York, Parker and Martin form what is probably Europe’s most knowledgeable and experienced team of independent and objective irrigation design engineers. Their business is that of helping intending golf course and landscape irrigation system purchasers to obtain the most cost effective and efficient system to a budget, a system which is installed professionally — under supervision — and one which provides the most satisfying long term service...

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Tailored to your needs, an automatic irrigation system can represent a considerable purchase so choose wisely — with the professional assistance of York, Parker & Martin. Remember, they are not in business to sell you or your organisation an irrigation system but simply to ensure the design, installation and long term results are the best you can possibly achieve for your money...

For further details, talk to York, Parker & Martin today. Phone, fax or write for an appointment.
The Volvo Tour, sanctioned by the PGA European Tour, this year has on offer a record £13m in prize money. Starting in February, the first event was held in Portugal, moving on to the United Emirates Golf Club in Dubai.

The decision by the USPGA to restrict European players to only five tournaments a year, apart from the majors, unless they are prepared to contract for 15 events has persuaded Faldo, Langer and Ballesteros to opt for the European circuit in 1990.

European golf has become such a force in the last few years, stamped by two wins and a retention of the Ryder Cup, that the rank and file US Tour pros are more than happy to vote the players on this side of the Atlantic out of a chance to compete for their prize fund. By restricting competition to five events for our Europeans, they no doubt hope that it will also put them at a disadvantage in preparation for the major titles. Time will tell.

Sandy Lyle has decided to compete in the USA and has the potential to give them more than a run for their money. It is a hard school, and his early results have not been promising, but he has the game to help reduce Britain’s dollar deficit. His progress will be watched with interest.

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At the City’s hub, the Place du Casino you can sit, relax and literally watch the world saunter by, observe celebrities coming and going from the Hotel Paris one of Winston Churchill’s retreats - or view the stream of shiny Mercedes, Porches, BMW’s and Rolls Royces purring slowing around the central, palm shaded circular roadway.

On the nearby ‘Rock’, Prince Rainier’s palace stands regal guard over the fine harbour, its calm blue waters reflecting the polished metal and gleaming white hulls of rows of luxurious yachts anchored within its walls. Packed into a relatively small area of land, the principality is dominated by the mountain range which overlooks the coast-line from Menton to Nice. Towering upwards, the mountain’s sun bleached rocky faces reach a high point where players, teeing off from the 14th, on the golf course can, peer over the edge and enjoy an eagles eye view of the city below . . .

But enough of the travelogue! Let me tell you about the Monte Carlo course and how an Englishman has helped to give the club a technological lead in the art of greenkeeping.

Just over three years ago Mike Merrick was following a typically home-spun career as a greenkeeper. Learning his trade on the Worthing and Beaconsfield courses, Mike was appointed head greenkeeper, at the Stratford-on-Avon club in 1986. Then fate stepped in.

George Shiels, who had been advising the Monte Carlo club on greenkeeping matters, offered Mike Merrick the chance to take over this particular role - on a part-time basis. Ostensibly visiting Monte Carlo to discuss and agree this arrangement, Mike was suddenly confronted with a totally unexpected situation.

“The objective of my meeting was to finalise plans for a week’s advisory stay on a quarterly basis. I was to advise the course foreman and his team of the finer points of golf course preparation and management", Mike told me.

Instead, the discussions took on a completely new dimension when Harry Rey, the Monte Club captain, suddenly looked up and offered Mike the position of head greenkeeper - permanently!

This to say the least, was something of a conversation stopper. Pausing for a few moments to collect his thoughts, Mike followed his convictions and agreed.

“Having committed myself, I later had the questionable pleasure of spending the whole of my 90 minutes flight back to London considering the implications!”, said Mike with a grin. And what implications. Mike had not even had time to consult his wife, Mandy. He didn’t speak French and he had never worked outside the UK, never mind look after a mountain-side course.

A five week evening crash course in French, a frantic rush to complete all the necessary arrangements plus a family Christmas gathering provided little time for second thoughts!

