

SCIENCE IS MURDER
Washington Academy of Sciences
December 17, 2009
Minutes

Peg Kay, executive director of the Washington Academy of Sciences, welcomed the participants to the Program, "Science is Murder," at 7:10 pm December 17, 2009. She made these announcements:

- invited people to apply to join the Academy
- offered copies of Academy Journal to participants and audience
- announced the Biennial Capital Science Conference, the premier conference of its kind in the Washington area, where about 20 of the Academy's 60+ affiliates give presentations and strut their stuff. This year, the Academy will be joined by PBS, who will give a program on "Growing up with Science at PBS." More information is available at <http://www.washacadsci.org/>

Ms. Kay introduced the following persons (some of them dignitaries, some of them unpaid volunteers; your recording secretary is too polite to say which):

1. Dr. Kiki Ikossi, President, Washington Academy of Sciences
2. Dr. Mark Holland, President-elect of the Academy
3. Dr. Ron Hietala, recording secretary
4. Kathy Harig, owner of Mystery Loves Company Bookstore, Oxford, Maryland. John French, who was to be the moderator, was moved to the panel so he could talk about his book. (laughter) Ms. Harig owns the only store specializing in mystery from New York to Florida. She wrote *Libraries, the Military and Civilian Life*. She has a radio show and writes a monthly newsletter. More information: <http://www.mysterylovescompany.com/>

Ms. Harig thanked Ms. Kay for originating the idea and hosting the event. She noted that the Philadelphia Academy of Sciences is doing a copycat event in January. She introduced the four panelists:

Donna Andrews, author of two award-winning series of books, featuring Turing Hopper and Meg Lanslow.

John French, supervisor of the Baltimore Police Department CSI unit. Also writes crime and mystery fiction and books on crime scene investigation for specialists. Recently produced a set of books for children on crime scene investigation.

Lawrence Goldstone, author, with wife, Nancy, of *The Friar and the Cipher*, *Out of the Flames*, and four books about their passion, book collecting. Tonight he will be discussing *The Anatomy of Deception*.

Katherine Neville, author of four best-selling works of fiction, *The Fire*, *The Eight*, *The Magic Circle*, and *A Calculated Risk*. Ms. Neville was a vice-president of the World Bank, installed computer systems, and worked in the energy field.

Ms. Harig asked the panel, **When writing about science for the general public, how much detail is too much?**

Mr. French responded: I don't worry too much about it. I want to get it right. I want to entertain, I don't want to teach. I give the reader some credit. I assume they know what DNA is, what fingerprints are, what CSI means. If something comes up that they might not understand, I have my character, a crime scene investigator, explain it, for example, to a police officer. The police do not necessarily know how you would use molybdenum disulfide on a crime scene. As a reader of crime fiction, I want to be entertained; I don't want to feel like I am reading a textbook.

Mr. Goldstone: I've done a lot of nonfiction. My agent told me when I was starting out, readers like to learn. You don't want to overwhelm. I write historical stuff. For me, it is teaching about a period, it's being evocative, it's leading the reader to a certain place. If it weighs a ton, it won't work for anybody. It's using detail, it's the trail of bread crumbs, part of it is plot, part of it is character, part of it is setting, part of it is the detail that you put in about science or whatever is the setting of the book.

Ms. Andrews: When I began my series about Turing Hopper, it arose out of my realization that computers permeate our lives, but many people don't know anything about them, actually fear them. Turing has one characteristic like Nero Wolfe, which I still reread. Wolfe never, almost never, left the brownstone. Archie Goodwin brings back the clues. I looked for something that has tendrils that address the intersection of computers with our daily lives, because if it doesn't have a cyber aspect, Turing cannot address it. I hit upon ideas like an on-line role playing game. Another book involves credit card fraud; another a spammer. But I don't get very specific about computer science, because that changes so fast that the details would be out of date by the time they are published. I have a group of techies who read for me to see that things are accurate. For level, I use my mother, who is 87. I write it so she can understand it.

Katherine Neville: Does everybody know who Turing and Hopper are?

