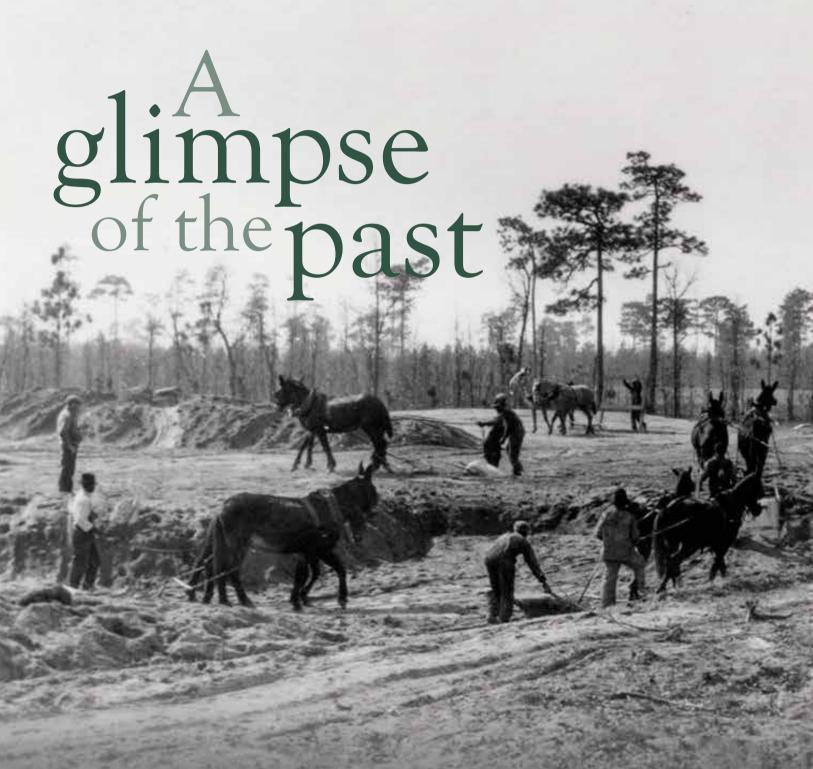
Issue 22 | Spring 2015

# BYDESIGN



Excellence in Golf Design from the American Society of Golf Course Architects



Also: Sewailo Golf Club • Water management • Jay Morrish, ASGCA Fellow • Turf reduction



## Stepping back in time

Thile the blank canvas aspects of new build projects may appeal to our creative instincts, working on existing courses can bring out the historian in a golf architect.

It's fascinating to step back in time and catalogue the development of a golf course, particularly when we are privileged enough to be entrusted with work on courses that were designed by the great 'Golden Age' architects of America's early courses.

Archived materials, such as course reports, plans and photographs, can help to unfold the story of a course's evolution, from finding out what inspired the original architect to understanding why a course might have changed over time. For our cover story that begins on page 8 of this edition of *By Design*, we hear some examples of how historic materials have been used to inform decision-making for today's projects.

Talking of the passage of time, my year as ASGCA President seems to have flashed by in an instant. It's been a good year for the golf industry – in the previous issue of *By Design* we filled 10 pages on new build projects in America, and there are more covered in this issue too.

I'm delighted that we will be welcoming Steve Smyers as the new ASGCA President at our meeting in La Jolla, California at the end of March. Steve, a highly accomplished amateur player, has designed some wonderful golf courses around the world and has also been a key contributor to the administration of the game as a past member of the USGA executive committee. You can read more in our interview on page 14.

The ASGCA has always been in step with the changing times, and with this in mind I'd like to encourage you to follow us on Instagram (ASGCA1947). Or if Twitter is more your thing, follow us @ASGCA to keep up-to-date.



Enjoy the issue!

Lee Schmidt President American Society of Golf Course Architects

### BY DESIGN

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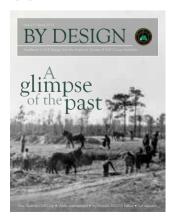
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### COVER



Original construction work at Pine Needles, North Carolina. The course was renovated in 2009 by John Fought, ASGCA. Image courtesy of Tufts Archives

# TURFONOMICS

------Chapter 1

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**Participation** 

# Clubs report membership gains

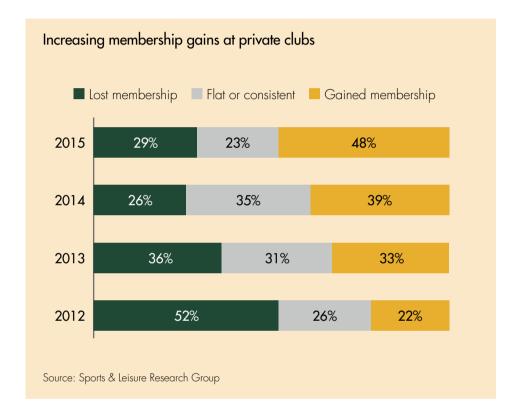
rivate clubs in the United States are increasingly reporting membership gains, according to research from Sports Illustrated Golf Group and Sports & Leisure Research Group. Data revealed at the PGA Merchandise Show in Orlando, Florida, indicates that in 2015, 48 percent of clubs are reporting a gain in membership compared to 29 percent reporting a loss.

This represents an improvement on the 39 percent of clubs that were reporting membership gains in 2014 and a reversal on the 2013 position, when more clubs were reporting losses than gains.

A high percentage of respondents – 60 percent in 2015, similar to the previous three years – believe that private clubs need to make aggressive changes to remain relevant in the coming years. This suggests that capital expenditure may be a priority in the near future. Concerns among private club members about the financial stability of their clubs are significantly reduced, from 41 percent in 2012 to 26 percent in 2015.

The research also revealed that clubs are continuing to focus

efforts on initiatives to attract younger members, while there has also been a notable increase in the introduction of new non-golf programs to attract families. For more details of the research, download the 2015 Golf Market Outlook presentation via sportsandleisureresearch.com/downloads



Olympics

# Construction complete at Olympic course



In an interview on Golf Channel's 'Morning Drive,' architect Gil Hanse, ASGCA, has confirmed that major construction at the Olympic Golf Course in Rio de Janeiro, Brazil, is now complete. "We're in full grow-in mode, grass is coming on," said Hanse.

On the challenges associated with the project, Hanse added: "They have allowed us to build what we wanted to build. We just gave a tour of the golf course to a pretty high profile bunch, and thankfully they all came away impressed." Hanse has also recently been confirmed as the designer of the third course at the Streamsong Resort in Florida. "Gil is a tremendously talented architect who approaches each project with a fresh, thoughtful perspective and a keen eye for the natural landscape," said Rich Mack, executive vice president of The Mosaic Company, which owns Streamsong.

