

Issue 9 | Winter 2011

BY DESIGN



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Golf's bunny slopes

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Count on it.

We make no apology for the repeated focus in *By Design* on facilities that make it easier for new golfers to access the game. Around the world, making golf more appealing to, and accessible by, new players is the biggest challenge facing those involved in the industry. ASGCA members are leading the way in addressing that challenge.

Golf's difficulty, as a game, is a key part of its appeal. Even the very best golfers have to work hard to retain their skill, and for any golfer, the rare round when everything comes together is something to be celebrated. The crux of the industry's challenge is that it takes time and effort to get good enough at golf to have much fun. Finding ways of easing the learning process and, crucially, making it more fun in itself is essential if golf is to continue its growth around the world.

It's exciting that many golf businesses have realized the need for 'bunny slopes' and are finding ways of providing beginner golfers with facilities to learn the game. For ASGCA, it's equally exciting that our members are out there working, around the world, to make golf more accessible. More golfers and more fun means a more successful golf industry—good news for everyone.

Yours sincerely,



Rick Phelps, ASGCA
President
American Society of Golf Course Architects

BY DESIGN

Editor: Adam Lawrence; News: Sam Ballard; Design: Paul Robinson; Bruce Graham;
Publisher: Toby Ingleton; ASGCA Staff: Chad Ritterbusch; Therese Johnston; Mike Shefky; Aileen Smith; Marc Whitney; Photography: Atlanta Athletic Club; iStockphoto.com
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Environment

Golf funds Marrakech water plant

Golf development is playing a major role in improving the quality of life for the million-plus inhabitants of the Moroccan city of Marrakech.

Cash provided by a number of the golf resorts currently being developed around the city was crucial in funding the construction of Marrakech's first waste water treatment plant.

Until the plant's recent opening, the city, whose population has grown dramatically in recent years as Morocco has become more urbanized, had no sewage treatment facility. Up to 100,000 cubic meters of effluent was previously deposited into the natural environment, mainly palm groves, fields, and a dry river bed (wadi).

Golf tourism is a rapidly-growing business in the Marrakech region, with several courses already open and more in construction and planning. If all the courses currently planned are built, the area



Marrakech's golf resorts have funded the city's first waste water treatment plant

will have 24 golf courses. For a contribution of \$3.6 million, money that has helped to fund the construction of the plant, resort developers were able to buy an annual supply of treated sewage effluent (TSE), which can be used to irrigate both courses and other parts of resorts. Until now, Marrakech's existing golf courses have primarily been irrigated using water taken from natural aquifers and fed by annual melt

from the nearby Atlas Mountains. A total of 33 million cubic meters of TSE will be produced by the plant annually, and will also be used for irrigating agricultural land and to recharge the area's water table.

The project, which includes 60 km of piping, as well as four pumping stations, became operational at the end of 2010. It is valued at MAD 1.08 billion (\$128 million).

Profile strikes partnership

Turf expert Profile Products has signed on as an ASGCA Major Partner, supporting the education of members and golf industry professionals. The deal will help create educational programming and tools for those looking for advice on golf development and remodeling. Profile's solutions are used on courses such as Chicago Highlands Golf Club (below) designed by ASGCA Past Presidents Arthur Hills and Steve Forrest.



ASGCA releases Kindle eBook

The third edition of ASGCA's *An Environmental Approach to Golf Course Development* has been made available as an eBook for Amazon Kindle. Focusing on course development and permitting, the book also includes 18 case studies relating to real life examples of recent projects.

US Navy land deal

An agreement has been struck between LNR Property and the US Navy that will see 830 acres purchased for a new development in Massachusetts. The land, which was bought for \$25 million, will complete the SouthField development—a \$1.5 billion project consisting of 2,800 homes, a golf course and other facilities.

Olympics

Rio finalists announced

Organizers of the 2016 Rio Olympic Games have announced a shortlist of eight firms from which the designer of the course for the Olympic golf tournament will be chosen.

ASGCA members are strongly represented in the shortlist; three of the eight firms, Nicklaus Design, Hanse Golf Design and Robert Trent Jones II, are headed by ASGCA members, and another, Gary Player Design, has Jeff Lawrence, ASGCA, on its staff.

Firms who responded to the RFP were

required to meet a stringent set of criteria, including maintaining a legally-established office in Rio. The course, which is to be built on a site close to the Atlantic Ocean at Barra da Tijuca, the district that will house the largest number of venues for the Rio Olympics, will be managed by a private operator after the Games, with the chief aim of promoting golf participation in Brazil.

The winning firm, who will receive a fixed design fee of \$300,000, will be announced early in 2012.

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China Golf Show

Guangzhou highlights new trend

The recent China Golf Show in Guangzhou provided an interesting insight into golf's development in the country during the current government-imposed moratorium on course construction, according to one industry observer who attended.

