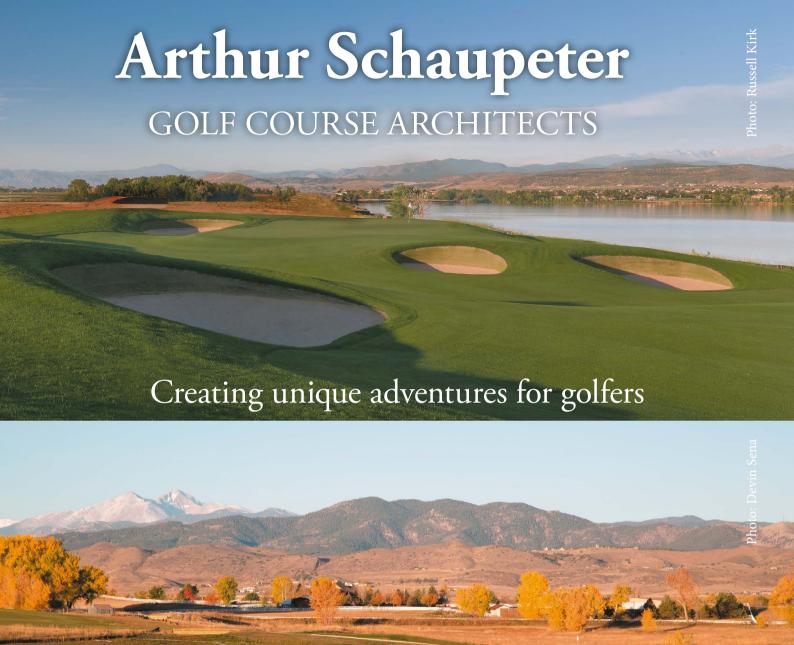
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Back on the road again



ADAM LAWRENCE

he effect that the Covid-19 pandemic has had on the world as a whole has been so profound that to complain about its impact on GCA's operations seems a little bit pitiful. But nonetheless, the last eighteen months has been a very odd time to be trying to write a global magazine. Since we started publishing, way back in 2005, our On Site course reviews have been a very fundamental and much appreciated part of our offer. I personally had got into the habit of travelling to see golf courses on a very regular basis: my busiest year was, I think, 2015, when I visited 13 countries.

I went to Singapore to see Kevin Ramsey and David Dale's rebuild of the Seletar Country Club in March 2020, at which time the first stirrings of the pandemic were being heard across Europe. Asia, of course, had it sooner, and although the city-state was not in any sense locked down, temperature checks were required before one could enter a bar or restaurant.

Little did I know, when I returned from Singapore, that only four days later, Prime Minister Boris Johnson would announce Britain's first lockdown, and that I would not get on a plane again for more than eighteen months. Nor, to be fair, did I have the slightest inkling that being confined to home for weeks on end would spur people around the world to rediscover the joys of golf, setting the game on a firm upward trend for the first time in more than a decade.

I am not Panglossian enough to believe that the pandemic has solved all of golf's problems. We still face the same issues; too slow, too expensive, too associated with middle aged and elderly white men. But, at the very least, what the Covid-fuelled boom has done for golf is to buy us some breathing space. With cash registers fuller and would-be members knocking on the door of clubs, we have the chance to fix the fundamental problems that golf has, without it being quite so adapt-immediately-or-die.

As you will see elsewhere in this issue, my return to travelling, although not a long-haul trip, was very much worthwhile – I would go a long, long way to see a golf course as good as St Patrick's Links. Maybe being in suspended animation for a year and a half isn't the worst thing in the world after all.

Adam



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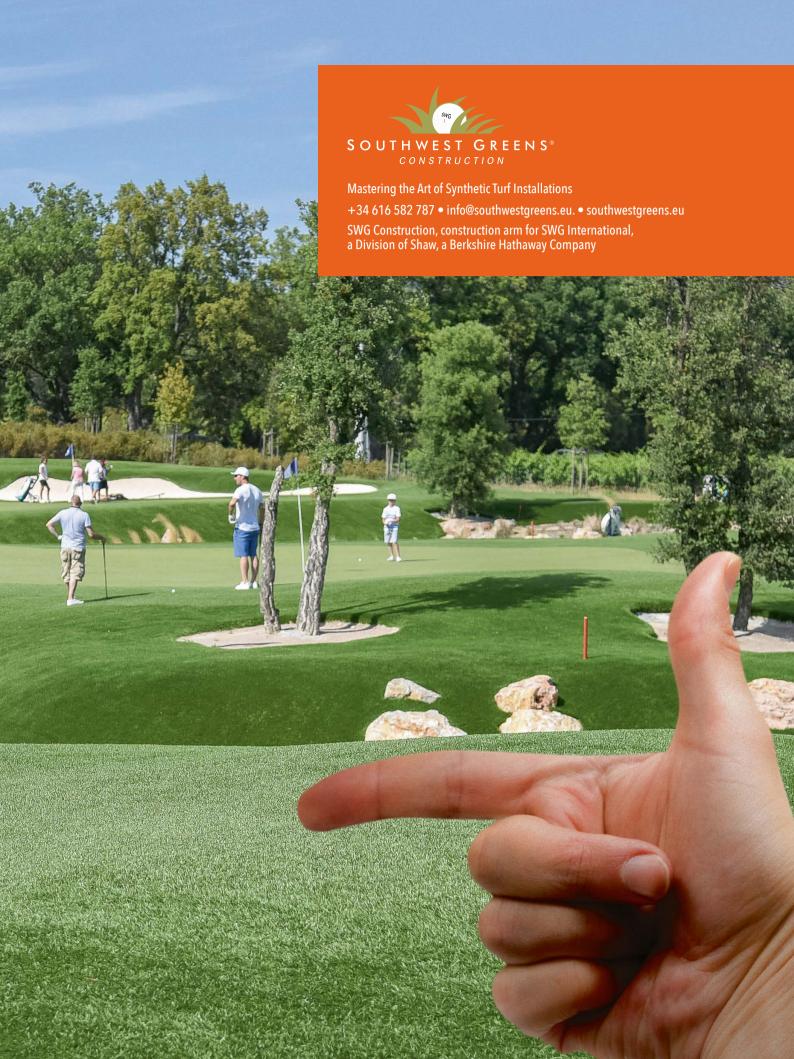
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Adam Lawrence

Editor

Richard Humphreys

News Editor

Bradley S Klein, Tom Mackin, Ally McIntosh

Bruce Graham, Libby Sidebotham Design

Chris Jackson

Website Development

Arnold Palmer Design Company, Beaconsfield Golf Club, Centreline Golf Design, Diamond Golf Architects, Matt Dusenberry, European Golf Design, GCA, Getty Images/David Cannon, Golf Saudi, Golf International, Greyliner, Jeff Howes, JCB Golf & Country Club, Clyde Johnson, Kafka Granite, La Cala Resort, Loch Lomond Golf Club, Marco Simone Golf and Country Club, Midway, Novaland Group, Punta Mita, Ricky Robinson, Dave Sansom, Art Schaupeter, Evan Schiller, Seabrook Island Club, Singapore Island Country Club, Smelek Design, Southwest Greens Construction, Spogard & VanderVaart, Stirling & Martin, Lee Sutherland, The R&A Photography

Toby Ingleton

Benedict Pask

Publication & Sales Manager

Ritwik Bhattacharjee

Circulation

Stuart Fairbrother

Production Manager

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MAII BOX

Dear Editor

Is the tree removal trend in golf going too far?

I understand the arguments in favour of wholesale tree surgery, and support many of them. I do not believe that courses with trees near the line of play are a good idea, and I do not support having trees on courses that, ecologically, should be bereft of them.

But, at the same time, I do wonder whether we are getting to a point where tree surgery is becoming a fetish, or a contest between clubs – 'we have taken out more trees than you'.

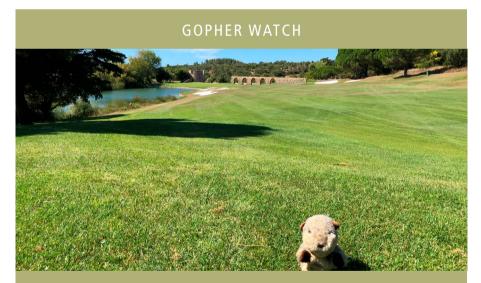
It is well known that trees outcompete other, in some cases more desirable, plants; heather being the most obvious example. If a course is located on land where heather is native, then cut away say I: trees and heath are not compatible with each other, and heath is a much scarcer ecosystem than woodland (and better for golf). But on other sites, what is the alternative to trees? In many cases, it is tall, dense broadleaved, ball-eating rough grass. In such circumstances, I personally would generally rather have woodland: it looks better and frankly searching for balls in thick, waist-high grass is significantly more annoying than doing so among trees. Where courses have been narrowed over time and now have golfing features that are choked out by trees, obviously this needs fixing; but then the same is true of courses that have grown rough grass around bunkers that were originally supposed to mark the edges of fairways. This is not fundamentally a tree issue; it is an issue about the width of playing areas.

Tree-haters often point out that some courses, when created, were not treed, but that the timber has grown over time or was planted by the club: clearly this is often true, but frankly sometimes I believe it is the best option available. Even aside from their obvious ecological value, trees are not the total scourge their golfing opponents would have us believe. Where courses were created on former agricultural land, trees can help break up the landscape.

Where I do agree with the treehaters is that the wholesale, virtually unplanned planting of trees by clubs is a disaster and should be discouraged. Just as club members, and the committees on which they sit are not qualified to judge where bunkers should be placed, nor are they the right people to judge where trees do or do not belong. Tree removal (or planting) should be taken after receiving advice from a competent golf course architect.

James Stirling Northampton, England

We are delighted to receive letters from readers, and the best in each issue will be rewarded with a golf shirt. Send to 6 Friar Lane, Leicester, LEI 5RA, UK, or email us at letters@golfcoursearchitecture.net



Sandy's travels took him to Gloucestershire in England's south-west in the last issue, to the Old Tom Morris-designed Cleeve Hill course, which was recently saved from closure, thanks to a campaign led by local golfers. Legendary Getty Images golf photographer David Cannon recognised the shot and was first out of the hat. Congratulations David, perhaps a Cannon shoot of Cleeve is in order?

This month, Sandy has taken advantage of the relaxing of Covid travel restrictions and gone for a summer break in Europe. The course he is visiting is among the topranked in its country, and observant readers will note the remains of a centuries-old aqueduct in the background of the photo. Where is he? Answers, as usual, to gopher@golfcoursearchitecture.net.

TEE BOX

NEWS EDITOR: RICHARD HUMPHREYS

Te Arai South growing in ahead of 2022 opening

Strategy of new course by Coore and Crenshaw is determined by the natural dune contours upon which it is routed

onstruction of the new Coore and Crenshaw-designed
South course at Te Arai Links in New Zealand is complete and growing in ahead of an opening in October 2022.

The new South course is part of the Te Arai development – which will also include a course designed by Tom Doak, restaurants, cottages and villas – and is located on the east coast of New Zealand's North Island. The project follows the success of, and is close to, Tara Iti, the private 18-hole course by Doak that opened in 2015 to widespread acclaim.

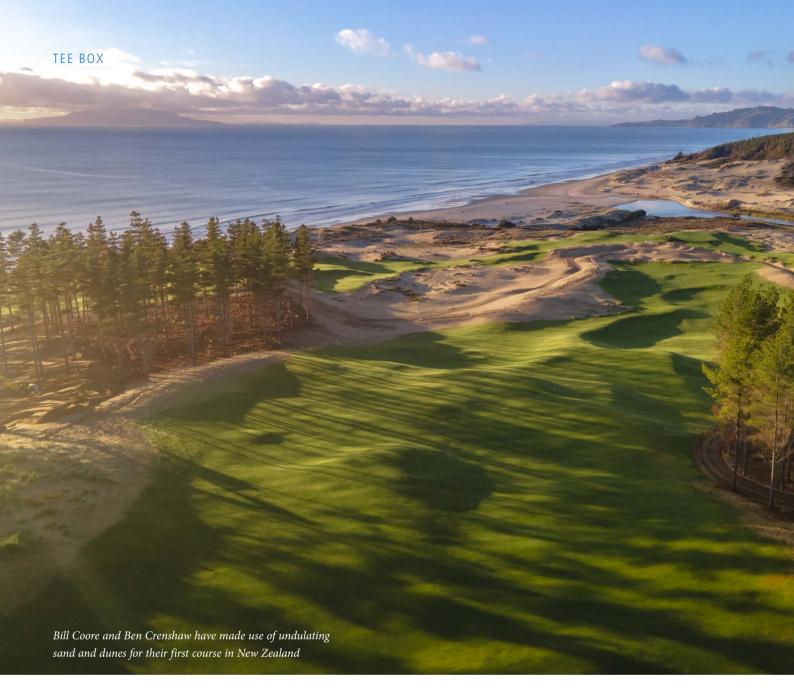
Tara Iti owner Ric Kayne and golf industry veteran Jim Rohrstaff are leading the Te Arai development, which Rohrstaff says will "turn this little stretch of coastline into one of the great golf destinations in the world."

"When you have undulating sand and dunes along the Pacific Ocean with a great climate, what more can you ask for," said Rohrstaff. "Tara Iti is a testament to how good golf can be on this property, but each of the courses will have a different personality. Despite being on the same property, Te Arai South and North will be entirely different."

