CHAPTER 1

THE EVOLUTION OF HAZARDS
Not far from Slains Castle is a great expanse of seacoast. Here we find dunes shaped by the wind and small rivers that deliver a daily cargo of silt to the North Sea. While no one knows for sure, we can guess the date to be sometime in the early 1600s. Perhaps it is June.

During the summer, the native marram grass along the beach is green up to one’s knees. But at the tips, small yellow buds steal the show. Against meadows of lower green grasses, the marram rises up on windblown piles of sand and falls away into sunken pits. It waves goodbye to us with the help of gentle breezes. In and around these pits is an occasional wild orchid, joined by a rare blue-flowered butterwort or an iris. Our painting is nearly complete.

What could be missing?

Golf, of course. For we are not resting on the beach picnicking or looking lazily out across the horizon enjoying idle thoughts. Our trip back in time has us focused on the dunes, and also on a band of dedicated locals partaking in an ancient game of precision, skill, and patience. We are witnessing golf as it was played by its earliest players. Or, depending on the Scottish spelling rules du jour, we might write it as golfe, gouff, goiff, goffe, goff, goueff, or even golph.

There, beyond that rise, a group is about to whack small balls fashioned from leather pouches filled with goose feathers. Their clubs look rather like farm tools, with heads of beaten metal in oddly curved shapes. There is no course here. At least none that seems laid out in the patterns we have come to know in the twenty-first century. Our painting reflects just the dunes, the marram grass, that tiny bit of color provided by the orchid and its friends the butterwort and the iris, that gang of dedicated players trampling over matted swards of grass, a few high-flying clouds, and one last item of tremendous importance: a bunker.
This Ancient Game

Our little bunker— the one near Slains Castle, which is not far from the place we now call Cruden Bay in Scotland— is there by more than just happenstance. Some people will tell you it came to be purely by the natural transformation of the land. Their theory is one of natural erosion and movement of the sandy soils. As winds and rains changed the contours of the land, grasses took hold. Some areas were held intact while other bits blew away. As patches of grasses died, they decomposed. This created nutrients and more grasses grew. Birds and other animals enjoyed the habitat, too. As they ate and left droppings, the area could support more life. One must not think too hard about this— it’s simply a natural cycle. According to these believers, our little bunker “just happened.”

Others will suggest that mankind helped shape the little bunker, that sheep were raised for food and wool, and it was their instinct to get out of the cold and wind that caused burrows to be formed. A herd of decent-sized, 175-pound sheep hunkering down against an otherwise ordinary sand dune, on the leeward side, will form such a bunker, they will say. This is what caused the hollow, and it only seemed logical that our band of golfers put it to use as a golf hazard, arranging play so it purposely brought the bunker into account.

But why a hazard at all? This is the essential question. In order to attempt an answer, it is necessary to look at the ancient game itself. Many theories exist about how golf came to be. Most certainly the game originated from a combination of two pastimes: (1) the lure of striking a ball with a stick, and (2) the excitement of a hunt. Who wouldn’t suggest that swinging a stick to strike a ball as accurately as humanly possible is not only therapeutic, but also a bit addicting? Or that the drive to conquer an obstacle course laid out for the taking is not somehow inherent within our human blood? These two components are at the heart of golf, no matter who you believe invented the game or from what previous games golf may have originated. The latter, the idea of an obstacle course, is the essence of Bunkers, Pits & Other Hazards.
Many people have speculated about the ancient stick and ball games that may have influenced golf. For our purposes, these predecessors are not so important. Golf certainly has within its DNA games involving sticks and balls, but until the custom of carrying multiple clubs was combined with a separate ball for each participant, the game had not yet become golf. And until the unique tradition of negotiating this ball into a small hole was conceived, golf was still not quite formed.