The full interview can be seen at www.golfchannel.com/media/morning-drive-hanse-talks-olympic-course-progression/





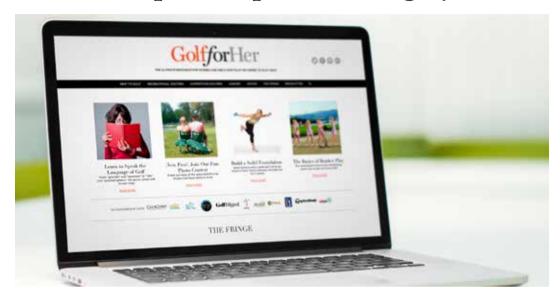
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Women's golf

# Website launched to drive women's participation in golf



new website – GolfForHer.com
– has been launched by the
World Golf Foundation with the
intention of helping to increase women's
participation in golf.

The website features a range of resources to attract and support females of all ages and abilities, including individual sections organized by ability level, details on beginner programs such as Get Golf Ready, information about events and networking opportunities, and news from women's golf, from professional to junior level.

"The 'Golf For Her' website is an engaging tool to introduce new and encourage existing female players by showcasing the fun, networking and lifestyle aspects of the game," said Steve Mona, CEO of World Golf Foundation. "We strive to make it an innovative and appealing content aggregator for women golfers to visit and refer to others. The focus will be fresh, organized information while also embracing the emotional and human interest side of the game."

The website is produced in collaboration with a number of major golf entities, including the LPGA, PGA of America, the PGA Tour, First Tee, USGA, ClubCorp, the Executive Women's Golf Association and Golf Digest.

Vicki Martz, ASGCA, who serves on the program's task force, said: "As a female course architect it is a distinct pleasure to serve on this important task force and hopefully showcase how golf design can impact how women perceive the game."

### Bel Jan part of new speakers bureau

Jan Bel Jan, ASGCA, is part of the new Women in the Golf Industry (WIGI) Speakers Bureau. A first of its kind in the golf industry, the WIGI Speakers Bureau offers organizations a convenient way to access experts and highly qualified presenters in a variety of disciplines related to business and golf.

"Our members are extremely knowledgeable and are available to share their knowledge with others by serving as keynote speakers, panelists and workshop presenters at industry trade shows, forums, and corporate events throughout the year," said Kathy Bissell, co-chair of the WIGI Speakers Bureau and a golf course sales specialist. "We serve as a resource center for those in need of experienced speakers on pertinent topics that help golf facilities and related companies grow and thrive."

### Work starts on new course at City Park



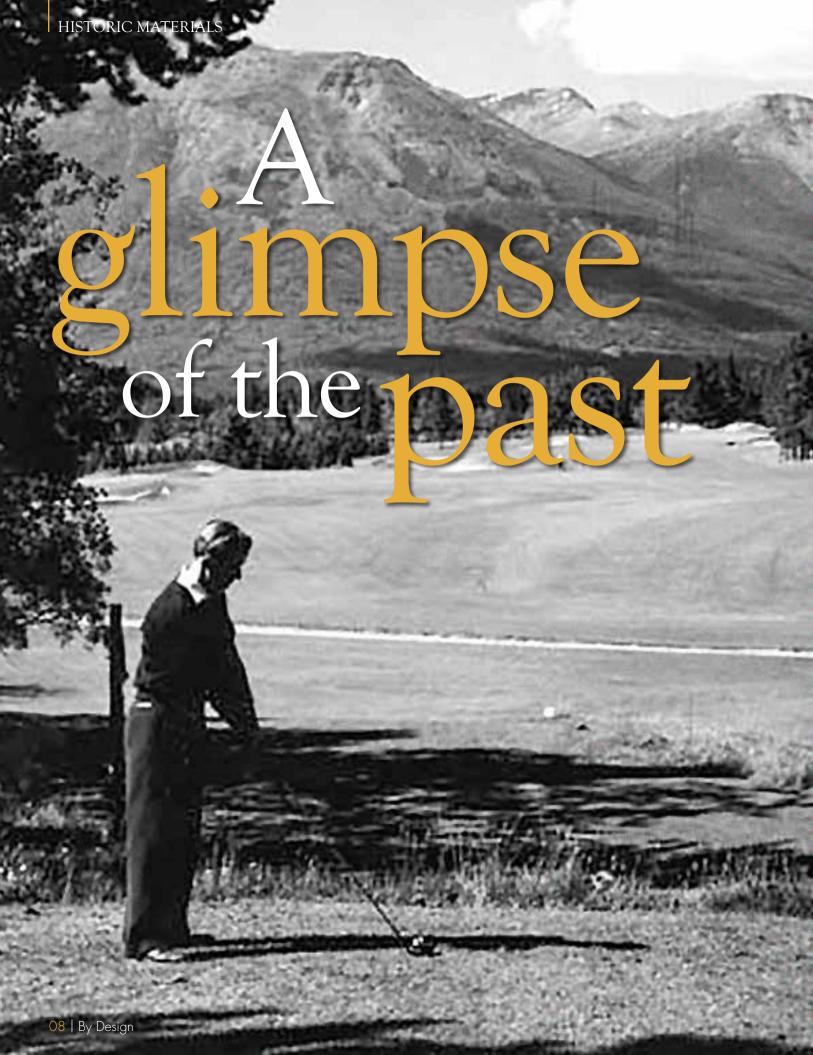
Ground has been broken on a new golf course at City Park in New Orleans. Designed by Rees Jones, ASGCA Past President and Greg Muirhead, ASGCA, the Championship course will be the second to be rebuilt since flooding associated with Hurricane Katrina in 2005.

### Arlington Lakes set for major renovation

The Arlington Lakes (Illinois) course in the northern suburb of Chicago will close in June 2015 for a major renovation project by Mike Benkusky, ASGCA. The new design incorporates a number of features to make the course more attractive to younger and beginner players, such as new tees to create a shorter course and a reduction in the number of bunkers.

### New master plan for Palo Alto Hills

IMP Golf Design Group, led by principals Mark Hollinger, ASGCA, and Brian Costello, ASGCA, is creating a renovation master plan to address short- and long-term needs of Palo Alto Hills G&CC in California. In the immediate future, the club needs to remove diseased trees and reduce irrigation use due to the ongoing drought in the region. Changes will convert the course from a parkland style to a more rustic and open character that is more in-keeping with the nearby open space preserve.







### Modern architects are using a range of historic materials and records to help inform their work, as Sean Dudley discovers

egend has it that when the Canadian National Railway saw Stanley Thompson's work at Banff Springs, developed by the company's major rival – the Canadian Pacific Railway – in 1929, they ordered him to immediately overhaul the bunkering at the Jasper Park Lodge course they had opened four years earlier.

This version of events suggests it was Banff Springs where Thompson first developed his bold and distinctive approach to bunkering that has influenced many designers throughout Canada and beyond. However, when Ian Andrew, ASGCA, embarked upon detailed

research into the history of Jasper Park Lodge in advance of a recent project, an alternative truth emerged.

