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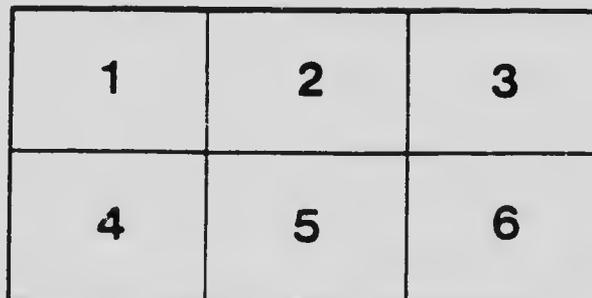
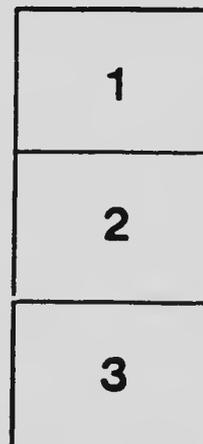
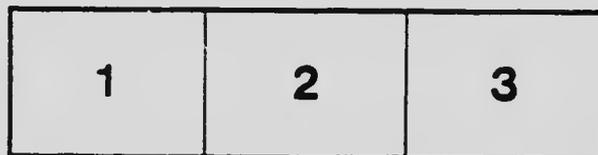
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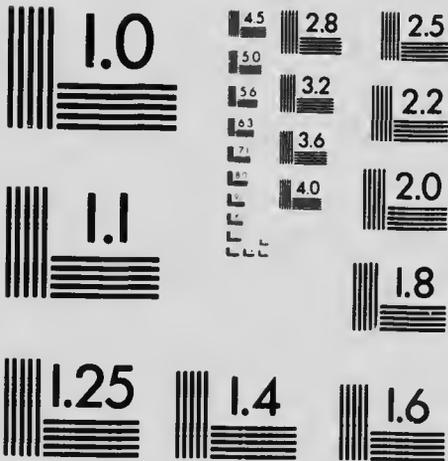
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ESTHETIC
FORESTRY



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INTRODUCTION.

So many of my clients possess large tracts of woodland, which are in just that condition where they need careful treatment to bring out their fullest possibilities, that I have endeavored in these pages to point out a few general principles which I hope may be helpful to those who are really interested in developing their forests from an esthetic standpoint. It will be obvious that only general suggestions can be given, for almost every wood possesses a separate character of its own, and, more—a single tract of woodland may include several different woods, each with its own distinct character. To preserve and strengthen these characteristics, instead of allowing our woods to drift into a monotonous sameness, should be our constant endeavor.



ESTHETIC FORESTRY.

Nowhere in the great kingdom of Nature is her sublime law, "The survival of the Fittest," better illustrated than in the forests which clothe such a large portion of the earth's surface. Were our ears better tuned to catch the sounds of nature, and were our other senses but more acute, what tales of struggle and everlasting warfare would we constantly hear, and what tragedies we would see enacted as the growing trees each year become more and more crowded, their branches grinding and clashing against one another as they struggle to get their share of the life-giving sunshine. Each year some of the smaller trees find that, stretch as they may their limbs skyward, their light has been cut off by their more vigorous fellows, and they die a lingering death, after which they still

stand a monument to their hard struggle, and a constant menace to their neighbors, until decay and wind fell them to the ground. To understand more fully at what tremendous cost nature produces a forest of mature trees, let us examine different woods in their various stages of growth. It is not an unusual thing to find many hundreds of seedling trees occupying a very small space of ground, and very often when the trees are from ten to twenty feet high there will be fifty or more trees growing in a space only large enough for one mature tree. This one tree more vigorous than the rest must endure a constant struggle with its fellows for perhaps fifty years before it reigns supreme over its little area, and more than likely it has itself become mis-shapen and encumbered with great dead branches, the decay from which, if it be a deciduous tree, will extend to the heart of the tree and materially shorten its life. Often, too, we find more than one, perhaps half a dozen, of these trees so evenly matched that no one of them can gain the ascendancy over its fellows, and all continue their crowded existence to matur-

ity, when they will be found with twisted and mis-shapen trunks, of little value for anything.