Ms. Andrews: Alan Turing, the artificial intelligence theorist and cryptographer, and Grace Hopper, the Navy computer pioneer.)

Ms. Neville: I always ask that, because when I was in the computer business, that was my code name, Grace Hopper.

About question of detail, we have a motto in the author biz, "When in doubt, leave it out." If you don't need information to advance the plot or develop a character, it does not belong in the book. However, having said that, I feel that nothing is excess for me. I use no forensics, no courtrooms, nothing like an autopsy, not even a fingerprint. I use historical characters and events. I use real scientists who were dealing with such things as the OPEC embargo and alchemy. I love the part where science is born in someone's minds. I use direct quotes, for example from John Maynard Keynes, who went around and bought up Sir Isaac Newton's papers after Cambridge University had gotten rid of them, because of their embarrassment that Newton had spent 85% of his time on alchemy and other pursuits, like measuring King Solomon's temple. Keynes presented the papers to Cambridge in a formal ceremony, so they couldn't give them away again. In that ceremony, he gave a touching speech in which he quoted Newton saying he thought God had left clues scattered around the universe for the scientific mind to pick up. It was like a giant puzzle. That's the kind of thing I like to communicate. I put a little scientific detail in to bring their character alive, but I always take it right out of their own notes and papers and the like. Nothing in excess, but if it helps develop the characters, it works.

Hartig: Lawrence, you have an interesting take on a very important topic. Tell us about it. Your young medical student comes to Philadelphia and finds the body of a woman. There is doubt about whether she was murdered or not. You take takes readers through really interesting places in Philadelphia. Tell us how you came across the story, why you chose it, and were there things that surprised you?

Mr. Goldstone: How I came across it was kind of interesting. My wife, Nancy, and I had done three funny memoirs on people who collect old books. Our agent suggested we do a 'single subject.' We'd seen a movie called "The Red Violin," about a violin that was passed down through history. The owners were really interesting. We said, let's find a book that's been passed down through history. We called a lot of book dealers that we know, and nobody knew of the book we wanted. Finally, we found a librarian, Miriam Mandelbaum, in the New York Library rare book room. She said, well, I don't really know a book like that, but suggested a book written by Michael Servitus, who was burned at the stake in 1553 with the last copy of his book chained to his leg. After a fast drive into New York, she showed us the story. That led to a library at Yale, where we found material from the library of William Osler. We got fascinated with Osler, who was one of the great physicians at the turn of the century (1900). I had a deeply disappointing result of the publication of a book on constitutional history, and Nancy suggested I write a historical mystery using Osler. Back in that library at Yale, we found material on Osler and William Stewart Halstead, one of the founders of Johns Hopkins and probably the greatest surgeon in American history. Both Osler and Halstead are characters in *Anatomy of Deception*, and both are drawn very close to the originals, although they don't behave just as Osler and Halstead did.

Ms. Harig: Another **surprise for me in your writing was that, at one time, autopsies were extremely rare.**

Mr. Goldstone: Autopsies were done, but they had to be authorized, and they rarely were in the 1800's. When they were done, there was public outrage. In the second century, in Rome, Galen wrote a book on anatomy, and it was based mostly on monkeys, goats, dogs, and the like. People believed that if you opened the bodies, the spirits would come out. In 1889, we had not progressed far. The autopsy in *Anatomy of Deception* was taken right from Osler's notes. The Medical Historical Library at Yale has an incredible collection of material, and I just took one of Osler's autopsies and put it right in the book.

Between 1882 and 1900, [in that short time] autopsy changed from something considered socially very unpleasant to a very ordinary part of forensics.

Ms. Harig: **John, some of your writings involve a character named Mathew Grace. He is a very interesting character. He goes from CSI to ex-CSI, to PI, and back to CSI.**

Mr. French: Mathew Grace got his start as a private eye. He initially appeared in a small magazine called *Hard Boiled*, he was an ex-CSI who solved a crime as a private eye. When I came up with an idea for a police procedural story, I decided to use Mathew Grace, and I placed this new story before the stories that had already been published, so he could still be a CSI.