As Andrew explains: "There's a quote from Dr. Alister MacKenzie in September 1928 which reads: 'In Jasper Park Lodge Golf Course, Canada has taken the lead in golf course architecture and has produced 18 holes that within the whole scope of my experience and knowledge are not surpassed.' I thought to myself, could the bunker work have happened earlier?"

Andrew's examination of historic materials unearthed more detail. "Thompson was kept on a yearly retainer and



Historic photographs of the course at Jasper Park Lodge in Alberta, Canada set Ian Andrew, ASGCA, on a journey to discover more about the evolution of architect Stanley Thompson's distinctive bunkering

provided an annual report to the Canadian National Railway," he explains. "He also produced a renovation plan drawn in November 1926 indicating his intended changes to the bunkering, including the addition of multiple new landforms and the introduction of high sand faces to make the bunkering far more visually impressive." Photographs from the Canadian Amateur tournament in 1929 show that the changes had been made to the course before Banff Springs opened.

"I think of Harry Colt's Toronto Golf Club as our landmark course. But I also believe Thompson's work surpassed Colt in Canada and he is our most influential designer. As an architect and as a historian I always wanted to know when that exact moment Thompson had his epiphany was. I had previously thought this came at Banff Springs, but I'm no longer sure. The more I ventured down the path, the more I believe that it came at Jasper Park."

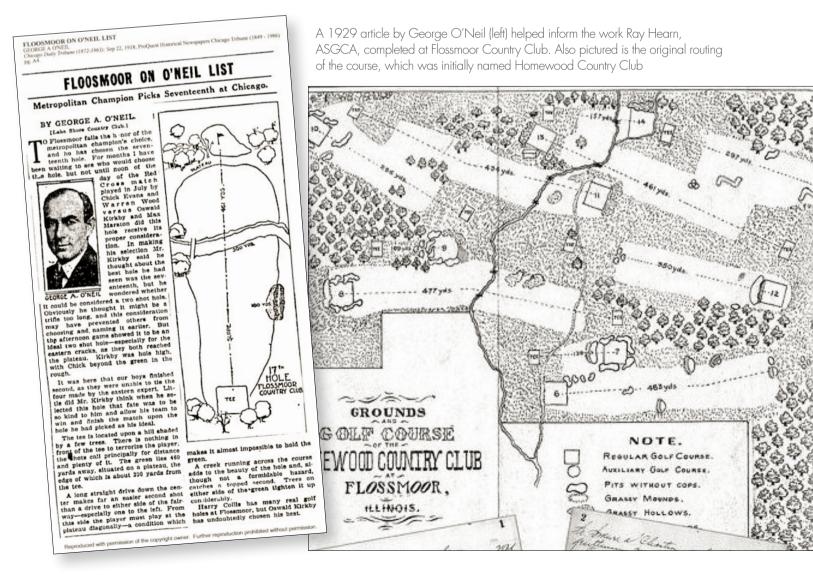
Not all research projects will rewrite history. But they do help to inform today's architects of the decision-making process taken by the designers of America's first courses. "Golf course architects from the pre-1940 era were forced to utilize the natural terrain to a maximum due to limitations in equipment and budgets," says Ray Hearn, ASGCA. "These historical jewels and 'lay of the land' masterpieces influenced early golf course design in America and still do today."

Hearn completed a renovation of the Herbert J. Tweedie-designed course at **Flossmoor CC** in Illinois, and says the use of historical documentation was a vital part of his work there.

"Thanks to access to Flossmoor's 100 Year Anniversary Guide, I was able to look at the course's original routing and its evolution over time, as well as the cultural and social history of the club," he explains.

Hearn also accessed old newspaper articles about the course, including one from 1918 by George O'Neil, a renowned professional golfer and architect in his own right, who included the seventeenth hole at Flossmoor on a list of the best 18 holes in the US he compiled for the Chicago Daily Tribune.

Materials such as these enabled Hearn to make an informed choice as to what he felt the best course of action for Flossmoor would be going forward. "The routing of the Flossmoor course has for the most

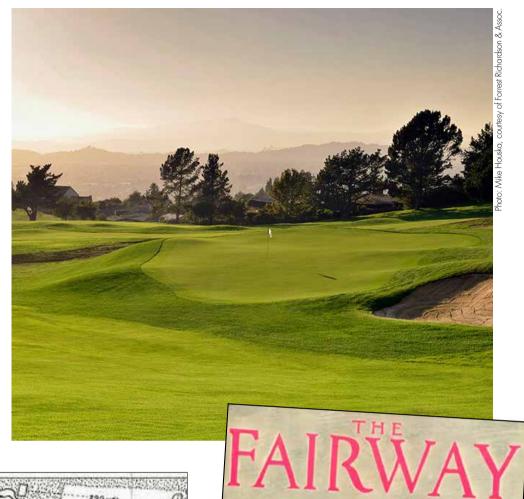


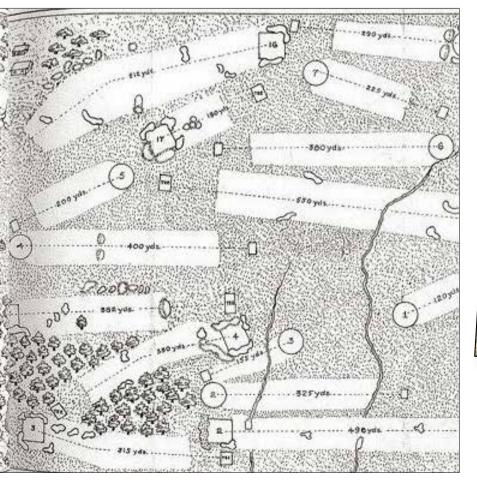
part stayed intact for over 100 years," says Hearn. "With regards to the renovation, I looked at the golf course at Flossmoor as a great work of art that just needed to be dusted off, with the correction of a few weak holes and subtle improvements to others."

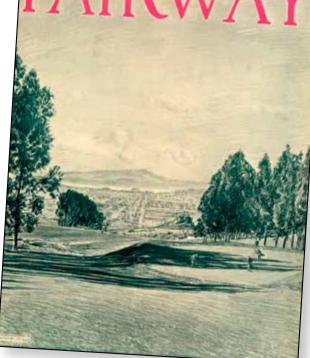
For the recent renovation of **Mira Vista G&CC** in El Cerrito, California, which was originally designed by Robert Hunter and Willie Watson, a painstaking study pieced various items together to understand the original architects' design approach.

"The club had the old plan, in pieces," explains Forrest Richardson, ASGCA. "We were also able to unearth some news articles and old photos. We then worked to put the various elements together to create something that could be used to form opinions and assumptions."

Richardson and his team created a full timeline of the course, charting the progress from its original layout to the course that is in play today.







