2010

04/08

Write comment

G4G9, Day 3: Random(Blog), Crazy Detectives, and the Rubik's Cube

This is the fourth post in a series of blog posts about Gathering For Gardner 9: **1** **2** **3**

We started out the 3rd day by changing the hotel where we were from the Peachtrees to the Ritz-Carlton, where I missed the first talk, which was apparently about "The Odd One Out and Unrevealing Coin Weighings"

The very first talk that I saw, then, was by John Edmark about "Geometric Patterns of Change". It was mostly about the sculptures that he has made, some based on the Fibonacci sequence and the Golden Angle, while others were on various spirals which could change direction by simply changing the angle at the top. Adrian Fisher also did a talk on that he was making Custom Designed Mazes, specifically hedge mazes for any people who had a castle somewhere and liked mazes. Last in the first session was a 15-minute talk by Ed Pegg, called "Meet the Attendees", which was where he would bring up various attendees who weren't doing talks and have them describe themselves in 20 seconds, as he would show a slide that he had made for them. I thought that he would only bring up the attendees who wanted a slide in the presentation.

Turns out, I was wrong. He really had made 70 individual slides, one for each attendee who wasn't giving a talk, including me.

I was around 5th, but because many of the attendees had decided not to come up, I was instead in 2nd place for a 20-second talk. Of course, I hadn't expected this, and so I had around 30 seconds to figure out what I was going to say. When my time came, I went up and gave a very short description of my website, this blog, and my Scratch Projects, somehow in less than the 20 second I had. Many other people came up and gave short descriptions of what they did, some seeming to go over 1 minute, but Ed's talk still came in before the 15 minutes he had.

The next session started out with two Dr. Matrix (one of Martin Gardner's characters, a numerologist) impersonators, Scot Morris and Bruce Oberg, talk about the number 9. Scot's talk was about "Cosmic 9″ which detailed how 9 lay at the center of the universe: He pointed out the methods of counting out nines, that 9 was a square number, and so on. Bruce Oberg's talk was about "Nein to Nine", in which he pointed out how bad 9 was. My favorite line in his talk: "First, I will show that 9 is lazy. What happened in 9 A.D.? (pause) ABSOLUTELY NOTHING!" After a few more talks, Stephen Wolfram did a talk on all the work he has been doing, such as Mathematica, Wolfram|Alpha, and A New Kind of Science, a rather large book weighing in at 1,200 pages.

We had a short lunch break, in which I skipped eating in order to buy a few puzzles, which included a combinatorial puzzle in which you have to rotate 3 controls in order to get 10 disks

included a combinatorial puzzle in which you have to rotate 3 controls in order to get 10 disks to line up, as well as an interesting packing set of polyhedra. After this, I went back downstairs for the 3rd session.

Steve Macknik and Susana Martinez-Conde started out with a talk on why we are fooled by magic. They pointed out that this was because of the magician's skillful use of misdirection, and showed us a few videos on this effect, starting out with a card trick:

And then following up with a case of "Whodunit", where there are 21 changes in the scene:

David Kaye also did a talk on how to perform magic for groups of children, using a video as an example where he is dressed up as a clown and proceeds to do a trick with scarves, except that many things go wrong while he is doing the trick. Adam Rubin then did a talk on "Gravity Unmatched" which was a magic trick where a knife, attached to a string which goes over a pole and is tied to a pen, is falling towards him, yet it stops just before stabbing him. Kenichi Mura then did a talk on using Reulaux triangles for buckets in a chaos experiment.

There was a short break, in which I went to the Thinkfun exhibit showing nearly all of the games and puzzles that Thinkfun has made, from its first puzzles based on the Chinese Rings to the classic Pentominoes to the new Tipover. I talked with some of the creators, such as Bill Ritchie and Tanya Tompson, and said that many of their old puzzles were really neat, and that perhaps they should do sort of a "2nd edition" of some of them.
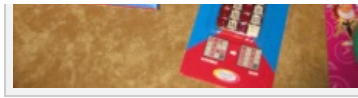
BLOGROLL

Daft Musings

MathPuzzle (by Ed Pegg)