The first reference to golf known thus far is from the year 1457. This is when King James II of Scotland (27 years old at the time) banned the playing of golf because it interfered with archery, a decidedly more important skill for winning battles for land and the all-important throne of England. What is not well known is that James became king at the tender age of six. One can only surmise what his outlook on territorial disputes or the banning of golf would have been as a young and energetic boy—a first-grader had he lived in our time.

So we have come to accept that it was in Scotland that golf, the unique game in which each individual renders a ball into a hole and utilizes multiple clubs to do so, originated. At least this is the belief of your authors. Scotland is where the escalating popularity of golf eventually gave us our first golf courses. Although not known as courses in ancient days, the routes from where golfers began their play to the hole where they completed their treks, were “holes.” Any number of these holes attacked in succession were “courses.”

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1 The argument for the Dutch game het kolven or kolf being linguistically linked to the word golf has been duly dispelled by many experts who will explain to us that there is no historical connection between pronunciation or spelling of the Dutch and Scots. That the modern word golf is so close to the ancient word kolf is simply a coincidence. The word golf is more likely derived from Scottish howffe (gathering place) or gulfe (bay). But a word to the wise: We recommend that you not attempt this argument to a staunch supporter of the Dutch origin theory without much further reading on your part.
Ultimately, it is the land on which these holes were laid out in ancient times that has defined golf through the ages.

**From Town to Country**

Early accounts of golf place the game both in the center of towns and across the open countryside. While no one knows the exact time frame of golf’s beginning, we can deduce that, for the game to have become popular enough to be banned in 1457, it was probably around for quite some time before then. Throughout its ancient development, a period we shall estimate in these pages to be from the 1200s to the 1600s, golf was played as a test of accuracy through streets and along roads. Golf was just as much at home in the urban setting as it was on the open land on the outskirts of villages. The winner was the one who arrived at the target in the fewest number of strokes. Hazards could be virtually anything in the way: a wall, a road, a tree, a pig, a grassy knoll, or someone’s barn. At some point, the target in golf became a hole in which the ball, after being masterfully negotiated to avoid hazards, was put to rest at the finish.
Bunkers, Pits & Other Hazards

Assuredly, golf was more enjoyable in the wide open space of the countryside. While such hazards as cobblestone streets, walls, and buildings may once have been commonplace for the game, the freedom of undulating terrain, open landscapes, and natural hazards seems much more rewarding. Exactly when golf abandoned the streets of town will never be pinpointed. Very likely it was toward the first half of the 1500s, when golfing grounds such as Leith, East Lothian, and St. Andrews were being thought of as permanent courses on which the game could be played. It is noteworthy that, until this time, even such courses as St. Andrews were not at all set in stone. The links— that ground on which people would gather to golf and watch golfers— were simply wide open land dotted with occasional holes and natural obstacles (hazards) to overcome along the trek to these holes. The St. Andrews Links of the 1500s, 1600s, and 1700s, and like many other golfing links, doubled as common ground for local citizens. The links were places to recreate, picnic, and so on.

The Importance of Linksland

Linksland is land located near an open sea or bay that happens also to be connected directly to the sea through natural drainage patterns. It is low lying land that has been formed by centuries of drainage, tidal changes, and the brisk weather along the sea. It generally possesses the characteristics of naturally rolling sand dunes and other natural features that have been formed by the wind, the ocean, and the action of receding tides.

The word links comes from the Old English hlincas, meaning “ridges.” It has come to mean the undulating sandy ground near a shore, full of windswept ridges and hills formed by the forces of the weather and sea. In no other language is there a word to define, with such precision, this distinctive type of land.
It is no coincidence that *links* also came to mean a golf course, for this is where golf took hold for good. Today, *links* is often used as a synonym for any seaside golf course, and sometimes for any golf course at all. Yet there is a valid point of contention concerning these latter uses. A true links golf course requires linksland. And while linksland may be approximated in 100 ways or more, and it may be that a few inland dunes have nearly the same qualities, courses that are not on linksland are technically not links, at least not when we think carefully about the word and its origin.