The restored sixth green at Mira Vista Golf & Country Club (above), and as featured on the front cover of *The Fairway* magazine, 1930



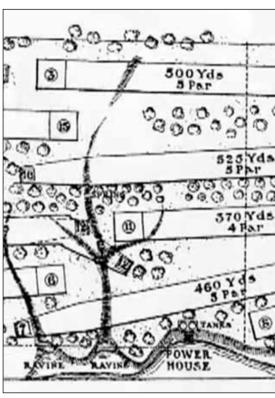


Note the differing bunker styles in the two aerial shots that informed the work of Robert McNeil, ASGCA, at River Vale Country Club. The top photo is dated from 1944, while the bottom photo was taken in 1961

He says that compiling the history of the course at Mira Vista has helped to revitalize the club, "in a way that has brought pride and respect to the original design."

"With the full timeline, we were able to reference aspects of the course from both a time and an intent perspective," Richardson continues. "The timeline gave us a feel for what the founders wanted to do and how they viewed the course and club. The intent came from knowing what Hunter wanted from the course."

"Historic materials help to establish a greater understanding of how a course might have been originally conceived, how it has evolved through time, what sort of influences took place and what their impact was," says Drew Rogers, ASGCA.

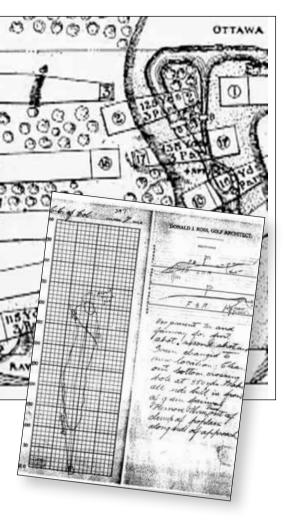


Drew Rogers, ASGCA, has used a range of resources including Willie Park Jr's plan of Sylvania Country Club (above) and Donald Ross' sketches of the Country Club of Columbus (right)

"Photos and notes can be somewhat hard to find, but if they exist they are usually in club archives or vintage books, magazines and newspaper articles. Some clubs develop books about their history, and those are like gold!"

For Mark Mungeam, ASGCA, inspiration came in the form of the program for the 1928 U.S. Open. He has recently completed a project on the North Course at **Olympia Fields CC** in Chicago, and was able to restore elements of holes by referring to the hole-by-hole guide, which included photographs and a plan image of each hole on the course that Willie Park Jr. had laid out just five years before the event was held.

"On the first hole for example, the plan revealed a bunker with a grass island on the right side of the landing zone," says Mungeam. "And on the fifth, Park had placed a central bunker about 20 yards from the putting surface. These features had been lost

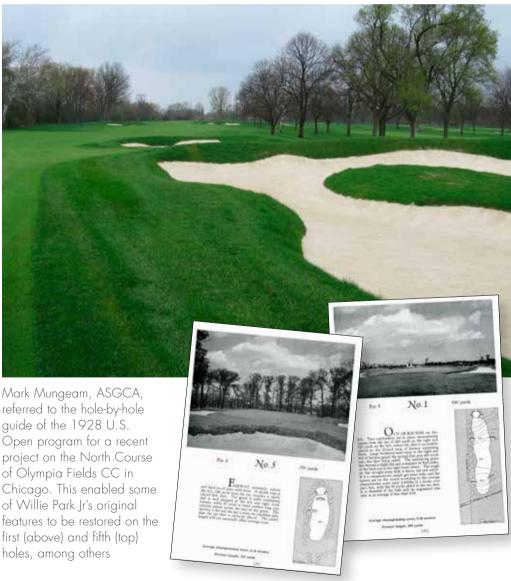


over time and we were able to restore them faithfully using the detailed information from the U.S. Open program, along with other materials."

Their archive of high quality materials has allowed the club to remain faithful to Park's original design intent, while incorporating the additional length necessary to continue to host the game's elite players, including for this year's U.S. Amateur Championship.

Drew Rogers has also carried out a number of projects at courses designed by the legends of golf course architecture, including Harry Colt, Donald Ross, and Willie Park Jr. When it comes to working on these courses, he believes that access to historic archives, such as the Tufts Archives in Pinehurst, North Carolina, can be hugely beneficial.

"Aerial photos are great because we can very directly assess sizes, locations, vegetation, fairway widths, and even previous alignments and corridors," Rogers explains.





A vintage style of bunker creation in evidence at Pine Needles, North Carolina

"By having a progression of aerial photos through time, it's very interesting to look at how vegetation emerges and eventually dictates the character of a course."

"I have made use of things like old meeting notes and club ledgers, as sometimes all you're looking for is some sort of indication that something did or did not at one time exist, and if so, when," Rogers adds. "It all really helps put the puzzle pieces together so that a story can be told. It helps modern memberships gain a greater understanding of how their club came to be and why. If there is good reason to consider some restorative efforts to the course, we look to find the rationale and support through history to help us understand the

### Case Study - The Old White course at The Greenbrier Resort



Lester George, ASGCA, completed a five-year restoration of The Old White course at The Greenbrier Resort in West Virginia, between 2001 and 2006.

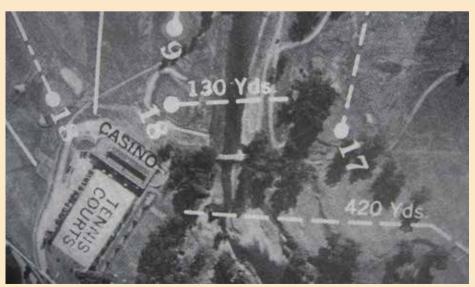
Originally designed by C.B. Macdonald and Seth Raynor and opened in 1914, the course has held the Greenbrier Classic on the PGA Tour since 2010.

The Old White was drastically changed over the years, but after sitting down with the club's historian and director of golf, George used a series of aerial photographs and applied an innovative technique to identify and analyse the Old White's original layout.

The project took five years to complete, but the intensity of the work is why it has been regarded as one of the strictest restorations of a Raynor/McDonald course in the U.S. Here, George describes some features of the work:

"Where it says 'Casino' (below), that's the clubhouse. There's an awning on that building, between the clubhouse and the tennis courts, that is still there at the same elevation today. Once we had the photograph, we looked at the shadow of the trees that are still there, such as ones around the 18th green. We could tell roughly what time of day the photograph was taken. By measuring the shadow on the awning, which I knew was a known height, I

could transfer around the golf course, and look at all the bunkers and tell how deep they were. I studied aerial photography and military photographs when I was in the army for many years, and so I felt like I had a pretty good understanding of two dimensional light and depth, and shadow and form. I applied what I already knew and got lucky and found this one shadow that was consistent from the 1920s to today."



intent and then execute the work with greater accuracy."

