

Michael Connelly:

In LA, murder often becomes myth. No other place seems to elevate its killings and killers the way Los Angeles does. From Manson to Menendez, murders and murderers are often catapulted into the American zeitgeist and find a permanent place in the public conscious. The media baptizes them with monikers that add to the longevity of their horror. The Night Stalker, the Hillside Stranglers, the Grim Sleeper. Perched at the top of this dark pantheon of murder in the City of Angels sits Elizabeth Short, better known as the Black Dahlia, the girl who was cut cleanly in two.

Her unsolved murder refuses, even after almost 80 years, to diminish in the public imagination. Not just for how she was mercilessly tortured, with a clown smile cut into her face, then left naked and in two parts in a trash strewn lot, but for how she lived. She had come to LA like so many others with a hope and a dream: to find love, to find happiness, to find home. Her end was the end of the Hollywood dream.

Over the decades, Short's horrific demise has sparked the imagination of many in the fields of entertainment and law enforcement. Be it fiction or documentary, there are uncounted versions of the story in book and screen form, and it's a competitive market with champions of one suspect tirelessly sniping at those of others. There has also been no shortage of real life suspects brought forth. Calling it a cold case is a bit ironic when so many investigators, amateur and professional alike, have worked the bones of Elizabeth Short since the day her body was found in 1947. Mitzi Roberts, who ran the Los Angeles Police Department's cold case unit until her retirement last year, says that not a week went by that she didn't field inquiries and unsolicited solutions to the mystery of who killed Elizabeth Short.

Mitzi Roberts:

It was a hard case to keep because of the amount of people that would call me on it and want to have tips or want me to look into a suspect that they developed. And some of them were people of importance, I guess. And so the department would pretty much order me to look into these various theories and speak with some of these people, authors, retired investigators, stuff like that. And it took a considerable amount of my time. And at the time, this was just like an ancillary case. It was sort of like a hobby case, but it ended up taking a considerable amount of my time just to field all these different people that came forward with information or wanting to solve the Black Dahlia. I mean, I would get correspondence from people via email or phone calls every week, for sure. Every week.

Michael Connelly:

None of the theories or suspects held promise. Most were rejected by known facts of the case before the phone call was even over. In Roberts's view, the case would never be solved and there would be no justice for Elizabeth Short. That is until she met Alex Baber, a self-styled citizen sleuth who carries no badge and no law enforcement training. Now Roberts, perhaps the top living expert on the Black Dahlia case, says the murder of Elizabeth Short has been solved.

Mitzi Roberts:

When he presented all of his evidence and you look at that and it fits so precisely into the case, it's hard to think that this person is not the person that was responsible for killing the Black Dahlia. I really believe that he's found the guy. He solved the Black Dahlia.

Michael Connelly:

And not only that, but the case was solved almost by accident when Baber set out to investigate a different case altogether, the Zodiac murders of Northern California.

I'm Michael Connelly, and this is Killer In The Code: Solving the Black Dahlia and Zodiac Cases. Over the next several episodes, we are going to detail how a quick-spoken and self-proclaimed crime-solving genius convinced some of the greatest minds in murder and codebreaking that he has solved two of the most infamous crimes of the last century.

Alex Baber is 50 years old. He grew up in rural Florida. He said he learned at an early age that his grandfather was likely a serial killer who went undetected because he preyed upon migrant workers who registered no standing in society or importance with law enforcement in backwoods Florida. Baber says it was his family's dark secret that set him on a path toward redemption through finding answers for victims and their families.

Alex Baber:

I can recall vividly how my mother and her siblings would often speak quietly at family gatherings, discussing details surrounding my grandfather and his crimes from their childhood. Two incidents stand out to me in particular. The one about plantation workers or hired hands that worked the fields for my grandfather that were instructed not to speak to my aunt or make inappropriate comments. Apparently this happened on a few occasions and the individuals involved did not return to work or were never seen again. So these were always present. I can remember as far back as five years of age, hearing the first story, and then over the years as I grew up, we would get more details and more insight into the events as I grew older.