In *Past Sins*, Mathew Grace was like Watson. Unlike what you see on television, crime lab technicians do not solve crimes. They analyze evidence. Police detectives put all the evidence together, solve the crimes, and go out and make the arrests. So Mathew Grace serves as the person who tells the story. He talks to the detectives and, in the end, he goes into a room where the case is presented. As the story goes on, he gets a little too clever, too cocky, and has to leave the department. He becomes a private eye. Even there, his point of view does not reflect the experience of a police detective, because he never was one, so he solves them as a private party.

One of Kathy's questions to me earlier was, do you get locked room mysteries on crime scenes. You do, though not so much in murders. Very little from murders gets translated into fiction. In Baltimore, crime scene investigators respond to burglaries, and more often we deal with a locked house than a locked room. I've had cases where people 'slipped' the lock, where people reached through the mail slot. I've had cases in apartments where people came through the crawl space, into the closet, went through some shoe boxes, and left by the front door. In one particularly interesting one, it appeared that the criminal apparently went into a locked apartment, took out the vanity mirror, pushed the vanity mirror out of the second apartment, and went through. It would probably not have been solved, but we found the fingerprints of the owner of the first apartment on the back of the vanity mirror of the second apartment. The owner had burglarized his next door neighbor.

Ms. Harig: Katherine, in your latest work, *The Fire*, you go through various symbolism about the fire. Tell us how you came up with that as the image for the sequel to *The Eight*.

Ms. Neville: First, *The Eight* was a story about a fabulous gold and silver chess set that belonged to Charlemagne. Dug up in the French Revolution, it had mysterious power. It was scattered all over the world to prevent people from gaining those powers. I had forgotten, actually, that it had been revealed at the end of *The Eight* that it had been created by a real scientist, Al Jabir ibn Hayan, the father of Islamic alchemy. One of Jabir's books, *The Books of the Balance*, I have in my library. Every single thing in alchemical science has to do with fire. They used fire to transmute chemicals. In *The Fire*, each thing that happens begins with one of the stages of alchemy. Coincidentally, halfway through writing the book, I realized the modern part of the book is set in April, 2003. It was set then because that was the birthday of the heroine's mother in the first book, and it happens to be the exact time the U.S. military entered Baghdad.

Harig: We can't leave this subject without hearing about the signing story.

Neville: Ah, yes, the signing story. Well, in the first book, the heroine, as a child was about to be the youngest grandmaster in history. When she was about 20, she could not play chess any more, for reasons I cannot reveal. She became an apprentice to a Basque chef in a restaurant called Cady's Alley. It was billed in the book as the world's only four-star, open-hearth restaurant. This was a restaurant I had invented, in a real, nameless alley saturated with garbage and winos' urine. When I submitted the book, the alley had been cleaned up by a friend of mine who had opened a restaurant there. I and my editor went there for lunch, and the proprietor, Karl, said, "You've got to see what I've done." He took us next door, and he had removed some finishing walls and there, in the original brick, was the open hearth. My editor said, "Karl, do you know what you have done? You have recreated the restaurant Katherine invented in her book. So I called Random House and asked them to do the launch party in that restaurant. The alley has now been renamed "Cady's Alley."

Ms. Harig: Donna, in your computer books, you have an artificial intelligence, called Turing Hopper. You've gone through various plots, one involving computer fraud, you had a hit-and-run. Is there anything you can't comprehend doing with her?

Andrews: It is a challenge. When I came up with Turing, Malice Domestic ["Malice Domestic" is a conference for mystery writers and readers] had a contest, the Pro-Am Contest. It's for the traditional, corny, Agatha Christie type of mystery. For it, I came up with the idea of having the computer be the detective. In the first draft, there was no action or dialogue. It was a challenge to figure out how to bring the outside world into the computer and the computer into the outside world. Turing speaks in the first person, because I wanted her to be more real, than the humans, almost. I actually put in a chase scene, two of them, in which Turing participated, one of them through the cameras and the other in a plot scene.

Harig: In one of your other books, we meet a bankrupt zookeeper who has to foster his charges out into the community. I understand that was based on reality, too.

