

## Chapter 2

The Haggerty family members were our neighbors and friends for my entire life. My brother Michael and I grew up in the tiny village of Westhampton Beach on Long Island's southeast shore. Jane, Michael and I were kids thrown together in the same neighborhood. We did a lot of fishing, crabbing and sailing together. The three of us trampled through the underbrush on the shore and explored the shallows looking for whatever treasures would reveal themselves. It was a magical life.

One Summer Jane and I won the children's regatta at the Westhampton Beach Yacht Club. That evening, at the race awards dinner, the trophies were handed out. Jane and I stood to applause as the commodore handed us our prize. It was a little plastic trophy that was dipped in gold paint and somewhat resembled a sail boat. The label on the base of the trophy simply said 'Champion'. We stood smiling, with our arms around each other. Then we broke our embrace and waved at the cameras while holding up our trophies – proud as could be. We had our moment and then took our seats at the dinner table.

I didn't know it at the time, but that was the only trophy I would ever win. I also didn't know at that time that my childhood years would be the best years I would ever know. Our regatta trophy still sits at my parent's house in the den tucked way in back of the fireplace mantel. The framed picture of Jane and I, arms around each other, has stood next to the trophy for all these years. My childhood is somewhere up on that mantel too but I can't seem to find it anymore.

That's the way our childhood went. It was way too brief - like flat stones skipping across the bay and disappearing just below the surface of the water. Then, as if some kind of switch had been thrown, suddenly we weren't kids anymore. Treasure hunting in the bay had lost its allure.

One summer day, over at the yacht club, when I was around age fifteen, I took a really long look at the curves in Jane's profile. There was an awakening process that seemed to point right at her well formed behind. She was pulling her little sunfish sailboat up onto the beach adjacent to the Yacht Club. I asked if I could help. She turned and gave me a look that said, *why would I need your help?* It was a look that was also inviting and slowly

turned into a smile. Her brunette hair framed her face perfectly. It glittered in the sunlight. The soft east wind blew wispy strands of hair across her beautiful face. I jumped off the dock onto the sand and helped Jane with her sailboat. We had advanced to becoming a different kind of playmate.

Jane and I floated through high school falling in and out of love but always staying close to each other. When the world known as high school gave way to college things began to change. About four years after high school graduation Jane threw me over for a guy in medical school at Stony Brook University. Actually, I never blamed her for that because medical students have a much greater earning potential than clam diggers.

There was more to it than that of course. At any rate, she later went to Columbia Medical School, married a doctor and then became one herself. The inevitable divorce happened a number of years ago. As far as I can recall, her ex-husband didn't know a thing about boats. No wonder the marriage broke up.

## Chapter 3

Monday morning started early. I hit the marina gym and then took a twenty minute run which ended back at my boat slip. I got cleaned up, made some coffee and opened my office for business. My office is actually the main cabin of my boat. I have a laptop, a couple of notebooks and yellow sticky notes all over the place. I even have sticky notes to remind me to follow-up on other more important sticky notes. In the hierarchy of sticky notes – the really important ones are plastered right on the computer screen.

I called Jane's office and left a message that I would book a flight to Long Island for Wednesday. Then I started to make my way through the work day. I wanted to clear away as many sticky notes as I could because Wednesday was just around the corner and I knew that once I got to Westhampton Beach I would want to stay for awhile. In addition, that evening Carmen and I were to have dinner with our best friends Lonnie and Michelle aboard their forty-foot Grand Banks trawler. Lonnie and I met shortly after I moved to Bradenton. Over the years he has helped me through some tough situations. You see, I am much more than a software guru. I manage to get involved in some strange situations, including murders, in my spare time. These seem to drop into my life like bad movies from the nineteen forties. I kind of model myself by Mike Hammer. I even have a fedora that someone gave me a few years ago but its way too hot in September in Florida for a fedora. Still, I have it and can pull it out any time I like!

