

# SALEM POLICE DEPARTEMENT REPORT

## ADMINISTRATIVE

DISTRICT 5	CASE #1426	DATE 03/17/2020	CRIME
INCIDENT LOCATION 8 Harmony Street, Salem, Massachusetts		NB OF VICTIMS 2	

## VICTIMS 1

NAME Jennifer Choak	SEX Female	RACE White	AGE 32	HGT 5.6	WGT 127
PHONE /	HAIR Blond		EYES Brown		
EMPLOYER Jonathan Jack			OCCUPATION Executive Assistant		

## VICTIMS 2

NAME Jonathan Jack	SEX Male	RACE White	AGE 47	HGT 5.8	WGT 178
PHONE /	HAIR Grey		EYES Brown		
EMPLOYER /			OCCUPATION Boss		

## DOCUMENTS

DOCUMENTS	Officer(s)	Phone	Page(s)
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## NARRATIVE

Two dead bodies have been reported by Miranda Greenstab. In her call Miranda Greenstab expressed her suspicions concerning the author of the murder, Norris Choak, husband of the victim.

REPORTING OFFICER 19733 - Essert, Alicia T.	BADGE NO. P0342	DATE 04/01/2020
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<b>Investigation report</b>	<b>Case #1426</b>
Massachusetts State Police Dept 250 Leverett Cir Boston, MASSACHUSETTS PH: (617) 727-6780	Submitted by: Jason Chaffetz
	Date: WED March 31, 2020

**March 17, 2020**

4.36PM, two dead bodies have been reported by Miranda Greenstab. In her call Miranda Greenstab expressed her suspicions concerning the author of the murder, Norris Choak, husband of the victim.

5.02PM, a police officer reaches the place, 8 Harmony Street. The officer confirms the death of the two victims who has been identified by Miranda Choak as Jennifer Choak, her sister and Johnathan jack, her sister's boss. He does not alter the crime scene in any way and calls the team in charge of murder cases.

5.21PM, Norris Choak is identified and is arrested trying to leave the city as Miranda Greenstab told the police. He is remanded at the police station of Salem.

6.20PM, the investigation team is on spot and starts to work. The two bodies lie in the kitchen floor of the apartment. They both rely on their back. The male one is closer to the kitchen's door and presents five knife cuts whereas the female one is deeper in the room counts four cuts only but has strangulations marks on the neck. They are blood spatter on the floor and the walls. A message has been written with the blood on the wall facing the door. The content of the message is the following: "U slut had what u deserved". A kitchen knife has been found near the victims. It is covered by blood and is most likely the weapon of the murder. The knife probably belonged to the set actually present in the kitchen. Bloody footprints exit the kitchen and lead to the entrance. The windows are closed, there is no sign of effraction.

8.58PM, the bodies are sent to the medical examiner.

9.20PM, the bodies are sent to the morgue, waiting an entire autopsy.

Norris Choak is very suspect. The crime of passion is the simplest hypothesis.

**March 18, 2020**

2PM, synthesis of Miranda Greenstab's testimony: She was meeting her sister for personal affairs. As often, the door was open so she could enter. Then she saw the two unliving bodies. She called Norris first and started to suspect him considering his "strange reaction". After that she called the police. According to her, Norris could be violent. The couple had issues and her sister wanted the divorce.

2PM, synthesis of Norris Choak's testimony: He said he was with Miranda when crime occurred but she denied it. He admitted he was leaving the city but according to him, it was to meet Miranda Greenstab. He was not aware of the demand of divorce. For the violence issues he argued he used to drink but it was not the case anymore. He also blamed Miranda Greenstab for lying.

4PM, after calling the association: "No more drunk man in Salem", Norris' statement about his former addiction has been confirmed. An authorization request for the use of personal data has been send to the district attorney. The goal is to get more information concerning the other statements.

5PM, women clothes and shoes has been found in the garbage that belonged to the Choak's. The items have blood spatter. They have been sent to the lab for analysis. A first explanation is that Miranda Greenstab took part of the crime. She has to be carefully watched over.

### **March 22, 2020**

9AM, fingerprint analysis report available. As suspected, the analysis of the fingerprints of the knife's handle was not relevant. Indeed, the fingerprints are damaged and as the knife was in the Choak's kitchen it is not surprising to find the fingerprints of Norris Choak on it. Therefore, Miranda Greenstab's fingerprint have been identified on M. Jack's jacket.

