Next week, all eyes will rightly be focused on the U.S. Open at historic Merion Golf Club. Johnny Miller, as usual, will be the television broadcaster that viewers largely rely on for unique flashes of observation and insight.

But the 2013 U.S. Open also marks the 40th anniversary of Miller’s magical final round 63 that won the U.S. Open at Oakmont in 1973, a round that many experts still consider the greatest ever played in the history of championship golf.

A number of mythologies — some generated by Miller himself — persist about the 1973 U.S. Open, all of which should be re-examined and, wherever possible, clarified. There are also several features of Miller’s extraordinary athletic achievement that haven’t been sufficiently appreciated.

The observations that follow derive from the extensive research we conducted for our 2010 book, “Chasing Greatness: Johnny Miller, Arnold Palmer, and the Miracle at Oakmont” (Penguin, Inc., 2010). Our goal here is to sharpen several analytic points and present them in a way that will encourage further inquiry and deepen the historical record.

Our research was based in a wide range of historical archives and newspapers; personal and phone interviews with former players, caddies, observers, and USGA officials; extensive video coverage (some of which is not widely available); and our considerable knowledge of Oakmont’s history and of the course itself (although neither of us is a member of Oakmont Country Club).
1. In the early 1970s, Oakmont was still generally regarded as the toughest test in American championship golf. Prior to 1973, the lowest round shot at an Oakmont-hosted U.S. Open (there had been four previous: in 1927, 1935, 1953, and 1962) was Ben Hogan’s opening round 67 in 1953. That five-under-par score (the first hole then played as a par 5) was later matched by Dean Beman in the final round of the 1962 U.S. Open. Jack Nicklaus’s lowest round in 1962, when he defeated Arnold Palmer in their famous Father’s Day playoff, was 69; Palmer’s lowest round that same year was 68 (tied for the single lowest round in all of his five U.S. Opens at Oakmont).

This is why Gary Player’s 67 in the opening round of the 1973 U.S. Open was so spectacular. Not only was the famed South African recovering from bladder and knee surgery that spring, but his round was the only score under 70 that day. Statistically, Player’s 67 on Day One stood out as an outlier in the overall scoring distribution (see Figure 1 below).

Therefore, at the start of the 1973 championship there was absolutely no reason to expect several U.S. Open scoring records to soon fall. In fact, the average score on Day One in 1973 was a half-stroke higher than in 1962, when Oakmont played notoriously hard and fast.

This is also why the exceptionally low scores shot on Day Two of the 1973 championship — more scores in the 60s than during any previous U.S. Open, and a new course and U.S. Open scoring record of 65 shot by the club pro from Long Island, Gene Borek — shocked the USGA and Oakmont’s members.

2. The oft-rumored but never fully confirmed reports of a pre-dawn sprinkler malfunction that soaked Oakmont’s wickedly fast greens — denied by many, even to this day — occurred prior to Friday’s second round, not Sunday’s final round. Our candid, in-person
interviews with two key USGA officials who are still alive and were on-site at Oakmont in 1973 confirmed the sprinkler malfunction, a point that we had already discovered prior to those interviews by way of careful re-reading of newspaper accounts at the time.

But the sprinkler malfunction occurred in the early hours of Friday morning — not Wednesday, Thursday, Saturday or Sunday morning, contrary to what many writers, players, and even the two USGA officials we interviewed still claimed. Scoring on Friday was notably different from the other three days — the only day in which differences in day-to-day scoring patterns reached statistical significance. Gene Borek’s Oakmont- and U.S. Open-record score of 65 on Friday is almost inexplicable otherwise.

Why is it important to determine definitively when the sprinkler malfunction actually occurred? Mainly so that no one continues to claim that the sprinkler malfunction softened and slowed the greens on Sunday morning, thus opening the door for Miller’s final round of 63. The sprinkler malfunction did indeed appear to have a direct impact on scoring by making the greens unusually soft and slow that day — but in Friday’s second round, not in Sunday’s final round.

In short, Miller’s 63 had nothing to do with a sprinkler malfunction.

3. Contrary to a widespread but erroneous impression — as attested by the reports of the U.S. Weather Service and major newspapers in western Pennsylvania — the only considerable rainfall during the 1973 U.S. Open at Oakmont Country Club occurred in the early hours of Saturday morning, prior to the third round. As a result, play was delayed an hour or so. The ferocious storm that some writers have attributed to Saturday night — the night before Miller shot 63 — actually occurred on Sunday night, after play was over.

