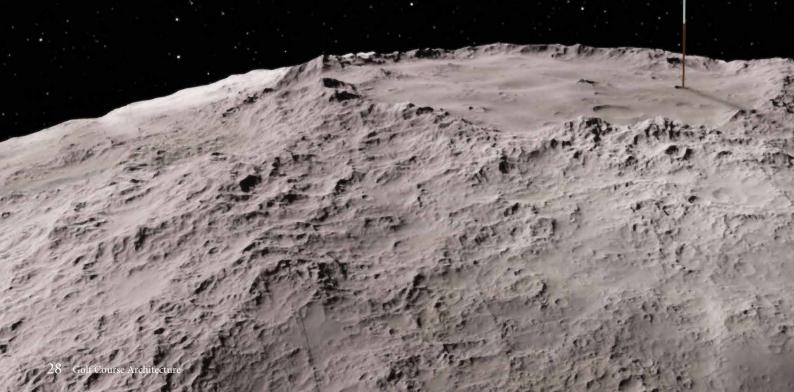
WHAT DOES THE FUTURE HOLD?







HOW WILL THE PROFESSION OF GOLF COURSE ARCHITECTURE CHANGE IN THE YEARS BETWEEN NOW AND 2030? ADAM LAWRENCE SPEAKS WITH DESIGNERS TO FIND OUT THEIR VIEW

he transformation of the golf design industry since the Coore and Crenshaw-designed Sand Hills Golf Club in Nebraska opened in 1995, is remarkable. Just compare a top 100 courses ranking from the late 80's or early 90's with one issued this year, and it is easy to see; at the top end of the rankings, the game has changed completely. The influence of Sand Hills and C&C's subsequent work, Pacific Dunes and the other courses designed by Tom Doak and his Renaissance practice, and the architects who followed on from them - people like David McLay Kidd, Gil Hanse and Mike DeVries - has been huge. Not since the end of the Golden Age in the 1930s has such a flood of highly-rated courses been built.

The spread of this influence to the mainstream of golf design, though, has been more sporadic. Until the Great Recession basically stopped new development in its tracks in 2007-8, 'normal' golf courses - which is to say, ones built for reasons other than trying to be mentioned among the world's elite, and primarily with a commercial goal - continued to be built in numbers, rather than the trickle that we have seen since. And, while there were occasional examples of the influence of the so-called 'minimalists' (a term that really does not accurately represent the C&C/ Doak-led movement, but is probably the best collective noun we have) seen in the mainstream - the Bobby Weed and Chris Monti rebuild of Deltona Club in Orlando, Florida, is a good one - in general, most architects worldwide continued to build in broadly the Robert Trent Jones, Sr. derived style that they always had.

Since the recession, that has changed. The change can really only be seen in renovation work, because that has been the stock in trade of almost every golf architect in the world since 2008, when new-build golf projects have been few and far between. And the change has been, in many cases, superficial: take a look through the pages of *GCA* over the last few years, and you will see a lot of photographs of bunkers that, consciously or otherwise, have been constructed in a would-be 'natural' lacyedged style aping those built at places like Sand Hills.

But what works on an elite private course built entirely on sand dunes in the middle of nowhere Nebraska does not translate perfectly to a course in the suburbs of London or Washington DC on heavy clay. The kind of rough, random edge that, whether or not they like it, has come to be regarded as the signature of firms like C&C and Renaissance, has mutated into wavy edges, more complex than the shapes of old, but scarcely random and in no sense natural. And, similarly, perhaps the key lesson of the minimalists - that the traditional 'draw it and build it' model of golf construction, with limited supervision of the build by the architect, often gets inferior results to the 'design and shape' process they pioneered - has been partially understood by the mainstream industry, but architects have realised that it is harder to operate that way on sites that are less than ideal. They thus require more earthmoving, and contractors - much larger businesses than the design firms, and therefore with more resource have concluded that a construction model that leaves them, at best, as muck-shifting grunts, is not ideal for them.

So, what does this mean for the future of the industry? Will new course building come back in anything more than a desultory fashion, and if so what sort of courses will be built? How will construction models change? How will technology impact, both in terms of construction and the actual playing of golf? We polled a large range of golf architects to find out what they think.

