

# How bunker placement affects

by Geoffrey S. Cornish & William G. Robinson

Growth in numbers of golf courses around the world since the Korean War has been enormous. National Golf Foundation data shows some 5,000 courses in the United States in 1953. Today there are over 12,000. But because golf is a game of tradition, changes in its architecture are seldom revolutionary even in an era of expansion. Vast technical changes have nevertheless revolutionized course construction.

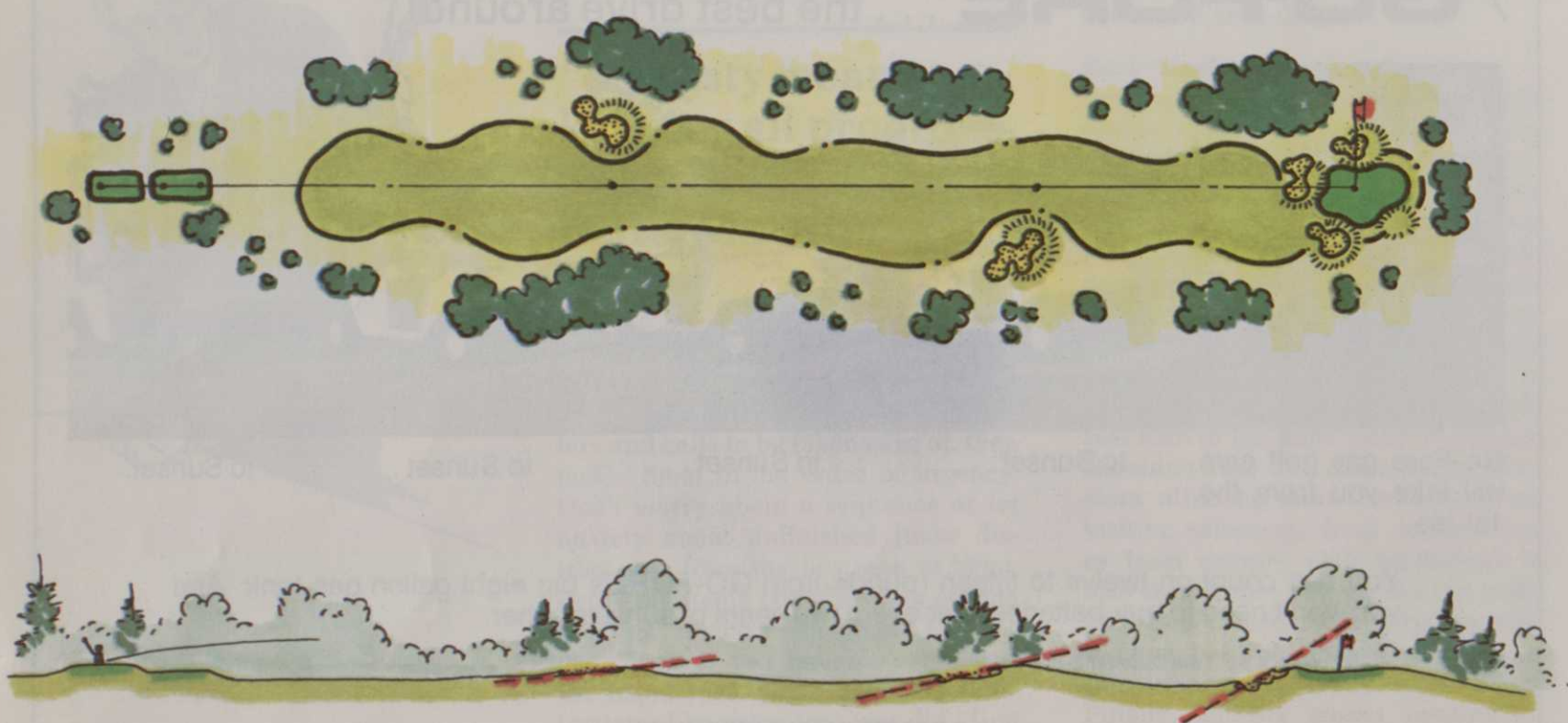
In turn, these technical changes and changes in the game have contributed to an evolution in design — although it is true that design methods have vastly changed.

