

## Notes on the Routing of a Golf Course

By Mike Nuzzo

What was your most memorable hike? Was it a journey? What did you see? Was it unusual? A round of golf is a journey. A map of the course or holes is called the routing plan. I like to describe the routing as the soul or bones of a golf course. The strategies, infrastructure, hole design and maintenance are all built on to this routing skeleton. It is common for golf courses to have good individual holes, and the challenge is to create a course that ties them all together with the land in such a way that the whole is greater than the sum of its parts. To capture this interconnectedness requires an exceptional routing that leads to an exceptional golf course.

The golf course architect creates the routing by starting with a topographic map and site visits. Routings are similar to fingerprints in that no two architects would come up with a duplicate solution. It can take a long time to develop a routing

and usually involves much iteration. The process should include hiking the property and seeing all its features. Oftentimes a topographic map hides little swales, dips and bumps that can help turn an ordinary hole into a remarkable one.

Every piece of land can yield an original routing with unique holes. The single-greatest impact to any course is the topography that dictates where golf holes may roam and how they are formed. Gentle rolling terrain is ideal for golf, and the extremes of too steep or too flat often limit a course's potential. Clever routings make

best use of scenic vistas and natural features, including arroyos, mountains, creeks and lakes. Big, beautiful features can be used to create a sense of place, and the journey can let the player experience different environments. Hopefully these spots evoke a calmness and a greater appreciation of nature, with great enjoyment and camaraderie.

Vegetation, historical features and especially environmentally sensitive areas are also considered throughout the process. Wind and sun have a significant impact on the routing from a playability and maintenance perspective. The wind effects every shot played, and a routing can make best use of the wind by changing directions or tacking across the ground like a sail boat across the sea. All of these elements combine for an endless number of distinctive hole variations.

Property size and shape have important roles as well. Typically a modern golf course requires 200 usable acres, but usage can vary greatly. The shape of the parcel is also important to routing. Trapezoids, rectangles and broad angular properties allow holes to form in corners with unique settings and lend themselves to a greater number of directional changes. Fractured, skinny, circular, and oblong parcels are more challenging and often wasteful. Safety is a must, and together with the practicalities of construction, maintenance, clubhouse, utilities, entrance roads, and resort or housing locations, it must be part of the solution and should be developed in a collaborative process.

There is also artistry to a routing, as it can be like a symphony with crescendos, ebbs and flows. Often the actual routing map is beautiful. As artists and musicians have time-honored techniques, architects have many techniques for routing, which include manipulation of what the players see and how they play. Through changing scenery, the golf course architect composes player views during the round. The course playability can be adjusted, too.



TOP: Wolf Point Club Routing Plan: Can you find the two triangles? RIGHT: Triangulation brings greens close together.



I prefer an easy start to allow the player to warm up, including a large first green as a big target. The architect creates a rhythm and a tempo by continuing the pace and changing the difficulty and scenery throughout the round.

Different types of routings are core routings with all the holes laid together, expansive ones across a large site, figure eights, loops, out and back, housing and resort centric. From above, a superior routing with many directional changes looks much like a dropped box of matches scattered on the ground. Triangulation within the routing is a celebrated method and refers to the shape of a loop of usually three holes that start and end at the same location — or form a triangle. It creates small clusters of holes with intimate green sites and teeing grounds. Wolf Point Club, an example routing pictured here, can be played in multiple configurations as the greens meet tees multiple times. Three holes (15, 16 and 17) create a separate loop triangle so one can play them repeatedly or skip ahead and get to the clubhouse before sundown. This added intimacy also allows one to see other holes, players and the yet-to-come hole locations on upcoming greens, which can be seen in the photograph of the 1st and 4th greens.

Some elements that also make a routing special are variety in hole lengths, fairway widths and contour. Varying the environments and site characteristics also increases the enjoyment of the round. One can use a natural landform twice, by playing from multiple directions. The architect can bring someone to a picturesque location, for example the sea or a canyon, tease them with a peak, and then bring them back later in the round for a full exploration. Distinct regions on the property should transition naturally from one to the other as the holes connect these regions. The architect can create visual deceptions that cause a green to appear closer or further away. A hole with a slight bend can make the green appear as if it is sitting on top of a set of bunkers. The direct path is more alluring, even though the safest path to the hole is out away from this line of charm. A goal of mine is to keep walks from the green to the next tee as short and safe as possible.

Subtle hole differences can bring a new challenge to the player but not so different as to alter the feeling of a course. An architect can trick a player with two similar-looking holes that call for different shots, and if the player chooses the wrong shot, they will be slightly penalized.

For further study I recommend looking up the following courses on google.maps.com to see them from above: Pine Valley in Clementon, N.J., for its beautiful holes and isolation; Sand Hills Golf Club south of Mullen, Neb., for its stunning use of the natural environment and intermingled holes; The Old Course in St. Andrews, Scotland, for its utilization of double greens and how the simple out-and-back routing plan creates a great intimacy when heading back into town; and Seminole in North Palm Beach, Fla., for ideal use of triangulation and transitions, bringing the player back and forth between the ocean and the native sand dunes.

Golf can be fun no matter how well one plays, whether it is an 18-hole play-off for the U.S. Open Championship or an informal round on a 9-hole municipal golf course. This aspect makes it more difficult to identify what makes a great course. I believe the routing plays an essential role. Routing a golf course is akin to running a marathon, minus the map leading you to the finish line. At any one of the myriad of steps, a wrong turn or improper decision can lead to a meager conclusion. Once the course is constructed, the routing is impossible to change without significant modifications or starting over. There are many individuals who can make very good golf holes, but very few who can unlock the natural challenges the earth gradually reveals. **NAC**

*Mike Nuzzo of Nuzzo Course Design is a golf course architect who couples artistic talent and innovation with technical expertise and comprehensive, hands-on experience to create unique and ideal golf courses with any set of constraints — but especially on beautiful land. Mike can be reached at [mike@nuzzo.net](mailto:mike@nuzzo.net).*



NUZZO COURSE DESIGN

[mnuzzo.com](http://mnuzzo.com) 713.467.2207