

Michael Connelly:

This is Michael Connelly and you're listening to Killer in the Code: Solving The Black Dahlia & Zodiac Cases. This is chapter three. We originally said we would be back with this episode on January 15th, but this has become a fast moving story and we decided to push things up. So here we are.

But before we get into it, I just want to give what I guess is a preface here. We dropped the first two episodes a couple weeks ago and named Marvin Margolis, AKA Marvin Merrill, AKA Skip Merrill, as the killer in both the Zodiac and Black Dahlia cases. It created quite a stir on the internet on various sites and threads dedicated to one or both of these infamous cases. As predicted in our first episode, people sniped at our findings, mostly without bothering to listen to them first or wait for the rest of the podcast.

I feel I made a mistake in those opening episodes by not properly introducing a couple members of the team who have been involved in the investigation and fully support its findings. So briefly, let me introduce two of the cold case homicide investigators who are part of this team. First, there is Mitzi Roberts. She spent 29 years with the Los Angeles Police Department, most of it working homicides before retiring last year as the detective in charge of the Cold Case Unit. During the last half of her career with the LAPD, she was assigned to the murder of Elizabeth Short, better known as the Black Dahlia. During that time, she was able to review almost all the records and evidence still in the custody of the police department. This included a four drawer file cabinet and a trunk containing Elizabeth's belongings. During that time with the case, she was able to review and debunk the theories and claims by some of the people now upset by this podcast.

For example, there are those out there who say Marvin Margolis was cleared in the Black Dahlia case by the LAPD. Roberts assuredly says he was not. And I think what you should know is that without question, Roberts knows more about the Dahlia case than any investigator alive. But the Dahlia case was only one assignment. She worked dozens of murders and made dozens of arrests as a homicide investigator. Probably most notably, she apprehended Sam Little, a serial killer who had a near 50-year run until Roberts caught the case and in turn finally caught him. The FBI says Little, who confessed to killing 93 people, is the most prolific serial killer on record. Though he left bodies in his wake from coast to coast, he ultimately was only convicted of three murders, all cases put together in Los Angeles by Detective Roberts.

Also, a member of this team is Rick Jackson who spent 34 years with the LAPD, most of them in homicide. He retired from the department's cold case unit a few years back, moved up to the Bay Area in Northern California, and promptly realized he couldn't give it up. He's a man on a mission, a mission to bring justice to victims. He became a cold case investigator for the San Mateo County Sheriff's Department. He and his partner, Dave Tresmontan, also a member of this team, solved three murders in the last couple years, one of which dated all the way back to the time of the Zodiac killings.

I should also mention here that both Jackson and Roberts serve as inspirations for characters I write about in my novels. That would be Harry Bosch and Renee Ballard. They are the living embodiment of the homicide detectives creed: everybody counts or nobody counts. These are people who solve murders in real life, not on the internet, not on YouTube. They gather and must rely on real evidence when they make cases, and that dedication to the truth is what they bring to this investigation. At the end of the run of this podcast, we're going to have a round table discussion with Alex Baber and all the investigators, and we will answer questions sent to our website, killerinthecode.com, and take on all critics of the work they have done. I think it's going to be fun.

Now, onto chapter three. I don't think we need to start with another recap, but before we get into a new decoding and interpretation of the Zodiac's last cipher, I want to talk about checking boxes. While the investigation by the team led by cold case consultant Baber is built on his reveal of the suspect's

name in the Z13 cipher, that is only a starting point. That's not evidence of anything. To make the case that Margolis Merrill, as I've taken to calling him, was indeed both the Zodiac Killer and the Black Dahlia Avenger, you need to check many boxes, and each of those boxes is a piece of a puzzle that when completed will prove the case. This is Mitzi Roberts.

Mitzi Roberts:

I had a murder case, and one of the closing arguments, the DA would actually in a PowerPoint, would take a piece of evidence and had a puzzle board and would put that in a piece of the puzzle. And once the last piece of the puzzle, which was a major piece of evidence, was placed into the puzzle, the picture was of the actual person that did it. And it was such a cool thing because it's just, once you put all the evidence together, the picture is clear and it leads to the person that did it. And in this case, I think it's very clear that that's Marvin Margolis.