If Miranda Greenstab did check the death of the two victims, it is not surprising to find her fingerprints on their clothes. It may also confirm her involvement in the crime.

### **March 23, 2020**

9AM, blood analysis report available. The blood on the wall matches with Jennifer Choak's blood which is consistent with the hypothesis of a crime of passion. The blood on the clothes found in the garbage was not sufficient to establish a link with one of the victims. But it appeared to belong to a woman.

We can guess that the clothes were the ones of the person who wrote the blood message. Miranda Greenstab is still the first suspect for that fact. Without more information it would be hazardous to go further in the deductions.

### **March 24, 2020**

9AM, blood stain pattern analysis report available. Johnathan Jack's body has probably been moved from the back of the kitchen to its entrance. Some traces of blood tend to assure that Jennifer Choak might not have died by strangulation. The analysis of the spatters' angles demonstrated that most of stabs have been dealt when the bodies were already lying on the ground.

These pieces of information strengthen the hypothesis of a crime of passion. The fact that M. Jack's body has been moved could be related to the fingerprints found on his jacket. It seems that Miranda Greenstab has to answer some questions so she will be summoned as soon as possible.

5PM, the district attorney gave his authorization for us to access to the personal information of the suspects. After a few researches, it is clear that the two main suspects Norris Choak and Miranda Greenstab had a romantic relationship. M. Choak ended the relation the day before the murder. Miranda Greenstab answered by threats of revenge.

There are high chances that Miranda Greenstab wanted her revenge on the Choak's couple. She could have killed her sister (and her unlawful lover) pretending the culprit was Norris Choak, perfect suspect as jealous husband.

### **March 25, 2020**

10AM, synthesis of Norris Choak's testimony: He confirmed his relation with Miranda and did not try to conceal the truth. Although he admits Miranda Greenstab could accuse him to avenge herself, he does not think she could have killed her sister.

3PM, synthesis of Miranda Greenstab's testimony: She first denied all the accusations and gave some inconsistent explanations when talking about the clothes, the shoes or her relation with Norris. After recalling her she was making her case even worse, she confessed her acts. She recognizes she took the kitchen knife and added cuts on the two bodies who were already dead. She is the author of the blood message and she moved Johnathan Jack's body. She says she wanted to trap Norris Choak to have her revenge upon him. Therefore, she did not admit she committed the murder.

Her statement is consistent with the bloodstain pattern analysis report as it provides an explanation for the stabs dealt from the ground. There is no evidence that she committed or not the murders. She is remanded in custody until further information.

March 26, 2020

10AM, synthesis of Suzanne Brown's testimony: She is the human resources manager. She appears not to be very involved in her job. She does not know anything interesting for the case.

11AM, synthesis of James Stevens' testimony: She is a work colleague of Jennifer Choak. According to him she was under sexual harassment perpetrated by her Boss M. Jack.

Death of Johnathan Jack could be the result of a conflict between him and Jennifer Choak.

March 27, 2020

2PM, synthesis of Mary Jack's testimony: She is Johnathan Jack's wife. She confirms that her husband was used to see other women.

4PM, autopsy report available: Johnathan Jack's cause of death is cardiac arrest lead by an artery wound. It is clear the he received two series of stabs, the first by the hand of Jennifer Choak, the second the Miranda Greenstab. The lethal wound has been done during the first row of stabbing. DNA analysis confirmed that Johnathan Jack is responsible of the strangulation marks on the neck of Jennifer Choak. Concerning Jennifer Choak, she most likely died because of the knife cuts.

**Conclusion:**

Regarding all the elements of the case my conclusion is the following. Jennifer Choak was resisting to the sexual harassment of Johnathan Jack for months (perhaps years). On March 17, he decided to follow her to her place, knowing she was alone. He could enter easily as the door was often left open. Then he probably tried to force her. The conflict became a fight in which Jennifer Choak struck Johnathan Jack three times with the knife kitchen she grabbed. One of the strikes was a lethal one and stopped M. Jack in his strangulation attempt. Therefore, Jennifer Choak fainted. When her sister arrived on the crime scene, she thought her sister dead and decided to take advantage of the situation, avenging herself from her former lover Norris Choak who ended their relation the day before. She used the same knife to add cuts in the bodies to make the crime scene very bloody. She wrote an anger message. Her goal was to fake a crime of passion in which Norris Choak was the perfect culprit. She changed her clothes not to arouse suspicion. She told Norris to left the city to trap him as she told the police he was suspect to do so. As her acts were spontaneous, she committed many mistakes and was forced to confess. But what she ignored is that her sister was still living when she struck her with Kitchen knife. Miranda Greenstab is the only murderer of Jennifer Choak. Norris Choak is innocent.

