

Anarchist's Guide to Golf Course Architecture

Classic Minimalist Golf Course Architecture and Design

Philosophy of Golf Course Architecture

By Armen Suny

This essay is a compilation of thoughts that were just bursting to get out of my head. Any of you that know me will understand that. Those that don't know, may find this interesting and a different take on conventional thoughts regarding golf design.

I remember years ago, probably the early 90s being at the Wigwam Resort in the Phoenix area. I was doing an agronomic consultation. They have three courses there. Two were Jones courses with these bizarre green complexes that reminded me of ski jumps. They were just huge piles of dirt that were ramped up to a putting surface on an otherwise flat piece of desert. The tees were runway like. I just felt uncomfortable looking at these obviously man made earth forms. And then they took me over to the other course and as I went around this course I actually sighed in relief. It just felt good. Now this was the golf course on the left over piece of ground that Red Lawrence got to work with. Jones got his pick of the ground and Red got what was left. The golf course wasn't spectacular but it "felt" good. There was a subtle land form that ran through a good portion of the property that had to have been built by Red but it sure looked as if it had always been there. This wasn't Desert Forest, it was a short 18 holes and the folks at the resort treated it as an inferior golf course but it looked as if nature built it and it felt good.

What is it that makes us feel good on some golf courses? What is it that stirs us emotionally on some properties? Yeah, I know that we all feel good when we play well but I'm talking about something much more primordial. Have you walked in to some homes and just felt the warmth of the surroundings. You just feel at home immediately. Other times you can walk into the most expensive home around and not have that same welcoming feeling. What causes that? There is something in our humankind that at its most basic level perceives harmony. On the golf course I believe that this is caused by golf course features and shaping that are reflective upon their surroundings. Yes you can create your own world like Fazio did so brilliantly at Shadow Creek where he sells you on the surrounding landscape. But I'm talking about the real world where the golf course is part of the existing landscape. Nature has one guaranteed quality that you can always count on...chaos. Nature is never perfect and is very random. When things are too perfect or too similar or fail to reflect surrounding topography and landscape people at their most basic level "feel" that something is not right. This feeling is most often not a conscious

thought but just a sense. Do you have a golf course that you just like and you can't really identify why you feel that way? I'll tell you what; I feel that way more often on old golf courses than on new ones.

There is a difference between things, whether it be art, music, movies, man made landscapes, building architecture, and even golf course architecture, that garner attention for short periods of time and others which are enduring and become classics. What causes us to like something forever versus becoming enthralled for a short period of time and then losing interest? Why is it that some golf courses capture our attention to the point that we could play the same golf course over and over again and never tire of it, while other courses initially grab our attention but seem somewhat shallow in the long run?

Perhaps it is a nature based originality that sets one golf course apart from another, that allows it to be considered a "classic". When those other courses, that are formulaic and impose preset artificial conditions and constraints upon any piece of ground that they are built upon, are considered in the long run as less than "classic", is it really any wonder? Can golf architecture avoid falling into formulaic convention? Through the Anarchy of nature it can.

We are all slaves to convention at some level. We constantly hear and talk about thinking out of the box. Golf architecture suffers from all of the same problems when it comes to shaking off convention and thinking out of the box.

Remember when Pete Dye shook up the golf world with his unconventional design concepts. Do you still think of Pete Dye as unconventional today? No? What happened? Did Dye settle into a certain level of comfort with what he was doing. There is nothing wrong with that and the market, based on his popularity obviously likes what he has produced. Who are today's pioneers of golf design's new frontiers. To my mind the unconventional out of the box thinkers are; Coore/Crenshaw, Doak/Urbina, Gil Hanse and a few others.

Will this group succumb to their own sort of convention? Are we seeing the earliest signs of that already? And even if we are, the work is so outstanding in general, do we care? Do they care or are they even aware that their own version of convention is sneaking up on them? Perhaps their convention is so good that they shouldn't keep searching. It's my contention that there is an intellectual incest in the study of golf design through the study of other golf design.

This tendency to settle into some sort of convention in golf course design is as human as it gets. We are after all creatures of habit. I believe that golf needs to resist the temptation to settle into any version of design convention. How that can be done is both simple and difficult at the same time. What the human animal feels comfortable with is nature and then the human sets about being industrious and "fixing" nature to accommodate his desire for a sense of order. Maybe when it comes to golf design we should just let nature win. Do you think that Coore and Crenshaw like some of the bunkers at Sand Hills better today

than when they built them? Do you think that Mother Nature improved them? How about everything at Bandon? The great bunker lips that Merion had in the old days were created by 70 years of bunker shots blasting sand up on the faces. Should we learn something from all of this?