And, contrary to another urban legend, a “lift and place” exception was never invoked at any time during the 1973 U.S. Open.
4. Despite the apparent impact on scoring of the sprinkler malfunction on Friday, no simple, predictable statistical relationship was evident throughout the rest of the week between wet conditions and scoring. For example, Oakmont played softer and slower early on Saturday due to the rains that fell on Saturday morning, but the players’ scores on Saturday were the highest of the entire championship (although the difference did not reach statistical significance; the only significant difference was in Friday’s lower scoring, as discussed above).

5. Johnny Miller shot 63 and Lanny Wadkins shot 65 in the final round at Oakmont in 1973, but very few others shot low scores that day. In fact, Nicklaus and Ralph Johnston (both shot 68) were the only other two players to break 70 on Sunday.

Beyond that, scoring in Sunday’s final round was not statistically different from the scores that these same players (i.e., the qualifiers) had posted on Thursday. Therefore, contrary to what is often claimed, Oakmont did not play unusually easy on Sunday, when Miller shot 63 and Wadkins shot 65. Two players renowned throughout their careers for the ability to “go low” truly played lights out on Sunday. (And until Wadkins’s right foot slipped on his tee shot at # 18, leading to a bogey, he too believed that he had a realistic chance to win the championship by shooting 63 on Sunday.)

6. Miller’s 63 was 8-under Oakmont’s par of 71, and included nine birdies and one bogey. He shot 4-under par on both nines: 32-31. He hit 16 of 18 fairways (see discussion below) and all 18 greens. He had 15 putts on the front nine (including a three-putt bogey on the par-3 eighth hole and a two-putt birdie on the par-5 ninth hole), and 14 putts on the back nine, for a total of 29 putts. Miller’s 63 — though matched several times in the years since — remains the lowest final round score ever shot in a U.S. Open, and the lowest final round to win any major championship.
7. Miller’s 63 on Sunday, following his Saturday score of 76, sharply distinguishes his come-from-behind win in 1973 from any other victory in U.S. Open history.

Contrary to legend, consistency of performance has not always accompanied U.S. Open winners. In fact, half the time before 1973, the victors were fairly erratic rather than consistent in their last two rounds of play, shooting four or more strokes higher or lower in their fourth compared to their third rounds. For example, when Bobby Jones won the U.S. Open at Interlachen in 1930 (during his Grand Slam season), he shot 68 in his third round and 75 in his fourth round. And because he won, history does not remember Jones as having “choked.”

Alternatively, U.S. Open winners have often shot considerably lower in their fourth than their third rounds. Predictably, these victors came from well behind to win: none more famed than Arnold Palmer in 1960, who overcame a seven-stroke deficit at Cherry Hills by shooting a record-setting 65 following a 72 in round three.

It’s the scale of Miller’s 13-shot improvement between rounds three and four that sets his victory apart from every other champion. This achievement singles him out decisively: he’s the only statistical outlier among all the victors in U.S. Open history (see Figure 2 below). In our judgment, Miller’s 13-shot improvement stands out as a heroic triumph over previous failure that bears comparison with any comeback in all of sport history.

8. Continuing this discussion from another angle: Miller shot 76 on Saturday, dropping six shots behind the leaders going into Sunday’s final round. Miller claims that his 76 resulted from leaving his yardage book in his pants pocket from the day before. He only realized this on the first tee and sent his wife home from the course to retrieve the yardage book. She arrived in time to hand it to him on the 10th tee. According to Miller,
having the yardage book saved the day: he shot 5-over on the front nine (41) but shot par (35) on the back nine, with the yardage book.¹

That is a cute, seemingly logical story. The only problem is that Miller’s actual scores on Saturday were 38, or 2-over par, on the front nine, and 38, or 3-over par, on the back nine. Miller actually shot an additional stroke over par on the back nine with the yardage book. Given how much emphasis Miller, even in recent years, places on the absence of precise yardage measurements to explain his third-round 76, he probably shouldn’t have scored worse on the back nine (3-over par versus 2-over par) with the yardage information in hand than without it.

Some additional detail about Miller’s 76 on Saturday: after the first six holes on the front nine, Miller was indeed 5-over par. He then saved par by sinking a 20-foot putt on the seventh hole. But his front nine fortunes changed drastically on holes No. 8 and 9. On the long, par-3 eighth hole, he hit a perfect long iron and sank the short birdie putt. Then, on the par-5 ninth hole, he hit another perfect, high 2-iron onto the green and holed the eagle putt. Thus, he finished the front nine 2-over par, not 5-over par. And his long irons were stiff on both holes No. 8 and 9 — without the yardage book in his possession.

