

collecting the nests. There is an almost inexhaustible supply of guano in the caves, and the number of bats and swifts in them is so enormous that if they are undisturbed a regular quantity may be taken out yearly. Should the visitor to the Health Exhibition who obtains some of this far-famed and mysterious soup have little relish for it, as is not unlikely, he will at any rate have the satisfaction of knowing that he has before him a dish the principal ingredient of which was formed by the little swifts and bats which inhabit the Gomanton Caves in the centre of the magnificent tropical forests of North Borneo. There is probably no other article of food in the Health Exhibition, or in all Europe, more extraordinary in the mode of production, or in the method and circumstances under which it is obtained.

ON THE EVOLUTION OF FORMS OF ORNAMENT¹

II.

THE leaf in *Dracunculus* has a very peculiar shape: it consists of a number of lobes which are disposed upon a stalk which is more or less forked (tends more or less to dichotomise). If you call to your minds some of the Pompeian wall decorations, you will perceive that similar forms occur there in all possible variations. Stems



FIG. 12.

are regularly seen in decorations that run perpendicularly, surrounded by leaves of this description. Before this, these suggested the idea of a misunderstood (or very conventional) perspective representation of a circular flower. Now the form also occurs in this fashion, and thus negatives the idea of a perspective representation of a closed flower. It is out of this form in combination with the flower-form that the series of patterns was developed which we have become acquainted with in Roman art, especially in the ornament of Titus's *Thermae* and in the Renaissance period in Raphael's work. [The lecturer here explained a series of illustrations of the ornaments referred to (Figs. 12, 13, 14).]

¹ From a paper by Prof. Jacobsthal in the *Transactions* of the Archaeological Society of Berlin. Continued from p. 251.

The attempt to determine the course of the first group of forms has been to a certain extent successful, but we meet greater difficulties in the study of the second.

It is difficult to obtain a firm basis on which to conduct our investigations from the historical or geographical point of view into this form of art, which was introduced into the West by Arabico-Moorish culture, and which has since been further developed here. There is only one method open to us in the determination of the form, which is to pass gradually from the richly developed and strongly differentiated forms to the smaller and simpler

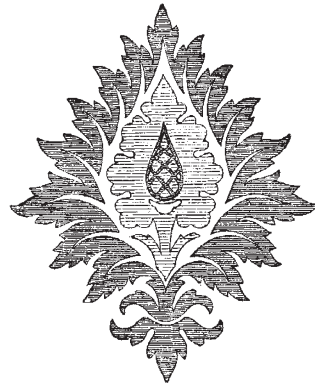


FIG. 13.

ones, even if these latter should have appeared contemporaneously or even later than the former. Here we have again to refer to the fact that has already been mentioned, to wit, that Oriental art remained stationary throughout long periods of time. In point of fact, the simpler forms are invariably characterised by a nearer and nearer approach to the more ancient patterns and also to the natural flower-forms of the *Araceæ*. We find the spathe, again, sometimes drawn like an *Acanthus* leaf, more often, however, bulged out, coming to be more and more of a mere outline figure, and becoming converted into a sort of background; then the spadix, generally conical in

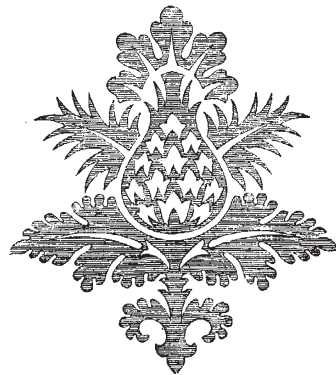


FIG. 14.

shape, sometimes, however, altogether replaced by a perfect thistle, at other times again by a pomegranate. Anberville in his magnificent work "*L'Ornement des Tissus*," is astonished to find the term pomegranate-pattern almost confined to these forms, since their central part is generally formed of a thistle-form. As far as I can discover in the literature that is at my disposal, this question has not had any particular attention devoted to it except in the large work upon Ottoman architecture, published in Constantinople under the patronage of Edhem Pasha. The pomegranate that has served as the original of the pattern in question is in this work surrounded with leaves

till it gives some sort of an approach to the pattern. (There are important suggestions in the book as to the employment of melon-forms.) Whoever has picked the fruit from the tender twigs of the pomegranate-tree, which are close set with small altered leaves, will never dream of attributing the derivation of the thorny leaves that



FIG. 15.

appear in the pattern to pomegranate-leaves at any stage of their development.