"To anyone who has seen it, Tara Iti is obviously one of the world's most beautiful and special golf courses," said Bill Coore. "It has an amazing routing that radiates in varying directions and showcases golf in an interesting and extremely enjoyable manner. Tara Iti is set on a sand dune landscape







that is visually connected but not immediately adjacent to the ocean.

"Te Arai is on a more linear dunes site that parallels the sea for the majority of the course. Easily, thirteen holes could be described as seaside, with all but the more inland second hole having views of the sea from some point on each hole. It could be argued that the Te Arai site has a greater variety of dramatic landforms than Tara Iti but like Tara Iti, the character and the golfing strategy of each hole was determined by the natural dune contours on which each hole was routed."

Construction of the South course began in September 2020 and is now complete. It is the first Coore and Crenshaw project in New Zealand, with Coore saying he has enjoyed the design freedom afforded to him by Kayne and Rohrstaff.

"For those of us in the golf design profession, an opportunity like Te Arai is a dream come true," said Coore. "Relating to the routing, I'm prejudiced but I think the Te Arai routing showcases the amazingly varied topography of this dramatic site and the sequence of holes and individual character of each hole

was determined and defined by each hole's natural landforms as presented through the routing."

For Rohrstaff the front nine is a personal highlight. "Holes four, five and six will absolutely blow people away," he said. "It is incredibly dramatic and is early in the round. Then the finishing stretch starting at fourteen will be as exciting as any course I've seen. I speak of these as personal highlights, but there is not a weak hole on the course. The hole pre-construction that I wondered most about was the fifteenth, but that has turned out to be great, too. I think







Almost every hole on Te Arai South has a view of the Pacific Ocean

they've really nailed it. We cannot wait to share Te Arai with the golfing world when we open."

One complication with the project that Coore highlights was "trying to route and then create the seaside holes while following dune formations that naturally meander, and having an awareness of the regulated government reserve setback line [from the ocean] that was very straight and rigid in configuration."

Another challenge, particularly for Coore on a personal level, was the impact of Covid on travel restrictions. He made three trips during construction ranging from four to six weeks and each time had to quarantine in a government-mandated hotel for 14 days. In his absence, associates John Hawker and Riley Johns were able to obtain visas for New Zealand and stayed on site full time, working with CJ Kreuscher, the grow-in superintendent at Tara Iti.

With the South now complete, work will turn to Doak's North course in early 2022 with the aim of having it open by late 2023.

"Although it has about 1,100 yards of coastline abutting the ocean, the majority of Tom's course is set more inland, meandering through forest and rolling sand hills somewhat reminiscent of Pine Valley," said Coore. "It hasn't been as impacted from the wind over time, so the sand contours are somewhat less abrupt than those on Te Arai South.

"Like Tara Iti, Tom's site at Te Arai will provide opportunities to create a routing with more directional change for the holes than was possible at our more linear site. The two sites are dramatically different in terms of landforms and appearance, but each has the potential to create a truly special golf course. When combined, I think the two will be highly complementary to one another."

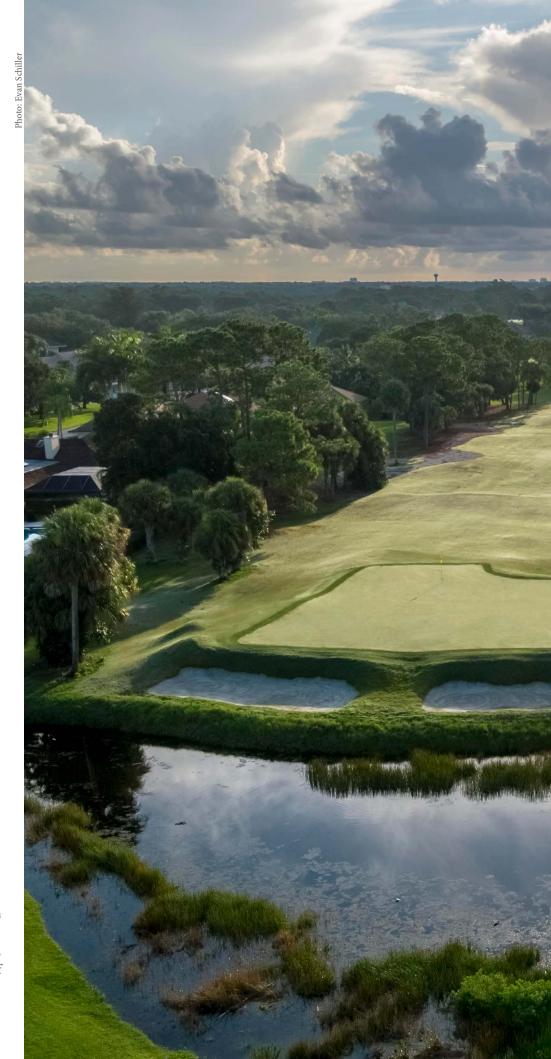
THE BIG PICTURE

The seventeenth hole of the recently opened Match course at PGA National Resort in Palm Beach Gardens, Florida, photographed by Evan Schiller.

Built on the site of the former Squire course, the 18-hole Match layout – designed by Andy Staples – plays from 3,447 yards to 5,841 and is set up for match play scenarios as well as other nonstroke play formats.

"The seventeenth hole was based on the general design philosophy of Seth Raynor and CB Macdonald's template 'Narrows'," said Staples. "I've enjoyed experiencing the strategy of this hole and chose to incorporate features that exemplify why I like it. First, this is a fairly narrow area on the course, so a series of slopes, grass faces, and one sand bunker form a crossing hazard that 'narrows' the landing area and places a premium on an accurate drive into this par four. Second, a grass slope and hollow approximately 50 yards short of the green create a visual deception, disrupting a clear view in to the green, most dramatically from the right side of the fairway.

"The green is set up to receive a running shot from the right and features a strong slope that bisects the green surface, creating a series of interesting pin locations. As with many greens on the Match course, playing short of the pin is desirable, as the seventeenth drops sharply off the back into two deep bunkers."







Amelisweerd Golf Club in Utrecht, Netherlands, is undergoing a renovation by golf course architect Michiel van der Vaart.

The club tasked the Spogard & VanderVaart design firm with evaluating the course, originally designed by Gerard Jol in 1997, and develop a renovation plan to improve course aesthetics and make the most of the existing landscape.

Work began in 2020 and will continue over the coming years. Currently, around 40 per cent of bunker work has been completed.

"The challenging greens will remain where they are, but some bunkers will be closed or moved, and the size and style of all bunkers will be changed," said van der Vaart. "The new bunker style is rougher and more natural. Modifications to the size – and reshaping of the bunker entrances and environments – make the bunkers more visible. The eyes of the course, as I often describe bunkers, have been opened again.

"For average golfers, who play from the correct tee, there is always a way to get past the bunkers, there is always a route past all obstacles. But the better players have to think carefully about which bunkers to carry, which clubs to use and which lines to choose in order to achieve the best score."

Bunkers will get new sand to help prevent balls from embedding and to avoid erosion during heavy rainfall.

The mowing policy has also been changed. "Wide fairways offer options to every type of player, but a little further away from the fairways the grass is no longer short as in a manicured park," said van der Vaart. "Here, nature is given space and nature is also enhanced.

"Around the greens, players generally get more options, too, as many slopes are again managed as short-cut runoffs. That makes it possible to putt the ball or hit a low chip. Furthermore, the banks and wooded areas are being modified. These elements will also be managed more naturally and lose their parkland look. In the areas that



change, drainage will be improved at the same time." Van der Vaart's plan also includes some relocation of teeing areas and potentially changing a par three into a short par four.

"The facelift makes Amelisweerd more robust and beautiful, but also more nature-friendly than it already was," said van der Vaart. "The course is located next to the Nature Reserve Amelisweerd and the club treats the landscape responsibly, which is underlined by its sustainability certificate awarded by GEO Foundation in 2018. The nature reserve is home to animals such as badgers, martens and birds of prey, as well as many rare orchids. Those rare orchids and special animal and plant species are also present on the golf course.

"Thanks to the course adjustments and the modified management, the golf course will become even more attractive as a 'stepping stone' for the large variety of animals and plants."

Glen View Club completes path project

Glen View Club in Illinois, USA, has completed a renovation of its cart paths.

Over the last five years, the club has made numerous course updates, including adjusting fairway grassing lines, green expansions, the addition of lost bunkers, and the reconfiguration of teeing grounds.

"The aim has been to improve our member and guest experience through providing firmer playing surfaces which highlight our unique property and the original architect's intent," said Brian Moore, Glen View's superintendent.

"It soon became glaringly obvious that our paths have become eyesores and in need of repair. They were constructed from limestone screenings and their light colour made them stand out ever further. It was a very mobile product, which would washout from rain, loud to drive on and dusty when it was dry."

To address cart path issues, the club turned to Kafka Granite and its patented wax polymer coated path material.

The club began removing the old paths, reconfiguring locations and installing a new base material in late autumn 2020 and completed work before winter. Kafka's path material was then installed in spring 2021, along with sodded edges, to complete the project.

"The paths have held up well through the first season, they look great and there are no washouts, no dust and they are quiet," said Moore. "They blend in with their surrounds and have helped to tie-in and complement all the other work we've done on the course."



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A new golf course designed by Stirling & Martin for Xaz Golf & Country Club in northwest Spain has opened for play.

Located eight miles from the port city of La Coruña, Xaz Golf is the first new 18-hole course to be built in the Galicia region since 2009. "This region of Spain has plenty of green land similar to Ireland and the UK," said Marco Martin. "Golf should be a common activity as found in those northern countries."

Stirling & Martin's design covers around 58 hectares of gently undulating land around the Pazo de Xaz estate, the focal point of which is a seventeenth century house that will become the clubhouse and small hotel.

"The golf course sits on a gentle slope that shows off incredible views over La Coruña bay and the ocean," said Blake Stirling.

At 6,700 yards and a par of 72, the course has been designed with an



emphasis on playability and fun, while still being capable of challenging better players. Each hole has four sets of tees and water – in the form of streams and a lake – comes into play on eight holes, most notably on the front nine.

"The area dedicated to golf follows high environmental restrictions and the maximum respect for the existing vegetation, which has been in consideration during the stages of design and construction," said Martin.

In addition to the golf course, there is a sports area with tennis courts and an indoor gym as well as a family and kids' clubhouse. A master planned residential community of 550 homes surrounds the course.

Since opening in late July, more than 180 members have joined the Golf Xaz.

COURSE BLUEPRINT

East River 9

East River 9 is a new nine-hole par three course at the 150-acre East River development in Houston, Texas.

Construction is near completion on the layout, created by the father-andson team of Mike and Robert Smelek of Smelek Design. It features two sets of tees "so each hole can be played from a different length, angle or elevation," said Mike Smelek.

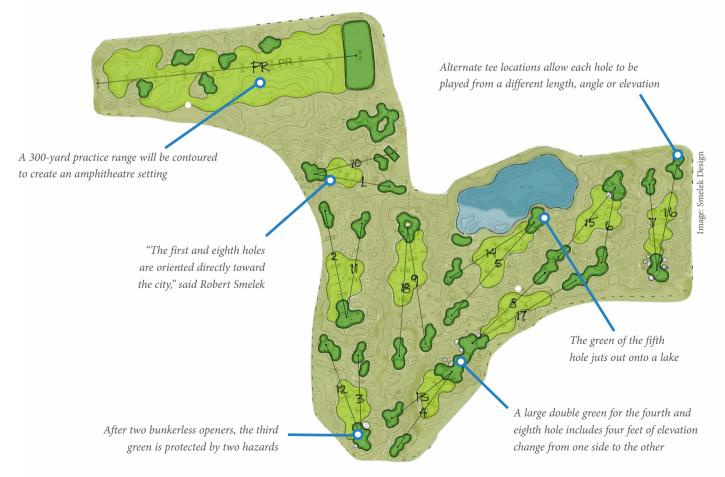
"The site for East River 9 is an abandoned industrial complex with frontage along Buffalo Bayou and a spectacular view of the city skyline," he said.

Holes range in length from 95 to 145 yards and have been designed "with



equal emphasis on both the tactical and aesthetic presentation," said Smelek.

"Important to the design has been the aesthetic considerations, such as the contouring of course features and how the sunlight will interact with them seasonally and at various times of the day. Both offsite views and views to other holes will add to the visual experience and therefore, must be included in the overall aesthetic presentation."





The new Jeff Howes layout at Golfclub Linsberg in Lanzenkirchen, Austria, is delivering strong results following its first full year of play.

"Golfclub Linsberg has gone from strength to strength in a very short period of time," said general manager Elgar Zelesner. "The full timesheet and number of new members have far surpassed expectations."

The new course – just a few miles from the Golfclub Föhrenwald layout, which Howes has been redesigning for the last 20 years – is a par-70 with a total length of 6,337 yards and just 30 bunkers. Howes was presented with a relatively blank canvas for his design. "There was only three metres of elevation change from one end of the site to the other with no features – including trees – to incorporate into the routing," he said.

His design concept called for a mix of links, lakes and woodland holes. "The overall result should give the effect of three distinct characters throughout the round," said Howes.



Howes' design concept includes a mix of links, lakes and woodland holes

"There are five links-style holes which are rugged, sown with fescue and maintained dry and fast, four Florida-like lake holes which are very flat and attractive in their own right, and the other nine is parkland, with a lot of new plants and a few formal and easily maintained traps," said Zelesner.

Trees were planted, mostly on holes four to eight, the fifteenth and sixteenth, and the links holes feature revetted bunkers. "The Wiener Neustadt landscape also offers the perfect conditions to recreate the challenging and unique golf courses of Great Britain and Ireland, where golf has its roots," said Howes.

