

DESIGNING & CONSTRUCTING GOLF COURSES

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*The notes of a lecture delivered by our founder
to the Golf Greenkeepers' Association in 1920*

I MAKE no apology for choosing the subject of Designing and Constructing Golf Courses for our brief consideration this evening for it is one, to my mind, equally as important to the Greenkeeper as the study of grasses and soils, for it has been said, and in my opinion rightly said, that no man can be an efficient Greenkeeper unless he possesses a knowledge of the principles of golf course designing and construction.

I remember stating in this very room eight years ago, on the occasion of the inaugural meeting of this Association, that the more knowledge a man had of greenkeeping the more economically could he run his course, and tonight I am prepared to submit the same argument with regard to the important branch of greenkeeping which we are now considering and which has sprung up and made such gigantic strides during the past ten years or so.

Fashions in golf courses, like fashions in dress, change very quickly, and it is safe to say that two-thirds of the existing golf courses in the United Kingdom at the present time are hopelessly out of date, as far as the positions and designs of the greens and bunkers are concerned, and it is my opinion that the number of golf courses will increase, and competition will become so keen between the clubs, that committees will be forced to bring their courses up-to-date in order to retain the allegiance of their members.

Temperament

Now the art of designing and constructing greens and bunkers on up-to-date lines is not one that can be picked up in a few weeks by an unintelligent and unskilled workman.

A man, to do it satisfactorily, must have an artistic temperament, an eye for country, an imagination, and a good

knowledge of the game; by that I do not mean that it is absolutely essential that he must be a good player, for on the one hand we all know some of the finest exponents of the game have not the slightest idea of designing a green or bunker, whilst on the other hand—do we not know of quite moderate players who have turned out some very excellent work in this direction.

Now I make bold to assert that the gift of construction is not given to every Greenkeeper, and in some cases it is far better to get in outside advice than ruin his reputation by wasting money in attempting something for which nature has not endowed him with the necessary gifts.

Evolution of Golf Course Construction

The evolution of golf course construction to those who have closely followed it for the last twenty years or so, has been of a particularly interesting character.

In the early days of golf, nature did most of the greenkeeping, and a good deal of the bunker construction, for many of the links in those days were laid out on sandy soil, and when a bunker was made, all that was necessary was to remove the turf and the wind would do the rest, in fact, I have heard it said, that if a divot was not replaced in three months the scar became a bunker.

But with the growing popularity of the game, there sprang up golf courses as distinct from golf links and many were laid out on heavy soil far removed from the sand dunes and sea breezes, where natural hazards were conspicuous by their absence, and where it was necessary to make by artificial means every bunker and green on the course.

You do not need me to remind you what hideous and artificial creations these bunkers were, consisting as they did of a built up rampart stretching

from one side of the fairway to the other for the carry from the tee, and a similar creation just short of the green, or, in the case of a long hole, there were three banks each stretching right across the course, all of the same height and each looking as formal and as artificial as it was possible to make them.

After a while it was thought that this style could be improved upon and the cross bunker took its place.

Having found that this fashion allowed the half-topped ball to go unpunished, the pot bunker made its appearance, and for a time greenkeepers and groundmen were busy digging pots here, pots there, pots almost everywhere, many of them completely hidden from the view of the player.

Well, this fashion had its day, and a short one at that, and was followed by the fashion in vogue at the present time, namely Hummock and Hollow, and there is no doubt about it that this fashion, where carried out on bold lines, has been the means of making many a dull course interesting and a flat course appear undulating.

I am afraid however, that on certain courses it has been a little overdone.

It has certain drawbacks insofar that it is a somewhat expensive form of hazard, both with regard to making and upkeep.

I have seen large sums of money frittered away in an attempt to alpinize certain courses through lack of knowledge and imagination on the part of those in authority.

Planning, Designing and Constructing Hazards

Mr. John L. Low once said that no hazard is unfair wherever placed. Well, in one sense this may be true, for it is obviously the wrong thing to do to play a ball into it wherever it may be placed, on the other hand, it is obviously the wrong thing to do to place a hazard on the direct and proper line to the hole at such a distance from the tee that would trap a well-hit ball, and in my opinion, one of the reasons why so many of our present day courses provide such uninteresting golf is because of the hazard placing and arrangements of the bunkers.

I do not blame the Greenkeeper for this, for I know in all too many instances the undesirable system is still in vogue at many clubs of the green committee going out on the course on a Saturday afternoon, or a Sunday morning, and saying after a great deal of argument, we will have a bunker here and a bunker there.

Each bunker must be part of a system of bunkering for the particular needs of the hole, and the system is not necessarily determined by the length of the hole, but very largely by the lie of the land.

No Rules

If the ground is of an undulating character then the system of bunkering and the positions will be influenced thereby, and as the undulations and slopes vary at different holes, so the arrangement of hazards should vary accordingly, therefore you will see how impossible it is to lay down any hard and fast rules as to the positions of hazards.

You may take two holes of exactly the same length, running parallel with each other if you like, but very largely owing to the difference in the lie of the land, or the rolling nature of it, the arrangement of the hazards is entirely different one from the other.

Therefore I warn you that if you should ever be tempted to reproduce the bunkering of a certain hole on a noted course, at a hole of a similar length on your own course, make certain before doing so, that the lie of the land is similar in every respect.

