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The Art and Science of Golf Course Architecture

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WELCOME



ADAM LAWRENCE

Is signature design dead?

When GCA first published in 2005, many courses being built at the time were done by 'signature' architects.

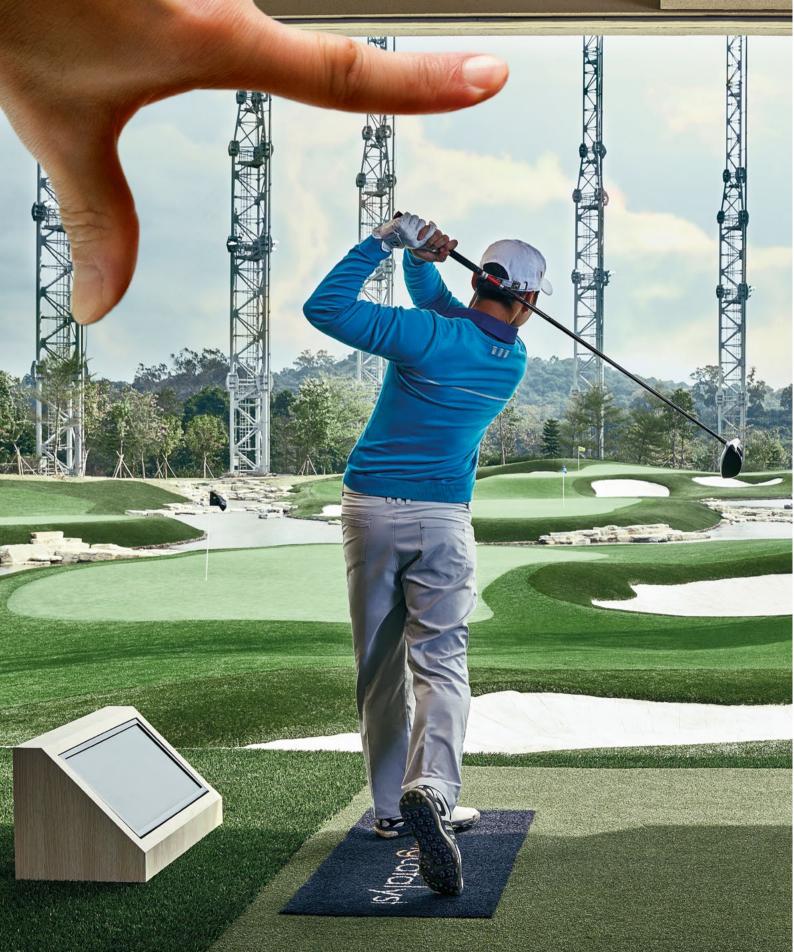
The term originated with Robert Trent Jones Sr, whose advertising told potential clients that they should "give their course a signature". In an environment in which golf architects had become anonymous, a 'name' architect would make the course more desirable. But, as more architects came back into the public eye, that concept became increasingly irrelevant, and 'signature' came to indicate a celebrity course designer, usually a high-profile professional golfer.

Today, the business is rather different. There are a lot fewer courses being built than at the turn of the century and there are not as many real estate driven developments. But still, Arnold Palmer is dead, and his company (as discussed in the last issue of *GCA*) has ceased to exist. Jack Nicklaus is 83; Nicklaus Design still exists, but he does not own it any more, and it has transformed from a vehicle for Jack into a more conventional design company. Gary Player is 88, and his design firm's website says its process involves a "senior designer working hand-in-hand with Gary". Greg Norman and Nick Faldo's companies are still active, and Tiger Woods Design remains a force, but lead designer Beau Welling does more work under his own name than he does for Tiger.

This issue's interview subject, Jeremy Slessor of European Golf Design is as well qualified as anyone to speak on the signature design market. From being almost entirely a signature operation in its early years, EGD has not now done such a project in a considerable time. Slessor says that, in his opinion, clients have realised that the expenditure on a signature designer is marketing budget that might be spent in other, more productive ways. The signature design model is not dead, but it seems largely to be a thing of the past.

Adam

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Cover photograph by: Larry Lambrecht



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HOLING OUT

92 We close the issue by taking a look at a new nine that is designed to offer a distinctly different repeat play.

TEE BOX

Bold vision for new club in the Carolina Sandhills

King-Collins will create a match play course for 21 Golf Club, which is also planning to resurrect a lost MacKenzie layout.

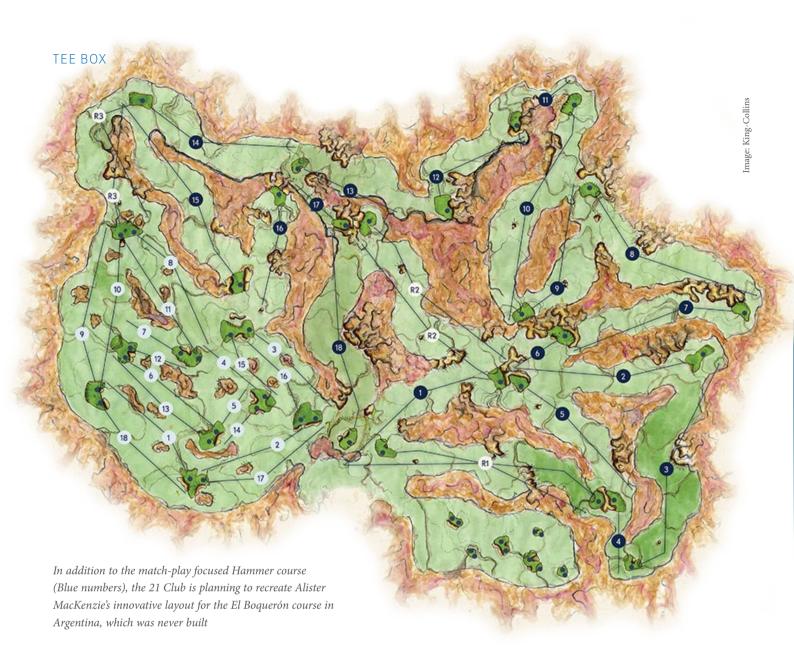
King-Collins has been hired to design a new golf course on a dramatic site in the Sandhills of South Carolina.

The invitation-only, private 21 Golf Club will be built 15 miles from the city of Aiken on a rumpled landscape where sand dunes reach more than 150 feet high. There will be two courses, one designed by King-Collins, and a second that is at the planning stage.

"The topography and boldness of the land is unrivalled in the region," said Tad King. "We are beyond excited to deliver bold, fun golf for Americans and others abroad to enjoy for many decades to come."

Rob Collins said: "Nearly two years ago, owner Wes Farrell, Tad and I toured a number of sites across the southeast. Some were better than others, but nothing exceptional. Towards the end of a long day of fruitless exploration, we found ourselves on a rural road in Jackson, South Carolina. As Wes's car climbed a hill, it was impossible not to notice the sand spilling onto the road. Once on top of the hill, we gazed out on an impossibly





beautiful site of rollicking sandy terrain.

"A few 'no trespassing' signs later and we were standing in the middle of it, loudly wondering how this place existed. Thanks to Wes's ingenuity and dogged determination, he was able to secure the site, but that was just the beginning. After 18 months of site analysis, routing tweaks and hard work, we're ready to show the world 21 Golf Club."

The first layout to be built is The Hammer, named after the match play game format. According to King and Collins, the Hammer course will demand boldness, creativity and skilful execution from players.

The designers are aiming to create "thrilling challenges and endless possibilities" for every hole. Their plans also include an additional, and reversible, three holes to decide matches not settled during the traditional 18-hole round.

"Opportunities of this stature in the world of golf course architecture are precious few"

The second course will be based on the original plans that Alister MacKenzie drafted in 1930 for the El Boquerón course in Argentina. MacKenzie's course was to be located on Enrique Anchorena's estate in the coastal city of Mar del Plata with 18 holes playing to nine double greens, but it was never built. Planning for the MacKenzie course will begin once the Hammer layout is complete.

"Opportunities of this stature are precious few," said Collins. "The land upon which 21 Golf Club sits is a geologic anomaly in the southeastern United States. The combination of the boldness of the terrain with its deep, sandy soils and the seemingly endless and uninterrupted views offer a rare tapestry for our team. We plan to deliver one of the most exceptional and distinctive experiences in American golf." **GCA**

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'One-of-a-kind' Point Hardy opens at Cabot Saint Lucia

Cabot Saint Lucia has opened a new Coore & Crenshaw design at Point Hardy Golf Club on the northern tip of the Caribbean island.

The 18-hole layout has been built along one-and-a-half miles of coastline. Nine of the holes – six to nine and fourteen to eighteen – play directly on the rocky cliffs that jut into the ocean. The course is grassed entirely with Pure Dynasty seeded paspalum from Pure Seed and Atlas Turf International.

"It's very possible that Cabot Saint Lucia is the most visually stunning piece of land we have ever worked with," said Coore. "This project was truly a labour of love, and the initial feedback on this enchanting property as one of the world's most sought-after golf destinations is special to Ben and me."

The final four holes feature carries over a series of bays. The fifteenth is a 340-yard par four which requires a water carry from the tee. Back-to-back par threes follow, the sixteenth just 138 yards over a cove and the seventeenth close to 190 yards to a green that sits above a rocky inlet. The final hole is a par four that curves along the coastline.





Vijit Nandrajog of Golf Design India has completed a renovation of the golf course at Rambagh Golf Club in Jaipur, India.

"In the initial phase, our focus centred on revitalising 11 holes," said Nandrajog. "The enhancements comprised a complete redesign of green complexes, new bunkering and new tees. Our team also implemented modifications and extended the irrigation system for those 11 holes as well.

"Given the course's historical significance and its relatively shorter length by contemporary standards, our renovation prioritised accuracy over sheer length. Our commitment to offering golfers compact targets for their approach shots remains unwavering, even with the increased size of the greens."

GDI has elevated some greens to accentuate the demand for accuracy and skill, reinforcing the character of the golf course. "We deliberately eschew indiscriminate modernisation, opting instead to safeguard and enhance the fundamental qualities that define the course's identity," said Nandrajog.

Unnecessary bunkers have been eliminated and relocated around green complexes, swales and runoffs around greens have been incorporated, and water has been added to make the parthree sixteenth more challenging.

Karolinka extends course to 18 holes

Karolinka Golf Park in Poland has completed a project to extend its course from nine to 18 holes, with course designer Grzegorz Marcinków and construction firm All Golf Services.

"Our mission was not merely to construct the next nine holes at Karolinka, but to do so without disrupting the fauna and flora of the area," said Lukasz Szadny of All Golf Services. "We aimed to fashion a parkland-style course that harmonises with the natural terrain, thus creating a stunning layout seamlessly integrated into its surroundings. Each hole should unfold as a unique adventure."

The project included the installation of a Rain Bird IC System for irrigation management and sustainable water usage.



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Hansen and Himmel collaborate on Sylt redesign

Architects Rolf-Stephan Hansen and Thomas Himmel are nearing completion of the redesign of Golf Club Sylt on the German island of Sylt.

In early 2021, Hansen – a Sylt native who designed the Budersand course on the island in the mid-2000s and Himmel were hired to create a masterplan that would improve safety and add more strategy.

Josef Pötter Golf began construction in August 2021 – the project has been structured in three phases to minimise disruption to play and ensure all 18 holes remain accessible throughout the summer. Work is

being overseen by site manager Steffen Kayser and is expected to be complete by spring 2024.

Particular attention has been paid to greens, with work completed to improve their playability and many being expanded to create additional pin positions.

The final phase includes a redesign of four holes, lake expansion, new tees to increase length and shot options, and installing a new Toro irrigation system.

"Expanding lakes and introducing a new drainage concept aims to help address the club's water management and increase its water preservation,"

said Darryl Spelman of Josef Pötter Golf. "Fairway bunkers with a more modern and detailed approach - with regional seeds introduced - have also given the course some extra flair.

"Over 25,000 square metres of fescue has been seeded in a specialised turf nursery and prepared over the past 12 months to be laid during this winter to help facilitate an early opening. Despite facing extreme weather conditions, we are happy that the project has been a success, We look forward to working with all involved as we continue to contribute to the ongoing evolution of the course".

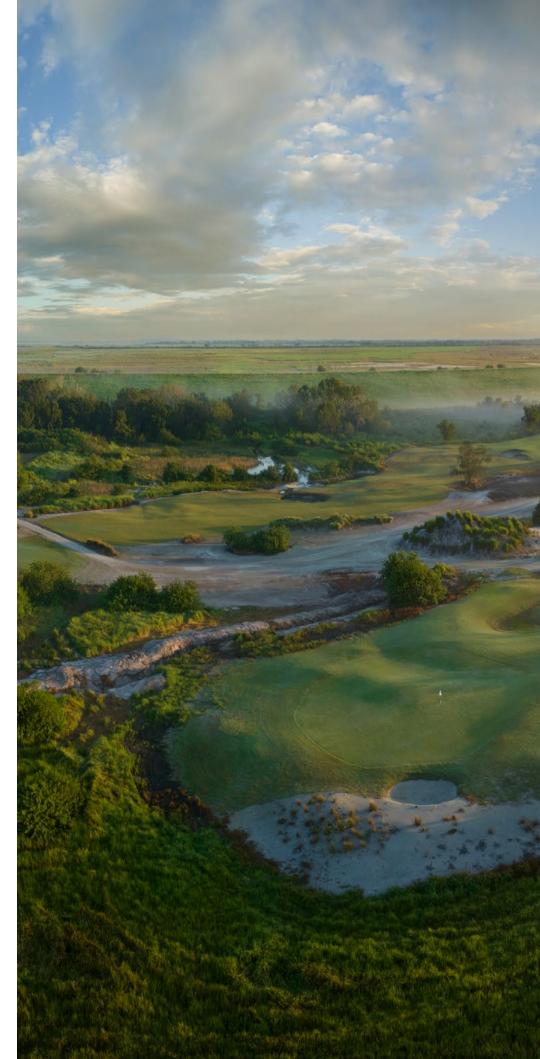
THE BIG PICTURE

The fifteenth hole on the new Coore and Crenshaw-designed The Chain course at Streamsong Resort in Florida, photographed by Bill Hornstein, which opened for preview play in December 2023.