Release Notes

The last session of the day was themed around the Rubik's Cube, and started out with Jerry Slocum doing a talk on the history of the Rubik's Cube which was very interesting especially in the part where he talked about various Rubik's Cube variants, such as the Void Cube or some of Bram Cohen and Oskar Van Deventer's twisty puzzles. Lucas Garron followed up by talking about speedcubing and other types of Rubik's cube. My favorite talk of the session, though, was Bram Cohen's demonstration of the twisty puzzles that he has been making, in which the cubes can have very strange forms once twisted in certain ways (They no longer in any way resemble cubes) and also where the cube is distorted and so will not permit certain moves once twisted. Many of the cubes he and Oskar have invented can be seen at Oskar's Youtube page:

Rik Van Grol, editor of Cubism For Fun, did a talk on "The Quest for God's Algorithm" which is the algorithm which solves the Rubik's Cube in the minimum number of moves. He detailed on how the number has gone down from a high 60 to a lower bound of 20 and an upper bound of 22. (News Flash! Tomas Rokicki has found an algorithm which solves the Cube in 21 steps. Could this be God's Algorithm?) Roice Nelson, creator of many wonderful programs, then did a talk on his program for displaying 3-d Rubik's Cubes as 2-dimensional stereographic projections which you can rotate. Julian and Corey then went up and gave a talk entitles "Fun with the Minsky Circle Algorithm". It summarized nearly all of their research with the Minsky Circle Algorithm, which is *supposed* to make circles, but they managed to tweak the variables so that it makes crazy fractal-like structures. For some reason, the plots of the periods often have symmetry, often based around a central point:

Click to view full size

After the last session, we waited while the room in which the talks were held was being converted into a dinner/magic room. While we were waiting in line to get food, a person managed to find me and said "Stephen Wolfram wants to see you." I was absolutely amazed by this, so I followed her to where, in fact, Stephen Wolfram was. I talked with him for a bit about various cellular automata and his book, and then went back in line to get food.
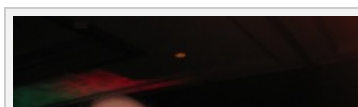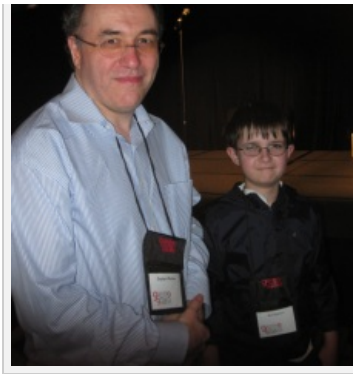
The magic show was amazing. It started out with Mark Mitton bringing Gareth Conway (he must be getting awfully tired of these magic shows) up to demonstrate [an optical illusion with a rotating spiral](#). Then a dancer came up and performed an act in which she would produce seemingly endless flowers and cards from a single flower. Mark went back up for an act in which he would get a (very confused) audience member to perform a magic trick, without him speaking any words. A few other magicians came up for acts, and Gary Foshee presented a gift to Tom Rodgers. Lennart Green did an amazing card trick where he would blindfold himself, duct-tape his entire face, cover it with aluminum foil, and then perform a magic trick, sometimes spilling cards, but performing the trick flawlessly. I was actually called up for a trick by Derek Hughes, in which he would perform a card trick in which supposedly, whatever answers I gave to his questions, he would show that I did not have free will by showing that I chose one particular card.

Apparently I do have free will, because I managed to somehow mess him up by *not* cutting the cards.

There were many other acts, and the show in general was great. In the above video, there's a multicolored blob to the left, which was because the first act was of Caspar Schwabe blowing up a giant inflatable model of the 59th stellation of the icosahedron.

After the magic show, we went back upstairs and went to bed.

Write comment   Comments RSS   Trackback (1)   Comments (3)

Tanya Thompson
April 11th, 2010   ▸ REPLY | QUOTE

Neil

I've enjoyed reading your blog posts about G4G9. Check out my blog as I've written about the people I met there. I would love to post about you (and I have a photo of the two of us there). I'll let you know when I've posted!

Tanya

Colin Wright
April 15th, 2010   ▸ REPLY | QUOTE

Hi Nick,

Great reading your recollections, and I look forward to your summary of the last day and departure.

One quick note – the coin weighings were supposed to be "Unrevealing", not "revealing" – but it's a small point and probably doesn't matter much.

Very much enjoying the blog.

Best regards,

Colin

nbickford
April 15th, 2010   ▸ REPLY | QUOTE

Thanks for the finding of the typo. I actually didn't see that when I was proofreading the post due to that it's only two letters off.

I've corrected the error in the blog post, and be sure to let me know if you find any other typos.

Thanks,

Neil

Leave a Reply

Enter your comment here...

RETURN TOP