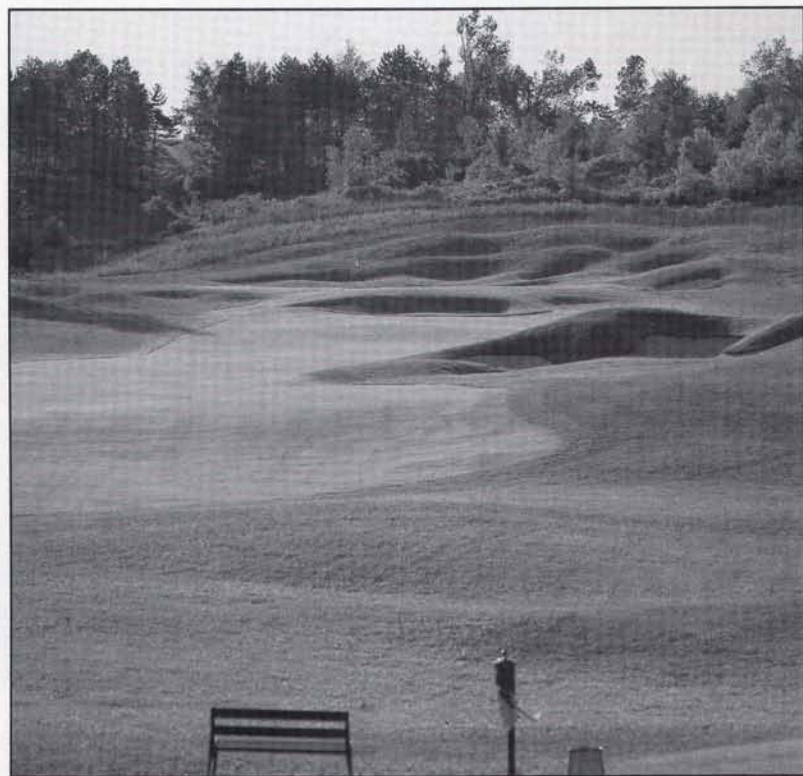


Links To The Past:

An Environmental Philosophy

By Craig Schreiner



Cobblestone Creek Country Club in Victor, New York.

Modern golf course architects, unlike their mentors, must be consummate stewards of the environment. Like many professionals headed into the '90s, they must become more conscientious regarding the planning and development of a golf course.

During the Golden Era of golf course design in the 1920s, *playability* was the primary focus of the architects. Environmental concerns were not the pivotal issues they are today. Therefore, the architects of that era were not directly involved with what we know as the "permit process."

Interestingly enough, their orthodox focus on playing quality often resulted in total site preservation. Every effort was made to consolidate the existing topography, drainage, and simple ground forms of each site. The importance of this traditional approach to golf course design has become intensified by today's concern for major and minor ecosystems whether they involve wetlands, bogs, climax forests, deserts or coastlines and a limited resource, land!

Despite differences in the demands placed on contemporary golf course architects, strong philosophical links have persisted across the decades and endured the test of time. For example, the great Canadian architect, Stanley Thompson, might have influenced Robert Trent Jones, Sr., with his magnificent course at the Banff Springs Hotel. In turn, Jones influenced his two sons, Robert Trent Jr. and Rees, and they have influenced other architects by their work on Spanish Bay or the seventh course at Pinehurst. I wonder if the architects of the Golden Era would have performed as

successfully as their modern-day counterparts?

In 1914, it was a simpler matter for Dr. Alister MacKenzie to win a magazine contest with his design of "The Ideal Hole." His ideal hole was a par four of 420 yards. The basic economic problem with the winning design was that it was as wide as it was long. To build 18 such holes would require 300-400 acres instead of the standard 175 acres. Unfortunately, the cost of most land in today's golf markets reduces the acre-

age available for development of new facilities.