Lonnie's favorite term for me was "genius". This, I believe, accurately reflects my abilities as a daring crime fighter and marina software expert. Turner is a pretty big guy – six-foot-three and 225 pounds. A former Marine - Lonnie did two tours in Vietnam and was a highly decorated war hero. After his Marine Corp service, Turner joined the Washington DC Police Department where he stayed for the next twenty years.

Lonnie's girlfriend Michelle was in fact a real genius. She was a PhD in Mathematics type who was a special consultant to the Florida Fish and Wildlife Conservation Commission. She once told me that she focused on large relational database management systems and their predictive statistical characteristics. I didn't move a muscle and replied that as far as I knew, accurate predictability could only be achieved via a very large relational database management system.

Having dinner with Lonnie and Michelle was always an adventure. He the former marine turned cop - she the expert in all things numeric - Carmen the financial analyst. Me the ... I'm not sure exactly what I am but the time sure passes quickly. Somehow the four of us made it work. Carmen and I showed up at six with lots of wine. Lonnie and I passed on the wine and mixed martinis. So began the evening.

I announced to no one in particular that I was headed up to Long Island for the funeral of an old family friend. A brief silence ensued. Carmen looked at me but said nothing. She knew a little of Jane Haggerty but not the true depth of our relationship. "So when do you think you'll be back?" she asked.

"I'm not sure; Probably in a week or so." Another silence.

I went on to describe some of my background growing up on Long Island. I brush-stroked my relationship with Jane and focused on the friend and neighbor thing that we had with my family and hers. I ended it by commenting that Jane's mother and my mother were very close. Mrs. Haggerty had more patience than any six people I know. She spent most of her time dealing with her eccentric husband Willie.

Willie was a physicist and a mathematician who was of some notoriety in the scientific world. What he lacked in social skills he more than made up for in the intellectual world. I tried to explain some of the things he was famous for. Michelle pressed me for details on Willie. I did my best.

"Jane Haggerty's father was a famous mathematician or scientist or something like that. During World War II he actually worked on decoding the German Enigma Machine. He worked under some other big time mathematician. Jane told me his name once - Turing, Turner or Tuning or something like that."

"You mean Turing - Alan Turing, the statistician?" Michelle asked.

"Yeah, that's the guy. Well I don't know what he did specifically but whatever it was he and Willie solved the Enigma codes and saved allied shipping during the war."

Lonnie chimed in. Lonnie was a World War II buff who read dozens of books on the topic. "Yeah, the Germans sunk millions of tons of shipping and were about to win the war until we cracked their communication codes."

Michelle was beside herself. "Are you kidding? Your friend's father worked with Alan Turing?"

"Yeah, he did. Just a couple of math guys having at it. After his work on the 'Enigma Machine' her father, 'Willie' went to Los Alamos New Mexico and was involved in the 'Manhattan Project'. I think he was both a mathematician and a physicist."

Michelle said, "If he was a physicist at Los Alamos he probably did work in quantum physics."

"I have no idea."

Michelle looked at me and laughed. "So what did you take up in college, clam digging?"

"No, 'economics' and I steered clear of every math major I ever knew as well as anyone who mentioned the term 'quantum physics' whatever the hell that is. It was a survival technique I employed for walking through the engineering quadrant on my way to class."

Michelle explained, "Quantum physics is the study of particles on a sub-atomic level. You know electrons, protons and so forth. Certainly a man for all seasons like you must be aware of such things?"

"Well it's true I do have multiple talents. I'm glad you recognize that fact."

And so it went. Another battle of tit-for-tat that could run on and on if we allowed it to do so. I would never let on to Michelle but my college degree at the State University of New York included a semester of calculus as well as two semesters of statistics. Of course that was thirty years ago. Today I wouldn't recognize a calculus problem if it stood on its head and paid my bar bill.

I didn't want Michelle to fully understand the depth of my technical expertise and the richness of my knowledge so I kept it all from her. I think it's better that way.