Probably the most bizarre facet of the study of golf course design to me is that most people start with poor assumptions. The typical route for today's designers and the budding new designers is to study all of the great Architects and golf courses or even perhaps write and comment about it. People spend years and lifetimes doing this. Maybe if you were designing buildings this would make sense, go look at the great buildings of the world. The buildings were all designed and built solely by man. But when it comes to golf courses, I consider it an inadequate course of study. The great golf courses of old were largely produced by nature and the great new ones emulate the great old ones, so whether or not the land was great the golf holes are created to have that look, feel and playability. This course of study, learning all there is to know about the great golf courses, is certainly understandable and it is viewed by virtually everyone but me as the proper course of action to "learn" about golf course design. You too can take the pilgrimage to the Mecca of golf and become enlightened. That's all you need, a ticket and some time and you too can learn all there is to know.

What we are missing is that Mother Nature by and far built those great courses not man. The only thing that I don't like at those great old golf courses is the artificial edifice of man and that occurs mostly in unnatural looking man made fixes of bunker edges. If we want great golf courses, maybe we should go back to studying nature, natural landforms, and erosions caused by wind, water, and animals. At the heart of it all isn't that what we seek to do? Aren't we trying to find or create golf as it was discovered in nature? Studying great designers and courses as an adjunct to studying nature makes sense, but we need to spend more time studying nature first and then those designers that came before us. Otherwise the only thing that will have changed is that we will have a new "look" and "playability" that at some point becomes conventional. We have a chance to fight our inborn tendencies to go with the herd or I guess to put it in the Scottish golf vernacular the flock and if we can, then we will keep new golf courses less predictable and more natural than ever. If not, maybe we are sheople. Just say and do what the rest of the flock does.

The late, great Richie Valentine, who I worked for at Merion said to me "If you want to make something look natural then you have to have your smartest guy or your dumbest guy do it, everybody else will just screw it up." Richie was a great communicator and the point to this quote, one of his many memorable quotes, was that the very talented person can mimic nature with the full knowledge of what they were doing and the less sophisticated person would inadvertently copy nature. What Richie worried about was the over thinking of design issues by the average person. He was far more of a feel guy than an analytical guy.

Richie was a very talented designer in his own right. He was the third Superintendent at Merion. William Flynn was the construction superintendent and first greenkeeper and then Richie's father Joe Valentine who had been the construction foreman took over as greenkeeper. Those of you that know the history of Merion know of the close relationship between Flynn and Joe Valentine. Richie regaled me of tales about Hugh Wilson and Joe Valentine sighting bunkers at Merion. Joe used to have his men hold up sheets of canvas to position the bunkers faces. Richie would take me over to see Eb Steineger at Pine Valley and I would have the opportunity to listen to Eb's stories about hauling seaweed up from the Jersey shore to put on fairways to create a decent growing medium. Eb would talk about the bunkers and the planting of the bunkers with the Scotch Broom and the planting of the Scrub Pines.

What I know about golf architecture, I learned by accident. Sometimes I think that osmosis may be the best method of studying golf course architecture. It should be less about formulas, what has been done at other courses, reading books about architecture and more about the feel of the land and the believing that the utter chaos and anarchy of nature is an asset to producing, finding and creating golf that is unique and interesting. Having been a golfer (never very good) since I was eight years old and working in and around great golf courses for 35 plus years, I believe that I have an understanding or better yet a "feel" of how to take the random chaos of nature and come up with a golf course that golfers can enjoy day in and day out and that I can live and work with on a daily basis. On top of that, I believe that collaboration and struggle with both man and nature achieves superior results.

A little background on me may be helpful. I'm a Greenkeeper/Superintendent by training and practiced that profession at the highest level in the States. I have been other things in golf as well including PGA Tournament Director, General Manager, Real Estate Developer, Recruiter, Consultant, Designer and probably a few more that I can't or don't want to recall. I have been known as an innovator and a rebel. I just can't stop thinking about how to make things better, mind you it hasn't always worked out but most of the time it did and as you can see I am vocal about my beliefs.

Random chaos is the way of nature. Is it a shock that some of our best golf courses evolved and were simply discovered or that the first individuals that designed golf courses had no design background? Did their alcoholic over indulgences have anything to do with the fact that they were without formulas or at least much looser with their preconceptions? They were men of the earth and nature. Isn't it interesting that some of their first efforts were some of their best? Why is that? Maybe they were still naïve to design principals and set ideas and had less of the "learned" man in them. I know that there are those out there that will see my comments as heresy. We have probably all looked at that one golf architecture website one too many times. And as far as that goes, I think that we should come up with a 12 step program to help the golf course architecture junkies get off of the juice and return to society as productive members. I could probably teach them to mow greens or maybe rake bunkers.