Michael Connelly:

Okay. So let's start checking boxes. Some of these will pertain to only one of the cases for obvious reasons, but some will need to be checked in both cases to be valid. Let's begin with what is perhaps the easiest one, the physical aspects of the killer. Since there are no known witnesses to Elizabeth Short's abduction or the discarding of her body, this is pretty much a Zodiac box. The final killing officially attributed to the Zodiac was the murder of San Francisco cab driver, Paul Stine on October 11th, 1969. A description of the killer who shot Stine was obtained from three children who looked out a window in their home and saw the fleeing man, as well as two police officers who passed him while responding to the shooting call. The police put out a description of a white male, 35 to 45 years old, with a stocky build and height between five eight and six foot.

He wore glasses and had a crew cut. Adding descriptors from surviving victims of the earlier attacks, the Zodiac was known to be right-handed as well. This is Alex Baber.

Alex Baber:

Okay. So here's what we know. We know that he's within the height bracket, which is 5'8" to six foot. We know he's right at 5'10". Some accounts are 5'9", others are 5'10", depending on what account you go by. We know that he's right-handed. His son verified that, as well as some images show him using his right hand, which would imply such. We also know that he wore glasses all the time. There's an account where his son says in an audio, yeah, my dad wore glasses all the time. He had two pairs of glasses he wore. He's very, very clear about that. And also, we discovered when we went through the evidence that he shared with us, with Detective Jackson and Mitzi. We discovered a VA eye prescription that we have in our possession that also verifies that he needed glasses. And then we know his physical characteristics fit as well.

His weight at that time, approximate weight, which he can't really depend on because people fluctuate. But we do know from the photograph that was shared with us, the additional photograph, that he fits the description as far as the barrel chested and build that was described by not only the three children from the elevated position, but as well as the police officers.

Michael Connelly:

Listeners can go to our website to see a side-by-side comparison of the suspect sketch distributed by police after the Stine murder and an enhanced image of Margolis Merrill. Let me repeat. It is enhanced and clearly marked so. So no one has to claim subterfuge on our part. How was it enhanced? Eyeglasses were added and the hair was shortened to the length described by the witnesses. So we added

eyeglasses to the photo, but it is a fact that Margolis Merrill wore glasses. And on the site, you can find the suspect's prescriptions for eyeglasses issued by the VA under his real name, Margolis.

Okay. Next, let's go with medical skill, another easy box to check. Detectives investigating the Elizabeth Short murder concluded that it took a degree of medical knowledge and skill to carry out the bisection of her body as well as some of the other tortures visited upon her. But they didn't conclude that it was someone with expert surgical skills, as some have claimed over the years. While it is clear from the investigative records that they approached local hospitals and made inquiries about surgeons acting suspiciously, they also asked about nurses acting suspiciously. They also went to the University of Southern California located near where the Black Dahlia's body was found and asked for a list of students enrolled into medical school at the time of the murder.

Alex Baber:

Well, from the get go, the coroner surgeon had stated clearly that he believed it was somebody that had medical knowledge or knowledge of human anatomy, which is present if you look at the mutilation. But for them to believe it was only a skilled surgeon is outlandish. And the reason being is they themselves were A) going to USC Medical School, getting a list of 300 students that they were checking individually. If they truly believed it was a skilled surgeon, they would've never have had that list generated for the FBI.

Michael Connelly:

Either way, Marvin checks that box. He was attending USC's medical school at the time of the killing, and according to police records, had engaged in a dissection of a human body in the months before the Dahlia murder. And prior to that, he had been a Navy Corpsman attached to a Marine unit during the World War II battle on Okinawa. He dealt with wounded soldiers in a battlefield hospital. As it says in the investigative records, he cared for many mangled soldiers.

Moving on, let's go with firearms training. Remember, three of the Zodiac attacks involved shootings.

Alex Baber:

Yeah. Marvin had plenty of training. He was a naval corpsman, which their training is specific during World War II was with a 45 APC. The backstory of this is during World War II, the medics or the corpsman, when they were in action, they carried only a side arm and they had to be proficient with it. And that being said, we know that Zodiac was extremely proficient with his. He hit Jensen running in the dark. He claims he had a flashlight that he taped to the barrel, but even at that point, for him to hit a moving target in the dark as it's going away from you is very impressive. And the five rounds are in close proximity of each other in her back. So he did have some skill as a marksman with a sidearm.