'Revived' Tower Tee to open in spring 2022

The Tower Tee facility in St Louis, USA, which closed in 2018 to make way for a planned housing development, will reopen in spring 2022 as a nine-hole par-three course following a redesign by Art Schaupeter.

Steve Walkenbach and Mike Shamia purchased the site from the housing developer and have worked with Schaupeter to bring the facility back and give it a new lease of life.

Formerly an 18-hole par-three course, Tower Tee's new design has used some of the original corridors, however, the layout is now nine holes with greens inspired by famous par threes such as the Redan, Biarritz, Eden, Postage Stamp and Golden Bell holes. This idea came when Schaupeter walked the property with Walkenbach and Shamia.

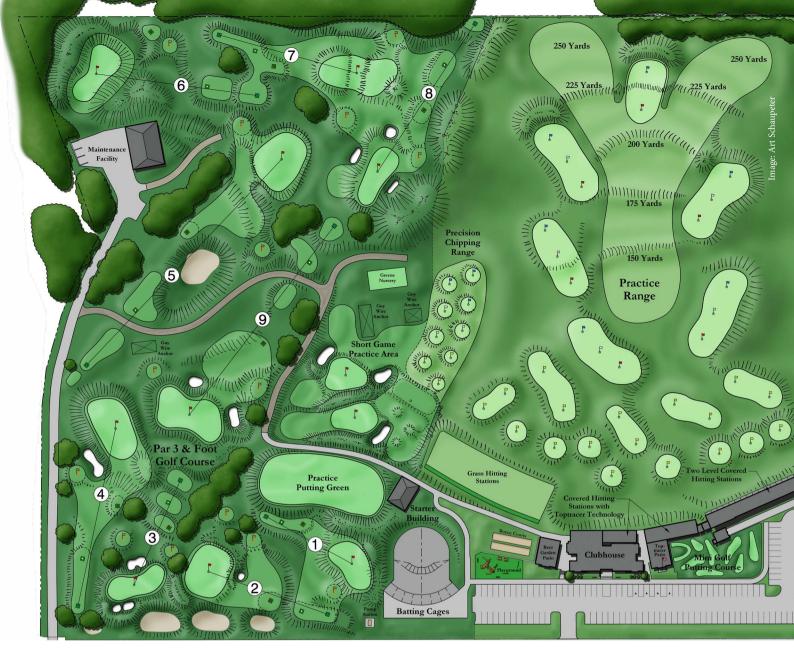
"Tower Tee's holes measure out at a little over 800 yards, so it isn't a long course," said Schaupeter. "The longest two play at about 145 to 155 yards. I tried to replicate key aspects of the various holes, especially in the green surfaces. Otherwise, the holes will generally be shorter than their famous versions, and they might not have the full complement of bunkers.

"The entire facility will be very familyoriented, and we expect a lot of kids and parents to be playing, so the fun factor took precedent over a pure replication of the holes. For instance, the Biarritz hole has the two-tiered green with the deep swale through the middle, but it doesn't have the flanking bunkers. The Redan hole has the deep front-left bunker and plays just slightly uphill to the fronting plateau, but the back-right bunkers and the short cross bunker are not included."

Local contractor Sellenriek Grading has almost completed construction of the golf course. Greens have Profile Porous Ceramics, the handful of small bunkers have liner from Better Billy Bunker, and a Les-Hill designed Hunter irrigation system has been installed. Schaupeter was



All nine holes at the Tower Tee facility are laid out within a 12-acre parcel



also assisted on the project by course superintendent Kyle Moses.

"There is a lot of interesting and fun golf packed into about a twelve-acre area. I was able to take advantage of some of the more interesting site attributes to create these specific holes, which allows the individual character of the holes to really come out."

The course will be walkable, playable in 90 minutes, and for many will only require a few clubs.

"One hole that is a personal highlight is the Golden Bell, which will be sufficiently challenging with its shallow green," said Schaupeter. "It's only about 70 yards long, so half the distance of the original, but only a

couple of paces shallower on the green. I think players will get a fun sense of what it's like to try and hit that target. We don't have a creek in front, just a low hollow of deep rough, so at least the penalty stroke for hitting into the creek won't be applied here.

"I also like my Postage Stamp hole. The juxtaposition of the Postage Stamp and the Golden Bell greens are what I like overall about the result. Their presentation and challenge are completely different. The green is very narrow, but relatively deep, while Golden Bell's is very shallow and quite wide. Each hole has a distinct character from the rest, so it will be a very interesting and engaging nine

holes to play, with no two holes being remotely similar."

The Tower Tee facility also includes a nine-hole putting course, a driving range, 15,000-square-foot practice green and a two-acre short game area.

"The two greens at the short game practice area will provide every type of situational practice that a player would want within 30 to 35 yards from both fairway and rough lies," said Schaupeter. "I've also created an adjacent chipping range with two sets of small targets positioned on exact yardages so players can work on swing mechanics and swing lengths to dial in a precise feel for various distances from 15 to 75 yards."

THE INTERVIEW with Ben Chambers



"The recent work has brought a unique part of the property to our hands"

GCA spoke with Ben Chambers of Centreline Golf Design, who has overseen work on eight greens at St. Michael's Golf Club, near Sydney, Australia

What has been the aim of the project at St. Michael's?

The main focus has been the green complexes and surrounds. The greens were very old, full of poa annua and had very little root profile. The surrounds were kikuyu and were inconsistent from a playability standpoint.

The brief given by the club was to rebuild the greens with a new and improved greens mix along with new contouring and couch (bermuda) grass surrounds to match the existing 'Windsor Green' fairways.

What has been completed so far?

We initially transformed the practice hole to demonstrate to the membership what could be done. We added a new bunker style that would suit the site and its surroundings and trialled Pure Distinction bentgrass on the





At the second hole, Chambers has renovated bunkering and the green to allow for more running shots

green. Once the grow-in was complete, a programme was developed to upgrade the existing 18 holes with this same consistent formula.

Since then, one phase of work has been completed on the first, fourth, eighth, ninth, eleventh and sixteenth holes, and another phase on holes two and three. During work on the most recent two holes, I developed my own design company, Centreline Golf Design, and I was granted full operations as the golf course designer.

The work we have just finished on the second and third holes has brought a unique part of the property to our hands. The second is a short par four with a blind, uphill tee shot that leads to a short, downhill approach. The existing green had a slope of three per cent and bunkering that protected the front of the green and didn't allow for running shots, so we addressed that.

The existing tee on the third was small and confined with small plantings, so we opened up the area, doubling the size of the tees and making a seamless transition from the second green to the new teeing area. It is a tough, uphill par three that can play into the northeast wind. If you missed the green you would end up rolling back down the hill. We lowered the green by 0.75 metres, which enabled us to create multiple ball-holding areas. There was a quirky berm around the back of the green, so I decided to incorporate it into the

new green to create a semi-punchbowl that has incredible panoramic views over the Pacific Ocean. We continued the short grass transition into the new fourth tees.

What will the changes bring to the golf experience?

Golfers will notice more consistency in the greens with a pure bentgrass surface compared to a large percentage of poa. Some of the new greens are larger with more pinnable areas. But the big difference is the removal of the kikuyu surrounds. The new couch surrounds will play a lot firmer and faster, bringing the running game back into play which is what is required on days when the wind blows.



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Construction work is progressing on the first golf course to be laid out in Iraq. Designed by golf course architect Cynthia Dye McGarey, the course is located in Erbil, capital of the autonomous Iraqi Kurdistan Region (KRI) in northern Iraq.

The first phase of work was completed last year and included grassing the practice area, and holes ten to twelve and sixteen to eighteen. All other holes were rough-shaped in autumn, prior to the region's rainy season. Turkish contractor Daax Construction began the second phase of work in March 2021, with golf course construction management handled by Golf International.

"Due to the travel restrictions imposed, the shapers were not allowed to leave the country," said O'Brien McGarey, CEO and president of Dye Designs. "So construction work continued throughout the summer. Before then, Cynthia was making regular site visits

to Erbil but has been 'grounded' in the USA since the onset of the pandemic."

The architect has managed to keep up to date with the project's progress remotely, making design decisions and passing on comments to the shapers every few days.

"The course is routed through a valley," said Dye McGarey. "Most holes border a meandering stream and lakes that flow from the north end of the site to the south. Mediterranean-style villas will surround the perimeter of the course on the adjacent hills.

"The site was previously planted with wheat and had several goat farms. It reminds me of the site at Paiute Golf Resort in Las Vegas, but Erbil has more topography, and the dirt is better. The weather is similar too, cold winters and hot summers, although Erbil gets more rain."

Greens are seeded with Pure Distinction bentgrass and fairways with Latitude 36 hybrid bermuda, imported from Atlas Turf International in the USA. "The plan is to harvest stolons from the driving range to grass the remainder of the golf course," said Dye McGarey.

The golf course is irrigated throughout, with water coming from several wells located on site. The community will get supplemental water piped in from the north. Toro's irrigation products have been selected on the project, with Turkish distributor Golf International providing the materials and supervising the installation, which was completed in autumn 2020.

"This golf community will be a very nice addition to Erbil," said Dye McGarey. "Since there is not a lot of recreational activities in Erbil, the people seem to be very excited about this project. Hopefully, just as the Azeris have taken to playing golf, the Iraqis – given this opportunity to play – will embrace the game."

Jones breathes new life into Ocean Winds

Rees Jones has completed a renovation of the Ocean Winds course, originally designed by Willard Byrd in 1973, at Seabrook Island Club, near Charleston, South Carolina.

"When it was built it was regarded as one of the best courses in the state," said Jones. "It's like two courses in one; you have the live oaks on the front nine, and the saltwater marshes and long views, then dunes holes on the back nine. It's a very diverse site that enabled Byrd to really use the natural features effectively."

Jones, with lead designer Bryce Swanson, began the project with a full assessment of the course. "We identified what we considered to be some problems," says Jones. "The live oaks are spectacular in how they frame the holes but present some issues with overhang. While you can trim them, you can't remove them. So we had to look at the shade issues."

"A lot of our changes focused on playability," said Swanson, in a video about the renovation available on the club's website. "The original architect had elevated greens, with bunkers in front, so it made it really hard to access the surface for people – it only allowed them to fly the ball onto the green."

The design team also wanted to address crowned fairways, which had originally been created that way to help with drainage but often punished players by kicking balls away from the line of play.

Another significant aspect of the renovation was bunkering. With hazards to be rebuilt using new technology, Jones and Swanson had the opportunity to review placement. "We could make them smaller and more playable and locate them where they don't hurt the average golfer, yet they challenge the better player," said Jones. "We eliminated a lot of the



Seabrook Island Club is located on the South Carolina coast, just south of Charleston



bunkers in front of greens so you have shot options for the ground game or the aerial game, which is especially important when the wind is blowing on a coastal site."

The aesthetic of the bunkers was updated to give them a more windswept look, too. "Bunkers in the windswept areas of the world, especially in the British Isles, often have an irregular line, so this was appropriate for this coastal site," said Jones.

Green surfaces were renovated and the seventeenth and eighteenth greens were relocated. "On the eighteenth, we moved the green for better access and to make it fairer, and on the seventeenth it was relocated so you didn't have a tree impeding your shot, and to bring it closer to the saltwater marsh," said Jones. "The saltwater marsh is really dramatic on the back nine and I think that we brought that into play. It's really a wonderful finish. Fifteen is a par three and we did a lot of changes on the tees there."

"We wanted to make the golf hole look like it was dropped in the middle of the marsh," said Sean Hardwick, the club's director of golf course maintenance, of the fifteenth. "We took a lot of the grasses that were already growing along the side of the marsh and ran them through the teeing surfaces and put the pods of the tees in the middle of them."

The course has six sets of tees, all named after birds, from the 4,674-yard Heron to the 6,802-yard Hawk tees. "Every tee box presents a different course," said Chick Vladuchick,

the chair of the club's master plan committee. "So rather than having one Ocean Winds course, we have five or six or seven.

"We talk about golf clubs being fitted to a player – well a golf course can be fitted to the capability of the player, and I think that's really exciting."

"Seabrook Island Club is a community of very active golfers," says Jones. "What we, as architects, have to do is to design for the clientele. We shouldn't be building golf courses for the critics, we should be building them for the people that actually play them."

Following the success of the Ocean Winds renovation, the club is expected to turn attention to its Crooked Oaks course, originally laid out in the 1980s by Jones's father Robert Trent Jones.





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The first phase of renovation work is complete on the Magnolia course at The Landings Club in Savannah, Georgia, overseen by Brandon Johnson of Arnold Palmer Design Company.

Work began in March 2021 following a review of the golf course by APDC, which identified that the greens infrastructure needed to be addressed. "The subsurface drainage had served its lifespan and the greens had shrunk significantly in size and shape, leaving several with only severe slopes available for pin locations," said Johnson.

"Furthermore, the existing bunkers had morphed in size and shape and coupled with shrinking greens, had lost their meaningful relationship to the most important feature on the course."

The focus of the first phase was to redesign and renovate bunkers and greens, with the aim to improve their

playability, aesthetics and maintenance.

"The new greens provide a variety of pin locations, some tucked down in bowls, gathering slopes, down on grade, perched on plateaus or next to sideboards and backstops to provide fun creative options to navigate the hole," said Johnson. "Work on bunkers has seen a significant reduction in overall bunker square footage. The reduction has allowed for slightly wider fairways within the mature oak playing corridors.

