

THE ART OF TROMPE L'OEIL

How and why golf course architects use optical illusions to fool you ? Response from Mark Adam

Let's first remember that golf course architecture is about thoughtfully shaping space in order to elicit a very specific psychological response. An architect meticulously sculpts the land to test the golfer's cognitive abilities, while attempting to protect the hole through a combination of visual intimidation and physical constraints. Excellent course design highlights the fact that golf is as much a psychological challenge as it is a physical one. This completely changes the way the game is perceived : suddenly, every hole becomes a puzzle rather than simply a target.

Architects therefore use a variety of optical illusions to mislead golfers when judging distances and to make them believe they are seeing things that may not actually exist. But how exactly do they do it ?

There are all sorts of strategies designed to deceive the golfer, but they generally fall into two categories : on the one hand, illusions that make the hole appear more difficult than it really is; and on the other, those that make it seem easier.

In the first case, whether from the tee or on an approach shot, the presence of overlapping bunkers or fairway hazards of varying sizes can make the landing area appear tiny, or even nonexistant. It is only after playing the shot and reaching that area that the golfer realizes their eyes have deceived them and that, in reality, they had all the space they needed.

In the second case, from the tee, the hole may appear wide open, with a seemingly enormous fairway. Yet it is only when facing the second shot that the golfer realizes just how awkwardly they have positioned themselves, discovering a bunker strategically placed near the green that seemed insignificant from the tee. They have been deceived : things are not what they appeared to be.

In the hands of a skilled architect, strategically placed bunkers, greens, contours, or even simple angles can create powerful optical illusions. Take bunkers, for example. Their postioning can make the green appear much closer or farther away than it actually is, often leading the golfer to choose the wrong club.

Bunkers, much like shots played over a lake, trigger an instinctive sense of danger in the humain brain. This can cause a golfer to hit the ball hesitantly, exactly as the architect intended. When bunkers are placed in the foreground, they also influence our perception of more distant bunkers and our judgment of the distances between them. For example, a bunker positioned in the foreground, just beyond the horizon line and in front of the green, can make it appear as though the bunker is right up against the green.

Changes in elevation can also create powerful optical illusions. A small swale or depression in front of the green can make it difficult to judge distance accurately. A green without visual reference points - such as a line of trees - forces golfers to estimate its depth and the distance to the hole for themselves.

This effect can be amplified when vast open spaces extend beyond the green. Whether the backdrop is a large body of water, a desert landscape, or an unobstructed horizon, golfers are left without visual reference points and must rely solely on their perception of depth.

If a golfer repeatedly moves from a bright environment into a darker one, they can also lose some of their visual reference points. Here are some classic examples of optical illusions :

- A vast natural backdrop - the ocean, a mountain, a rocky outcrop, or a large stand of trees - lies directly behind a green that can be reached with a slightly downhill shot. Regardless of the green's actual size, the shot will appear much longer than it really is.
- An apparently ordinary visual reference - a bunker or a steep mound - that seems to sit right at the edge of the green is actually set farther back, in front of the putting surface. This creates the impression that the green is closer than it really is.
- Obstacles that are unusually large compared with other features on the course can mislead the golfer into thinking they are closer to the target, especially when these obstacles have the same shapes as others on the course, but on a much larger scale.
- Conversely, obstacles that are smaller than usual can make the target appear much farther away than it really is.

The only problem with the optical illusions used by golf course architects is that golfers today have access to numerous tools to overcome these traps, the most important being the rangefinder. Thanks to these technologies, it has become much more difficult for architects to deceive players.

Despite these technological advances, most architects believe that optical illusions remain highly relevant. They are still a particularly effective technique because they allow architects to play with the golfer's mind, who may sometimes struggle to trust the distances provided by their rangefinder.

The legendary Pete Dye, for example, relied heavily on optical illusions to make his courses appear intimidatingly difficult. He often said ; " Make your course look difficult, and if you can convince the professionals that it really is, then you've won the game." ■