Michael Connelly:

The victim Baber was referring to there was Betty Lou Jensen, who was shot to death in the Zodiac killer's first known attack, December 20th, 1968.

Our next box is an important one, cryptographic expertise. Zodiac composed four ciphers that were mailed to Bay Area newspapers. The first was cracked in a week, but the next three stood the test of time and were not broken for more than 50 years. That shows some serious expertise. If Margolis Merrill was the Zodiac, where did he get it?

Alex Baber:

To be honest, I don't think we could ever positively identify his background in cryptography. And the reason being is unless we discover another piece of evidence or a cryptography book in the storage or possession that he left behind, we really can't be sure. What we do know is that being an autodidact polymath, much like myself, he would be able to teach himself and it wouldn't have been very difficult. And he did make mistakes, which are key that shows he is an amateur, much like myself. But we also know that he had a background with one of the World War II soldiers, Bill Robinson, who was selected by General MacArthur for the Signet unit, which is turned into the NSA. It is the top tier of cryptography, or crypto analysis. To have that as a roommate and a friend at the time, meaning just following World War II where it's fresh, he just got out. We don't know if he could have had a manual laying around. He may have shared it with Marvin who was interested in cryptography. We'll never know. What we do know is that it's there and it was available. And at that point, that opens a door for us on a circumstantial level as, okay, he may have had or had been exposed to it through Bill Robinson.

Michael Connelly:

In case you're wondering, Bill Robinson died of cancer in 1959, but we'll have much more to say about him down the line in another episode of the podcast. I also went to our team of former NSA cryptologists to ask about Margolis Merrill's code making skills and how he might've gotten them. Combined, these guys have more than 50 years as classified code breakers with the NSA. They believe that the Zodiac ciphers have their origins in military code making and that there were books and other sources that would've been available to Margolis Merrill. This is Patrick Henry and Ed Giorgio.

Patrick Henry:

So the book that I believe would've been the most readily available was by Helen Gaines, and it's called *Cryptanalysis: A Study of Ciphers And Their Solution*. And you can see on the cover a sort of grid-based cipher right there. *The Army Field Manual on Basic Cryptography*, which was actually published in 1950 after the war. So it's not clear that he would've had access to that specifically, but other materials, similar materials, may have been available to him during training, or he spent some time living with a cryptographer, so he may have had access to materials like that. And then the third is from 1916, *Manual for the Solution of Military Ciphers* by Parker Hitt. And that was not quite so readily available. It was never classified, but I don't think it was particularly widely circulated, whereas Gaines' book was available widely and republished several times.

Ed Giorgio:

Don't we also think that Bill Robinson might've had that little technical article in his backpack or something, or his duffel bag, I should say? That's pure speculation, but ...

Patrick Henry:

Absolutely. So there may have been other materials that basically had the same kind of contents available that ... Yes.

Michael Connelly:

Another box that is cause for possible debate is MO, modus operandi. And more specifically, the question surrounding how different the murder of Elizabeth Short was from the Zodiac killings. Elizabeth Short's murder was by all accounts a personal and passionate attack. Every profiler who has looked at the case has concluded that she knew her killer. The Zodiac killings more than 20 years later were likely random stranger killings and most involved firearms. How do we account for these changes in MO? Do

we have to account for them? I went to our veteran homicide detectives with this one. Mitzi Roberts told me that Margolis Merrill was smart and had a quote “mind for murder” and that his changing MO does not bother her or change her conclusions at all.

Mitzi Roberts:

Yeah, it really doesn't because for numerous reasons. But one of the biggest ones is if you look at just the Zodiac case, his MO switches in just that case alone. If you don't even look at the Black Dahlia, the taxi cab driver is completely random to the case. And I think it's one of the reasons why it's always been so hard to catch this guy is because he was so unpredictable and all over the place. And maybe it was part of the game that he played. I would say that ... It's no doubt that the Zodiac and the Black Dahlia, they left these little clues and this mystery. And so it wouldn't surprise me that one of the things he decided to do to enhance that mystery would be to change his MO.