In *A History of Golf in Britain*, by Sir Guy Campbell (1952), the formation of golf courses upon linksland is put into sequence. Our condensed summary is as follows:

1. Over the ages the sea gradually recedes.

2. It leaves behind natural channels cut through a sandy terrain, some serving as rivers and streams that carry rainwater from higher ground back to the sea.

3. Coastal winds dry the sand and blow it into dunes. Over time, ridges, knolls, and hollows result.

4. The protected areas of this landscape become a haven for birds, and with their presence come bird droppings, and with this comes an upper layer of rich silt.

5. Seeds blown toward the ocean, some from bird droppings, take hold and germinate.

6. Grasses, such as marram and fescues, take hold and adapt to the sandy soils and wind, as do a few bushes and the occasional tree.
7. The lower areas, those in between dunes and ridges, are naturally greener and easier to traverse. Animals—rabbits and the foxes who prey upon them, and finally the hunter and his dogs after the fox—wear these areas into tidy pathways.

8. The golfer discovers these areas and puts them to use. They are forgiving compared to the dunes, the taller grasses, and the dense brush. These lower areas, trampled and worn by animal and man, become the golfer’s fairways and greens. The rugged dunes and ridges become the challenge— the obstacle course. The combination produces the first golf courses.

The many landforms of natural linksland are the ancestors of all golf hazards. Bunkers originated among the sand dunes as natural hollows and blowouts in towering sand held in place by natural grasses. Bumps and undulations are the hallmark of linksland terrain; it is no wonder that they are replicated in modern courses. Natural ground left in place, and even artificial landscaping for the modern golf course, take a cue from the pockmarked broken ground that runs between tee and fairway and throughout any true links course. The drainage channels, either natural rivers or channels dug to carry runoff from towns back to the sea, were the predecessors of today’s artificial channels and streams. The lakes and ponds on our modern courses are responses to the sea itself, placeholders for bays, inlets, and lowlands that are components of a links environment. Even trees, while much higher in profile than gorse, are mere reinterpretations of the stretches of unimproved land that border fairways and pop up at often inopportune places to add challenges across linksland courses.

The thoughtful Robert Hunter, writing in *The Links*, explains the association between linksland and golf hazards in this way: “Golf was born on the crumpled and corrugated areas along wind-swept dunes. Wind and water, hillocks and hollows, mounds and pits, marram grass and bents— these are the hazards of the links.” Hunter goes on to sum up

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2. Gorse, *Ulex europaeus*, grows typically no more than 6 feet high. It is not used medicinally and fits the following drab description from an 1864 botanical journal: “[Gorse] is used for burning, being cut down every few years in places where it grows naturally.” It is quite fitting that golfers find it a dreadful hazard, despite its low growing height.
the very nature of golf: “There can be no real golf without hazards.”

**The Links Are Improved**

In October 1764, at a meeting of the Gentlemen Golfers of St. Andrews, it was decreed “That it would be for the improvement of the links that four first holes should be converted into two.” The late Fred Hawtree, in his book, *Aspects of Golf Course Architecture*, suggests that this marks the moment when “the first tiny seed of golf course architecture was sown.” Whether or not this particular change was the actual beginning of golf course architecture, it was indeed such changes by golfers that opened the door to the practice of improving holes and hazards. As golfers met to contemplate their courses and what made them interesting, it was the relocation of holes and hazards, the enlargement and replication of features, and— heaven forbid— the creation of hazards where none had been before that took hold. The notion that nature was the architect and that hazards were wherever they fell upon the land was forever to be combined with the artistry of a new breed of professional: the golf course architect.