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Carmen stood poised at the galley. She was deep in culinary thought. She wore a white apron with starfish on it. She had on a pair of black Capri pants that were a little too tight – actually, they were perfect and allowed me to lose my train of thought. Michelle and I bantered about the cabin talking about World War II and mathematics – all in tight concise sentences. Lonnie was absorbing the dialogue but said nothing.

I mixed a drink and watched as Carmen sautéed some thinly sliced onions in olive oil. She waited for the onions to cook and then added spinach. She also did something with spices that I didn't quite get. Next she sipped some wine and waited for the spinach to wilt.

Michelle asked me, "So do you know anything about Alan Turing?"

"Only from what I read in the sports pages."

“You’re a pain in the ass. You know that? Don’t you take anything seriously?”

“Sure I do. I am very serious about baseball.”

Michelle scowled at me and said, “Well I am very impressed that your friend’s father knew Turing.”

“No, not just knew him but worked with him.”

Michelle went on to give a quick bio-sketch of Alan Turing. As it turned out his contributions to mathematics and the war effort were enormous. He was some kind of genius in probability and statistics. I started remembering some of the things Jane told me when we were in high school and beyond.

Turing received a PhD from Princeton University at some point before the war. Michelle was the perfect one to relate Turing’s accomplishments. She herself held a PhD in mathematics although I could never understand what her thesis topic was even though she explained it to me several times. This, in spite of the fact that I am a genius.

Michelle continued about Alan Turing. Apparently he was trying to solve this thing called the ‘Decision Problem’ which was a theorem that would solve all mathematics problems in one fell swoop! As it turned out there was no such theorem. Turing actually wound up showing that the ‘Decision Problem’ has no solution. This was a great disappointment to me because I always wanted to be able to solve all the math problems in the world with a single short but brilliant theorem! Michelle described Turing’s work on the ‘Decision Problem’ by saying, “Turing simply showed that no consistent formal system of arithmetic is decidable”. I couldn’t have said it any better myself.

I took a peek at Carmen who was ignoring us and seemed happy to be on her own. She was taking the spinach and onion mix from the stove and placing it in a bowl where she applied lots of grated parmesan cheese and mixed it in.

Michelle was not finished with her monologue on Turing. In the course of his research, Turing developed a mathematical process known as a ‘Turing Machine’. It was not a physical machine but instead a methodology, a kind of early computer, that became invaluable to the British code breaking team during the war.

By this time Carmen took out some tilapia and put it in the pan and covered it with the spinach mix. She cut up chunks of tomato threw them on top, sprinkled in some white wine and put the whole thing in the oven. Michelle and I felt guilty so we set the table and poured everyone a glass of pinot grigio.

## Chapter 4

After dinner I walked Carmen to the parking lot. She asked about Jane Haggerty again. “Jane is an ex-girlfriend isn’t she?”

“Yeah, she is.”

Again, I went through enough of our past to suit me but maybe not enough to suit Carmen. I was being both truthful and evasive at the same time. This is a talent that I have and it serves me well. Carmen didn’t ask too much after that which was fine with me. I hate being interrogated. We said our good nights and I headed back to the *LifeLine*.

I fired up my laptop and did a little research on the German Enigma Machine. I mean, I had known Willie my whole life but I didn’t know much about his professional calling other than that he was a brilliant scientist who spent his career after the war at Brookhaven National Laboratory in Long Island.

Brookhaven National Laboratory is the nation’s foremost research facility on all things atomic. It is nestled into a small hamlet in eastern Long Island. I took a class trip there when I was a senior in high school. There were all these people in white smocks walking around with clipboards in their hands – some were peering into what I thought were particle accelerators. Others were just staring off into space, kind of like I do. Maybe I should have chosen particle physics as my profession? All I knew growing up was that during the war Willie worked on something top secret called the German Enigma Machine as well as some top top very top secret stuff about the atomic bomb.