Administration buffer	State of the case	Signature and date
		03/31/2020 

**Victims and Suspects**

**Case #1426**

Police Precinct  
SALEM, MASSACHUSETTS 01970  
PH : (617) 937-1022

Noted by Bob Franklin



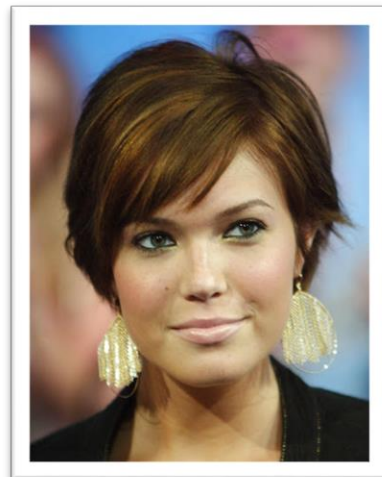
Jennifer Choak



Jonathan Jack



Norris Choak



Miranda Greenstab



Mary Jack



<b>Testimonies – First Session</b>	<b>Case #1426</b>
Police Precinct SALEM, MASSACHUSETTS 01970 PH : (617) 937-1022	Noted by Bob Franklin

Miranda Greenstab : March 18, 2020, 2 p.m.

- You have to take the oath "to tell the whole truth, and only the truth".

*The interviewee takes the oath.*

- Introduce yourself by clearly stating your surname, first name, date and place of birth, profession and address.

My name is Miranda Greenstab, I was born in Boston on November 9, 1991. I live at 48 Partown Square in Salem, Massachusetts. I am a model, photo model and all things which deals with that.

- What is your relationship with the two victims?

Jennifer Choak is... was my little sister; we had a very close relation... The other victim, M. Jack, I don't know him personally but I know he was her superior.

- You were the first to arrive at the crime scene. Why were you visiting your sister?

She called me in the morning because she wanted me to come to see her. I believe she wanted to talk to me about something very serious. When I arrived, I found the two bodies ... I was horrified, my sister meant so much to me ...

- Did you call the police directly after you discovered the two bodies?

I made a terrible mistake; I know I should have called you first ... but I was very panicked so I called Norris because he was my sister's husband ... But when I called him, he had a strange reaction and I started to suspect him.

- Did your sister, Mrs. Jennifer Choak, had any enemy?

Absolutely not. My sister was appreciated by all, she was smiling and kind, she was someone you only love. She never talked to me about anyone scaring her. It is for all these reasons that I think the culprit is a close person, such as her husband.

- M. Norris Choak assure that he was at your house between 2 p.m. and 5 p.m. Is it true?

It is an odious lie. Besides, he doesn't have the keys of my apartment. How did he close the door?

- Since the beginning of the investigation, you are convinced of the guilt of the victim's husband, M. Choak, why? Did the victim express fears or disagreements about her husband?

First of all, his behavior remains incomprehensible to me, when you know the tragedy that happened ... He tried to leave the city! This is a sufficient argument! My sister wanted to ask for a divorce. They often argued. Norris could be violent. He has already been involved in violence acts under the influence of alcohol.

- What relationship do you have with your brother-in-law?

It's very complicated ... We don't get along because I always thought that my sister deserved better. He made misplaced sexual advances to me. I never said anything to Jennifer because I was afraid to hurt her. One day, he confessed to me that he had a relationship with my sister to get closer to me. This man is a mythomaniac and manipulative. I am annoyed with myself for not encouraging my sister earlier to quit him. I am responsible for her death ...

- Thank you for responding to our questions. We will call you back if necessary. In the meanwhile, you can go home.

Thank you. I hope that you will find the murderer of my dear sister ... Do not hesitate to contact me to inform me of the investigation's progress.



Norris Choak : March 18, 2020, 2 p.m.

- You have to take the oath "to tell the whole truth, and only the truth".

*The interviewee takes the oath.*

- Introduce yourself by clearly stating your surname, first name, date and place of birth, profession and address.

My name is Norris Choak, I live in 8 Harmony Street, I was born in Portland on September 16, 1985 and I am a sales assistant.