Perhaps with their love of design they could rock rake by hand. Their time spent doing that would be far better for golf than their time spent with the ad nauseam discussions of golf course design. Really, do you think that the original designers, if man did do the design, spent as much time thinking about it as you do talking about it and trying to understand the designer's subtle nuances? It reminds me a little of listening to some pseudo intellectual art critic who can't paint, sculpt or create, prognosticate on the artist's motives with a piece of modern art. Let's weave that back to my original contention; the subconscious is a better designer than the conscious. Nature and anarchy are easier mimicked subconsciously. Mind you there still needs to be a reality check to make sure that the playability is there but by and large the great golf courses that we all love were done more by the "feel" of the land than the formula of golf design.

This is what I believe; forms, shapes, and scale should be organic and come more from subliminal thinking and less from conscious thought. It should feel right and then check to make sure that the playability is right for the golfer. Let me try another tact for you so that you can understand this. When you had your best round of golf were you thinking about the mechanics of your golf swing or were you in the zone? So when the designers produced their best designs, do you think that they were thinking about the mechanics and formulas of design or were they in the zone? They were in the zone and the creativity was free flowing and we all get to benefit from that special happening by getting great golf.

Let me ask a crazy question, why does almost every golf course built in the last 40 years have approximately 120,000 square feet of putting surface and greens that run in size from 5,000- 6,800 square feet. Would nature and sheep provide green sites only in those sizes? Maybe there was an edict from the powers that be regarding how many square feet of putting greens we are allowed to have on a golf course. Will the USGA the R&A the ASGCA or any of the other groups that identify themselves with letters condemn a golf course that doesn't fit their idea of what is acceptable? What if we had greens that varied in sizes from 4,500- 20,000 square feet? Whitman, Zokol and I did it at Sagebrush in 07. Urbina and Doak did it at Old MacDonald in 08. Zokol and I had to drag Whitman into it and I'm going to guess that Urbina had to drag Doak into it as well. Whitman thought that we were nuts at first but he eventually got into it. Big greens can have big contours that haven't been possible with today's green speeds on "regular" size greens.

What about those green shapes? Have you seen enough oval shaped greens? Do you know how all of those great old golf courses got oval shaped greens? They got them from years of mowing. If one is not vigilant about it, greens will lose their interesting shapes after just a few years of mowing. At virtually every golf course I have ever been on, I look at the green complex and can see the old green. Quite often, the green is two thirds or three quarters of its original size and almost always, great pin placements were lost and visual interest diminished. This must be another edict from the golfing gods; all "modern"

greens should be oval shaped. Designers are defaulting to green shapes from other golf courses and those shapes have been dumbed down by decades of mowing. Greens should be all different kinds of organic shapes based upon the site, scale and contours. Yes, shot value shouldn't be completely ignored but it should not be the overwhelming concept behind a green size. Gee, let's see short par 4, how about a small green. Long par 4 how about a bigger green? Oh wait a short par 3, how about a real small green? Do you want more? A mid length par 4 would get a mid size green. Need I go on with the mundane? Can we just break this type of conventional thinking? You know that I am not against all conventional thinking, some things I am willing to go along with, like 18 holes for a golf course.

These varied green sizes could be completely random, based upon what nature gave us. Logic/conventional/formulaic thought in golf course design would suggest that these smaller greens would almost always be associated with shorter shots i.e. a short par 3, 4 or 5. Let's think about that, what if there is a beautiful 120 yard Par 3 just sitting on a piece of property and there happens to be a natural green site that is 14,000 square feet. Should convention dictate what occurs or should nature. If we let nature dictate what happens we would end up with a golf hole unlike anything that man ever designed. This would be allowing the anarchy of nature to persist through the design of a golf course. What if we had a site that was void of any real topography and we created that same scenario? It certainly would be unconventional, dare I say even natural in an unnatural way.

The next step is to take that anarchy and apply it to man made golf courses. Can we take that step? Can we have a blank slate and make a "crazy" decision? If we want to mimic nature we must allow ourselves to break the shackles of convention. Even those in the so called minimalist/naturalist movement falls into some kind of convention and it seems more difficult to resist as their successes stack up. Many of you know that as a Superintendent, I was a huge proponent of deep and infrequent irrigation. We were trying to mimic rain events with irrigation. The madness had me at one point thinking that we should irrigate randomly, a deep rain one day and a few days later a rain shower, all done with sprinklers. Ultimately, I did change my mind on that one. I could only take the anarchy in golf course maintenance just so far. Would a new completely man mad golf course ever have a par other than 72? Would there ever be back-to-back par 3s or par 5s?