The fourth course at Streamsong, The Chain has 19 short holes with flexible teeing areas – the beginning and end of which are marked by dragline chains that give the course its name and are a relic of the site's history as a phosphate mine. Players are encouraged to tee off from wherever they want within the chains, which on several holes will give the choice between a carry over a waste area or a ground-game shot that could be played with a putter.

The Chain is walking-only and – like the new two-and-a-half acre putting course, The Bucket – located close to the entrance to the Streamsong Lodge. It has a sixhole loop of holes that range from 50 to 150 yards around a grove of oaks and then players move to a thirteen-hole loop where the longest hole – the eighth, visible in the background of this image – can be played at almost 300 yards.

"When you take strength and length out of the equation, golf becomes much more fun for a vastly expanded group of players," said Coore. "And from an architectural perspective, we can do more interesting things, particularly on the greens and around the greens."







Campagne returns to the Harradines for renovation

Golf Club de Campagne near Nîmes in southern France has reopened following a renovation by Harradine Golf.

"In 1966, my father Don was asked to alter a previous design at Campagne by another architect," said Peter Harradine. "Unfortunately, some of the corridors in the woods had already been cut, which made it impossible to change the routing among the oak trees that typify that beautiful region next to the famous Camargue nature park. Despite the constraints, my father managed to redesign the layout into one that is still considered one of the top courses in France."

In 1968, and working alongside his father, Peter designed the new greens and supervised the construction of the complete course. "It was a year I will never forget, due to the political unrest in the country at the time," he said. "Despite the various strikes and difficulties in obtaining machinery, fuel and personnel, we managed a grand opening in September 1970."

Peter adds that Campagne has since seen 14 club presidents and even more green committees, which have only made very minor changes to the layout without consulting the Harradines. "This is unlike many other clubs that usually add useless bunkers that do not comply with the spirit of the original design," he said, referencing an article he wrote for the April 2020 issue of *GCA*.

But in 2017, 47 years after the Harradines last worked at the club, Peter was contacted by club president Thierry Penchinat and committee member Eric Daguzon to discuss a renovation.

"The welcome I received during my ensuing visits reflected the bonhomie associated with that part of the country," said Harradine. "I asked them, 'Why me?' They replied, 'We want continuity! Your father redesigned the course and you built it, so who else?'"

Peter, now working with his son Michael, developed a masterplan, outlining the scope of work, phases and budget.

"The most difficult task for a golf course architect is upgrading an existing layout," said Peter. "There are 600 members... and therefore 600 golf course architects! Seeing as my father let me design the greens at Campagne, I asked Michael to design the new ones."

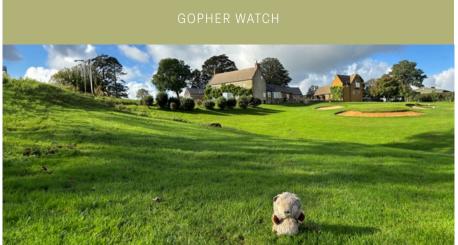
The brief from Campagne included an instruction not to change the style of the putting surfaces. "The upgrade was to change the push-up greens to 100 per cent sand, in order to ease maintenance and increase putting speeds," said Peter. "Michael did however add a few new features."



Temporary greens were prepared on each hole a year before work began, so that the course would not need to close. "The temporary greens were excellent due to timely verticutting, rolling and overseeding," said Peter. French firm Green Art handled construction, with Spain-based Turfgrass Agronomy & Services overseeing some technical aspects of the renovation project, which was supervised by the club's head greenkeeper Vincent Pigeyre.

The new greens were opened for member play on 1 September 2023.

"Due to the fact that Michael designed the new greens, Penchinat insisted that he play in the opening competition to test them out," said Peter. "Furthermore, he declared that Michael would definitely be back in 25 years' time to supervise the other changes that we suggested in the masterplan!"



October's issue saw Sandy paying a visit to Dr Alister MacKenzie's lovely Cavendish course in Buxton, in the north of England. Built in the early 1920s for the Duke of Devonshire (whose family name is Cavendish), the course was mostly ignored for years, principally because its back tees stretched only just over 5,700 yards. After enthusiastic championing by the likes of Tom Doak, though, it has been accepted for what it is, a wonderful little example of MacKenzie's genius, and a fixed feature in lists of Britain's best courses. The par-four tenth, where Sandy was photographed, lies at the bottom of the course, and is one of the best holes on the course. Andrew Oliver, a member of St Anne's Old Links, spotted the hole and wins the coveted *GCA* shirt.

For this issue, Sandy is pictured at one of England's hidden gems, so a clue is probably in order. The course was originally laid out by Cecil Hutchison and more recently, as the club approached its 100th anniversary, Ken Moodie oversaw bunker remodeling work.



Faldo course opens near Ho Chi Minh City

Royal Long An Golf & Villas, near Ho Chi Minh City, Vietnam, has opened an 18-hole golf course by Faldo Design. A nine-hole layout at the resort is also under construction.

Work on the 18-hole design, which can be played from 5,424 to 7,233 yards, began just prior to the closure o international travel in 2020. The layout includes a lake system that captures storm and rainwater for irrigation and is in play as a hazard on many holes.

Construction of the third nine – which the club says will be a tougher test than the first 18, with water more in play – is expected to start in 2024.





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Q&A with Caspar Grauballe

"The new greens will be smaller targets. However, with updated bunkering and runoff areas, the course will be more strategic"

Caspar Grauballe explains how he is helping Norway's Losby Golf Club withstand climate issues.

Losby Golf Club in Norway has appointed Danish architect Caspar Grauballe to create a new driving range and renovate green complexes to cope better with climate challenges.

Losby sees long, dry spells in spring and early summer, with heavy rains becoming more frequent in autumn and early winter. There are large fluctuations in temperature in winter, and ice regularly forms on greens. With extreme weather conditions seeming more common, the club decided to act. We spoke with Caspar about the project.

What challenges has the club faced? The existing greens were constructed at a time where the focus in Norway on both surface and sub-surface drainage was less than it should have been. The consequence is that large volumes of water would run directly onto greens, not helped by the lack of drainage underneath the sandbased rootzone. This is especially problematic in winter when snow is on the ground, and we get thawing temperatures during the day, and it freezes during the night – the water



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The new greens have been designed with several runoff points to move water off them as quickly as possible

gets trapped on the putting surfaces and turns to ice. The greens are very large, which means that water has a long distance to travel to get off the putting surface.

Also, we have a very limited number of pesticides and chemicals available for maintaining the greens and it looks like restrictions will be further tightened in future. To maintain the course in a sustainable fashion, the design and construction must take this into consideration.

How will you address this?

The new greens will be designed to ensure no water will run onto them from the surrounds and there will be several runoff points to move water away from the green surfaces as quickly as possible. Making greens smaller will also reduce the distance water has to travel. Some of the greens have also been moved to get them out of shaded areas to give the grass better conditions to grow.

From a playing perspective, the new greens will be smaller targets. However, with updated bunkering and runoff areas, the course will be more strategic. The new greens and updated bunkers and surrounds offer more diversity of challenge. Great care has been taken to open the approaches to greens so players with slower swing speeds can roll their ball on.

I have revamped the aprons to facilitate more variation in the shots played from the surrounds, but also to make the visual impact of the greens suit the surrounding landscape. The real challenge for me as an architect is to combine the practical and agronomic aspects with aesthetics and playability.

Since the course was built in the 1990s, a lot has happened to the game. Future phases include matching the fairway bunkering to the new greens design as well as updating tees. They will be realigned to improve the playing experience and new forward tees will be added.

What will you start with?

The driving range is the first phase, due to it suffering from very wet conditions, making it impossible to keep it open. The new range will feature a new drainage system as well as being sandcapped, so it can be kept open as long as there is no snow.

Work on greens will mean parts of the course will be closed for play. To make it less painful for the players, the range will be updated with target greens and the club is also investing in Trackman technology to help create the best possible practice conditions. The club already has traditional putting greens and a synthetic putting green to allow players to practice their short game as soon as possible in the spring.

COURSE BLUEPRINT

Wakonda Club

Tyler Rae has completed a project to restore William Langford and Theodore Moreau's style at Wakonda Club in Des Moines, Iowa.

"The restoration focused on addressing Wakonda's infrastructure and reclaiming the original architectural design," said Aaron Krueger, the club's director of golf. "We had five newish greens built to USGA specification that were maintained differently to the original 13 greens, which have native soil push-up subsurface. Our recent work has seen those five greens returned to the same style as the rest of the course." Over 20,000 square foot of sod was taken from the five rebuilt greens and used to expand the other 13 putting surfaces.

Rae has taken inspiration from Langford and Moreau's work at Culver Academies in Indiana, as well as Lawsonia Links and West Bend in Wisconsin.

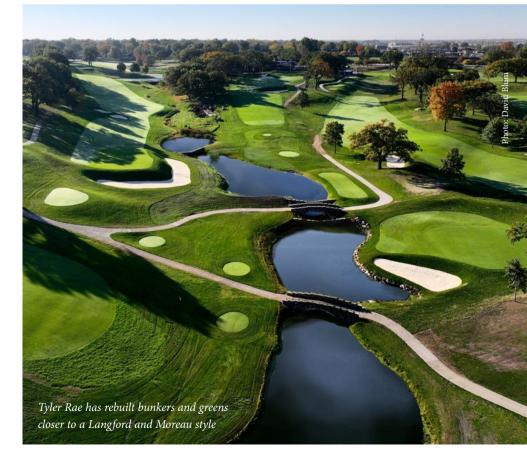
"Our work on greens has also brought back thoughtful green shapes, perimeters and boldly scaled fill pads, which is a departure from the rounded, egg-shaped smaller greens that once existed," said Rae. "Greens will no longer be a one-dimensional, monotonous affair.

"Players will now be faced with less demanding, wider playing corridors off the tees and more demanding approach shots into greens. The wider playing corridors will help to reinstate angles and options. The angles will then need to be utilised to access backleft, front-left, back-right and frontright pin locations."

All 53 bunkers have been rebuilt, also to a Langford and Moreau style, and many that were grassed over or out of play have been reclaimed.

"We have placed and shaped hazards and bunkers back to their original locations, fitting them into the hillsides and natural landforms for historical purposes," said Rae. "We were fortunate to have land available to move, shift and rebuild tees with modern distances in mind. What was meant to be a tough carry distance or challenge 100 years ago will now once again be brought back into play for players of all skill levels from the respective teeing grounds." New 'L&M' tees stretch the course to 7,160 yards, and new forward tees total 4,378 yards.

The course is expected to reopen in May 2024.



Greenside bunkers at the restored fifth green – based on the sixth at Lawsonia Links – have been replaced with falloffs for more short-game options The ridge between the eleventh and fifteenth has been cleared to bring the dual bunker back into play The project used a GPS scanner to recreate the original ninth green at Wakonda. The greenside bunkering has also been restored

The seventeenth is inspired by West Bend's ninth hole

Two existing greens have been removed and replaced with a Redan-style green similar to the second at Culver Academies Rae has widened the approach to bring back the original ground game intent and recaptured lost hole locations on the green

401/311

Tee shots at the sixteenth that flirt with the creek will leave the best angle for hole locations on the right of the green, while drives to the right of the fairway will leave a blind second over the restored cross bunkers

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Chippenham Golf Club in Wiltshire, England, has completed a bunker renovation and greens complex remodelling project, alongside bunker construction specialists Durabunker and architect Stuart Rennie, now of Pangaea Golf Architecture.

"Durabunker had executed three phases prior to the 2023 project, all of which received widespread praise from the membership," said Chippenham's course manager Chris Sealey. "The bunkers they have produced have performed magnificently in the most extreme conditions."

The latest phase has involved renovating greenside bunkers – with Durabunker's rubber crumb liner and synthetic edging – on three holes, and the redesign of the fourth and sixth green complexes.

"There were issues with water retention, mainly due to the landscape surrounding the fourth green," said Rhydian Lewis, owner at Durabunker. "There was also the added complication of an out-of-bounds fence and hedge coming within eight metres of the left side of the green. With the ground cambering from right to left, it was causing significant issues for golfers, particularly in the summer when the ground is firm and running. Shots that were landing in line with the green or even on the left side of the putting surface were sometimes finishing beyond the out-of-bounds line. With the additional complexity of this area and the remodelling of the sixth green, it was clear the involvement of an architect would enhance the chances of a successful outcome."

"Stuart's vision and ideas resonated with us," said Sealey. "We liked his hands-on approach and the synergy with Durabunker. The results have been beyond our expectations!" Rennie adds: "The project from start to finish worked out as planned."

Rogers brings 'old Florida' feel back to CC of Naples

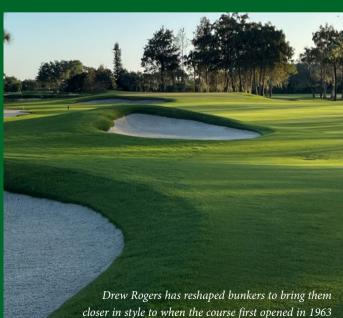
The Country Club of Naples in Florida has reopened for play following a six-month renovation by JDR Golf Design.