Tom Doak, one of the men who has most influenced the industry we see today, says that he himself is working on completely changing his business model, which over the past twenty years has seen him and his associates design courses like Pacific Dunes, Barnbougle Dunes and Tara Iti. He won't spill the beans on this change, though, saying he's not yet ready. But he does say that he thinks the days of the big design practice are basically gone. "I see the business continuing to evolve as it has – favouring collaborations between young architects who are happy to take turns designing one project and shaping the next one for their friend, or do other things part-time, just like the rest of the gig economy," he says. "That evolution is certainly not great for people who want job security, but to be honest the idea that you could have a comfortable long-term career as an associate in a big firm was

always a bit naive. The reality is that even the established firms don't know where the next job is coming from, or when. Those who can embrace the uncertainty will thrive, while those who spend their down time worrying about it would be better off finding other careers."

they typically are now. Every time I receive a note from someone asking for advice about how to crack into the profession, I respond that they should get as much on-site construction experience as possible. In particular, any experience that includes running equipment is extremely beneficial,

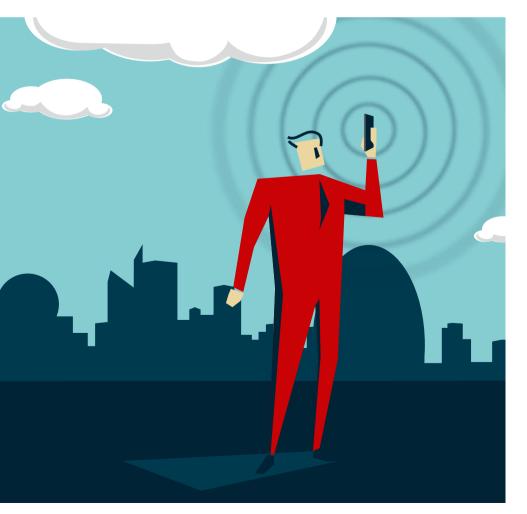
"TECHNOLOGIES AND TOOLS SUCH AS GOOGLE EARTH, PHONE APPS AND DRONES ALONG WITH EASY-TO-ACCESS INFORMATION WILL PUT A LOT OF POWER INTO JUST ONE INDIVIDUAL'S HANDS"

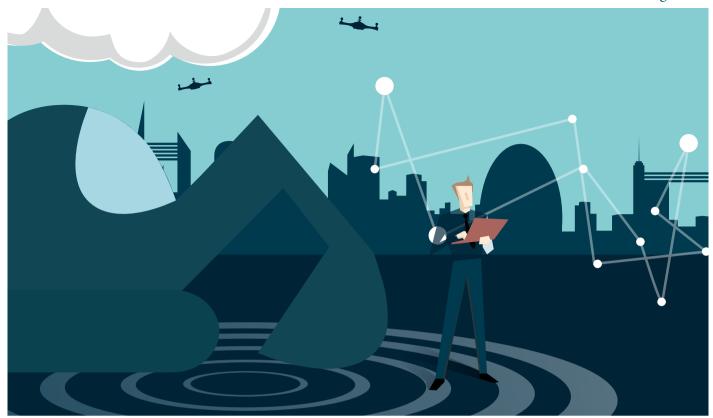
Rob Collins, a young architect just trying to make his career, albeit after a spectacular start with the acclaim given to his and his partner Tad King's Sweetens Cove course in Tennessee, also focuses on construction. "I think we will see a continued push and trend toward architects being more heavily involved in the construction process than

as I see the industry moving toward architects multi-tasking in the field."

Unsurprisingly, this message is echoed by the young men and women who have trained under the likes of Doak, Coore and Hanse, and are just now trying to get a start as architects in their own right. Riley Johns, one of the leaders of that wave after his work with Keith Rhebb at Winter Park in Orlando, says: "I think large firms with multiple employees will be a thing of the past and operations will be much smaller and more boutique. Smartphones, tablets, and laptops will largely replace the need for paper, pencils, printers, and office staff. Technologies and tools such as Google Earth, phone apps, drones, and easily accessible information will put a lot of power in just one individual's hands. Paradoxically, with the ubiquity of computer aided design, I also think clients will yearn for more handcrafted plans and drawings. Something more personable, real, and authentic perhaps. The perfectness and soullessness of computer generated plans might become passé in the future. We are certainly starting to see the adverse results of computer designed golf courses today."

Rhebb himself focuses on technology and environmental issues. "As scientific data continues to influence climate change practices and policies, architects will face increasing pressure to design strategic, playable courses that reduce environmental impact and protect the quality and availability of natural resources," he says. "I think this will lead to an emphasis on site selection (choosing sites/routings that minimise intrusion upon sensitive areas), instead of forcing a design on land without regard to environmental sustainability. Architects will not only need to factor in the current climate, but consider long-term trends when choosing species of grasses and trees.





