

Issue 28 | Summer 2016

BY DESIGN



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



Rise of the drones

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A meeting of minds

The 70th Annual Meeting of the American Society of Golf Course Architects was held in Washington, D.C., in April. Every year we benefit from these wonderful opportunities to meet up with fellow golf course architects and share our experiences and insights.

The Digest section of this issue of *By Design* leads with news from this year's meeting which, of course, was particularly special for me. It is a great honor and privilege to be elected as President of the Society, and I look forward to the year ahead.

A common theme at our gatherings is innovation. For example, our Donald Ross Roundtable Meeting in Washington saw industry leaders considering some of the innovations that have had, are having, or may in future have, an impact on the golf industry. It was a fruitful example of how we can work together to improve our capabilities as problem solvers—for the benefit of the course and, ultimately, the game.

And continuing the subject of innovation, I am intrigued by how many golf course architects are exploring the possibilities of drones to assist our work. Our cover story provides a fascinating insight into the potential of this exciting technology for golf design. And we will continue to explore new innovations in future issues of *By Design*.

I hope you enjoy this issue.



Greg Martin
President
American Society of Golf Course Architects

BY DESIGN

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Annual Meeting

ASGCA President Martin highlights importance of healthy roots for golf industry

New ASGCA President Greg Martin has emphasized the importance of a strong foundation for a viable golf industry. “The health of anything depends on the depth of the roots,” said Martin. “The game of golf needs healthier roots that translate to a more viable golf industry.”

Martin was elected as ASGCA President at the organization’s 70th Annual Meeting, held in Washington, D.C. in April 2016. He promotes an approach to design that expresses efficient, classic design concepts that offer a unique golf experience while promoting environmental benefits of golf.

“I am intrigued by what inspires our membership,” said Martin. “While we are moving past the recent economic challenges, there will be aftershocks. It is a new world and the landscape has shifted. But the well-developed skills of ASGCA members are unique. Each in our own way adds value to the game, provides adventure for golfers and, most importantly, benefits our communities.”

The meeting saw a wide range of discussion among members and industry leaders, with a common theme of innovation. In his introduction to the Donald Ross

Roundtable discussion, outgoing President Steve Smyers, ASGCA, urged participants: “Don’t view innovation with dismay. Understand it and move forward.” He also documented golf’s long-standing spirit of innovation, referencing a history of advances in areas such as irrigation, turfgrass, mowing equipment and club technology (read more on page 10).

Guest speakers at the meeting included Rand Jerris and Dave Oatis from the United States Golf Association, Donna Downing from the Environmental Protection Agency, golf writer Jonathan Cummings, and Jeff Strunk, a lobbyist with Forbes-Tate. Golf course superintendents Scott Furlong, Rocco Greco, Matt Shaffer and Dave Swartzel, and golf course builder Chris Hill, participated in a panel discussion on bunker liners, moderated by Ian Andrew, ASGCA.

Among other highlights of the meeting: Michael Bamberger was presented with the Donald Ross Award in recognition of his work in the field of journalism, notably for *Sports Illustrated*; six ASGCA Associates—Bill Bergin, Todd Clark, Richard Mandell, Kevin Norby, Joe Obringer and Shawn Smith—were advanced to regular

membership; and two new associate members—David Johnson and Todd Schoeder—were welcomed to the organization, bringing the number of members practicing around the world to almost 180.

Attendees at the meeting received a specially designed ‘bobble-head’ of Robert Trent Jones, Sr., ASGCA Past President and one of the founding members



Expertise for
public facilities



The ASGCA Annual Meeting saw the announcement of six publicly-accessible golf facilities that have been selected to receive pro-bono consulting visits from USGA agronomists and ASGCA-member architects. As part of the site evaluation program (See *By Design* Issue 25, page 14), agronomists and architects will make suggestions on how best to meet specific needs, enhance playing quality, improve customer appeal and strengthen relationships with the local community. The selected facilities are:

- Carolina Springs Golf Club, Fountain Inn, South Carolina
- Connecticut National Golf Club, Putnam, Connecticut
- Carey Park Golf Course, Hutchinson, Kansas
- EdgeBrook Golf Course, Brookings, South Dakota
- Point University Golf Club, Lanett, Alabama
- Simsbury Farms Golf Course, West Simsbury, Connecticut



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U.S. Open

Marzolf says Oakmont ready for U.S. Open

With the U.S. Open set for June 16-19, ASGCA Past President Tom Marzolf participated in a Twitter chat on June 7, discussing the course at Oakmont Country Club in Pennsylvania, and providing insight on what players (and spectators) can expect during the championship. Marzolf and Fazio Golf Course Design have worked with the course management team to prepare the facility for the event. The chat included:

If I'm watching the @usopengolf from home, what should I focus on to better enjoy the tournament?

The shot is not over until the ball stops rolling. Pitch in fairway affects ball; and contour of greens moves the ball. Players need to aim in a different direction to *where* they want the ball to roll to rest.

Oakmont Country Club has been called "The toughest golf test in the USA." What is it that makes it so difficult?

Oakmont Country Club is the best maintained, cool-season turf in the world. Unique green contours are the toughest 18 greens in golf. Oakmont Country Club has the highest average winning score of any @usopengolf course. 2016 is the 9th Open they have hosted, tops in USA.

What is the special quality of No. 8 at Oakmont Country Club?