John Fought, ASGCA, also referred to the Tufts Archive when restoring the original Donald Ross design at Pine Needles CC in North Carolina. "We utilized old aerial photography, Ross's concept plan and many photos from the original construction," says Fought. "These materials help the current generation understand the changes that have occurred, both manmade and through natural evolution." And for his ongoing work at Rosedale in Toronto, Fought has transposed the course as depicted in a 1939 aerial over a plan of the existing golf course.

Aerial photography can be invaluable. "At the start of our work

at **River Vale CC** in New Jersey, the club provided several high quality aerial photographs that helped us to pinpoint the 'moment in time' that we wanted to embrace relative to the bunker styling," says Robert McNeil, ASGCA. "This photography provided some clarity and comparative information relative to the classic style of 1944 versus the 'saucers' created in the 1960s.

"What this photography also presented was the original mow lines on the golf course as well as several bunkers that had been lost or moved over the years. From this we were able to scale the bunker size and perimeters, locate the original fairway mow lines in the field and develop a reasonable and effective tree management program."

McNeil continues: "One of the most important foundational elements of restoration is to establish a respectful understanding of what it is you are attempting to restore. This is sometimes challenging as each golf course evolves from its original design, strategies and style.

"It is common for a greens committee or chairperson to boldly state 'we want all the bunkers exactly like they were when the course was originally built in 1900-and-something.' This is where the architect can guide the research and develop restorative directives that are sensible, reflect the true character of the golf course and embrace historical elements and characteristics that fit into the current layout and demands of the game."



"At the top of the photo (above) is the twelfth hole, and to the right of the 's' of 'Yds' is a bunker, with the sand and the brow visible. I restored that bunker as part of my work there. Further down the fairway there's a section that looks like tall grass, or a blip if you will on the left hand side. That's where the hell bunker would have been. Between there and the green there's a creek, and you can see where the fairway comes down to a point. We restored the creek and put sand back into the hell bunker. These are the kind of things we were able to pick up thanks to the photograph."

"On the third hole (below) you can see the Biarritz and the horseshoe-shaped bunker around it. For resort play, as the bunker goes all the way round, a forced carry on a 220-yard hole is pretty tough. So we took some artistic license and put in Biarritz bunkering like we'd seen it at other courses, which is left and right, front and back. These are the kind of decisions we had to make."

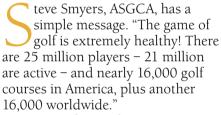




"The 18th green (above) has the horseshoe contour in it, which Raynor and McDonald always put in their short hole. So when I built the 18th green back as it was, I built a remnant of it as I didn't have the room to go all the way to the creek anymore. It's a brow and it's in the middle of the green, and the first year they held the Greenbrier Classic there people were saying 'What the hell is this? It's three feet high!' We reintroduced it to keep it fun for the resort golfer, but when the tour came they asked whether to keep it, and I said 'only if you want to be accurate!' Now it's one of the most talked about holes on the PGA Tour."

# Evolving the game

In his forthcoming year as ASGCA President, Steve Smyers will focus on 'the evolution of the game' and its architecture. Marc Whitney finds out more



As Smyers begins his term as ASGCA President, he will focus on 'the evolution of the game' and its architecture. But to see where Smyers is going, it helps to know where he has been.

It all changed for him at the 1969 U.S. Open at Champions Golf Club in Houston. Already a golfer for several years, Smyers – a high school junior – caddied for Miller Barber at the event.

"I stood on the practice range and listened to Miller and the other players talk about the golf course," he says. "They talked about what a great course it was; that it could be attacked from all over and didn't set up for one player better than another. Lee Trevino could play the low hook he played at that time, and Jack Nicklaus with his high fade had an equal chance.

"I had never looked at a golf course like that before, and those comments stuck in my mind." An interest in golf course design and architecture was sparked. That spark would turn into quite the flame, as evidenced today by Smyers' work at such courses as: Wolf Run Golf Club, Zionsville, Indiana; Old Memorial, Tampa, Florida; Chart Hills Golf Club, Kent, England; and redesigns, including Isleworth, Orlando, Florida. He has plans to redesign Old Memorial this summer.

Along the way he continued to play the game he loves. As a teen, Smyers watched Ben Hogan hit golf balls at Champions and saw a young Trevino play before the 'Merry Mex' joined the PGA Tour. In college, Smyers was a member of the University of Florida golf team that won the 1973 NCAA Championship. The team included Andy Bean and Gary Koch.

His first 18-hole design, Wolf Run, included input from a famous – unpaid – consultant.

"Pete and Alice Dye were preparing Crooked Stick for the PGA Championship, and Pete would give me hell or critique me for the work I was doing at Wolf Run," Smyers laughs. "They would invite me to play and as we talked I learned about the business. I also learned from him what it took to get a course ready for a championship."

Besides the Dyes – both ASGCA Past Presidents – Smyers notes the positive influence of other ASGCA members.

"I learn so much every time I hear a member speak at the Annual Meeting or elsewhere," he says. "To sit back and listen to architects like the late Jay Morrish, Lee Schmidt, Bruce Charlton, Mike Hurdzan, Rees Jones and so many others is a joy."

Smyers continued to play at a high level, competing in a number of USGA championships. He was later asked to serve on what is now the USGA Equipment Standards committee, which led to a six-year term on the USGA Executive Committee.

"It was the most influential learning experience I've had," he says. "I brought a perspective of someone who was a designer and had played at a fairly high level. And I got to see how these smart executives went through the decision-making process; taking information, analyzing and discussing before coming to a conclusion. The goal of each decision isn't to necessarily benefit one specific group, but all the constituencies in the entire game."





Smyers also noted how it "opened my eyes tremendously" to watch Kerry Haigh from the PGA set up courses for the Ryder Cup and PGA Championships, and Mike Davis for various USGA events.

The game and industry continue to evolve. Smyers says that has always been the case, and should be embraced.

"Going back to 1900, the business has never been 'the way it was," he said. "It's always changing. Our thought process needs to evolve. The most successful and recognized architects of past generations were very forward-thinking guys.

"The founding members of ASGCA were leaders in the game because they adapted to the modern innovation of the game. At Pinehurst, when steel shafted clubs were introduced, Donald Ross redesigned the course to meet the demands for generations to come."

Changing "technology" means more to Smyers than just equipment. He notes players, instruction and course maintenance have all changed.

"Course maintenance has been the biggest game changer," he said. "Greens on a Donald Ross course used to be cut at ¾", and that moved lower and lower over time."

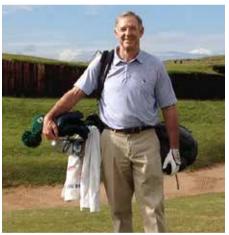
As ASGCA president, Smyers will continue to strengthen ASGCA's relationship with allied golf associations to spread the word of architects as problem solvers ready to design and implement new plans.

Smyers calls on architects to understand the game's history and traditions, while looking ahead.