"Meaningful width was introduced through the reduction, realignment or elimination of bunkers, reshaping, the incorporation of contour, and the adjustment of fairway mowing lines. While the corridor widths stayed the same, the course will play and feel slightly more generous off the tee. Most approaches and surrounds have been

opened up to allow for a wider variety of approach and recovery shots."

While addressing infrastructure was the main aim of the project, the club hopes the renovation elevates Magnolia's look, strategy and character for the next 40 years. "We were able to differentiate the course from others within the community with strategic and aesthetic enhancements that simultaneously addressed the functional and infrastructure needs of the club," said Johnson.

Johnson was assisted on the project by course superintendent Chris Steigelman and shaper Sterling Garner.

The course is expected to reopen in November 2021. A second phase of renovation will cover tees, fairway shaping, lake line adjustment, tree removal, native vegetation restoration, irrigation and cart path conversion.



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-Zachary Reineking, Director of Course Maintenance for Erin Hills

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Synthetic turf course in construction in northeast France

Construction work has started on a new nine-hole short course at the Golf Acadamie 57 facility in Longevilleslès-Metz, France, using synthetic turf for tees, greens and bunkers.

Diamond Golf Architects has created a layout of par threes and fours for the course, which is now being built by Greenshaping and Southwest Greens Construction. "Constructing
tees, greens and bunkers
with synthetic turf has a big impact
on the maintenance budget that will
be needed to maintain the course
to a high level," said Christophe
Estermann, director of Academie 57.
"We have tested Southwest Greens'
product intensively for two years
and it has taught us it will stand the

test of time. More importantly, we just need to maintain our

Image: Diamond Golf Architects

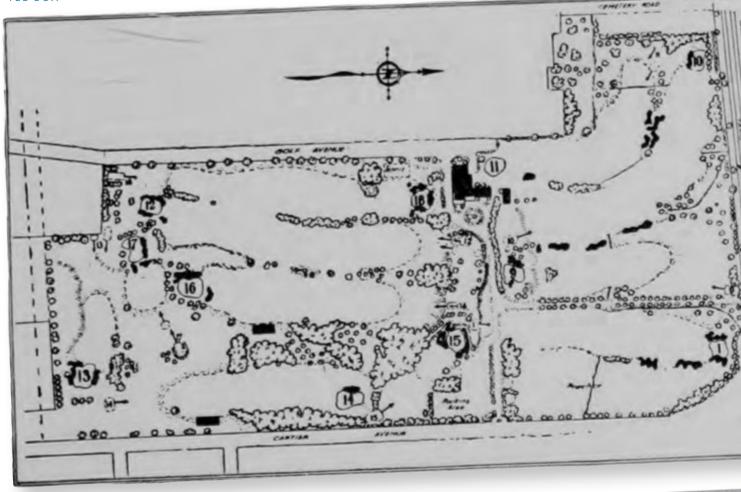
natural fairways and rough which means a lot less machinery and greenkeeping staff involved."

Alexandre Groysiller, managing director of Greenshaping, a partner for Southwest Greens in France, said: "We use classic construction methods and there are no compromises needed to make the synthetic systems work with the design. We simply execute Diamond Golf's design and install the Southwest Greens solutions to mimic a natural course with the benefits of utilising synthetic turf solutions."

Kevin Holinaty, president of
Southwest Greens Construction, said:
"The fact that our products come
with five years performance warranty
and a full maintenance manual tells
you our industry has developed to
a serious alternative for golf course
owners and is a safe bet to invest in.
Many have and will continue to take
a 'seeing is believing approach' as
to whether our product can achieve
these objectives. We are glad to take
on the challenge and it motivates us
to improve our portfolio."



Synthetic turf will be used for tees, greens and bunkers on the new short course



FROM THE ARCHIVE

Jeff Mingay and Christine Fraser develop master plan for Beaconsfield

The Beaconsfield Golf Club in Quebec, Canada, has appointed Jeff Mingay and Christine Fraser as consulting architects and will develop a master plan for renovation work.

Beaconsfield was founded in 1904 with an original six-hole routing. The layout was extensively renovated in 1941 by Stanley Thompson and is now considered by many as a Thompson original.

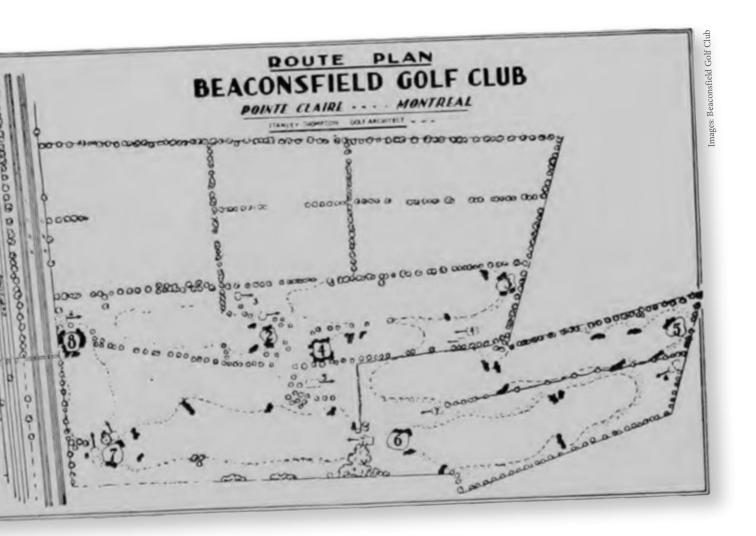
Mingay and Fraser will work closely with the club's superintendent Daniel Read to evaluate the entire facility, and their work will cover tree management, drainage, golf course features and teeing options.

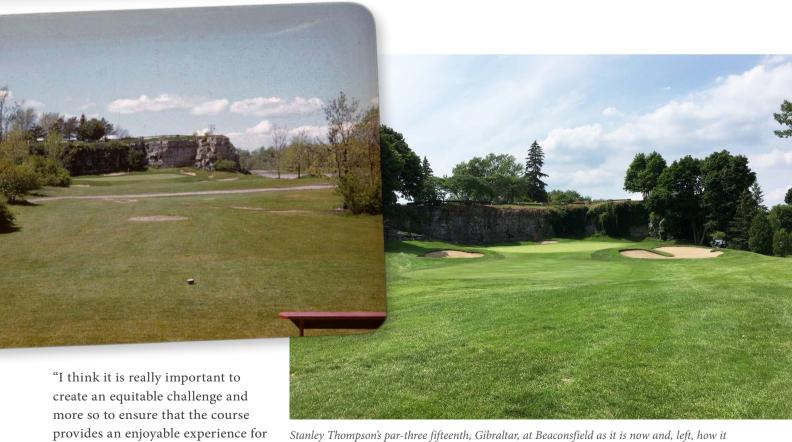
"Throughout the interview and proposal process at Beaconsfield, I fell in love with the place," said Mingay. "It's a very distinctive property with unparalleled history and outstanding clubhouse architecture, that also happens to feature one of Stanley Thompson's most creative golf course designs. Christine and I are very excited about this opportunity to dust off the best

elements of Thompson's original design while also ensuring that the course functions in a modern context relative to contemporary golfers' expectations."

"As part of developing a long-range golf course improvement plan at Beaconsfield, I'm most excited to ensure that the club's female members are effectively heard and properly represented," said Fraser.







looked in 1956. Top, Thompson's 1941 plan for Beaconsfield's renovation

all types of golfers going forward."



Bill Bergin will shortly begin the second phase of renovation work at Waterfall Club in Georgia, USA.

Waterfall Club was originally designed in the mid-2000s by Scott Pool, a design associate for Pete Dye who later founded GreenScan 3D, a business that offers lidar scanning for golf courses.

"The initial project focused on bunker maintenance and drainage," said Bergin, of the first phase in winter and spring 2020. "Once we got into the project, it became apparent that the amount of thatch buildup on the bentgrass fairways was much of the problem for the course's poor drainage. The fairways were also incredibly spongy.

"The course sits at about 2,000 feet above sea level which is perfect in north Georgia for bentgrass greens, but too hot for bentgrass fairways. The club has begun a conversion to Zeon Zoysia fairways, and we continue to work on that now."

Work on bunkers included installing liners from Capillary Concrete. "They were incredibly difficult, averaging almost eight feet in depth, with four or five bunkers in the 12-foot-deep range," said Bergin. "We lifted the bottoms and did an excellent job of water diversion around all the bunkers. They now fit the landscape and strategy of the golf holes very well. We also reduced the bunker square footage by 10,000 square feet, while keeping them bold and relevant."

Gil Hanse appointed to restore Yale Golf Course

Yale University has hired Gil Hanse to prepare a master plan intended to bring back the full scale and drama of Yale Golf Course, a 1920s design by Charles Blair Macdonald and Seth Raynor.

The course has been widely heralded for the boldness of its design but had gradually fallen into a deteriorated state due to tree overgrowth, bunker deterioration, green shrinkage and poor drainage.

Hanse told *GCA* that the likely scope of work at Yale would include a complete reconstruction of expanded putting surfaces – rebuilt to USGA specifications. Plans also call for a thorough overhaul of the bunkers, fairways, course drainage, irrigation, tees and trees. "The goal is to bring back the scale of the grounds," he said. "It

was massive, grand and we hope to get back to that."

Among the resources at Hanse's disposal are the original design plans – which include a routing for two 18-hole courses, though only one was built. Hanse said: "We also have a trove of aerials, ground imagery, maps and notes that Yale has made available to us via Dropbox, and we have begun combing through it." Among the dramatic changes expected will be restoring the position of the green at the par-four third hole from its current position – to which it was moved, behind a hill – back down to its original site near a pond.

Given the vast scale of work to be done, Hanse said that he expects to start at the end of the 2022 golf season and require full closure for all of 2023.

The Redan thirteenth hole at Yale Golf Course

GOOD READ

"People want to see beauty"

The cover story of the latest issue of *By Design* magazine – produced for the American Society of Golf Course Architects by the team responsible for *GCA* – explores whether aesthetic appeal is becoming an increasingly important aspect of golf course design.

"I've always believed golf is a visual game, 100 per cent," said Jeff Lawrence, designer of Thracian Cliffs in Bulgaria. "People want to see beauty."

The Fall issue of *By Design* also looks at the legacy of golfing pioneer Marion Hollins and the impact she had on the sport's most famous courses, which included Cypress Point, Pasatiempo Golf Club and Augusta National.

To download the latest issue and subscribe to By Design, visit www.asgca.org



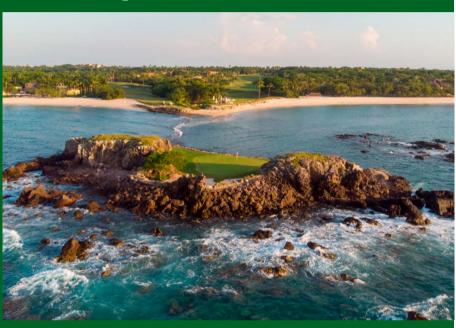
Global round-up

First phase of renovation nears completion at Punta Mita

Jim Lipe is overseeing a multi-phase renovation project on the Pacifico golf course at Punta Mita, a resort and residential community near Puerto Vallarta, Mexico.

Both of the resort's Jack Nicklaus Signature courses (Pacifico and Bahia) will be renovated over a five-year period. The first phase focuses on the Pacifico course and includes work on greens, bunkers, surrounds and tees, which is scheduled to be complete by November 2021.

The second phase will start in April 2022, focusing on Bahia's greens, surrounds and tees. Plans for phases three and four tentatively include replacing grass on fairways with Trinity Zoysia.



Dirab Golf & Country Club reopens following renovation

Dirab Golf & Country Club near Riyadh, Saudi Arabia, has reopened for public play following a golf course renovation.

Work on the course was completed in early 2021 and includes landscaping, agronomy and general course renovations.

"Through making these improvements, we hope that Dirab will become the capital's go-to golf course," said Majed Al Sorour, deputy chairman of the Saudi Golf Federation and CEO of Golf Saudi. "I am confident that our extensive investment will entice members, visitors, golfers, and non-golfers to enjoy the new range of benefits and remarkable golfing facilities."



Construction complete on two new courses in Vietnam

Construction work is now complete on two new 18-hole courses, designed by Greg Norman Golf Course Design, at PGA NovaWorld Phan Thiet in Vietnam.

Work on the 7,400-yard Ocean layout was finished in April 2021, with the 7,100-yard Garden course following this summer.

"We designed two distinctly different golf courses," said Chris Campbell, senior vice president of Greg Norman's design firm. "The Ocean course has a very natural look and feel and will test the best players in the world on any given day. The Garden course is a more manicured, parkland style course that is fun, but challenging in its own right. Both give a nod to the sandbelt of Australia."

The Garden course is expected to open in November 2021.





Singapore Island unveils new 27-hole course by Graham Marsh

Singapore Island Country Club has unveiled 27 new holes designed by Australian golf architect Graham Marsh, on the site of its previous 18-hole New course.

The club has gone from four 18-hole courses to two 18-hole courses (Bukit and Island) plus the new 27-hole layout. The new 27-hole course will be playable in three combinations to form an 18-hole round and will collectively retain the New course name.

"While the Millennium and Peirce nines are a mix of well-balanced holes with similar terrain, creek crossings, lakes, reservoir views and strategic challenge, the Forest nine exists in its private environment with a number of 'risk and reward' holes which establishes its notoriety for golfers for all proficiencies," said Marsh.