The private course was designed by William Diddel in 1963. "Diddel fashioned a layout that is user-friendly and enjoyable," said Drew Rogers of JDR Golf Design. "Revisions have been few, with some done over the years to address the ever-evolving game and to keep the course properly updated.

"In 2020 we were asked to develop a plan for the practice facilities. Our plan had substantial impacts to adjacent holes that made the club reconsider their path. They decided to renovate their course along with the practice area."

Work has included reworking greens with classic contours, new tees, reshaping bunkers, regrassing, new irrigation, thinning vegetation and better connecting turf between holes.

"The result is a new course with an 'old Florida' character that made it distinctive in the 1960s," said Rogers. "With the classic lines and treatments, it may look older than that!"





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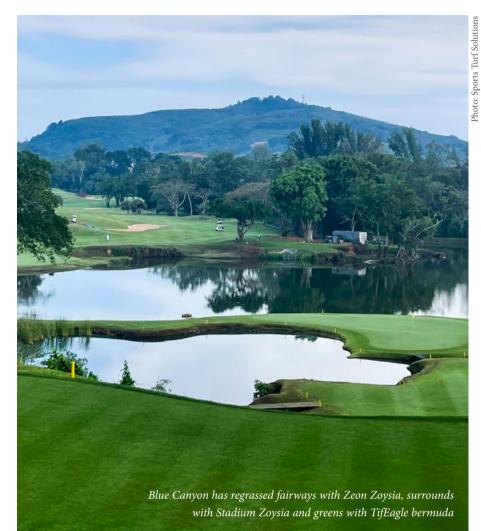
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Blue Canyon regrasses Canyon course

Blue Canyon in Phuket, Thailand, has regrassed its Canyon course.

Work involved replacing tees and surrounds with Stadium Zoysia, fairways with Zeon Zoysia and greens with TifEagle bermuda. The new grass varieties will enhance the visual appeal of the course and provide better playing surfaces.

"Blue Canyon is one of the latest golf facilities in Asia that will produce the best playing conditions while saving money by mowing less, fertilising less, almost eliminating all pesticides, and saving water," said Brad Burgess of Sports Turf Solutions. "The vision of the club is demanding higher playing standards in order to raise the membership value, bring back major events and restore the prestigious Blue Canyon brand to its glory days."



New academy unveiled in Egypt

A new 40-acre academy designed by James Edwards and Tim Lobb has opened at Somabay Golf Club in Hurghada, Egypt.

It joins a nine-hole par-three layout designed by Edwards and Tim Lobb and an 18-hole course from Gary Player Design.

"For the academy we had a relatively flat sand parcel with a high point in the middle and the facility running all the way around that high point," said Edwards. "The short game has always been undersold and under-designed. We were lucky enough to be able to create a 5,000-square-metre green that could accommodate multiple zones – we have designed 27! The 360-degree nature of the facility is what's important because each person can rotate around it like a clock."

Sombay selected Pure Dynasty from Atlas Turf International and Pure Seed for the short course and academy. "The grass has performed very well," said Lobb. "Coverage is quite consistent and is not grainy. Putting on the Pure Dynasty is superb."



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Poipu Bay Golf Course, Koloa, Kauai, Hawaii | Photo: Henebry Photography



Four Seasons Resort Nevis, Charlestown, St. Kitts & Nevis | Photo: Courtesy of Four Seasons Resort Nevis

Mākena Golf and Beach Club (North Course), Maui, Hawaii | Photo: Henebry Photography

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WAC Golf completes centennial project at Brantford



Rod Whitman and Keith Cutten of Whitman, Axland & Cutten (WAC Golf) have completed a renovation at Brantford Golf and Country Club near Hamilton, Canada.

Established in 1879, Brantford is one of North America's oldest clubs. In 1906, nine holes were laid out in the vicinity of the present course and, in 1923, the course was expanded to 18, designed by Nicol and Stanley Thompson and George Cumming. In the 1960s, the routing and several holes were altered by Robbie Robinson.

The 2023 work comes 100 years after

the course expanded to 18 holes. "Our goal was to take the club back to that early era when the firm of Thomspon-Cumming-Thompson were the designers," said Cutten.

The project has included work on the third, sixth, seventh, sixteenth and seventeenth greens, revamping all bunkers to a "classic, grassed-down look" and adding new forward and back tees. Fairway lines have also been straightened and expanded to reflect the original design, while drainage upgrades and a new irrigation system will help to improve maintenance.

"Angles are paramount when working with a classic course"

For 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 – Drew Rogers, Jim Nagle, Nathan Crace and Mark Mungeam discuss how they balance a club's desire to respect history while making the courses fit for the future.

"Angles are paramount when working with a classic course," said Jim Nagle of Forse Golf Design. "Expanding greens to the perimeter can recapture hole locations not utilised for many decades. Widening fairways and expanding greens does not translate into easier golf, rather it makes the round more interesting."

Rory Connaughton, greens chairman at Lancaster, said: "In the case of most Golden Age courses, the layout and club heritage are inextricably combined."

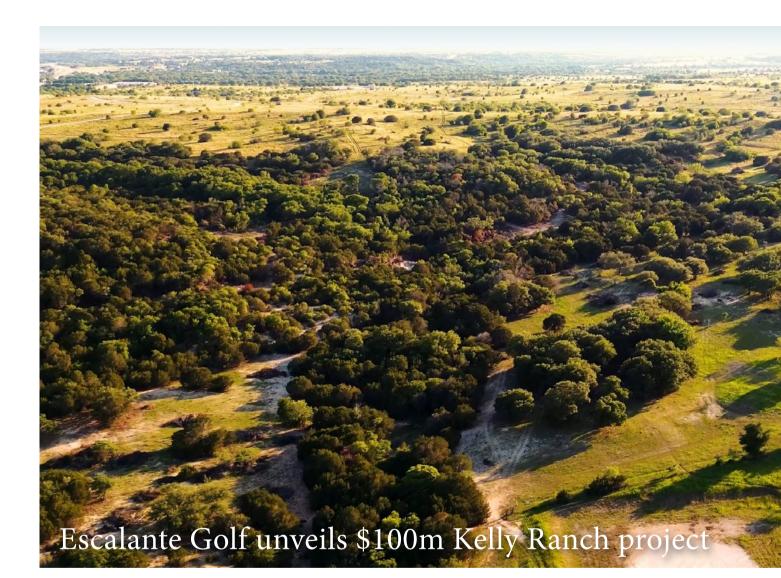
The Winter issue of *By Design* also includes an interview with Mike Benkusky and details of the 2023 ASGCA Environmental Excellence Awards.

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



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for Leaven



Tripp Davis is designing an 18-hole golf course for Kelly Ranch Golf Club, a new \$100 million private club project situated southwest of downtown Fort Worth, Texas.

A 2,400-acre community developed by Ryan Voorhees of Kelly Ranch Estates will include the 7,600-yard golf course, plus 2,500 custom homes, an elementary school and a high-end shopping and dining area.

Davis is working with a 240-acre site, which features rugged rolling

hills with creeks and stands of live oaks and cedar elms, and 200 feet of elevation change.

"Our vision for Kelly Ranch is to redefine the golf market in north Texas and create a course that exudes excellence, thoughtful design and unparalleled scenery," said David McDonald, president of operator Escalante Golf. "There will be no other private golf club in the downtown Fort Worth region that can match the challenge and natural beauty of Kelly Ranch. It is truly in a league of its own and will not only be the crown jewel in our property portfolio, but the crown jewel of Texas golf."

Kelly Ranch will be sandcapped and grassed with Stadium Zoysia. Greens will average 6,000 square feet and feature TifEagle Bermuda. For bunkers, Davis is planning a scallopededge design for seamless integration with the existing topography. The course will play up to 7,600 yards, with five sets of tees.



Additional golf facilities include a 26-acre practice facility that comprises a 400-yard driving range, short-game area with practice bunkers and chipping and putting greens, and a short course. The clubhouse will have an elevated outdoor terrace to provide views over the course and surrounding terrain.

Earthworks are under way, with Escalante Golf expecting to complete work by spring 2025. A limited number of founder memberships have already been released.



Pizá brings pitch-and-putt to Peru

Pizá Golf has designed a new short course for Club de Regatas Lima in Peru's capital. The social and sports club

commissioned the firm to design a layout based on the International Pitch and Putt Federation's official distances and rules, so it could host the international circuit. "This is the first time an official pitchand-putt course has been recognised in the country," said Agustin Pizá, founder of Pizá Golf. "We are so proud to be a part of golf history in Peru. The country held its inaugural tournament in December 2023."

Norman short course to open in Mexico

Greg Norman Golf Course Design has designed a short course for the Mandarina resort on Mexico's Riviera Nayarit stretch of the Pacific coast.

The course, which is expected to be completed in 2025, will feature 10 par threes inspired by holes as seen at Augusta National, Pebble Beach, Pine Valley and Royal Melbourne. Holes will also have views of the Sierra de Vallejo mountain range.

"The course at Mandarina will be unlike any other," said Norman. "Each par three is an inspiration from some of the most iconic and classic courses from around the world, so playing it will produce a welcome sense of familiarity."



Photo: Mandarina



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INSIGHT



ARTHUR LITTLE

Design for all

Arthur Little reports on his research into how courses should be designed to enable golfers with slow swings to enjoy the game.

Seven years have passed since I wrote an article for the January 2016 issue of Golf Course Architecture about the design implications of providing proportional tee yardages to fit golfers with differing swing speeds.

The premise is that proportionally positioned tees allow golfers across the swing speed spectrum to use the same or very similar clubs for their approach shots. The concept is supported by data from testing done by Gene Parente at Golf Laboratories.

The testing data shows a considerable difference in the ball flight characteristics of golfers with driver swing speeds below 80mph. Their ball flights reach their peak height further from the landing spot; descend at a significantly shallower angle; have significantly less backspin upon landing; and have a considerably higher percentage of roll than shots from golfers with higher swing speeds.

This is illustrated in the chart (right), which shows the difference between the seven-iron ball flight of the average woman with a driver swing speed of 65mph and the seven-iron ball flight of the average man with a driver swing speed of 95mph. With the slower swing, the total distance from roll is 12 per cent, compared to three per cent with the faster swing, caused by the combination of shallower landing angle and less backspin.

I believe these factors should significantly impact golf course design. Forced carries, whether over greenside bunkers, water hazards (both streams and lakes) or any obstacle that crosses a hole, make the

A sport of two halves

Data by Gene Parente of Golf Laboratories, a leader in independent testing for the golf industry, shows the differences between the average female and male golfer when hitting a seven-iron shot

Swing speed	65mph	95mph
Carry yards	93	152
Total yards	106	156
Peak height yards	14	34
Peak height as % of carry	59%	67%
Descent angle	37	50

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game much more difficult, frustrating, less fun and more time consuming for the slower swing golfer.

From the same yardage, the slower swing players must use a longer club to carry the ball to the green. However, as illustrated in the chart, even when using the same approach club, they are at a disadvantage as their shot often will not hold the green because it lands at the shallower angle with much less backspin.

These players need an option to roll their approach shot on the putting green without clearing an obstacle. This often means designing a closely mown area which connects the

fairway with the green through which they can bump and run a shot on to a portion of the green, even if it's not directly at the flag.

Cross obstacles, whether bunkers, berms or streams, require solutions that are more complex. At its simplest, position the forward tees so that the slower swing player can get their tee shot close enough to the obstacle so that their lower flying shot can clear it. It is important to not make them hit an extra 'wasted' lay-up shot, thereby effectively increasing the par of the hole.

A more nuanced approach is to add risk/reward by placing the obstacle

close enough so that the slower speed player has a chance to clear it, thus giving them a much shorter shot to the green.

The goal of my thinking in these areas is always to make the game more enjoyable for all players and to make it more fun and comfortable for people new to the sport. GCA

Arthur Little would like to acknowledge the contributions of Jeff Brauer and Gene Parente for this article. Arthur and his wife Jann Leeming offer free advice to courses, he can be contacted by email at arthurdlittle8@mac.com.

FEATURE

The next generation

DESIGNING FOR THE YOUNG Written by Adam Lawrence

The revival in golf since the pandemic has given the game a shot in the arm. But it remains dominated by middle aged and older players. How should golf go about attracting young people to play, and what role does course design play in that? Adam Lawrence investigates.

The golf industry has long been extremely concerned about the ageing profile of the game's participants.

Go to any golf club, and you will surely see why: juniors are in short supply, young adults are also scarce, and even the middle-aged tend to be outnumbered by seniors. It has been obvious for many years that figuring out how to attract the next generation of golfers is a critical issue for the game's prosperity in anything but the very short term.

As is well known, participation in golf has jumped significantly since the Covid pandemic, and junior numbers have increased similarly. Figures from the National Golf Foundation show that in the US, the number of junior golfers increased by 36 per cent, or 900,000 people, between 2019 and 2022 (the biggest participation jump of any segment in the golf market). Clearly, this is a good start, but it is not, yet, enough to secure golf's future. Does course design have a role to play in making the game more attractive to the young? The main obstacles that prevent people from taking up golf are well known, and they apply just as much, if not more, to young as they do to the old. The game is perceived by many as being too expensive, as taking too long and being harmful to the environment. It is clear that course design has plenty to say on all three of these factors. One way of dealing with them, at least in part, that has become increasingly popular of late is the construction

of short courses, usually comprised exclusively of par threes, that can be played quickly and take up less space.