Michael Connelly:

Rick Jackson suggests there are more things binding the cases together in terms of MO than separating them, starting with the taunting of the public.

Rick Jackson:

Here's my take on the taunting, the letter sending to police, to the media, in this matter. I have worked homicide for 36 years, 28 with LAPD and the last eight in cold cases in San Mateo County. I have never had one case where a killer taunted, communicated with, like in these two cases, the Zodiac and the Black Dahlia, I've never had that happen in any of my cases. And I've worked with hundreds of investigators over those years, and I've never known of any of them to have a case that this type of thing happened. It is so rare. It's an amazing thing, actually. It's really kind of interesting, and you have to have the right mindset to be able to do that, and the confidence or arrogance to be able to do that because you're just increasing the chances, especially nowadays, in getting caught. The taunting is just another piece of circumstantial evidence that really is very, very strong.

Michael Connelly:

I was wondering when you have the Dahlia reaching out to the media and the Zodiac reaching out, what about Marvin Merrill himself? Did he have a pension for courting the media as himself? Alex Baber says the answer is an unequivocal yes, that he often sought media attention for himself and the many businesses he operated in the course of his life.

Alex Baber:

Yeah. That was another thing that surprised me when we dug into his background is this guy was a media hound. He loved his face or name in the newspaper, and he would write the editors of newspapers and make these strange comments. The one that he sent locally to San Diego when he lived in Oceanside was about violent demonstrations being statements. It used to be that there were demonstrations against violence, but now violence becomes the demonstration itself. And I'm like, is he talking about what he's doing or what he's going to do here? And then we found out also in his 1961 Wellington, Kansas article, he admits in the article that he loves poetry, he loves antique books. And by the way, he's a former newspaper correspondent. He literally states that in his interview.

Michael Connelly:

Was calling himself a newspaper correspondent a subtle hint to his correspondence as the Black Dahlia Avenger? One has to think Merrill had a good laugh to himself about that. You can see a sampling of his correspondence as Marvin Merrill on the podcast website.

Related to the discussion of MO is what I call the interval box, meaning how do we account for the almost 22 years between the Black Dahlia murder and the Zodiac killings? We'll check this box later in the podcast when we reveal evidence that sadly, there wasn't an interval at all, that there were murders committed by Margolis Merrill in between Elizabeth Short's killing and the five murders officially credited by law enforcement to the Zodiac.

Next on the list is the engineering box. There's a bit of a contradiction here. The Zodiac showed a high level of skill when it came to his last cipher and its use of measurements of radians and degrees on a map, but he also supplied a schematic drawing of a bomb he allegedly planted that showed a basic knowledge of electric circuitry, yes, but was also almost childlike and flawed.

Alex Baber:

We identified that he had a background in engineering and surveying. We located an article where he's in Oceanside in the early 60s, and he's a engineer, architect, and he runs this company called Project Consultants, is what it's called. And knowing that and digging deeper into it, his knowledge of radians and degrees would have been necessary in order to hold that position. And that's very interesting when you take in to light the Z32 and the letter that says the Mount Diablo map concerns radians and inches in particular. So we knew that he had the background to do this. And for the first time, we have a suspect that has that background that the block needs to be checked, and Marvin does that.

Michael Connelly:

We will have further discussions about this when we get to the Z32 cipher in a few minutes. There are many more boxes to check, and we will get to them all in the course of the podcast, but the last box to discuss today is proximity. This is an important one. Can we place Margolis Merrill in geographic proximity to the killings? With the Dahlia murder, that's easy. He briefly lived with Elizabeth Short just three months before her murder. Police records call him her last known boyfriend. He lived in the Guardian Arms Apartments on Hollywood Boulevard and was known to be taking pre-med classes at USC. So the challenge with this box is in putting Merrill Margolis in the Bay Area at the time of the Zodiac killings. Records indicate Merrill kept a home near San Diego through the late '60s and into the '70s, but records also place him in San Jose in 1969 where he rented a house under the name Skip Merrill, another alias that draws on his birth name of Marvin Skipton Margolis.