Environmental Impact Statements

To compound the problem, Mackenzie would have had to include an Environmental Impact Statement describing how the hole would affect the delicate intricacies of nature in term of balancing earthwork volumes, measuring groundwater levels, reducing impacts on wildlife and vegetation, and minimizing erosion and runoff potential. Furthermore, the good doctor would have had to intelligently address turfgrass

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maintenance issues and then incorporate integrated pest management into his overall program, regulating chemical and pesticide usage in order to qualify for his environmental permits and zoning variance.

A naturalistic philosophy of golf course design was first explained by Willie Park, Jr., in his book, *The Game of Golf*, where he dedicated an entire chapter to the design of courses. His emphasis was on the diligent pursuit of the natural contours: "I need hardly say that a very great deal will depend upon the natural character of the ground." Notions of changing the ground were never seriously considered and couldn't be, not only because earthmoving equipment was crude and construction budgets minimal, but also because the best golf courses seemed to have simply "appeared." They were not manufactured. This began a naturalistic design philosophy that has resulted in a routine of preserving the indigenous beauty of many sites, ultimately producing marvelous golf courses that are ageless in their appeal.

The next generation of architects included such greats as Colt, Alison, Mackenzie, Macdonald, Tillinghast, and Ross. They further developed what is known as the strategic school of golf course design. They demonstrated a design philosophy which sought to preserve many natural site features. Every golf course, once completed and matured, had a unique character. Each member of the group was not deliberately concerned with developing their own "look" as a source of identity within the golf world. Although they were healthfully competitive by nature, their primary purpose was to build challenging yet pleasurable golf courses that unveiled and highlighted the natural features of each site.

By balancing playability with natural beauty, their achievements are still today's best examples of golf course architecture. Oddly enough, the simple, naturalistic design process employed by the earliest architects has preserved the integrity, character, and to a degree, the ecosystems, of many golf course sites. Surprisingly, these time-honored methods have proven to be up to the minute in today's environmentally regulated society.

Unfortunately, few sites today have an abundance of dramatic natural features. In his day, Dr. Mackenzie also faced this dilemma on certain projects and raised this issue in his book, *Golf Architecture* (1920).



Wetland at Cobblestone Creek Country Club was fully preserved as a natural hazard.

He challenged his colleagues by stating, "The test of a good golf architect is the power of converting bad inland material into a good course, and not the power of fashioning excellent seaside material into a mediocre one."

Since a majority of the ground being considered for golf courses is less than desirable, today's golf course architect must be even more talented than his predecessors. Not only must he blend the playing and visual quality of a site, but he is required to do it on featureless land with restrictive budgets. This must all be done under the scrutiny of environmentalists who are not totally convinced that golf courses are not major contributors of environmental pollution. Recent studies are beginning to document that golf courses are valuable assets to any community and that they have an overall *positive* effect on the environment.

Design Considerations

When designing a hole, architects routinely take into account the various skill levels of all golfers. We also consider how the holes could be set up under normal, local climatic conditions. Fundamentally, the majority of holes are laid out to test the most direct playing routes. The emphasis continues to be on strategic shot placement which is influenced daily by the location of the tee markers and pin placements. Consistently, the shorter route usually brings more difficulty (hazards) into play to offset the lack of distance. This is called "playing quality."

Playing quality assures that all levels of handicaps can enjoy their individual game because the golf course permits diverse

types of shots to master the different holes. The value of any shot played is directly proportional to the amount, type and severity of hazard the golfer negotiates. Consequently, rewards are proportionately received by successfully maneuvering the ball around or over the various hazards of the course.

Charles Blair Macdonald, the Father of American Golf Course Architecture, wrote in his book *Scotland's Gift, Golf*, "...that the player can, if he so wish, take risks commensurate to the gravity of the situation - playing, as it were, to the score."

The best courses designed today allow every player to take risks proportionate to his ability. Playing quality is intangible and elusive and is subject to different interpretations.

The architect's next test is to integrate playability and to conceal some of its mysteries in the visual quality or look of the golf course. St. Andrews (old) is an example of naked playing quality. The links of Cypress Point Club on the Monterey Peninsula seem to have the same playing quality but it is seductively punctuated with flawless plant material.