But in practice, the short courses that have been built, much fun though they often are, has not done much to develop new golfers. This is principally because of their location: the short courses that have come about of late have, mostly, been constructed at either elite destination private clubs or high-end resorts, in both cases, principally to be used for a shorter round after the day's main game has been finished. This they do very well indeed: Gil Hanse's Wild Piglet course at Les Bordes in France, and the Coore & Crenshaw designed Sandbox at Sand Valley in Wisconsin are both examples of short courses that should make even



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The R&A has created the Golf It! facility in Glasgow to provide the local community with easy access to golf

the most jaded golfer smile. But neither is ever likely to be populated by local kids just taking up the game.

One shorter course that is directly aimed at new golfers is the Golf It! facility in Glasgow, Scotland, developed by the Royal & Ancient. It is located on what was previously the Letham Grange municipal course, one of five in the city, located in the (fairly rough and ready) east end of Glasgow. It is this part of town that was the venue for the notorious 'Ice Cream Wars' – in reality a series of turf wars between rival gangs of drug dealers in the 1980s.

Golf It! has been designed by the Scottish resident, New Zealand-born architect Scott Macpherson. "Letham Grange had been a golf course for over a century, and probably hit its peak in the Sixties," he says. "By the 21st century, though, it was 'on its uppers', not a great place to play. There had been no work on the trees for many years, some were dying, many were past their best. The place needed stewardship as much as redesign. When the R&A chose it as the venue for this initiative, it was probably about five minutes from being turned into housing."

The R&A's objective in creating Golf It! was to provide a community-based facility to grow the game among people who had previously had no contact with golf. "People from non-golfing families find it difficult to find a route into the game. They're not going to go to private clubs," says Macpherson. "We needed it to be a really welcoming place, even if you were not here to play

golf. The building has been designed to face the Hogganfield Loch, which is a very attractive lake, not the golf course. For the course itself, it has gone from 18 to nine holes, with only one par five, and I wanted to pick out the best of the existing hole corridors. You get a nice panorama of the city from the second tee. There are only seven bunkers, and the first is by the third green, so it is not too scary for beginners. But it is long enough to get an official handicap, so it's a true on-ramp to golf. If you've never played before, you can come, get lessons, move onto the range and the short game area, and then the course. It is a broad-based pyramid."

Golf It! has a two-deck range facility with Toptracer technology, with music playing and is bookable by



the hour, rather than by the bucket of balls. There is an adventure golf course. "We need to provide a fun and accessible route into playing golf," says Macpherson. "Kids can play nine holes for five pounds, and there is no dress code. It is doing well. In the first Will there be other such places? "If we make this work financially, then absolutely we will look to do more," R&A chief executive Martin Slumbers told *Today's Golfer* recently. "I don't want to overstate things, but we've had 10 enquiries from around the world,

"We need to provide a fun and accessible route into playing golf"

eight weeks, there have been 50,000 people through the door, and two million balls hit on the range. Taking an 18-hole course down to nine holes meant there was room on the site to do other things – including an orchard, and a network of pathways so people can just walk round, even if they are not playing golf. All of a sudden, a golf course has become an education centre."

saying, 'Can we come and look at this because it might work in our country?' And I find that exciting."

Macpherson says that, to make the course less scary for beginner golfers, he eliminated all blindness and crossing holes, but English architect Jonathan Davison says that he thinks that young people embrace things that are a little unusual and adventurous. "For me, I think more quirk is a good thing," he says. "If everything is simple and in plain view then it lacks interest. That's what attracted me to golf as a youngster: I enjoyed the mystery of the blind shots, and the challenge of hitting off odd slopes. But I do think clubs need a rethink, I think adding indoor simulators and Toptracer on driving ranges will appeal more to the young."

Davison's mention of simulators echoes something that has a lot of traction around the world. All over, the use of technology to simulate 'real' golf is attracting attention from golf facilities, players and the media alike. Globally, without doubt, the biggest news in simulator golf has been the TGL indoor golf league, founded by Tiger Woods, Rory McIlroy and former NBC executive Mike McCarthy, featuring A-list investors including Serena and Venus Williams, basketball's



Stephen Curry and Formula One legend Lewis Hamilton, and with a host of the world's top players signed up to participate. TGL signed a multi-year broadcast deal with ESPN in October and was due to start its first season this month, but an incident in November when the roof of the new Sofi Center in Florida collapsed, has forced it to be postponed by a year. All the league's backers have stressed that they remain fully committed to the concept, though it is not yet clear whether the delay will have any impact on player participation.

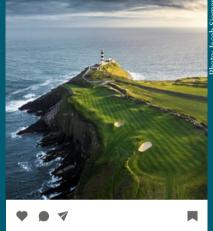
The simulator boom is feeding through into the mainstream golf market too. Figures from the NGF suggest that 6.2 million Americans used golf simulators in the last twelve months, a huge increase on the previous year, and that there are over 1,600 businesses across the country that have simulators. An obvious

Insta-worthy golf

Generation Z is said to favour experiences over possessions, and as digital natives – the first generation to grow up with the internet – have a strong inclination to share experiences on social media. Holes that are particularly photogenic may therefore help draw young people towards the sport. Here we select four of the most 'Insta-worthy' holes on the planet.



The 'bonus' nineteenth hole of TGR Design's Payne's Valley course at Big Cedar Lodge in Missouri, is surrounded by huge rock walls.



Cliffs. Lighthouse. Atlantic Ocean. The fourth is one of several holes at Old Head Links in Ireland that could have made our shortlist.



There are seventy-mile views from the closing hole at McLemore in Georgia. Expect more of the same when its new course The Keep opens in 2024.



What better way to finish than the eighteenth hole on the Old course at St Andrews, and the iconic Swilcan Bridge?



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Boyne Resort - Donald Ross Memorial GC (MI) - Restoration / Renovation - Photo by Boyne

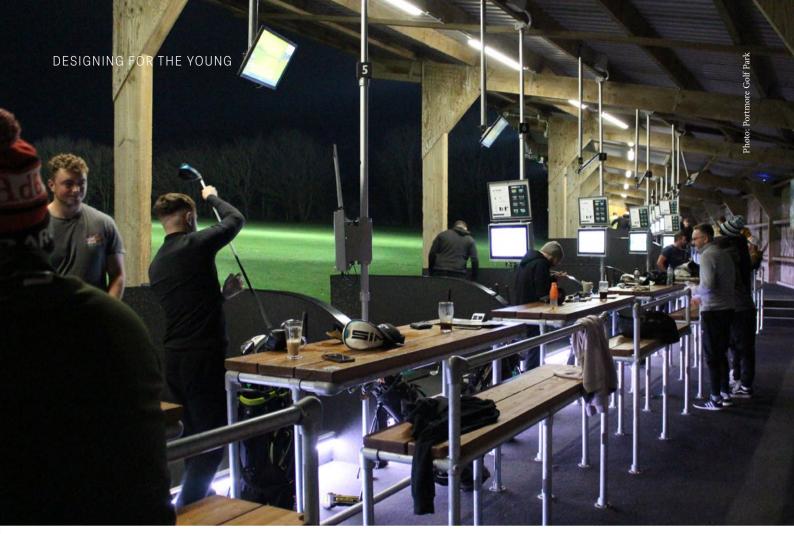


Metedeconk National GC (NJ) - Restoration / Renovation - Photo by Evan Schiller



Flossmoor CC 1899 (IL) - Restoration / Remodeling - Photo by Peter Schulz

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Portmore Golf Park has increased its revenue by revamping its range with the latest technology and introducing food and beverage options

appeal of simulator golf is that players whose options for actual physical golf are rather limited can 'play' bucket list courses like Pebble Beach (or wherever) without travelling and spending the enormous green fee (if the bucket list course is even accessible to them). In locations where winter golf is simply not possible for climate reasons, it makes golf a 12-month business. Danish architect Caspar Grauballe says that the simulator boom is changing the economics of golf facilities.

"We may have to look at the design of other areas than just the course. Our designs are being used in simulators on ranges because our designs can easily work with technology to provide players a new/different path into the game. I think we are seeing a lot of young people being introduced into golf via new concepts which seem to fit their lifestyle," he says. "I work with a club, Portmore Golf Park in Devon, England, where changing the driving range to feature target greens, Toptracer, and beer and food has changed its whole economy. There are young people using it as a social meeting place and these are people who have never played golf.

"I think our role as architects has to be broadened in the future to include design of virtual courses as this market will grow and we'll see more players being introduced by practicing, playing and competing on virtual courses. Possibly this will bring golf out to a whole new demographic. For 'real' courses there is an opportunity to gain new customers if they can create an exciting experience of their virtual course."

And it is happening now. Nicklaus Design's Chad Goetz has recently embarked on a project to design the world's first virtual-only golf course. Hyperscapes Golf Club is a virtual club, a members-only service, for which Goetz is working on the design of Rocabarra Cliffs, described as 'the metaverse's premier golf course'.

Rocabarra Cliffs is an ambitious project that goes beyond the creation of a virtual golf course. The course will be set in a real location, a small peninsula on the banks of Loch Shieldaig in the north-west of the Scottish Highlands. This part of Scotland is not a golfing destination - it is a wild two-hour drive west from Inverness - but it is a spectacularly beautiful spot, and, crucially, home to one of the few surviving patches of the Caledonian forest, the pinewoods that covered much of northern Scotland in prehistoric times before the massive deforestation caused by farming, and are among the most precious of ecosystems in Britain.

PERFECTION DELIVERED HOST OF 2023 RYDER CUP | MARCO SIMONE, ITALY













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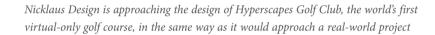




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SCAN TO WATCH



Of course – even if it were large enough to host a real-world course, it would be inconceivable to construct golf in a location this sensitive. But for virtual golf, it is perfect. "The location is truly superb, on the edge of Loch Shieldaig, the continuation of Loch Torridon," says Goetz. "The peninsula features breathtaking views to the Loch and surrounding mountainsides. Its dramatic rocky landforms and extensive shoreline provide an ideal canvas for a unique and exciting golf experience that will translate well to the virtual world. I cannot wait to visit the site in person to gain additional inspiration and insight to translate into the design work. Reimagining the Caledonian forest on the site and integrating the course within it will be an exciting and rare design opportunity."

The golf design process takes place on a digital twin of the terrain, using lidar (light detection and ranging) data, high-definition aerial photography, and digital terrain maps transformed into contour maps. The actual golf design commences with a hand-drawn preliminary routing map, mirroring the approach taken with physical golf courses. Goetz says: "Thus far, we have approached the design process for Rocabarra Cliffs in the exact manner that we develop all new designs around the world."



focuses on Scotland's environmental archaeology and the changes in vegetation over the ages. Dr Tipping is also the scientific brain behind Hyperscapes GC's virtual rewilding initiative. "The few surviving remnants on the Scottish west coast are dubbed the 'Atlantic rainforest', mixes of different tree species including the

"The golf design process takes place on a digital twin of the terrain, using lidar data, high-definition aerial photography and digital terrain maps"

"The peninsula at Shieldaig is almost treeless now but before the earliest farmers 6,000 years ago, the thin soils supported a diverse woodland ecosystem of great richness," says Dr Richard Tipping, former University of Stirling professor, whose research work

iconic Scots pine, now rare on the west coast. Different soils and exposures to Atlantic storms created a mosaic of woodland and open patches, with havens for wildlife." The 'course' is expected to be open for play in the second half of this year. **GCA**

INTERVIEW

View from the top

JEREMY SLESSOR



For almost 30 years, Jeremy Slessor has run European Golf Design, one of the largest operations in the industry. Adam Lawrence spoke to him about his career.

I ronically, one of the most important men in the global golf architecture business is not known for practising as a golf architect.

Jeremy Slessor, for almost 30 years the managing director of European Golf Design, the design company of the European Tour Group, is perfectly qualified to design golf courses, having done a lot of it in his years working for Robert Trent Jones Sr, but spends his time running the EGD business, and mostly leaves the design work to Ross McMurray, Gary Johnston, Robin Hiseman and Dave Sampson, the four lead architects who collectively now make EGD one of the largest operations in the industry.

Like many in the golf architecture business, Slessor had a slightly complex route into the industry. "I started playing golf in my early teens and, when I found myself needing a summer job at the age of 15, I went to work on the greens crew at Wimbledon Common - I was a member of the London Scottish club," he says. Wimbledon Common, where seven holes were originally created by members of the London Scottish Rifle Volunteers, who were stationed on the common, is regarded as the oldest course in England that has remained in constant use. The London Scottish club, officially founded in 1865, is England's

third oldest golf club, after Royal Blackheath and Royal North Devon.

"I worked on the Wimbledon Common course part-time while I was doing my A-levels, and then got a job at Royal Mid-Surrey, and after that at Royal Wimbledon, but I realised that the only way to progress was through the shoes of dead men," he continues. "I looked at education for greenkeepers, but realised there wasn't much available in the UK at the time. I knew that there were courses available in the US, but I didn't know anything about what and where, so I wrote to Frank Hannigan, who was in charge of the USGA at the time, asking for help."

That letter to Hannigan, who became the USGA's fifth executive director in 1983, was the action that kick-started Slessor's career, though in a rather surprising way. "I was at home one evening when the phone rang," he says. "My mother answered it and called to me 'It's for you, an American', and it was Mr Hannigan! He said, 'I got your letter: I don't know much about this sort of thing, but the head of our Green Section, Bill Bengeyfield, does. You should talk to him'. So I did, and Bill told me, 'These are the five schools you should apply to'. I followed his instructions, and was accepted by all of them! I had no idea which one I should choose, so I called Bill in California. He



Slessor (fourth from left) with the EGD team at Marco Simone for the 2023 Ryder Cup

told me to go to Michigan State, and consequently that's where I ended up."