It does not require much penetration to see that the outline of the whole form corresponds to the spathe of the Araceæ, even although in later times the jagged contour is all that has remained of it, and it appears to have been provided with ornamental forms quite independently of



FIG. 16.

the rest of the pattern. The inner thistle-form cannot be derived from the common thistle, because the surrounding leaves negative any such idea. The artichoke theory also has not enough in its favour, although the artichoke, as well as the thistle, was probably at a later time directly pressed into service. Prof. Ascherson first called my attention to the extremely anciently cultivated plant, the

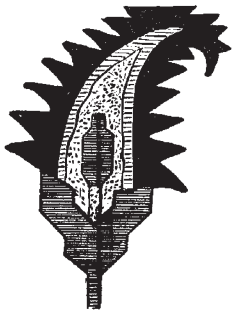


FIG. 17.



FIG. 18.



FIG. 19.

Safflor (*Carthamus tinctorius*, Fig. 15), a thistle plant whose flowers were employed by the ancients as a dye. Some drawings and dried specimens, as well as the literature of the subject, first gave me a hope to find that this plant was the archetype of this ornament, a hope that was borne out by the study of the actual plant, although I was unable to grow it to any great perfection.

In the days of the Egyptian King Sargo (according to Ascherson and Schweinfurth) this plant was already well known as a plant of cultivation; in a wild state it is not known (De Candolle, "Originel des Plantes cultivées"). In Asia its cultivation stretches to Japan. Semper cites a passage from an Indian drama to the effect that over the doorway there was stretched an arch of ivory, and about it were bannerets on which wild saffron (*Safflor*) was painted.

The importance of the plant as a dye began steadily to decrease, and it has now ceased to have any value as such in the face of the introduction of newer colouring matters (a question that was treated of in a paper read a short time ago by Dr. Reimann before this Society). Perhaps its only use nowadays is in the preparation of rouge (*rouge végétale*).

But at a time when dyeing, spinning, and weaving

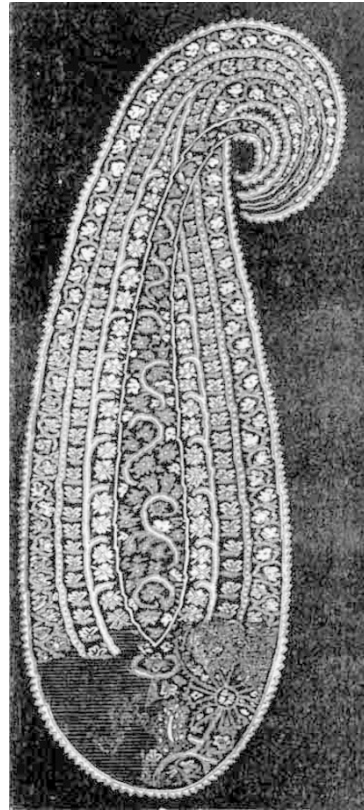


FIG. 20.

were, if not in the one hand, yet at any rate intimately connected with one another in the narrow circle of a home industry, the appearance of this beautiful gold-yellow plant, heaped up in large masses, would be very likely to suggest its immortalisation in textile art, because the drawing is very faithful to nature in regard to the thorny involucre. Drawings from nature of the plant in the old botanical works of the sixteenth and seventeenth centuries look very like ornamental patterns. Now after the general form had been introduced, pomegranates or other fruits—for instance, pine-apples—were introduced within the nest of leaves.

Into the detailed study of the intricacies of this subject I cannot here enter; the East-Asian influences are not to be neglected, which had probably even in early times an effect upon the form that was assumed, and have fused the correct style of compound flowers for flat ornament with the above-mentioned forms, so as to produce peculiar

patterns; we meet them often in the so-called Persian textures and flat ornaments (Fig. 16).

We now come to the third group of forms—the so-called Cashmere pattern, or Indian palmetta. The developed forms which, when they have attained their highest development, often show us outlines that are merely fanciful, and represent quite a bouquet of flowers leaning over to one side, and springing from a vessel (the whole corresponding to the Roman form with the vessel), must be thrown to one side, while we follow up the simpler forms, because in this case also we have no information as to either the where or the when the forms originated. (Figs. 17, 18, 19.)

Here again we are struck by resemblances to the forms that were the subjects of our previous study, we even come across direct transitional forms, which differ from the others only by the lateral curve of the apex of the leaf; sometimes it is the central part, the spadix, that is bent outwards, and the very details show a striking agreement with the structure of the Aroid inflorescence, so much so that one might regard them as actually copied from them.

This form of ornament has been introduced into Europe since the French expedition to Egypt, owing to the importation of genuine Cashmere shawls. (When it cropped up in isolated forms, as in Venice in the fifteenth century, it appears not to have exerted any influence; its introduction is perhaps rather to be attributed to calico-printing.) Soon afterwards the European shawl-manufacture, which is still in a flourishing state, was introduced. Falcot informs us that designs of a celebrated French artist, Couder, for shawl-patterns, a subject that he studied in India itself, were exported back to that country and used there (Fig. 20).