Would there ever not be returning 9s? Could the 9th hole be a par 3? There are many of these questions. If you turned any of today's great designers loose on a great piece of land, they more than likely could answer yes to all of the questions above. If they found great holes they would capitalize on them, But what if you took the same designers and gave them the blank slate, a completely man made golf course to design, what do you think the answers to the questions above would be? I don't think any of them would make the "crazy" decision.

Green contours are always interesting to look at. It is disheartening for me to look at contours on greens, when the vast majority of the contours are completely disconnected physically and aesthetically from the rest of the property. Contours that flow from outside the green and then through greens, I consider tie-in contours. This is what creates that seamless natural looking green that makes you feel comfortable. It feels and looks natural. The key to these "tie-in contours" is that in general, the features that they are blended into are tied-in or connected to naturally occurring or natural looking features that may run on varying distances from the green. The disconnected contours on the putting greens work only when they appear random and are similar in shape to naturally occurring or natural appearing bumps and hollows that exist on the golf course, adjacent properties and vistas. This allows us to "sell" the contours as being natural. "Selling" is causing the eye not to stop at a feature because it appears out of place. I love to listen to the "experts" talk about the subtle breaks in greens on classic golf courses. Do you really want to know where those subtle breaks came from? They came from years of sand blasting out of bunkers. They came from years of repairs to dead turf; they came from years of topdressing where higher amounts always accumulate in certain portions of a green. That's right the green contours evolved and are usually better for it.

What's with all of these roll off areas around greens? Has anyone ever heard of a roll on area? I get little tired of this latest fad of roll off areas and would prefer that there were a mix of roll off and roll on areas. And maybe just maybe some of the roll off areas could be on-grade as opposed to straight downhill. Some variation in roll off and roll on slopes would be natural and more interesting to play. Some modern golf course architects and so called restoration experts have convinced golf's oligarchy that runoff areas are historically accurate and were prevalent features for some golf course designers of the "Golden Era" of architecture.

In the 1920s and the 1930s there were no runoff areas on golf courses. It's just that simple, the revisionist golf course architecture history is purely a fabrication. How do I know this? Good question and the answer will appear self evident. Fairway mowing heights in the 20s and 30s were generally between 1 and 1.5 inches or about the same as today's intermediate rough height. Does a ball roll very far in intermediate rough? No, it settles down very quickly. It really is that simple, the great designers of the 20s and 30s could have wanted to have runoff areas but the mowing heights didn't allow it to happen. Greens in the 20s and 30s were maintained at 3/16 to 1/4 of an inch or about the same as the most closely cropped runoff areas of today.

As we discussed "selling" contours. It makes me think about the dissonance of nature. If you want to make a fill or man made slope look natural, put some warts on it. Look around, how many times do you see perfect slopes in nature? Usually there is a blemish of some sort. Perfectly angled slopes always fail to register as caused by nature; man's heavy hand is evident. Have you ever seen ranch land where the cattle and wildlife have left trails across the side slopes

over the years? We can put these back in after moving earth. We can seed native roughs with patches of different grasses to cause what happens in nature over 100s and thousands of years. On a parkland type golf course, can we manufacture the look and feel of the meadow? Can we take the stream that runs through the property and make it look as if the golf course has been affected by the streams movement and silting for hundreds of years. If we do these kinds of things, will golf appear and feel more natural.

Let's talk about bunkers. Richard (Dick) Zokol, my partner in the design business, Suny Zokol Golf Design, brought to my attention something that nobody else seems to pay attention to. Dick believes that the bunker floors should be uneven, not smooth bowls. He also believes that the amount and degree of unevenness should be based on the look and feel of the surrounding terrain along with the bunker style. This also presents us with a whole new set of challenges in playing bunker shots. Flat and bowl shaped bottomed bunkers in most cases are very artificial looking. Have you seen enough flat bottom bunkers with the exact same percent slope on the grass faces throughout the entire golf course? That hardly seems natural.

And what's wrong with a bunker that you can putt out of once in a while, if it happens to work out that way. Isn't part of the fun of golf having options to hit different and strange golf shots. If I have a chance to putt out of a bunker, I'll try it. Why is a fairway bunker not played as through the green? Wouldn't this be better for most golfers and wouldn't it also eliminate the need to perfectly edge bunkers so as to clearly define whether a ball is in a hazard or not?