Michael Connelly:

Diagnosed at age 12 with autistic disorder. Baber didn't fit in at school and was bullied and beaten until he dropped out. He later picked up a GED without needing to study for it. By then, he says his IQ had been tested at above 160 on both the Wechsler and Stanford-Binet Intelligence Scales. Baber has a fast moving mind and no filter when it comes to believing himself and his efforts. He talks fast and confidently about his skills. His personality can be and often has been read the wrong way.

The first time I spoke to him, he introduced himself as an autodidact polymath. That's a fancy way of saying he was a self-taught expert in many fields. He told me he focused on unsolved crimes because he had the ability to find the hidden beneath the hidden. I have to admit I was put off at first and skeptical about his claims.

Alex Baber:

My confidence is often mistaken for arrogance, but my focus has always been on purpose, not ego. I work fast. I speak directly because uncovering truth requires both. My self-taught background spans numerous disciplines that help reveal what others might miss or overlook. It's never about claiming to know everything, only about finding results where others have stopped looking. I tend to dig a little bit deeper because of my autistic disorder, and it's hard for me to let go once I find something that is intriguing or interest to me, and I will dig until I find a answer one way or another.

Michael Connelly:

There's no shortage to the number of internet denizens who have taken the aim at Baber for his bluster and bravado. Four years ago, he started a company called Cold Case Consultants of America. He built a website complete with claims of crime solving genius and a photo of the founder wearing leather suspenders that look a lot like a shoulder holster. When Baber dipped into an unsolved case, famous or not, he was often viewed as a carpetbagger, looking to make money off of people haunted and

desperate for answers in their missing or murdered loved one's cases. Baber insists his intentions were misunderstood.

Alex Baber:

So that I am clear, I nor my company has ever received a single penny from a cold case review. My work has always been conducted independently without compensation or financial involvement from any victim's family. My goal has never been to profit from the tragedy of others, but rather progress. My company's efforts were financed by financial inheritance and advocate investors. Not one cent has ever been received from a victim's family for any case that my agency has worked.

Michael Connelly:

Along the way, Baber had an idea. He would collect all the known writings of serial killers and mass murderers into a digital database through which comparisons could be made in terms of word choices and phrasing, misspellings, penmanship, syntax, and even psychological tells. He thought it might be a way of finding the hidden beneath the hidden.

Alex Baber:

The forensic linguistic database served a valuable purpose for identifying linguistic and behavioral parallels between previously unrelated cases. Beyond that, it offered deeper psychological insight into criminal mind revealing similar patterns of thought amongst various cases with connective tissue. So I was able to identify similarities between the wording and the choice of words between the Black Dahlia Avenger letters, which some people said were crank letters. We now know that they weren't. As well as the 22 plus letters of Zodiac mailed in between 1969 and 1974.

Michael Connelly:

Included in his database were the many letters sent to law enforcement agencies and newspapers by the self-named Zodiac killer in Northern California. The Zodiac's reign of terror began in December of 1968 when he shot to death a young man and woman in a lover's lane in Solano County. Over the next 10 months, the same man attacked two more couples, killing two more women, and then murdered a San Francisco cab driver. In a series of messages sent to newspapers and law enforcement agencies, he took credit for the killings, often beginning with the ominous greeting, This is the Zodiac speaking. The letters threatened more killings, including a plan to pick off children getting off a school bus. Though the five murders during the 10-month spree were the only slayings officially credited to the Zodiac, he claimed at various times and various messages to have taken 7, then 12, then 14, then 17, and then finally 37 lives, stating that he was accumulating slaves for the afterlife.

In four of the messages, the Zodiac included ciphers composed of letters and hand-drawn symbols in a grid pattern. The first one was the longest and it was sent in three parts to three different newspapers for publication. His code was broken quickly and rather easily by a high school teacher and his wife. The next three ciphers were far more difficult and withstood the efforts of would be code breakers and cryptographers for decades until the year 2020 when the Z340 cipher, so named for the number of characters it included in the grid, was broken by an international team of amateur cryptography enthusiasts.