Andrews: Yes. The genesis of a book for me is kind a random process of things coming together. I wanted to use penguins. I was at the Omaha zoo. Near the penguin cage, I heard a child's voice, "Mommy, look, the penguins are fighting." It was May. You can imagine what the penguins were doing. We watched the mating dance, these funny, slippery, round little creatures. Ms. Andrews imitated the sounds of the happy penguins. [Your recording secretary cannot; for that, you will have to visit a zoo with penguins in May.] It hit me; I don't have to take them to Antarctica, we can have a zoo. Then I saw some footage of Hurricane Katrina, where they had taken some animals to higher ground. They were taking the wolves for walks on leashes and the bears were swimming in the pool. I thought, I want to do that. Then, the third thing that helped the concept is that there is a

zoo in Reston. [Ms. Andrews lives in Reston, VA.] So we have the character in the book digging a pond in a cool place, his basement, for a displaced penguin from a local bankrupt zoo, and finding the body.

Neville: This is how literary minds work, from penguins humping each other at a zoo to bodies in the basement.

Harig: **I think our audience would be interested in the background behind designer farm animals.**

Andrews: I had gone to a farm and seen Belted Galloways, black cows with white belts around the middle. Kathy took me to a place where they had goats chosen to look like the cows; at first I thought they were calves. From the owner, Kathy found out these were Belted Tennessee Fainting Goats. They have a genetic defect. They don't actually faint, but when they are startled, their legs stiffen and they may keel over. One owner said that if he gave them a particularly good feed, they would keel over in ecstasy. [Amid the laughter, Ms. Andrews insisted this is a serious condition.] The breed of these goats was preserved by shepherds, who put some of them in with sheep. If wolves chase the flock, they catch the goats. So they only survive because they are scapegoats.

Harig: **Now tell us about the designer farm.**

Andrews: Oh, yes. Martha Stewart has a farm where all the decor, including the animals, were black, white, and gray. (You can't make this stuff up.) She even had black Friesian horses, which were not allowed out in daytime because they would sunburn to a rusty red and not fit the decor. So the main plot in the book, the "McGuffin," as writers call it, is a rose competition in which the challenge is to develop a rose that is as near as possible to a perfect black.

[An impertinent woman in the audience asked, "Could you kill off Martha Stewart?"]

Andrews: The woman who owned the farm that hosted the Rose Contest made Martha look nice.

Harig: **Lawrence, you've had some people making some dicey decisions in your book. I understand that was based on research. Tell us about that, and how you did the research.**

Goldstone: Medical ethics and scientific ethics are interesting. The question is, are you going to save people if the cost is killing others. Medical ethics is more interesting because the effects are immediate. After you do enough research, you understand that with human progress, there is always this cost. In medicine, you are faced with the possibility of saving many people but at the risk of people in the process. I took the real people in the book and studied what they wrote about and what they did. When I write fiction, I know I'm on when I can just kind of report. In nonfiction, you are restricted by what people said and did (though not everyone feels that way). In Osler's case and in Halstead's case, and in medicine as Johns Hopkins was being founded, it really was a fulcrum of Civil War medicine - cut off a lot of parts and see who survived. By 1910, medicine had become very advanced. It was people who faced these ethical issues that moved medicine forward. It was a lot of fun, trying to put myself into their minds and bodies and see how they would do it, not how I would do it, but how they would do it with me sort of pulling the strings. The characters really do speak to you. When you are writing well, the characters will tell you what to do. If you try to shoehorn yourself in, you will become very wealthy and your name is Dan Brown [author of The DaVinci Code].

Harig: **Katherine, your characters have a lot of your own character and experience, banking, finance, and so on.**

Neville: First, I must address what Lawrence said. Everything he said is the theme of every book I have

written. What should we do with scientific knowledge that could either be beneficial or dangerous. When I had worked at Bank of America two weeks, I had figured out how to steal a billion dollars from the banking system through wire transfers. I told a colleague, I have figured this out, would it work? He called me back and said, it would. He added some bells and whistles.