Bunker shapes and edges are some of the most unnatural forms on the golf course. There is little if any resemblance to anything natural. My language regarding bunkers is different. I see bunkers in positive and negative spaces. A positive space is a grass edge, tongue, or whatever you choose to call it coming into a bunker. A negative space is sand going out into the grass areas. It boggles my mind that bunkers that are supposedly based on naturally occurring erosions look nothing like erosions. Do you ever see negative spaces in bunkers, where sand areas go out into grass areas? I always look at erosions when I'm driving someplace or when I'm walking a property. As a child, I spent a lot of time playing in the creeks and streams of Southeast Pennsylvania. This is part of the osmosis that I talk about, because I wasn't there, purposefully studying erosions. These impressions from childhood are part and parcel of my thought processes regarding natural forms. The first time I saw Merion was when I was 10 years old and had chased a creek down to Darby Creek, a tributary of the Delaware River, crossed it and chased another creek up hill and came out on what I later learned was the West Course at Merion. Those of you that know the course realize that I entered the property at the 6th hole. I was catching salamanders and crawfish, building dams, finding golf balls, and coming home late, wet and dirty and oh yeah very happy.

Natural erosions have more of what I call negative space (sand or erosions going out into grass areas) and less positive space (grass going into sand or

erosion areas). Manmade bunkers on the other hand look nothing like naturally occurring erosions and have virtually no mid to small sized negative spaces. Walk along a natural erosion area someday, look at it. Erosions start low and travel uphill. That is why bunkers, even those that have the long grasses around them don't always appear natural, you will see the spaces I talk about if you start to look around and walk along arroyos, streams and rivers. Wind erosion areas are very similar except that the wind sometimes overcomes gravity and the erosion can move sand or soil sideways or even uphill. Bunker style should mimic earth forms and erosions on the site and the surrounding area. I especially cannot comprehend how on a rugged, naturalist golf course conventionally shaped bunkers are given some long grass and we're supposed to buy into the fact that they are natural looking. It's kind of like giving the straight A, honor student long hair and calling him a hippie or whatever the kids call them now. Simply changing the window dressing on a form does not change its nature.

Now all of this talk about bunkers would lead one to believe that in our world all bunkers are wild. That would be a misunderstanding. Bunker form, shape, and style must be done in context with the rest of the golf course and the surrounding land. A flat parkland golf course would have an entirely different style than a rugged piece of links land but both can be consistent with the surrounding land. But even on a parkland country club course, it is completely unnatural for all of the bunker edges to have the identical edge slopes. I just saw one of our favorite architects do just that. He took a great golf course and missed the mark on a bunker renovation. The bottom edge of all of the bunkers had the exact same look. Does nature ever do this? Did any of the great designers ever do this? It sometimes looks as if the bunker edge machine went around the bunkers and formed these uniform edges, absolutely man made.

Bunker placements are always interesting. Perhaps on that great piece of ground, Mother Nature has provided all of the bunker locations and we just try to make them work, perhaps not. When Mother Nature didn't place the bunkers for us we have decisions to be made. I was taught by Valentine and he by his father and he by Flynn and Wilson, that there are different kinds of bunkers. The basic types of bunkers are directional, penal, and saving. Any of the bunker types could be strategic or structural. The strategic bunker is obvious and needs little discussion but the structural bunker is another story. Structural bunkers are used to deal with elevation changes and to minimize earth moving. Any one bunker can be combinations of different bunker types. One bunker can tell you where to hit the ball, directional, save you from running away into trouble, saving, and then after you are in it penalize you with a difficult shot.

Fairways are another area where most succumb to conventionality. Why are fairways a fairly uniform width? Is there a rule that there should be about 30 acres of fairways on a golf course? I've never heard a regular golfer complain, "Oh, the fairways at that course are just too wide." Fairway shapes can be utterly bizarre. The odd uniformity of scallops and sweeping curves of today's fairways may be an improvement over yesterday's runway like affairs but they

are anything but natural looking. Natural looking fairways are more akin to mountain valleys, the interface of forestland with grasslands, with the valleys between the dunes. There are lots of natural scenarios to discover forms and shapes for fairway shapes. Again this is a feel not a formula. But we must always do our reality check to insure that our natural fairway contours work for golf. For instance, if we have the ability to add some fairway area, short and right off of the tee, wouldn't most golfers benefit?