The event, which had a smaller representation of golf architects than in previous years, did have a big increase in the amount of young people attending—a sign of the growing stature that golf has within the social aspirations of China's rising middle class.

"There may not be many opportunities yet for young people of modest means to learn to play golf, but they nonetheless see golf as something to aspire to—part of a package that symbolizes success, like owning a house and a car or having a good job in a city," said John Strawn, President of Hills & Forrest, the firm headed by ASGCA Past Presidents Steve



Forrest and Arthur Hills.

"That enthusiasm for golf's future is reflected in the single largest category of exhibitors at the Guangzhou show—golf simulators. The simulators are the low-cost entry point for people yearning to play golf—what they can play until China takes on building daily fee courses or even municipal courses. Golf has a fabulous opportunity in China to create a niche for itself as a popular sport but with a range of courses, from small, inexpensive daily fee courses to grand private clubs, just as it exists in the UK, Europe and the US."

While attendance is expected to be far greater for the Beijing Show in March

2012, spectators are eagerly awaiting movement on the imposed moratorium, which is halting any new work being started.

"China is pretty much indispensable to the future growth of the golf industry," added Strawn. "Why? Because most of the clubs, balls, bags, shirts, hats and shoes are made in China and sold to golfers all over the world. If China wants to encourage domestic consumption of articles made in China, the golf industry is a good place to focus. There is a potential demand for golf in China that would make it the number one golf country in the world within thirty years."

Cuba grows golf footprint

ASGCA members are no strangers to Cuba, including the Varadero Golf Club design of Les Furber, ASGCA. Changes in government policy are leading to more golf. The return of golf tourism to Cuba is underway with work due to begin on several contracts awarded to North American and European-based companies, including golf facilities along with resorts and townhouse-style condos.

Abu Dhabi wants bigger slice

Golf courses in Abu Dhabi will benefit from the emirate's announcement of a marketing, communications, product packaging and distribution platform aimed at helping the area increase its share of the global golf tourism market. Abu Dhabi Tourism Authority launched the initiative at the International Golf Travel Market in Turkey in November.

Dernoeden gets GCSAA award

Peter Dernoeden, turfgrass science professor at the University of Maryland, is to receive the 2012 GCSAA Col. John Morley Distinguished Services Award for his research and continuing education into helping the industry. The award will be given during Celebrate GCSAA! on 28 February in Las Vegas.

Ritz-Carlton resort for Mission Hills

Chinese golf developer Mission Hills is working with hotel operator Marriott International to build two new hotels at the group's Hainan Island resort. The proposed hotels, which will be branded as Ritz-Carlton and Renaissance properties, will commence construction early in 2012, with completion planned for the fourth quarter of 2013. Mission Hills is investing around \$300 million in the project, on top of the \$1 billion it has already spend on the ten-course resort. The two new hotels will add 480 rooms and 20 villas to the resort.



Golf's bunny slopes

Learning facilities | Adam Lawrence

Making it easier for new golfers to learn the game is central to growing participation, whether in mature markets like the US or in developing countries. Adam Lawrence

looks at how golf operators are learning from other sports in providing facilities that make learning simpler and more fun—and how golf architects are involved from the start



People play golf for a variety of reasons; challenge, competition, exercise, some even as a living. But at heart golf is a leisure activity, a recreation; and thus, its appeal can be summed up in one word. FUN!

If golf is not fun, why would you play? Every golfer has pondered on this thought at some point, usually after a particular round, perhaps in terrible weather or after five hours stuck behind the glacial foursome from hell. Some do, indeed, give up the game—legendary writer Henry Longhurst, a scratch player for thirty years and a former captain of Cambridge University's golf team, recounts in his autobiography how, afflicted by putting woes and



Golf is hard, and requires a reasonable amount of skill before it is much fun

prevented by work commitments from getting the fortnight's serious practice he knew he needed, finally put his clubs in the loft, locked the door and descended the ladder feeling as though a huge weight had been lifted off his shoulders. But most of us, once bitten by the golf bug, continue to muddle through, accepting the bad days as the norm and reveling in the occasional triumph.

The difficulty of golf is central to making it a lifelong obsession, one that we cannot kick, despite knowing we will never master it. But—and this is crucial—it requires a certain amount of skill in order to start being fun. There is precious little pleasure to be had in standing hour after

hour on a cold, windswept driving range, built in a dingy corner of a business park, trying and failing to get golf balls airborne, while a bored assistant pro resets your grip for the twentieth time. Nor—to go to the opposite extreme—is it enjoyable to go out on a 7,500 yard championship course, laden with deep bunkers, water hazards and greens stimping at eleven feet, if you can barely make contact with the golf ball.

Some golfers dismiss the plight of the beginner. But one thing is for sure: without finding a way to make learning the game simpler, cheaper and more fun, golf is destined not to grow as quickly as everyone in the industry would like. Few people in

China, India or Brazil have a father who plays golf and can introduce them to the game.