It appears he rented the house while still maintaining a home near San Diego where his family lived. This coincides with a period of time when, according to his son, he was working as an engineer for Intel, the semiconductor chip company located in Santa Clara. In one of the boxes of documents the son turned over to the investigation, we found Intel business cards in the name of Skip Merrill. Intel's headquarters would be a 25-minute drive from the house Merrill rented in San Jose. We'll come back to Intel and whether Merrill actually worked there in a later episode. Getting back to the proximity box, the question is whether San Jose was too far from the killing zone for us to check the box. It was about 70 miles from the San Jose house to Solano County where the first two Zodiac attacks took place. With traffic, that could be a 90-minute drive.

The location of the Paul Stine murder in San Francisco would have been a much shorter drive. The homicide detectives involved in this investigation don't see the distance as being an impediment to checking the box.

Mitzi Roberts:

I mean, 70 miles is not that far of a distance for somebody to travel because they don't want to hunt in their own backyard.

Rick Jackson:

I don't have any problem. That's an hour, and hour and 15 minute drive. And what you have to look at is, look beyond that, is look at the evidence that connects him, not just the location. When you take all those things into your viewing as the detective, all those things together amount to so much more than just a location. It's not like you have to get on a plane and go there or drive four or five hours. It's a short drive in general, and I don't have a problem with it.

Michael Connelly:

The next question about proximity that comes up is why Solano County? If Margolis Merrill was in San Jose and didn't want to hunt in his backyard, why did he then pick Vallejo and nearby places in the North Bay Area? Well, the investigation conducted by Baber and his team uncovered an intriguing set of facts that might hold an answer. The second Zodiac attack came early in the morning of July 5th, 1969 in the parking lot of Blue Rock Springs Park in Vallejo. A couple was shot multiple times as they sat in a car. The woman, Darlene Ferrin, died, the man, Michael Mageau, survived. I should note here that July 5th happened to be the birthday of Margolis Merrill's youngest child.

Directly after the shooting at the park, the Zodiac called the Vallejo Police Department and claimed responsibility. He said, and I quote, "I want to report a double murder. If you will go one mile east on Columbus Parkway to the public park, you will find the kids in a brown car. They were shot with a nine millimeter Luger. I also killed those kids last year. Goodbye."

That call marked the beginning of the Zodiac's reign of terror in the Bay Area. It was traced to a payphone at a gas station at the corner of Tuolumne Avenue and Springs Road. The location appeared to be significant. The police plotted two possible routes from the park to the phone booth the Zodiac used, and going either way, he would've passed several payphones before getting to the one he stopped at. Why stop at that particular phone? Was it a random choice or was there something significant about that intersection? Perhaps the answer is this. That payphone happened to be less than 500 feet from the house where Elizabeth Short lived with her father when she first moved to California five years before her murder.

Alex Baber:

If you were to stand at where the phone booth was at the time he placed that phone call, you could see the front door of where Elizabeth resided when she first came to California.

Michael Connelly:

It had been 22 years since the Black Dahlia murder. How could Marvin Merrill, the Zodiac, have known that address and understood its significance, especially when the original investigators had listed the wrong Vallejo address in case records. Well, obviously Elizabeth could have told him when he was Marvin Margolis and they lived together in Hollywood three months before her death. But also remember that after her murder, the Black Dahlia Avenger mailed the contents of her purse to a Los Angeles newspaper. This included an address book with several pages torn out. Investigators learned that Elizabeth had a habit of writing her current address or phone number down in the book and then tearing out the page to give up to acquaintances she'd meet. That accounted for some of the missing

pages, but there were also pages that had been removed with a straight edge. Her killer likely took those pages and whatever information they may have contained.

Investigators had learned that Elizabeth liked to journal. Could she have written about her journey from Massachusetts to California in those missing pages? Could she have included the Springs Road address in Vallejo? Possibly. But detectives traced the address book to a Hollywood acquaintance and sometime benefactor. So Elizabeth did not have that book with her on her journey to California in 1942.

But speaking of that journey, here's another interesting connection between the Dahlia case and the Zodiac. According to records obtained by Baber and from the original investigation, Elizabeth left Boston on a bus to California on December 15th, 1942. Her destination was Vallejo, where she would live with her father, Cleo Short, on Springs Road. According to bus schedules from that time, the trip west would've taken five days. This would put her arrival on Vallejo on December 20th, 1942. The first known Zodiac attack occurred in a lovers lane not far from Vallejo on December 20th, 1968.