The 8th is the longest par 3 in championship golf, 305 yards. Open fairway approach allows for roll on the slight downhill shot.

No. 17 is also noteworthy, isn't it?

No. 17 is a driveable par 4, uphill at 280-313 yards. Famous "big mouth" bunker right of the green is deepest on the course.

The complete Twitter transcript with Marzolf can be found at <http://asgca.org/news/1038-transcript-of-twitter-chat-with-marzolf-asgca-on-oakmont>.

Richardson leads Mountain Shadows project

Significant progress is being made on a project to reconstruct the golf course at Mountain Shadows Resort near Phoenix, Arizona. Forrest Richardson, ASGCA, is leading the work, and will look to reinvigorate Arthur Jack Snyder's original design. The reworked course will measure just under 2,500 yards and will play to a par-54.

Todd Eckenrode completes Orinda CC project



Photo: Brett Hochstein

Todd Eckenrode, ASGCA, of Origins Golf Design, has completed a restoration and renovation project at the Orinda Country Club course near Oakland, California. Eckenrode and his team used images and data from the Orinda Country Club's archives—specifically from the period during the course's construction and opening. This included a number of useful aerial photographs of the site.

New white paper examines US municipal golf

Andy Staples, ASGCA, has released *Community Links*, a new white paper looking at ways in which municipal golf facilities can increase their use and improve their financial viability. The white paper explores Staples' philosophy and ideas, as well as the history of municipal golf in America. Download the white paper via: www.staplesgolfdesign.com/community-links

Redesign

Nemu GC redesign completed

Pascuzzo/Pate Golf Design has completed a redesign and renovation project at the Nemu Golf Club in Shima, Japan.

Significant changes have been made to six holes, and a new practice range has been built on the site of what was previously the course's tenth hole. To compensate for the loss of this hole, what was previously the par five seventeenth hole has been redesigned to create two separate holes.

Other elements of the project included the lengthening of the sixteenth hole. The green on this hole has now been moved closer to the top of a bluff, and will now be a par five.

Every bunker across the course was rebuilt or renovated as part of the project, as were many of the course's tees.



Photo: Hiroyuki Okazawa

Every bunker has been either rebuilt or renovated at Nemu Golf Club in Japan

Damian Pascuzzo, ASGCA, and Steve Pate collaborated with Hiromi Kobayashi—the current chairman of the JLPGA and a prominent LPGA Tour player in the US and Japan—for the project.



Rise of the drones

As the golf industry continues to explore possibilities for innovation in the game, Toby Ingleton considers the potential of drone technology in the course design process



“It was one of those eye-opening moments.”
In fall 2014, Lester George, ASGCA, was working at Vestavia Country Club in Birmingham, Alabama, when one of his subcontractors reached into his van and took out a drone. “I’m like ‘he’s not going to launch that thing is he?’” recalls George. “But he did, and flew it up to about 400 feet to show us what it could do. After I had got over how cool it was, I realized how useful it would be to see the golf course from whatever perspective I wanted.”

Vestavia has a lot of rock on the property, and footage from a camera attached to the drone showed the grass as a lighter color where the rock was closer to the surface. “I could see it from the ground as well, but not in its totality,” explains George. “It showed me where I was going to have to either expose the rock, or cover it to give grass the right conditions to grow in.

“It was almost an immediate ‘a-ha’ moment for me, I went out and bought one right away.”

Golf and innovation: hand in hand

"We should understand innovation, and move forward," said Steve Smyers, the outgoing ASGCA President, at the recent ASGCA Annual Meeting in Washington D.C.

Smyers was speaking at the Donald Ross Roundtable Meeting, where ASGCA Executive Committee members and the foremost figures of the golf industry that represent ASGCA Leadership Partner organizations gathered, as they regularly do, to discuss the game today.

"Innovation has shaped the game of golf throughout the course of its history," said Smyers, before chronicling some of the game's major innovations, from the introduction of the gutta-percha ball in the mid-nineteenth century to changes in the putting stroke, advances in grass mowing equipment, irrigation, turfgrass and the development of modern club technology.

Participations at the roundtable meeting discussed new innovations that affect the way we use golf facilities, play the game, and design courses.

Scott Lamont of master planning business EDSA explained how his organization was working alongside its developer partners to fully understand the value of golf facilities by using sophisticated performance analysis, covering metrics such as water saved, trees planted and jobs created. Dana Garmany of Troon Golf spoke about research that analyzes the engagement and spending by golfers from various demographics. Future issues of *By Design* will explore these and other topics discussed during the meeting.



Throughout the history of golf, new innovations have affected both the way we play the game, and the way golf courses are designed. The topic of innovation was discussed extensively at this year's annual meeting of the American Society of Golf Course Architects (see sidebar).

Over recent years, the unmanned aircraft system (UAS, or 'drone'), has emerged as a technology with numerous commercial applications.

Originally more commonly associated with military operations, when Amazon revealed it was testing drones for parcel delivery, it raised the profile of the technology's possibilities for widespread commercial use. Indeed, Japanese firm Rakuten has even applied the parcel delivery concept to golf, and is now testing a new service that allows items such as snacks

and balls to be delivered from the clubhouse to golfers out on the course.

Learning to fly

Jim Cervone, ASGCA, was also quick to see the potential benefits of using drones in golf design. "It dawned on me that this would be a wonderful addition to the toolbox," he explains.

