

One goal might be to make the water look as if it is the work of nature.

## Water on the course can be functional and beautiful

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Water in the landscape has a magical quality. Everything else being equal, an area or vista that has water as a part of it will always be more pleasing than one without it.

A sunrise or a sunset is a sight to behold but it is so much more dramatic if it is also reflected in a body of water. Standing close to a thundering waterfall is tremendously exhilarating. It fires us up. Sitting by a small stream of clear water moving so smoothly and quietly over its sand and pebble streambed is soothing to our souls.

Just sitting along the edge of any sizeable body of water is relaxing and inspiring at the same time.

We feel that a golf course with water on it is far more capable of having dramatic holes built into it than a course with no such advantage. Many competent golf course architects seize upon "swamps, mudholes, or high water tables" as golden opportunities rather than as obstacles. (The famous Gardens of Versailles in France were designed in a huge swamp area. The landscape architects utilized

"negative features" and turned them into stunning gardens using water as a plus feature in the final design.) Therefore, any body of water no matter what size on (or sometimes off) a golf course, should not only add a challenge and excitement to the game, but also an opportunity to add unusual beauty to the course as well.

The most common types of water on a course are ponds and streams. The less common but even more spectacular are lakes, inlets, bays, and oceans!

A pond or stream cutting all the way across the fairway usually means one of two decisions for the golfers: either they try to "carry it" or they are forced to "lay up" before they attempt to hit the ball to the far side. Placing any type of plants for landscape purposes near these bodies of water must never interfere with a properly hit ball. The ultimate size of any newly planted trees must be taken into account. They may not hinder a good shot off the tee now but where will the branches be on that same tree forty, fifty, or more years in the future?

We can almost say as a rule of thumb, "Never plant any wood plants along such water hazards in the areas covered by the cut fairway." When we speak of "woody" plants we mean those that grow larger each year. This includes all trees and shrubs plus a few creeping or rambling plants.

However, "groundcover" plants could be an exception to this rule. In unusual circumstances, the slopes leading to the water's edge may be too steep or rocky to have it covered with the usual fairway turf. In order to prevent erosion (and an ugly eyesore) such ground cover plants are often employed even though they are technically speaking "woody" plants. They stay so close to the ground, however, that they would not interfere with a properly hit airborne ball.

Such plants as cotoneaster, prostrate roses, dwarf sumac, and deep



growing vines such as crown vetch and honeysuckle can be effective in such locations. They not only soften the appearance of a bad slope, but their roots spread to prevent erosion of soil. A safe choice is always to use the plants already growing natively in the area.

On most water sites when considering trees, we first look for those trees usually associated with water, both aesthetically and horticulturally. The weeping and other type willows, red and silver maples, sweetgums, sourgums, pin oaks, box elders and ash trees are typical horticultural examples of trees found naturally at the water's edge. An outstanding tree found near and in water sites is the bald-cypress (*Taxodium distichum*) which grows in the Gulf and Southeastern states.

Smaller trees or shrubs would include alders, a few viburnums, the shrub dogwoods, American hornbeam, spicebush, hardhack, and some of the hollies. If your course borders brackish waters along the coastal areas then you will find the shrub groundselbush (*Baccaris halimifolia*) a big help. Very few of the introduced commercially grown plants will thrive in such locations so any native plant is very welcome.

In almost every instance, the trees used for landscape effects will be planted well into the rough on either or both sides of the fairway. Since useful function is as important as the design, we look to see if there are any areas that might need to be screened out of view, such as pump houses or pumping equipment, concrete shorelines to prevent erosion, unsightly buildings, roads, etc.

After such problems are dealt with, careful selection and location of trees or shrubs is then made to give the water hazards all the dramatic qualities possible. Man-made ponds are costly to construct, so we must make the most of them. Let us make them beautiful.

Perhaps the first goal would be to make the body of water look like it had been there as a work of nature. Too many man-made water holes just sit there looking like some monstrous puddle after a heavy rain. With a few well-placed shrubs (mostly native to the area) and some trees and (if needed) altered contours, we can usually conceal the fact that this pond was created by bulldozers and engineers.