On a great piece of raw land the fairways may identify themselves. What about on a lesser site? Can we make design decisions that defy convention? Can we create fairways that just happen to appear organic and quirky? We can as long as we are not tethered to convention. As long as we are willing to throw the design book away we can.

What about fairway elevation contours? I know that some times we need drainage basins in the fairways but can't we design golf holes that don't drain onto the fairways every time. Yes, once in a while you will see a sinkhole in nature but 2 or 3 on every fairway because this is golf design's default position seems uninspired and unnatural.

How about grasses for fairways? It is great to see some fine fescue based fairways. Why do we only use grasses for fairways? A mixture of white yarrow and fine fescues will produce a very playable lower maintenance fairway the plays exceptionally well. The great plus is that the fairways will need much less water and fertilizer and the yarrow won't get any turf diseases. This is not just politically correct green talk but this really would reduce water, fertilizer, and pesticide use in cool season regions. And yarrow is perfect on bunker edges. When I discussed yarrow with Dr. Joe Duich from Penn State, it was like the old days, he told me that he was going to teach me something. Joe told me that Sir Francis Drake and Sir Walter Raleigh were lawn bowling on a yarrow lawn as the Spanish Armada sailed into the harbor. I don't think Joe was there but he recalled reading about it somewhere

What is an approach? Why do we have this thing between the fairway and the green? Is this where the sins of bad design are dealt with? I think that the fairway should transition into the green seamlessly and we should never again think about an approach.

Dick Zokol taught me a lot about tees. Dick convinced me that tees should not be on the same plane. He believes that we should give golfers the option of different lies on the tee. The golfer should have the option of a draw or fade lie.

Staying with tees for a little while here. Did you ever wonder why golf courses are designed from the championship tees when only a tiny percentage of golfers play from those tees? We should design golf courses from the regular tees and put the back tees wherever they fit. And here is another thing, why is the back tee always the most elevated tee? Doesn't the lesser golfer need more advantages? Yes I know if the tees are in a straight line you have to be able to

see over the tees in front but you do know that you don't have to line tees up in a straight line. Tees can be shifted left and right as well as forward and backward. You can challenge the better golfer with a less elevated tee and a tougher angle while the lesser skilled player can have a more elevated tee and less challenging angle of play. When was the last time you saw a tee that didn't look as if it could have been placed by a helicopter from any other golf course? Do we spend anytime thinking about how tee earth forms are? And we could talk about square tees and how overdone that fad is but really it's just not worth it.

I'll tell you one of golf's dirty little secrets here. In 1984, I was the Superintendent at Cherry Hills. We were getting ready for the 85 PGA Championship. I was 25 years old when they hired me for the job. We reclaimed about 10,000 square feet of putting surface and rebuilt a bunch of bunkers. Master Plans were not in vogue in those days, so we just fixed what needed to be fixed without asking permission. On the 7th hole they wanted a new back tee and the member tee wasn't good. So we built a new back tee and rebuilt the white tee. The hole if you know it is a dogleg left and the landing area falls from the left side to the right side. Now what I did was slope the white/member tee 1% from right to left. This would "help" the member keep the ball in play. The new back tee however got the opposite treatment, it sloped from left to right 1% causing the ball to leak to the right. This was another Valentine treatment from Merion.

Is there some reason that the majority of tees built in the modern era are either flat or slope from the front to back 1%?

How about those practice facilities. Have you ever been on one that felt like a fairway? Shouldn't the practice tee be more like a fairway and more like a fairway from a consistency of soil, turf and varied contours? The objective from my standpoint of a practice facility is to prepare the golfer for their round of golf. The best way of doing this is to provide the golfer with a practice area that will allow the golfer to hit off a surface that is identical to the fairway. This way the club and ball will respond properly as opposed to having a flat sand based tee when the fairways are soil based and have contours. The teeing area should have varied terrain from relatively flat to mimic tees on the golf course to left side hill, right side hill, uphill and downhill. This would allow the golfer to practice all kinds of shots. Now I understand that this would make golfers crazy so perhaps we can have a regular relatively flat practice tee with the sides of the practice tee gently sloped to mimic some of the slopes to be found on the golf course Furthermore wouldn't it be nice to see the practice area look like a golf hole where the fairway runs right into the teeing ground.

Practice greens should be relatively flat not contoured like a Lays potato chip and should allow the golfer to learn the speed of the greens prior to play. Having one edge of the green with a typical slope found on the golf course would allow the player after they had the speed figured out to see how the ball comes off of the slopes.