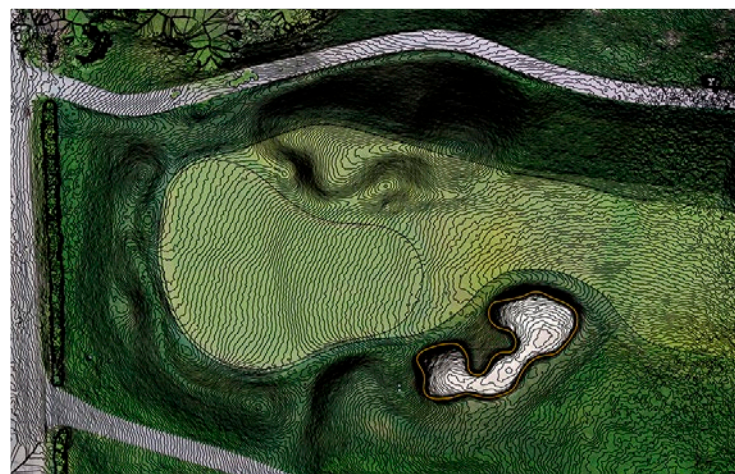
"When you get that drone out for the first time, you're like a kid. You just want to fly it around and have some fun. But that's actually an important aspect of it because you need to be familiar with it and be able to maneuver it properly," says Cervone.

Ease-of-use means architects can get to grips with drone technology relatively quickly.

Another golf course architect and drone operator, Mike Benkusky, ASGCA, honed his skills using a



Jim Cervone, ASGCA, considers the drone 'a wonderful addition to the toolbox' and has used it to produce topographic maps with one-inch contour precision (inset)



basic model, the type that has become popular as a kids' toy in recent years. "I was advised before going out and buying an expensive one to go and buy one for under \$100 to learn how to fly it. If you can fly a little one, you'll find the bigger ones a lot easier."

The surge in popularity of drones has seen all kinds of possibilities emerge, and increasing demand on airspace. In the United States, there are safety guidelines for drone use for hobby and recreational purposes, including flying below 400 feet, keeping the aircraft within visual line of sight at all times and not to fly near people.

But if the drone is being flown for commercial use, you must have authorization from the Federal Aviation Authority. This can be achieved through a Section 333 Exemption for operations in low-risk,

controlled environments, or a Special Airworthiness Certificate.

Countless applications

Once authorization has been granted and the art of piloting a drone mastered, there are countless applications, limited only by the operators' imagination. Like George, Benkusky has found that the immediate benefit relates to getting that aerial perspective of a course that would have previously only been available with expensive helicopter footage.

"If a club is considering removing trees, you can show them exactly the effect that shade has on the green," says Benkusky. "Or with another project we used drone photography to show the full extent of bunkering around a green, and consider how we could remove sand without affecting the design integrity of the hole."

"I can look at drainage," says George, "I can look at shade patterns, conditions where the turf is suffering for one reason or another, by getting that bird's eye view." (To view drone videos of Vestavia CC taken by Chad Cosby of Chandler Landscapes, Inc., visit: www.youtube.com/watch?v=t11utX9hNvs.)

One of the most obvious early applications has been to improve visualizations of design proposals. Visualization using photos or artwork is a common technique employed by golf course architects to help get their design ideas across to clients. "If you start explaining ideas with just a plan, clients don't necessarily get the idea of, for example, how deep a bunker is in relation to a green," says Benkusky. "I think video takes it a step further where you can show the entire golf

A clear perspective

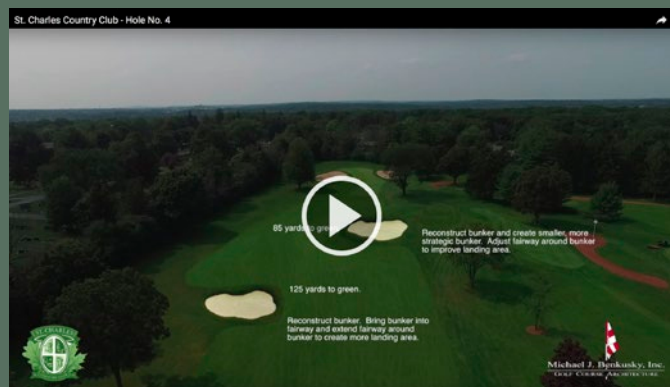
The elevated perspective of images taken by a camera attached to a drone provides a different perspective from on-the-ground shots. In the example below, before and after images taken from the air provide a complete picture of the impact of bunker reduction around the eleventh green at St Charles CC, including the removal of a bunker behind the green. Mike Benkusky, ASGCA, explains: "From the air you get a much better scale of the bunkers. This helps to show that we can minimize sand area to improve playability and maintenance, yet still keep the strategy of the golf hole."



Video visualization

With some stop-frame work and annotation, video footage of entire holes can be manipulated to show proposed changes. See videos of St Charles CC at:

www.youtube.com/watch?v=1c0wUWZjXIU and www.youtube.com/watch?v=mp2eENQWfPI



hole pretty easily and even put it out on YouTube so the club can share it with their entire membership. It's a selling point, showing people what is going to happen and getting them excited about the project."