At the end of his time at MSU, another remarkable set of circumstances played a part in Slessor's life. "Three months before I graduated, Robert Trent Jones Sr came to give a lecture to the students," he recalls. "I lined up to shake the great man's hand, and after I had introduced myself, he said to me, 'You sound as though you come from England'. I explained that was so, and how I got there, and he said, 'I came from Wales originally'. I thought to myself, well, I'm never going to get this chance again, and so I asked him if there were any opportunities within his organisation. He gave me his card and said one of his colleagues would contact me. A little later, someone did, saying, 'If you can be in Orlando

on such-and-such date, we have a construction project starting, and we'll give you a job for three months'. And I ended up working for them for almost ten years. For the first seven, I worked in their construction operation and essentially lived out of a suitcase – I never had a proper base." than going to another job in Florida, can you draw?' I said of course, and he explained that one of their draughtsmen had just quit and would I like to train to replace him. So instead of spending the winter in Florida, I spent it in the New Jersey office. After a while, they said to me, 'We've got a

"A letter to Frank Hannigan, who became the USGA's fifth executive director in 1983, was the action that kick-started Slessor's career"

After several years in the Jones construction team, Slessor had an opportunity to move into design. "I was doing a job in Boston, and the end of the construction season was approaching," he says. "I got a call from Roger Rulewich, who said, 'You'll be finished there in a week. Rather few problems in the European office, will you go over and take a look?' That was in 1989, and they had 11 projects in construction. They were doing design/build and had some issues with the contracts they had signed. Jones had a few options, including closing the operation. He thought about it





and said, 'I'm not ruining a lifetime's reputation by cutting and running."

"One of the projects was Vidauban in southern France, which was Jones's own pride and joy, and which he was developing himself. It was one of the three best sites I've ever seen, but it was a mess. The original masterplan was 54 holes, hundreds of houses and three hotels – he saw it as his legacy project. But without Bobby [Jones's son, Robert] it would never have happened. He saved that job. It was an amazing feat."

Slessor returned to the US in summer 1990, and in spring 1992 he married – to an Englishwoman. "After we'd been married six months, she said to me, 'I can't live in Florida anymore, I need to go home'," he says. "Jones had just agreed to do the first course at Celtic Manor, Roman Road, so I said, 'I'll go and run the job'. And eventually, taking on that project led to his big move.

"Ian Woosnam was appointed as touring pro for Celtic Manor, and I met his manager, who was a senior guy at IMG," he explains. "I got to know him, and he asked me what I planned to do next. I said that I wasn't sure, but I didn't want to go back to the US and a transatlantic marriage. He said, 'You should come talk to us, we've just started a design firm with the European Tour', and after a while, I joined EGD to do construction. Schloss Nippenburg near Stuttgart was my first job with them. And two years later I moved into my present job - which I have now been doing for close to 30 years!"

Schloss Nippenburg is billed as a Bernhard Langer design, and in those early days, EGD dealt almost entirely in pro golfer 'signature' courses, an obvious strategy given its ownership. But in the last 15 years, that has all changed. Though the company still has a 'Signature Design' tab on its website, and Slessor says it would happily undertake such projects, the most recent project listed on that tab is the Plage des Nations course near the Moroccan capital of Rabat, a Colin Montgomerie signature design that opened in 2017.

"The fundamental shift happened from 2008 onwards," says Slessor. "The financial crash happened, and Tiger had his troubles at the same time. I thought clients would start asking for a disrepute clause in their contracts, in case their signature player got into trouble, but it never happened. What happened was that clients became much more sophisticated and became much more aware of the relative value of marketing





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When Zavidovo PGA National Russia opened in 2013, it became the 50th course in EGD's portfolio. The firm has now completed over 70 projects in 24 countries

spend, and that there can be better ways to spend that money than on the relationship with a signature player. That's not to say there aren't that sort of opportunities, but the conversations about players are infinitely fewer than they were about fifteen years ago. But it does depend on the market. My feeling is that in Asia signature design is still relatively buoyant. Elsewhere, people are for example, earned during the recent Ryder Cup as the designer of the Marco Simone course, shows that the firm need not suffer from the decline of the signature model. EGD, with four lead architects, has long been Europe's largest golf architecture shop, and, since the financial crash of 2007-8, which reshaped the industry globally, it has become one of the world's largest.

"I'm doing something I absolutely love, with people I enjoy working with"

looking at the overriding brand for the resort, and quite often it seems to be the hotel brand."

Nevertheless, signature projects or not, EGD's business is buoyant. Its four lead architects are all highly accomplished, and even if the names of McMurray, Johnston, Hiseman and Sampson are not as immediately recognisable to most golfers as Montgomerie, Langer, Faldo or Woosnam, the profile which Sampson, The firm covers most of the world, though it is not really active in either North America or Australasia, and Slessor says the current boom is happening all over. "Work doesn't show any immediate signs of falling off, and frankly we're not questioning the why," he says. "It is almost impossible to predict where the next job will come from. We quite regularly have conversations in board about where we need to be concentrating on. And I always reply, take a look at our last hundred enquiries, and if you can draw any kind of trend from them, let me know. But the reassuring thing is that, increasingly, they are wordof-mouth referrals. We're not getting many cold calls."

Slessor himself says he is still enjoying work as much as ever, and has no plans to stop in the near future, though he is thinking about what form his 'retirement' might eventually take. "I'm 61 now," he says. "My stock answer whenever anyone asks about retirement is that I'm doing something I absolutely love, with people I enjoy working with, and I will do it as long as that remains the case. I don't intend to be Jones or Ron Kirby and work until the day I die, but I plan to keep going as long as EGD will have me. And even when I finish here, I wouldn't mind staying involved in the golf industry somehow. Given that I started as a greenkeeper, I've sometimes thought about going back to that in a way!" GCA

ON SITE

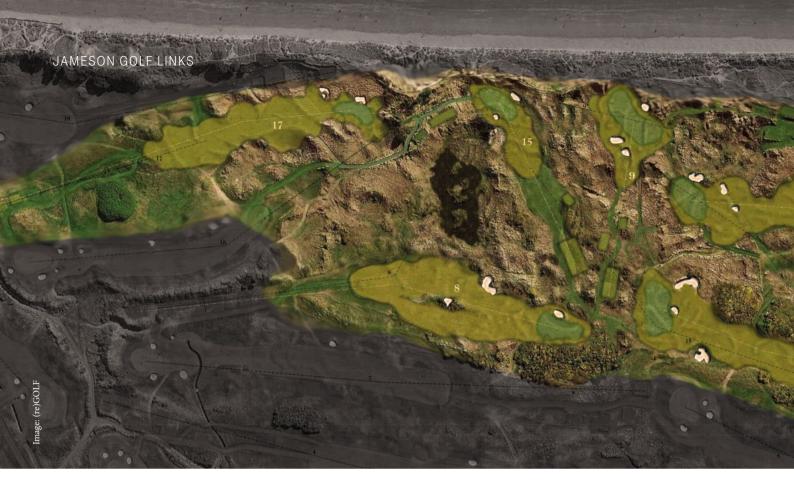
An authentic rebranding

JAMESON GOLF LINKS, DUBLIN, IRELAND

Adam Lawrence says that the coastline north of Ireland's capital has another serious golfing player.

One of the most dramatic features at Jameson Golf Links is the volcano green at the twelfth

Photo: Momentum Golf Photography



am not generally a fan of rebranding exercises.

I do recognise why companies engage in them, but in my experience, any benefits are usually outweighed by the costs, and the fact that a large proportion of your audience will continue to use the existing brand for a long time anyway. How many people actually use the name Meta, the rebranded name of Facebook's holding company? Even if you judge a brand name to be less than ideal, the value it has accrued through years of use should not be underestimated.

An exception to this rule is the newly named Jameson Golf Links at the Portmarnock Resort, north of Dublin. And the reason this is an exception is simple: the new brand is not some meaningless word created by a highly paid consultant, but a real connection to the resort's past life. It has, to use a term that, unlike rebranding, I do like, authenticity.

The resort was previously the Portmarnock Hotel and Golf Links, a hotel and attached golf course created in the middle 1990s by American superagent Mark McCormack and various others. The golf course was built by American architect Stan Eby, then working for the newly created European Golf Design. In the manner of the day, a top touring pro, in this case Bernhard Langer, accepted a substantial cheque to be named as the 'signature' designer of the course. It lies right next to the storied Portmarnock Golf Club, a live candidate for the title of Ireland's best course, and throughout its life, the two have always been confused.

But the property had a life before it was a hotel and golf course. In the nineteenth century, it was the home of the Jameson family, creators of one of Ireland's best known drinks brands. The building that was converted and extended to become the hotel was originally known as Jameson House, home of the family. And in the 1850s, John Jameson III, grandson of the distillery's founder (who came originally from Scotland), had a nine hole course built in the sand dunes to the south of the house, at a time when there was essentially no golf in Ireland (Royal Curragh, the country's first golf club, was founded in 1858). Later, in the 1880s, the Jameson family was involved in the founding of Portmarnock GC. So the property has a reasonable claim to be referred to as the home of golf in Ireland.

During its life, the hotel has had several different owners, including a spell in the care of the National Asset Management Agency, the government body created to deal with the fallout from the crash of 2008. In 2019, it was bought by the Gagliardi family, hoteliers based in Vancouver, Canada, and since then, a substantial renovation of the golf course has been carried out by Irish architect Jeff Lynch of (re)GOLF.

Lynch is an architect who has been around for some time, but whose career has not, because of the difficulties times the Irish golf industry has been through since 2008, yet taken off in the way some of his admirers might





Lynch adopted a hands-on approach to ensure his renovation plan was followed faithfully

have anticipated. This, then, for him, is something of a breakthrough project: even in a country so blessed by the golfing gods as Ireland, the opportunity to work on genuine links terrain does not come around very often. "In my younger years I fished, surfed and golfed all along the west coast of Ireland, often camping in duneland. So I was no stranger to dune systems and was comfortable to mimic what I grew up in," says Lynch. "I previously An Irish architect, beautiful links terrain and Jameson whiskey – what could possibly go wrong?"

The central challenge for any architect on the Jameson property is that, although it has some beautiful dunes, there are not enough of them to house eighteen holes. The dunes, which are quite high, essentially form a barrier between the flatter ground inland (which is still linksy, just less dramatic) and the sea. As such, the only places

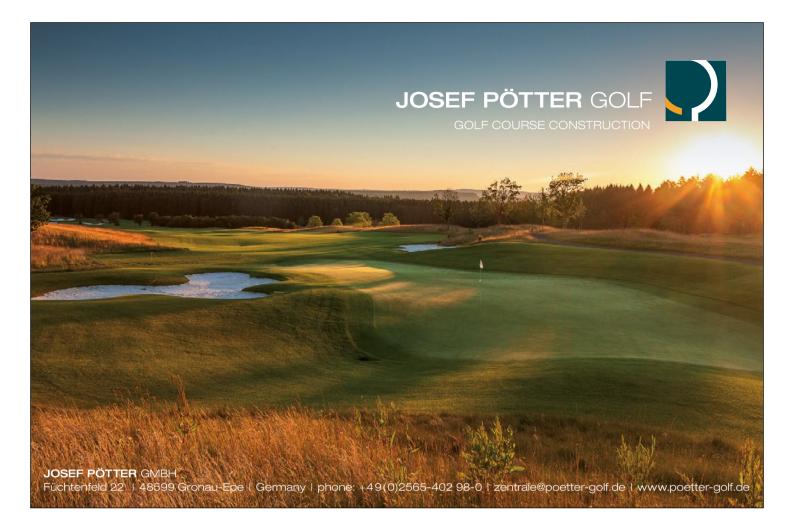
"I really like the new ninth, as it is a complete change in direction from the other par threes and draws your attention to the coastline"

worked on links at Ceann Sibeal in Kerry, and also on some sandy sites in Scandinavia, which gave me experience of shaping in sand – which is a dream to work with, as you can be more organic in your shaping decisions and not be hampered with the limitations of a heavy clay site. So this project has made me that kid in the dunes again! on the course from which the sea could conceivably be seen are up in the dunes, and in Eby's original design, there were not that many of them. Lynch has tried, with some success, to create more.

Additionally, almost all the holes previously played broadly in a northsouth direction, obviously less than ideal on a windy links site, particularly

given that the prevailing wind comes from the south-west and thus was to the side on almost every hole. Lynch has created two entirely new par threes, the ninth and fifteenth, playing almost directly towards the water, in the duneland, to alleviate these issues. Both holes are excellent: a very picky commentator might complain that both play between 140-145 metres (153-159 yards), but given their setting among the dunes close to the sea and the excellent greens that both have, it would be hypercritical to do so. "I really like the new ninth, as it is a complete change in direction from the other par threes and draws your attention to the coastline," says Lynch. "The green is one of the largest on the course, with some bold contours to help a player to certain hole locations or make for some fun recovery shots. Unlike the west coast, the wind here is not predominantly from one direction, which adds a bit more variation."

The tenth hole is a difficult, though not especially long, dogleg left par







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The ninth green, one of the largest on the course, has bold contours

four playing south, parallel to the sea. It hasn't been changed that much, but given the new ninth, the walk to the tee is along a path through the seawall dunes with excellent views of the water - a pleasant place on a nice day, though in a gale it will be wild! The tough and excellent par three eleventh is unchanged, but the twelfth hole has had its green pushed back 100 yards to create a par five; the most dramatic feature is the green site, which is a classic volcano, set atop a high dune. The green itself has a hint of a Biarritz style swale in it, but any golfer finding any part of the putting surface should be happy, as missing the green will result in a very difficult recovery shot, especially if you find the brutally deep bunker set to the right.