- What is your relationship or family relationship with the two victims?

Jennifer Choak is my wife, we got married 5 years ago. I loved her so much if you knew, but I realize today that I didn't tell her enough. It is when you lose a loved one... that you understand how important that person was to you. M. Jonathan Jack is my wife's superior, she sometimes talked about him after work, but I never met him.

- Where were you yesterday between 2 p.m. and 5 p.m.

Well ... how can I put this... I was with Miranda Greenstab, she invited me for a coffee. Then, she left me to meet Jennifer and I stayed at her apartment all afternoon.

- From what your sister-in-law says, you are lying about your alibi. Are you sure you were at her apartment at the time of the crime?

What do you mean?! I don't understand why she said that. I swear I was at her house between 2 p.m. and 5 p.m. yesterday. I hope you believe me?

- Why did you leave the town the night of the murder?

Around 4:30 p.m., Miranda called and asked me to join her in a bar outside of Salem. She told me that it was a surprise and that she wouldn't tell me more. So, I slammed the door of the apartment and took my car to meet her.

- According to Miranda Greenstab, Mrs. Jennifer Choak asked for a divorce. Did you have significant disagreements with your wife?

I was not aware of a petition for divorce. We used to argue but it happens to all couples. In any case, I didn't know anything about it and I don't know why Jennifer wanted to divorce.

- Did you know why your wife was with M. Jack, at your house, the day of her death?

I neither don't know, she didn't tell me about it at any rate. I find this strange because it is the first time that her superior come to our house. But it is possible that they had a professional meeting and she may be forgot to tell me.

- Do you think there could be a relationship between your wife and her superior?

My wife would never do that! ... But on reflection, their relation may be the reason she wanted to divorce ... These are only suppositions and I prefer to believe that Jennifer was faithful. I don't want to dishonor my memory of her.

- So jealousy wouldn't make you commit this crime? M. Choak, I want to remind you that you are the only suspect for now. All the evidence is against you. I advise you to give yourself up if you are guilty. Do you want to go back on your statements?

Going back on my statements would be lying. I swear I told the whole truth about what I know. If my wife was not dead, she would confirm my words.

- You have a history of alcohol-related violence. Could a new crisis have made you commit this murder?

I stopped drinking years ago. I went to a center to treat my addiction. My doctor will be able to confirm this, I was followed by blood test and I never took alcohol again.

- But who do you think is the culprit?

I have no idea ... I don't know who could made it against Jennifer. But I just know I'm innocent, I never would have done that. And I beg you to find the murderer ... I don't understand why Miranda lied so much during her interrogation.

- Is this an accusation?

I don't think she is guilty. She deeply loved her sister.

- For the needs of the investigation and considering you are the main suspect, you have to understand that we will keep you in detention. You are authorized to call your lawyer.

<b>Testimonies - Second Session</b>	<b>Case #1426</b>
Police Precinct SALEM, MASSACHUSETTS 01970 PH : (617) 937-1022	Noted by Jessica Mainlif

Norris Choak : March 25, 2020, 10 a.m.

- Examining your phone, we discovered some surprising conversations between you and Mrs. Greenstab. Can you explain?

I was so ashamed to cheat on my wife ... I didn't want everyone to be informed. I am not proud of what I have done. But I had an extramarital relationship with my sister-in-law for two years. I ended this relationship. She took it very badly of course. That is the reason why, I went to her apartment the day of the murder, I wanted to explain myself with her.

- She tried to make you guilty of the murder. Do you think she had any reason to kill her sister?

Everything is very confused in my head now. I am grieving and I am questioned all day because you think that I killed my wife and her superior! I don't know if Miranda is guilty but I don't think that is true. She was angry when she left me to join Jennifer but she loved her, she could never have done this. However, accusing me for revenge, it is possible.

- Regarding the situation we will keep you in remand until there is no doubt left of your guilt.

Miranda Greenstab : March 25, 2020, 3 p.m.

- They are your footprints on the blood, it is a women's one. But these footprints don't match your current shoes. Where are these shoes?

You found my footprints because I was present at the crime scene and I came closer my sister to check her death. My shoes were full of her blood, it was too nauseating for me so I threw them.

- We found your bloody clothes in the trash. Can you explain it to me?

It's complicated, I was the first to arrive on the scene and I was afraid of being accused if my clothes were full of blood. I preferred to change before your arrival.

- Did you have an affair with Norris Choak?