Benkusky had seen some impressive animation work for another project and wondered if he could emulate it with video for a project he was working on at St Charles Country Club in St Charles, Illinois. "I decided to experiment with a couple of holes last fall," he explains. "I was just playing around with it, but it ended up looking great." Benkusky took drone video footage and then overlaid it with proposed alterations and annotation (see sidebar). "You do some stop-frame work, exporting a snapshot image out to Photoshop for manipulation, insert in back in and add in some transitioning," he explains. "I sent it over to the superintendent and he shared it with the club, they said 'how about we do all eighteen holes!'"

George agrees. "Clients love presentation video—whether it's architectural or the club just wants flyovers to be on their website.

Getting information faster

"But we're just at the tip of the iceberg. One of the main applications is getting information faster," he adds. "In a similar way to when CAD was introduced and we could make changes to designs in minutes rather than hours, drones have the capability to gather information in hours rather than weeks."

Specifically, by using a drone in combination with photogrammetry software, architects can get accurate and detailed topographical information for a site in a fraction of the time it would take to do a traditional land survey.

Vestavia recently conducted an entire survey of the property. "They went out with a drone and programmed it to fly back and forth," says George. "It went up for 45 minutes, came down and they replaced the battery and flew it again. It's as good a topo as I've ever had and it took them two hours instead of two weeks."

"To be able to go out with the drone and within minutes set up a small flight plan and get the sort of base material I need is invaluable," says Cervone. "It's an expensive proposition to get someone out to do topo for you—and not to mention you are then on their time. I can go out on my own and turn something around in the same day."

A number of software applications are available for download to a smartphone or tablet, which connect with the drone and enable the user to set up an automated flight plan and capture the images required to produce a topographic map.

"Once you get the hang of setting up a flight plan, which is simple to do, you hit a button, that drone will take off, fly what you set up on that app, come back and land at your feet," says Cervone. "The aerial images are taken by the camera and stitched together into an overall larger aerial, and through photogrammetry the software that I'm using creates the topographic information."

The accuracy is impressive too, according to Cervone. "Typical grading plans may provide two-foot contour

lines and you interpolate everything between it. When I'm designing a golf green I am usually proposing six-inch contours. With a drone I can get a one-inch contour map. For projects where we are rebuilding greens, in many cases they want to restore the green back to its original condition. For example, this summer I will be rebuilding the putting surfaces at Sewickley Heights Golf Club in Sewickley, Pennsylvania. They have asked me to improve the number of pin placements, but want to retain the original character of the greens. So having tight topos you can go back and get everything you want."

At Vernango Valley Golf Course in Venango, Pennsylvania, close to where Cervone grew up, the club didn't have a topographic map. Cervone has used the drone numerous times to quickly and easily get the information he needs.

"Recently, we needed to address are some drainage issues around a particular green complex. I can go out and shoot this green complex and get the contour information I need. I will know where I can hit my low points and how we need to reshape the area to create the fall. It's so much easier to work out where I want my first inlet, where the next swale should go. It makes the process more efficient."

The club also has a stockpile of material to use for shaping work. Cervone says: "With the drone I can actually fly over that stockpile and create the topo and quickly do a volumetric calculation based on the aerial. I'll then know exactly how much we have to work with."

Future possibilities

In future, Cervone plans to spend more time investigating 3D modeling capabilities. "It can take a 3D model

that you can look at, turn and flip as if it were that picture made out of clay," he says. "We are always struggling graphically to get our proposed designs across to the layman. With this new technology now we can actually take a 3D model that everyone understands and show that to them so they can get a better picture in their minds of what the eventual design will look like—that's what I'm after."

If the enthusiasm with which 'early adopter' golf architects have for drones is anything to go by, it seems that the technology is here to stay.

"I've done a lot of aerial photography study and a lot of land terrain analysis," says George, who previously served in the U.S. Army. "I've been around it and understand it—it's so visual, so much clearer with these things that I think it brings a whole new level into terrain analysis."

"I think it's boundless." ●

Topographic maps

Combining a drone and camera with photogrammetry software enables architects to quickly and easily produce detailed topographic maps with contour lines, which can then provide the basis for design decisions and grading plans.

The below images from Vestavia CC show existing conditions (left) and proposed plans (right). "You can clearly see the detail in the existing conditions which allows us to formulate all future plans and calculations," says Lester George, ASGCA.



The simple interaction of man and nature

Recently-elected ASGCA President Greg Martin reflects on his beginnings in the game and career thus far. By Marc Whitney

When Bob Martin handed a golf club to his 10-year-old nephew, Greg, neither one knew the impact it would have. An avid golfer who travelled Europe while serving in the U.S. Army, Greg's Uncle Bob would tell tales of Carnoustie and Troon and Ballybunion. For a young boy, it all sounded like fairy tales.

"It sounded like he was referencing Middle Earth," Greg recalled.

But a seed was planted, and in April, Greg Martin, ASGCA, began his term as ASGCA President.

While studying Landscape Architecture at Iowa State University in Ames, Iowa, Martin found a way to feed his growing passion.

"Playing golf at ISU's Veenker Memorial, I became more intrigued by the game and was completely hooked," he said. "It's a Perry Maxwell design that is so simple, yet remarkably engaging. There may be 10 bunkers on the entire course, but it uses amazing tactics and strategies, angles and positions. I still

haven't figured it out. The difficulty is magical. One thing about golf and golf course architecture is figuring how a course can provide that mysterious nuance and subtlety."

