When I first encountered Rubik’s Cube, the puzzle was all but dead. I was born in 1990, the year the Berlin Wall was officially demolished. The eighties were on the way out. This meant the end of Gorbachev, Magnum, P.I., and big hair. I would hear about the decade as if it were ancient history.

Rubik’s Cube, of course, is an icon of the 1980s. That’s when it was first released to the general public. The puzzle debuted internationally in 1980. Before long, it was everywhere. Literally. By 1982, more than one hundred million Rubik’s Cubes had been sold, making it not only the most successful puzzle, but one of the most successful toys, of all time.

In the early 1980s, National Geographic sent a correspondent deep into the Amazon. She returned with an image of two boys playing in front of a thatched hut. The caption grumbled about the invasion of “machine-age products” into the land occupied by the Wayana, a people that had spent centuries isolated from Western society.

The two boys, of course, were playing with Rubik’s Cube. Clad in red loincloths, the boys wore expressions of utter befuddlement. Their eyes were fixed on the puzzle. How it got there, and whether or not the kids ever figured it out, was never explained. But their bewildered looks would have been familiar to millions of people around the world.

What had begun in Communist Hungary was now a worldwide phenomenon. Indeed, it was almost entirely divorced from its origins. President Ronald Reagan once held up the invention of Rubik’s Cube as a sign of America’s entrepreneurial greatness. Evidently, it was not apparent to Reagan that Rubik’s Cube had come from behind the Iron Curtain.

The peak in retrospect was likely the first Rubik’s Cube World Championship held in Hungary in 1982 and presided over by the great Cube inventor himself. The competition was organized by Brian Cartmell, a legendary British PR executive. A former journalist, Cartmell, who passed away some years ago, once staged the UK Monopoly Championship inside actual public utilities, including a nuclear power plant. “My father had a reputation for trying to make national news out of, you know, very thin amounts of material,” his son, Gary, told me. The World Championship attracted headlines all over the world.

Of course, like any product that goes viral—and Rubik’s Cube might be said to be one of the first, at least in the modern sense, appearing in all manner of mass media, and cutting across national borders—the puzzle had an expiration date.

Within a few years, the market was flooded with copycats, there was a distracting and costly infringement suit, and people simply got tired of not being able to solve it. You can’t fault them. In those pre-Internet days, there were only a couple of ways to untangle Rubik’s Cube: figure it out on your own, which virtually no one did; take it apart and put it back together; peel off the
stickers; or purchase a strategy book. These sold millions of copies, but evidently served little use, or at least failed to support the patience of their readers. Once the puzzle had saturated the market, the backlash began.

In Palo Alto, California, a pair of brothers patented “The Cube Smasher.” According to the instructional booklet attached to the yellow mallet, the goal was to club, whale, hit, torture, trap, smash, punch, swat, flatten, and possibly flog Rubik’s Cube into forty-three quintillion pieces.

By the time I discovered the puzzle, Rubik’s Cube was, to quote one executive, “in the closeout bin.” What had once been the most famous toy in the world now found itself in the same position as He-Man and Reebok Pumps: as a relic of a bygone era. Rubik, despite his socialist beginnings, had become very rich, but his successive efforts to recapture the magic of his Cube came up short. There was Rubik’s Magic—a mechanical puzzle whose goal was to untangle a set of rings printed on plastic squares attached by pieces of string—not to mention Rubik’s Snake, a twisty set of triangular prisms. Neither of these had anything like the success of Rubik’s Cube; Rubik made the headlines from time to time, including in the late 1980s, when two young men burgled his villa in Budapest. The government daily reported that the burglars may have been searching for new puzzle ideas.

In the late 1990s, when I discovered the Cube for myself, I didn’t have a clue about its backstory. In fact, I had no idea it was even called Rubik’s Cube. I saw a small cube hanging on a key chain in the gift shop of the California Science Center, in Los Angeles, where I grew up. In retrospect, it probably wasn’t a licensed product. One side was metallic purple.

When I took it home, I immediately discovered its purpose. Or, rather, I happened upon it by accident. Like any kid—I was eight or nine years old, a pudgy collector of Pokémon cards, reader of comic books, proud owner of a squadron of GI Joes—I wanted to explore the puzzle’s possibilities. So I turned it, first slowly, and then faster, as the sides got more and more mixed up.

I was mesmerized by the patterns that appeared and disappeared as I turned the Cube. Years later, when I learned more about Professor Ernő Rubik, the puzzle’s inventor, I would read that he was similarly delighted. In fact, it was what first captivated his attention. He never set out to make a puzzle, but an impossible object, one you could turn and turn and turn without ever changing its shape.