Before the trees and perhaps smaller plants are placed, the basic

shape of the pond should be inspected. If it is to look natural, it should not be a perfect circle or symmetrical in any way. A natural effect is achieved by meandering edges and flowing lines.

Also the banks of the pond should be constructed (retained) with a material which can support natural growth if possible. Where the water's edge meets the soil, there should be a natural intermediate area where "typical bank plants" can grow, grasses, sedges, wild iris, etc.

Should a pond already have what amounts to small peninsulas or promontories built into it, just take a few seconds someday and imagine a lone tree out there with its reflection in the water. A few classic examples would be a weeping Japanese flowering cherry tree, a weeping Japanese maple (especially if it were a red-leafed form), Japanese black pine or even a treeform wisteria! That's all it would take to turn a common waterhole into an area of beauty.

When a natural outline is achieved, then lower growing shrubs can be planted only a few feet from the water's edge. They will then be able to grow into gracefully arched forms so the branches will actually make contact with the water. When selecting these plants keep all seasons of play in mind. Will they have conspicuous flowers when in bloom? What color will the foliage be during the fall season? Will the branching habit, minus its leaves during dormancy, be attractive? Also, how much care will they demand during the course of their lifetimes?

Some plants are designated by the landscape profession as "interesting". This means they are a pleasure to look at during all four seasons of the year. The dogwood tree, high-bush blueberry and the sourgum are three fine examples of such plants. If the choice is there to be made then, of course, we select the ones that have the most attractive features for all seasons of the year.

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Reflections of the larger trees can be dramatic due to their size and structure alone. Conspicuous flowers are really not that important on these plants. Their branching habit and the fall color, however,

can make a great difference when it comes to the final choice. Those trees with very refined foliage, such as the honeylocust, and Chinese scholartree (*Sophora*) and the willows, give an extremely delicate reflection on a still body of water. (See picture 1). It is even more spectacular if such a reflection has the white, puffy cumulus clouds in it. Thin foliaged trees such as the above will allow you to see right through the tree up to the blue and white sky for a more theatrical scene. Such sights or scenes of beauty sometimes catch the attention of even the golfer who is having a bad day! In fact, this type of beauty on a golf course can very often calm down an irate golfer in time to get back on his game. Conversely, to see the reflection of a huge beech tree in the same situation would have the effect of strength built into the picture. However, if it were a copper beech, then perhaps the color of the reflected image would be the dominant characteristic of the picture.

There are those trees whose conspicuous bark alone would put them on the list of preferred trees. Picture a grove of grey or white birch backed up with some dark green hemlocks looking back at you from a still pond! That would be a picture at any season of the year.

Such reflections may be seen from any point just so the water is between you and the plants. While on the putting surface waiting your turn to putt, you very frequently find yourself looking back toward the tee. In such situations, you may even plant trees behind or on the sides of the tee to create a mirror image in a pond from your vantage point on the green.

The possibilities are endless — especially on a course that has numerous bodies of water. It is a good practice to work these landscape pictures out on the site as well as back on the drawing board. Working with a party of two, you can be sure of the resulting reflections. One member of the party should have some very long and light object, such as a long bamboo pole, a fishing rod, or an extended ball retriever. If you add the height of the upstretched arms of the partner to the length of the pole you would have a total height of from fifteen to twenty feet. Tie pieces of white or yellow ribbon at 5-foot intervals starting from the top down. Now the person doing the

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directing will be able to see the reflection possibilities from any location he decides upon. The bright ribbons will easily be seen in the water.

It is important to use such a technique. Reflections are affected by changing elevations of the land at both sides of the body of water. If the land is very level, just a few inches or feet above water surface, it will give one image. If the land rises quickly on the far side of the pond, it will create a different reflection potential. And still another version will result if the observer is standing on higher land as he looks across the water where the land also rises with a steep incline.

Where the land is very level, objects that are great distances away from the water will be reflected. Under these conditions you would not have to place the trees close to the water's edge in order to see the reflection. This might be a big help when it comes to interference with an airborne golf ball.

The ideal land contours would seem to be wherein the observer is standing higher than the body of water and the land on the far side of the pond would be only a gently rising slope. Under such conditions, it is easy to get reflections of both plants and the sky.