Europa renovation completes 54-hole project at La Cala

La Cala Resort, located between Málaga and Marbella in southern Spain, has reopened its Europa course following renovation work.

The final phase of the project at the resort saw Europa's greens and bunkers worked on. Following their completion, all 54 holes at La Cala have now been renovated, with the America course finished in 2018 and the Asia layout in 2019.

Europa's greens were transformed to bermuda in August 2020, while this summer's work included new bunkering and the renovation of existing bunkers with a focus on aesthetics and consistency. There have also been small design changes with some bunker





ALLY MCINTOSH

Change for change's sake?

Ally McIntosh offers a plea to links courses to resist the trend towards homogenisation of design

Il things change. Most things veer to the right, a move that comes with either age and experience or spent dreams and a hardening heart depending on your point of view. The head-on rush to embrace conservatism affects all walks of life: a socialist starts to question his youthful values; a wild child becomes an established member of the bourgeoisie; a links golf course removes its quirky edges as successive generations conform to some arbitrary 'norm'.

Aside from having their pick of the land, early course architects had one huge advantage over their modern equivalents; they weren't bound by preconceptions of how a golf course should play and what it should look like.

These days, we have 150 years of history, millions of consumers and nearly as many administrators reminding us what they expect to see and pay for in their golf courses. But back in those halcyon days of the late 1800s where the motto may well have been 'anything goes', holes were laid out because they amused and cajoled those that would play them. "Look at that huge sandhill there!" one could imagine Victorian golfers saying. "Let's play straight over it. Wouldn't that be a laugh?"

How things have changed. The rough and ready side of golf course architecture slowly diminished through the twentieth century. By introducing the strategic school, the virtuoso

architects of the roaring twenties were innovative with hole routings and hazard placements, but they were already moving away from lay-of-the land green sites to a more built solution, 'modern' design as Bernard Darwin called it. Colt, MacKenzie, Ross et al introduced the concept of the golf course as we know it today. Links courses had their greens relocated from lowlying punchbowls to visible and water shedding high points. Many of the more outrageous dune carries were eradicated for a more sensible, more mature, less maverick alternative. Think the original Maiden at Sandwich for one.

We'd be hard pushed to find anyone
– save perhaps a direct descendent of
Old Tom himself – that would argue



At Seacroft, Clyde Johnson restored a deep bowl to the front-right of the sixteenth green

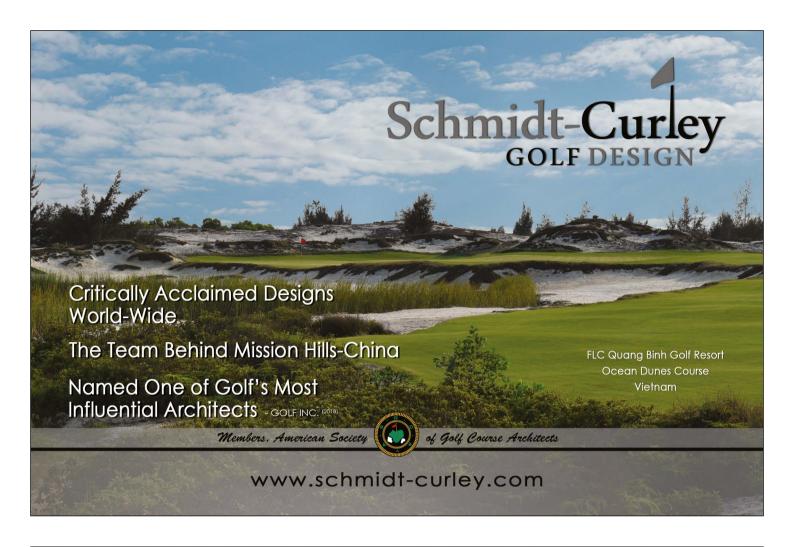
that the changes these pioneers brought about did not vastly improve our links courses. Each one remained individual, subtle and governed by the land it lay upon. Their potential had been maximised. It wasn't called the Golden Age for nothing.

The trouble is, we had to keep tinkering. Human nature just won't leave anything be. The floodgates didn't open initially but since the advent of social media and the internet, the perceived need for clubs to keep up with the Joneses has accelerated exponentially. Instant gratification is king. Subtlety has left the building.

Architects might argue that they are only serving a club's needs when called upon to present renovation plans. But there is a duty of care where at every step of the process, the first question should be: "Why does this need to be changed?" This isn't happening regularly enough, the result being that our links courses - once the bastion of individuality, quirk and variety are moving towards homogenisation, similar solutions being applied to them all. Like a slow-growing tree, many of these courses have evolved to be unrecognisable from when they were initially routed, the magnitude of change often unrealised by the members. Almost always, they come to resemble their neighbours and brethren more closely, the maverick touches disappearing with time. Individuality removed; death by a thousand cuts.

There are always reasons, many of them very valid. Erosion can bring about changes as storms batter the first line of defence (though if one green is lost to the sea, don't reroute three holes). Health and safety concerns need to be addressed (but tend to be overplayed on courses that have stood the test of time for longer than any of us). Championship logistics require changes to accommodate spectator flow and infrastructure (yet seem to always come with additional reshaped greens and new bunkers).

To enable Royal Portrush to host the 2019 Open, space was needed for the tented village. The removal of the old seventeenth and eighteenth and replacement with two fantastic holes





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The par-four eighth at Royal Portrush, a necessity and design triumph for the 2019 Open, but original Colt greens were lost

over ground occupied by the Valley course was both a necessity and a design triumph. But the eradication of other original Colt greens and movement of bunkers is perhaps one example of where that 'why?' should have been quizzed further. Across our courses, classic greens get removed one by one, fairway bunkers are relocated to test only the elite players and quirky holes are done away with because a club might have delusions of grandeur that one day it will need to be fit for Rory, Dustin et al. It all feels a little like designing to standard.

The same can be said with the look and feel. Presently there is a worldwide obsession (it has gone well beyond a trend) to build naturalised, frilly edged bunkers and open 'waste' areas. An admiral goal and all well and good if scraped out of original, sandy landforms. Retrofitting them to flatter dune systems that have long ago stabilised and succeeded to grass can seem contrived, especially when the

bunkers are housed in custom-built mounds disconnected from the original dune ridges. The touted ecosystem improvements that come with exposing open sand seem minimal at best, a fabricated storyline at worst.

Stylistically, work should be sympathetic to the individual links landscape that is presented, not a copy/ paste answer to every problem posed. The new par-three fifteenth at Royal Liverpool is a spectacular addition but hopelessly out of tune with the elegant subtlety of one of England's most understated classics, just one example of many where a dramatic photograph for the global audience is prioritised over harmony with the other seventeen holes. It would fit far more snugly in Ireland's rugged west coast dunes, among the untamed blowouts and wild Atlantic Ocean.

It would be wrong of me to suggest that all change is bad; or that there isn't excellent work happening throughout GB&I. Much of what we are seeing improves our courses. Almost all of it is executed with high professionalism and precision. Some of it is even necessary. Whether it is Tom Mackenzie's playful rejuvenation of Trevose, Clyde Johnson's low-budget and loving update to Seacroft, Ken Kearney's measured work at Ardglass or Martin Ebert's superb alterations to the tenth and fifteenth at Royal Troon, there are intriguing projects happening continuously.

But my plea to clubs and architects alike is to pause and question the need before ploughing headfirst into major builds. Links land was formed over thousands of years and no hand of man can replicate the elements exactly. Respect the past and if work is agreed to proceed, remember that variety can be a welcome bedfellow to restraint. As Joni Mitchell once reminded us, "you don't know what you've got 'til it's gone". GCA

Dublin-based architect Ally McIntosh is the principal of McIntosh Golf Design

No Maur Saind, Honeyman

SAND CRISIS

Written by Adam Lawrence

Sand is crucial to golf, but, across the world, supplies are coming under pressure. Golf is only a tiny player in this crisis, but the effects are potentially catastrophic. Adam Lawrence looks at how the game should respond

Id Tom Morris, basically the founder of the greenkeeping profession, put it best. "Maur saind, Honeyman, maur saind", he famously told his loyal assistant, as they strove to improve the conditions on the St Andrews links. Tom and David Honeyman basically invented the idea of topdressing the playing surfaces with sand to improve their smoothness.

Golf was born of sand. Sand underpins all the classic links, and a remarkably high percentage of the courses rated as the world's best. Of *Golf* magazine's most recent list of the top ten courses on the planet, only two, Oakmont and Augusta National, are not built on sandy soil.

Sand remains central to the continued existence of golf. When courses are constructed or reconstructed, sand is used to build the putting greens, and sometimes the tees. When soils are heavy and drainage is poor, a popular, though expensive, response is to cap the playing surfaces with imported sand before seeding. Greenkeepers, following on from Old Tom, continue to topdress courses with sand to improve the smoothness of the turf. And, of course, sand bunkers exist on the overwhelming majority of courses, whether or not the sites on which they sit are sandy.

So sand is necessary for virtually every course, every year. But the fact is that sand usage across the world (overall, not just in golf) is way exceeding output, and this seems unlikely to change in the near future. Dr Louise Gallagher, formerly of the Global Sand Observatory

Institute, and the lead author of a recent United Nations Environment Programme (UNEP) report on sand and sustainability, told GCA: "Sand is the second most consumed resource in the world, after only water. Fifty billion tonnes of sand and gravel are consumed on an annual basis. We have no idea of where that comes from, or where it is produced. Country-bycountry basis information is available but it isn't uniform. Knowing where sand is, is one thing, but knowing what sort of sand and for what it is used is much harder, as is knowing how much we can take and use safely."

"River sand is what people love to work with, because it's already sorted and is highly desirable," Dr Gallagher continues. "It is becoming more scarce in certain parts of the world. We have



seen a massive drop-off in sediment throughput in some very large rivers. There was a study produced for China that showed nine of its biggest rivers had experienced an 85 per cent drop-off in sediment. It's like a canary in a coal mine. It's telling us that we are taking so much material from the rivers that we need to keep an eye on them. Now, river sand extraction limits are becoming more common, and, for example in China, there is evidence that they are starting to work."

At present, it is not possible accurately to monitor global sand use. However, Pascal Peduzzi, director of UNEP's Global Resource Information Database said it could be measured indirectly, because of the close correlation between the use of sand and cement.

The UN estimates that 4.1 billion tonnes of cement is produced every year, driven primarily by China, which constitutes 58 per cent of today's sand-fuelled construction boom. The global use of sand and gravels has been found to be ten times higher than that of cement.

The result of this huge exploitation of sand supplies is, inevitably, upward pressure on prices. "Sand and aggregate are very localised markets. Getting price data is therefore difficult," says Dr Gallagher. "There is no global price for sand, but we know that a lot of the sand out there

"Sand is absolutely crucial to golf's continued existence, at least in the form that we have known it for more than a century"

The global rate of sand use — which has tripled over the last two decades, largely as a result of surging urbanisation — far exceeds the natural rate at which sand is being replenished by the weathering of rocks by wind and water.

is underpriced, because it's not taking environmental costs into account."

Golf is in an invidious position in respect of sand availability and price issues. Sand is, as we have already established, absolutely crucial to golf's continued existence, at least in the form

that we have known it for more than a century. But, at the same time, golf is a tiny speck on the overall global map of sand users, with the construction and civil engineering sectors dwarfing golf. When something is strategically important to you, but you have effectively no influence over the market, you are in a difficult position. "Sand supply for golf is suffering, as suppliers are more interested in producing for concrete," says Scottishbased contractor David Nelson of Greenmakers by Nelson & Vecchio. "The price is very localised depending on each country or area's natural resources, but across the board, we have seen a price increase of 30-40 per cent in the last five years. And also, as the sand becomes harder to extract from the ground, it becomes more expensive for the end user." As all greenkeepers and golf construction specialists know, sand is not just sand. The apparently insane practice of shipping sand into desert countries for golf courses there is not as crazy as it might seem, because desert sand particles, eroded by wind rather than water, are too smooth and rounded to pack down in the right

Loch Lomond in Scotland sandcapped its course to address chronic drainage problems



coastlines, quarries and rivers around the world, and it is these sources, as Dr Gallagher points out, that are coming under most pressure.

"But the truth is that it's not about source, it's about performance," she

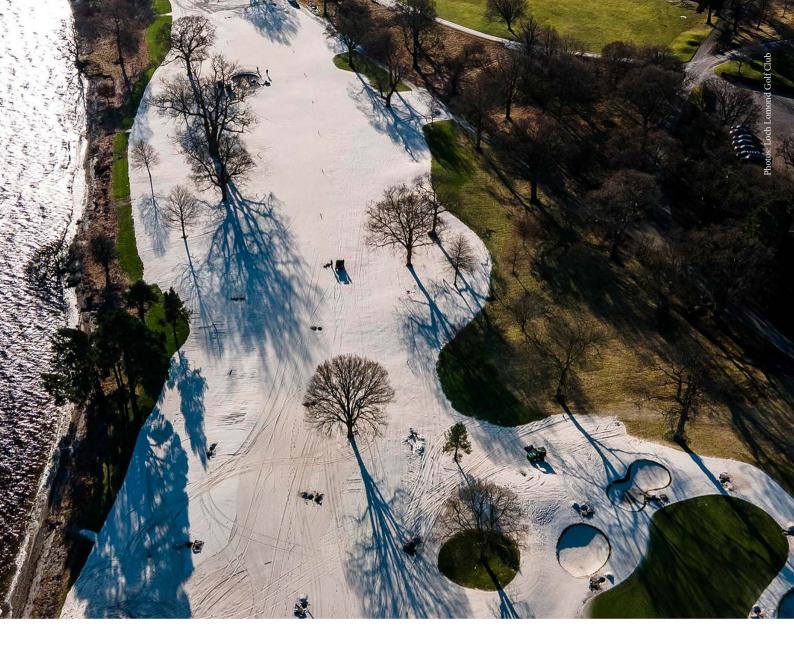
"It does surprise me that the USGA has done nothing on exploring alternatives to sand – or for that matter peat"

way for green construction or bunker use. For golf usage, angular particles that lock together are sought after. Unfortunately for golf, precisely the same issue applies for construction purposes. Angular sand is typically sourced and extracted from seabeds,

says. "We are looking for material that will perform in a certain way, and we need to let go of the idea that it needs to be from a particular source, especially rivers. There is evidence that high-value sands are becoming more of a tradeable commodity – we are hearing

more about international trade in sand – especially in places like Singapore and the Middle East that are resource-poor in appropriate sands. We know that transport and fuel costs are very key in terms of demand for sand, but if people are shipping the stuff long distances it's not a good sign. Because of a global tightening of environmental regulations, the material might be there, but getting access to it is becoming harder in some areas."