Of course, as anyone who has ever played with Rubik’s Cube knows, the challenge comes next. In an unpublished manuscript, Rubik once compared the experience of trying to untangle his puzzle to attempting to return home after a long walk. “It was at that moment,” he wrote, “that I came face-to-face with the Big Challenge: What is the way home?”

Try as I might, I couldn’t find the way home either. It seemed like it should have been easy—after all, it had started out solved. I should be able to return there, I thought. Only, every twist seemed to make the puzzle more messed up.
When I was fourteen years old, in the summer of 2005, I attended the Center for Talented Youth, a program at college campuses around the country run by Johns Hopkins University. CTY is basically voluntary summer school: you attend class from morning until evening, learning the equivalent of a college semester in three weeks. The course I signed up for was called Crafting the Essay.

One of the first lessons concerned icebergs. In *Death in the Afternoon*, Ernest Hemingway wrote that, if a writer knew something and the reader knew it, too, it functioned like the mass of an iceberg, concealed beneath the surface. You could omit whatever that thing was and the story would not only remain intact, but be stronger for it. What stayed under the water supported what you could see, giving it a certain dignity.

This lesson was put into practice in meeting my fellow students. They hailed from all over the world—Ireland, the Philippines, Alaska. It was dangerous to assume anything about them. I had never been around so many precocious people before. CTY selects students according to aptitude: as reported by the *New Yorker*, which wrote a piece about the camp, “The center accepts only the top one percent of all students—those who score as well on the SAT in junior high as the average student does as a high school senior.”

On the surface, we all looked like we belonged at Nerd Camp, the epithet the *New Yorker* used to title the piece. We were, most of us, in the throes of puberty, the specter of acne hovering over our faces, our fashion sense defined by the number of pockets on our cargo shorts. But, like a lot of people who started out with goofy grins and even goofier ideas, who knew where we might end up? As I later learned, CTY’s list of alumni includes Facebook’s Mark Zuckerberg; Google’s Sergey Brin; and Stefani Joanne Angelina Germanotta, better known as Lady Gaga.

Take, for instance, Toby Mao. He had signed up for the same class as me, I later found out, because his mother wanted him to write better college essays. He played the cello—indeed, he would initially major in music in college, with the hope of playing professionally—but he also lifted weights in the basement of his high school with the janitor. We found this out when he read one of his first essays.

In detail, he laid out his after-school routine at a prestigious prep school in the San Francisco Bay Area. After introducing the janitor, he described how the two of them would pump iron, lifting weights after everyone else had gone home. Mao wasn’t bulky—he wore a blue Gap hoodie that was a few sizes too big—but he had a grip like steel. I found this out by accident, when I offered to shake his hand.

But his strength wasn’t the only thing his placid surface concealed. One day—in my memory, it was the first day of camp—he sat next to me. I didn’t know his name yet. I didn’t know anything about him. All I knew was that he seemed unusually preoccupied while our teacher, Cory, a recent MFA grad with long legs and honey-blond hair, was diagramming Hemingway’s iceberg theory on the whiteboard. At that moment, I heard a strange clicking noise that seemed to be coming from Mao, who had thrust his hands deep in the front pocket of his sweatshirt and was moving them rapidly up and down.
When the clicking became too much, Cory looked around, as if searching for a stray insect. Not seeing anything, she returned to the whiteboard. A few moments later, I glanced over and saw that Mao’s frantic motions had ceased. His hands were no longer hidden in his pocket. They held to the light a Rubik’s Cube. It wasn’t scrambled, like mine still was, buried deep in my closet, but completely solved, every side neatly aligned, a solid block of color.

I had never seen anyone solve Rubik’s Cube before. Evidently, it was no big deal to Mao. He put the puzzle back in his pocket and started twisting it again. It seemed beyond belief—could he not only solve Rubik’s Cube, but solve it without even looking at it? The teacher homed in on the sound and eventually took the Cube away before I could ask Toby how he had completed it.

Of course, the fastest way to render something popular is to make it illicit. Before long, everyone had a Rubik’s Cube. At lunchtime, we brought them out, struggling to align the pieces. Mao served as our guru, showing us the way.

The first lesson was obvious and yet hardly obvious at all. The center of each face, Mao explained, never changed. That is, it could only rotate, not change its relative position. This had to do with the puzzle’s construction, he said. Because of the axles hidden inside Rubik’s Cube, the centers were effectively fixed in place, relative to one another. At first, I had no idea what this really meant. What were the implications of the centers never changing? The rest of the puzzle seemed to do nothing but change, like the colors of a kaleidoscope.