Forestry, which deals with the training of forests so as to increase their usefulness and value, does not interfere with nature, but seeks to assist nature by doing for her in a very short time and without injury to the remaining trees, what she herself would do, but would take years to accomplish, and at the risk of crippling the remaining trees. Forests are valued principally for the revenue to be derived from them, and in limited areas, for the pleasure to be obtained from their use either as game preserves or pleasure parks. For convenience, then, let us consider this broad subject of Forestry under two heads, Commercial Forestry and Esthetic Forestry, for the governing principles of one are so radically different from the other that it is impossible to consider them together.

Commercial Forestry, as is the case with other commercial enterprises, seeks to obtain the greatest possible return on the money invested, and its great underlying principle is the production of the

greatest amount of saleable timber upon a certain piece of land for the least expense. To accomplish this the trees are, while young, thinned to as near even distances apart as is practical, care being taken to preserve the best trees, and not to thin at any one time to such an extent as to risk drying the ground by exposing it to the sun. Each different kind of tree, however, requires to be thinned and otherwise treated differently. The coniferae especially requiring entirely different treatment than the deciduous trees, but it is not my intention to take up in detail the treatment of a forest for commercial purposes, for there are many able books treating this subject with great thoroughness.

Esthetic Forestry is the treating of a forest or woodland, not with the object of receiving the greatest money returns, but with the object of producing a forest from which we may receive the greatest amount of pleasure. This is accomplished by appealing pleasantly to our different senses. The cool shade, the rippling waterfall, the odor

from sweet flowers, the songs of birds, the different views and vistas—all of these and many others produce sensations of pleasure, unconscious perhaps, but none the less potent. Some one may ask, what can be more beautiful and pleasing than the scenes created by nature? and to such a question it is difficult to find an answer, for I have seen far from the habitation of man views which would easily surpass man's utmost effort, and yet I have also seen places where it needed but the hand of man in removing some tree to open up an exquisite view, or perhaps the placing of a small group of trees to make the composition complete. Did our great master painters always paint nature as they found it? Did they not rather select harmonious bits of landscape, and, by bringing them into composition, produce their most beautiful pictures? Moreover, we must remember that the greater part of our woods, while really creations of nature, are so changed and distorted by man's influence that it is hardly fair to call them natural. Take, for example, a woodland which has just been cut over; we see it growing up a mass of oak, birch and

maple sprouts. Is this nature's work? and years hence when we find the seedling pines or other trees struggling among this thick sprout growth, shall we say it is nature's work, so let it alone? Of necessity we produce artificial conditions of growth; of necessity, then, we must use artificial methods to correct this in order to obtain the best results. It is true that birches and similar trees are nature's nurses, selected to shelter and protect the young seedlings of more valuable trees during their tender years, but that is very different from the thick sprout growth produced by cutting.

Whatever may be the area of woodland which we possess, whether it be thousands of acres or not more than twenty-five, it is almost certain to possess some interesting feature, and if it does not, then some latent undeveloped feature must be taken and developed, for nothing so enhances the value of a wood as to have special points of interest which can be shown to the visitor, and let us not be content to develop our woods along the same lines as those belonging to our neighbors. They should possess a character of their own. No

two woods are naturally exactly the same, and we should try and develop and emphasize their different characters, for in variety and individuality we find our greatest pleasure.

Before considering in detail the manner in which our woodland is to be developed let us become thoroughly acquainted with it in all its aspects. A single walk through it will not do. We must know the whole of it thoroughly, know where its different points of interest lie, and where it is possible to obtain the best views. We must know the contour of the land and the different varieties of trees which are to be found. In fact the better knowledge we have of every detail of our property the better acquainted we become with, and the more love we have for our woods, the happier will be the results obtained.

Although the location of drives and walks may be said to come under another head than Forestry, still, in the treatment of a forest esthetically, they are of first importance, and no proper consideration can be given to the treatment of the woods until their location has been decided upon, because

the treatment of the woods for pleasure,—that is, the planning of landscape views or pictures, depends upon the location of the drive, walk or other point from which the picture is supposed to be seen. On general principles the drives should be laid out so as to make a circuit of the property in such a manner that they will never be conspicuously in sight one from the other. Much depends, however, upon the area and character of the woodland. Having then, the different topographical features of the land well in mind, as well as the views to be obtained, and the different points of interest, let us plan our road so that it will give easy access to as many as possible of these points of interest, so that each turn of the road will open up some vista or contain some pleasant view. We pass at first through a dense hemlock grove, whose sombre stillness seems to shut away from us the noise and discord of the outside world. We pass on under the over-hanging branches of the gnarled oak and feathery beech, coming out now upon a bold headland with a grand view far out over the ocean, then winding back through groves of trees, and along by the side of a rippling brook