The success of the ski industry in North America in the past ten years has grabbed the attention of many in other leisure businesses. Snow sports share much in common with golf (in some places, they even share facilities, with resorts offering golf in the summer and skiing in the winter). They are relatively expensive and aspirational and suffer from a perception among some potential participants that they are 'not for the likes of me'. And—most crucially of all—they demand a fair amount of learning before participants can really start to understand the pleasure they can offer.

“I think there’s a need for these kind of courses, yes to grow the game, but also to give regular golfers an alternative

Lester George, ASGCA

But the ski industry has one advantage over golf: it has been able to make learning fun. No one learns to ski on a steep, icy double black diamond run. Instead, resorts provide straightforward hills—Americans call them ‘bunny slopes’ though the term isn’t in common use elsewhere in the world—and organize ski school programs which typically see rank beginners ready to tackle proper runs out on the main mountains within a short time.

Learning programs

Golf is not lacking in learning programs. From programs created by individual clubs and course operators up to the large scale initiatives from the game’s governing bodies, such as ‘Get Golf Ready,’ there are plenty of opportunities for beginners to get coaching in the basics. Excellent though many of these programs are,

they all face one central obstacle, which is the huge jump from hitting balls on a practice range to going out on a full-sized golf course. Making this leap is intimidating: beginners worry they will look foolish and that ‘real golfers’ will be irritated when they get in the way. Too many of those who enroll for the training programs never actually progress to the golf course itself. That’s why it’s occurring to more and more people in the industry that golf needs its very own bunny slopes.

ASGCA members led the way on this discussion when Michael Berry of the National Ski Areas Association spoke at the 2011 ASGCA Annual Meeting (Fall 2011 *By Design*). The variety of golf facilities that could come under the generic heading of bunny slopes is remarkable. What should be common to all, though, is that they need to provide a learning environment that gives beginners a taste of golf’s true appeal: not just a flat field with a tin shack protecting a few teeing mats.

For golf operators, the best thing about bunny slopes is that they offer two distinct benefits. Obviously, creating more golfers who can use your main course once they’ve acquired a bit of skill and confidence is a great business development strategy, but, done properly, the bunny slope can be a profit center in its own right, in many cases making use of small plots of land that were previously not serving much purpose.

Such facilities can make sense for all types of golf course, whether resort, private or daily fee. But, fairly obviously, public courses, especially those that are seeking to make a profit, have most to gain from increased participation. So it might be surprising to find one of the most interesting projects of this kind at a course conceived as an elite private club.

Bill Coore, ASGCA and his partner Ben Crenshaw’s design at the recently-opened Dormie Club in the North Carolina sandhills has been widely acclaimed. Envisaged as a private club including a real estate development, Dormie’s owners ran smack into the economic downturn, and were forced, at least for the time being, to change their business model and open the course for public play. Now, they have engaged Virginia-based architect Lester George, ASGCA to create a unique ten hole short course and practice facility on a 70 acre parcel of land near the main course.

“We had this long, skinny piece of property that backs up to some wetlands,” explains George. “When the club’s property is fully developed, it will need a storage facility for some waste water, and this piece of land was identified for that purpose. But it faces onto housing parcels, so the owners wanted it to have more than just the storage capacity. So we came up with the idea of a short course.”

The long, narrow nature of the parcel of land meant that routing golf holes was inevitably a challenge. George and his associate Glenn Muckley worked separately on routing ideas, and, when they compared notes, found they had produced similar loops of holes, with one key difference—one plan went clockwise, and the other counterclockwise.

Putting the two plans together produced the unique idea: why not create a loop that could be played in either direction? This isn’t just a marketing gimmick, George says: rather, the reversible nature of the routing means that any number of potential loops are available, giving players a wide range of options. “We have a two hole, a five hole and a seven hole loop,” he says. “To play

FAUQUIER SPRINGS: HELPING RETAIN MEMBERS

Fauquier Springs Country Club in Warrenton, Va., canvassed its membership on what sort of additional recreational facilities they would like, and the number one choice was a larger short game area. Architect Tom Clark, ASGCA, used a parcel of land adjacent to one of the course’s existing holes to create a three green triangle that can not only test players’ skills in putting, chipping, pitching and sand play, but also could prove to be a learning center for beginners and established players alike. “It’s not just that the club wants to provide an additional amenity for the existing membership,” says Clark. “In fact, the research showed that several members had left the club because of a lack of such a facility.”

all ten holes in either direction will take about ninety minutes, and it'll be incredibly cool, with tons of variety. I've worked very hard on making it equally playable in both directions."

