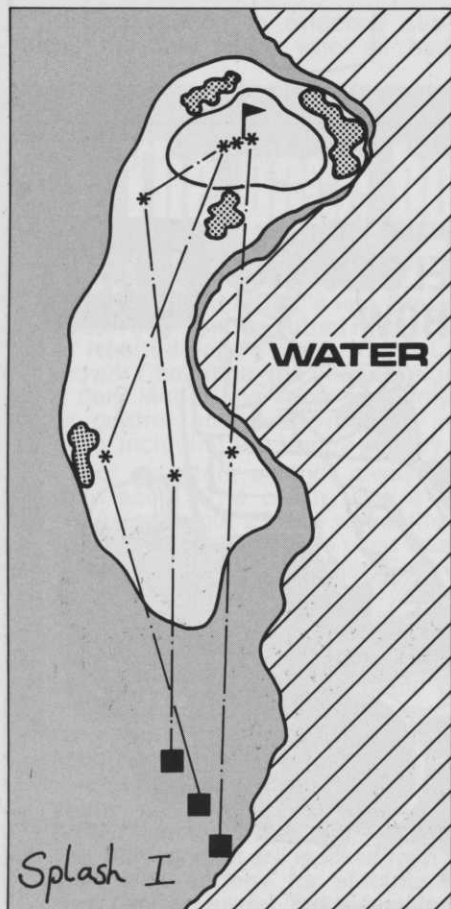


Inland Waterways

Fred Hawtree navigates the devious channels of water hazards and advises greenkeepers how to jump in at the deep end.



Being responsive to current thought on golf course design and green-keeping, you will have noticed in your favourite magazine (after this one) that golf courses are slowly sinking beneath the waves. A few grassy islands remain above the water and these are preserved from erosion by sleepers, logs, or rip-rap. None of this increases the golfer's enjoyment but it boosts the publicity which the golf course must generate to attract buyers to the ranchos lining the fairways. These persons, like the ladies who knitted while the aristocrats' heads rolled from the guillotine, are able to exclaim, 'There goes another!' as splash succeeds splash.



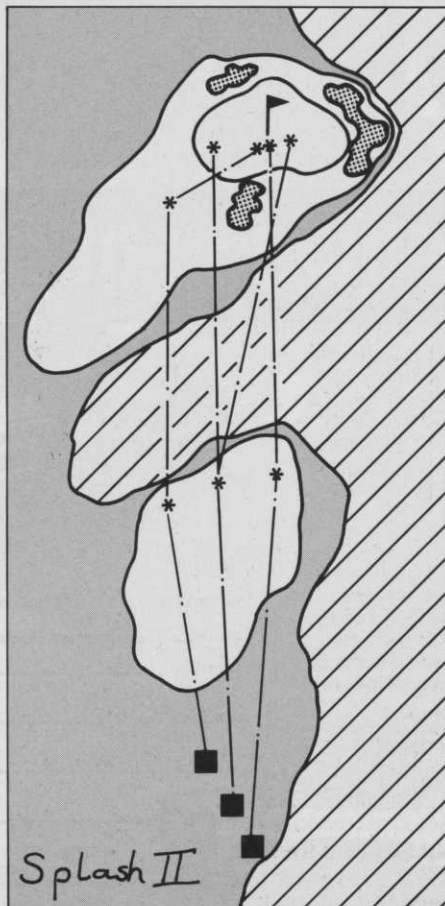
As you know, this tendency is not new but has accelerated lately because the new generation of American golf course designer, like his colleagues in the senior architectural profession, has discovered short cuts to top-billing. Each time the Press and T.V. announce improved figures for the number of golfers stretched off the 18th green in deep shock, another star is born.

Fortunately, you gentlemen, being of ultra-sound mind and mature judgement will not indulge in vulgar display when confronted by a request from the Green Committee for a new water hazard at the 14th. You will apply a process of logical analysis to the project and might decide to base this on three questions.

1. Will it improve the interest of the hole?
2. Is it feasible in practical terms?
3. Will it remain handsome throughout the year without excessive maintenance problems?

On Question 1., dare I suggest that if, like one recent course in the U.S.A., water also enters into play at 17 holes on yours, you ought not to round up that figure to 18 for the sake of rationalising your transport with water-borne vehicles.

Why? Well, apart from the age-old landscape principles of variety and surprise, what is the players' reaction? He is best stimulated by strategic thought. **Splash I** illustrates how he can select a line of play according to ability, safety, risk, advantage, and the price of a ball: If he ends up in the water, self reproach will not undermine his fundamental belief in natural justice.



Splash II, with no option, may be used with discretion but repetition gets under the skin and may cause blisters.

Splash III, the heroic, offers no option apart from walking on to the next tee. Even so, it is acceptable once or even twice provided the problem is presented from the tee. When used under the second shot at Par 4's, it is correspondingly more difficult to hand out a fair deal to all players.

