

mow them more often. The last few years, perennial ryegrass has been so inexpensive, why would you give up a whole winter of beautiful, dense dark-green fairways to get a week's earlier transition? Most superintendents know how to get perennial ryegrass to transition out [more quickly]. So you're giving up a lot of aesthetics for a little bit of transitional time."

Burgess says he'll test transitional ryegrasses for a couple more years before deciding whether to stay with them or go back to perennials at Sun City West.

"In the spring, when it starts to warm again, they [transitionals] tend to get a flush of growth, especially if you have been applying a lot of nitrogen throughout the winter," he says. "That's the type of thing I learned last year that we'll manage a little differently this year.

"There's a learning curve," Burgess adds. "You can't treat it like perennial. It's definitely a different type of management."

While viewed mainly as a Southern overseeding grass, transitional ryes also have a potential Northern application as a nurse grass.

"You might mix bluegrass and fine fescue with one of these transitional ryegrasses," Pepin says. "You get a quick, early stand of transitional ryegrass. When it dies off, you get the bluegrass and fine fescue remaining, which is what you probably wanted anyway. Bluegrass takes three weeks to get any kind of ground cover at all. People don't want to wait that long, so it is traditionally mixed with perennial ryegrass.

"But then growers may be stuck with the perennial ryegrass forever. The transitional ryegrasses give you a quick stand, provide erosion control, but die off within a year, leaving you with the bluegrass and fine fescue you wanted."

Having a secondary Northern market should help transitional ryegrasses maintain their place in the seed supply arena, according to SRO's Brillman. "If one market doesn't take all the seed, it's good to have another place you can put it," she says. ■

Blais is a free-lance writer from North Yarmouth, Maine.

Transitional ryes also have a potential Northern application as nurse grass.

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Deep Tines on Fairways Equal Deep Roots

Thanks to new aerification strategy, fairways are in fabulous condition, Iowa superintendent says

BY LARRY AYLWARD, EDITOR

Have you ever purchased something to use on something and you ended up using it on something else?

About three and a half years ago, Rick Tegtmeier purchased a deep-tine aerator to use on his golf course's greens and tees at Elmcrest CC in Cedar Rapids, Iowa. Six months later, the certified superintendent was using the machine,

the Verti-Drain, on his course's fairways as well.

"We have push-up greens here that are 70 years old," Tegtmeier says. "After we started [deep-tine aerating them], we saw some success. We thought, why not try it on the fairways?"

They did, and Tegtmeier and his crew have been deep tining the course's bentgrass fairways once a year ever since. The process is a slam-dunk for deep-rooted, healthy turf, Tegtmeier says.

The Verti-Drain, manufactured by Redexim Charterhouse, functions by "shattering" the soil to create multiple fissures in the hardpan layer. "This is accomplished

The Verti-Drain functions by "shattering" the soil to create multiple fissures in the hardpan layer.

