As a general rule, building a golf course is a pretty straightforward task, complicated mainly by two factors: the nature of the site and the state of the weather. On a typical golf course construction project, the golf course architect's duty is to spend a lot of time and effort on the front-end, long before construction starts, with the goal in mind of keeping the uncertainties during the construction phase to a minimum. That's the real design phase of a project.

An occasional additional complication arises when the contractor hired for the project has little or no experience building a golf course. In that event the golf course architect's job suddenly gets a lot tougher.

I once heard a pretty well-known PGA Tour player who had branched into golf course design give a speech in which he said, in effect: "We design the old-fashioned way. We start doing some clearing, kick the dirt around, and see what holes we can find". And I thought to myself: "If you had a toothache, and you went to the dentist, and he started drilling here and there, and on the fifth tooth said, 'here we go - there's the cavity,' your first thought would not be, 'what a wonderful dentist!' " No, you would want and expect him to know how to find the cavity before he started drilling.

That's what professional golf course architects do - they study topographical maps and aerial photos and walk the sites to make sure the golf course is going to fit, and only start clearing and moving dirt when they have clear objectives in mind. It may sound romantic to suggest that communing with the site while the dozers are standing by is the historically authentic way to design a golf course, but all it really accomplishes is the equivalent of drilling in healthy teeth.

It's rare in this day and age for a golf course architect to have any input in site selection, as would have been the case in the so-called Golden Age of golf course design. Give any first-rate contemporary golf course architect the opportunity to pick the site for a new course, without cost considerations or permitting issues to drive the decision, and there is no doubt that he or she would create a body of work equal to the master designers of the classical era.

What's amazing today is how many wonderful courses have been created on marginal sites - landfills, brown fields (such as abandoned industrial sites) and degraded agricultural sites. The magic of the modern golf course architect rests on the ability to create an excellent golf course on an indifferent site.

This is not to say, of course, that there is no serendipity in the creation of a golf course, especially during the construction phase. Sometimes excavation will expose a dramatic rock face, or clearing will reveal a backdrop that with a slight shift in the orientation of a fairway will provide a dramatic visual target from the tee. Attentive golf course architects are always open to discoveries such as these, which don't increase the costs of the project but will improve the final product.

But the work overall must be guided by plans which have already been through numerous design reviews and revisions and as a result collect the best ideas of the whole project team, from the developers and the land planners and the golf course builders, and not just from the golf course architect.

You will never control the rainfall, for example, but you can design the routing so it's only necessary to clear the minimum number of trees. The best route plans use the existing topography with care to create natural-looking holes, with the additional benefit that the course will drain well and provide a healthy setting for turf growth and maintenance. But when I think about the 'typical' golf course design and construction project, it reminds me of the typical Irish summer: there's never been one. And when you're developing a course in a new region, the likelihood of encountering unique problems goes way up.

Robert Trent Jones II, like many golf course design firms which do work outside their home countries, provides the clients with both our Design services per se, the province of our golf course architects, and also what we call our Design Implementation Services, or DIS, the arena of expertise for our full-time on-site colleagues who help co-ordinate the work of the contractors and, in most cases, do the finish shaping and detail work on
John Strawn describes life for the modern day Architect and the experiences of working in Asia.

amplified Korea's adoration for golf, and stimulated the development of a national policy to build more golf courses.

An American investment banker who has resided in Korea for many years once summarised his experience there by saying: "There are two problems in Korea - getting the rock started, and getting the rock stopped." The Korean government does have strict permitting requirements, and expects rigorous oversight of every project.

This seems normal for a contemporary government in a developed country. For example, a golf course architect will submit plans to a Korean engineering firm, which will convert them to detailed drawings for every square metre of the site. These plans are then reviewed by the authorities. All of this is the equal of getting the rock started.

Once construction is underway, however, it can be difficult to persuade the contractor or the owner that the beautiful rock face that was just exposed by blasting or chipping would make a perfect backdrop for a green. The response is more likely to be: "No, the plans show we're supposed to take that out". And if you say: "Well, the course will be prettier and you can save some money," it's not likely to have much impact. That's the 'stopping the rock' part.