Fortunately, Mao was a patient, if occasionally stern, teacher. He wandered among us like Socrates in the agora, showing us how we had erred, and correcting us on the path to the solution. The importance of the centers, he explained, was that each color belonged to a certain side. If you knew to which side each color belonged, you could develop a strategy. Simply look at the center, in other words, and you knew which color that face had to be.

This was a revelation. No longer was Rubik’s Cube just a mass of colors, a bog without a map. I could look at the white side, for instance, and know that every white sticker belonged there. The same went for yellow, and so on and so forth. What’s more, the relationship between the sides came into focus. If the centers were always fixed, then certain colors always belonged adjacent to one another, or opposite one another. White, for example, sat across from yellow. (At least in the most popular configuration of Rubik’s Cube—the one in which Cubes sold everywhere except Japan are routinely stickered.)

With this map in hand—white opposite yellow, blue opposite green, and red opposite orange—I could begin to find my way forward. I could see where each sticker was supposed to go. Only, as I soon learned, sticker was something of a dirty word, at least for Mao. It was a rookie mistake to focus on the stickers. Elementary. If that’s all you did, you were doomed. Even if you managed to line up all the stickers on one side, what then?

In fact, you could have one face entirely matching but the rest of Rubik’s Cube in utter chaos. This led to the second lesson: solve pieces, not stickers, Mao said. At first, I had no idea what he meant. Weren’t the stickers the functional unit of Rubik’s Cube? In fact, this was but an illusion. Mao took apart his Cube to explain.
The corners were units in and of themselves, he showed us, pulling them out, one by one. There were eight of them. And while you could move them around—changing their orientation or swapping them with other corners—for all intents and purposes, the three stickers they presented were fixed in relation to one another.

This is what Mao meant by solving pieces. If you wanted to put a white corner into place, for instance, you needed not only to align it with the white center, but also make sure its other two stickers aligned with the appropriate sides. In other words, each corner was distinct, even those that belonged on the same side.

Putting these pieces in the right place proved challenging. What if a piece that was already in place was blocking the piece you were about to insert? And how did you deal with pieces that were in the correct position, but incorrectly oriented, like a book that’s been shelved in the right place but turned upside down? There was never one right answer to any of these questions—you could align the pieces any way that worked, and there was typically more than one means of accomplishing the task.

I would later learn that these are called algorithms. At the time, all I knew was that Mao would tell me to take the pieces where they wanted to go. In addition to the eight corners, there were twelve edges, nestled in between the corners, each of which had two stickers, bound together like peanut butter and jelly. Of the white edges, for instance, which might have otherwise looked alike to me, one was adjacent to red, another to blue, another to orange, and another to green—four different pieces. To solve each piece, Mao seemed to say, you had only to follow it like a dowser with his rod, letting it pull you along until you hit water, so to speak, and the piece fell into place.

Two weeks later, all of us could solve Rubik’s Cube. That left us one week to compete. To see how fast we could go. Even though it was 2005, well before the advent of smartphones, I was nearly unique in having a wristwatch. Like a sailor wandering about a foreign wharf, I was press-ganged into service: my job was to officiate the duels between Mao and Mateus Moitinho de Almeida, a Filipino with a floppy bowl cut and braces. Moitinho de Almeida, who knew Mao from previous summers, was the only classmate who knew in advance how to solve Rubik’s Cube.

I had gotten my Rubik’s Cube at Aahs, a novelty store with branches across Los Angeles. This version was official—speedcubes didn’t appear until some years later, when it became apparent there was a market for them—and yet distinctive: it had been designed to commemorate the twenty-fifth anniversary of the release of Rubik’s Cube. Rather than the traditional white, my Cube had one silver face, which shone like a mirror when solved.

As we all soon learned, the stickers included with store-bought Rubik’s Cubes peeled once you solved them enough. Moitinho de Almeida bragged about his stickers. By contrast, those on his Cube were specially made, ordered by his father, who owned a restaurant and did work with specialty vendors. Made of vinyl rather than thin sheets of translucent plastic over white backgrounds, they chipped rather than peeled.
Watching Mao and Moitinho de Almeida duel up close was like having front-row tickets to a prizefight. They would exchange Rubik’s Cubes, scramble them, and then hand them back. Sometimes, even from a short glance, they could tell whether a given scramble would lead to a good start. They would look at me, at which point I would count them off. The moment I activated the timer on my watch, they began to furiously twist and turn their puzzles. Their fingers were a blur, moving too fast for me—for any of us, who had gathered around them, as if to watch a schoolyard fight—to understand. They seemed to inhabit a different universe, one in which time operated on a scale we couldn’t comprehend. Like sumo wrestlers, they grunted, their feet squared to one another, their knees slightly bent.