So, the question for golf is how to deal with a world in which sand is harder to find and more expensive when you do find it? Sam Thomas of the Golf Environment Organization (GEO) says that the industry is really only in the very early stages of



addressing this issue, with little or no guidance coming from the golfing authorities as yet. "It does surprise me that the USGA has done nothing on exploring alternatives to sand – or for that matter peat," he says. "Heads in the sand' is an easy phrase to use, but frankly it isn't that far from the truth. Topdressing is what we see as creating the largest carbon footprint for golf courses in the future. It's the diesel they're burning trucking in sand week after week. It may be that greenkeepers in some locations will need to be prepared to be a little more flexible about exactly what sort of sand they will use to topdress with. If we need to import sand, the closer to the site that we can find a quarry - even if the sand

doesn't quite match the specifications vou wanted - the better. Can we ameliorate non-conforming sands to a point that they will do what we need them to? If all we have is dune sand, what do we need to add to it to make a mix that works for us? But if you ask clubs, 'what are you going to do in thirty years?' people do turn a little pale. A lot of agronomists are very conservative – they still tend to err on the side of caution and are afraid to advise the client to do something different. Now that said, I cannot think of any large-scale alternatives to sand that would work for golf. Slag from iron and steelworks is being used as a replacement for gravel, but not for sand. There is some interest in

grinding down recycled glass to use it as a sand replacement – certainly in the Middle East there has been discussion about this – but it is hard to see it providing sand in the quantities that are used by courses."

Although in terms of overall consumption it is dwarfed by topdressing, the biggest single use of sand that any course will ever make is to cap the site to improve drainage. David Cole, director of golf course and estate at the exclusive Loch Lomond Golf Club in Scotland has recently completed a massive project to sandcap the course, which has always had chronic drainage problems (for more on this project, see the January 2020 issue of *GCA*). "We used

just over 80,000 tonnes of sand for our project. That put approximately 200mm of sand over 25 hectares," he says. "We were very fussy with the sand – it had to meet USGA specifications; if it hadn't done so, the project would have failed." Photos: JCB Golf & Country Club

While the Loch Lomond project has succeeded triumphantly, it is legitimate to ask how relevant such processes are to other courses. "There are a number of courses that we are working with that say, 'we must sandcap'," says Sam Thomas of GEO. "But to what depth? How much of the site do you want to cap? A lot of the time it is driven by the client's golfing

"We renovated our bunkers ten years ago and had a proper engineered liner put in, and we use very little sand in them now"

IQ – wanting to achieve something that isn't feasible on their site.

They believe they can buy in links conditions. But can they, and for how many years does the sandcap hold up? These questions really need to be answered by anyone before starting any kind of capping project."

At the recently completed JCB Golf & Country Club in Staffordshire, England, on a site that was almost as wet as Loch Lomond, architect Robin Hiseman of European Golf Design, took a different track. Although

considering a sandcap of 150mm depth – which would have required 42,000 cubic metres of sand, Hiseman and his construction team changed their plans, and instead spread only 25mm of sand across the site, a total of 7,000 cubic metres, just enough to give a uniform seed bed. Extensive sand banding was also used to improve the drainage. "I'm not sure how much sand was put back in the

bands, but the saving was in excess of a million pounds," Hiseman says.

Part of the solution to golf's reliance on sand will certainly be found through technology. "Our industry is slow to adapt on the design and construction side," says John Holmes of grass supplier Atlas Turf. "Many architects are still using construction specs from twenty years ago. Take sandcapping: installing more drainage and using porous



ceramics can decrease or even eliminate the need to cap courses. Or topdressing: some of the newer turf varieties produce less organic matter which ultimately can reduce topdressing needs. My club changes out its bunker sand every two years because of contamination. If we had a modern liner system in place, we could go much longer."

Echoing this theme, Capillary Concrete CEO Martin Sternberg highlights his firm's new Wash Box, which allows course managers to pressure wash their bunker sand to remove contaminants. "One client of ours estimates that two man-hours spent washing saves about 6.4 tonnes of sand per year," he says.

Les Howkins, course manager of the Richmond club in England, takes a similar, technologically-driven line. "We renovated our bunkers ten years ago and had a proper engineered liner put in, and we use very little sand in them now," he says. "It doesn't go anywhere, and we don't get contamination. The sand is as clean now as it was the day it went in. We buy one 20-tonne load each year and frankly we could get away with less. People use upturned turf and wonder why their sand is black every year from washing dirt off the faces." GCA







o know, from the very start of a golf project that if the result isn't a course worthy of being ranked in the top five in so golf-rich a country as Ireland, the project will basically be a failure, must be daunting, even for someone with the track record and self-confidence of Tom Doak.

But in essence, that was the situation facing Doak when he was commissioned to build a new course on the St Patrick's Links site, adjacent to the long-established golf resort of Rosapenna in County Donegal, to Ireland's far northwest. St Patrick's was originally developed as a 36-hole complex by local hotelier Dermot Walsh: legendary Irish architect Eddie Hackett and former Royal County down assistant pro Joanne O'Haire designed the two courses. A Dublinbased developer bought the site in the early 2000s and commissioned Nicklaus Design to build new golf

courses; the Nicklaus crew had been on site only a week in 2008, just in time to clear the vegetation from a swathe of the site when the key lender, Bank of Ireland, ran into difficulties, and the project had to be abandoned.

The site lay fallow for several years.

Ownership was transferred to NAMA, the National Asset Management

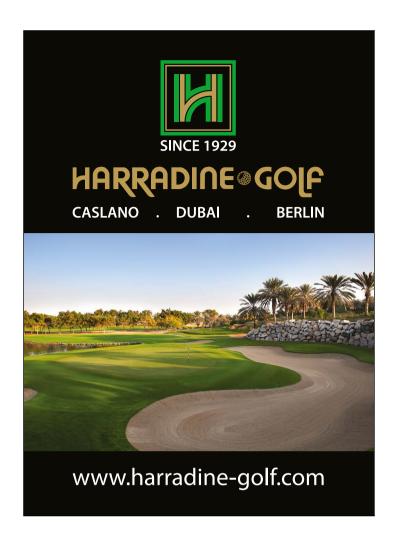
Agency, created by the Irish

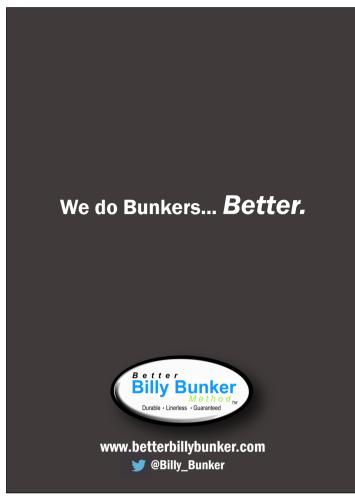
2018. Most of the greens were built during 2019, and although the Covid pandemic meant that Doak was unable to return to site during 2020, the on-site crew of Eric Iverson, Clyde Johnson and Angela Moser were able to finish the job.

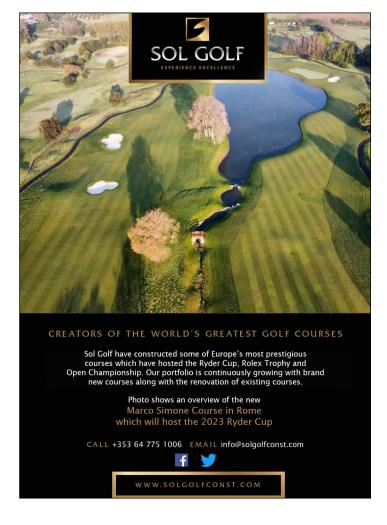
The five year gap between finalising the routing and starting the build can partiallly be explained by our starting

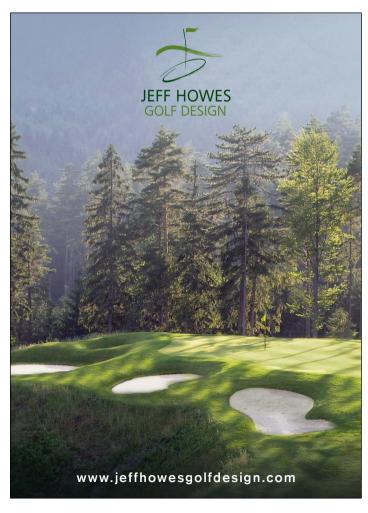
"St Patrick's is close to being the best piece of golfing land I have ever seen"

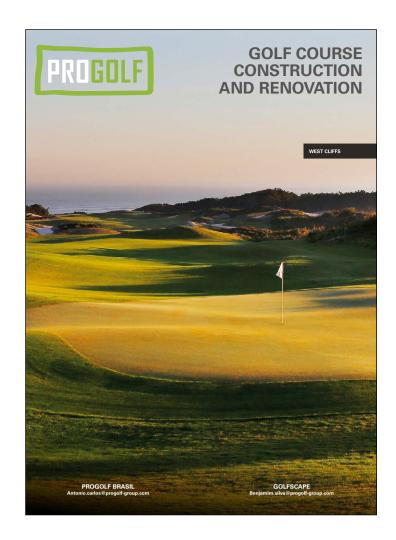
government in 2009 in response to the financial crisis, and it was finally sold to the Casey family, owners of Rosapenna, in late 2012. Architect Doak was engaged early on, and the routing was largely finalised during 2013, but construction of the golf course was deferred for some years, finally getting under way during point. In truth, Rosapenna had no particular need of more golf. With its Old Tom Morris course – which in fact includes work by Tom, James Braid, Harry Colt and Pat Ruddy – the Ruddydesigned Sandy Hills course, and the Coastguard nine, the original back nine holes of the Morris course, plus a popular pitch and putt, the resort had

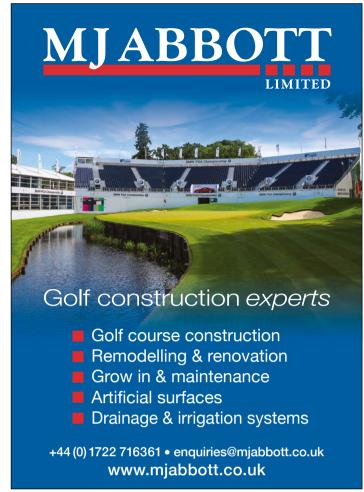


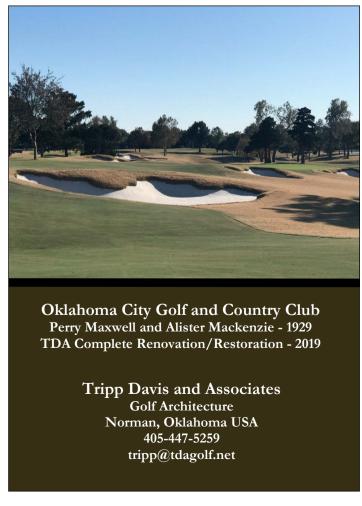


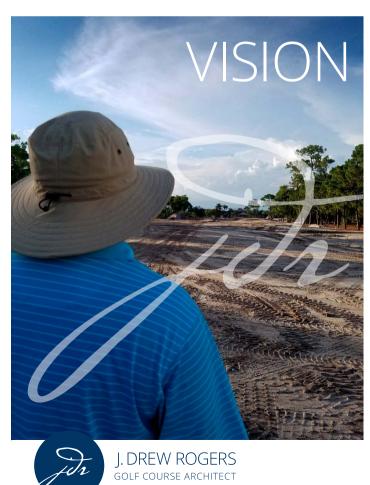












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plenty of golf to satisfy its customers. The only real point of building another course at Rosapenna was if it proved to be a true marquee facility, elevating the resort – and for that matter, golf in Donegal as a whole – to another level. Ruddy's Sandy Hills typically ranks in the top twenty courses on the island of Ireland: clearly, if St Patrick's was to be worth building, it had to be substantially better than that.

Well, it is. On Doak's website is a page entitled 'Renaissance's Top Ten Courses', the result of a poll of the firm's employees. Of those ten, I have seen six, and in my opinion St Patrick's is certainly better than five of them. Only Barnbougle Dunes in Tasmania, which up to now I have cited as my favourite modern golf course in the world, can compete with it; I have not yet decided which I prefer. I am not a huge fan of golf course rankings; but I feel very comfortable in asserting that St Patrick's will, in time, be very, very

high up in any credible ranking of the world's best courses.

