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George Lawson Ph. D.

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IV. *On the Application of Botany to Ornamental Art.*

By GEORGE LAWSON, Ph. D.

The author of this paper exhibited a panel carved by Mr B. Reeve, representing in its side ornaments *Polypodium alpestre* and *Polystichum Lonchitis*. In connection with this study from nature, he called attention to the inexhaustible source of novelty in design which the vegetable kingdom presents, and which he hoped would be made more fully available than hitherto; for, although "flowers have in all ages been used by the aspiring ornamentist, and have ever been the basis on which the science of ornament has stood," much still remains to be done. The papyrus and the lotus, in their numerous combinations, were the chief subjects of Egyptian ornament; the acanthus leaf formed a pattern for the capital of the Corinthian pillar; the *Fleur-de-lis* is also an ornament which has stood the test of time. Even in our own day novelties are occasionally introduced by enterprising designers; still how easy would it be to catalogue all the vegetable forms that have actually been referred to in design! Of the ninety-three thousand living plants (not to speak of dead species), how few have actually come into general use for this purpose! Dr Lawson stated that in a lecture lately delivered to the Royal College of Surgeons, Professor Balfour had pointed out the wonderful symmetry that prevails throughout the vegetable kingdom, both in the minute tissues and in the compound organs of plants. Professor M'Cosh and Professor Dickie have illustrated the laws of form, and the relations of colour to form in plants; Dr Lindley, and, more recently, Mr Dresser, have done much to elucidate this very subject of the relations of botany to ornamental art; and with such aids, the wall of separation that has so long existed between the botanist and the ornamentist will surely be speedily broken down. Dr Lawson then referred to some of the artistic authors who had been instrumental in drawing attention to this subject, alluding particularly to Pugin's "Floriated Ornament," and to various writers in the *Builder*, *Art Journal*, &c. He proceeded—It is to be kept in view, when the artist is recommended to study nature under the light of science, that this does not *necessitate* a naturalistic treatment of his subject. Attention

to botany is even more essential to him who would create a design by the conventional treatment of natural forms, than it is to the naturalistic designer. It is what anatomy is to the painter of the human figure. It enables him to modify his leaves and flowers according to the requirements of his design, without overstepping the boundaries of truth, and originating a caricature, instead of adapting nature to his special purpose. It is a common error to suppose that the artist has merely to take natural forms as his starting point, and give these a geometrical disposition, modifying them according to his taste. Truth to nature is necessary in all decorations intended for an educated eye, and especially so in an age of science. And the beautiful laws of form, and of colour, of number, and of arrangement of parts, that prevail throughout the vegetable kingdom, are necessary to be known by the artist who has high aims. This knowledge loosens him from the trammels that must ever accompany the mere copyist, and gives him a wide range of conventional treatment, while his work assumes the character of an exposition of principles instead of a slavish copy of details.

It is a well-known fact that many of the finest carved works, in both ancient and modern buildings, are *direct* studies from nature; and several modern writers have lately pointed out to designers, that it is to "*natural forms geometrically disposed*," that they must *all* look for new inspirations. "By repeated copying (says Pugin), the spirit of the original work is liable to be lost, so in decoration, the constant reproduction of old patterns, without reference to the natural type from which they were composed, leads to debased forms and spiritless outline, and in the end to a mere caricature of a beautiful original. It is impossible to improve on the works of God, and the natural outlines of leaves and flowers must be more perfect and beautiful than any invention of man." And the same writer observes—"Nature supplied the mediæval artists with all their forms and ideas; the same inexhaustible source is open to us, and if we go to the fountain-head, we shall produce a multitude of beautiful designs treated in the same spirit as the old, but new in form. We have the advantage of many important botanical discoveries which were unknown to our ancestors; and surely it is in accordance with the true principles of art, to avail

ourselves of all that is beautiful for the composition of our designs."

Dr Lawson illustrated, by means of drawings, the beautiful designs that may be occasionally produced from the judicious treatment of even the simplest materials, such as the trifoliate leaf. This led to a discussion of the origin of the trefoil as an architectural ornament, which was stated to belong to a very early period, although its extensive use during the Christian era was probably connected with the myth of St Patrick and the Irish shamrock. The differences of opinion that prevailed respecting the species of plants which form the national emblems, were alluded to in detail. Such matters, the author observed, are of little importance in a botanical point of view; but it must be confessed, that when an artist asks such questions as—What plant is the Scotch thistle? or, What is the Irish shamrock? and we cannot tell, it places botany in a humiliating light; and we are not to charge him with wanton neglect if he does not refer to nature in embodying these our national emblems.

V. Remarks on Dust Showers, with Notice of a Shower of Mud which occurred at Corfu on 21st March 1857. By
GEORGE LAWSON, Ph. D.

Dr Lawson remarked:—The attention of botanists has at different times been attracted to showers of various kinds, most of which have been more or less dependent upon, or connected with, vegetable phenomena. The red snow of the arctic regions, which has been known since the days of Aristotle, owes to botany its proper explanation as not a product of the clouds at all; the appearance being due to a minute Alga that vegetates on the surface of the snow. Showers of pollen are familiar to all travellers who have penetrated far among the coniferous forests of North America. In this case also, although the pollen forms immense clouds of dust, and is often conveyed to considerable distances, becoming in its course intermixed with foreign matters, till it can scarcely be referred to as a "shower," in the meteorological sense of the term, the plants to which it owes its origin being present, and connecting the phenomenon more or less closely with what occurs to a certain extent in all flowering plants. Of a different character are the