For Dormie, whose long-term business model is still in flux, the flexibility this offers is a real boon. "Could be a standalone executive course that could be sold to the public on an as needed basis, maybe with one or two national teachers attached," says George. "I think there's a need for these kind of courses, yes to grow the game, but also to give regular golfers an alternative. Think about how many golfers visit the Pinehurst area. I don't think I could ever get tired of playing these holes—it's a perfect use of 90 minutes at the end of the day. And as a bonus, it solves the stormwater and sewage treatment problems of the site."

Elsewhere in North Carolina, Charlotte public course operator Ratcliffe Golf Services has also realized the potential of the bunny slope concept. Ratcliffe runs five courses in the Charlotte area, and, in the past 15 years, has built 'learning courses' at each of its properties. These range from three hole loops essentially designed for honing short game skills to larger nine hole courses that give learners the chance to practice shots up to 250 yards in length—perfect preparation for graduating to the big courses.

Ratcliffe's experience shows that learners prefer this kind of facility to simply beating balls on the range. Not only does the bunny slope give those who use it a chance to improve their skills, but it gives them a genuine feel of a 'real' golf course, complete with the away-from-it-all experience that golf can provide. It makes it both easier and more fun for newcomers to learn the game, and it helps the operator make money. What could be better? ●

LINKS AT TERRANEA: ENCOURAGING KIDS



Architect Todd Eckenrode, ASGCA Associate, built the nine hole Links at Terranea on a dramatic oceanfront property in Southern California. Terranea's dramatic mix of holes has seen it named the second best par three course in the US by *Golf* magazine; but now the course has added a set of kids/beginners tees to make it

playable by an even wider mix of golfers. "These tees are obviously shorter than any of the others, but they are also swung over significantly to get an open view into the greens, so there are no forced carries. And the fairway cut is rolled into the tee so that even if they top it, the ball will roll forward, sometimes all the way onto the green," says Eckenrode.

PALM HILLS: GROWING GOLF IN EGYPT



If bunny slopes are needed in established golf markets like the US, they are even more important in countries where the game is new and local golfers are scarce. This is especially true given the reality that most courses in emerging golf markets are either aimed at tourists or are part of real estate developments, and are thus likely to be too difficult and expensive for would-be local players, at least in the early days.

At Palm Hills in Egypt, architect John Sanford, ASGCA, built a practice range that doubles as a nine-hole short course. "Typically, the facility is used as a standard practice range with nine target greens but there are scheduled times when the range is used as a short course to teach new players in an on-course setting without taking them on the championship course. The holes range from 80 to 170 yards," says Sanford.

Turfgrass | Sam Ballard

Transition transformation

Considering the large, and growing, proportion of the US population that lives south of the Mason-Dixon line, the number of Major championships that have been played in the South is remarkably low (well, apart from the annual April gathering in Augusta, of course). Partly this relates to the history of golf; the game's early growth in the USA came in the Northeast and Midwest and those regions, along with California, contain a substantial percentage of the country's classic courses, on which Majors have mostly been contested.

But there's more to this divide than just history. The US Open and PGA Championship are played in the summer, at a time of year when the Southern heat makes both golfers and many course superintendents uncomfortable. The former we may not worry about, but Major championships deserve the best course conditions we can provide.

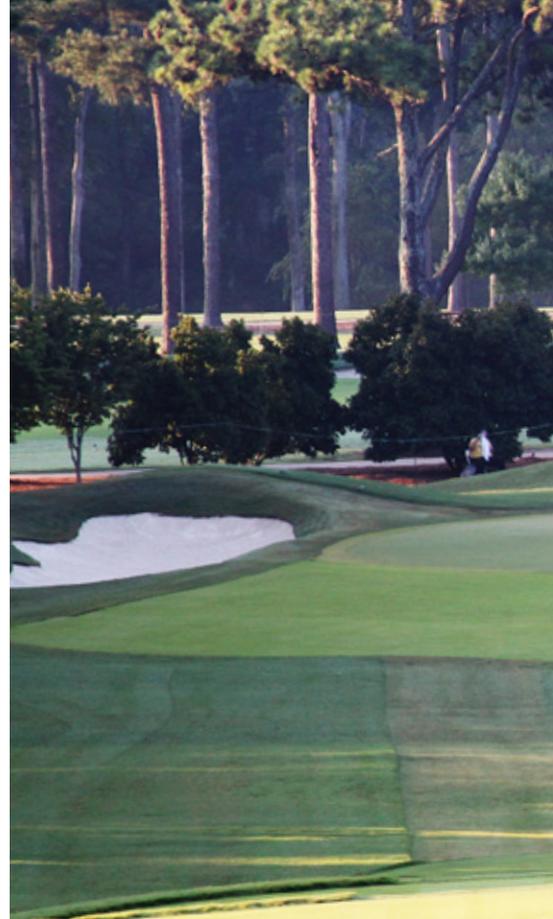
Anyone who has played much golf in the transition zones of the mid-South will be familiar with the problem. The creeping bentgrasses that many in golf believe make for the smoothest, quickest putting greens struggle in the summer heat, demanding extreme measures such as hand watering several times a day and enormous fans behind greens to cool the grass. And the warm season grasses, principally bermuda and zoysia derivatives, that thrive in those summer conditions, have generally, until recently, been

regarded as less desirable.