Following Henry Rey’s advice to “bring nothing but yourselves”, the Merricks arrived on the Cote d’Azur, in January 1987. Looking back to that momentous day, Mike says that as far as he (and Mandy) was concerned it was the right decision. “I had found the challenge I was looking for.”

Responsibility? “That was rather unnerving” says Mike. “I had no one to guide me, no greens committee chairman to talk to, (there isn’t a greens committee) it was all down to me!”

Absorbing himself totally, Mike’s immediate task was to improve his French, educate his assistants to his way of doing things and set them work schedules.

The first job Mike handed out was cutting and shaping all 18 holes so that, in his words, the combination of tees, greens, fairways and rough looked like a golf course. That accomplished, they then set about improving the course generally, and in particular, preparing it for the June ’87 ‘Johnny Walker’ PGA tournament. Leading by example, “Le Boss”, as Mike is known locally, established himself by demonstrating that he would and could tackle any job he was asked his team to carry out.

At the end of his first year Mike’s team had learned much, they had reacted to his enthusiasm, they could see the improvement in the course themselves. The second year of Mike Merrick’s development plans for the Monte Carlo golf course majored on the provision of an up-to-date irrigation system. Initial discussions had started halfway through Mike’s first year on the course because, as he described it,
“The existing system was nothing more than a hotch-potch of Rainbird Weathermatic, Perrott and Toro sprinklers and equipment - 1988 was to be the year of the irrigation system.”

Water, or the lack of it at some 2,600 feet above sea level was (and still is) a big problem. Supplied by a local water company who have the right to switch off supplies at their discretion, conservation of resources was upper most in Mike’s thoughts. “How, he asked, can we best utilise what initial water we have . . .”

The upshot of a series of deliberations between Mike, the brothers Rey and other members of the Monte Carlo club’s management committee ended with invitations to Rainbird and Toro to submit designs, costings and recommendations.

"Give or take the odd embellishment, both submissions were identical" says Mike. “So we carried out a final analysis breaking down each related factor - good points and bad points, the pro’s and the con’s with an emphasis on ease of control.”

"On a personal note, I voted for the Toro system because of the considerate, helpful and knowledgeable advice I had previously been given by both the Toro Irrigation and mower people that I had worked with back in England.”

"The decision was taken, The new system specified was to be the Toro Network 8000 including a Weather Station. Designed to provide the latest forms of data electronically, the system also offered the benefits of sophisticated ‘computer controlled’ watering in direct proportion to the entire course’s needs - measured every 24 hours.

It was the very first Toro system of its kind to be installed in Europe. Supplied by Sadimato, the Toro Sales distributor for France, installation of the Network 8000 system commenced in the September of ’87.

In the event, the installation of the high technological elements involved in the system provided a number of technical headaches. "I think we all learned something during the installation period - after all, we were pioneering electronics of the type not seen on a European golf course before” commented Mike.

"I learned a great deal about computerisation and automated electronic systems during the installation period - so did my assistants. As the 1988 PGA tournament drew ever closer, we mucked in to help complete much of the work. It was an invaluable experience.”

"The high-tech. back up we received from Toro - mainly through European Sales Director, Carlos Ochoa, and Technical Service Manager, Mark Gunter was tremendous.

"Mark helped commission the system shortly before the ‘pro-tournament was due to begin and then, would you believe it, it rained so heavily we didn’t need to use the system - at that moment in time.”

What, I asked Mike Merrick, did he think of the Network 8000 system after a full season’s use on the Monte Carlo course?

"It is a very fine management tool - to my way of thinking it is the way forward - yes, even for club’s in Northern Europe including the UK,” he told me.

"The weather station really does a great job of measuring soil moisture. It eliminates for example, the risk of over watering which in turn substantially reduces the casual introduction of undesirable grasses on greens and equally important in my case, the close control of watering enables me to utilise very limited resources to better effect”.

"Here on Mont Agel, I have some 220,000 gallons of water at my disposal. I really need twice that amount but Network 8000 does a great job of helping me use limited supplies to maximum effect.”

"Before the system was installed I
estimated that my fairways required 15 minutes watering per night. Network 8000 tells me that 13 minutes will do the job - these two minutes gives me 3,000 extra gallons to play with. Over seven nights that's 21,000 gallons of water for use on other parts of the course.