The remaining two ciphers were much shorter and therefore more difficult to break because they consisted of a limited number of characters, making them harder to crack because fewer characters meant fewer patterns, reducing the effectiveness of traditional decryption methods. The shortest cipher, the Z13, came after the Zodiac wrote, "This is the Zodiac speaking. By the way, have you cracked

the last cipher I sent you? My name is..." 13 letters and symbols followed. Some believed that the Zodiac was goaded into encrypting his name and sending it to the San Francisco Chronicle because he had been called out publicly by the president of the American Cryptogram Association. He said the Zodiac was a rank amateur when it came to encryption and would never dare put his name out in a cipher.

Alex Baber:

Zodiac most certainly felt confident after his Z340 cipher remained unbroken for six months despite the best efforts of top cryptography experts across the nation. His ego couldn't allow law enforcement or the American Cryptogram Association to believe they were smarter than him, so he answered their challenge directly with the Z13 cipher.

Michael Connelly:

With the advent of artificial intelligence beginning to infiltrate almost all levels of society from medical treatment to business applications to political campaigns, Alex Baber thought, "Why not law enforcement? Why not code breaking?" The Z340 cipher had been broken two years earlier by identifying a dual coding system similar to that used by cryptographers to secure military messaging during World War II.

Alex Baber:

They cracked the Z340 by applying a layer approach, first identifying a transposition method inspired by a World War II coding system, and then applying a substitution layer to reveal the actual letters. By combining these techniques with letter frequency and brute force, they systematically unravel the cipher to expose the Zodiac's hidden message.

Michael Connelly:

With this knowledge, Baber set his sights on the Z13 cipher, and using an AI program he designed, he amassed a list of first and last names that could fit into the 13-digit cipher. Talk about finding a needle in a haystack, the list was 71 million names long. As it was originally written in the Zodiac letter, the cipher was just one line, but the other ciphers authored by the Zodiac were much longer and had been presented in a grid. So Baber broke Z13 into a two by seven grid, adding a 14th digit to make the grid even with seven columns of two characters each. This added digit is called a null in code speak and would possibly be the space between a first and last name.

The original cipher also contained three symbols that were repeated twice and a fourth symbol repeated three times. This narrowed the possibilities considerably and employing other disqualifiers cut further into the list of names. Based on eyewitness accounts and the possibility that the Z340 cipher was derived from World War II era cryptography methods, Baber started looking for a white male who would have been in his late 30s to early 40s at the time of the Zodiac attacks. For nine months, he waded through phone directories from the period as well as US census data, voting roles, property records, military archives, birth records, and arrest records, and was finally able to whittle the list of 71 million names down to 14 possibilities.

He then had to put on his private eye hat, and through forensic analysis, he went through the final 14 possibilities and eliminated 13 through disqualifying factors such as height, background, and proximity to Northern California. That left one name, Marvin Merrill. The name belonged to a man who had several addresses in California in the 60s, 70s, and 80s. He also had a criminal record.

Now, before we continue with Alex Baber's deep dive into who Marvin Merrill was, I have to say we will be taking a deep dive into his code breaking methods in the later episode. There's also additional information on our website, killerinthecode.com, about his investigation.

I happen to know very little about ciphers and cryptography, but breaking the Z13 code is the foundation on which this entire investigation stands. I had to independently confirm or refute Baber's work before I took another step down the path with him. I went to a code breaking team headed by Ed Giorgio, a legend in the world of cryptography. Giorgio spent 30 years in the National Security Agency, and to this day is the only man ever to have served as both NSA's chief code breaker and code maker. He accepted the challenge from me and analyzed and reworked the steps Baber had taken. It took him three weeks. Then he had his work and conclusions peer reviewed by two other top code breakers who formerly worked with the NSA. This is what Ed Giorgio told me.

Ed Giorgio:

It was one hell of a piece of work that Alex and his team did. It was quite convincing. I want to emphasize what an incredibly good job Alex did in, he not only had to find a list of candidates, he had to figure out what the crypto system was to begin with.