What makes it so good? Doak's mantra has always been 'Great land produces great courses' and St Patrick's is, I think, close to being the best piece of golfing land I have ever seen. Never in my life have I seen ground

the course's temporary clubhouse (an actual one will follow in 2023) to the first tee, and you are presented with an opening shot into the most heaving ground I have ever seen on a golf course. On most big dune links courses, this sort of stuff is pushed to the side, the holes routed through

"The only real point of building another course at Rosapenna was if it proved to be a true marquee facility"

movement like this; when you combine the astonishing topography with the beauty of Donegal, the views of the Atlantic and the variety of different environments that the site encompasses, it can't have been hard for the architect to see the potential in this land.

St Patrick's spells out what golfers are in for from the very start. Walk from the two trailers that constitute the flatter valleys: Doak's bravery in offering such a sight from the first tee must be respected. Most architects have generally adhered to the theory outlined by Harry Colt – "a fairly long, plain-sailing hole for the first one". Doak, it would appear, does not. The approach that follows is, by contrast, reasonably sane, though a dune that cuts in on the left hand side rather,





The tee at fourteen plays downhill before turning right to a tucked green, while the first visit to the shore comes at the fourth (right), which can be played at 555 yards from the back tee

as does the hill on the second hole at Hollinwell, means the green will favour an approach from the right.

Although there is nothing quite so astounding as the first in the rest of the round, the remarkable ground movement continues throughout. It is a beautiful irony that the only fairway that does not contain a huge contour is the 534-yard par-four sixteenth, which falls a hundred feet from the top of the enormous dune called Magheramgorgan (also the name of the former Hackett course), the highest point of the round.

Doak's routing is perhaps the central strength of the golf course. At Pacific Dunes, in order to get the golfer to the ocean multiple times and in different directions, he requires the golfer to go on a couple of rather circuitous walks. They are not especially long, but for me at least, they felt odd and affected the way the course flowed. At Barnbougle, a narrower patch of linksland and

with the clubhouse in the middle, both nines are effectively out and back – a simpler routing but one that felt more instinctive to me. St Patrick's mixes the two: the greater depth of the dunesland means that the architect can explore the property in a more varied way, but the course goes to the water twice, from either end. The first visit to the shore, at the fourth hole, is a grand 'reveal' which reminded me of the walk from the fourth green to the fifth tee at Barnbougle. It is a fabulous view, although anyone brave (or foolish) enough to play the hole from the 555yard back tee should probably focus on the carry to the short grass rather than the view.

Once clear of the fourth tee, the variety of the site and course starts to become clear. The first three holes are played in among the big dunes, and are classic 'isolated' holes, with nothing other than one's immediate

surroundings in view. The area at the centre of the site is more open: at first glance, it appears to be less dramatic, but only the most single minded dunelover could fail to be inspired by the contours that reveal themselves. Perhaps the blandest land on the entire property is to be found in the drive zone of the par-five sixth. By coincidence, this land was among that cleared by the Nicklaus crew during their short stay: cleverly, Doak has left the cleared area (which, ten years on, has been shaped by wind and vegetation) as a 'Hell's Half-Acre' style feature. The rise up to the green, though, and the substantial hump that fronts it, are far from bland.

Again on the seventh, the view from the elevated tee suggests there is not that much going on on the hole. Even once in the fairway, it seems fairly level: it is only when the golfer gets within 100 yards or so of the green that the valley in front, the rise to the bunker that protects the



front left of the putting surface, and the deep depression in which the green is sited becomes obvious.

The course returns to Sheephaven Bay with a bang on the fourteenth. After a downhill tee shot, the hole turns to the right, and the tucked green means that the flag is invisible until the golfer is quite close. A long drive indeed will be needed to get a sight of the pin with the second. The steeply uphill but extremely short parthree fifteenth might not appeal to Bandon Dunes developer Mike Keiser (who is famously averse to uphill one shot holes), but few others will fail to appreciate its drama.

The home hole might seem, at first, a rather low-key finish. Only 361 yards from the back tee and over ground that is mostly relatively level (by St Patrick's standards) it lacks immediate drama. But miss the approach to front right (the most common miss in golf)

and the drama will appear: a hollow, twenty or thirty feet deep, and with short grass to the greenside, so simply coming up a foot short will see the ball down in the abyss. A long thin bunker sits at the back of this hollow: the elevation change from front to back of it must be ten feet easily.

need to be in first-rate shape. And I am slightly worried that classic, low-to-the-ground links golf will be discouraged by the sheer scale of the contour: why try to work out how the ball will react running over an enormous mound when one can simply fly it over? The course is still

"The first visit to the shore, at the fourth hole, is a grand 'reveal' which reminded me of the walk from the fourth green to the fifth tee at Barnbougle"

St Patrick's is a truly magnificent golf course, one that will surely be acclaimed as among the finest on the planet. As might be guessed when land that previously houses two courses is used for one, it is enormous, and an extremely long, tough walk: anyone wanting a 36-hole day there will

very young, and head greenkeeper George Helly has a big job on trying to battle the poa annua for which the Irish climate is so perfect and to keep the surfaces fescue dominant. But these quibbles notwithstanding, it is a course any golfer interested in how good the game can be should see. GCA



Richard Humphreys visits Marco Simone, which has been completely redesigned by European Golf Design in preparation for the 2023 Ryder Cup

or Europe's Ryder Cup team, 2023 probably can't come quickly enough. And the opportunity to lay to rest its record-breaking defeat at Whistling Straits will take place on what is effectively a brand new course.

Marco Simone, located on the eastern outskirts of Rome, will be the first Italian club, and the third in continental Europe, to host the event. When it was chosen in 2015 as the venue for the third mostwatched sporting event in the world

after the Olympics and football's
 World Cup – it was seen as a surprise choice; most observers expected either PGA Catalunya in Spain or
 Sporting Club Berlin in Germany to be selected.

The original design, created by Jim Fazio and David Mezzacane, first opened for play in 1991 and hosted the Italian Open three years later, but the tournament never returned.

In December 2015, when the club's owner, fashion designer Laura

Biagiotti, submitted – with support from the Italian government, the Federazione Italiana Golf (FIG), the Italian National Olympic Committee and other stakeholders – a bid for the Ryder Cup, it was on the basis that the course would be completely rebuilt.

European Golf Design (EGD), having been involved in the redesign at both Le Golf National in Paris and Celtic Manor in Wales for the 2018 and 2010 events respectively, was a natural choice for the work.



For the Marco Simone project, EGD's Dave Sampson was installed as the lead architect with the firm's managing director Jeremy Slessor responsible for working with the club and various other organisations involved in the project, such as the FIG and Ryder Cup Europe. "Having Jeremy overseeing the project from that side was great, as it allowed me to concentrate on the design of the course," says Sampson.

Construction began in 2018 with Italian firm Zeppieri overseeing the first phase (back nine) of earthworks and SOL Golf of Ireland handling feature and finish work. SOL then took over both earthworks and finishing for phase two (front nine), with Tom Fazio II playing an important role in managing construction. A supporting cast of specialists included Aquafert, which handled irrigation, Capillary Concrete, EcoBunker, Toro, Pure Seed and Atlas Turf International. A team, led by former Le Golf National superintendent Alejandro Reyes and his fiancé Lara Arias, now the Marco Simone superintendent, took over the grow-in of the course in mid-2020.

The redesign was driven by the desire to create a course suited to match play golf and for the property to be able to handle mass crowds: 270,000 people descended on Le Golf National when it hosted the contest in 2018.

Now, nothing remains of the original course at Marco Simone, with only the sixth hole even playing in the same corridor. Every other hole is now in a totally different location or orientation.

"One of the issues with the old layout was that, from a spectator and player point of view, there were a lot of crossing holes, with links between greens and tees crossing numerous times," says Sampson. "For a Ryder Cup this becomes really difficult. So, one of the big changes was rerouting the course to consider spectator movement, grandstands and hospitality."





Heavily protected greens on the par-five closing hole and (top) par-four twelfth

This is apparent from the outset, with the first hole located in a natural basin, which also accommodates the downhill par-three seventh, driveable par-four sixteenth and the par-three seventeenth. "This area is our little touch on the Colosseum, with the basin

key points within the round back to this basin. Players dip in and out of this 'valley', providing a great spot for spectators and hospitality units."

Significant tree management was also undertaken to maximise viewing opportunities.

"I consciously routed the course so most of the risk and reward holes come on the back nine"

giving a view of at least three holes from any one point," says Sampson. "When routing the course, we felt this was the key part of the site for a Ryder Cup, and we consciously made sure that we routed holes from different "There were quite a lot of areas that had become unkempt and overgrown since Marco Simone first opened 30 years ago," says Sampson. "The trees and bushes had grown to the extent that the site had lost its great views.

We've stripped it back to clean up the site and open those views for both the golfer and spectator.

"The one thing that I think will be remembered from this Ryder Cup is the long-distance views of numerous golf holes, which we feel is extremely important. What the club has done over the last three or four months is manage and trim the trees and it's really given the course a neat and tidy look. This trimming work has allowed the umbrella pines to take centre stage and you can quite clearly see that this is a Rome course and authentically Italian."

Marco Simone hosted the Italian Open for the first time in 27 years in



early September, giving spectators and television viewers a first opportunity to immerse themselves in what is undoubtedly an Italian experience. The rolling site features views of the Castle of Marco Simone, old Casali buildings, olive groves, nearby villages and Rome's skyline. This is especially evident on the back nine, which is routed on the property's highest elevation.

"I consciously routed the course so most of the risk and reward holes come on the back nine: the eleventh, twelfth and sixteenth definitely spring to mind, but we've got flexibility on the fifth to push the tee forward to create a driveable par four," says Sampson. "All the par fives are reachable in two because having that excitement option is important for the Ryder Cup.

"One of the successes of the project has been the routing. It builds through the round to those climax points on the back nine where you've got the risk-reward holes and the views across the course. This constant build then reaches an emotional high at the short par-four eleventh, where players can drive the green, followed by a great tee at twelve where you get a view of Rome for the first time, which we come back to at sixteen and eighteen."

As work progressed, archaeological discoveries were encountered on the property close to where the twelfth and thirteenth holes are now located.

And given the tight schedule – work was completed in October 2020 – some design changes were made during construction.

"We've had to adjust holes twelve to seventeen, but where we are now, the course has become better for it," says Sampson. "The twelfth is a far superior hole doglegging to the right than it would be playing straight. At the sixteenth, it was the archaeological restriction, particularly the time it was going to take to get a permit, that led us to change the hole's direction by 90 degrees. That has been one of the huge finds, turning the hole and playing 25 metres downhill, with the tees set on a high point over Rome.

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A view of the sixteenth green from where a hospitality stand will be located

"The restrictions squeezed us in a way, but what it will create for the Ryder Cup is an unbelievable atmosphere in and around the twelfth green, thirteenth hole, fifteenth green and the sixteenth tee. It is going to be incredible when thousands of spectators are gathered there. The restrictions made us look at things in a different way and you've got to make the most of it. When I look back, I really think that something good has come out of it."

While creating a course to host the Ryder Cup has been the main focus of the redesign, Sampson has ensured the layout is also playable for the membership at Marco Simone. The club reopened 18 holes to its members in January 2021, and according to golf course superintendent Lara Arias, the course has remained busy ever since.

"This is a golf course that gives golfers of all abilities options," says Sampson. "Generally, it is much wider off the tee for the average golfer and narrows down the further off the tee you go.

"The layout isn't overly long, it's 7,300 yards from the back tees and 5,700 from the front, with the main defence being in and around the greens.

"One of the encouraging things that we saw from the recent Italian Open was that the course also plays really well as a stroke play event."

Some minor tweaks the club was considering will go ahead following the course's tour debut, such as expanding mowing lines closer to lake edges.

By the time the Ryder Cup arrives in 2023, some other important projects will be complete, including the clubhouse renovation, a new driving range and the transformation of the nine-hole resort course into the spectator village. Marco Simone will have also hosted two more Italian Opens, giving the Marco Simone team additional valuable experience before it hits the world stage in September 2023. GCA

Providing tournament conditions

Perfection is expected of the playing surfaces at a Ryder Cup, so Marco Simone selected turfgrasses from Pure Seed and Atlas Turf International for the redesign project.

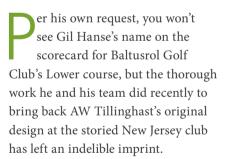
Pure Dynasty was chosen for the tees, fairways, approaches, collars and driving range tees. This seeded paspalum turfgrass offers rapid growth and quick recovery, which is well suited for the challenging Italian summers. Its texture also complements that of the cool season grasses planted on the rest of the course.

A blend of Pure Seed tall and fine fescues was selected for the rough while Pure Distinction creeping bentgrass was selected for greens. Former European Tour player Jay Townsend, working as a commentator for Sky Sports during the Italian Open, said: "The greens are as good as any putting surfaces I have ever seen. If you hit a good putt, it is going in. There are no imperfections out there."

Trusting Tillinghast

BALTUSROL, NEW JERSEY

In restoring Baltusrol's Lower course, Gil Hanse relied on the principle that original architect AW Tillinghast got it right. Tom Mackin reports



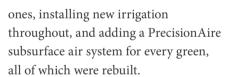
In fact, when interviewing with the club for a renovation project, Hanse put forth the idea of a complete Tillinghast restoration of the Lower and Upper courses, which both debuted on 17 June 1922 as the first dual-designed courses in the country. The Lower has hosted numerous major championships, with upcoming events including the KPMG Women's PGA Championship in 2023 and a third PGA Championship in 2029.