**Alpinization**

The idea of “alpinization” was discussed by many legendary golf architects after a breakthrough experiment in 1910 by J. H. Taylor, the acclaimed British golfer and five-time winner of the Open. The concept was simple enough: Create mounds on flattish inland parcels of land with the goal of emulating the bumpy terrain of seaside linksland. As golf flourished across the world, there was an intense desire to copy the holes and hazards of golf’s original courses— those on the natural linksland. Hazards had been driven naturally on early terrain by the coast. The dunes and uneven landscape provided nearly endless hazards for the taking, and in a spot where a new hazard might be interesting to consider, a never-ending supply of land features from which to develop them was readily available. The slopes of dunes and the low points in between needed only a modest nudge to create hazards of dramatic quality.

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2 It strikes us as funny that the word mound has no decent substitute here, for we sought one during the writing. But mounds were at Royal Mid-Surrey. In today’s circles of golf architecture critics, there is a mob out to get the word mound. Here in the twenty-first century the word is passé. It is associated with replicated features, uniformity, and a path toward “containment.” (Another topic altogether.) Replacements such as landform, rise, and hummock are used by architects and writers to describe what? Mounds, of course. We submit that a mound can be well formed and quite natural looking. Not all mounds are created equal.
But as golf moved inland from the seacoasts to meet a population hungry for the game, the charm of the links needed to be cloned to reshape the often less interesting land away from the sea. On many occasions, those responsible for laying out new courses would conduct investigative trips to study early links courses. Whether the new course was being created in the heart of England, just a day’s drive from the sea, on the European continent, or in America, re-creating some of the ambiance of natural linksland was a major objective.

It was Taylor’s attempt to transform Royal Mid-Surrey’s Outer Course in England that spurred the discussion. Mid-Surrey is located at the edge of both Middlesex and Surrey and was founded in 1892. One is able to get a picture-perfect image of the course before Taylor began his tinkering from the words of the late Bernard Darwin. In describing the land’s unsuitability for golf, Darwin (as usual) deployed just the right words, writing that it was “flat as a pancake.” What more does one need to know? Thank you, Mr. Darwin.

To be sure, not all heathland or land away from the coast is uninteresting. Taylor’s experiment with alpinization proved above all else that land that is, indeed, uninteresting is not where golf belongs if other land is available.
Taylor’s solution involved many plows and laborers. He was assisted by Peter Lees, a greenkeeper. Together the two men directed this combination of animal and manual labor, creating a scene as if ants were forming pile upon pile of soil. Eventually the flat landscape was transformed into one of peaked mounds and humps. Some of these were very large and impressive. The objective was to re-create linksland, and at the same time eliminate the need for so many penal bunkers. Without dunes or other natural landforms, inland courses were being defined by too many cross bunkers and cop bunkers. These bunkers were becoming a crutch of sorts. Taylor reasoned that hillocks and hollows created artificially would be a better approach and, besides, these would provide a more natural setting to place bunkers.

As the work of Taylor and Lees progressed, those busy planning new courses around the world took notice. Soon there was a buzz about alpinization everywhere golf was being considered. George Crump at Pine Valley attempted a version of alpinization, but soon abandoned it. Crump preferred to use the terrain Pine Valley had to offer. Alpinization did not seem to fit every canvas. In the span of just a few years, the concept of alpinization went from being admired to being shunned. Taylor’s abrupt mounds and their artificial look were thought of as hideous and revolting.

Taylor, who had been quoted during his Mid-Surrey effort as saying “it should be made to look as close to nature as the hand of man admits,” is still shunned today. Many golf architecture critics and enthusiasts continue to describe his work as a failure—unnatural and unnecessary. But Taylor’s laboratory at Mid-Surrey forever gave golf a major breakthrough. The notion that Taylor failed is without merit. Although the result of alpinization at first was perhaps too abrupt and overdone, it opened the door to thinking beyond the use of bunkers as hazards. Taylor taught us to think outside the box when it comes to mixing golf with inland sites. The lesson learned from Mid-Surrey was that the earth could be sculpted, not only by the hand of Mother Nature, but also through the vision of the golf architect. The hazards of the natural linksland were never intended to be bunker after bunker or sand pit after sand pit. Taylor sent a reminder toward the future that the nuances of the undulating land are as much a part of the challenge of golf as anything else.
The Hazard Concept