Forced strategy, hole after hole on a golf course is just a bit much for me. I just love it when designers tell me how the golfer is going to have to play the hole. It's as if you must hit these perfect shots to be able to play the hole properly. What if there is more than one way to play the hole? Wouldn't that be a good thing? The golfer stands on the tee and has to make a decision as to what to do. How about an approach shot that can be flown or bumped or for that matter putted? Don't these kinds of decisions make the game more intriguing? What about the angles that we hear mentioned so much, do you think that many designers will find a way to make a naturally straight hole angled? Angles are great when they present themselves but to face hole after hole of forced angles off of every tee seems just a bit too contrived. A mix of varying angles and relatively straight golf holes will be far more interesting a variety than forced angles on every hole. There are more subtle strategies.

Let's discuss strategy some more and I'll give you something to think about. Have you ever studied the strategy of the same golf course hole by hole on a daily basis for years? No, of course not, but I have and so has anyone that ever did course setup, also known inadequately as changing cups. On a daily basis, course setup, the placing of tee markers and pin locations has the biggest impact on golf course strategy after the golf course is built. How many modern designers ever studied strategy in this kind of detail? Imagine getting to do course setup at great golf courses every day. Would you get a feel for the golf course that others would never get and begin to understand just how it ought to play on any given day? A golf course's personality will be revealed to those that spend the most time with it. There is an ebb and flow to golf course setup, that becomes as much intuitive as cerebral. You can literally change the strategy of the golf course every day. The personality of the golf course can be gentle and, even-handed or spirited and challenging or on some days, just a little bit evil and diabolical. Would an understanding of golf courses in this fashion give one insight into golf design? It seems likely doesn't it? Maybe those that want to design golf courses should also work at the great ones to really understand them. Some tour players understand the golf courses that they play every year. They get a feel for them and learn their personalities. The tour players necessarily have to be quick learners. Seeing the sun rise over the dew every day at a great golf course is probably better than reading about that golf course in a book or studying pictures of it that you took on your one trip for a round of golf there.

Earth forms on golf courses can start an entire new debate. I grew up on golf courses built in the teens and 20s. They didn't move much earth and sites were selected based on good topography. Today many golf courses are built because there is a market for golf as a component of a real estate development. The sites are selected more based upon their location than the quality of the topography. How can anarchy affect golf in these areas? When I worked at Merion Golf Club I used to look at the land and how golf just appeared so naturally congruent with the land. Why can't we, with all of our CAD programs and earth moving equipment create a new golf course on an uninspired piece of

land that just happens to fit the land instead of being a series of 18 separate short stories when it could have been a great novel with 18 chapters.

Fazio and Banfield did a pretty good job at Shadow Creek, where I was the General Manager in the 90s. There are groups of holes there that are tied into the same earth forms but what I'm talking about is a global earth form that cannot be detected from natural. Can you imagine what it would be like today if someone took a raw piece of ground and graded it so that the entire property tied into the surrounding land, drained naturally and accommodated 18 holes of great, naturally occurring golf. Wouldn't this be nicer than 18 separate golf corridors or golf vignettes, no matter how good they are? Part of our love of golf is the odd balance of nature that we feel when we are outside. That balance is for nature to be natural.

The routing of the golf course is the single most important design element that there is. The process on a great piece of land is just plain fun. I still marvel at what Coore and Crenshaw did at Sand Hills. Can you imagine how stupid I feel when I was supposed to meet Ben on site to look around before they got going and never made it. Oh well, but I finally did get there and was just so impressed with their routing and how they had the fortitude to pop out of the valleys and take the golf high onto the top of the dunes a couple of times. Everybody else at that time would have chased the valleys exclusively and never popped the golf up high, including me. I thought that the routing was inspired. Similarly I found Doak's routing at Ballyneal just so interesting when he made some very different decisions that were quirky in nature and add a sense of anarchy and appeal to the golf.

We might as well talk about golf course renovation too. For some nostalgic reason people have decided that there was one particular time when their golf course was perfect. I think at Merion they decided that it was sometime in the 30s. So they took the course back and did the bunkers and bunker/green interfaces just like 30s. It is some form of madness. Golf courses are living, breathing and always changing organisms they are not stagnant. There is no perfect time period or era, unless some prior well intentioned green committee really screwed things up. Many changes made to golf courses were made because they didn't play well. Aren't we sometimes today adjusting fairway bunkers or tees to reflect the effects of new equipment. Is this good? Is this reasonable? Should we come back in 50 or 70 years and put the golf course back to the time we deem it was perfect? Flynn advocated playing the golf course for a while before placing all of the fairway bunkers. Do you think someone that thought like that would be opposed to moving bunkers now that we hit the ball farther? Do you think that he would believe that going back to some mythical perfect time would make any sense at all when the bunker placements and fairway landing areas may be obsolete?