Martin began his design career with a landscape architecture firm, but moved his focus to golf course architecture when he took a job in 1985 with William James Spear, ASGCA, in St. Charles, Illinois. He recalls Spear being, well, rather frugal.

"Jim would have half a stick of gum in the morning and the other half in the afternoon," Martin said.

But that ability to respect every dollar and work within a budget was an effective practice for Spear, and benefits Martin today.



"Jim's influence was quite extraordinary," Martin said. "We were designing a 9-hole course for a farmer. Jim was figuring how to piece together a drainage system from old tiles. It was simultaneously frustrating and fascinating to see what he was accomplishing."

"I learned different techniques on how to make the most of a budget, which served me well when the economy went bad in 2008. All those things that were vital in providing service to the client and working within tight budgets; I had done that my whole career."

In 1991, he formed Martin Design Partnership, Ltd., in Batavia, Illinois.

"I am most inspired by projects that compel me to think about

"I am most inspired by projects that compel me to think about how golf can solve greater problems



Martin's designs include the courses at Millwood (left), Rich Harvest (top) and Glen Erin

how golf can solve greater problems, whether storm-water management, wetlands creation, habitat expansion, erosion control or economic viability.

"ASGCA Past President Pete Dye likes to overwhelm you and get in your head, and I'm a big fan. But another way is to design with slight-of-hand using a wide berth, then slap you with something hard, like a Perry Maxwell design. I tend to lean toward that. It's not as sexy, but it is effective."

That design philosophy is on display at Martin courses throughout the Midwest, including Glen Erin, Janesville, Wisconsin; Rich Harvest Farms, Sugar Grove, Illinois; Millwood Golf & Racquet Club, Springfield, Missouri and Wildridge at Mill Run, Eau Claire, Wisconsin.

Martin-led municipal projects benefit not only the course and golfers, but the environment. And in many cases, collaboration has been key.

"What can we do to provide environmental benefit within a golf course? That intrigues me,

and I cannot do it alone. I need to collaborate with experts," he said. "The more we can communicate with a variety of experts outside of golf course architecture, the better the project. And maybe, the less intimidated they will feel and be more likely to understand the universal benefit and opportunities of golf."

A case in point is Coyote Run in Flossmoor, Illinois. "We were 25% of the way through the project and they said 'we have a nearby neighborhood flooding issue.' So I got together with engineers and we found a solution."

The facility now includes 80 acre/feet of stormwater storage on a 125-acre piece of land (including a practice range and 3-hole junior course).

Martin's designs provided wetland mitigation and water quality improvements for the Wilmette (Illinois) Park District while solving their flooding issues. "We made the course more playable, more strategic, more maintainable while improving

the water quality in the North Chicago River.

"The skills of an ASGCA member go far beyond golf. Where we build golf and improve habitat, we have done a service to golfers, the community and their region. When golfers are engaged with both the game and the place, everyone wins."

Martin notes, "ASGCA members are problem solvers. We benefit from the skill and expertise of fellow members." Which can sometimes lead to asking the tough questions.

"A fellow member visited a site of mine recently," he said. "Another set of eyes confirmed some of what I thought I saw, but he also noted some things I wasn't ready to be uncomfortable with. It challenged me in a positive way."

As for the future, Martin focuses on areas not seen with the naked eye.

"You cannot grow grass until there are roots. The health of the plant depends on the depth of the roots. The golf industry needs to make sure we create deeper roots." ●

Golf returns to Olympic family

With golf returning to the Summer Olympic Games itinerary for the first time since 1904, Adam Lawrence speaks to architects working to prepare the venues for the 2016 and 2020 games

This summer, after well over a hundred years away, and after a decade and more of work, golf makes its long-awaited return to the Olympic Games in Rio de Janeiro, Brazil, home to the Games of the XXXI Olympiad.

When golf was accepted back into the fold by the International Olympic Committee (IOC), it

was initially for a period of two Olympiads, 2016 and 2020, with the intention to review the success of the experiment afterwards. So, for the promoters of Olympic golf, notably the International Golf Federation (which is accepted as the worldwide lead body for the game), it was vitally important to get both spot on. Rio did not have

a course suitable for the Olympic competition, so organizers decided to build one from scratch on a sandy but degraded site at Barra de Tijuca, close to the main Olympic park. After in-depth selection process, the firm led by architect Gil Hanse, ASGCA, and his partner Jim Wagner, was chosen to design it.

When Tokyo won the right to stage the 2020 Games, the situation was rather different, given the Japanese capital's impressive range of golf courses. There, the organisers determined to use the East course at the Kasumigaseki Club, designed originally in the 1920s by English architect Hugh Alison, and long regarded as one of Japan's elite courses. But the course needed a thorough renovation to prepare it for the Games. Notably, the two greens per hole system that was common in Japanese golf as a way to deal with the country's extremely varied climate—but can now be eliminated, due to the availability of better strains of warm season grasses. The firm of Tom Fazio, ASGCA, was selected to handle the Kasumigaseki work, and, though the Games is still more than four years away, work is almost done. *By Design* spoke to Hanse and Fazio to compare their experiences.