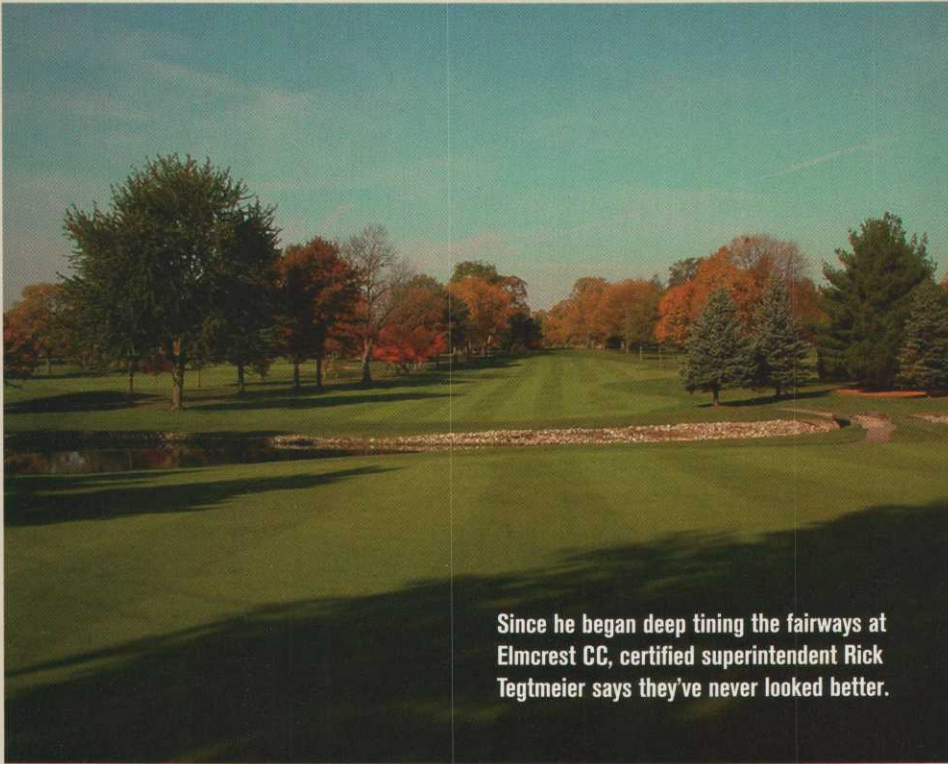
The Goal

Certified superintendent Rick Tegtmeier wanted to improve the health and look of the fairways at Elmcrest CC so the turf could better combat stress and pests.

The Solution

Tegtmeier decided to deep tine the fairways after he and his staff had success deep tining the greens. The fairways now have much better drainage and deep, healthy roots.





Since he began deep tining the fairways at Elmcrest CC, certified superintendent Rick Tegtmeier says they've never looked better.

through a parallelogram heaving action in which each tine is forced backward underground, shattering compaction at depths ranging from 6 inches to 24 inches and at speeds up to 2.7 mph," the company states.

The machine can be easily adjusted for increased heave and shattering or simply straight in and out movement of tines for minimal surface disturbance, the company adds.

When they first started deep tining the greens, Tegtmeier and his crew were using half-inch solid tines at about 10 inches deep.

"I told the guys, 'Let's go to about 8 inches on fairways so we don't hit anything,'" Tegtmeier says. "The first year [we used the Verti-Drain on fairways], we saw some big improvements. The course had much better drainage, and the localized dry spot went away. I have a 16-inch soil probe, and I was seeing roots down about 14 inches to 16 inches."

The deeper roots equate to healthier turf, which can better combat drought, heavy traffic and attacks from turf diseases and insects. "We have some of the best fairways around," Tegtmeier contends.

Tegtmeier recalls the reaction he received from members the first time he used the Verti-Drain on fairways.

"We were aerifying the fairways, and there were no cores," he says. "Our members were asking, 'When are you going to start aerifying the fairways?' I said, 'We're about halfway done.' The members were ecstatic because there were no cores."

Tegtmeier and his crew were previously coring fairways twice a year. Since they began deep tining, they're only coring once a year.

Tegtmeier credits his former boss, Bill Byers, director of golf for the Des Moines (Iowa) Golf & CC, with turning him on to the Verti-Drain. Tegtmeier worked under Byers for seven years as the superintendent for one of the club's two 18-hole courses.

But there's a bit of ingenuity in Tegtmeier's approach to deep tining the fairways, which can be classified under the all-important "cultural practices" category. In fact, Tegtmeier recently made a substantial decision that will change his agronomic approach.

Previously, Tegtmeier and his crew were deep tining in the spring and coring in the fall. It made more sense to deep tine in the spring because coring can become messy and muddy during April showers.

"When you core in the spring, you bring
Continued on page 34

The deeper roots equate to healthier turf, which can better combat drought, heavy traffic and attacks from turf diseases and insects.

**Read another
Real-Life Solutions
on page 50**

Real Life Solutions: Deep Tines

Continued from page 33

a lot of dirt up," Tegtmeier says. "You go through a lot of reels (on mowers), which have to be grinded again. It's a hassle for the mechanic. That's why I was coring in the fall."

That said, Tegtmeier cored the course's fairways for the last time this fall. In the fall of 2003, he'll switch to deep tining.

He has decided to go back to coring in the spring — muddy mess and all — because coring in the fall means possibly fetching *Poa annua* seeds that could germinate. Tegtmeier would rather deal with temporary messy fairways than dreaded annual bluegrass. "I don't want to bring up any *Poa* seeds," he laments.