Some changes, although not revolutionary, are profound. For instance,

a contemporary golf course is truly a huge art gallery containing 18 compositions. This emphasis on beauty and arrangement is an example of profound development in the last quarter century.

Less profound — but nevertheless important — changes have arisen in recent decades. Because these somewhat minor developments are sometimes overlooked — despite the fact that they have great influence on how a golf course is played and maintained — we here illustrate several related to bunkering and strategic design. We hasten to add, however, that much in golf architecture is arbitrary. These changes are not absolutes. Each involves judgment.

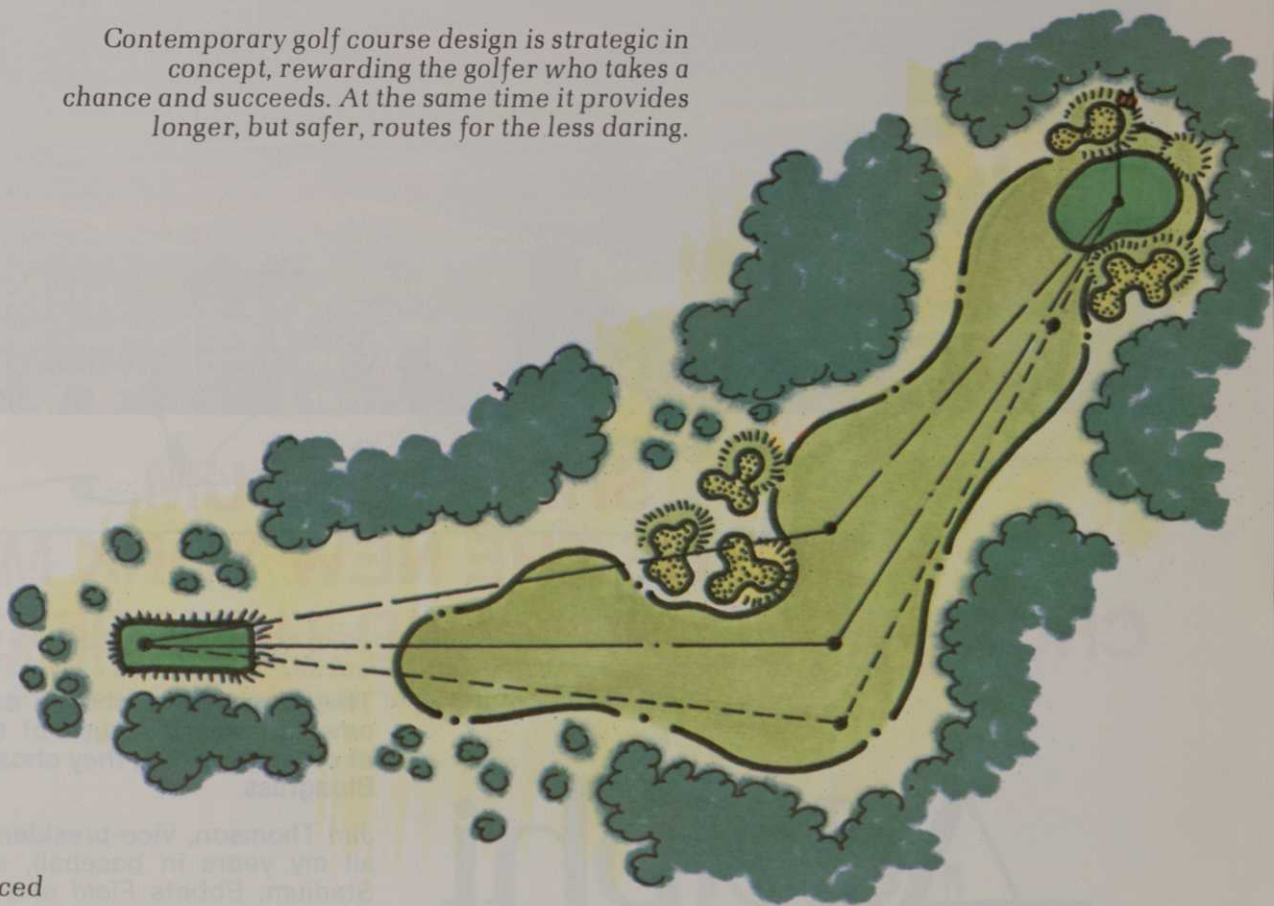
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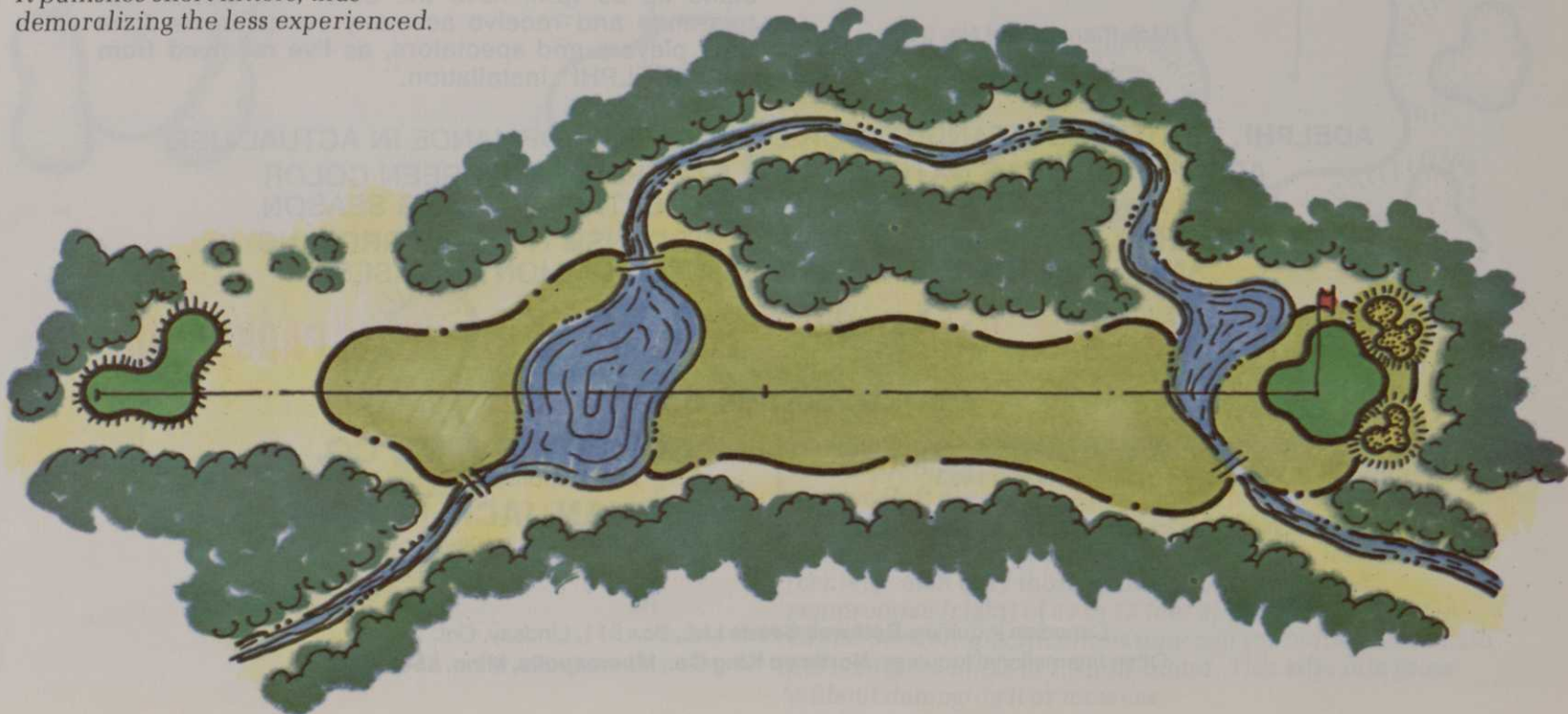
The closer a bunker is to the green, the deeper it should be and the steeper its face. The first bunker off the tee of this par 5 is shallow and almost flat; the second is deeper and steeper; the one protecting the green is deep and steep.

