it should be noted that they were current for only a comparatively short time, being for the most part restricted to the Nara period. The hunting design occurs, as I pointed out above, only among the brocades, whereas sohomon and soryumon are found chiefly among the twills and occasionally among the brocades. The common characteristic of these designs is that they are encircled by rempekimon(連璧文) and their origin is probably to be sought in Sassanian Persia(31); in any case, they contain elements which we should have difficulty in believing originated within the sphere of Chinese cultural influence.

Let us now consider the design known as 唐花 (toka or karabana), which was also widely diffused at the same time as the three designs mentioned above.

There are two kinds of karabana,--one in which the design is circular, and one which has a somewhat rhombic appearance: in both, stylized flower-petals from the motive. This design appears to have been widely used, and there still survive brocades into which it has been woven, as well as many examples of textiles in which it has produced by the rokechi method of dyeing. Among the Shosoin textiles, the brocade with a large floral pattern on a pale blue ground(淺縹地唐花大文錦琵琶袋), the brocade with a floral design on a brown ground(茶地唐花文錦), the pongee with a floral design on a clear blue ground in rokechi (碧地唐花文鵲縹紵) are good materials for the study of this design.

and the pongee with a floral design on a red ground in rokechi
唐草文 (karakusamoyo). In this design various plants having vines or tendrils being employed as the motif, and effect of softness and pliancy is produced; in order to avoid monotony leaves are added here and there, and often clusters of fruit hang down from the vines: this so-called 葡萄唐草文 (budokarakusamoyo) is especially frequent among the brocades and twills. I would draw attention particularly to the brocades and ~~xxxxxxx~~ with a grape-vine design on a purple ground(紫地葡萄唐草文錦), the aya with a grape-vine design on a pale brown ground(白茶地葡萄唐草文縹), etc.; the fragments of a decorated brocade banner with a floral design on a red ground(赤地唐草文錦) and the fragments of a decorated aya banner with a lozenge floral design on a green ground(綠地立菱唐草縹) are also good examples of karakusa.

幡飾殘片
幡飾殘片

On looking through the Koninshiki we find that, in addition to the other names for aya, 薔薇縹 (shobiaya) and 廻草縹 (tsurukusaaya) are also recorded. This so-called

shobi design may have been included among the designs we call tokamon or karabanomoyo (or simply 花文 kamon or hanamoyo) today, but since in the Engishiki mention is made of 二花綾 nikaaya, 菜花綾 saikaaya, 續花綾 tsuzukibanaaya, 大結花綾 omusubibanaaya, 散花單綾 sankatan'aya, 小蓮花綾 shorengeaya, etc., it would be unwise to assume that it was simply the same as tokamon, the more so as a close examination of the designs known as tokamon, the more so as a close examination of the designs known as tokamon shows that this designation comprised a number of slightly different designs. Should we not assume that tokamon and shobimon(32) were the names of different designs, and similarly for karakusamon and tsurukusamon?

I must draw attention also to the designs known as 石疊 ishidadami, 龜甲 kikko, 襷 tasuki, 菱 hishi, 波 nami, 雷 ikazuchi, etc., and I ought also to discuss ahokko, kando, ungen, etc.

As subjects for their designs the Japanese of the Asuka and Nara periods not only used flowers, plants and birds, but also had recourse to insects, fishes and animals, even employing at times, in stylized forms, the natural phenomena with which they were familiar. As far as the relation between design and material is concerned, in the brocades the designs show regular weaving and are formed by the combination of thick coloured threads, in the twills a pleasing effect is produced by the way in which light is reflected differently by the different weaves, while the pongees owe their beauty to the manner in which they are dyed.

V Conclusion

T The reader will have realized, I hope, that the Asuka and Nara periods were the golden age of dyeing and weaving in Japan. When we think that these textiles were produced more than 1400 years ago, we are deeply impressed and can only wonder at the skill of the men who guided them? The importation of foreign textile experts, the influence of the superior workmanship of Korean and other foreign textiles imported, besides many other reasons for the development of the Japanese dyeing and weaving, but the really decisive factors in their development were the positive encouragement given by the Imperial Court and the whole-hearted devotion to their hereditary tasks of generation after generation of artisans.