"Last year I printed out a full 12 months data provided by the weather station covering wind speed, wind direction, rainfall, humidity and solar radiation. Relating these factors to daily temperatures measured in the autumn and spring enabled me to work out a useful guide to temperature ranges affecting over-seeding or top-dressing."

"Having said that, it is my opinion that the most important factor which I, as a greenkeeper, should take notice of is solar radiation."

"In my experience, solar radiation has a critical influence on evapotranspiration and the need for watering - much more so than allowing for rainfall. You can hear, see and feel rain but solar radiation? At best one can hazard a guess on the basis of direct sunlight or cloudy bright or dull conditions. The Network 8000 weather station eliminates guesswork, it measures solar radiation accurately - and has often provided answers that I've not expected."

"I've learned for example, that a clear hot sunny day can produce a lower solar radiation/ET rate while low cloud plus high solar radiation can reverse the situation."

"In real terms and with some eighteen months experience of the Network 8000 under his belt, Mike claims that he is now able to use limited water resources to maximum effect. I calculate that I am saving 25% of water at my disposal yet getting 50% more effective coverage because of the system."

---

When walking the Monte Carlo course I must say that I immediately felt at home. Perhaps it was the sight of so many fine evergreen oaks, silver birch and pine trees which fringe the sloping boundaries and fairways. Maybe it was the glint of autumnal leaves dancing across the green turf - a mixture of rye grass and fescues - or the surprise of finding late blooming roses, close by the club house. Whatever the reasons, it came as no great surprise to learn that the origins of the club were influenced by the British.

Around 1911, a small group of Edwardian golfers got together and created a few holes on Mont Agel, mostly for their own amusement. Developed piecemeal over subsequent years, today's par 71 championship course really took shape parallel to the advent of the post war travel boom, golfing holidays and the emergence of the PGA tournament circuit.

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Danger, men at work! Because of surface rock, the 10th was remodelled under the direction of Mike Merrick to eliminate this problem . . .

Taken under the wing of the Societe des Bains de Mer, the club consolidated throughout the sixties and seventies. Now under the guiding hand of club president, M. Jean-Charles Rey, a lawyer, the Monte Carlo club currently has over 400 members. This figure is more than doubled by the constant stream of visitors of all nationalities who turn up to play each year.

Competitions-including medals, stablefolds and inter play tournaments feature throughout a full and busy twelve months club programme. Events reach a climax each year when the Monte Carlo 'Open' draws the world's top pros to the course.

During the winter months, the British influence in the shape of Bob Halsall is evident on the course. Now an active 74, Bob comes over from Royal Birkdale where he started his professional career as a caddie, to teach the finer points of the game to ardent admirers. He also teaches at the Monaco Golf School.

Bob, I am told, has been making this journey for over forty years. At the time, Henry Cotton used to add his experience to Bob's depth of knowledge! That was before Portugal lured Henry away.

Yes, I quickly felt at home when visiting Monte Carlo - it is that sort of club. Can you imagine sitting down to lunch in the clubhouse with the club's head greenkeeper and his wife for company? I did, and very enjoyable it was!

In contrast, the club does not take kindly to members who fail to replace divots. If spotted, an automatic three months suspension is imposed. Visitors? Their green fees are returned and they are gently shown the door.
Will the sand only greens at Canvey Island take 40,000 rounds a year . . . asks John Campbell

E

ssex's 18-hole public golf course built 3 years ago for Castle Point District Council is steadily maturing and proving to be a popular venue for local golf enthusiasts and visitors to that part of the Thames estuary. The course has been laid out on a flat expanse of open land on the edge of Benfleet Creek not far from Southend-on-Sea. The site chosen is reminiscent of an exposed links land course where the bracing atmosphere and ferocity of the elements can combine to play a major role in the golfing strategy. The course is managed on behalf of the local authority by Golf Landscapes Ltd., Brentwood, Essex, who designed and built the layout at Waterside Farm on the north fringe of Canvey Island. Golf Landscapes extensive experience in the recreation and golf course construction industry makes them specially qualified to cope with a growing demand to undertake course maintenance contract work as a follow up to their design and construction activities. They have their own contract maintenance division which seems to be kept fairly busy with a large volume of work.