In 1992, when *Calculated Risk* came out, the BCCI banking scandal was breaking, so, instead of the usual promotion circuit, I was on the morning news. People were calling me, writing me notes, Dear Ms. Neville, what can we do to save the banking system. I said, they used to pay me to tell them that, but they never took my advice.

Harig: Well, thank you, you have been a wonderful panel. Do we have any questions from the audience?

Audience member: Does anybody use stickies? How do you do that? On a wall?

Neville: I no longer use note cards. I write in my books, and I put stickies in where I wrote. It turns out that does not upset rare book librarians, who realize that it makes the book more valuable. That kind of thing is going to be the only thing we have left in the author's own hand now that everything is on the computer.

Andrews: I don't use stickies, but I do create a folder in my computer. I use cyber-stickies. You don't need paper, but you need a couple of hard drives.

Audience member to Mr. French: Does your Department know what you do? How has your work after hours changed what you do?

French: They have been very supportive. They do know what I do. If you go to YouTube and search for my name, you will see a video produced by the Police Department, about what I do on the crime scenes and writing about the crime scenes. They were very supportive of *Past Sins* and *Criminal Investigations* as long as I gave them copies. I have not yet told them of an anthology I am now working on called *Bad Cop, No Doughnut*. I don't think I am going to tell them. I've had some police detectives read *Past Sins* and tell me they wished the real Baltimore Police Department worked as well as the idealized one I wrote about here. One of my stock devices is to get everybody involved in a case around a table and knock out ideas. That is not done in reality, but some detectives wish it was.

An audience member asked about the ethics of using information that could be used to do harm.

Neville: You have to be concerned. I once asked a physicist what is the most important thing a nuclear physicist should study, and he said, ethics. My book on that subject dealt with things that were actually happening when my book came out, so I knew I didn't give away anything.

Goldstone: My next book is set in the 1430's, so I am not worried.

Andrews: It is a concern. In one book, I needed an explosion. I found a Navy Seal. He vetted me. "I won't tell you how to do this," he said. I said, "But I want someone like you to tell me only that it can be done." But I don't think mystery writers are giving people any information they can't get on the nightly news.

French: People often ask me, how would I do this, how would I do that. If they are at a writer's convention, I assume they are mystery writers and not murderers. They are looking for a critique of how they plan to write it, not a lesson in how it is done. There are some things as a writer that I would love to do, but as a member of a police department, there is no way in hell I can, in good conscience, put on paper and publish.

Audience member, to Neville: What's your next project?

Neville: I'm going to Sana Fe to do research. It has to do with the invention of oil painting in the 1500's. It

revolutionized painting. People no longer had to compete for commissions from churches. Women could paint. Painters could travel. It was very exciting.

Audience member, to Andrews: What's your next book?

Andrews: All of my books in the "Meg Langslow" series have birds in the titles. My next one is going to be "Stork Raving Mad." Others were *Murder with Puffins*, *Revenge of the Wrought-iron Flamingos*, *Crouching Buzzard - Leaping Loon*, *We'll Always Have Parrots*, *Owls Well that Ends Well*, *No Nest for the Wicket*, *The Penguin Who Knew Too Much*, *Cockatiels at Seven*, *Swan for the Money*, and *Six Geese A-Slaying*, my Christmas offering. In *Stork Raving Mad*, the heroine is 8 1/2 months pregnant with twins. Her husband is a college professor, the heating system at the college breaks and they take in a dozen students. Her husband is up for tenure. The book is all about academic tenure. I have friends who are academics, some seeking tenure, some graduate students. One has had such trouble with her committee, I promised to kill off two of the members (on paper). Every time they did something nasty to her, I added a person trying to kill her. The book illustrates the point that academic battles are so bitter because the stakes are so small.

Goldstone: After all those titles, I'm embarrassed to say, mine is *The Astronomer*. It will be out in May. There are some academics, a little revenge, but no birds.

To a question, "Who's the astronomer?" Goldstone said, "I'm not allowed to tell. You will have to get a copy".

Harig invited everyone to look at the books outside and meet with the authors. Folks lined up to have authors sign books.

At 8:27 pm, the meeting wrapped up amid chuckles.