The thirteenth, in turn, was a par five, but the tees have been moved forward to create a long and very challenging four, in stroke index terms judged the hardest hole on the course. The fourteenth is now another five played to a new green that is much wider than it is deep, and has some dramatic rolling contours. The fifteenth we have already covered, while the stunning par-four sixteenth has a new tee position high on the seawall dune, with great views and a challenging angle to the fairway.

The final change, both in terms of hole position and also chronology, is on the seventeenth hole, now a difficult par three. Lynch has used a patch of dramatic but previously unused ground behind the existing green to build a new one that will turn the hole into an exciting and fun short par four. The green is expected to be brought into play in early 2024. Phase two of the works may include a multifunction practice area in the southwest of the property, incorporating a practice range large enough to accommodate a major tournament, and also a nine hole short course.

The newly-named Jameson course has always had something of a PR problem, because it shared its name with the adjacent club, unarguably one of the best courses in Ireland, and, put simply, it wasn't as good. To be confused with another, better, course is a difficult position to be in, and will inevitably lead to some disappointed customers. But now, the course has a much clearer identity of its own and, thanks to Jeff Lynch's excellent work, is also a stronger golfing experience. That puts the resort in a very good position. Owner Mitch Gagliardi tells me that he plans to launch stay and play packages incorporating the other high profile links in the area, and I imagine these will be very well received, given the excellence of the hotel. It would be an exaggeration to say that Jameson Golf Links is now on the same level as its illustrious neighbour. But it is fair to say that it is in the same ballpark. GCA

ON SITE

New heights

WEST COURSE AT APOGEE CLUB, FLORIDA



Brad Klein travels to south Florida to visit Apogee Club, where the first of its three courses has now opened.

There's a boom in new golf course construction in south Florida, and Gil Hanse's West layout at Apogee is one of the first to have opened.

The 18-hole layout is part of an ambitious, 54-hole private club development in Martin County, about 25 miles northwest of West Palm Beach. There are several private clubs in development in the area, most involving extensive real estate. Apogee, by contrast, is a stand-alone facility, strictly a golf and recreational club.

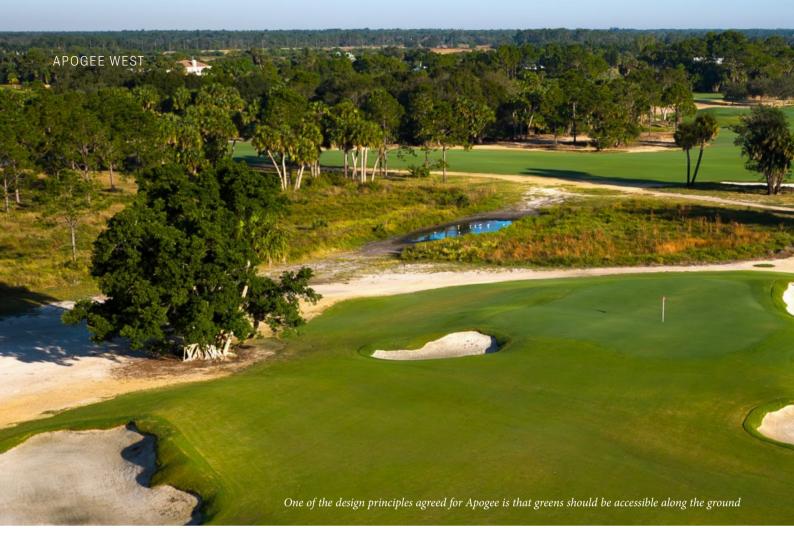
Apogee (as in 'ultimate height') is a 1,200-acre luxury retreat involving some of the most successful names in the business. The co-owners are Michael Pascucci, founder of Sebonack Golf Club on Long Island, and Stephen Ross, who owns the NFL team Miami Dolphins and created the global real estate construction firm, Related Companies. They hired Gil Hanse and Jim Wagner to do the first course, which opened in December 2023, to be followed by Tom Fazio II and Mike Davis (formerly of the USGA) to do the second (South) course, opening in late 2024, and Kyle Phillips to do the third (North) layout, slated for late 2025.

Along the way, the property will be outfitted with two clubhouses, villas, two massive practice ranges and stateof-the-art training facilities, a parthree course and short-game practice area, as well as equestrian, racquets, fishing, swimming and hiking. Land planning is by the New York-based firm Hart Howerton. Golf course construction is taking place in-house, overseen by the Fazio-Davis team. Ambitious, indeed.

Before the golf design teams headed off to do their work, they came to a basic agreement about the kind of playability their courses would embody. The point here was not to determine a particular look but to make sure that while all three courses tested elite-calibre players, they were also interesting, fun and emotionally engaging for players of everyday skill levels.

Among those elements the design teams would embrace would be wide fairways, good strategy, greens large enough to receive and hold the shot called for, no water directly in play in the form of a forced carry, no blocking entrances to greens (a hazard on one side of the entry needed to allow for room on the other side), forward tees around 4,000 yards and forced carries of hazards only for those playing from the very back tees.

Apogee occupies low-lying ground; there is only 15 to 20 feet of native elevation change over the old farming, range and bird hunting land that it occupies. Woodlands and wetlands intersperse, with some very strong stands of oaks, pines and hammock trees on the eastern half of the site that will be incorporated in the designs there.



Apogee West sits on more open ground. The par-72 routing measures out at 7,501 yards from the back tees, though most players will play from one of the other six tees that range from 4,077 to 6,971 yards. The point layouts in-house. To that end they have arranged for Apogee to purchase all the needed construction equipment: a veritable arsenal of haul trucks, excavators, bulldozers, skid steers, tractors, dumpers and utility vehicles.

"We decided to utilise native grasses to give the course an antiquated look, with a little patina like it has been here a long time"

of those shorter teeing grounds, of course, is to enable golfers of every swing speed to enjoy the challenge, strategy and variety of paths from tee to green that elite players have – without compromising intrigue and interest and without undue stress.

Fazio and Davis are not only designing the South course and the practice areas; they are also coordinating construction of all three Day-to-day turfgrass and maintenance operations are in the hands of a team led by superintendent Tony Nysse, a stalwart of the south Florida scene, thanks to previous stints at Pine Tree, Old Marsh and Mountain Lake.

Construction of the West entailed a cut of 71,000 cubic yards and a fill of 296,000 cubic yards; the material needed to lift various features came from ponds dug on the perimeter of the property that stay out of the line of play. Tees sit at grade, with only modest elevations required for some of the green pads. The irrigation system entails 2,000 heads, 26.5 miles of HDPE pipe and 23 miles of wire. Drainage, paramount on a low-lying site that is subject to occasional heavy rains, is channelled through 19 miles of pipe.

The method of design-build that Hanse and Wagner deployed here relies upon a process of 'chunking' in large swaths of well-established grasses from on site and scattering them on the backs of bunkers, in nearby rough and behind greens – all to create an effect of ageing and informality. As Wagner explained: "We decided to utilise native grasses to give the course an antiquated look, with a little patina like it has been here a long time. We use loaders and tractors to harvest the grasses from the other side of the property, haul those to the course and use an excavator

to offload and for a generally unpredictable look."

The combination of formally maintained areas and informal, native scruffy grasses gives the West a distinctive look. The short-cut fairway ground, comprising TifTuf bermuda, is extensive and is

seamlessly tied into tees and grounds – 100 acres worth, in all. This is dotted by another seven acres of the chunked-out native grasses. Added to this are extensive sandy areas – 106 bunkers, comprising 135,000 square feet of bunkering, most of it edged with that native mix. The result is a startlingly well-defined palette of materials for a golf course that looks like it has been there for ages. Most greens are sited at grade level and not heavily defended up front by bunkers that need to be carried. The course thus allows for lots of ground-game play. Elite players will still play the aerial game anyway, so it's not as if opening up the fronts makes the game any easier for them. And if/when they miss the fairway and find themselves in rough or bunkers, they'll have the

mages: Apogee

There are extensive sandy waste areas on the West course, designed by Gil Hanse and Jim Wagner

option of working a well-struck shot to the green, though they'll have to judge properly the bounce and roll out – something they are not accustomed to doing.

The fairway bunkering often cuts across the line of play, thus providing options for players who take a diagonal





Atlanta Athletic Club - Riverside Course Johns Creek, Georgia Tripp Davis - Redesign 2022

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APOGEE WEST



The West course opened in 2023. The South, by Tom Fazio II and Mike Davis, is in construction, and the North is being designed by Kyle Phillips

line but also offering a reward on the far side of the carry with fairway for additional roll. The greenside bunkering is not at all a frontal assault, and where there is one side protected by sand the other is likely left open within clear view.

The TifEagle bermuda greens offer considerable contrast. They average 5,880 square feet, but in doing so they vary considerably, with the putting surface on the short par-four fifth hole the smallest on the course at only 3,004 square feet; while the green at the mid-length par-four second hole is the largest at 10,525. Hanse calls it "one of the favourites I have ever built" for its wild contours that make one think of the fourteenth green at Augusta National – a green and surrounds complex that, by the way, has more elevation change than all of Harbour Town Golf Links on Hilton Head, South Carolina.

There is a lot of stutter-stepping and shifting rhythms to be encountered out there. The course starts with a long par four that takes players to the back of an old Hacienda-style ranch home that will serve as a temporary clubhouse until the main clubhouse on the West side is ready. The short, dogleg right par-four fifth hole calls for a tee shot along an inlet that empties out into the Okeechobee Canal. From there, the front nine turns inward, to the 618yard, double-dogleg par-five sixth with a second shot across a 'Hell's Half-Acre' bunker. The shortest hole on the front nine, the 155-yard par-three eighth, plays to a green perched well above grade that falls off all around.

The contrasts continue on the back nine, with the long par-five tenth followed by a short par four. Then comes a very long par four at the twelfth to a green whose entrance is obscured by a Mackenzie-style short carry bunker that is actually 60 yards short of the green but looks like it is set right up against the putting surface. Another short par three follows, the 135-yard thirteenth, followed by the most tempting hole on the West course, the 321-yard par-four fourteenth to a massive, potato-chip of a green; it is readily in reach from each of the respective tees and offers the prospects of a green that seems to steer putts into unfathomable corners. The hole proves that ground-game intrigue can appeal to players of every skill level.

The course does not look or feel like most other Florida layouts. Water is not in play. There are shot-making options in terms of playing angles and the ground game. Every hole presents an opportunity to exercise not just physical skill but also mental ability in terms of judgment. It is a golf course that provides diverse stimuli and that engages a golfer's full sensory capacity.

For Apogee, the West is only the start. Each of the two follow-on courses will offer varied terrain, look and strategic demands. Small wonder the list of founding members is already growing. **GCA**

This article is adapted from Bradley S. Klein's newly published book, APOGEE: Reaching New Heights (Duck Pond Press, Melville, New York, 2023)

Silva lining for Metairie

Renovation work has returned Seth Raynor character to the Louisiana layout.

The course at Metairie Country Club in Louisiana dates back to 1922, when Seth Raynor was commissioned to design 18 holes, built by golf professional Joe Bartholomew.

Several notable redesigns haven taken place since. In 1938, Jack Daray was hired to modernise the course. In the middle of the century portions of the layout were sold to ease financial difficulties. And a renovation was completed in the early 2000s to tackle flooding. Hundreds of thousands of cubic yards of fill were used to raise the level of holes. As a result, evidence of Raynor's hand has steadily diminished. So, in 2021, the club decided to undertake a project to bring back the original character of the course, and hired architect Brian Silva to conduct the work.

"During the planning process, the committee reviewed and studied a collection of template holes and various examples of each as they worked towards a finished product that more closely resembled some of the character of a Raynor design," says Silva.

The project has seen the introduction of new greens complexes and bunkers,



Brian Silva has reinstated a Biarritz green at Metairie's third

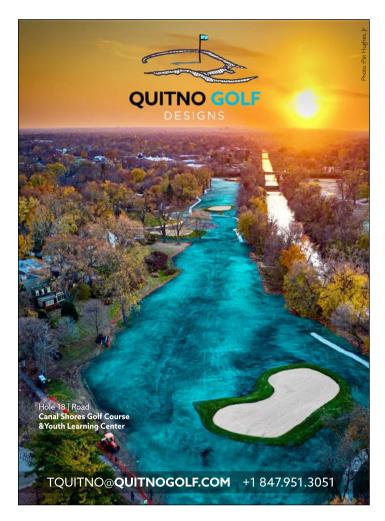




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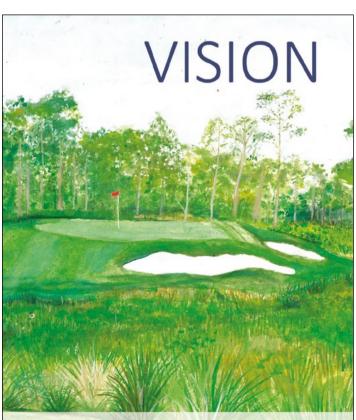


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Fairways have been expanded to provide more width and angles of approach into greens

with new liners and sand, and the addition of over 15 acres of fairway and close-cut areas.

"We have refashioned holes into more recognisable and strategic examples of Raynor's time-tested templates," says Darryl Bartlett, senior project manager at NMP Golf Construction. "Inspired by the opening double green at Yale, the first at Metairie is a Punchbowl and Redan combination. And before the turn, players will have experienced Louisiana versions of Biarritz, Leven, Bottle, Redan, Double Plateau and Road holes, among others.

"The back nine continues the ode to vintage design with versions of the Lion's Mouth, Eden, Knoll, Cape, Maiden and Short holes."