with vistas here and there into inviting nooks under the cool shade. Now a great ledge covered with ferns and mosses compels us to turn from the stream and we continue our way through the beech wood, coming out finally upon the edge of a broad meadow, along the border of which it is a pleasure to drive for a little way. We then return through the fragrant pine woods and along the edge of a small lily pond, getting glimpses now and then of the distant water and surrounding country, until we suddenly find that we are back at the point from which we started. I do not suppose that all woods will possess the same number of interesting features, but the fact is that many of our woods possess interest of which we know nothing. If roads have been built, they have been located without any regard to making the drives more interesting than are the majority of country roads which lead through the woods.

Now that our drive is located our real work, or pleasure, is commenced, and we will go over the road again with the idea of deciding upon the future treatment of our woods, and here let me

say that my statement regarding such treatment may appear contradictory, for I do not believe in holding to any rule. I believe that to obtain the best results, to make our woods of the greatest possible interest, we must do in one place the exact opposite from what we might do in another. I believe always in doing too little cutting rather than too much, and in never cutting a tree until it is absolutely necessary, for in cutting a tree we destroy what it may not be possible in our lifetime to replace. Moreover, no cutting of any importance should be done until everything has been decided upon, and until we feel sure that we are making the best possible arrangement, for it is not at all difficult to do irreparable injury to a wood in a very short time if we have no definite scheme before us. Owing to this fact that Esthetic Forestry has no definite rules for its guidance, it is necessary that we should devote a considerable amount of time to studying the best arrangement, and that we should have a love and respect for the beauties of nature and understand her laws, so that we may work with and not

against her. Otherwise, it will be impossible to accomplish good results, and it would be far better to leave our woods untouched than to run the risk of spoiling them. Taking for granted that in laying out our drives and walks we have avoided cutting large trees as much as possible, and that the road is planned so as to see as much that is of interest as possible, let us consider the treatment of the woods, commencing with these along the drive, which passes at first through the hemlocks. We wish to secure in time a dense hemlock forest and therefore hemlocks should have the preference over all other trees. I do not mean to cut all other trees, but wherever a birch, maple, or even oak, is spreading out and injuring the hemlocks in such a manner as to injure the general effect of the grove, then I would sacrifice the oak or birch. Other than this little will need to be done, as hemlocks will grow very close together and not injure each other. Of course it may happen that by removing one or two hemlocks we may open up a grand view, or perhaps there is a great crag or rock hidden entirely by a hemlock growing at its

base. If this is the case and the same view or object of interest cannot be seen elsewhere, I should certainly remove these trees. As we come out into the beech wood, we find perhaps a thick growth of small beeches with here and there a larger one, or perhaps a large oak or maple. Our easiest way now would certainly be to go right through the wood, cutting out the small and dying trees, and leaving the more vigorous ones standing at comparatively equal distances apart. This would probably, too, give the best timber in the end. But we must remember that we are developing our woods for our future pleasure, and that this drive which we have laid out is to be the viewpoint from which the most of our friends will see our possessions. Now, in this beech wood, or mixed wood, as it may be, it is probable that here and there are large trees of either the one kind or the other. I think I may even take it for granted that we have in planning the location of our drive discovered several of these, and in order to have them appear to the best advantage, and also to obtain their shade, we have passed the drive

under their great branches. Very likely under and around this great tree are hundreds of small seedlings, some very small and others reaching well up into its branches. I would select one or perhaps more of such trees and clear away all the small trees, letting it stand out alone, in all its noble dignity. Thus, a tree which one would scarcely notice as being of unusual size, when dwarfed and half concealed by a younger generation, will stand out a veritable monarch of the forest. If you have no large trees thus to ornament the roadside, I would see to it that some young and vigorous trees were started in the right direction to produce them. It is also quite possible that a certain portion of our wood may possess a number of these large trees associated together in an irregular grove. If this is the case, and they are in a place where such an effect is desirable, I would cut away all the smaller trees and gain this distinct grove effect. On the other hand it may be that the trees are all small, in which case I would select vigorous young beeches at a good distance apart and plan to eventually