However, as we said, the surest system is to have a partner to work with. He can pretend to be the trees you have in mind and you can move him to the preferred spots. At those points, stakes or some other marking system should be used to identify the precise location of each new plant to be added.

Where the point or lake does not cross the entire fairway, you then can plan for reflections to be seen from the passing side of the water. As an example, if you walk to the right of the water on the way to the green then you might want to plant reflections to be seen as you look to your left as you move around the right side. (See picture 4)

Some waterholes are such that a footbridge or even a cart bridge is required to cross over them on your way to the green. The reflections of the bridge itself become very important. That fact is reason enough to consider the aesthetic design of the bridge as well as its basic function. As a simple example, a slightly arched bridge makes a very attrac-

tive reflection as compared to just a plain flat functional structure, or worse, a slanted, or tilted out of line bridge which then becomes a detraction from the appearance of the hole. If natural beauty on the course is an important consideration, you must take such refinements into consideration even though the cost may be a little higher.

It is no secret to many golf course superintendents that Canadian geese can really create a serious problem when their numbers grow into the hundreds and sometimes thousands. It is almost impossible to keep them away if your course has ponds or lakes on or near it. A few waterfowl on a body of water adds a dimension to the feeling of really being "out in the country". This would be a welcome sight on any course. We will, therefore, go out on a limb and suggest that on those courses having water ponds or small lakes, perhaps a pair of swans might be considered permanent guests. The wings are trimmed at a key time during each year to assure their permanent presence. If you have never witnessed the air of dignity that surrounds a swan, then you have a pleasant surprise in store.

A new practical device has been added to relatively still bodies of water such as irrigation reserve ponds. A device that creates a circular fountain-like effect is used to add more oxygen to the water in an effort to hold down the rampant growth of aquatic weeds. Like the swans, mentioned above, it adds "life" to an otherwise still body of water. They are large enough to be heard from a good distance away. On a very hot day, just the sound of moving water has a psychological cooling effect on us.

In situations where ponds are built to hold irrigation water in reserve through pumping it full from wells, we run into the problem of unsightly pumping equipment, mainly the pump house and structural work going from the shore out into the pond quite some distance. These structures are rarely attractive. They stand out like sore thumbs in the midst of a possible beauty spot.

Perhaps with only a small percentage of additional costs when a pump house is built, it could be camouflaged to appear to be an attractive building. The same holds true for the bridge work reaching out

into the pond. Why not give it a false veneer to make it look like a summerhouse or a gazebo out over the water?

Streams that form water hazards on the golf course are not suited for the reflection factor. But they are very important from the close-up view. And if we could only do one thing about beautifying such water hazards, we would be very practical and ask for one thing above all else. Keep them neat and clean! Clean them of unwanted debris of any sort at all times — otherwise they can take on the appearance of a dirty, neglected open ditch instead of an exciting and interesting flowing stream of water. If frequent flooding overruns its banks, there isn't much to be done but to quickly pick up the debris left scattered around your fairways and roughs after the high water subsides. If, on the other hand, such flooding is rare, or indeed never a problem, then you could encourage wild flowers and even some introduced varieties to grow along the flat areas that are inside the banks of the stream but still above the water level. Mints, water cress, mountain pink, Japanese iris, pickerel weed and the day lilies are but a few of the dozens of plants that could add touches of color and fragrance to such streams. Also grasses and sedges will prevent the sides of the stream from having an eroded look.

It may seem too obvious to mention but it has happened so often it seems right to discuss it at this time. When a stream crosses an entire hole from rough to rough, the bridge or bridges to allow players to cross over it should be placed in the roughs — not out in the area of the cut fairway. One in each rough is ideal to spread the foot and cart traffic over two areas instead of leading it all into one small spot. If the bridge is in the fairway, then the turf will be worn away on each end of the bridge creating a permanent eyesore on that particular hole.

We have not discussed the building, maintenance of, ecological and legal aspects of ponds, dams, bridges, etc., since this article deals with how to landscape the water areas. For help, or at least initial direction for help on such matters, the best place to start would be your local Soil Conservation District headquarters or your Cooperative Extension Agent's office. **GB**