Fairways have been grassed with Latitude 36 bermuda and expanded to allow alternate routes of play in a risk-reward fashion. Tees have been repositioned too.

"The better players will be able to challenge the course all the way back from the 'Raynor tees', while mere mortals will be able to experience the layout from a variety of more manageable marker settings," says Bartlett.

The project also involved the construction of a comprehensive new drainage network, including

several miles of pipe and over 550 basins, and a new irrigation system. Ponds were expanded and now feature new overflow structures and bulkhead walls.

NMP completed work during a very wet period – the record for rainfall in the area was broken for three months in succession. The new drainage network coped with it all, as well as a visit from Hurricane Ida.

Silva says: "Template holes, greater widths and more choices, allowed by more short-cut turf, seems to have captured golfers' fancy as rounds of play and new memberships are at an all-time high." GCA

Revival of Wellman provides boost for rural community

South Carolina's Florence County hopes golf course renovation will spur economic growth.

ellman Golf Club in Johnsonville, South Carolina, has been reborn as a municipal facility, following the resurrection of a course that had been closed since 2010.

With nine holes originally laid out in 1966 by Ellis Maples and nine added by Maples and Ed Seay five years later, the former Wellman Country Club course has now been completely renovated by Rees Jones and design associate Bryce Swanson.

Funding for the project was largely covered by a Florence County 'penny tax'. County officials believe that as well as providing a recreation facility for everyone in the area to enjoy at an affordable price, the golf course could help spur economic growth in the region.

Wellman is less than an hour inland from the golf-dense Myrtle Beach area and currently has green fees in the region of \$40 (and even less for locals), so holds appeal as a low-cost and lesscrowded alternative to the popular courses of the 'Grand Strand'.

The par-five eleventh at Wellman

even mirrors one of Myrtle Beach's most famous holes, the 'Waterloo' thirteenth at the Dunes Club, another of Jones's clients. At Wellman, the hole turns 90 degrees from rightto-left around a large lake, posing a strategic risk-reward question for every shot.

But Jones says that the course offers a marked contrast to those around Myrtle Beach, instead drawing parallels between Wellman and the famous layouts of Pinehurst, two hours north. "It looks like a Pinehurst



long-time collaborator Clyde Hall of Southeastern Golf, Jones and Swanson made design decisions in the field and employed traditional methods for the construction of greens and bunkers, to keep costs down. "That's what Bryce and I are

"It looks like a Pinehurst area golf course, with sandy soil, pine trees on every hole and gently rolling topography"

area golf course, with sandy soil, pine trees on every hole and gently rolling topography," he says.

It was the sandy soil at Wellman that made it possible to complete the renovation of the golf course and related facilities with a budget of US\$5 million. Working with really proud of," says Jones. "We were able to build a really special facility with a very small budget. A double-row automatic irrigation system, a new pump station, drainage in the greens, a small maintenance building, clubhouse repairs, the entire golf course recontoured and



regrassed, replacing poorer soils with sand – we did it right even though we had very little money." Their timing was good too, with most of the materials purchased before the post-Covid spiral in costs.

The putting surfaces now sit more at grade than Maples' original design, and are open at the front. "We have oriented the greens to hold shots a little better," says Swanson. "Some of the old greens ran away from you. And for holes with longer approach shots, we built those greens a little deeper."

"It will play like an old-style, classic golf course," says Jones. "We took a minimalistic approach to the layout, largely preserving the original Ellis Maples routing and allowing the holes to fit the land. The trees have matured over the years, giving the layout the character of an older course."



From left, architects Bryce Swanson and Rees Jones with construction foreman Clyde Hall, on site at Wellman



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Photo by Jacob Sjoman Pictured is hole 2 of the recently completed Marco Simone Golf & Country Club, Ryder cup course 2023.

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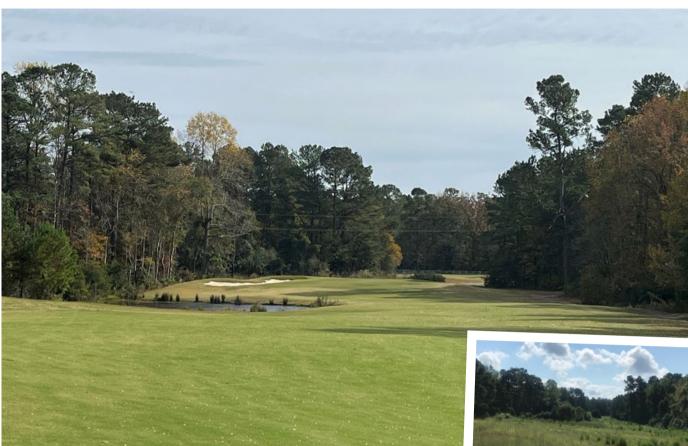
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The second shot to the renovated par-four twelfth at Wellman and, inset, as the design team found it in 2020. The pond has been restored while leaving space on the right to approach the green via the ground

Fairway bunkering is "somewhat scattered", says Jones, so that players have to think their way around holes.

While all of the features of the golf course have been rebuilt, the routing itself - aside from some work to reduce the severity of doglegs - has

Jones and Swanson have designed the course to be enjoyable for players of all levels of ability. Bunkers are not overly deep, while most greens have contour that is more fun than fearsome. "Golfers will be able to play the ground game and the aerial game. Shorter hitters can

"The natural elevation changes create movement, so each hole has its own unique feel to it and yet they all tie together"

not changed. "The bones were good," says Swanson. "The natural elevation changes create movement, so each hole has its own unique feel to it and yet they all tie together."

have a way to get to the green and the longer hitters can have a challenge," says Jones. There are five sets of tees, allowing the par-72 course to be played from around 5,300 to 7,250 yards.



But one of the most gratifying aspects of the project for Jones is the return of Wellman as a place to bring people together. "A lot of people used to come here to play the game, but also to celebrate weddings, birthdays and other family events," he says. "Sometimes people just come for lunch. It's a social gathering spot, just like the public golf courses at Torrey Pines in San Diego or Bryan Park in Greensboro. I had a very emotional connection with this project – my wife grew up in a town just like Johnsonville, and the public golf course there was where everyone came together to hang out. So I know what a club like this can mean for the whole community." GCA

New layout brewing in Java

Construction of a luxury golf destination, featuring a 27-hole design by Brian Curley, is under way in Indonesia.

A new Brian Curley golf course is under construction in Kediri in Indonesia's East Java province.

The 27-hole Dhoho Golf Club course will be part of luxury golf destination Surya Dhoho, developed by Susilo Wonowidjojo, president of cigarette manufacturer Gudang Garam, and being built in the foothills of the Gunung Liman mountains. The development is near Dhoho Kediri International Airport, which is in the final stages of construction.

The golf course site features three prominent ridges and a network of low flow streams that will be incorporated as both visual and strategic features of Curley's design. Initial work has unearthed substantial boulders, which Curley is integrating into the stream designs and landscape.

"We are excited about the potential of the property," says Curley. "We have the perfect amount of elevation



Brian Curley's sketch for the closing hole at his new Dhoho course in Indonesia

Construction is currently focused on a composite 18 from the three nines

change that will help with the creation of great golf holes and most will have phenomenal backdrops. We have also worked hard to route the course to avoid having uphill challenges for players, resulting in a very walkable and tournament-friendly design. While this is arguably a rather difficult site, I am confident that we will create a final golf landscape that people will never guess to have been so severe at the start.

"The course will offer drastically differing terrain. Dense vegetation will punctuate the landscape at times, but the design will rest mostly on a theme of open views and vast expanses of turf and Bahia grass groundcover that will create long views through the corridors and to the mountains beyond. We are fortunate to have so many great things align here: a wonderfully committed owner, a fantastic property, amazing surrounding views and incredible design."

The course will be grassed with Zeon Zoysia and greens with Primo Zoysia, supplied by Sports Turf Solutions. "The site and its extended dry season are perfect for the use of Zoysia and its ability to maintain hard and fast surfaces, especially on a site where the incorporation of slopes is a key design element," he says. "Martin Moore of Flagstick was instrumental in the construction of some recent designs where similar playbooks were utilised. We plan to follow those concepts that helped transform those very flat sites into world-class golf."

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Construction is currently focused on 18 of the 27 holes that will be a composite of the final design and the most walkable and accessible for tournament spectators, and will play to just over 7,400 yards. Curley highlights the massive, irregularly shaped bunkers – often punctuated with islands of

Bahia – fairway speed slots, kick slopes and 'mini fairway' tee complexes. Greens will be expansive, with many having significant contours, fall-away lobes and a variety of pin positions. "We are using the varied terrain to create unique holes, such as the driveable par-four fourteenth, which incorporates an existing quarry with views across the site and to the mountains," says Curley.

The initial 18 holes are expected to open in late 2024 with the clubhouse to follow shortly after. "I am confident this project will be heralded as one of Asia's best," says Curley. **GCA**

Making memories

Greg Letsche gives individual holes a stronger sense of identity at the Parkland club in south Florida.

Parkland Golf and Country Club weaves its way through a real estate community in the city of the same name in south Florida, alongside the northeast border of the Everglades.

The course was laid out in 2004 and has seen just one significant project – to reduce bunker sizes – since.

"The renovation has been a long time coming," says Joe Postel, the club's director of agronomy, explaining that the club decided it was time to revisit the design. Florida-based architect Greg Letsche was selected for the project. "The members were drawn to Greg, due to his body of design work and the fact that he is a local guy and would be very hands on."

While the renovation plan came together quickly and the course closed for the project to begin in April 2023, a last-minute change was required. Construction was originally planned to begin on the eighteenth hole but, thanks to a burrowing owl choosing to nest in one of the bunkers, work began elsewhere. The club's members embraced 'Bunker the Owl' and even set up a webcam so others could follow its progress. But the owl and some heavy rainfall aside, work moved at pace. Parkland has several attributes that are common in Florida: homes adjacent to almost every hole, water featuring throughout the layout and minimal elevation change, so Letsche had to focus his creativity on the individuality of holes.

A primary goal of the project was to make holes more memorable. "Several holes used to be too similar to one another, so it felt like you would be playing the same hole multiple times," said Postel. "Greg did an outstanding job in giving every hole more of an



identity via planting, rebunkering or reshaping greens."

"Parkland had so many holes that went left to right, there were four or five that were practically the same design," says Letsche. "The biggest changes came at the fifth and twelfth. The fifth has been redesigned to play as a driveable par four, which they did not have before. It will be a very strategic hole, almost similar to hole ten at Riviera in terms of risk and reward.

"The twelfth has changed to the point that it looks nothing like it originally did. Fairway bunkers were eliminated and trees have been planted. It has a completely different visual and stands out tremendously well compared to what it was."

Letsche has also tried to strike a better balance between playability and difficulty. "We have achieved this through the judicial use of bunkers, placing them in strategic areas for the better players," he says. "The original design had an extraordinarily large amount of bunkering, close to 140,000 square feet. With the summer rain, that amount of bunkering proved to be detrimental maintenance-wise with a lot of hours put into fixing washouts. The project completed a few years ago reduced the sand square footage to 40,000 square feet. Although it made sense to do that, they had dumbed down the bunkers and lost a lot in terms of aesthetics and the playing experience."

Letsche has added about 50,000 square feet of bunkers to reintroduce more strategy and reshaped or relocated existing hazards while also creating a new aesthetic to Parkland. Capillary Concrete was installed time minimise the time required for maintenance.

Each green has also been redesigned to create more pinnable area and opened up for ground-game approaches that were limited on the previously perched greens. "It used to be pretty penal around greens, with balls rolling off into deep bunkers, but now it is more fun for all levels," says Postel. **GCA** New bunkers were a key part of Letsche's plan, in order to add more strategy to Parkland



Best in show

With the golf course industry preparing for the GCSAA Conference and Trade Show in Phoenix, USA, *GCA* highlights some of the businesses to check out if you are attending.

The golf course industry will converge at the GCSAA Conference and Trade Show in Phoenix, Arizona, between 29 January and 1 February 2024.

As perhaps the most important global event for learning about golf course design, construction and maintenance, the GCSAA show brings together people and businesses that cover every aspect of the golf course.

Organised by the Golf Course Superintendents Association of America alongside its presenting partners, the Golf Course Builders Association of America, American Society of Golf Course Architects and United States Golf Association, nearly 450 business will be exhibiting. Over the following pages, we profile some projects completed and products offered from a small selection of those exhibitors and encourage you to find out more by visiting their booths at the show.

Golf Course Architecture will also be there, at booth 1052, so come and say hello! **GCA**



The ClearWater Recycling System has proved effective at Saratoga Golf & Polo Club in New York

Acumen ClearWater

Booth: 4339 (a vendor on the Ewing Irrigation booth)

Acumen ClearWater installs and maintains washpad water recycling systems. Its ClearWater Recycling System provides an effective, below ground, biological washpad water recycling process that is used by greenkeeping and maintenance teams.

The system has been installed at Saratoga Golf & Polo Club in New York, a new customer to Ewing Irrigation (the US distributor for ClearWater) and a new user of ClearWater. Course superintendent Josh Fontaine wanted a more effective system, so a new two-hose 1,320-gallon ClearWater tank was installed along with the building of new workshops and sheds.

The water recycling system uses harmless microorganisms to clean contaminated water from washdown areas and as such, requires minimal maintenance with exceptionally low running costs. Acumen is expecting more business in the east coast of the US.

Advanced Drainage Systems

Booth: 4031

Advanced Drainage Systems' AdvanEdge drainpipe provides the dimensional stability and field-proven structural strength for quick, effective subsurface drainage. The distinguishing performance feature of the panel pipe is its ability to rapidly collect and remove water.