Michael Connelly:

I asked Ed to read from the paper he and his team were authoring on Alex Baber's investigation.

Ed Giorgio:

The Baber team has done an outstanding job identifying and joining two infamous murders, the Black Dahlia murder and the Zodiac murders. A central element of their work is the proposed decryption of the Zodiac Z13 cipher, which the Zodiac claimed would reveal his name. The Baber team combined crypto analytic and traditional investigative methods, first using a defined set of encryption assumptions, obfuscation, permutation, and substitution, to reduce the vast number of possible Z13 solutions to a manageable subset, and then applied forensic reasoning to eliminate all but one candidate, Marvin Merrill. Our independent validation confirmed the internal consistency of the Baber team's decryption method.

Michael Connelly:

We'll hear more from Ed Giorgio and his team in upcoming episodes. For now, let's go back to Alex Baber's investigation. Once he had the name Marvin Merrill, Baber started to background the man he believes he had identified as the Zodiac. He was able to place him in Northern California at the time of the Zodiac killings. He learned that in 1971, Merrill had been charged in Oceanside, California with five counts of fraud and spent three years on probation, a period of time that matched with a period of time when the Zodiac had gone silent. He also learned that Merrill had died in Santa Barbara in 1993. He was 68 years old at the time. If he was the Zodiac, then he had gotten away with it.

But Baber also encountered a problem. He could find no military, property, voting, or census records with Merrill's name on them before the 1960s. Curious, Baber dug deeper. He learned through Social Security Administration records that Merrill had a history of using two different social security numbers, neither of which were his. One belonged to a woman who lived in Chicago. The other belonged to a man named Marvin Margolis, also out of Chicago. Social Security records stated that Marvin Merrill was an alias for Marvin Margolis. This was a puzzle. Long before the Zodiac's murder spree, Marvin Merrill was involved in identity manipulation. The question was, why did Marvin Margolis become Marvin Merrill?

Alex Baber:

It's one of those aha moments where you realize that there's something to this guy that needs to be looked at deeper because an individual, first off, doesn't use someone else's social security number and doesn't file legal documents under that, and he surely doesn't use an alias in correlation with it. There has to be a purpose to that. Either he's running from something, hiding from something, or he's doing something illegal. And at that moment, that was another aha moment where I realized I'm on the right road. I need to dig deeper into his past because this guy went from being an entity or nobody to me, right, to actually being a real world individual, to being now a real world individual who is shady that's doing some illegal activities. So right there, it tells you there's some criminal element to him.

Michael Connelly:

The deep dive continued. Now Baber was pursuing Marvin Margolis across time and building a biography of this mystery man. He learned through military records that Margolis had served as a hospital corpsman attached to a Marine battalion that made the first landing on Okinawa during World War II. Baber found a story in the archives of the Chicago newspaper that hailed his return from the war. He posed for a photo with the rifle he had taken off a Japanese soldier he said he had killed. After the war, Margolis was mustered out of the Navy in his hometown of Chicago, but soon turned up in California. In 1946, he was living in Hollywood and taking pre-med classes at the University of Southern California. And then Baber made a startling discovery. Margolis's name was in the 1951 grand jury report on the unsolved murder of Elizabeth Short. The report said that Margolis had been one of the prime suspects in the killing of the Black Dahlia.

Alex Baber:

At that moment, I had another aha moment like, "Holy shit, this guy that was Merrill that was Margolis, that used his social security number, is now the same individual." And the reason I knew it was the same identical individual, Michael, is because in the records they used his date of birth in his hometown, which you've read in his military report. So I knew same birthdate, same name, same hometown. We had the right guy. How crazy is that?

Michael Connelly:

In 1949, the two-year-old Black Dahlia case was still big news in Los Angeles. And despite a massive effort to identify a suspect and make an arrest, the LAPD had come up empty. A grand jury was empaneled and for two years heard testimony from witnesses, including the lead investigators on the case. They provided the grand jury with a list of 21 possible suspects in the murder of Elizabeth Short. The list was in no particular order of importance. Number 11 on it was Marvin Margolis. According to the grand jury reports, what brought Margolis to the attention of the investigator was that he and Elizabeth Short had shared an apartment in Hollywood for 12 days in October, just three months before her murder.