Sorry?! No, he often harassed me on the phone to see me and he thought he had a relation with me but that is entirely false. You must not believe his lies.

- Mrs. Greenstab, M. Choak admit that you had an affair and written conversations prove it. Your explanation for the bloody clothes makes no sense. You would better stop lying. I remind you that you speak under oath.

Considering the situation, I can't continue to lie ... I will tell you everything. For 2 years, Norris and me had a romantic relation. But a few days ago, he left me out of respect for my sister. I didn't accept it. When I arrived at my sister's house on March 17, I saw the two lifeless bodies. Sadness engulf me, but I was so angry against Norris. So, I seized the opportunity to take advantage of it. I wanted my revenge. He hurt me so much. I wanted him to become the murderer. I stabbed my sister and wrote the message with her blood to make the police believe a crime of passion. Norris would have seen Jennifer with her lover, he would not have tolerated the idea and would have killed them both. The story was plausible. I also moved the body of M. Jack to make it more consistent. I called Norris before the police to ask him to join me outside of Salem so that the police suspected a flight. Well, you know everything. I don't know who is the real culprit but it is not him because he was with me at my apartment and it is not me, I swear it.

- You have to know that with such declarations we have to keep you in detention as main suspect of the case. You may call your lawyer.

Work colleague A : March 26, 2020, 10 a.m.

- You have to take the oath "to tell the whole truth, and only the truth".

*The interviewee takes the oath.*

- Introduce yourself by clearly stating your surname, first name, date of birth and profession.

My name is Suzanne Brown, I am a human resources manager and I was born on March 5, 1972.

- Do you know the two victims?

Yes, I knew them a little but not very well, I did not work directly with them. I know M. Jack better, a very nice person.

- As resources manager are you not supposed to know the people who are working in your company?

Well you know, when you do my job you see a lot of annoying people so you just remember some the bests among them.

- Do you have information that could advance the investigation?

No sorry, I can't tell you anything more. I think they had a cordial relationship like anyone who dealt with M. Jack.

- Thank you for your contribution, we might still need you for the advancement of the affair so you are not authorized to quit the city until we inform you, you are able to do so.

Work colleague B : March 26, 2020, 11 a.m.

- You have to take the oath "to tell the whole truth, and only the truth".

*The interviewee takes the oath.*

- Introduce yourself by clearly stating your surname, first name, date of birth and profession.

My name is James Stevens, I am 26 years old and I was born on January 29, 1994. I was an assistant of M. Jack as Jennifer Choak was.

- Did you know the two victims?

Yes, I knew them. I worked very often with Jennifer and we got along very well. I liked her very much as a work colleague. I saw Jonathan sometimes.

- Do you have information that could advance the investigation?

I know that you suspect an affair between the two victims but it is impossible. M. Jack had remarks with sexual overtones to Jennifer. It was sexual harassment. I know she was afraid of him; he was her boss so it was complicated to do something. I already found her in tears, but she didn't want to make a complaint against him...

- Thank you for your contribution, we might still need you for the advancement of the affair so you are not authorized to quit the city until we inform you, you are able to do so.

Mrs. Jack : March 27, 2020, 2 p.m.

- You have to take the oath "to tell the whole truth, and only the truth".

*The interviewee takes the oath.*

- Introduce yourself by clearly stating your surname, first name, date of birth and profession.

My name is Mary Jack, I was born on July 10, 1976 and I am a homemaker.

- Did your husband have enemies according to you?

Not as far as I know, but he was in a powerful position in the company, so some people had to envy his post.

- Forgive me for asking this question but do you think your husband and Mrs. Choak were having an affair?

Don't worry, I'm used to it. It is not impossible. My husband has been unfaithful many times. But I am not sure of anything.

- So, you knew he was cheating on you and you never said anything?

Well, as I have no income, I was not able to sustain myself without him. I had no choice but to stay with him and to obey him. You know, in my situation there is a time when you convince yourself that it is not so bad, I mean I am protected, I have children I love... That's why I stopped trying to find out what other girl he was with.