Besides, coring in the spring has its advantages. The soil microbes from the cores help decompose the thatch buildup in the Penncross bentgrass

throughout the spring and summer, Tegtmeier notes.

"Penncross is a thatch producer," he says. "Getting those soil microbes up helps."

The Verti-Drain requires only one worker at a time for operation, but that doesn't mean the machine helps cut down on aerification labor. Tegtmeier employs one worker in the morning and one in the afternoon to deep tine the fairways.

"I can core all the fairways in two days with eight to 10 people," Tegtmeier says. "But I use two people when deep tining, and it takes about a week and a half."

Yeah, it's a big job and it's tough on the Verti-Drain and the tractor that pulls it, Tegtmeier admits.

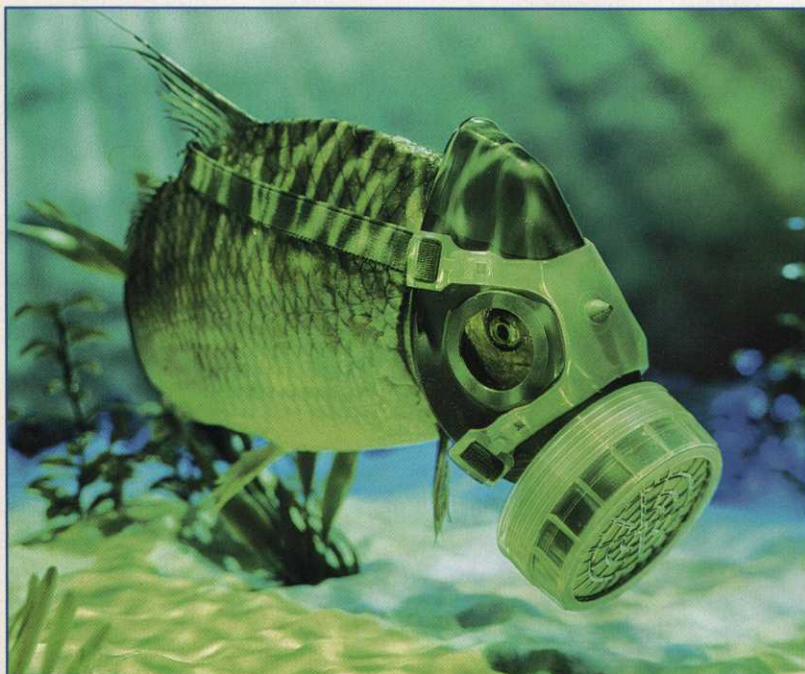
"We've bent some tines, and there's been a lot of wear and tear on the machine," Tegtmeier says. "But the

benefits outweigh the wear and tear."

Tegtmeier is not the only superintendent deep tining his course's fairways. Last spring, fellow Iowa superintendent, Ken Ellenson, superintendent of Amana Colonies GC, contracted a business to do the job. "We have heavy-duty clay in our fairways, and I wanted to see if it would help," he says.

Ellenson says the contractor used the Soil Reliever aerator, manufactured by Southern Green. Previously, Ellenson only aerified the course's fairways once a year by coring them in the fall. But he plans to deep tine them again next spring along with coring in the fall — and deep tine in the springs thereafter.

"We had a lot less problems with turf stress this year than we've had in the past," Ellenson says. "[Deep tining] helped a lot." ■



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CIRCLE NO. 119



The Year in Design

More distance off the tee, another Augusta facelift, some good books and enough work to keep most architects busy

By **Geoff Shackelford**
CONTRIBUTING EDITOR

While golf's growth can be described as stagnant (at best), one area of the sport is showing signs of steady increase: driving distance.

Driving distances by Tour players and even 18-handicappers has been on the rise for years. The USGA first denied there was any significant increase, but then admitted it and said longer driving distances were not hurting the game because new equipment made it more fun for most golfers. Yet, the number of players dropped and remained stagnant in the

late 1990s during the height of a hot economy, Tiger's rise and new equipment.

Architecturally, courses are accommodating this new area of "growth" to keep their layouts up to date (hypothetically) for their dwindling customer bases. Even though this became more obvious in 2002, no one in golf seems ready to speak up about it.