"Some of the courses I designed early in my career are modernizing for the next generation of players, with new sand or bunker liners, improved irrigation and introduction of new turf grasses.

"Forward-thinking clubs will look to reduce irrigation and turf maintenance, which opens the door for the next generation of architects, where there are opportunities to reposition bunkers and re-strategize golf holes.

"As architects, we need to go in and build a more stimulating golf course to inspire golfers to play 10 percent more golf each year. We still want to do something that gives the player a 'wow' moment. Give them that stimulating feeling when they stand over a shot, whether they can achieve it or not."



The most
successful and
recognized
architects of past
generations were
very forwardthinking guys

Sewailo Golf Club | Toby Ingleton

# Honoring nature's gifts

When the Pascua Yaqui Tribe decided to build a golf course, they wanted it to work with the land and reflect their cultural beliefs

In the language of the Pascua Yaqui Tribe of Arizona, 'Sewailo' means 'flower world.' The tribe's belief is that they emerged from Sewailo, before traveling through the desert to reach their present homeland.

This journey was to be the inspiration for the design of a new golf course for tribal families and visitors to the tribe's Casino Del Sol resort in Tucson, Arizona. They turned to fellow Native American and former PGA Tour player Notah Begay III, who worked in collaboration with California-based golf course architect Ty Butler, ASGCA, to bring this vision to reality.

The resort is one of the few in the Tucson market to earn the *Forbes Four Star* and *AAA Four Diamond* awards, so the golf experience would need to be of the highest quality to meet guests' expectations – but also to help transform the property to a destination, with golf becoming a primary draw for visitors.

A key challenge for the designers would be to successfully incorporate water into the desert environment. "Water is an integral part of the Yaqui's belief system and, for this reason, the tribe wanted water to be a big part of the design. It also meant the golfing experience would be like no other in the Tucson market," says Butler. He and Begay developed the

concept of a 'desert oasis'-style course, which features lakes, flowing streams, waterfalls and lush landscaping.

However, the existing site was flat and featureless, so a degree of engineering would be required to create the fall needed for the stream system, and to give the holes shape and visual interest. "Like at Shadow Creek in Las Vegas, the approach involved sinking areas of the course below existing grade and raising others, in order to create the flowing creek system," explains Butler. "To reflect the Pascua Yaqui journey, the course transitions from desert to oasis, while taking full advantage of the surrounding mountain views to create an exciting and unique setting. The course finishes with a waterfall backdrop to the final green, signifying the Yaqui's hope of returning to Sewailo one day."

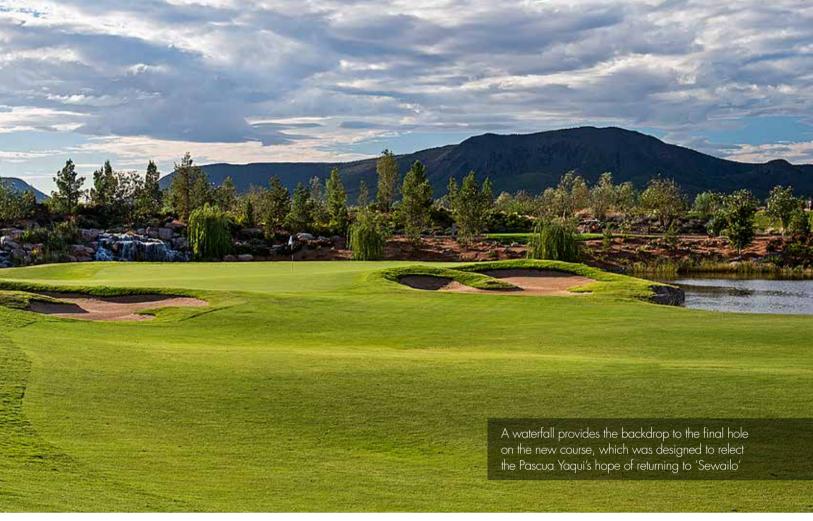
The tribe has water rights that enable them to service the stream system and provide the irrigation source for the course. But the area also has to cope with a tremendous amount of runoff/flooding during the monsoon season. The property is in the path of this runoff and the designers saw an opportunity to use the course to capture this water and direct it to the Black Wash area north of the course. "We constructed a series of retention areas to capture





runoff before it could spread to other areas where flooding occurred. From these retention areas we created desert washes which run through the golf course to carry the runoff in a controlled manner to the neighboring Black Wash. The washes added another visual element and became a key strategic element for the holes that play along them."

Begay and Butler worked closely with Ken Alperstein of Pinnacle Design, who was responsible for landscaping of the course. The plant









palette they selected helps to provide a seamless transition between the desert and oasis environments.

The property had an abundance of quality plant material, so a key element of construction was to salvage all this material and transplant it back to the finished course. "We transplanted over 20,000 native plants back to the course, along with thousands of additional imported plants. Over the next five-to-ten years, the course will really transform and take on a different ambiance once the plant material

matures and starts to fill in," says Butler.

The completed par-72 course has a variety of strategic holes that provide a full range of shot values and aesthetics. Multiple tee areas and generous fairways have been incorporated to increase playability. Highly crafted bunkering helps to define the strategic options, as well as visually enhancing the course. The result is a course that is great fun to play, but can also challenge the highest caliber of golfer. It hosted a U.S. Open qualifier in 2014 and is the

new home to the University of Arizona Men's and Women's Golf Teams.

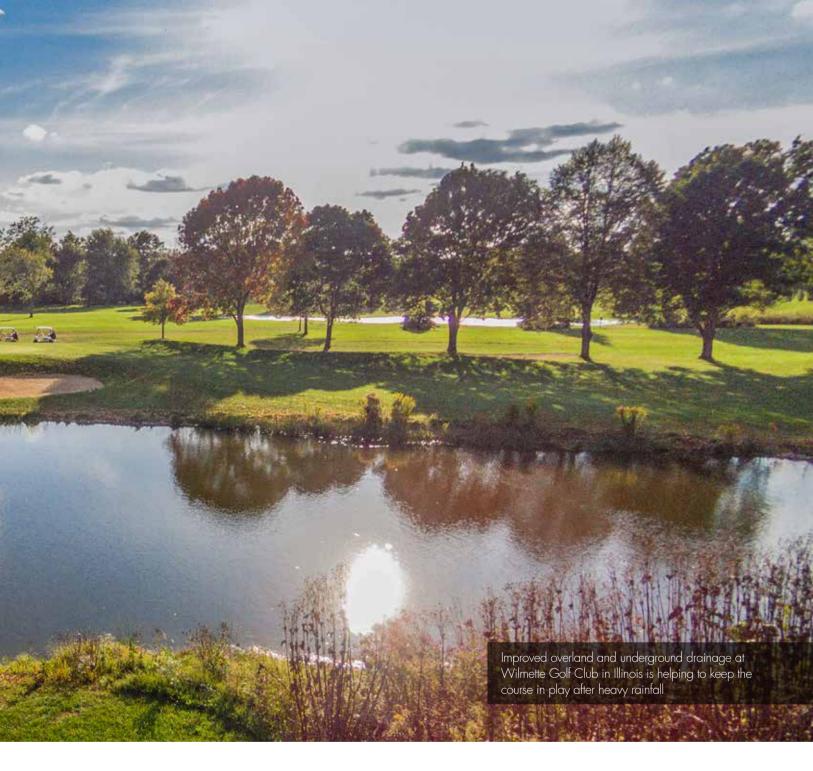
Sewailo Golf Club has now completed its first full year and the Troon Golf-managed property is enjoying its early success. "They met all their goals in terms of rounds and reports are that everyone who plays the course has great things to say. Notah and I could not be happier with the results and the Pascua Yaqui have a great course for their tribal families to use, as well as for guests of the resort to enjoy," concludes Butler.