In recent years, the massive investment by breeders in warm season turfgrasses has seen many courses in transition zones move over to ultradwarf species, mostly with positive results. But the most dramatic validation of this approach came in August, when the PGA Championship was contested on Atlanta Athletic Club's Highlands course. AAC, under its long-serving director of golf courses and grounds Ken Mangum, had converted the Highlands course entirely to warm season turfgrasses two years earlier, with Champion ultradwarf bermuda on the previously bentgrass greens, Diamond zoysia on the fairways and Tifton bermuda in the roughs.

Mangum says it was hard evidence of increasing summer heat that finally convinced him to regrass. "We have a weather station on our property, and we know our summers are getting hotter," he says. "In 2001, from July 15-August 15, we had only nine hours over 90 degrees. During the same period of 2010, we had more than 600 hours. Bentgrass grows best between 60-75 degrees. But there was no time in that period that we had those temperatures!"

The Highlands course went through an extensive renovation led by ASGCA Past President Rees Jones and his associate, Bryce Swanson ASGCA, in 2006, to prepare for the 2011 PGA. At that point, Mangum says, he still favored bentgrass greens,



though he knew the decision was finely balanced. What pushed him over was the issues that nearby East Lake Golf Club had with its bentgrass greens in 2007 (East Lake has also since regrassed with warm season turf, with widely acclaimed results). "August 2007 was really hot, and that year the Tour Championship moved from November to September," he says. "The greens were not as East Lake would have wanted for the championship, and we realized that we needed to take another look at our plans for August 2011."

Important though the PGA was to AAC, it was only one week in the life of a course that is played by its members twelve months of the year, and the decision to switch turf had to work in the round. Course managers in transition zones know that, whichever way they go they will have issues, either with the cool season grasses in summer, or with

Atlanta Athletic Club has set a new standard for major championship conditioning. It didn't just raise the bar. It is the bar



Atlanta Athletic Club was widely acclaimed for its conditioning at the 2011 PGA Championship

the warm season ones in winter, and Mangum says the real key is knowing when most golf is played. “The first thing to start with is your rounds of golf,” he says. “We graph them, so we know when our members play. When is it important that your golf course peaks? We play 75 per cent of our golf from April-October. In three of those months, our greens were substandard. One of the worst things you can have on bentgrass in the heat is traffic, so by sticking with cool season greens, we were doubling our difficulties.”

At the head of the article, we mentioned the great exception to the lack of Majors in the South, Augusta National. But, as Mangum points out, Augusta’s example is not one most courses in the region should follow, simply because of the unique nature of that club. “At Augusta, they have bentgrass greens and they play on overseeded ryegrass fairways,” Mangum says. “And then they close for the summer, before the overseed dies and the bentgrass starts to struggle. They don’t have to keep the greens playable in the heat of summer, just alive.”

Atlanta can get very cold weather during the winter, although AAC remains open, extreme conditions apart, year-round (the Highlands averages around 2,000 rounds during January and a little more than that in December). But Mangum says protecting his new warm season greens from the cold is easier than trying to keep bentgrass in good condition through the summer. “We asked ourselves: if we’re going to have some catastrophic weather, what system handles that the best?” he says. “Which can we fight? We have heat and cold; we can battle the cold by putting twelve inches of pine straw and a cover on it if we need to. But we can’t fight the heat, because people are still playing golf.”

Mangum says he’s certain that AAC would have switched eventually, even without the impetus of the PGA. “The model matches our play better,” he says. “Now, we’re looking at changing the Riverside course too. On the Highlands, we’re saving around \$50,000-\$60,000 a year with the ultradwarf, because we don’t use as many fungicides, we don’t have the

fans running and we don’t have guys out with hoses. In the Atlanta area, more and more courses are moving to warm season, though I think lots of people were waiting to see how we did! The trend started with daily fee courses, who realized they could make more money with a warm season grass. The prejudice against warm season is still out there: that’s why we also try to say ‘ultradwarf’ rather than bermuda, people still have a set attitude about bermuda. I still love bentgrass. But it’s not as good a model for our environment.”