Was December 20th merely a coincidence? Was the first attack on July 5th, the birthday of Merrill Margolis's child, a coincidence? And was the Zodiac choosing that particular payphone just a coincidence? Or was it all part of what detectives call a fact pattern?

Mitzi Roberts:

The thing about coincidences is it starts out with just one. And so it's easy to discard. It's easy to sort of say, "Wow, that's weird." But then you get another one and then you get another one, then you get another one. And all of a sudden it's like, this is not coincidence anymore. This is more evidentiary. This is more fact. I feel like when you get a coincidence after a coincidence that leads to the same conclusion than it's no longer a coincidence, it's a fact. And that seems what's happening in this case, for sure. And in law enforcement, in these kind of cases, that's what they say, fact patterns. So yeah, patterns of factual things that occurred. And so it's no longer a coincidence. It's a fact pattern.

Rick Jackson:

When you come upon coincidences in an investigation, you definitely become alerted to those. And you need to follow up to see, is there more to this or is it just a one item coincidence, if you will? In this case, it's totally irrelevant because, and it's a saying that we've all heard as detectives and just in life in general, a coincidence followed by a coincidence, followed by a coincidence, and maybe 10 or 15 or 20 other coincidences at some point no longer become a coincidence. It's just a percentage of things that just can't happen randomly after a while. And that stuff becomes very important. It's a basis for circumstantial evidence.

Michael Connelly:

Okay. Let's move on now to a discussion of the Zodiac's last cipher known as the Z32. We need to first start with the Zodiac note that included the Z13 code. It also included a sketch of a bomb the Zodiac claimed he would plant in order to take out a school bus. You can check it out on our website, but essentially it's a crude drawing of a Rube Goldberg sort of device that would involve a bus driving by an unknown spot and blocking sunlight from reflecting on a mirror, thus closing an electric circuit and detonating a string of bombs as the bus drove by. It does not take into consideration that a vehicle like a truck driving by could also detonate the bomb or that there could be any number of reasons for the sun's connection to the mirror to be interrupted, let alone the idea that a mirror positioned on the side of the road would go unnoticed.

Though it was likely just a hollow threat, if not a joke, the threat served the Zodiac's purpose of stoking the grip of fear he held on the Bay Area. Parents literally started driving their kids to school.

The bomb threat was followed on June 26th, 1970 with a letter from the Zodiac to the San Francisco Chronicle. It contained the Z32 cipher along with a Phillips 66 map of the Bay Area. The familiar Zodiac symbol, the circle with the crosshairs, was centered on the peak of Mount Diablo in the East Bay Area. The message from the Zodiac read, "The map coupled with this code will tell you where the bomb is set. You have till next fall to dig it up." On the map, the Zodiac noted that the crosshair logo should be set to magnetic north. The Z32 proved difficult to crack largely because there were only three repeating symbols leaving 26 variables, a code breaker's nightmare, especially in 1970 when computer technology and processing power was nothing like it would become in the decades ahead.

A month later with Z32 unbroken, the Zodiac offered a sizable hint. In a new letter to the Chronicle, he quoted The Mikado, the Gilbert and Sullivan comic opera, and ended the note with "PS, the Mount Diablo code concerns radians and numbers of inches along the radians." The note also included two versions of the Zodiac Killer's standard crosshairs symbol and his repeating Zodiac versus police scorecard, which was now 13 to zero, apparently meaning that his kill count was now up to 13 while the police were scoreless in their attempts to identify and capture him. There was one curious difference in the score this time. One of the crosshair circles contained a zero that was round instead of oval and was also deeply outlined. It was inside the circle and positioned at about eight if it were a clock face. To many decoders, this meant something in addition to the clues about inches and radians.

It took many years, but the hint from the Zodiac helped decode Z32. The interpretation was that if the Zodiac said it was about inches and radians, then the full or variation of those two words would be in the code. A radian is a measurement of the arc of a circle. Roughly six radians of equal length complete a circle. They are technically measured in degrees with 360 degrees being the full circle. But going by the face of a clock, for example, two radians would generally put you at four, while four radians would put you at the eight. I want to try to avoid being too technical here, but a radian is basically two times pi, and because pi is a number that can go on to infinity, radians are often measured in estimates. And so the word estimate or its abbreviation was assumed by cryptologists to also be somewhere in the Z32 cipher.