The extraordinary variety in golf course design today is due to each architect's interpretation of playing quality, a competitive urge to develop their own look, input from clientele, the budget, the experience of the contractor, and most importantly, the existing character of the site.

A Naturalistic Philosophy

It has been my experience that maintaining a link with the past permits us, even today, to produce exciting, maintainable golf courses that are environmentally compatible.

This traditional, naturalistic philosophy applied to a public golf course project of mine which was totally focused on preserving the natural character of a beautiful and spacious site near Minneapolis. The Baker Park Reserve Golf Course is owned and operated by the Hennepin Parks Department. I was the project architect at the time as design coordinator for the Hurdzan Design Group.

The purpose of this project was to unobtrusively integrate a golf course onto a site with several pothole wetlands without disrupting the character of the Reserve. The project included planting several varieties of deciduous trees to facilitate the natural evolution of a climax forest. Acres of wildflowers were seeded to supplement the

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native plant varieties and to diversify the wildlife habitat. The layout minimized earthwork by utilizing the rolling topography.

Four of the holes included buffer zones to preserve and punctuate the existing wetlands. The buffer zones consist of a 20-foot-wide strip of undisturbed vegetation. Silt fences were located on the course side of the zones during construction. The zones provided the required sediment prevention and retention to secure one of three construction permits. Functioning now as natural filters, the buffer zones will be continuously maintained to protect the water quality both on and off the site.

A monitoring and filtration system has been installed on the seventh green to study the water that percolates through the green's rootzone mix. The park's water

quality engineer will oversee the collection and analysis of the data along with the superintendent of the course. The goal is to determine what type, if any, of contaminants leach through the greensmix. If any are detected, steps will be taken to correct the problem. The project has met with favorable review at national and international conferences addressing environmental concerns as they relate to golf course design and construction.

Fortunately, the playing quality of Baker Park was not compromised. The somewhat forgiving layout includes well-placed multiple tees and wide landing areas. However, the greens have well-protected pin placements and can be set up to challenge the best golfers. The United States Golf Association (USGA) slope rating (for the back tees) is the highest of any public course in the Minneapolis area. Nevertheless, the natural character prevails be-

cause the layout is sympathetic to the wetlands, rolling topography, native grasses and wildflowers.

Today, architects must be convincingly thorough and environmentally conscientious in their efforts to obtain permits and approvals to build golf courses. We are not employing concepts which are very different than those which were flawlessly executed in years past. We are, however, being held accountable for a great deal more than our resourceful predecessors were. This is to be expected as we learn more about the effect that golf courses have on the environment. Being more environmentally responsible will require additional patience and more perseverance of ourselves, our clientele, superintendents and the public.

Architects' Challenges

Architects not only face many environmental obstacles, but many physical challenges as well. We must assist contractors in developing man-made features on a site so that they become indistinguishable from natural ones; a characteristic carried over from the Golden Era. This has become an indispensable part of modern golf course construction which requires a talented golf course shaper working with an experienced golf course contractor.

If it weren't for the game of golf, more than two million acres of land may have been developed as something less desirable than a golf course. Instead of large open green spaces lined with trees and populated with wildlife, this ground could have been lost to a less natural form of development. Architects have always understood that golf courses perform other, less obvious functions. They are valuable, refined, natural resources that everyone benefits from whether they play on them or not.

In a broader perspective, Mackenzie and many of his colleagues were also great outdoorsmen and nature buffs, whose professional lives ultimately focused on designing and developing golf courses. Their philosophies have been linked to the present day by an intricate network of nepotism, aspiring apprentices, golf historians, and dedicated research journalists. Fortunately, many golf courses of past and contemporary architects have become directly or indirectly valuable *natural* links to everyone's past.

Editor's Note: Craig Schreiner now practices in Kansas City, MO, with the firm Golf Course Architecture From The Heartlands.

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