So another 365 days has gone by where technology has slowly eroded the traditions of the game and sent courses to the drawing board to address something the USGA should (but refuses) to tackle. Meanwhile the ratio of full-length courses compared to much-needed alternate facilities (short, executive and par-three courses) remains around 14 to 1, meaning the beginners who want to take up the game do not have any place to go.

Does 2003 show any signs of reversing the no-growth trend? Another "20/20" grow-the-game summit is planned, though it usually ends

MIKE KLEMM

Driving distances by Tour players and hackers is on the increase.

up becoming a forum for the PGA Tour Commissioner to preach growth in the number of golf viewers, not players, which does little for the golf industry.

Also planned is the annual gathering of golf's titans for another First Tee summit. But at the most recent gathering, instead of talking about training programs for kids and alternate facilities, the session turned into a scuttlebutt session over Augusta chairman Hootie Johnson's poor handling of the Martha Burk-women-members-at-Augusta situation.

Speaking of which ...

Another facelift

The famed course underwent more remodeling, unintentionally reinforcing to thousands of golfers that their home courses are also in need of more updating. The old Augusta National effect had an impact on turf coloring, striping and water beautification. The 21st century Augusta effect is a simple message: Change your course to adjust to the game.

It's not the club's fault it has more money than it knows what to do with.

This year the club rebuilt the fifth hole, and though most won't notice the change and many players will find it easier (swing away, it's 295 yards to reach the fairway bunkers), the club's tree planting program figures to have the worst impact. As with work in recent years, Augusta National continues to use young pines to tighten landing areas.

While most of America's superintendents, committee chairman and architects are guiding much-needed tree-removal programs to enhance agronomics and playability, this new Augusta effect may cause a setback. While many golfers continue to discuss and better understand the tree issue (thanks to a high-profile article in *Golf Digest* this summer), the inevitable glowing remarks by the CBS announcing crew about a new "premium on accuracy" figures to put trees back on many

golfers' radar screens.

This also figures to be a defining year for Hootie Johnson's and Tom Fazio's changes to Augusta National. Heavy rains made it difficult to judge the alterations during Tiger Woods' 2002 Masters win, but many felt that if the conditions had been the usual Masters fast and firm, the course would have turned into a hold-on-for-dear-life par fest.

Either way, the drama seems to have left Augusta National's back nine. Whether there's much willingness to fine-tune the changes to restore the magic remains to be seen.

Meanwhile, in Augusta National's backyard sits one of the more ironic companions in modern architecture. Unveiled this spring, Brian Silva's renovation of Augusta CC stands out as a shining example of creativity, ingenuity and respect for classic architecture.



Once a 36-hole facility with ties to Donald Ross and Seth Raynor, Silva recaptured the style of old Ross greens and strategy in creating a "modern Ross." Beautifully grown in by certified superintendent Greg Burleson, the course survived a dry summer. Silva's work serves as a shining example of what a little admiration for the old architects can do to restore prestige and fun to an old club course.

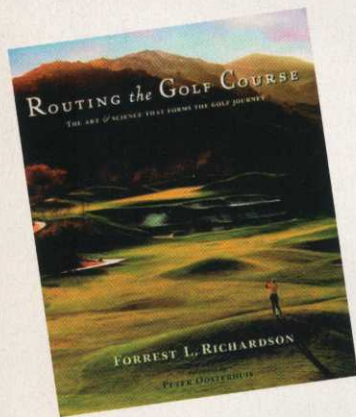
Will their neighbors take notice? Don't count on it.

August National sends a new message to golfers in the 21st century — demand changes to your courses to adjust to the game.

MIKE KLEMM

Continued on page 38

The Year In Design



Routing the Golf by Forrest Richardson tackles the subject of course sequencing and the many ways architects go about crafting their routings.

Continued from page 37

Good reads

The renaissance in golf architecture literature hit full stride in 2002, with several standout books on the subject that seem to attract a devoted following. Paul Daley and David Scaletti's *The Sandbelt: Melbourne's Golfing Heaven* is a must for any fan of native golf courses. Scaletti's photographs are the most stunning golf landscapes taken in modern times. Remarkably crisp and always capturing designs in their most flattering light, we finally get to see the wondrous bunkers of Australia in their full glory.