In order to make the game as interesting as possible to every class of player, place your hazards in such positions that they can be avoided by he who is able to gauge his ability at the game correctly.

Variety

Far too many courses today lack variety.

There is a sameness about the holes, the type of hazard, etc., which makes the course monotonous.

I am of the opinion that you cannot have too much variety on a course.

There should, as far as possible, be some distinctive feature about each hole, some distinctive character which will maintain the interest of the player for the whole eighteen holes.

I know how extremely difficult it is to do this on certain courses, which are as flat as a pancake, and absolutely devoid of natural features, but the art of golf course construction has made such vast strides of late years, that even with such unpromising material as this, I have seen most interesting courses made by a man with a little imagination and not a lot of money at his disposal.

Two "Don'ts"

In your efforts to do this however, do not fritter your Club's money away by making the hideous, unsightly and artificial looking creations such as one sees dotted about on all too many courses, when travelling up and down the country.

Don't waste time and money, in making hummocks which, when finished, resemble mole-hills grassed over.

Don't waste your Club's limited means by wasteful expenditure in trying to make a sand dune on land which nature intended for a brickfield, neither make any bank, hummock, or hollow, which looks from any point artificial.

You have seen and I have seen a beautiful landscape spoiled by some artificial creation designed in all probability by a retiring chairman of a green committee anxious to leave something behind by which his term of office will be remembered.

Such a creation is usually known as Brown's or Smith's folly.

See to it that you are not responsible for anything that may be designated the Greenkeeper's folly.

Making Mounds

In making mounds, as much variety should be introduced as possible, if the work is to be successful.

All too many Greenkeepers introduce into their work far too much tidiness and symmetry; no two hummocks in a range should be exactly alike, there should be some distinctive change in each, the contour of each hummock



Our founder as he was when the Association was formed in 1912.

should be different; the secret of success in this part of course construction is to be found in natural looking irregularity.

If you wish to see the real natural hummocks as only nature can make them, go to the Lake District, make a study of the contours there, and then reproduce those lines on a smaller scale in your hummock building and you will surprise yourself.

I have seen hummocks made as if the Greenkeeper were a drill sergeant trying to drill nature into perfect orderliness; chains of so-called hummocks like squads of soldiers whose dressing by the right was as perfect as the most exacting drill sergeant could desire. Well, if you wish to make your course duller than what it is already, do work of this kind, for orderliness in construction work means dullness.

Another mistake usually made in hummock construction is making them on too small a scale.

Hummocks to look natural, must be of bold design.

I fully realise that they are expensive things to construct on bold lines, but it is far better not to attempt to build hummocks unless you have sufficient labour at your disposal to make them large enough to be natural looking.

There is one important point in the designing of hummocks that should never be forgotten, namely, to so design them, that the more off the line the player is, the greater the punishment.

Design of Hazards

In designing a hazard there are many things to be taken into consideration, the first is the kind of shot it is to catch, secondly the lie of the surrounding land, thirdly, the question of drainage, fourthly, the design of existing bunkers in the immediate vicinity.

With regard to the first consideration, namely the kind of shot which the bunker is expected to catch, it is hardly necessary for me to point out that a bunker placed to catch a hard hit wooden club shot must of necessity be built on larger and bolder lines than one built to catch a badly hit iron approach shot.

The next point then is the lie of the surrounding land.

If the bunker is constructed on a down slope, then the sand area will be wider and possibly the bank higher than if on a flat surface or an up slope.

Drainage Vital

Then the question of drainage must not be lost sight of when designing the hazard.

It is a waste of time and money to dig a deep bunker, unless you are certain that it is possible to drain it.

There is nothing more annoying to the player, nothing to my mind more objectionable on a golf course than so-called sand bunkers lying throughout the winter months full of stagnant water, and not withstanding the great advance there has been in the science of land draining during the past few years, it is no uncommon sight to see this kind of thing on our so-called modern courses.

If the question of drainage prevents deep excavation then mounds should be built with the sand packets above the surrounding ground level.

The soil for the mounds can be obtained by stripping a wide area surrounding the site for the hazard and digging a few inches deep, thus making a shallow excavation.

The fourth point to be remembered is the design of the surrounding bunkers.

I have already pointed out the desirability of avoiding similarity in designs and the necessity of introducing as much variety as possible.

Therefore it will be well before deciding upon your design to cast your eye around the neighbouring bunkers and see if it is not possible to introduce some feature into your new bunker which the existing ones do not possess.

Before I leave the question of designs there are a few general principles which might be laid down.

The first is, do not make the sand area too narrow, this should in no case be less than four times as wide as it is deep.

On the other hand, do not have the sand area too wide, especially if it is a shallow excavation, or it will be too easy to recover from.

Practical Tips

Avoid sharp angles, and straight lines everywhere, and see that the contour of the bank is natural looking.

Ensure a good slope from the fairway to the centre of the sand area, otherwise a ball just trickling into the bunker cannot be extricated unless the player chooses to play back.

See that the bottom of the banks are sloped and the sand pushed well up to the slope in order to assist the ball to come to rest in the centre of the sand area.

Build the back bank sufficiently high to preclude the possibility of a ball jumping it.

Make sure there are no nooks and corners from which it is impossible for a player to have the full use of his niblick.

Avoid sleeper faced bunkers as being positively dangerous and flukey with the rubber cored ball.

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