The final word goes to *Golf Digest* architecture editor Ron Whitten. “What will be remembered a decade from now, even 50 years from now, is that this was the event and the course that disproved the conventional wisdom that major-championship golf in the Deep South is risky,” Whitten says. “As far as I’m concerned, Atlanta Athletic Club has set a new standard for major championship conditioning. It didn’t just raise the bar. It is the bar. That’s what the new rating system will become. I can hear it now: ‘Sure, your course is in great shape. But it’s no AAC.’” ●

Where we're at

The American Society of Golf Course Architects' Executive Committee recently convened to discuss their hopes and expectations for the golf industry in North America and around the world as we head into 2012. Marc Whitney reports on the views expressed by ASGCA President Rick Phelps, Vice President Bob Cupp, Treasurer Rick Robbins, Secretary Lee Schmidt and Immediate Past President Erik Larsen.

There's been a lot of talk about improving access to golf recently, with an increased focus on smaller courses, 'bunny slopes' and the USGA/PGA Tee It Forward campaign. What's your view?

Erik Larsen: Architects are in the service business—serving players and course owners, serving the land and environment—but we are also in the entertainment business. Pete Dye revolutionized golf course architecture with TPC Sawgrass, it was a home run type of course. It displayed great critical thinking. Today, it remains important for us to be on the leading edge of acknowledging a new type of golf course, to play it and market it.

Bob Cupp: Tee It Forward, or something like it, has the potential to change the face of golf in the United States. It shines a light on designing from the green back to the tee instead of from the tee forward and allows *all* players to enjoy the shots of a regulation round, reaching all holes in regulation with reasonable execution—this means SHORTER!

Rick Robbins: This gets to the heart of what architects need to be doing in design for the coming years. There are members at my club in that age range of 50-70 years saying they need to move to the white tees to play faster and a bit better. They have been playing the blues for decades.

Rick Phelps: At the Colorado Golf Summit, Darrell Crall (*PGA's senior director of Golf 2.0*) said the PGA plans to follow up with research and actual data for Tee It Forward. Is it increasing rounds? Real results will be available for folks. And, frankly, it's about darn time. We need the support of the PGA to promote the multiple tees ASGCA members have been designing for years.

Lee Schmidt: (*laughing*) You sound like Dick Phelps (*ASGCA past president and Rick Phelps' father*).

BC: The biggest complaint from some owners is players going to the back tee and taking 6.5 hours to play a round 'to get their money's worth.' But in the long run it does not give players a positive experience which will bring them back.

EL: Alice Dye has been singing this song forever—'Move the tees up.'

BC: I remember Jack Nicklaus saying: "I like the idea of creating places where stories will happen in the future." He was talking about competition, but more and more, with television, the 'stories' become a part of the game and people enjoy similar experiences. People play golf to have fun, or at least they should, and now people are realizing that playing from a realistic tee distance can lead to more fun, which means more activity in our industry.

How do you view the business prospects for 2012?

LS: There are new deals being made stateside, but they tend to be in the early stages.

RP: That is what I'm seeing with master plans; there is economic stabilization or some growth sparking optimism to begin the planning

It might be possible that the Olympics will jump-start South America's interest in golf

Bob Cupp



process. People are saying: “If there is six months of good news we can go to next level.” Not “Go, go go,” but they want to be ready if things can get better in the next six months.

RR: We are hearing about more opportunities, but destabilization in the European Union is hurting things. Also, the U.S. stock market doesn’t drive the train but it drives confidence. Going up 200 points one day and down 250 the next is rough, but six months of slowly positive news will move things along.

LS: There is some development in India. Viet Nam is inching along, and Thailand is another country where you see a project here and there.

RR: South America is an up and coming market. There are clearly more U.S. clubs talking about renovations, especially at the greens committee level. Like Rick said, it is more about getting things started rather than a rush to do it.

BC: There are new inquiries coming out of South America too but not anywhere near the rate in Asia. It will be interesting to see what happens with the Olympic venue, which has been very interesting so far. It might be possible that the Olympics will

jump-start South America’s interest in golf.

EL: The economic slowdown gave some course owners a chance to balance their books and now have some cash on hand. They can move forward on infrastructure and renovation pieces which had been put on hold.

LS: And interest rates have never been lower. Management firms which bought up properties have a great opportunity to work with an ASGCA member to make improvements and attract new players or bring back members they may have lost.

RP: At the Master Planning level, there are more projects coming out. A year ago at this time we were not hearing anything. It’s that percentage of clubs and public courses which have stabilized bottom lines and are forward thinking—maybe 30 percent or so. They are optimistic things will be good down the road and want to be ready with something new to bring people back.

China is a key market for the global golf industry. What’s the latest news coming out of the country?

RR: The thing that has me most

enthusiastic about China is the way people are embracing playing the game, not just designing new courses to enhance real estate values. I visited a practice facility featuring 60-70 bays, two-and-three-stories high. I also saw a nine-hole training center. Hundreds of children with the prettiest swing you have ever seen. Demand for golf is growing.

The Chinese government is changing over with the Chinese New Year (23 January 2012). The current administration does not want to make new rules concerning farmland and water use. Since golf is not the highest priority on the country’s agenda it could be six-to-eight months or longer before a new administration’s rules are in place.