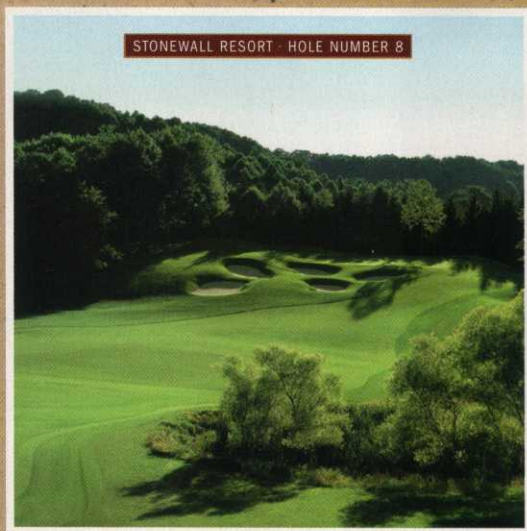
For the superintendent trying to convince his golfers that rugged beauty can give a golf course life, *The Sandbelt* sums it up with Scaletti's photos and Daley's insightful text. Daley is also producing a highly anticipated volume for spring 2003, entitled *Golf Architecture: A Worldwide Perspective*. It features contributions from dozens of architects worldwide, all with slightly different outlooks and covering many practical subjects.

On the technical side, two architecture-in-

spired textbooks are now available from publisher John Wiley and Sons, which figures to feature many golf and turf titles in the coming years after recently buying noted publisher Ann Arbor Press. *Routing the Golf* by Arizona-based architect Forrest Richardson tackles a difficult but vital subject — the sequencing of a course and the many ways architects go about crafting their routings. Plenty of practical drawings and insights from Richardson make this a must for superintendents, architects and committeemen who need help to justify a rerouting or other changes to their design infrastructures.

Less practical but more entertaining is Robert Muir Graves and Geoffrey Cornish's *Classic Golf Hole Design: Using the Greatest Holes as Inspiration For Modern Courses*. The book does just as its subtitle proclaims, providing something new and fun every time you pick it up. The vast collection of sketches and photographs not only adds interest, but gives the book more character by relying on the variety of architectural drawing styles. The