When the game of golf was first played, a hazard was surely not an actual thing or object. It was a concept, a situation a player got himself into. A problem not avoided caused your ball to be in trouble and the outcome was not known until you performed. Only as time progressed did such perilous situations become known as hazards. The concept became a defined term: “Your ball is in a hazard.” The definition of a hazard has varied over the years, but the term was mostly used for bunkers and water. In the game of many generations ago, a hazard could be any obstacle that impeded play, making progress impossible without some relief. Today many such features are not hazards, but are instead called obstacles, impediments, and ground under repair.

Two of the first 13 Rules of Golf established in 1744 by the Honorable Company of Edinburgh Golfers are quoted:

5. If your Ball comes among watter, or any wattery filth, you are at liberty to take out your Ball & bringing it behind the hazard and Teeing it, you may play it with any Club and allow your Adversary a Stroke for so getting out your Ball.

13. Neither Trench, Ditch or Dyke, made for the preservation of the Links, nor the Scholar’s Holes, or the Soldier’s Lines, Shall be accounted a Hazard; But the Ball is to be taken out teed and play’d with any Iron Club.

These two rules shed light on what was considered a hazard in 1744. The other 11 rules, by the way, were about such things as teeing and holing. No mention of hazard per se. As golf evolved, so did our concept of a hazard. Partly a reflection of the links themselves, and partly a result of ideas such as alpinization, courses tended to combine natural features of the land with manmade features. Whether for good or ill, golf crossed a line sometime near 1900. And that line has rarely been revisited.
The development of hazards on new courses is much more about creating than about discovering. This may be a response to golf’s movement from the coast to inland regions. It is also because many who propose new courses are no longer of the school that the site must be “ideally suited for golf,” as we have read so many times in so many books. The new school embraces golf on extremely flat land, through home developments, and on jigsaw-puzzles of land that are ill-suited for golf altogether. Amazingly, decent and well-regarded courses have been created from such land. Shadow Creek in Las Vegas is one such example. While critics disagree (they always will), it cannot be contested that Shadow Creek, a course created from nothing and at great expense, we might add, is a wonder to behold. It is alpinization at its strongest, and each hazard—sand, pond, hill, valley, ridge, and bump—is manufactured, through a Disneyland approach, with artificial rock and materials trucked in from miles away. It represents a new concept of golf, but one that coexists with the original concept of naturalness and use of the land whenever possible. Golf now embraces both, sometimes on the same course or hole.

The Bunker Fetish & Other Trends

For many years, bunkers were little more than torture chambers across open links. But as golf courses became better thought out and planned, bunkers became more intellectual. In the story of golf course architecture, bunkers play the dual roles of villain and enchantress. They are indelible characters, often with lives and names of their own: Hell’s Half Acre; the Devil’s Asshole; the Church Pews; the White Faces of Merion; the Maiden; Sahara; Principal’s Nose; the Beardies; Hell and Strath. We have become accustomed to the bunker. It is the quintessential golf hazard.

Historically, the word bunker meant “a chest or box,” such as one finds on a ship. In 1500s Scots, the word is also recorded as meaning “an earthen seat or bank located in a field.” The golf meaning emerged in the 1800s and reflected the deep, chestlike qualities of these hazards, perhaps combining both meanings. One wonders what pits of sand were called before. Likely not traps, as this term came into popular use in America after the late Harry Vardon’s caddie exclaimed, “Mr. Vardon, you’re trapped” during the 1913 U.S. Open at The Country Club. But traps they are, these common occurrences on our golf courses.
Bunkers originally formed from natural dunes and hollows, as we have discussed. Some of the ancient examples were pushed along by sheep or other animals seeking shelter. Still others may have been created over time by the continual wearing of a particular spot in the turf by numerous golfers using lofted clubs. Regardless, they became expected in golf and were easy to build.