9. How, from a psychological perspective, could Miller go from 38-38 on Saturday to 32-31 on Sunday? In his role as NBC announcer at the 2007 U.S. Open at Oakmont, Miller — for the first time on the record, as best we can tell, in a special pre-tournament feature interview — offered his “voices” explanation:

Well, I was on the practice tee and I had about five balls to go and I just had this clear thought or voice say to me, “Open your stance way up. Way open.” And I never had that before, and never had it since. I was thinking, “What was that?” It

was like, I don’t want to do that, and it just said, “Open your stance way up,” again. And I thought, “Well, I’ll try it.” I’m always open to trying things.

Obviously, we can’t verify whether or not Miller heard voices, on the practice tee with five balls remaining, or whenever or wherever. Nor can we dispute that Miller opened his stance substantially on the practice tee and thereby made a swing adjustment that enabled him to hit all 18 greens at Oakmont (truly a miracle) and shoot 63 on Sunday.

That said, we would call attention to a less dramatic, non-supernatural explanation of his swing adjustment that Miller himself offered in the press conference immediately following his round on June 17, 1973:

I remembered earlier in the year, when in eight weeks I was 70-under par and I shot a 63 in the Hope Classic. I was playing with an open stance. I had let my stance slip closed, allowed my left foot to slide around too far, so I opened it up on the practice tee.\(^2\)

On the surface, we find the logic and content of Miller’s explanation of his swing adjustment in 1973 more persuasive and, from an evidentiary standpoint, more fathomable than the supernatural explanation he offered in 2007.

10. Just how well did Miller play from tee to green to shoot 63 at Oakmont? Some confusion remains about this, particularly if one resorts to statistical “averages” to conclude how closely he hit the ball to the pin, or if one includes the par 5s (all three of which Miller birdied) in calculating the “averages.”

Here’s how we prefer to present the available statistics on Miller’s round, drawing from our extensive documentary and video evidence. We think it unwise to portray the round

in terms of statistical “averages,” and we also think that one should separate out the par 5s from the par 4s and 3s in presenting the data.

**Fairways** hit: Miller actually missed two fairways, not one, as is usually claimed. He missed the par-5 12th by a few yards to the left; from deep rough, he hit a 7-iron to escape, followed by a superb 4-iron to the green. Miller also slightly missed the fairway on the par-4 14th, to the right; he was in only mild (almost indistinguishable as) rough and hit an outstanding short iron to the green.

**Greens** hit: all 18, although he was barely on the greens on holes No. 10 and 16. It’s an exaggeration to claim that every one of Miller’s irons was flawless on Sunday; they weren’t, and certainly not on these two holes.

Here’s our count of greens hit, and distances from each flagstick. We could compute “averages” from these data, but, as indicated earlier, we prefer not to do so because we think it confuses understanding.

A) **Six feet or less from the flagstick**: holes No. 1, 2, 4 (par 5, from the greenside bunker), 7, 9 (par 5, on the green in two shots) and 13.

Thus, Miller was within 6 feet of the flagstick on six holes, but two were par 5s.

He made five of these six birdie putts (he missed a 6-footer on hole No. 7), but made 5-footers on holes No. 1 and 13; the other three birdies, on holes No. 2, 4 and 9, were from within 2 feet.

B) **15 feet or less, but more than 6 feet from the flagstick**: holes No. 11, 12 (par 5, on his third shot), 14, 15 and 17.
Thus, Miller was between 6 and 15 feet from the flagstick on five holes — not quite stiff, but still remarkably accurate at Oakmont (especially because the greens had hardened significantly by Sunday as compared to Saturday).

Miller made three of his five putts between 6 and 15 feet, on holes No. 11, 12 and 15. That makes for a very good percentage at Oakmont, even though Miller believes that he didn’t putt particularly well on Sunday (especially compared to how exceptionally he putted on Thursday and Friday — “[the] greatest putting I’ve ever seen [at Oakmont],” according to Arnold Palmer, his playing partner on those two days).

Overall, Miller was putting for birdie within 15 feet on 11 holes (three of which were par 5s), and he made eight of these 11 birdie putts.

C) 20-30 feet: holes No. 3, 5, 6, 8 and 18. Miller made a 25-footer for birdie on the third hole, but three-putted from 30 feet on the eighth hole. Over time, Miller and others have tended to shorten the length of the putt he left himself on hole No. 8, but from the sources at the time — there’s no video footage — we believe that 30 feet is the best estimate.