In the last few years, various code breakers have come out with their interpretation of the Z32. One solution that fit the cipher was "estimate four radians and five inches." When that formula was applied to the Phillips 66 map with the crosshairs turned to the coordinates for magnetic north in 1970, the radian tracks a line from the peak of Mount Diablo, five inches to a spot on the map where there is a police station. However, in 55 years since the Zodiac made his bomb threat, no bomb was ever found near that police station or anywhere else in the Bay Area. What was the Zodiac trying to say? There is no bomb and the joke's on the police? That seems hardly worth the effort to provide the map and coded coordinates. Then along came Alex Baber, the self-style cold case investigator who had just cracked the Z13 cipher.

He had information none of those code breakers before him had. He had the name Marvin Merrill. He knew Merrill's real name was Marvin Margolis and that he was a prime suspect in the murder of the Black Dahlia, Elizabeth Short. He knew that on the night of the second Zodiac attack, the killer called the police from a gas station that had a view of Elizabeth Short's one time front door. It seemed to him that Elizabeth Short was at the nexus of these cases.

Armed with this intel, Baber thought that maybe it wasn't a map to a bomb. The bomb schematic after all was ludicrous. It wasn't just a hoax. It was a joke played on the public by a killer who had a history of taunting the public. Baber thought about the heavily outlined zero that was inside the circle of the crosshair. Positioned at eight o'clock, the same as four radian. He thought about going short of the perimeter. Armed with all this, he tried a different decryption of the Z32. "Estimate four radian and three inches." It fit in the cipher and when it was fitted to the crosshair symbol set to 1970 magnetic

north, the darkened round zero covered a place on the map called Mountain View Cemetery in Oakland. The final resting place of the Black Dahlia, Elizabeth Short.

Alex Baber:

There was never a bomb. If he's referencing Elizabeth as the bomb, that makes sense now. Again, is it part of his game? There's always this thing about him. It's Moriarty-like. It's as if there's this hidden agenda or layer that you have to discover to identify what his clue or plan is. It was a game that as he described it himself, he was playing chess with everybody else, including law enforcement and the public, but nobody could beat him at his own game.

Michael Connelly:

If the Zodiac was Moriarty-like, did that put Baber in the role of Sherlock Holmes? It seemed that everywhere he looked as he investigated, that he found clues that showed the cunning detail that went into every move the killer made, even the choice of a Phillips 66 map. Elizabeth Short was buried by her family at Mountain View Cemetery in early 1947. It was a spot close to her nearest family member, a sister who lived in Oakland. Visitors to her grave in the vast cemetery will find it in section 66.

Now, is Baber's proposed solution to Z32 an exercise in confirmation bias? Perhaps. I'm sure there will be many who will claim that, while others will see it as part of the fact pattern Mitzi Roberts spoke of. Baber readily admits he came to the last cipher from a starting point that was Elizabeth Short, but it is a piece of the puzzle that irrefutably fits into place with the cipher and other factors as well.

And as we end this episode, let me add one other thing to that fact pattern and puzzle. As I mentioned before, in the note that carried the Z32 cipher, the Zodiac quoted from The Mikado opera. On the night Elizabeth Short was murdered in Los Angeles, The Mikado was performed on stage on Hollywood Boulevard, not far from the Hollywood apartment she once shared with Marvin Margolis. And the quote the Zodiac used in his message with the Z32 was this. "As someday it may happen that a victim must be found, I've got a little list of society offenders who might well be underground." Underground. Think about that and you decide whether confirmation bias led this investigation astray.

In our next episode coming Thursday, we are going to sit down with our independent cryptology team and tell the story of their investigation within the investigation and how it led not only to a confirmation of Alex Baber's work, but also connected Marvin Merrill to another murder. It's a thriller.

I'm Michael Connelly, and you've been listening to Killer In The Code: Solving The Black Dahlia & Zodiac Cases. This chapter was written and produced by Michael Connelly. It was edited by Terrill Lee Lankford. Sound design by Michael Odmark, with music by Mark Henry Phillips. Go to killerinthecode.com for more information on the investigation. Thank you for listening.