Ultimately, I think this will lead to growth in the number of design-build firms, whose project delivery methods facilitate innovation and collaboration that improve environmental sustainability while remaining economically feasible."

And Jaeger Kovich, yet another of these young men, says he thinks that the future will prove that he and his ilk are on the right track. "I don't think there is going to be a major difference in the way I work. I think the design/shape model is going to continue to thrive. Many of the best courses built over the last 20 years have been a product of this design philosophy, and I expect to be sitting on the seat of a bulldozer and excavator creating fun golf in the field just like I do today," he says. Colton Craig, currently an associate with architect Tripp Davis, emphasises the point. "Since there will likely not be a golf development boom like what we saw in the 90s, I don't expect many celebrities of the PGA Tour to start their own design firms, because there will not be enough money to be made," he says. "Perhaps there will be partnerships similar to Coore and Crenshaw in the future, but I highly doubt there will be a Rory McIlroy Signature Golf Design company dominating the industry like Nicklaus, Palmer, and Player did. By winning the Olympic course job, Gil Hanse proved that the boutique design firms are the future."

So that's what the youngsters, and the man who has been a mentor to many of them, think. What about the guys from what might be called the mainstream?

Canadian architect Ian Andrew is an interesting source here, as he began his career in the mainstream, as an associate for Doug Carrick, but has, since creating his own practice focused on restoration, transformed himself into something more like the new breed. "I don't believe there will be any more new work than what we see now. I think this cycle is going to be very, very long," says Andrew. "The major trend from 2018-2030 will be the repurposing of existing golf courses. The focus will be on playability and environmental sustainability (lower input models will be legislated in most areas). There will be lots of carving off land and reducing facilities for economic gain or

to his own boss, takes a similar view: "It will continue to become more personal more and more of today's savvy clients are slowly realising that a big-name architect costs more and sometimes yields less in return," he says. "They really want to have a collaborative relationship with their architect – someone who listens and works with them, and someone who will help produce something that fits the user and operator first rather than the architect's ego. Lesser known names are cracking through already - doing great work and they're easy to work with. I see this trend continuing to grow. There's so much great talent out there, many of whom are not yet mainstream identities."

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survival, implying shorter courses – lower par – and no remaining spaces between holes. The underlying theme on the majority of non-elite club projects will be economic sustainability – half of private golf will be in some kind of survival mode. And the architects themselves will all be design/build model by this point."

Drew Rogers, another who has made the transition from large firm associate

Kansas-based David Hart says: The practice of golf architects will move more into consulting, functioning as advisors for renovations of older designs which need modernisations to accommodate the newer generation of golfers who want the game in a simpler form. They may lay aside older standards of fairway width, hazard placement and now common standards of design. Public golf courses will become far

less demanding, with more executive style golf courses; shorter, softer, and quickly played.

Georgia-based Mike Young, a man who has been ploughing his own furrow for a long time, emphasises similar themes, but also raises the point of what will happen with the contractors. He says: "One rarely sees a really good course today that was built without design/build. Therefore I sense that as less and less work is out there, the notoriety and fame associated with so much of golf design will fade and guys who can design and build the product will get the jobs and be the norm. The day of having room for a set of plans and a full general contractor are waning. Actually, many of the contractors may evolve into the design end of things since they will be better suited."

"Running a big shop of designers and support staff has seen its day and is likely not coming back," says Brian Curley, who should know; in many ways his firm is the last of the big shops, because of its success in Asia. "Big drawing production will be handled by landscape architecture and engineering firms when detailed, coordinated plans are needed. Most future great courses will be built on top of mature, existing courses in well located areas – with the occasional destination exception, but many of these will prove to be financially unsound and lose their lustre with potential developers. The successful golf architect of the future will be a financially independent, well-connected, decent player with enough skills to get by with rudimentary plans. Salesmanship and proper inroads to jobs will outweigh any skill factors. Fees from jobs will be irrelevant and the job will be much more of a hobby than a profession. Competition will drive fees down overall."

And then there is technology. Without doubt, technological advancement will change the industry. With so much of today's talent having started out as shapers, it is perhaps not surprising that none of them mentioned the possibility of computer-controlled shaping, but it will surely come at some level.