Photo: Rio 2016

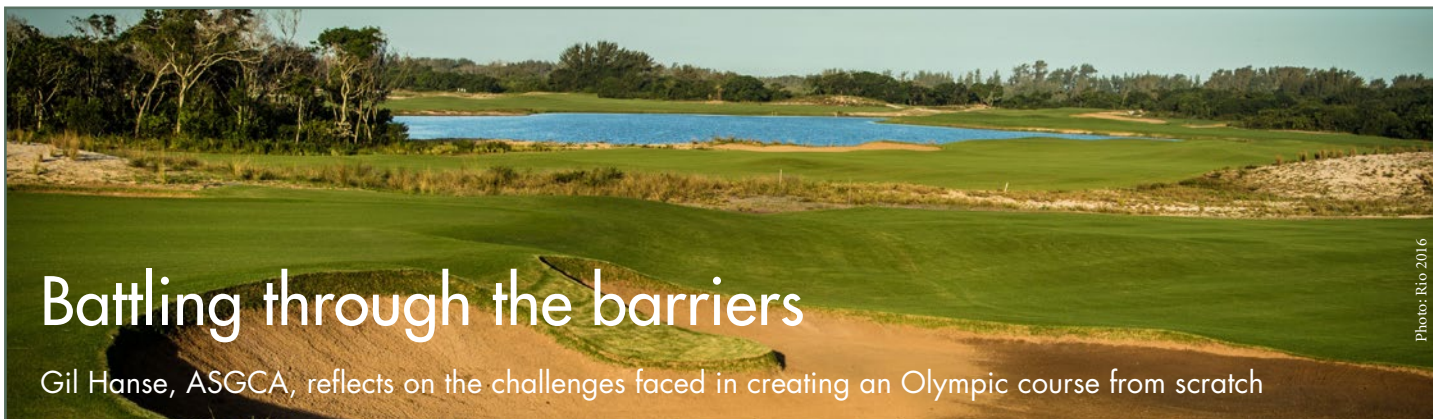


Photo: Rio 2016

Battling through the barriers

Gil Hanse, ASGCA, reflects on the challenges faced in creating an Olympic course from scratch

For Gil Hanse, ASGCA, the story of his experiences in Rio de Janeiro is one of overcoming obstacles. The development of the Barra de Tijuca Olympic course rarely went smoothly, with disputes over land ownership, problems with environmental permissions and many other issues causing the build to take far longer than expected. But now, as the Games approaches and with the trial event successfully in the bag, albeit rather later than planned, Hanse can look back on the whole process with the satisfaction of a job well done—and, like every other keen golf fan, with an interest in seeing who will come through and win medals when competition days arrive.

"I think the key takeaway for me has been just how resilient and talented our guys are—guys like Kyle Franz, Neil Cameron, Ben Hillard and Ben Warren," he says. "They lived there, and it was difficult for them. But the passion they brought to it on a daily basis was remarkable. It didn't matter what obstacles we faced: the time it took, the inefficiencies in the construction process—they kept it going all through the time we were on site, and that was key to us delivering something good in the end."

"When we landed in Rio in January 2013 to start construction, and we didn't get going till mid March—and then only a nominal start—it was pretty depressing. There was a lot of 'yes, yes, that's going to happen' in the run up to construction. When we arrived, the yesses became 'Oh we'll get to that.' Not once during the competition process was it mentioned that the key decision maker was going to be the landowner. Over the first couple of months, getting the right equipment was hard, as was dealing with landowner/developer who didn't really understand the process of golf course construction. That first nine months to a year, we were getting support from the PGA Tour technical guys and from the golf people—Richard Brogan and Michael Johnson from the PGA Tour construction and design services were down there all the time and they served as our buffer and did a great job. But we weren't really getting any from the people on the ground. But we came through it all, that is the most important thing. The

critical thing is that, while the process was difficult to navigate, and it was not efficient, never once were we asked to compromise the design. People ask me, was there ever a point where you were tempted to quit? I say no, but if anyone had asked us to change the design, we would have. No matter how difficult the process, if you deliver in the end then you can judge a project a success."

Hanse says that building the Rio course has helped to change his image within golf. "Our name recognition has gone through a dramatic transformation for sure," he says. "Within the industry, we were a known commodity, and we had a good reputation, but outside, in the broader golf community, we were almost unknown. Now, that's changed—we're recognized as

being among the top names of our profession."

The architect says that he is very eager to see the world's top players tackle his course.

"The finishing stretch is

memorable, but the holes I want to watch them play the most are the fourth, the ninth and the sixteenth—two short par fours and a three. The fourth is the prettiest spot on the property, probably the most dramatic-looking hole on the course. The ninth, Kyle Franz built to concept from Fraserburgh in Scotland—two mounds in front right and left, with a cleavage between and a small green. If we get windy and firm conditions, angles will be very important throughout the golf course."

As to the post-Olympic legacy, Hanse says he has a number of hopes. He scotches suggestions that the course will not last long before it is redeveloped for housing. "You cannot develop that land—the only land that is available for development on the site is where they already are building. It is zoned for what is there now, so we expect it to stay a golf course for the long haul," he says. "In time, I hope there is a robust caddie program, and a strong junior program that has opened up golf to groups that haven't previously played it. I hope there's a continued championship legacy for the course. But the most important thing is contributing to the growth of golf in Brazil."