# play and maintenance

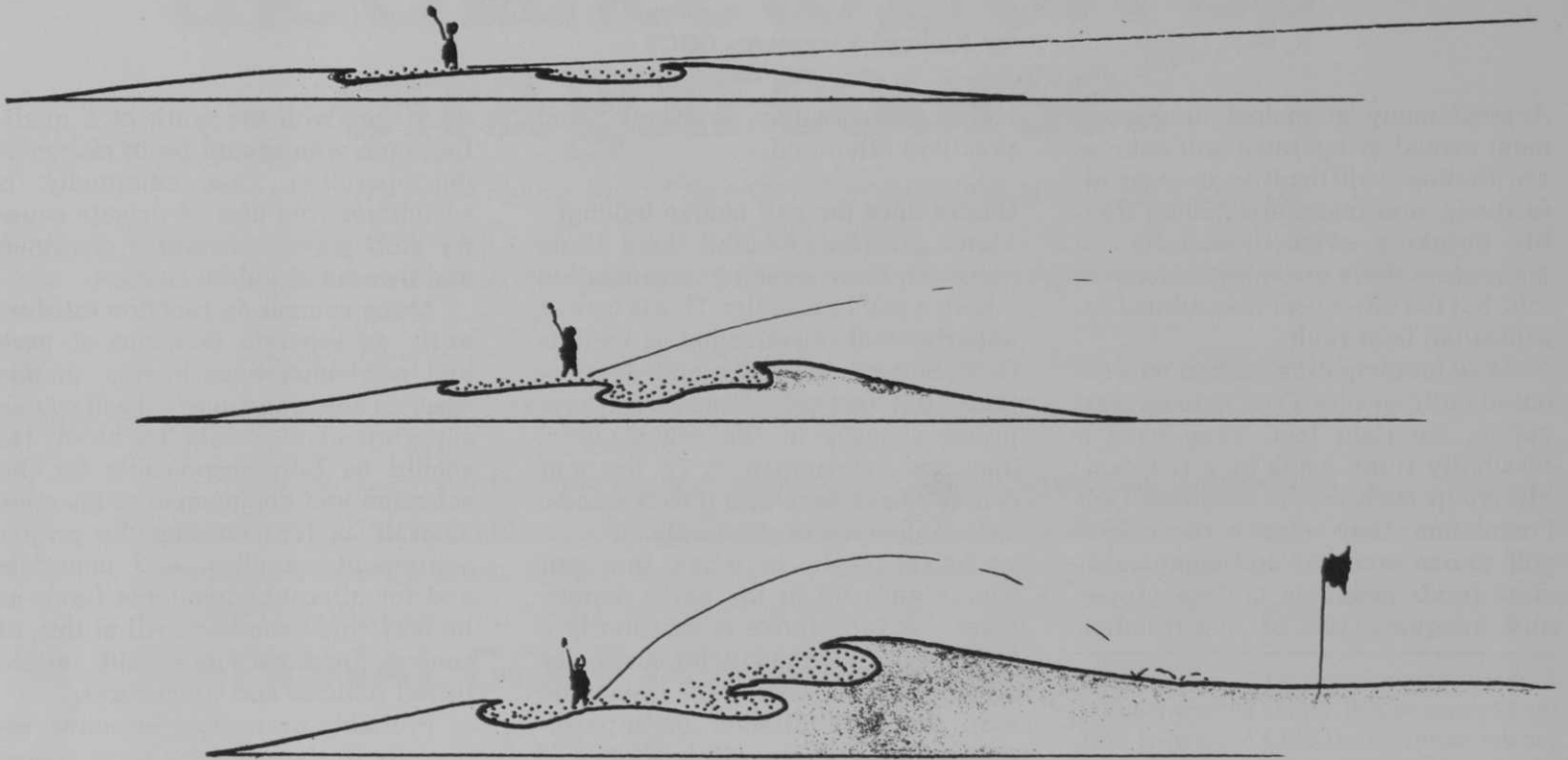
Contemporary golf course design is strategic in concept, rewarding the golfer who takes a chance and succeeds. At the same time it provides longer, but safer, routes for the less daring.