Looking over the course quite recently I thought it was in quite good condition and a credit to Ray Mitchell, head greenkeeper and his staff of 3 men. He was telling me how he graduated from looking after cricket wickets and bowling greens to his present job and he waxed enthusiastically and knowledgeable about many aspects of greenkeeping. He also seemed to have a good rapporte with his boss, Peter Dunning, Golf Landscapes, director. To create a public golf course of sufficient interest for all kinds of golfers out of a dead flat piece of land is not a simple task unless unlimited financial resources are on hand for extensive earthmoving and landscaping operations. But it is surprising what can be done even on a modest budget when an experienced company like Golf Landscapes is engaged to undertake the work with all their know-how and expertise of building championship courses in this country and abroad. There is always controversy as to whether a course should be designed for the low or high handicap player, or the short or long hitter. In actual fact a good public course should be designed for all to play and derive pleasure and that is exactly what has been done at Canvey Island. The golf course there provides a fair and enjoyable test without being too long - 6153 yards, par 71. The greens are of good average size with minimal surface contours. Tees, bunkers and other features have been subtly landscaped for ease of maintenance and economical upkeep. Large tees are a good feature at every hole to spread the wear and tear which every public course has to accept and take in its stride.

Ray Mitchell said, "The course was constructed before I came here but I think it is important to have the head greenkeeper on the site right from the beginning to follow through every stage of the work progress. If there are problems he will want to be aware of them for he knows that it will be his responsibility to bring the course to maturity so he will want to be satisfied that the work gets done properly." "The local authority has planted some trees gorse and broom on the course to add a bit of colour and break up the open aspect of the landscape. Most of this has been done in haphazard and regimented fashion without consideration for the strategic value this could add to play. However, due to a shortage of labour they could not complete this and we were asked to continue the planting programme, so we have tried to do this with a little more imagination and careful forethought to create more interest for golfers at the same time facilitating easier maintenance. Trees in long rows look unnatural and too artificial on the golf scene - so we have strived to plant everything as nature would have it. In small copses and natural groupings to beautify the landscape and improve the character of the course". "As you can see all our greens are in healthy shape and they survived the long period of drought last summer in reasonable condition for which I am quite pleased. They are sand-only greens sown with a bent/fescue mixture - there has been some poa annua invasion here and there but I do not believe one can avoid that. The greens putt smoothly and are always firm and resilient through the winter period and being a public course we are never closed and are expected to take quite a lot of play - it probably works out in the region of 40,000 rounds a year and numbers are steadily increasing as the course becomes more popular." "Each green is treated on an individual basis due to the fact that the sand depth varies on some and occasionally fescue die-back occurs during the season. Verti-cutting is carried out with care particularly on those greens where the sand depth is shallow. Raising the blades slightly on certain ones helps to eliminate any unnecessary surface damage in thin, weak growth
areas. It is really quite remarkable how deep grass roots will go down in the sand, in some cases we have come across root penetration down to 7 inches depth. Variations in sand depth certainly show up on the surface by the density of growth - all this has an effect on the speed of the green."

"Another necessity with sand-only greens", said Ray, "is reliable irrigation equipment for you cannot afford to be without water too long when the weather begins to get hot. We have a computerised system of pop-ups which seems to function quite well. It was really put to the test during the drought last year, we had some minor hiccups but came through with flying colours. Make no mistake sand-only greens can dry out very rapidly and it requires constant vigilance through the summer to keep abreast of water requirements."

"My policy with nitrogen applications during the growing season has always been little and often to counteract the effects of rapid leaching in the sand. As a rule this means a light fertilizer dressing of iron sulphate every 3/4 weeks, to maintain a reasonable amount of colour and vigour through the summer. More frequent feeding called for by the needs of the hungry sand can be a source of encouragement to annual meadow grass so one has to be careful with the amount of fertiliser used. Its all a matter of knowing your own greens and being able to discern when vigour is tailing off sufficiently to require more nitrogen."