cut everything else away, not all at once, but cut out some every year as they begin to interfere with the growth of the beeches which you have selected, on account of their vigor and position, to form a beautiful grove, whose low spreading branches will give ample shade in summer and will make a pleasant variation from the thick woods. I would advocate the use of grass under and among the trees which compose this grove, for nothing is quite so pleasant under the grove as nice turf broken here and there with a group of field lilies or native spiraea. We shall need to take great care however, that we do not produce simply an incongruous patch in our woods, and for this reason the borders of our open grove and the approach to it must receive careful consideration. Nowhere must the termination of one treatment and the commencement of another be in any way abrupt. One must melt into the other unconsciously and unnoticeably. To accomplish this, small trees and shrubs must be brought forward from the edge of the wood, while in some places a large tree or two may be brought forward in a bold mass

of foliage. Again the woods may recede, allowing the grass to form a little bay extending far into the woods until it is lost to view, merged with the ferns and undergrowth of the forest. As we approach the grove by the road, we must begin to receive signs of it some time before the grove is in sight. Our first intimation of it may be a little grass by the roadside, broken up here and there by bushes and trees, then the woods along the side of the road will commence to appear more open, the grass begin to be more abundant, it gradually creeps back further from the road, sending here and there long fingers into the woods, until gradually we emerge into the open grove. There are cases when a sudden transition may be justifiable as a surprise, but such cases are very rare, for once the surprise is known it ceases to be interesting and will probably become tiresome if it has no other merit.

Other parts of the wood I would let grow thicker so that the trees will grow straight and tall and dense, resembling more truly the typical forest, and still again I would let other parts remain prac-

tically wild without removing anything, not even the underbrush, for it is in coverts such as these that some of the shyest of our native birds love to build their nests, and I cannot conceive of an esthetic forest which is not full of the sweet songs and mellow calls of our wild songsters. To merge these different varieties of forest treatment one into the other so as to create views which shall be indistinguishable from nature's own, and more than that, to open little vistas here and there into the thick growing woods, while in another place the wild uncleared portion of the woods comes directly to the road in bold masses of foliage, receding again to give place to a carpet composed of maiden hair ferns, orchids and brown leaves; to spend a part of each year, small though it be, in planning and executing such work, is a pleasure which I believe will become more and more appreciated. Further along the drive we come to the stream and here we may perhaps make a musical little waterfall with half a dozen moss-covered boulders, and as a sequel to the little dam, we have above it a dark, shadowy pool of water whose

every reflection is a suggestion of coolness, causing us to forget the heat of the dusty town. Perhaps, too, we can place a rustic shelter near here, just far enough from the road to be screened from it, but yet near enough so that an inviting glimpse can be had toward it. The smallest things often add much to the interest of such a drive. A beautiful group of ferns or a curious boulder may be brought into sight by the removal of a little brush. A fine old tree which has battled with the elements for a hundred years may need only the clearing away of some worthless alder bushes to make it stand forth from its hiding place. I could name instance after instance where features much more interesting than these have lain practically undiscovered and unnoticed, when by the removal of some worthless bushes the whole effect would be changed and enriched.

After doing everything to make our forest a truly pleasant place we may still find that it lacks much of being as interesting as many forests we know, and this may be due to the lack of interest-

ing plants with which nature so often carpets the wood. It may be because of the woods having been at some time used as a pasture, or there may be some other reason, but certain it is that nature is much more lavish in her treatment of some places than she is of others, and for this reason we will often find it of great interest to add to our woods native plants which are not found there. I do not believe in using foreign plants in our native woods, but there are many natives that readily make themselves at home. Mountain laurel is very effective when used in the woods, as is also the native Rhododendron. Both give a wealth of bloom and have a rich evergreen foliage. The flowering dogwood is a very valuable acquisition to our northern woods, and a few of these trees planted on the edge of the native woods are extremely effective. There are hundreds of other native shrubs which may grow in one locality but not in another, and even the smaller herbaceous plants and ferns must not be neglected, for is there anything more charming than a mass of the

delicate blue bells growing over a ledge, or anything prettier to come upon in strolling through our woods than a colony of native orchids.

In caring for our woods ,then, let us strive to build up character, and to make as much as possible of every advantage nature has given us. Let us aim at variety without discord, at interest without fussiness, giving some of our trees ample room to grow and thrive that they may grow into beautiful, symmetrical, shade-giving trees, while others we will let struggle for their existence, that they may grow strong and rugged, with a character symbolic of a man whose whole life has been a constant struggle, but who has conquered and whose face and physique show forth his strength of character.

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