In these shawl-patterns the original simple form meets us in a highly developed, magnificent, and splendidly coloured differentiation and elaboration. This we can have no scruples in ranking along with the mediæval plane-patterns, which we have referred to above, among the highest achievements of decorative art.

It is evident that it, at any rate in this high stage of development, resisted fusion with Western forms of art. It is all the more incumbent upon us to investigate the laws of its existence, in order to make it less alien to us, or perhaps to assimilate it to ourselves by attaining to an understanding of those laws. A great step has been made when criticism has, by a more painstaking study, put itself into a position to characterise as worthless, ignorantly imitated, or even original, miscreations such as are eternally cropping up. If we look at our modern manufactures immediately after studying patterns which enchant us with their classical repose, or after it such others as captivate the eye by their beautiful colouring, or the elaborative working out of their details, we recognise that the beautifully-balanced form is often cut up, choked over with others, or mangled (the flower springing upside down from the leaves), the whole being traversed at random by spirals, which are utterly foreign to the spirit of such a style, and all this at the caprice of uncultured boorish designers. Once we see that the original of the form was a plant, we shall ever in the developed artistic form cling, in a general way at least, to the laws of its organisation, and we shall at any rate be in a position to avoid violent incongruities.

I had resort, a few years ago, to the young botanist Ruhmer, assistant at the Botanical Museum at Schöneberg, who has unfortunately since died of some chest-disease, in order to get some sort of a groundwork for direct investigations. I asked him to look up the literature of the subject, with respect to the employment of the Indian Araceæ for domestic uses or in medicine. A detailed work on the subject was produced, and establishes that, quite irrespective of species of *Alocasia* and *Colocasia* that have been referred to, a large number of Araceæ were

employed for all sorts of domestic purposes. *Scindapsus*, which was used as a medicine, has actually retained a Sanscrit name, "vustiva." I cannot here go further into the details of this investigation, but must remark that even the incomplete and imperfect drawings of these plants, which, owing to the difficulty of preserving them, are so difficult to collect through travellers, exhibit such a wealth of shape, that it is quite natural that Indian and Persian flower-loving artists should be quite taken with them and employ them enthusiastically in decorative art. Let me also mention that Haeckel, in his "Letters of an Indian Traveller," very often bears witness to the effect of the Araceæ upon the general appearance of the vegetation, both in the full and enormous development of species of *Caladia* and in the species of *Pothos* which form such impenetrable mazes of interlooping stems.

In conclusion, allow me to remark that the results of my investigation, of which but a succinct account has been given here, negative certain derivations, which have been believed in, though they have never been proved; such as that of the form I have last discussed from the Assyrian palmetta, or from a cypress bent down by the wind. To say the least the laws of formation here laid down have a more intimate connection with the forms, as they have come down to us, and give us a better handle for future use and development. The object of the investigation was, in general words, to prepare for an explanation of the questions raised, and even if the results had turned out other than they have, it would have sufficed me to have given an impulse to labours which will testify to the truth of the dead master's words:—

"Was Du ererbt von deinen Vätern hast,
Erwirb es, um es zu besitzen."

NOTES

THE death is announced, at the age of seventy-four years, of Prof. Lepsius, the celebrated Egyptologist.

THE conference and jury work at the Health Exhibition is now in full swing, and we are glad to note that, with regard to the Conference, all the societies and organisations that have to deal with subjects akin to health or education are taking up the matter very warmly, so that the executive of the Exhibition has the advice and opinion of many experts. The recent opening of the Educational Section by the Prince of Wales, to which we have already referred, has recently drawn more attention to the *mens sana*, the *corpus sanum* having up to the present moment been alone regarded. From the first we consider that the matter of education has been placed altogether in far too secondary a position, and if a little more trouble had been taken by those who are responsible for the Exhibition, the educational exhibits might have been as extensive and as important as those regarding health. That is the more to be regretted because so much is being said about education nowadays, especially technical education, by those who know very often very little of what is really wanted, and of what true technical education really means. The members of the various juries are working with a will, and from what we learn we do not think it probable that the objections made to some of the awards last year will be renewed this. The opportunity which has been afforded to the exhibitors of practically nominating a considerable number of jurymen is a measure well adapted to allow the thing to work smoothly. One of the great difficulties encountered by the jurymen has been the hurried way in which the Exhibition itself has been put together and catalogued. We have for too great an extent a succession of shops containing various articles, instead of a complete separation of the various articles among their several classes. This of course gives great trouble to all concerned, and is an administrative blunder which should not be allowed to be repeated.