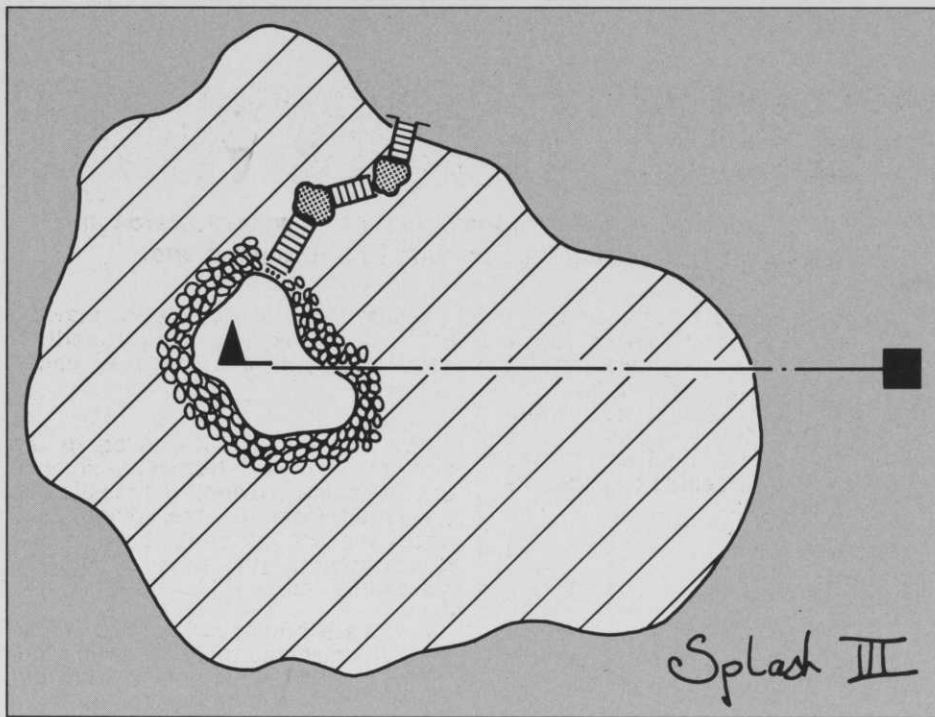
There are infinite variations on these three themes (and there are even other themes). I will leave you to work out the category of the proposal with which you have to deal and its viability in golfing terms.

Now, to the nuts and bolts. Is it feasible in practical terms? Assuming it will hold or can be made economically to hold water, your final assessment may be shaded by practical advantages, the most common of which guarantees the water supply. Calculate the volume contained, consumption, natural and artificial replenishment, evaporation. In a hot summer, neither your greens nor your members will be refreshed by a sea of mud. Water, if we are to have it everywhere, should at least be there all the time.

Other related advantages may accrue. Depending on use, catchment, outflow, and levels, the feature may provide an intermediate or final drainage receptacle. It may save flooding elsewhere by forming a holding area for flash floods to be released slowly later. If, however, you are entering on calculations of this complexity, you will need a civil engineer at your disposal. He is indispensable if you propose to contain any considerable volume.

As to maintenance, you can be sure that extra work will follow in the future, but forethought can keep it down. The Editor's Chinese Carp may jib at the British Bulrush and the thistle-down we see floating in the evening sun must often be a bulrush looking for a new home. Once it has found one, its mates turn up in droves. They will stay on the margins normally but if your pool is too shallow, expect considerable agitation amongst members as golf balls are swallowed up inscrutably, and still more amongst the local frogs who will appreciate your thoughtfulness.

You should also consider non-biological matters. Access to island greens will involve bridges unless a dinghy is provided. At Cannes (Mandelieu) they still cross one watercourse by boat but that is between holes not during one and there are bridges for equipment elsewhere.



Splash III shows how to limit the span required by building islets or eyots. Small spans also help to provide a rustic appearance. This in itself can be attractive but needs durable materials because the club's responsibility for safety is engaged. When the World Cup was played in the Indonesian capital, Djakarta, the calculations for constructing one bridge at least had not foreseen the weight of a large gallery following close on each other's heels. A number of paying guests therefore descended into the shallows and not all of them thought it was part of the fun. What is worse, this occurrence is said to have upset the players but it is not clear whether this resulted from alarm or from the usual reaction when people fall into a pool with their clothes on.