Some American superintendents I have talked to are very critical of sand-only greens and say they need more 'baby-sitting' or nursing, particularly during the summer months to ensure uniform water distribution for continued replenishment of the small water reserve held by the sand. Lower microbial activity - sand-only greens are likely to be less active microbiologically than mixtures containing soil and there is a much slower response to growth in the spring. A lack of moisture reservoir in sand-only greens is a serious concern. Irrigation systems advanced as they are, still leave much to be desired. In a 3 to 5 mph breeze there is literally no margin for error. Excessive moisture infiltration rates emphasise the need for an efficient under-drainage system. Rapid nutrient leaching is another factor in sand-only greens that calls for higher nutrient levels. Is building greens that require more nitrogen and high volumes of water a move in the right direction?

There has been much discussion on the pros and cons of sand-only greens and I do not believe this method of green construction is likely to find much favour among discerning greenkeepers in this country - they are more suited to warmer climes of the USA.
New jewel in Cheshire's golfing crown will be mounted at Portal ... Keith Brain reports

To someone like myself, born and raised in agricultural Cheshire, it is sad to see the once flourishing farming industry going through hard times. As a golfer, and someone who has made a living from the royal and ancient game for over two decades, the decline in farming in my native county is, however, now producing some startling and exciting prospects for our golfing future.

The last five years have produced some unforeseen changes for dairy farmers. To some degree they have become victims of their own success by producing a more efficient cow and creating tremendous surpluses around the world. E.E.C. regulations have been changed drastically to such an extent that it is now estimated that around half of Britain's dairy farmers are looking for alternative uses for their land. Many of them, particularly in Cheshire, are turning to golf, and creating new courses as a solution to their problem.

Take the ancient borough of Vale Royal, right in the Cheshire heartlands, for instance. The area boasts two fine championship courses at Delamere Forest and Sandiway, used as pre-qualifying tests the last time the Open Championship was held at Royal Liverpool, when Roberto de Vicenzo had that emotional victory over the Hoylake links.

In addition, there exists another private members club at Helsby and a nine hole municipal complex at Knight's Grange, near Winsford. For decades it has been virtually impossible to obtain membership of any of the three private clubs. But all that seems set to change in the next couple of years. In the borough of Vale Royal alone there are currently plans for the establishment of no less than seven new golf courses, a new driving range has been built and opened, and others are planned to follow.

Maybe, in the ensuing years, the area, so close to the historic city of Chester and within easy reach of the conurbations of Manchester, and Liverpool, will become something of a golfing meccas, perhaps destined to rival some of the traditional Scottish haunts of English golfers who in a week would be in a position to play a different golf course every day and still have some to spare yet never travelling more than half-an-hour to any one venue.

Whether that actually happens or not, there will certainly be a great deal of golfing traffic heading for the village of Tarporley near Chester. For it is there, on the Portal estate, that the jewel in the Vale Royal Borough Council's golfing plans, is being created.

John Lilley moved to the area twenty years ago after a long and successful business career in which he built the giant Norwest Hoist construction company into one of the biggest and most successful concerns in the land. At Portal, and on the adjoining Arderne estate, he created a thriving farming empire which became one of the biggest operations in Europe, with eventually the largest Freisan herd under one roof in the whole of Europe.

Like all his farming colleagues, however, he was forced to examine other possibilities when the new E.E.C. regulations were announced. There were many options but in the end he opted for the golfing syndrome.