No matter how difficult the process, if you deliver in the end then you can judge the project a success



Photo: Kasumigaseki CC

Polishing a classic

Tom Fazio, ASGCA, describes a wide-ranging renovation that will serve members and test the world's best

Kasumigaseki CC is one of Japan's most highly respected golf clubs, with the championship East course having been designed by English architect Hugh Alison on his legendary trip to Japan in the 1920s. Tom Fazio, ASGCA, says: "Kasumigaseki approached us several years ago, before being awarded the Olympics, about the possibility of partnering with the club to oversee improvements to the East course. The club's desire was to ensure the long-term legacy of the East course as a championship course and excellent test of golf. My son, Logan Fazio, is president of the company now and is in charge of new project review and analysis and overall design oversight in the field. I



// The professionalism and work ethic of everyone on the project is second to none. We couldn't ask for more

don't move forward with new projects unless he is on board. Logan made several exploratory visits to KCC to meet with the club representatives and conduct a detailed review of the East course in light of the club's goals for the renovation. Based on that, Logan decided we would take on the challenge and I fully supported his decision. Being awarded the Olympics shortly after that only served to reinforce the club's agenda with regard to the East course and we proceeded quickly with the improvement plans.

"The club wished to replace the current two-green system with a single green per hole, as it had recently done with its West course, and also asked us to prepare a comprehensive review of the design and strategic elements of the course with regard to tee locations and yardages, bunker and hazard placement, green angles, and the like. In addition, while incorporating those design elements, the club also took the opportunity to improve the course drainage characteristics, install a new irrigation system and plant new turfgrass

throughout. It has truly been a wide-ranging renovation. At the same time, we have been mindful of the excellent original routing of the course and the renovated holes still occupy the same or very similar play corridors.

"We were initially unsure how the construction would be executed given that we don't know the local contractors involved. To add a layer of certainty to the process, Logan put together a team of specialists (project management, shapers)

to augment and complement the efforts of the skilled local contractors tasked with implementing the design work. We couldn't be

happier with the quality of the construction. It is as good as or better than any golf course we have been part of, and the professionalism and work ethic of everyone on the project is second to none. We couldn't ask for more.

"Many of the course improvements would have been made regardless of whether the Olympics would be played there. We have worked with the International Golf Federation, the Japan Golf Association and other entities to review the logistics and setup of such an event as part of our planning process. The course is compact and very walkable, so patrons attending the Olympics should have great visibility of the golfers and will be able to easily see all of the course. I have no doubts at all that the soon-to-be-completed improvements at KCC will serve the members well for generations to come and the East course will very capably serve as an excellent test of golf for the world's best players in 2020. It has been a true honor to partner with KCC on this exciting and important project, my first in Asia." ●

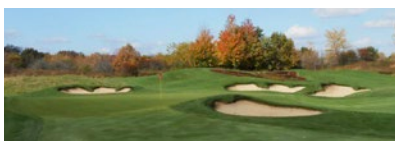
If you aren't following ASGCA on social media, here's some of what you're missing:



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Architect of the Week: Doug Myslinski, ASGCA. Myslinski, a regular member of the organization since 2012, has designed several golf courses across the country, with a focus in the Midwest. Pictured is his work at the 1st hole at Catigny Golf Club (Hillside).



ASGCA



ASGCA will host a live Twitter chat on 6/7 at 1 p.m. EDT with ASGCA Past President Tom Marzolf, discussing U.S. Open design at Oakmont Country Club. Post questions or follow along on Twitter, (hashtag)ASGCAUSOpen



@bergingolf



Bottlebrush, our pitch and putt at Longleaf is being grassed. Can't wait to play this fun for all ages golf course.



@IanAndrewGolf



Off to @CedarBraeGolf today to look at more bunker work for the fall. Can't wait to see the new clubhouse.



@ASGCA



Greg Martin elected American Society of Golf Course Architects president tinyurl.com/gt4doy6 @gm_mdgolf @ASGCA



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Andy Staples, ASGCA, tours a Meadowbank Country Club member around the course to document evolution of a renovation. #ASGCA @buildsmartrgolf



ASGCA



ASGCA presents a "Day in the Life of an ASGCA Member" featuring Andy Staples and his renovation work at Meadowbrook Country Club in Michigan



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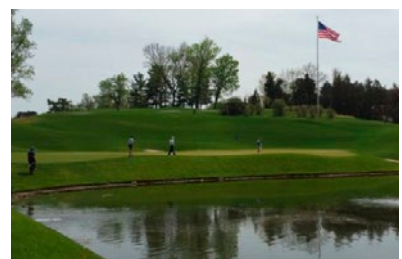
Throwback Thursday is more of a "toss" than a "throw" going back a few weeks to this years ASGCA Annual Meeting in Washington DC! #TBT #ASGCA



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Great day at Congressional @ASGCA Annual Meeting



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Golf Club De Genève | Jeff Langner

Getting the right mix

Jeff Langner of Profile Products explains more about the selection of a new rootzone mix for the renovation of Golf Club de Genève in Switzerland

Sometimes the best things really do come to those who wait. Golf Club de Genève was established in 1921, and in 1972 commissioned Robert Trent Jones, Sr., one of ASGCA's founding members, to design its existing course on 100 acres of the Bessinge estate. Overlooking the city of Geneva and its famous lake, golfers on this impressive parkland course also enjoy Mont Blanc and the Alps as a backdrop.

In 1982 the club hosted the Women's World Amateur Team Championship and since 1991 it has been the venue of The Rolex Trophy on the European Challenge Tour.