Compared to a four-inch round pipe at an equal length of 12 inches, the panel pipe has twice the soil contact area and will drain water in 60 per cent of the time. This makes AdvanEdge perfect for use on a golf course as it can be laid flat to maximise soil contact. AdvanEdge is a perforated panel-shaped plastic core pipe available with either geotextile for soil filtration or without geotextile. The slim 1.5-foot profile permits a narrow trench and faster installation. The design of the invert allows significantly higher flow velocity at lower head.



The AdvanEdge solution can be used by clubs to improve subsurface drainage on their golf courses



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Bunker Solution has completed a renovation at Black Diamond

Bunker Solution Booth: 4436

Bunker Solution has provided its liner for the renovation of the Quarry course at Black Diamond Ranch in Lecanto, Florida.

"Sand is now in the beautiful bunkers at Black Diamond Ranch," says Morris Johnson of Bunker Solution. "The patented bunker liner was installed in all of the sand hazards by Bobby Holmes and the Golf Sculptors International team. Golf course superintendent Ben Noland has done an outstanding job growing-in this Tripp Davis-designed project."

Golf course operator Escalante Golf, which runs Black Diamond Ranch, chose Bunker Solution's liner due to its proven performance, particularly for making bunkers more playable and in reducing labour for a club's maintenance staff.

Other clubs that have installed Bunker Solution include Quail Hollow, Floridian Golf Club, and East Lake.

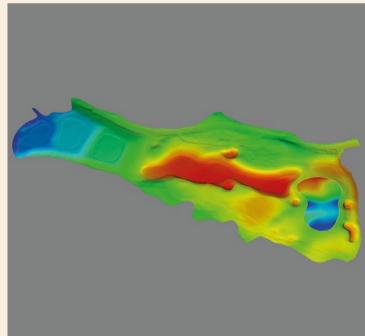
GreenScan 3D

Booth: 3621

GreenScan 3D is providing grade control and 3D modelling services for the renovation of the golf course at the historic East Lake Golf Club in Atlanta, Georgia, the venue for the Tour Championship, the final event of the PGA Tour's FedEx Cup.

These technologies will give the architect, Andrew Green, precise control over green design. Once Green, the contractor Total Turf Golf Services and shaping team have shaped new greens to the final grade, they are scanned and 3D modelled by GreenScan 3D. The colour slope analysis can then be reviewed by Green, and new contours drawn and then digitised by GreenScan 3D to create a 3D model and grade control file, which can then be used for construction to USGA specifications.

The model is loaded onto a total station to allow the contractor to ensure greens are built to the correct specifications, including uniform mix and gravel layers.



GreenScan3D is providing Andrew Green with 3D modelling services for the renovation of East Lake in Atlanta

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Hunter has helped Centro Nacional de Golf in Madrid, Spain, to improve its water distribution

Hunter Industries Booth: 3534

The Hunter Pilot Control Network has been installed at Centro Nacional de Golf in Madrid, Spain.

The course had previously relied on a traditional system with complex cabling that posed significant challenges for maintenance and water distribution. Since its installation, the Pilot Control Network has improved irrigation control and efficiency at the club.

Developed by Hunter Industries, the system has remained a forefront solution in the golf industry for over a decade. Pilot Command Center Software ensures simple daily adjustments and optimises watering cycles based on turf needs while the wireless UHF communication capabilities simplify installation and troubleshooting. Centro Nacional has gained precise control over each sprinkler on its course, saved water and reinforced its commitment to innovation and sustainability.

NMP Golf Construction

Darryl Bartlett, senior project manager at NMP, is presenting a seminar on the Renovation Channel on Tuesday 30 January

NMP Golf Construction has worked with Rees Jones and his senior designer Steve Weisser on a restoration at Waldorf Astoria Golf Club in Orlando, Florida.

The project included greens, where eight inches of organic matter was removed, a new mix introduced, restored closer to their original size with more contours and grassed with TifEagle bermuda.

Work also included restoring bunkers, renovating tees for improved shot value and increase length, and revamping the driving range and short-game area.

"NMP Golf Construction's entire crew was first rate and the communication and follow up was ideal," says Jones. "Everyone involved in the Waldorf Astoria project is happy with the quality and attention to detail of their construction work."



NMP has handled all construction work for the renovation of Waldorf Astoria course in Florida









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Turf reinforcement mat products provide lasting erosion control in the most challenging site conditions

Profile Products Booth: 2329

Profile Products and Freudenberg Performance Materials have agreed a new partnership that will see Profile provide the golf industry with the turf reinforcement mat (TRM) and high-performance TRM within the USA.

"We're excited to bring shared resources together to advance the industry towards newer and more sustainable practices," said Adam Dibble, vice president of environmental solutions at Profile.

Audrey Sanders, business manager at Enka Americas, Freudenberg Performance Materials, said: "Pairing our TRM technology with Profile's engineered growth media is the best means available to provide lasting erosion control solutions in the most challenging site conditions."

The TRM provides both the open space needed to establish vegetation and the strength to anchor the root systems, withstanding high-speed water velocities.

Pure Seed and Atlas Turf International Booth: 3525

Almost all the turfgrasses at Marco Simone near Rome, Italy, which hosted the 2023 Ryder Cup, were developed by Pure-Seed Testing and co-marketed by Pure Seed and Atlas Turf International.

Zach Johnson, captain of the US Ryder Cup team, said: "I think the beauty of Marco Simone is that it has a canvas that is really good. The grass is extremely healthy and very pure. The greens are fantastic!"

The greens are Pure Distinction creeping bentgrass; tees, fairways, approaches and collars feature Pure Dynasty seeded paspalum; and the rough areas are Pure Links, a proprietary blend of tall and fine fescues.

Pure Distinction is known for its smooth and true playing surface. Pure Dynasty delivers a turf surface with tighter density, heat and cold tolerance, and PURELINKS delivers the desired characteristics of playability, colour, disease and drought resistance, salt tolerance, and more.



Almost all the turf at Marco Simone was developed by Pure-Seed Testing



Pictured, the sixth green at East Lake, the host venue of the Tour Championship, the last stop of the FedEx Cup. GreenScan created a 3D model for automatic grade control.

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The Nest Golf Club in Florida is expecting to save considerably on water following the installation of a new Rain Bird system

Rain Bird Booth: 4639

The Nest Golf Club in Bonita Springs, Florida, underwent a major renovation led by consultant Dave Ragan.

The Rain Bird IC System with CirrusPRO Central Control software and 752 Series rotors were chosen.

Projected water savings are now expected to be around 25 to 28 per cent once both courses are complete, helping the community conserve a vital resource.

The new system enabled the venue's irrigation to be monitored and changes made remotely. It has also made routine maintenance easier, maintains consistent water pressure levels for efficient coverage, and has improved water distribution. Previously, greenkeepers used a hydraulic irrigation system with inadequate water coverage and that was prone to leaks. Pinpointing issues was difficult and time-consuming, and they were using more water than necessary without a way to cut back.

Southwest Greens Construction *Booth: 5452*

Southwest Greens Construction has completed work on a new Olazabal Design golf academy for Golf Eichenheim Kitzbühel in Austria.

Designed by Anton Ortner of Olazabal Design, the practice facilities include a large outdoor synthetic pitching green with several bunkers, an outdoor practice putting green, a Trackman range and lesson studios.

"The use of synthetic turf in golf applications has experienced explosive growth over the last several years due to its ability to fulfil a need in areas where it is difficult for courses to create and maintain quality solutions using natural turf," says Haaye de Jong, managing partner of Southwest Greens Construction. "Another large consideration is to be able to offer members and guests an all-year round practice facility depending on the climate; something Eichenheim was keen to take advantage of."



Southwest Greens Construction has completed a range project at Golf Eichenheim Kitzbühel in Austria

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SOX Erosion Solutions Booth: 3934

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SOX provides education to companies on specifying, bidding, selling and installing its "living shoreline" erosion control systems and perimeter control devices.

DredgeSOX and ShoreSOX both feature a double layer of knitted polyethylene mesh filled with dredged sediment, creating an immediately solid and secure living shoreline. Both systems are quick to install and have little to no impact on surrounding property, making them the preferred method for projects involving lakes and other water bodies.

noto: Pasatiempo Golf Club

Tee-2-Green

Booth: 1754

Tee-2-Green has played a crucial role in the golf course restoration at Pasatiempo Golf Club in California.

The project, which is being led by architect Jim Urbina, is to renovate greens and bunkers on the Alister MacKenzie design that originally opened in 1929.

Pasatiempo's aim is to restore greens closer to their original design. The club consulted with Tee-2-Green and is using its Prestige Premium bentgrass blend on the putting surfaces. The blend is a mix of Pure Distinction and Pure Select, with these varieties available through grass distributor Tempoverde.

The front nine reopened in December 2023, with the back nine shutting down in April, after the club hosts the Western Intercollegiate, for six months. All 18 renovated greens are expected to be in play by winter 2024.



Tee-2-Green products are being used for the Pasatiempo restoration



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Toro's irrigation systems were critical to the 2023 Ryder Cup's sustainability mission

Toro Booth: 4515

Toro has been instrumental in providing excellent playing conditions for Marco Simone Golf & Country Club near Rome, Italy, before, during and after the 2023 Ryder Cup.

"Water management was our biggest challenge in preparing for the Ryder Cup," said Lara Arias, the thensuperintendent of Marco Simone. "We were determined to create world-class playing conditions while conserving precious water resources. And that's where Toro's irrigation solutions became the unsung heroes of the Ryder Cup's sustainability mission."

Toro's Lynx Central Control System and INFINITY sprinkler heads, were instrumental in achieving this harmony. Over 2,000 sprinklers were deployed across the course. The Lynx Central Control System played a pivotal role in optimising water usage, a critical factor in a region that often experiences scorching summers.

ZLine Bunker Systems

Booth: 4034

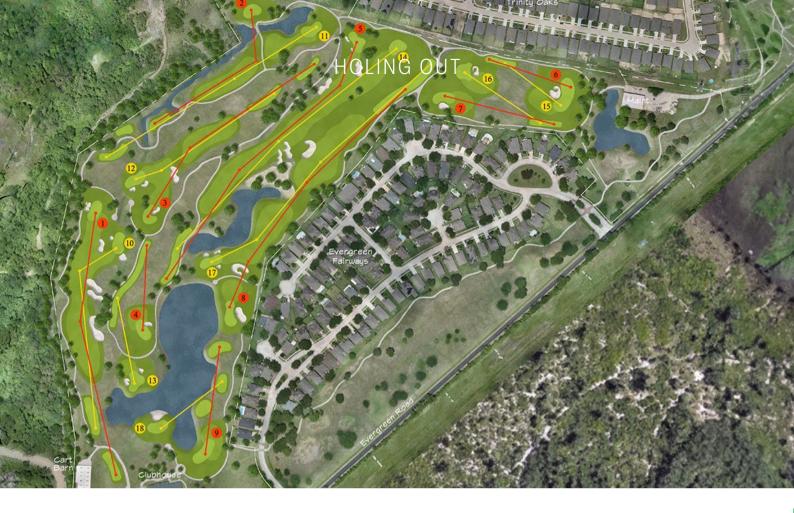
The Club at Carlton Woods in Woodlands, Texas, has renovated its Jack Nicklaus course following it hosting the 2023 LPGA Chevron Championship.

It selected ZLine Bunker Systems for its bunker liner solution. The project saw ZLine experts conduct site assessments and meetings with course management, and it was agreed that the newly released Xtreme System, using the Sand Match colour system, would best meet the course's needs. The ease of installing the system meant the contractor could meet the tight timeline, while mitigating the challenges of the summer heat, humidity and thunderstorms that the area often experiences.

The successful implementation of ZLine's bunker liner has led to improved playability on the course, better drainage, reduced maintenance requirements, improved sustainability, improved aesthetics, and an enhanced visual appeal.



ZLine's bunker solution was used for the renovation at The Club at Carlton Woods in Texas



Loop the loop

New nine designed to offer a distinctly different repeat play.

perators of nine-hole courses often try to provide an 18-hole experience by offering a second loop. Some seek differentiation for this second nine by adding an alternative set of tees.

The new T36 at Baytown course in southeastern Texas goes one step further. Described as a "double-loop" 18-hole golf course when it opened in late 2023, the layout offers not just a second set of tees, but also a second green on all but one of the holes.

The course is built on less than 65 acres of what was previously Evergreen Point Golf Course and was conceived by developers Rio Valeriano and David Hinkle and golf course architect Ric Buckton. "Our mission at T36 is three-fold – provide a place where neighbours can gather and enjoy a sense of community, introduce the game of golf to a wider and more diverse audience, and evolve to meet the needs of the modern golfer," said Hinkle.

Buckton's design has nine holes, eight of which have two greens, and one – the par-three sixth – with a wide double green with two distinctly different areas.

This approach maximises variety on the small site and uses around 40 per cent less water than a traditional 18-hole golf course. With four parthrees, three par-fours and two-par fives on each nine, the eighteen-hole layout plays to a par of 68.

"Baytown's support for our golf course development marks a pivotal moment for the community, and I'm excited to be part of the modern golf movement," said Valeriano. "T36 offers opportunities for a wider range of golfers, beyond just the core golf experience. Whether it's a traditional 18-hole round, a quick nine, or a short course experience, T36 offers a versatile solution for all golf enthusiasts. By condensing existing courses and providing not just 18, but 36 holes of golf, we're not only enhancing the golf experience but also freeing up valuable real estate for other uses. The T36 project is a true gamechanger, offering something unique and exciting for everyone." GCA

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