Whether there is too much or too little water, its proper management is critical to the ongoing success of golf. By Design considers two contrasting projects where design enhancements have delivered improvements in water management

or almost 100 years, Wilmette Golf Club in Illinois has enjoyed substantial play. But drainage issues have increasingly plagued this great public venue. The north branch of the Chicago River often breaches its banks, leaving this flat golf course, with little stormwater management capacity, indefensible.

With a relatively modest budget, the club hired Martin Design, led by ASGCA Treasurer Greg Martin, to develop an improvement program. This would see the water



management infrastructure overhauled, while also unifying and modernizing the features of the course.

"Even following typical rainfall events, play would grind to a halt due to slow moving surface drainage and saturated turf," says Martin. "In addition to these water issues, complications for maintenance, operations and golfer enjoyment arose from disjointed circulation, overgrown vegetation, and course elements that had been built in various decades. These factors contributed to limit the amount and

quality of play, with golfer satisfaction beginning to suffer as a result."

Martin expanded the site's stormwater management capacity by improving both the overland and underground drainage systems. Greens were also reconstructed in line with USGA recommendations. As a result, water quality has improved and, with expanded wetlands, the natural habitat has increased. The environmental benefit is matched by an improvement in the quality of golf, with the program also incorporating

expanded teeing areas, better located hazards, and reduced bunker square footages. Together the changes improve playability, provide more strategy and reduce maintenance requirements.

Mike Matchen, director of golf at Wilmette, is delighted with the results: "The Wilmette Park District could not have asked for anything more. The final result for our investment is amazing. Not only have we gone a long way to solving our infrastructure issues, but have a brand new golf course in the process.

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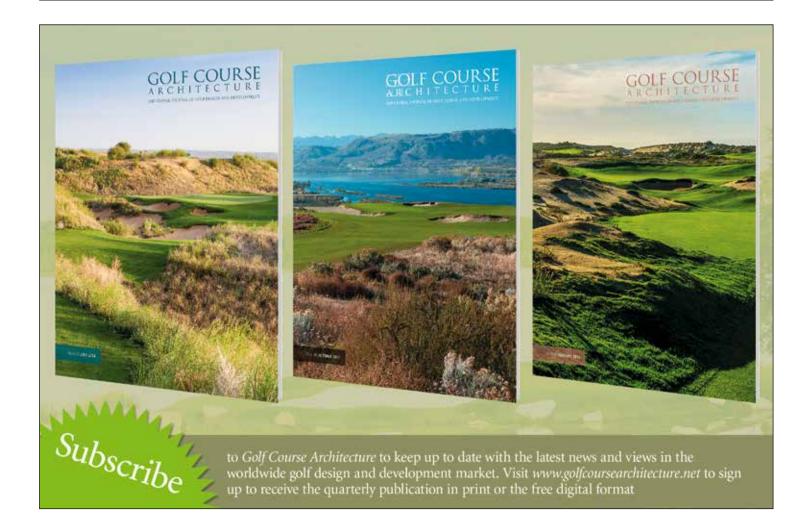
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Proposed turt reduction (inset) at the Roadrunner course at Hogan Park Golf Club in Midland, Texas will reduce the amount of water required for irrigation

It is a golf course that the community will enjoy for generations to come."

In Midland, Texas, the challenge comes from too little, rather than too much, water. The city's average rainfall is approximately 15 inches per year, less than half of the national average. This has made it very difficult for David Byrd, superintendent of Hogan Park Golf Club, to maintain a high quality playing surface, especially given that the available water has a very high salinity.

The Roadrunner course at Hogan Park was originally designed in the 1970s, with nine holes added in the late 90s, and has proved extremely popular with the local population. But the impact of 50,000 rounds of play per year, combined with the limited availability of good quality water, has led to a degradation of turf conditions.

The city contacted Houston-based architect Jeff Blume, ASGCA, to ask for his suggestions for an overhaul of the of the course. He delivered a proposal that combined a reduced water requirement with improved strategy, and measures to make the two nines more complementary.

"We created and executed a plan to reduce the amount of maintainable turf by nearly 20 acres, soften much of the most drastic contouring on the course, and redesign the course's bunkers to allow them to be maintained by hand. All of this was done to improve the playing conditions of the course, while at the same time making their golf course maintenance more efficient and thereby stretching their maintenance budget," explains Blume. "The areas where turf was eliminated were turned back into the arid/desert type of landscape that still allows players to find and play shots. Instead of watering, fertilizing, and mowing these rough areas, the maintenance staff simply smooth them out periodically."

As a result, the club has been able to eliminate some of the course's sprinkler heads completely, while others have been turned off for the foreseeable future. This helps keep nuisance plant material away from the native areas. Blume adds that this turf reduction work also helps to speed play, as it is easier to find and

play balls that come to rest on the hardpan lie of a native area than the previous thick rough.

The solutions provided by Martin and Blume are just two of many projects where ASGCA members have helped clubs deal effectively and sustainably with water issues on their courses. And ASGCA members and staff regularly contribute to the industry's thought leadership around water. For example, Executive Director Chad Ritterbusch recently addressed delegates at the USGA Annual Meeting, helping them to understand how the design of a golf course can positively contribute to its use and management of water. And Forrest Richardson, ASGCA, represented the golf industry at a Western Governors Association Forum on 'Drought in the West,' highlighting golf's proactivity with new technologies and architects' efforts to reduce water consumption.

For more information on how ASGCA members are improving the environment through the positive use of water, download the Golf & Water flyer at www.asgca.org/free-publications

# Admired by all

Jay Morrish, a Past President and Fellow of ASGCA, died on 2 March, 2015. Friends and colleagues throughout the golf industry have expressed their admiration for the man and his work

admired by everyone," says ASGCA President Lee Schmidt. "His work was outstanding, and he was funny and smart. As an architect, he positively impacted the world of golf course design, and as ASGCA President he advanced the organization. When Jay spoke, people listened."