Clearly, these five iron shots were not particularly precise, although his approach to # 18 was dead on and looked like it would be “stiff” before rolling back down the hump in front of the flagstick and stopping approximately 22 feet away (Miller’s putt for 62 lipped out).

D) 40-75 feet: holes No. 10 and 16. Miller’s iron shot on the 10th hole came to rest around 45 feet from the flagstick, on the left front portion of the green. Miller hit an excellent lag putt that broke around 7 feet, leaving him an easy, uphill 2-footer for par.

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Miller’s long iron on hole No. 16 left him a difficult 70+-foot putt. It was his only significantly off line shot all day (perhaps intentionally so, given the far right flagstick), and with the ball in the air Miller showed real concern that it might end up in the left bunker. But he hit a fine putt over the green’s tricky center hump, leaving a relatively simple, flat, 4-footer for par.

11. Some commentators continue to believe that Miller felt no pressure in shooting his final round 63 because he finished several hours before the leaders. This is just not true. He was in the seventh-to-last twosome, teeing off at 1:47 p.m., so he was not a morning starter, an also-ran. And at six shots behind (3-under) and in a tie for 13th place, Miller wasn’t so far back that it would be unprecedented for him to win; recall that Palmer won the U.S. Open at Cherry Hills from seven shots behind in 1960.

Furthermore, after his four consecutive birdies to start the round, Miller immediately jumped into the mix well before the four leaders (Palmer, John Schlee, Julius Boros and Jerry Heard) teed off. He knew precisely where he stood on the leaderboard as he walked to the fifth tee: -1 for the championship, only two shots behind the leaders as they prepared to play the toughest opening hole in all of American championship golf. Miller (quite reasonably) assumed that it was the leaders who might begin to tremble on the first tee when they learned what he had already done.

Miller also claims that he felt great pressure from that point onward. The pressure grew after he hit good approach shots but left putts short on holes No. 5 and 6, and especially after he botched a 6-foot birdie attempt on hole No. 7. That poor putt may have been on his mind on hole No. 8, where he left a relatively flat 30-footer five feet short, and then badly missed the follow-up.

While on the ninth tee, Miller was back to even par for the championship. He didn’t know exactly where he stood at this point (the leaders were still on the opening holes), but despite the bogey on hole No. 8, he still felt very much in contention. Miller knew
that he was playing exceptionally well from tee to green — far better than in any of the first three rounds — and from the lack of crowd noise behind him, he was confident that none of the leaders was off to a similarly fast start. As he prepared to tee off on the par-5 ninth hole, which he had eagled the day before, Miller knew he could gain even more ground with a quick birdie or two, maybe even another eagle.

In short, we think it is flat-out wrong to claim, as many previous commentators have, that Miller saw his round as a casual stroll in the park on Sunday, or that he went low because he was totally carefree and didn’t feel any pressure to win. After Miller two-putted for a birdie on hole No. 9, by way of hitting the green with another beautiful 2-iron, he was only three shots behind the leaders, with nine holes to play. And he still hadn’t come close to missing a green.

12. Ultimately, Miller won at Oakmont because of his extraordinary play on holes No. 11 to 15. No one else in the field came close to matching him on these holes. In fact, no other leader played these holes in better than par; Miller played them at 4-under.

Following a safe par on the very difficult 10th hole, Miller birdied holes No. 11, 12, 13 and 15, with putts ranging from five to 14 feet. On hole No. 14, much to his dismay, his 12-foot downhill putt stopped an inch short of the hole, narrowly ruining a chance for five birdies in a row.

During that stretch, as Sunday morning’s leaders failed to mount a charge of any kind on the front nine, Miller passed by everyone. Julius Boros 3-putted on hole No. 9 to remain at -4, just as Miller took the lead for good at hole No. 15 with a bold 4-iron that rode a left-to-right breeze and stopped 10 feet to the right of the hole, leaving a slightly uphill birdie putt with minimal break. Interestingly, his birdies on holes No. 12, 13 and 15 all were all the result of superb 4-iron shots.
13. Miller was 8-under par in his final round of 63: 32-31, or 4-under on each side (in 1973 par was 71; the 9th hole was first declared a par 4 in the 2007 U.S. Open).

Miller was not the only one to shoot 32 on the front nine at Oakmont in 1973 (Wadkins did so too, also in the final round). But he remains the only player in the course’s illustrious championship golf history — Oakmont has hosted more combined USGA and PGA major championships than any other course, except for Augusta National — ever to shoot 31 on Oakmont’s back nine.