Continued on page 40



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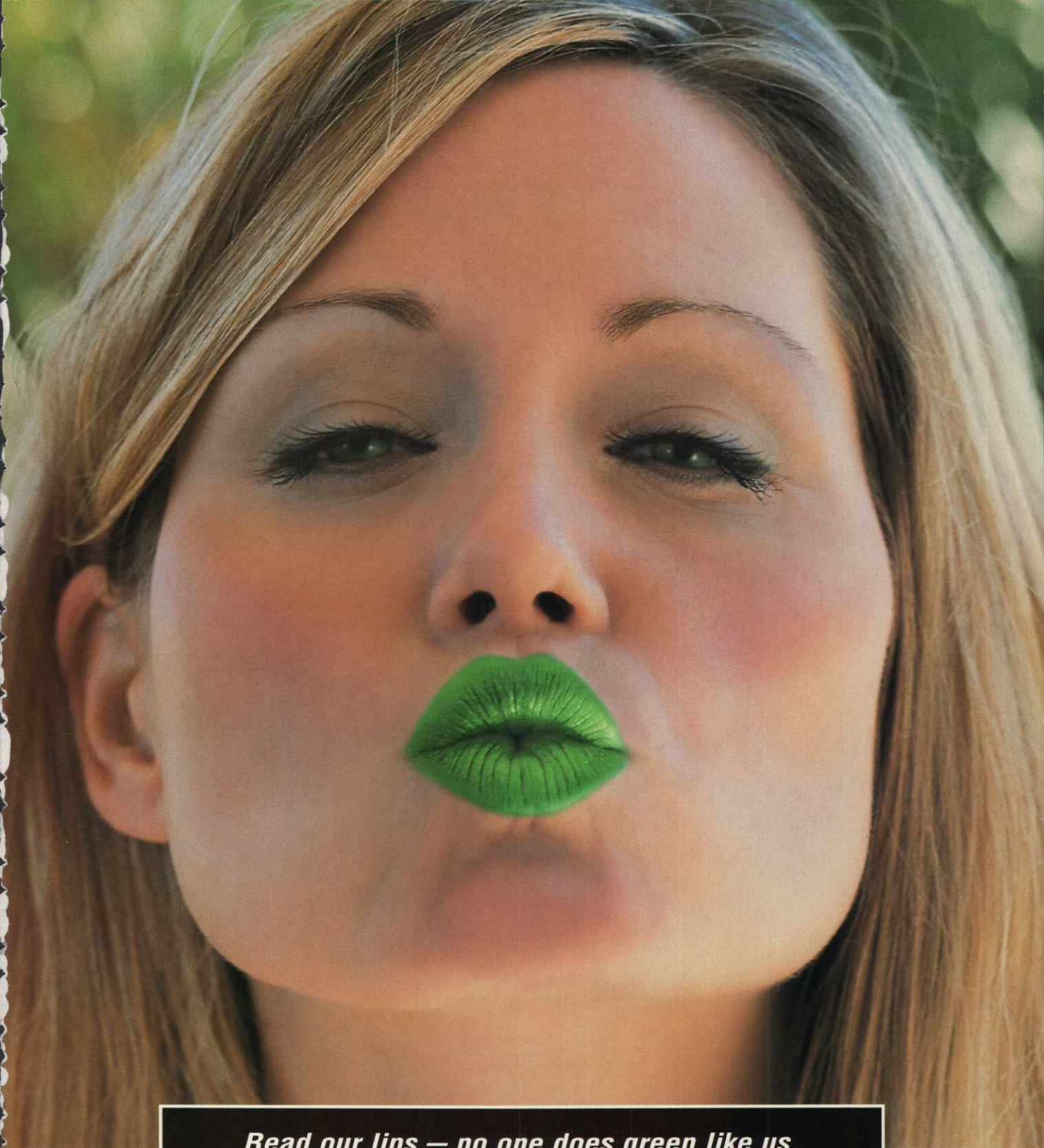
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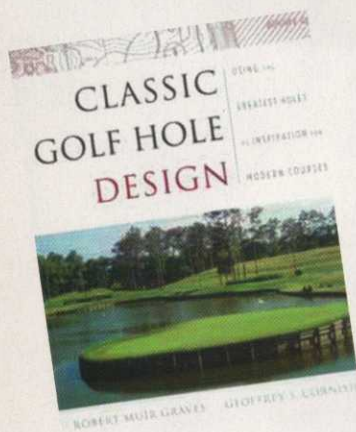
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CIRCLE NO. 120

The Year In Design



Robert Muir Graves and Geoffrey Cornish offer *Classic Golf Hole Design: Using the Greatest Holes as Inspiration For Modern Courses*.

Continued from page 38

book also serves an enjoyable read for those hoping to better understand what separates the best holes from the merely good.

Finally, Cornish has produced yet another vital book for architecture libraries with *Eighteen Stakes on a Sunday Afternoon*. This may be his riskiest effort but it has resulted in the most entertaining and original of his works (*The Architects of Golf* with Ron Whitten still stands as a classic). *Eighteen Stakes* (Grant Books, Limited Edition) chronicles the history of North American architecture by piecing together book and magazine excerpts from the earliest golf played in America, up to today's version of the sport. Cornish sets up the excerpts he has pulled from his vast collection (I can't imagine how many files he must have) and lets the various figures from each era do the talking. It's a graceful read through the annals of golf architecture and a must read for students of design and even for those just hoping to get a better feel for the big picture.

Unfortunately, the limited-edition print-

ing means there may not be many left, so hopefully a soft-cover edition will keep this book in circulation for generations to come.

Downturn, upturn?

While new course construction grinds to a halt and the notion of "upscale daily fee" is soon to be considered an obnoxious 1990s idiom, architects are still finding enough work at existing courses to get through the rough times. They're buoyed by the combination of clubs still having too much money to spend contrasted by struggling courses hoping to attract new members by upgrading their courses.

The best news is that many of the restoration, redesign and renovation projects reported by architects are focusing on improved playing characteristics, not vanity-driven aesthetics or new penal bunkering schemes to offset dramatic changes in driving distances.

For now, anyway. ■

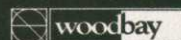
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