The bunker is perhaps among the most overused of hazards in golf. Its popularity, if we might use that term while not being in one, results from its having its own set of rules, construction specifications, and even line items within budgets for new courses. How shameful that we have allowed such narrow thinking to infiltrate a game built on the principles of no rules and no standard playing board. While bunkers are useful as hazards, and their variation significant, they are too often an easy way out. Too often they are the same, drawn as little dabs on plans and sketchbooks by well-meaning golf architects.

The water hazard, another hazard that has become somewhat standard, has been formalized and is now defined, marked, and corralled. It no longer needs to be seamless with broken ground and the natural dunescape of the course. The unruly pattern of ancient golf, in which you “play ye ball” where it lies no matter what, is now a ballet of procedure. We “determine.” We “drop.” We count an extra stroke and we get on with the round.

We are not at all sure that hazards have matured for the better. Many today are lame versions of their ancestors, unable to fight a battle against the golfer. Many look pretty but have little bite.

**The Essence of the Game**

Hazards are essential. This is the one constant that is evident as we trace the evolution of the hazard in golf. It is our position that you cannot—under any circumstances—have worthwhile golf without hazards. And the more interesting the hazards, the more interesting the golf. Golf and its hazards go hand-in-hand.

Bobby Jones once said, “Every golfer worthy of the name should have some acquaintance with the principles of golf course design, not only for the betterment of the game, but for his own selfish enjoyment. Let him know a good hole from a bad one and the reasons for a bunker here and another there, and he will be a long way towards pulling his score down to respectable limits. When he has taught himself to study a hole from the point of view of the man who laid it out, he will be much more likely to play it correctly.”

Whatever your personal viewpoint on hazards, we cannot leave the topic of how they have developed over time without mentioning some of the very recent influences that have affected them. Four major factors have played a role:

1. **Hazards are dumbed down.** In the 1950s, golf architects began taking hazards out of the way.
   Play that used to go over or around began to be dictated between. There is a big distinction.
The difficulty of the course was lessened to accommodate the new golfer. It was as if bowling alleys had their gutters filled in so the ball would have only one route to follow.

2. *Golf becomes an industry.* The real-estate market, uniformity, and production plans took hold of hazards. As the design of golf courses became a business, architects copied and used quantity instead of quality. Some efforts were great; others were horrid. Under the industrial standard, hazards could be for other purposes than the game itself. Bunkers were placed not for strategy, but often to protect residential lots, for aesthetics, and for “balance,” whatever that meant on any given day. Water features today can mean an amenity for home sales.

3. *Nail-clipper precision.* Following the lead of places like Augusta National Golf Club and courses prepared for television broadcast, hazards became manicured and edged so there were no scruffy bits. Sand now has a specification. There are examples of sand being trucked into new courses in Ohio on pallets— in bags marked “100% White Silica from Florida.” Grasses too high for comfort, banks too steep to traverse, and areas too unkempt to tolerate were considered bad for the course’s image. In the past, they had been bad only for the golfer.

4. *The game changes.* Match play gave way to stroke play in the mid-1900s. Match play is still popular in the United Kingdom, but the American influence on golf has most of the world’s golfers playing a laborious game of count the shots. A hazard so dangerous that it sends chills into one’s spine has, in many cases, become a token appearance on modern golf courses. We now have such ridiculous sound bites as “He’s better off in that bunker Johnny— it’s a much easier shot to the green from there.”
Most of us are not bothered by these changes. Or are we? Trends come and go. We are seeing today a resurgence of naturalness, of discovering hazards, of selecting suitable sites for golf courses, of designing and constructing hazards that have soul and variation, of not overdoing bunkers, of restraining artificial water hazards. Is this trend here to stay? Likely not, and hopefully not. As Pete Dye and the late Mike Strantz have proven with their innovative approaches to hazards, a book will never be written that can say once and for all: A golf hazard is from this to this, and nothing else.