That back-nine 31 to win by one stroke deserves consideration as perhaps the greatest back nine ever played (the 12th chapter of “Chasing Greatness” is so titled) to win a major championship: no player before or since has matched that back nine score at Oakmont, either in a final round or any other round of a major championship played at Oakmont.


The sports media viewed the 1973 U.S. Open as Palmer’s chance for redemption following his heartbreaking loss to Nicklaus at Oakmont 11 years earlier. Palmer — refuting speculation that he had slowed down at age 43 — did so as well. After all, he had bested his rival Nicklaus to win the Bob Hope Desert Classic that February. The seven-time major championship winner had even stopped playing on tour for a full month prior to the U.S. Open in order to work on fine-tuning his game with his club pro father and concentrate solely on preparing to win at Oakmont. To the press and the fans, the 1973 U.S. Open centered around Arnold Palmer.

Palmer was supremely confident as he began the final round. An Oakmont career-best 68 in the third round had surged Palmer into a four-way tie for the lead. Playing alongside John Schlee — who also played quickly and with whom he got along well — Palmer was
positioned exactly where he wanted to be. He had Julius Boros — the man he feared most, Palmer told us — immediately behind him. He had Tom Weiskopf, the hottest player on tour with three victories and one second-place finish in his previous four starts, directly in front of him. With his top competitors in sight, Palmer felt that he could play the course strategically — the intelligent way to play Oakmont, he told us. He believed only a fool would try to go low at Oakmont, especially as the greens returned to normal speed on Sunday. Palmer thought that if he shot 1- or possibly 2-under for the day, he would surely win.

Everything went pretty much as planned until hole No. 12. Palmer was solid from tee to green, and after a birdie on # 9 and a beautiful chip to secure par on hole No. 10, he thought he was tied for the lead with Boros.

At hole No. 11 he hit a perfect short iron to 4 feet, then watched Boros and Heard mangle hole No. 10 on the parallel fairway. Palmer was in a great position to grab a 2-shot lead and, in his view, take the championship. To his great angst, however, he missed the 4-footer and had to settle for par.

Still, Palmer went to the 12th tee secure that, at -4 for the championship, he had at least a one-shot lead. He had no clue what Miller — now -5 for the championship and playing the 18th hole — had done.

Standing on the 12th tee, Palmer — who, because he knew Oakmont so well, had chosen to play this tournament without the glasses or contact lenses that corrected his diminishing vision — could not clearly make out the scoreboard behind the nearby 14th green. He thought he saw a red number next to Miller’s name, at the very bottom of the scoreboard, but asked Schlee for clarification. Schlee told him that Miller was, in fact, -5 for the championship, one ahead of Palmer.

Palmer was in genuine disbelief. Miller had played poorly from tee to green when they were paired together in the first two rounds. Only stellar putting had kept Miller in
contention. It simply never occurred to Palmer that Miller could become a factor in the final round at Oakmont. (Tom Weiskopf — who finished third, two shots back — facetiously remarked Sunday evening that “I didn’t even know Miller had made the cut”\(^4\))

Palmer did his best to fight through the shock, but he couldn’t. Even 36 years later, when we interviewed him in Latrobe, Pa., the defeat and bewilderment that he felt at the time projected through his words and pained facial expressions. Only his collapse on the back nine at The Olympic Club in 1966, he told us, haunted him more deeply than his collapse at Oakmont in 1973.

The end for Palmer came quickly and decisively. After driving into deep rough, he scrambled for a bogey on hole No. 12. A poor iron on hole No. 13 led to a 3-putt bogey. He then made a mess of hole No. 14, and any chance to win died out. The only silver lining came on the 18\(^{th}\) green as he holed a long, snaking putt for a birdie, which pushed him into a tie for fourth place with Nicklaus and Lee Trevino, behind Miller, Schlee and Weiskopf.

Figure 1

Boxplot 1. Distribution of Scores for Each Round for Qualifiers
1973 US Open

Explanation of Figure 1

The figure (a boxplot) presents the distributions of scores for Rounds 1-4, respectively, for those players who qualified for Rounds 3 and 4.

A boxplot is a visual display of a distribution. The top horizontal line in the boxplot denotes the 75th-percentile of the distribution of scores for each respective round; the bottom horizontal line the 25th-percentile; and the horizontal line inside the box denotes the median Round score.

The stars represent scores that are far enough from the lowest-quartile or from the upper-quartile to be identified as a statistically unusual observation, or “outlier.”
In this figure, we display a boxplot of the distribution of the difference in scores between Round 3 and Round 4 for the winners of each U.S Open between 1898 and 1973.