Wanting to provide firm, dry playing conditions for its membership, while protecting the integrity of the original design, in 2015 the club commenced a full 18-hole renovation. The design effort was led by architects Bruce Charlton, ASGCA, and Mike Gorman from the firm of Robert Trent Jones II, ASGCA.

In addition to a major investment in irrigation and drainage throughout the course, a key aspect of the renovation was to enhance the rootzone mix to improve the performance and playability of green surfaces.

The first phase of the renovation, which was completed in 2015, included the harvesting of sod from existing greens. This process began last September, and was followed by the installation of a new rootzone blend of sand and Profile Porous Ceramics. The harvested sod was retained and re-laid over the new surface to begin the growing process.

The mix was specifically chosen after sand samples were sent from two different quarries and tested at a USGA lab. Recommendations were made to include Profile Porous Ceramics – Greens Grade, manufactured by Profile Products, in both the greens and tee mix.

This design would provide an optimum long-term balance of air- and water-holding pore space, improved nutrient retention, and better stability.

Profile Products assisted with rootzone testing to ensure the correct sand was chosen. Although the project was located in Switzerland, the rootzone mix came from just across the border in France.

Gavin Kelly, the European Sales Manager for Profile Products, visited the quarry to assist with the blending



and mixing of sand and the Profile Porous Ceramics.

"It was important that the right sand was selected for the project, and that we tested the physical characteristics of the mix," noted Kelly. "We first tested the sand on its own, and then tested the sand blended with the Profile Ceramics to ensure that we had favorable levels of infiltration, water-holding, and air in the mix."

In total, 550 tons of Profile Porous Ceramics will have been blended



The renovation of Golf Club de Genève by the firm of Robert Trent Jones II, ASGCA, will result in firm and fast playing conditions for members



A rootzone plug from the 14th green shows the integration of the existing grass with the new sand/Profile mix – a few weeks after the existing green sod was laid over the new rootzone

into the greens and tees at a rate of 13 percent by volume. Course superintendent Charles Charmont noted, soon after the initial install, that the greens grew in quickly and showed surprising firmness in the following months.

In recent months, the tees and greens have continued to progress well in spite of a cold (and prolonged) spring with several heavy rains that have tested the drainage of the sodded greens.

“We were very impressed by how

well the new greens handled the recent heavy rains,” commented John Clarkin of Turfgrass Consultancy. Clarkin, along with colleague Jim Ferguson, is providing agronomic and project management on the site.

“We have seen the benefits of using Profile Porous Ceramic on some of the courses we manage in France and have been pleased to be able to see similar attributes of the product here in Switzerland.”

Nick Norton is overseeing the ground work, which is being

completed by golf construction firm SOL Golf. “It’s been a fantastic team to work with throughout the project, and you can now see how well everything is coming together,” said Kelly. “We’ve been honored to be part of such a high profile renovation project, and when the course re-opens I think the membership is going to be quite pleased with the transformation.”

The course remains on schedule to re-open to the membership in summer of 2017. ●



“When players can fly the ball well over 300 yards from the tee it simply smashes the strategy of the game

John Fought, ASGCA

After a successful playing career, which included victory in the 1977 U.S. Amateur and two victories on the PGA Tour, John Fought, ASGCA, turned his hand to golf course architecture. In the late 1980s he worked alongside Bob Cupp, ASGCA Fellow, before establishing his own business in 1995. His portfolio of golf designs includes both courses at The Gallery in Marana, Arizona (the South course hosted the WGC-Accenture Match Play Championship in 2007 and 2008) and the Championship Course Sand Hollow Resort in Hurricane, Utah, widely recognized as one of the finest in the state.

How is your game?

I play very little golf these days but I love playing with pals on great courses. I recently attended the Walker Cup and played quite a few courses in the UK. By the end of the trip I was actually playing OK. For an old man that is, nothing like my former self.

Which three people would make up your dream fourball?

That's easy. I love playing golf with my former team mates Mike Reid and Pat McGowan. I would then add Ben Hogan who was an inspiration to me while I was playing tournament golf. I played and practiced with him several times at Shady Oaks in Fort Worth. That would be a great day, to play with all those guys!

What is your favorite hole in golf?

It's impossible to pick just one but there are a few that stand out. I love the par five fourteenth at the Old Course at St Andrews, with all its options for play. The short par four tenth at Riviera GC is great with its options as well. As for threes, nothing is better than the short fifteenth at Cypress Point. It is just wonderful being on the ocean.

If you could change or add one rule, what would it be?

Maybe not a rule but rather I would dial back the length the golf ball is traveling. It is just a shame how the USGA and R&A have allowed technology to neuter our wonderful classic courses. When players can

fly the ball well over 300 yards from the tee it simply smashes the strategy of the game. We now have to build bigger, longer courses that require more money to maintain and are harder for the average player.

What project are you currently working on?

Most of my work has been with major renovation/restoration projects. I am currently working on a major redesign of a private club in Charlotte, North Carolina. However, I am hopeful to begin a new course with fabulous sandy topography in the Columbia Gorge in Washington state. It has spectacular views of the river below. ●



Fought highlights the 14th hole on the Old course at St Andrews in Scotland as one of his favorites

Photo: © St Andrews Links



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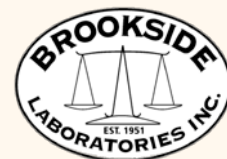
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