He was interviewed twice by detectives in the weeks after the murder. The detectives reported that he was deceitful both times, including initially lying about knowing Elizabeth Short and denying that the two had lived together briefly. He provided an alibi for the time of Short's murder, and his wife, who he had married a month after sharing the apartment with Short, backed him up on it. Investigators were not convinced by Margolis or his wife. It had been the view of the detectives on the case that someone with a near surgical skill had performed the bisection of Elizabeth Short's body. They learned that Margolis had taken part in the dissection of a human body at the USC Medical School three months before the murder.

And they learned that Margolis's wartime experiences had a profoundly negative impact on him psychologically. According to the grand jury reports, investigators uncovered a psychological report on Margolis that was written in support of a 50% disability being granted Margolis for battlefield neurosis that grew from his experiences on Okinawa. This is from the report that was dated four months before Elizabeth Short's murder.

In Okinawa, Margolis was under bombing and strafing for 29 days. He was then ordered to set up a hospital. There he worked long hours with little sleep under frequent air raids, saw many buddies in mangled shape. He cared for two companies where there were many casualties. His setup was in a small cave. A rain caused the sides to cave in. He was buried all but his head, which was held tight like a vice. The next morning he dug out. He became amnesiac, emotional with depression and instability.

The psychiatric diagnosis is as follows. The subject is calm, quiet, and a resentful individual who shows ample evidence of open aggression. At present, this man shows a lack of interest, aims, and ability to concentrate. Margolis is sullen. His personality is not pleasing, apathetic, inclined to sarcasm. He said that the next time there is a war, two of us are not going, the one who comes after me and myself.

Alex Baber:

So this individual is obviously troubled by his wartime that he experienced. And in coming back, he was identified as 50% mentally disabled, which at that point was diagnosed as shell shock. In today's terminology, it would be referred to as PTSD.

Michael Connelly:

Like Alex Baber would do 75 years later, the detectives did a deep dive on Marvin Margolis. They learned that when he lived at the Guardian Arms on Hollywood Boulevard, he had a roommate named Bill Robinson, a former cryptographer and Signal Corps officer during the war. He too was deemed untruthful when interviewed by detectives and asked about Elizabeth Short's stay at the apartment he shared with Margolis. But everything they gathered was circumstantial at best. There was no direct evidence against Margolis. He was never arrested and soon after the murder moved back to Chicago. Efforts by the LAPD and Chicago Police to find him for a third interview failed. He was in the wind and would soon be adopting a false identity before returning to California. As one detective would testify about Margolis to the grand jury in December of 1949, it was impossible to throw him out as a suspect. It was impossible to tie him in as a suspect.

Now all these years later, Alex Baber had seemingly tied Margolis to two of the last century's most infamous unsolved crimes, but was it too late to go beyond the circumstantial and find the direct evidence that eluded police for so long? We're going to find out in the episodes ahead as Baber enlists a high level team of cold case investigators and uncovers a piece of evidence he calls the smoking gun. This is just one of those investigators take on Baber's work and his conclusions.

Speaker 5:

I have no doubt, this is the person. I have no doubt at all. And that's a lot to stake your reputation on it, but I feel it's totally overwhelming circumstantial evidence, and now it has become mixed in with some physical evidence that supports Alex's suspect as being the Dahlia and Zodiac killers. It's overwhelming evidence that connects this man to these murders.

Michael Connelly:

This is Michael Connelly, and you have been listening to Killer In The Code: Solving the Black Dahlia and Zodiac Cases. For more information about these cases and the investigation, go to killerinthecode.com.

This podcast was written and produced by Michael Connelly. It was edited by Terrill Lee Lankford and Mark Henry Phillips with sound design and scoring by Mark Henry Phillips, as well. Thank you for listening.