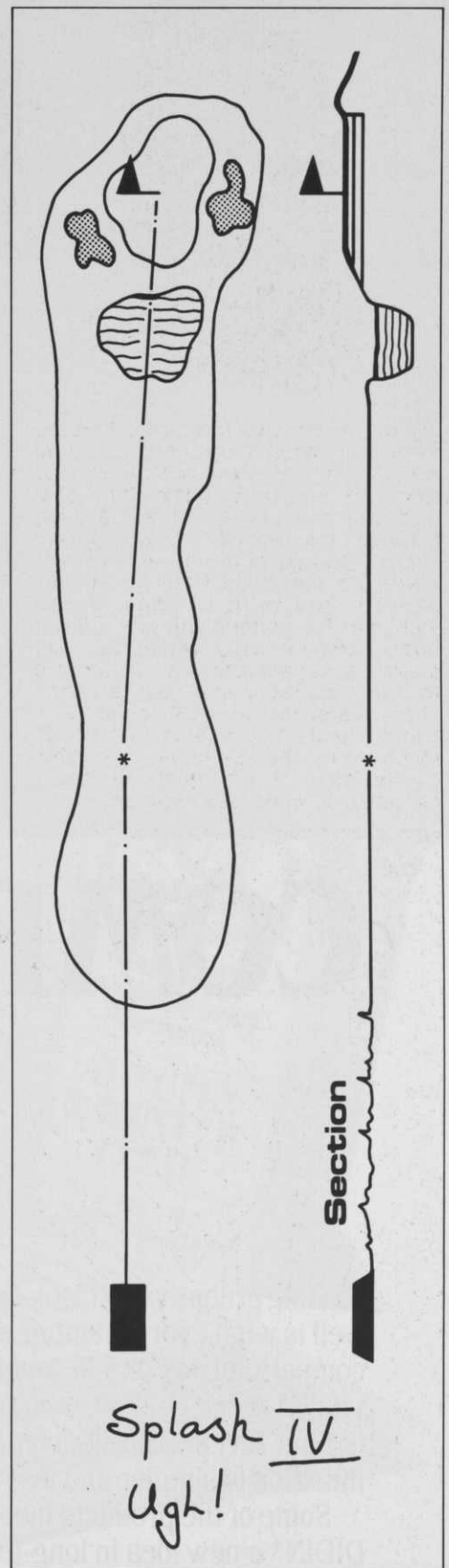
Still in Java, the Savoy Homann Hotel in Bandoeng was running a gastronomic week during my last visit. The delicacy I fancied, but could not bring myself to order was Fried Goldfish with something else less memorable, but certainly not chips. Cultivated on a big enough scale, your pool could brighten up the luncheon menus in the clubhouse and earn you an Egon Ronay commendation. And that brings us naturally to my final point. Will your water hazard look agreeable throughout the year?

It will not look anything at all if you cannot see it from the point where you are playing the relevant shot. **Splash IV** shows the worst type of proposal. To deprive the player of seeing the splash as his ball disappears is the final indignity. Moreover the calculations which engage his personality while he is playing the shot are frustrated if the pool is invisible. A small pool is often wasted in flat land unless immediately in front of the tee. Playing uphill, you will also see nothing and the effect will be further stultified if there is a retaining bank on the downhill side. But there are a number of bonus points available if your pool is well sited. A continuous input of fresh water from spring or stream will not only help to keep your pool clear but enable you to design

attractive cataracts or waterfalls on a modest scale. These will help the aeration that is essential in hotter climes preferable on the whole to the fountains or jets which are sometimes necessary in pools not naturally refreshed, to avoid soaring temperatures and associated algal growth.

You will have provided a general depth of 1½ metres to achieve some kind of balance and restrict plant growth but this involves crucial decisions on the margins. Water inevitably attracts small children anxious to sail a log across the stormy seas or to put curious things in their jam jars. They will also put themselves in the pool from time to time. A gentle slope down to the water's edge, rather than an abrupt drop, will enable them to climb out and do it again next week. It will also allow you to mow right down to the water. But this shallow grade produces a wider intermediate "tidal" area. If there is any significant variation in water level and if the pool is waterproofed with a butyl rubber liner (which you can have constructed to any shape and dimensions you require) the edges have to be taken above the high water mark and turned down into a trench which is then filled. You must therefore camouflage the last few feet with suitable plant material or a stable stone layer or both. There are useful diagrams and suggestions in *Landscape Construction* by M. F. Downing (E. & F. Spon Ltd., London).

The totally natural appearance will only finally appear after careful forethought and a few years of assistance by Nature. When the swans and ducks have puddled the grass round the edges into a mire, when the herons have gobbled up all your fish, when the seagulls, taking winter refuge, have shed their plumage all around to the confusion of golfers seeking their golf balls, then you can reckon you have done a good job; but by that time you will have shed you own and be earning the rich rewards in Higher Places which are your just due after a lifetime devoted to virtuous, honest, caring service to mankind.



Footnote:

If you saw the Masters Tournament on TV last month, it may have occurred to you that the Augusta water hazards have not contrived to look natural in something over fifty years. I am not sure whether this is due to a mistaken conception of the origins of golf or because they move them about every year in the hope that one day they will get them just right. I mention this to warn you again that if you are fussy about this sort of detail, you are embarking on a long haul.