Morrish received a degree in landscape and turf management from Colorado State University, then soon joined the construction team on the Robert Trent Jones-designed Spyglass Hill course in Pebble Beach, California. He continued to work as construction superintendent on Jones' courses until joining Desmond Muirhead as a designer in 1967.

Morrish then went to work as a designer with Jack Nicklaus, ASGCA Fellow in 1972. "I first had the chance to work with Jay when I collaborated with Desmond Muirhead on Muirfield Village Golf Club in the early 1970s and he was working with Desmond," says Nicklaus. "When I started to design courses on my own, Jay and Bob Cupp joined me and the three of

us worked together for years. Jay was Mister Outside and Bob was Mister Inside. They were a great combination. Jay did such a wonderful job in the field. He was very creative, very imaginative, and he loved the game of golf – and that showed in his work. Jay was just a tremendous guy and great fun to be with!

"Jay left our organization near the end of 1983, but before he did, he put his thumbprint on a number of great golf courses, such as Glen Abbey and Shoal Creek. He has been a mainstay and a backbone of the ASGCA, and a true champion for those in the golf course design business. We will miss Jay greatly, as will so many people - in and outside of our industry - whose lives were touched by him."

"I'm very proud of my professional association with Jay," says Bob Cupp, ASGCA Past President, "but even more my friendship with him over these many years. He was a grand friend and storyteller. His humor was amazing. Jay could share the history of a topic that was not only factual,

remembered. I'm just sorry I will not hear them first hand anymore."

After ten years Morrish moved on to collaborate with PGA Tour player Tom Weiskopf. Their 12-year partnership generated some two dozen high-profile courses, including Loch Lomond in Scotland. "Jay Morrish was without a doubt one of the most talented and respected golf course architects of all time," says ASGCA Past President Doug Carrick. "It is no accident that two of golf's most legendary players, Jack Nicklaus and Tom Weiskopf, wanted to work alongside Jay. He had





Golf course architecture is a very subjective field of endeavor, and that is good. The game of golf would be distressingly boring if all golf course architects embraced similar design philosophies. Long live diversity!

Jay Morrish, ASGCA Fellow



Morrish's design work includes Loch Lomond in Scotland (above) and TPC Scottsdale in Arizona, both in collaboration with Tom Weiskopf

a deep understanding and passion for the game of golf. He was a master at creating golf courses with tremendous variety and thought provoking strategies and his designs were always sympathetic to the natural landscape on which they sat. In addition to his incredible talent and vision, Jay was simply a great guy to be around. He was a great story teller with a brilliant sense of humor."

In the mid 1990s Morrish went completely on his own and designed many new golf courses including Tehama for Clint Eastwood in Carmel, California; Stone Canyon, Tucson, Arizona and Pine Dunes, Frankston, Texas. All of these were done with the assistance of his son, Carter Morrish.

Jay became an ASGCA member in 1989. "Jay and I were both accepted into the ASGCA in the same year," recalls ASGCA Vice President Steve Smyers. "We were classmates but more than that we were friends.

"Jay was the experienced architect and I the rookie. Jay kindly became a mentor to me. He was always there to guide and mentor me through all the situations that we as architects are confronted with.

"Jay during his career was responsible for the creation of many of most highly regarded and respected golf courses that exist in the world today. He was a great architect, a wonderful story teller, a tremendous friend, and a fabulous loving and caring husband and father."

Morrish served as ASGCA President in 2002-03. Taking over shortly after the attacks of Sept. 11, 2001 provided a unique set of challenges. "The United States was still in shock and we were all exploring uncharted waters as to ways

of communicating, traveling and doing business," Morrish said at the time. "Thankfully, ASGCA members were a strong group with great imagination and perseverance."

Retired ASGCA Executive Secretary Paul Fullmer says: "Looking back at his presidency, Jay was the right captain for ASGCA during a tumultuous period. The world was changing and there was great uncertainty. Jay provided the senior leadership ASGCA needed. Jay was a man who knew how to excel in everything he did, whether it was golf course design or big-game hunting."

Morrish is survived by his wife, Louise; children, Carter and Kim, sonin-law, Brian Coder; and grandchildren, Megan and Spencer Coder. Turf reduction | Toby Ingleton

# Less turf, more play?

Water and cost savings are usually the drivers for turf reduction programs. But they are not the only benefits, says Toby Ingleton

ocal authorities have responded to the drought conditions throughout the South and West of the United States by offering rebates for golf clubs that reduce the amount of maintained turf on their courses. Less turf means less water is required, and that alone can justify such projects.

But even where rebates are not available, clubs are finding that a reduction in turf can deliver cost savings in other areas – such as power and maintenance – and a host of additional benefits, including an aesthetic that is better suited to modern tastes, fewer lost balls and a faster pace of play – all of which can contribute to increasing numbers of rounds.

The trend towards a more natural, rustic-looking golf course has been progressing steadily over the past fifteen years or so. Often inspired by an admiration of the work of Golden Age golf architects who did not necessarily have the technology to maintain a lush golf course, today's designers are increasingly less likely

to propose wall-to-wall turf, even where water is freely available.

And the golfing public's taste is following suit, evident from the popularity of more traditional golfing experiences such as those available at the Bandon Dunes resort in Oregon and the overwhelmingly positive response to the work of Bill Coore, ASGCA, and Ben Crenshaw at the No. 2 course in Pinehurst, North Carolina, the host course for last year's U.S. Open and U.S. Women's Open championships.

As more natural-looking golf courses get greater exposure, clubs may find their members and guests having a greater appreciation of a less manicured style. And even if they don't, they may well find themselves getting greater enjoyment from courses that don't punish the golfer with thick rough.

A golf course architect can help identify the most suitable turfgrass reduction program for any given course, which will be dependent on soil conditions, climate and a number of other factors. They can then recommend a step-by-step

process from the identification of areas suitable for removal to the adjustments that may need to be made to the irrigation system.

Many turf reduction programs – such as the one referenced earlier in this issue at the Roadrunner course at Hogan Park in Midland, Texas – are seeing expanses of thick rough replaced by natural waste areas. It's still a punishment for the errant golfer, as the ball may find an awkward lie among native plants or unraked bare ground. But it can be much easier to find your ball and continue your round in this barren landscape, or among woodchip or pine straw, that it is in deep rough.

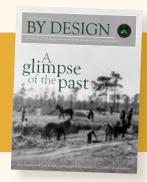
For most regular golfers, the avoidance of lost balls can have a very positive impact on the enjoyment of golf, and if golfers are spending less time looking for balls, the general speed of play will increase too. Faster play equals more capacity equals increased potential revenue for the club.



At Oakmont CC in Glendale, California, Schmidt-Curley's turf reduction work also significantly improved aesthetics



For more information on the benefits of turf reduction and how a golf course architect can help, download the free flyer at www.asgca.org/free-publications



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