The moment I saw the movement cease—more often than not, it happened wherever Mao was standing—I stopped the timer. Typically, the time registered fell below twenty seconds. The rest of us could only gape in wonder. Then the two of them exchanged puzzles once more. The whole cycle began again. It repeated over and over and over. The race was never really won. Mao was insanely competitive. It was hardly enough just to win. There was always the next contest. Once, he cornered me when I was on the way to lunch. I was wearing a T-shirt intended to be a game, the purpose of which was to read the colors in which the words on the shirt were printed. The challenge was that the words were the names of colors themselves—only the two rarely matched up. Blue, for instance, was written in green. (The trick color was white, printed in white.) Mao wanted me to time him reading the shirt. He had to find out how fast he was.

When he finished—it took him about half a minute—he had all his friends go, too. He had to learn who was the fastest. If it wasn’t him, he vowed to practice until he beat everyone. No one was into solving Rubik’s Cubes at my high school. When I broke mine out, I became something of an eccentric. It actually got me in trouble once, just as it’d gotten Mao in trouble at Nerd Camp. One of my seatmates in French asked if I would teach him. We finished our work early and I began to impart exactly what Mao had taught me. The room was hardly silent—there were students muttering phrases in French—but still, the clicking of our Rubik’s Cubes carried. The teacher was having none of it. She forbade us to ever solve in class again, and recommended we read the magazines tucked away in the corner.

This was an odd form of punishment, as we soon learned. The standards of mainstream publications in l’Hexagone were wildly more permissive than those of their American counterparts. I recall, in particular, a profile of the billionaire Richard Branson. If it had appeared in Forbes, the piece would no doubt have featured a portrait of Branson wearing a power suit. This publication, by contrast, had a double-page spread of him riding a Jet Ski off his private island with a nude model in tow.

Figuring that this was hardly the worst thing in the world—although only in French class would looking at images of nude women be more appropriate than solving Rubik’s Cubes—my classmate and I called it quits. I taught him bit by bit, in other classes, but that was the end of my career with Rubik’s Cube. Or so I thought.

Shortly after I graduated college, the Cube twisted back into my life. And it did not let go so easily this time. In search of topics to write about that might interest magazine editors, I stumbled on an article online mentioning the upcoming 2012 U.S. National Rubik’s Cube
Championship. It was to take place at the Riviera Hotel and Casino, where Liberace once held court, in Las Vegas. Were my playground rumbles really slated for a major competition in Sin City? In my mind’s eye, I saw show girls wandering in a sea of people solving Rubik’s Cubes, so obsessed with the puzzle that they didn’t even look up.

The website created for the competition itself was sparse, mostly white, with a little colored type. It was maintained by a group billing itself as the World Cube Association. There was no qualification to enter. You simply paid the registration fee and showed up. I was considering doing just that when I noticed something even more unusual—to my mind, anyway—on the list of those registered to compete.

On the phone, Toby Mao sounded just the same. He was going to help organize the competition, he said, as if it were the most normal thing in the world, like assisting a neighbor with a Sunday cookout. Apparently, he had competed many times before, even set the world record for a single solve in 2006. I had had no idea there were world records in cubing or that solving Rubik’s Cube as a sport even existed.

Mao laughed at my ignorance. There were competitions all over the world, he said. In fact, his older brother, Tyson, helped to set them up. Tyson had cofounded the World Cube Association with Ron van Bruchem, a middle-aged Dutch banking IT consultant, while he was in college.

How had I not heard of this before? I was taking notes on a piece of paper with a dull pencil; I asked if Toby wouldn’t mind repeating himself. He proceeded to outline the extent of this hobby: cubing was everywhere, from Europe to Australia. He didn’t practice much anymore, he added—he was too busy, working in health-care consulting in the San Francisco Bay Area—but he could arrive in almost any foreign city and feel assured he would have a place to crash. The WCA operated in upward of sixty countries.

I was even more surprised when Toby told me that he and Tyson had been responsible for teaching Will Smith to solve Rubik’s Cube for the 2006 film The Pursuit of Happyness, in which Smith, playing Chris Gardner, a homeless single father turned millionaire stockbroker, solves Rubik’s Cube to win over the man who ultimately hires him at a brokerage firm. They’d been flown to Los Angeles, Toby said, and spent a week or so on set.

So Smith really could solve Rubik’s Cube? I asked. Sure, Toby said. He’d learned just the way I had. One layer at a time.

When I asked Toby if I could come and write about the upcoming competition, he sounded almost outraged. “What do you mean?” he asked. “You’re not going to compete?”

If I’d only known how deeply the Cube would entangle itself in my life, I might have proceeded with more caution. In just a few years, I would be literally cubing myself to sleep.