LS: Regulations will impact not just architects but all land developers. But most developers think having guidelines will be a good thing. Once the government comes out with regulations and policies, China can be a great market for years. Many companies are on the sidelines right now, but if the rules are halfway workable, it can help everyone in the sport and benefit the environment. ●



“ There are clearly more U.S. clubs talking about renovations, especially at the green committee level

Rick Robbins

Water Management | Stuart Hackwell

The hottest issue in golf

For architects, a major benefit of ASGCA membership is the opportunity to work closely with major partners to stay updated on new industry trends and technology. One key initiative introduced by ASGCA for its members is the water management education partnership with Rain Bird Corporation. Completing its third year, the initiative invites industry experts to deliver webinars and presentations on key environmental issues related to water use on golf courses. Irrigation technology and water management has changed considerably in recent years resulting in increased system efficiency and reduced water consumption. Staying in tune with these latest advances is a key goal of the initiative.

Many factors determine how much

latest environmental issues and possible solutions to minimize water use are key factors that the architect considers during the development process. Staying abreast of new materials and technology is critical to enable the golf course architect to provide leadership to the design team.

Recent water management education presentations highlighted advances in irrigation technology like the use of soil sensors in golf applications. Sensors buried in the soil profile measure soil moisture, temperature and salinity to report the data to an on-site computer. While soil monitoring has been used for many years in agriculture, advances in technology have enabled soil sensing to become practical on golf courses during the past few years. Prior to soil sensors, a superintendent would evaluate turfgrass health and climatic conditions and an

Grand Cypress Resort in Orlando installed soil sensors on several areas in 2010. Tom Alex, director of agronomy at Grand Cypress, is impressed with the technology. “Soil sensors take the guesswork out of the irrigation decision,” he says. “They are easy to install and provide instant readings to let us know what is happening below the soil surface. Playability is more consistent with a sensing system and we are better able to manage our irrigation as well as our labor. We recently completed a major tournament at our course and the sensor system was a great help to monitor soil conditions and guide irrigation decisions. We were able to really dial-in the consistency of our greens with the sensors.”

Turf reduction case studies were the subject of another presentation. Turf reduction is a renovation process gaining in popularity in the southwestern United States. Golf courses employ architects to redefine grassing areas, converting out-of-play turf areas to native grasses or other landscape materials that do not require irrigation. Turf reduction projects can be phased in over time as budgets permit and many public agencies will support the project.

Andy Staples, ASGCA Associate, presented a case study for a phased turf reduction project that enables a course to implement changes over several years. Staples supports the ongoing education offered to ASGCA members. “These webinars enable members to stay current on latest technologies and techniques to conserve water and other resources. Our clients benefit from the latest technology by seeing bottom line savings as a result,” he says.

“Soil sensors take the guesswork out of the irrigation decision. Playability is more consistent with a sensing system

Tom Alex, Grand Cypress Resort

water is required to sustain turfgrass. These include climatic conditions, architectural design style, water supply, drainage, irrigation, and turfgrass selection. Ensuring a highly efficient irrigation system design, selecting the right materials and choosing a quality irrigation installer are basic requirements to enable a knowledgeable operator to conserve water over the next 15-25 years. Understanding the

irrigation decision would be reached to determine the amount and timing of irrigation. With a sensor system installed on the course, a superintendent can monitor actual soil conditions to provide better indication of when and how much irrigation is required. A sensing system allows the user to delay irrigation as long as possible, resulting in greater water savings.

The Jack Nicklaus, ASGCA—designed



Turf reduction projects have become a key way for desert courses to save water

Other topics include irrigation material selection like the use of high-density polyethylene (HDPE) pipe and the increasing popularity of two-wire underground control systems. Both provide significant environmental benefits beyond water. HDPE pipe is produced in a significantly more environmentally-friendly manner, reducing the impact on the environment. Excess HDPE pipe can be recycled and reprocessed following the installation process, resulting in no wasted pipe. Another benefit is that HDPE is installed as a sealed system with zero pipe leaks, eliminating water lost due to leaks.

Two-wire underground irrigation control systems have been around the golf industry for over 20 years. Recent advances in technology make them feasible for larger, more sophisticated irrigation control systems. The control systems are called 'underground' because the field control technology is completely below ground. Field satellite boxes are eliminated, as is much of the copper wire used on a satellite control system. The key environmental advantage of an underground system is

that copper use is reduced by as much as 90 percent. A ton of copper wire consumes roughly 5,000 tons of raw materials during production. A 1,400 sprinkler satellite system on an eighteen hole course can use over 11 tons of copper in the wire buried in the ground. Eliminating up to ten tons of copper with an underground control system means that potentially 500,000 tons of raw materials are conserved.