"We were glad to be under consideration but told the club if you

want to hire us, we will propose a full restoration to Tillinghast on all 36 holes," says Hanse. "If that's okay, or something you want to pursue, then we'd be interested. If not, then you probably need to find somebody else. They were very enthusiastic about that thought process."

Implementing the Lower course project last year during a pandemic only raised the challenge. "It was the strangest of strange times," says Hanse. "But we worked our way through it." Hanse was joined by long-time colleague Jim Wagner, associates Ben Hillard and Kevin Murphy, and Baltusrol superintendent Greg Boring, plus contractors Tanto Irrigation and Total Turf Golf Services.

The project included the widening and twisting of fairways, eliminating existing bunkers and creating new



Balancing member needs and championship play at such a high-profile club is, as Hanse puts it, the magic sauce for architects. But that was not his primary focus at Baltusrol.

"We trust enough that he [Tillinghast] was able to strike that balance," he says. "If the golf course is designed properly, that means on any given day you can set it up to play as difficult or as easy as you want. Those architects got that. We do our job right by moving some things around and putting bunkers where they are more relevant today, but at the core of it is that Tillinghast got it right."

Despite previous experience restoring Tillinghast's work at multiple courses





in the New York and New Jersey metropolitan area, including Winged Foot, Quaker Ridge, Fenway and Ridgewood, Hanse approached the Lower course with fresh eyes.

"If we research fully what Tillinghast did here, that's more important than what he did at Quaker Ridge or at Winged Foot," says Hanse, who credited having unfettered access to Baltusrol's rich historical archives as critical to the project's success. "What is applicable though, is some understanding of where Tillinghast was as a person and where he was in the arc of his career at the time. This [the Lower course] was early in his career and he wasn't an established architect. But he was never lacking in confidence."

That archive is described by club historian Stuart Wolfe: "Baltusrol has a dedicated archive room to store and preserve the club's historic documents and objects. Some items housed are the board of governors minutes dating back to the founding of the club in 1895, a copy of the original Tillinghast concept drawing of the dual courses, our founder Louis Keller's bond certificate, and ephemera from most of the 18 major championships played at Baltusrol. Over the past several years the club has embarked on digitising its photograph collection and the board minutes. We also actively seek to build the archive through acquisitions and donations."

Tillinghast's varied approach to each course project was another reason why Hanse didn't rely on past experiences. "He didn't seem to have real hard and fast rules," he says. "I think he was one that you could never put a 'typical' label on. It's important with every golf course

architect, but probably none more so than Tillinghast, to do the specific research on that particular golf course versus trying to extrapolate what was similar from course to course."

After getting into the dirt to reveal Tillinghast's work, Hanse came away most impressed by the original green complexes. "The way they are presented again now, where the green is actually the focal point and the high point, and the bunkers are carved back down into the surrounds, I think is the biggest change," says Hanse. "That's what most impressed me looking at the old photographs."

As for any original design elements that made him scratch his head, Hanse demurred. "I'm not too big on second guessing Tillinghast." But there was one Lower course feature he would love to ask him about.



"I had seen him use the cross bunkering at the seventeenth [a massive hazard restored but moved 40 yards up the fairway on the 653-yard par five], which is kind of a tribute to Hell's Half Acre at Pine Valley where over a hill. That was the one hole that seemed fascinating, in and of itself. It made us wonder what his thought process was there."

Hanse was also left curious about the par-four eleventh's green, the largest

"If the golf course is designed properly, that means on any given day you can set it up to play as difficult or as easy as you want"

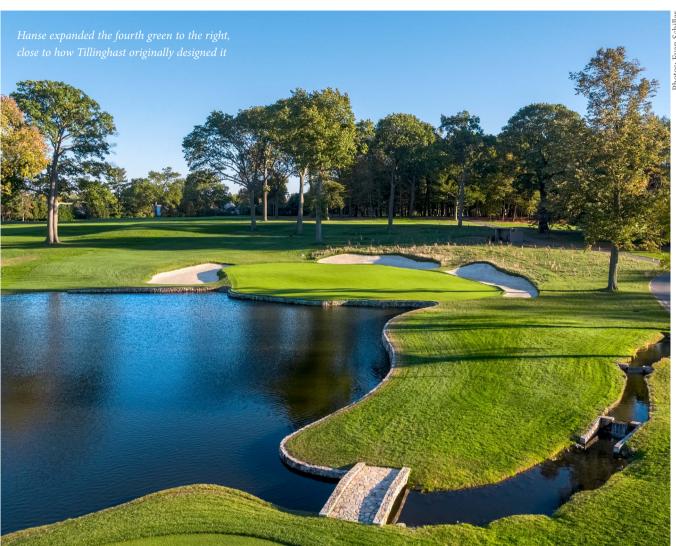
he was a member and on Crump's design panel," says Hanse. "But I'd never seen the way he used it on the second hole on the Lower course, which is kind of a shortish par four up

on the Lower course. "It's big, huge and rolling. There are no dramatic contours, but there's so much going on – tilting and tipping in all different directions. That was really fascinating."

Overall, the biggest challenge for Hanse and his team had to do more with aesthetics than hole design.

"It was removing the flowers behind the fourth green," he says, referring to a palette of colourful azaleas and rhododendrons on that par three. "And I'm not joking. The members got used to it over a period of time, and we were coming in and asking to make changes more reflective of what Tillinghast had out there. We wanted that to be consistent across the golf landscape as much as possible. When a decision gets made that is about golf but not really impacting play, I think members tend to be less understanding of that."





The hiring of Hanse also marked a departure for Baltusrol, where the architectural legacy of the Jones family on the Lower course is both lengthy and involved, beginning in 1948 when Robert Trent Jones Sr was hired to modernise Tillinghast's original layout [his son Rees later worked on both courses].

"Trent Jones knew Tillinghast, he knew Donald Ross," says Hanse. "They were not deities to him. They were guys he was competing with for jobs. So, there wasn't this level of reverence given to these designs by him back then. There now tends to be a corrective action to try and restore the original designs."

Hanse is glad to take up that mantle. "We believe those original designs are the best examples of golf course architecture and I think that bears out over a long period of time. Yes, we have to make alterations to keep them playable for the modern game, yet the work still remains rooted in those classic principles."

A new Rain Bird IC irrigation system has also been installed as part of the project. "It is much more efficient than what we had," says Shawn Haverdink, the Lower course's superintendent. "The IC system is easy to use, precise, expandable and uses at least 90 per cent less wire than what we had."

With a restoration of Tillinghast's design of Baltusrol's Upper course set to take place in 2024, Hanse will get another chance to step back in time while adding his own modern mark.

"The greatest satisfaction and compliment we get out of these kinds of projects is that this generation of members will be the first in almost 80 years to see the picture as Tillinghast painted it," says Hanse. "If we can get the features and scale plugged into the landscape right, and trust that Tillinghast got the playability and strategy right, then the result should turn out to be pretty good." GCA

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CORNERSTONE CLUB, MONTROSE, COLORADO

Bradley S Klein reports on the recent work by Matt Dusenberry that has made Cornerstone's course, situated near the San Juan Mountains, more playable for its members

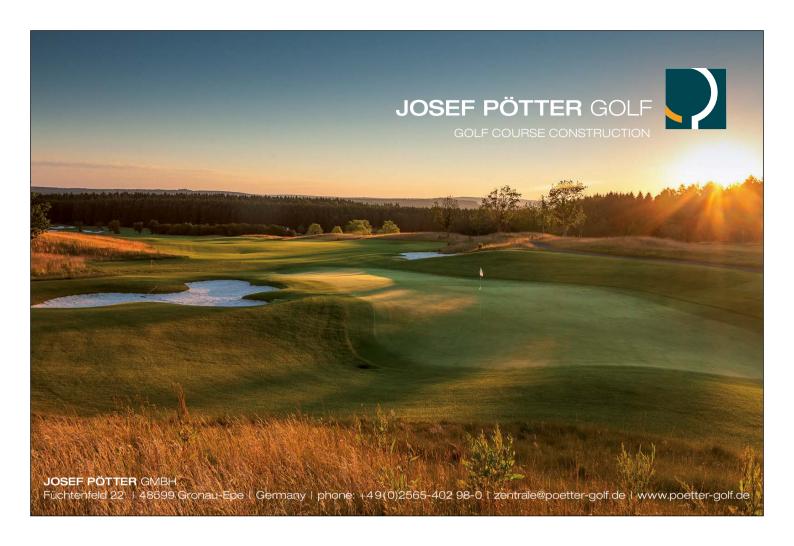
t's tempting to say that from the first tee at Cornerstone in Montrose, Colorado, it's all downhill from there. But that's only because the back tee on the opening hole happens to be the highest spot on the property, 9,214 feet above sea level. From there, the recently reopened real estate course tumbles down 162 feet to the farthest point from the clubhouse, at the eleventh green. Along the way and back, the trouble you might have – catching your breath – isn't just because of the thin air.

This part of the Rockies, called the San Juan Mountains, is legendary for its beauty, severity and changing weather conditions. The immediate landmass that is home to Cornerstone, called the Uncompander Plateau, sits midway in western Colorado between Telluride and Grand Junction. It is a paradise for rugged naturalists into biking, hunting, fishing and skiing. Now with Cornerstone they can also claim golf.

The 4,800-acre property opened in 2008 with a Greg Norman-designed golf course that was part of a very relaxed land plan. More than half the land is an environmental setaside, and home lots vary from one to 100 acres. The recession took its toll, however, forcing closure of the development











Dusenberry's work has included reclaiming the bluegrass fairways, as seen here on the 431-yard par-four twelfth

until it was rescued by a three-person consortium in 2018. Their key hire was Jason Stroehlein, whose title as director of outdoor operations does not begin to capture the scope of his responsibility for every aspect of the overhaul.

Among those brought on board was a former Norman design associate, Matt Dusenberry, who had been involved in the original design and Keney Park, and The Country Club of Farmington.

At Cornerstone, the task was reclaiming the overgrown and neglected bluegrass fairways and bentgrass greens. They also used the occasion to open up lines of play, rejig the teeing grounds to make sure yardages and shot values were balanced to accommodate a wide array of players,

"Cornerstone makes a lot of fairways that feel as if they hang on the edge of doom"

construction. Like many former associates of the big design houses who went off on their own in the last decade or two, Dusenberry has been busy doing renovation and restoration work. He, in turn, partnered with agronomist Jim McKenna, formerly a superintendent at Doonbeg in Ireland. Among their projects together have been the restorations of two Devereux Emmet designs in Connecticut, the City of Hartford's municipal course,

add drainage and eliminate overly penal bunkers. The result is a par-72 layout ranging from 5,326 yards to 7,867 that looks intimidating at first but proves surprisingly receptive as you play it.

It helps that golfers gain a yardage bonus of 15 per cent from ground level – calculated at 1.7 per cent per 1,000 feet. A standard 200-yard shot travels 230 up here. The par-four eleventh hole, 473 yards from the member tees, plays like a 411-yarder at ground level.

At 6,904 yards, that member's course plays to a very comfortable 6,000 yards. Those back tees, nominally a gaudy 7,867, play to an effective 6,840.

Cornerstone offers a lot of fairways that feel as if they hang on the edge of doom. The tee shot on the 668-yard, parfive fourth hole is terrifying, yet there's plenty of room as long as you don't hook it. The infinity edge green on the 447-yard, par-four tenth looks like it is hanging in the mountains. And the drop shot par-three thirteenth plays to a green set in fields of aspen trees and goldenrod.

Mountain golf generally suffers in reputation because too many holes sit on severe terrain. That's not the case at Cornerstone, thanks to a routing that makes use of broad, open terrain on a high plateau. Now with the reclamation work by Dusenberry and McKenna, residents at Cornerstone also have the run of premier quality turfgrass that can endure the extremes of whatever nature has to offer these days: elevation, drought, deep snow cover and arid wind. GCA



arlier this year, The R&A submitted planning application to Glasgow City Council for the construction of a new golf facility on the site of the former municipal golf course, Lethamhill.

Its plans included the creation of a community venue with a nine-hole course, par-three layout, putting greens, short game area, adventure golf and a 25-bay floodlit driving range. The plans and project have seen The R&A work alongside Scott Macpherson Golf Course Design, IMG and Holmes

Miller. Construction of the new facility is underway and is expected to open in summer 2023.

The environmental impact and sustainability of the facility have been key considerations from the outset.

"We are conscious of our responsibility to ensure that the new community golf facility exists in harmony with nature and local wildlife and so we have developed a comprehensive plan with enhancements for native plant and animal species, as well as existing

habitats that will benefit them," said Jenny Brown, director of business development at The R&A."

The Seven Lochs Partnership has also been involved in the development of the plan. A new network of public nature trails that link into existing walking routes of the Seven Lochs Wetland Park is being created for use by visitors to the urban heritage and nature park.

Several ecology surveys have already been undertaken by ecologists alongside Nature Scot and Applied Ecology, to produce a biodiversity enhancement and management plan that outlines measures to improve biodiversity throughout the venue and enable its integration with the adjacent Hogganfield nature reserve and the wider Seven Lochs Wetlands Park.

Other environmental benefits include extensive tree planting and seeding of native scrub to offset the necessary felling of poor condition or unwanted trees, as well as creating over three hectares of new speciesrich wildflower grasslands and wetlands with pollinator-friendly marginal planting. GCA





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