Trees on golf courses can cause Civil War type divides in clubs. People just don't understand tree planting/removal strategies. First of all grass needs sunlight and air movement. That being settled we can move on to design issues

and for that matter let's go backwards and start with the latest craze of buzz cutting golf course popularized at Oakmont. Members can, I suppose do whatever they want to their course but a site that is surrounded by and if left fallow would become treed should probably have some trees on it.

So let's look at reasonable tree plantings that can create a sense of forests but accommodate and perhaps enhance golf and the golf experience. Linear tree plantings are never, ever good, period end of story. I suppose that there is one exception and that would be on those old golf courses that are just so tight that without trees they might not accommodate modern golf. What is good, is the use of clusters of trees that give a sense of forest but are positioned to achieve strategic and aesthetic goals. We don't need to talk about the aesthetic goals of tree planting. We all know how pretty trees can be in a landscape and how they can help frame a golf hole and steer a golf shot. Just watch a player going through their pre-shot routine when there are a lot of trees or a big bunker on one side of a hole as they are wiggling and wagging you will see that inevitable shift of stance away from the visual hazard of the trees or bunker. So we know that just as bunkers can be strategic and directional and saving and penal, so can trees. The tree can steer your shot. It can knock an errant shot down and keep it in play. Or it can be a hazard when you are behind it.

So how do we plant or for that matter remove trees to better golf. First let's agree that when possible that clusters of trees are always better than rows of trees. Let's also agree that tree plantings and hazards that are penal can be placed in positions so that the better golfers may be more affected than lesser golfers. For instance a tree planting at 275 off of the regular tee on the left side of the fairway is going to affect more good golfers strategically than a tree planting 250 yards off of the regular tee on the right side of the fairway. So the distance of the planting from the regular tee is critical and the side of the planting to anyone that has ever seen me play golf is obvious as well. But what if we have a cluster of trees at 200 yards from the regular tee on the right side of a hole and there is OB on the right side of the hole. Have we helped the average golfer and done nothing that would typically affect the better golfer?

You may get tired of my references to Merion but acre for acre it may be the best golf course in the world and most of what I learned about golf came from there. Merion appears to have a lot of trees but it is not tree lined in general. Yes there are trees along the road and property borders that are linear plantings but other than that the interior of the course doesn't have linear plantings. My point here is that one day Richie Valentine and I were standing on the 11th Tee, where Bobby Jones closed out the Grand Slam, and Richie starts telling me about his father's tree planting scheme on the right side of the hole between 10 and 11. His father planted White Pines closest to the tee and then Austrian Pines going down the fairway and lastly Scotch Pines. If you know anything about these trees you may start to understand the kind of foresight that this Italian immigrant had. The White Pines grow the taller than the Austrian Pines which grow taller than the scotch Pines. So when you are on the tee the trees' heights steer you and visually help you to keep your ball

further left and on this hole with its blind tee shot that is indeed helpful. Have you ever heard of that kind of thought put into a tree planting? Nope I didn't think so. And the next time that you are on the 11th tee at Merion check out the memorial plaque commemorating Jones victory and Grand Slam. Note that his name Robert Tyre Jones is on a raised section of the plaque. The plaque is raised because there was a minor problem with the middle name on the original engraving. Do you want to guess what name the raised plaque went over?

Have you ever compared the practice of medicine to the practice of golf course architecture? Have you ever had a Doctor that kept trying things on you hoping to get the treatment right? I continue to be shocked and amazed at the amount of changes made to new golf courses and renovations following their completion. The golf architects just keep making changes, trying to get things right. They are practicing golf architecture. How many times does it take to get it right? As a superintendent I spent a lot of time fixing suspect golf architecture. As an architect I spend a lot of time making sure that we get it right the first time.

It's interesting to consider that most of the "Golden Era" architects were greenkeepers. People that spend their formative years exposed to nature and golf on a daily basis have a "feel" for nature and golf that is ingrained. My background of growing up maintaining, renovating and restoring great golf courses and preparing them for Major Championships and PGA Tour events has given me a working knowledge of golf course architecture different than if my exposure to great golf courses had come only from researching and playing a few rounds of golf on great courses.

My comments on the hallowed subject of golf architecture may cause some consternation, distress, and disagreement from my peers but just remember that I have spent more hours on great golf courses under all kinds of light and weather conditions than anyone I am aware of who designs golf courses. In this essay, I have put into writing exactly what I think and believe. And my love of golf and golf courses continues.