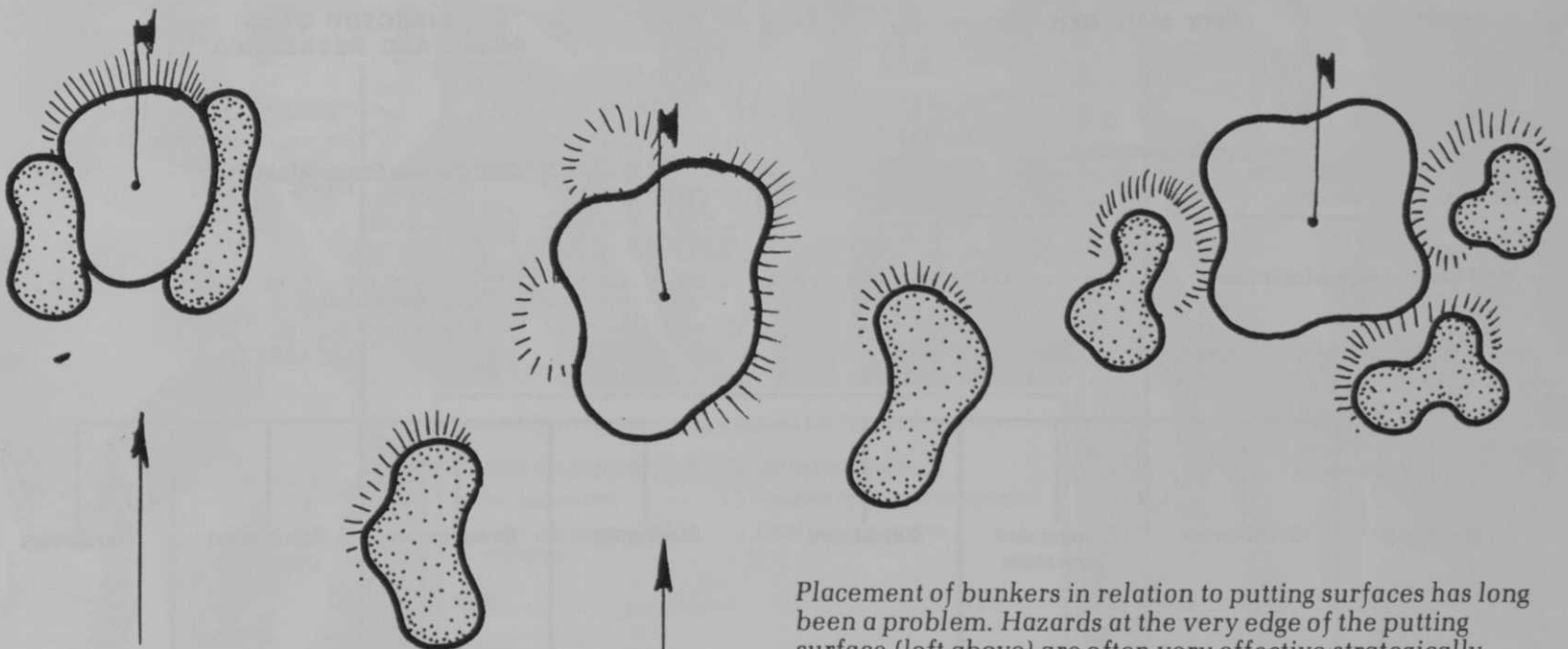
Penal design once widely practiced requires compulsory carries. It punishes short hitters, thus demoralizing the less experienced.



## How bunker placement affects play and maintenance (continued)



A player can use a wood from the first bunker at the top, while the middle one 140 to 150 yards from the green calls for a middle iron. The lower bunker near the green requires a sand wedge. This is an example of the architectural axiom "form follows function."



Placement of bunkers in relation to putting surfaces has long been a problem. Hazards at the very edge of the putting surface (left above) are often very effective strategically, but huge quantities of sand are deposited on the grass. On the other hand, far-flung hazards 20 or more feet away (center) catch only those with troubles enough. A compromise (right) of 10 to 12 feet appears sound. USGA Green Section specifications now call for bunker sand with particle sizes of .25 to 1.0 millimeter. This sifts into grass without damaging it or mowers.