"This is a beautiful part of the world and I want to retain the character of the area but at the same time create something really special. Meanwhile I hoped that the creation of new jobs
would help to stop the decline of rural job prospects in the area\textsuperscript{,} he said. What has already happened is that the first of two eighteen hole championship courses has been created. Work on the second course starts this spring as does the hotel project which will see the creation of a 100 bed hotel and a leisure complex which will incorporate the best of off-course facilities more readily associated with an American type country club than a European golfing complex. The first course, designed by Donald Steel and constructed by Brian Pier-son, has already been acclaimed by a number of golfing scribes. Covering over 200 acres of rolling countryside and with a huge number of mature trees on the site, it comes as no sur-
prise that Donald Steel said before starting the project: \textit{This is one of the best pieces of land I have ever seen. It is so full of variety and character that it has the potential of becoming as fine an inland course as we currently have in the United Kingdom}. He must be delighted with the creation of the course which, although now completed and virtually ready for play, will not be open until the middle of next year, because of the desire to allow the new course time to settle and mature. An unusual feature of the construction was that the entire course was seeded, not just tees and greens but rough and fairways. Hunters of Chester supplied Olympic Supreme for the greens, Olympic Sovereign for the rough and a special mixture of Agram, Wintergreen, and Lustre Chewings Fescue together with Baron Poa Pratensis and Highland Browntop for fairways and tees. The result has been a superb cover and excellent uniformity in all the playing surfaces. It is the variety of golf holes and the avenues of trees which line some fairways which immediately appeal. But among the collection of memorable holes are two in particular on this 6,955 yard course which may well be talked about more than any others. They are the 540 yard par five fifth which will be one of the longest in European golf. The drive, from an elevated tee through an avenue of trees must be perfect, followed by a wood or long iron, leaving a good position for the shot to a tightly bunkered green
with water coming into play at the front edge of the putting surface. Water, in fact, plays a major role in several holes though there are no vast stretches of water, over which players have to hit the ball. The short thirteenth is typical of the holes where water does come into play. From an elevated tee the hole is only 125 yards away. But, apart from the trees which guard the entrance to the green, the major hazard is a pool, beautifully designed and sculptured right across the front of the green with waterfalls giving a cascade effect from each side of the green into the pool below. Anyone looking for a safe route and thinking that by going up a couple of clubs and playing big would be rewarded, would be mistaken. At the back of the green is another pool making this virtually an island hole. But it would be wrong to give the impression that Portal is an artificially made golf course with water everywhere. Where pools have been introduced they have been done carefully and tastefully to enhance the hole and its surrounds. But beauty is in essence the keyword at this course and one of the major reasons for that is that John Lilley, surprisingly a non golfer himself, has a passion for the land and for gardens. He readily admits that he sees Portal not simply as a golf course but as a huge extension to his gardens. His love of the land and his passion for creating beauty is clearly visible from the moment you step on to the first tee. The great feeling at Portal is one of space. There are many holes on the course where you could reasonably be forgiven for thinking that you were the only player on the course, such is the layout. Centre-piece of the Portal complex will be the fine timber-framed courtyard house which, although built in 1906 was copied from Tudor mansion times.

Architect Donald Steel
Constructors Brian D. Pierson (Contractors) Ltd, Head
Greenkeeper Mark Proctor

The house is now a listed building and externally will not be altered in any way although there will be extensive internal alterations to provide restaurants for golfers and hotel guests. From the great south facing bay windows guests will have a panoramic view over the extensive gardens and beyond, right through to the Peckforton hills. European Tour stars Derrick Cooper and Denis Durnian planted commemorative trees at the ceremonial opening of the new complex to signal the start of the development in the spring last year. Since then they have both been back to inspect the course. Like everyone else who is involved in golf and associated with the Portal complex they can't wait to tee up and test their skills against the course. Like everyone else, however they will have to be patient.

John Lilley is watching his own personal dream come true. His aim is to provide golf and leisure facilities at Portal unrivalled in Britain which will eventually gain world-wide recognition and bring to the area top people and players from all parts of the world, who like everyone else, will have the chance to play either of the two courses on a pay-as-you-play basis rather than a membership type club. "We have taken expert guidance from a number of people and we have had as our guests many influential and knowledgeable people from the world of golf. They all assure me that at Portal I have something which is really special and I am delighted to hear their opinions. We set out at the beginning of the operation to create something that was different and memorable and everyone tells us that we have succeeded. But we don't want to ruin everything that has been achieved by opening too early", he said. Therefore everyone will have to wait another twelve months or so, before the Portal complex and its courses become generally available. There can be little doubt, however, according to all experts, that this latest jewel in Cheshire's crown will be well worth waiting for. I, for one, cannot disagree.