Understanding the advantages of new materials and technology and deciding when best to implement them, is a key leadership role of the golf architect. Jason Straka, ASGCA, architect with Hurdzan-Fry Environmental Golf Design, is a strong believer that ongoing education is critical to conserve resources. "The water management partnership provides key updates and new information to better manage our resources," he says. "We find this extremely useful when advising clients about the best solutions for their projects. The golf industry is under scrutiny to ensure golf facilities are environmentally conscious. Ongoing education is integral to ensure ASGCA members are

leading the way in this area."

Staying abreast of current water management information and technology is an ongoing effort. With education partnerships providing continuous updates, ASGCA members are well-positioned to lead the golf industry with environmentally conscious practices. ●



Stuart Hackwell

As Global Specification Manager with Rain Bird Corporation, Stuart Hackwell works with golf course specifiers on water management projects worldwide. Based in Tucson, Ariz., he has been with Rain Bird for 19 years.

Life Cycle Planning | Tom Marzolf

Plan for the future

Any homeowner knows the international economic woes of recent years have placed premiums on basic property upkeep. Paint jobs, siding, landscaping and basic maintenance have all taken a backseat.

The same can happen at golf courses. But everything has a lifespan, from the greens and bunkers to irrigation systems and drainage. It is prudent to plan for maintenance and upkeep in advance to avoid more immediate and expensive replacements in the future.

Golf courses evolve, in a sense live and breathe, so club leaders are wise to consider the 'life cycle' of their golf course's components.

Several years ago ASGCA, along with input from the Golf Course Superintendents Association of America—created a Life Cycle chart for golf courses to use as a guide in scheduling replacements to key course elements. The guide included input from other allied golf associations, as well. In the next issue of *By Design*, you will read about an updated Life Cycle chart, helping courses as they move into 2012 and beyond.

The Life Cycle Planning Process

Golf clubs need to consider the functionality of the layout: how water drains, bunkers perform and cart paths hold up are essential to the long-term success of a golf facility.

Life cycle planning allows for a club to anticipate and schedule maintenance and renovation based on likely replacement dates for each part of the golf course. Having a plan in place allows for budgeting of time and money, and keeps those enjoying the facility "in the loop" during the process.

Once the facility has been analyzed, a life cycle plan details how and when recommendations

will be implemented. These details include: prioritization of goals and objectives, club member and staff communication strategies, advice on bidding and supervision of maintenance and/or construction, and follow-through on grow-in and any other new programming.

Course Evaluation

To formulate a life cycle plan, a golf course undergoes a detailed hole-by-hole evaluation to determine what, if anything, needs renovation or maintenance. Some, but not all, of the areas evaluated includes:

Tees: Tees are a prime target for improvement. Depending on the age of the course and the ability of the players, tees may need to be rebuilt or added. In northern climates, the freeze thaw cycle will make tees uneven. The practice tee will wear out first.

Fairways: Fairway improvement may include drainage projects, mowing line adjustments and regrading fairways for improvements to golf shot options/strategy. Major grade work may also be required to improve drainage, eliminate blind spots or to soften severe terrain. If tee boxes need to be added, fairway widths may need to be adjusted.

Bunkers: Bunker evaluation can include review of placement, strategy, playability, the quality of sand and drainage, and also methods to minimize labor and expenses. Reducing the number of bunkers can save money and make the game more enjoyable.

Irrigation System: This part of the course make-up will be closely scrutinized. Technology in the irrigation industry is constantly improving the efficiency and efficacy of systems, and the importance of responsible water use can't be overstated. Electricity costs can be

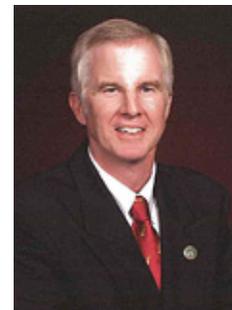
reduced with proper pump design.

Greens: The size, shape and cupping areas of each green will be evaluated. The age of the greens and the soil structure will be examined. The green is the target for the game and should receive the most attention.

Landscape Treatment: A long-range tree planting, pruning and removal schedule will be created. Proper tree placement results in more strategic shots, healthier turf and more pleasing aesthetics. Too many trees, in the wrong spots, can reduce turf quality and reduce potential profits.

An ASGCA member has the skill set to lead a life cycle planning team. They have the expertise to conduct each of these steps to research and implement a life cycle plan with the help of these other important team members: course owners, club manager, golf course superintendent, golf professional, and club members/leaders.

Visit www.asgca.org or call (262) 786-5960 for more information on planning and remodeling or to locate an ASGCA member.



Tom Marzolf

Tom Marzolf, ASGCA Past President, is Senior Design Associate with Fazio Golf Course Designers, Inc. Tom has also served as consulting architect at 2006, 2007 and 2013 U.S. Opens and 2009 and 2010 U.S. Women's Opens



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