Jim Urbina, formerly Tom Doak's lead associate, now running his own practice, has a dramatic view of the future. "Golf architecture will serve two different entities," he explains. "The old standard guard will still get their due; greens, tees and fairways as we know it. Less acreage for sure. The new entries (young crowd) into the game will rely on gizmos such as 3D goggles and virtual reality to experience the game of golf. They will be able to play in Central Park without even carrying a club or ball. I think two styles of golf will evolve. Golfers will seek out golf grounds that inspire thought and beauty in their designs. Hand built golf courses that are so pleasing

to look at and require a slow walk to enjoy the detail work that they bring out from the land. And there will be virtual reality layouts that take no time to seek out and play but allow us to escape from the rigours of work and everyday stress in life." visions of technological golf. "I think the speed in which golf course design work will be requested will increase. With golf course design becoming more digitally oriented, it is my hunch that clients will expect the work product from their golf

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Ty Butler has an even more apocalyptic view. "Maybe architects will be obsolete by 2030," he says. "There might be artificial intelligence based programs that will design courses. An owner simply has to download a map of their property and the AI will do the rest. From developing conceptual routing plans to producing 3D renderings of each hole or better yet developing a complete virtual reality experience where you can play the course before it is even built and then customise the design based on your prebuild experience. Finally, a complete set of working drawings is produced. And possibly all of this happens in a matter of days!"

Bruce Charlton of Robert Trent Jones II, shares some of Butler and Urbina's

course architect sooner," he says. "I also see drone technology being used more in the conceptual phase of routing a golf course and initial imaging for the course. Perhaps more golf course plans with be drawn from an oblique perspective with base mapping being drone footage? It is my dream, and perhaps it will happen before 2030, to design a golf course that can only be played in virtual reality mode. A golf course that is designed on a piece of land that is purely the figment of one's imagination and cannot be replicated in any way. Therefore, I think the knowledge of moving images and how to create them digitally may come to the forefront in the skills of the future golf course architect."





Todd Quitno of the Lohmann Designs firm, has other thoughts about technology's impact. "The way we design will be influenced by the way we manage golf courses – with GPS/drone mapping and spraying technologies, automated infrastructure and equipment, virtual management (from afar), intuitive course handicapping and the like. Of course, this flies right in the face of the history and traditions of the game and its naturalist architecture, so it will be interesting to see how the old melds with the new. That's no different than today, I suppose, those who respect the past while embracing change seem to be the best suited to succeed."

And the Czech architect Libor Jirasek has perhaps the most complete vision of a technological future. "I see five types of golf services," he explains. "Luxury, with service from people or humanoids. Manicured courses with artificial grass on greens and tee boxes. Play as many holes as much you want. Glance and scent of old times if your imagination cooperates. Then the middle: robotic services - unmanned lawn mowing machines and voice-controlled golf carts linked to your ball. Automated services at the reception desk. We will wear a chip under the skin. No balance? No golf. The cheap offer will be short public courses with balls for appropriate distances. Fenced. Automated services. Limited time to play. Effective greenkeeping. And then there will be the underground: unofficial courses, played on weekends. People to people

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services. Mental connection to nature, and to immaterial lifestyle. Return to the beginning of golf – pure joy of meeting others at almost no cost. And finally, there will be virtual golf. Like to play Pinehurst? Or to have a game with Tiger? Or even better: with an improperly dressed Katy Perry? No worries, everything is possible. From low-cost to indecent prices levels."

Toby Cobb, a long-time C&C associate, takes a wise view, knowing that the future, by its very nature, is unpredictable. "By 2030, because of climate change, there have been massive droughts and heatwaves around the world," he posits. "There is no longer water to irrigate golf courses so all is played on synthetic surfaces. Since these surfaces are much harder and with the advancement in golf club design, the average drive is now 4,752 yards and average lengths or courses are 134,388

yards. Thankfully there are flying golf carts and fembot (or malebot) caddies. It can only be played at night however under artificial sunlight due to the fact that daytime temperatures are far too high for humans to survive for more than a few minutes at a time. That's golf in the year 2030. Or not. Maybe golf in 2030 is just like today. What do I know?" GCA

MORE ON THE FUTURE

You can read more on the future of golf course design in the latest issue of *By Design*, the quarterly magazine from the American Society of Golf Course Architects.

Our feature topic spans both magazines, with the cover story for *By Design* focusing on the perspectives of ASGCA members.

The Winter 2017 issue of *By Design* also includes details of projects honoured within the ASGCA's Design

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