Knowing that this dynamic is in place, it's up to the golf course architect to explain to the client how maintaining some flexibility during the construction phase will improve the golf course, and is not an admission that the golf course architect was not paying attention during the design phase.

the courses. At present, for example, we have projects under construction in places as far-flung, for us, as China, Norway, Denmark, Mexico and Korea.

Several problems seem to regularly repeat themselves when inexperienced contractors build courses, no matter where they are. Simply rough grading a fairway, for example, is hard for operators who only have experience with civil engineering projects such as building roads. The contours get flattened, the edges hardened, the angles straightened. That's why it's so important to have an experienced shaper on the ground.

The ideal, of course, is to design a course that looks as if it was created by the same forces of nature which produced the local landscape. Ideally, there is a distant horizon whose silhouette can be 'borrowed' to shape the near views - that is, the mounds and dips in the golf course, particularly in the areas separating the holes - thereby creating the illusion or the effect that the golf course, too, was created by the same geological forces. This requires a careful touch and a good aesthetic sense.

A corollary of the problem of not following the plans is the problem of rigidly following the plans. Korea is a dynamic, powerful, prosperous country with a passion for golf. Korea leads the world in shipbuilding and is a leading innovator in cell phone technology. In recent years, a fascination with Korean pop culture has spread throughout Asia - even to China and Japan, where Korean soap opera actors and popular recording artists dominate the ratings. So Korea now is hot, and the success of its great professional golfers, especially the women of the LPGA, has
Cultural differences account for most of the variation between the approach to construction in the US and in other parts of the world. The cultural differences between the USA and western Europe are not very great, while working in Asia, the Middle East or Africa can require substantial adjustment. If you've never seen a golf course nor watched the game played on it, for example, understanding just what it is you're trying to accomplish would certainly be daunting.

This is the task project superintendents face on a regular basis - the challenge of communicating with people who have no idea what a golf course really is. Sometimes it's even true of the clients. I once heard of a client who was looking at a route plan and reportedly asked: "What are those little shapes at the beginning and the end of each subdivision?" Meaning, what are tees and greens?

Among the exotic courses designed in recent years by RTJII is the Royal Springs Golf Course in Kashmir, opened in 2001. India and Pakistan have struggled over Kashmir since 1949. A civil war launched in 1989 has destroyed tourism for all but the most daring. Earlier this year the American writer, Rick Lipsey, travelled to Kashmir to play golf.

The 150-year-old "Kashmir Golf Club," Lipsey writes, "is the fourth-oldest club outside the British Isles," so there is a tradition of golf in the region. Lipsey describes Royal Springs as "one of the most beautiful sites I have ever seen.... On one side of the course, a wall of Himalayan rock rises 5,000 feet. On the other side, off in the distance, sits Dal Lake, the shimmering focal point of Srinagar."

What struck Lipsey most at Royal Springs, he said, was "the eerie silence" - he was the only golfer there. He did, however, run into the deputy inspector general of the Kashmiri police on the 15th hole. Mike Kahler, RTJII's Director of Asian Operations, remembers hearing gunfire occasionally while the course was under construction, and never completely trusting the assurance that it was coming from a nearby military training base.

Royal Springs is but one of the numerous courses in RTJII's portfolio which Kahler has midwifed. The Lake Course at Spring City Resort near Kunming, China, is always rated among Asia's best, and it was built with very few hiccups. On the other hand, Kahler heard rumors about a project where the contractor was dredging sand and silt directly from a stream and putting it down as greensmix. When the architect pointed out the sticks and mud, the contractor smiled and said, "don't worry".

Corruption is another problem which every architect has run across at one time or another, which involves such nefarious practices as ignoring specs, substituting unapproved materials, and using counterfeit supplies for everything from slip joints to sprinkler heads. These practices have no nationality, however, and can occur anywhere. Avoiding them starts with picking good clients.

Golf continues to grow in Asia, Europe and parts of the Middle East. The new countries of the European Union, which see golf as a powerful engine for tourist development, will drive the next golf boom in Europe. Low interest rates and a strong real estate market continue to fuel interest in golf development in Scandinavia, Spain and Portugal.

Given how few people still play golf worldwide, the potential for growth remains high - especially so long as playing golf is associated with success.

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