- Thank you for your contribution, we might still need you for the advancement of the affair so you are not authorized to quit the city until we inform you, you are able to do so

**Evidence**

Case #1426

Police Precinct  
SALEM, MASSACHUSETTS 01970  
PH : (617) 937-1022

Noted by Jessica Mainlif





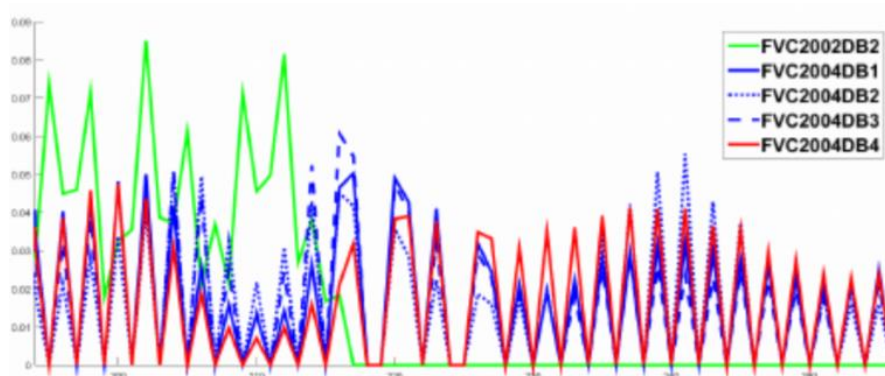
<b>Fingerprint analysis report</b>	<b>Case #1426</b>
Fingerprints R US Forensic Research Co. SALEM, MASSACHUSETTS 01970 PH: (617) 487-6647	Submitted by: Mike Appleby, Fingerprint expert from Keith Borrer

Both dead bodies of Jennifer Choak, 32 years and Jonathan Jack, 47 years, have been found by Miranda Greenstab at 8 Harmony Street on 03/17/2020. The two bodies were lying on the kitchen's floor, and display many deep cuts. Strangulation marks have been observed on Jennifer Choak's neck.

- Sample Q1.1

Collected on 03/17/2020 on a long kitchen knife.

*(a) Analysis graph of the central part of the knife handle's surface*



We only found incomplete fingerprints on the knife. After following the ACE-V (Analysis Comparison Evaluation and Verification) identification procedure, the examiners agreed that some of the fragments of fingerprints seem to match with the Choaks' fingerprints.

The point is that, the central area of the knife handle, by which we usually hold it, didn't reveal any identifiable fingerprint, they we're all damaged. Consequently, we were not able to found any correspondence with any known fingerprint (a).

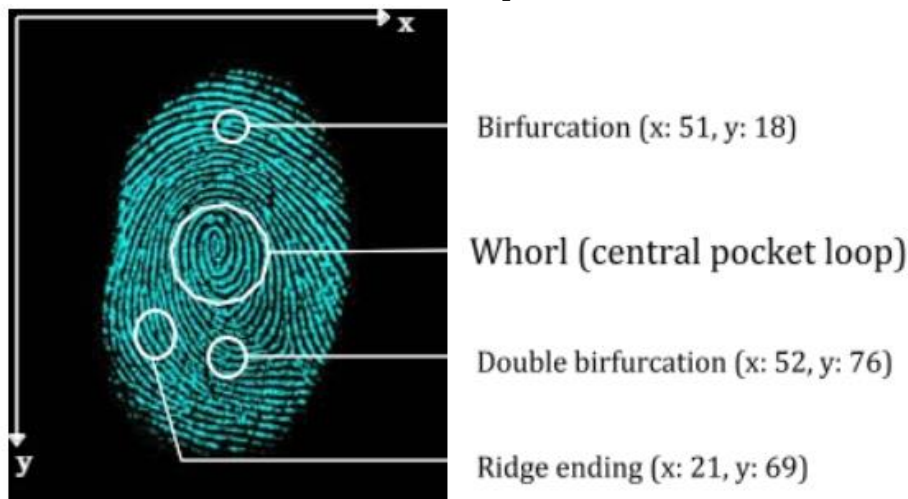
Fingerprints can be damaged by the contact between a non-porous rough surface (leather, vinyl, some plastics, and other textured surfaces) and the object's surface. The pressure and the friction movement on the object's surface may erase the fingerprints initially present. This phenomenon can occur when someone uses an object while wearing leather gloves, for example.

- Sample Q1.2

Collected on 03/17/2020 on Jonathan Jack's jacket he was wearing on the crime scene.

Thanks to the skin's natural oiliness and moisture, on almost any surface the fingertip touches, a mark will be left, even on clothes. In such a case, and thanks to favorable conditions (humidity and warmth), we can develop the print with chemicals developers. We used 1,2-diazafluoren-9-one (DFO). It makes fingerprints glow when they are illuminated by blue-green light.

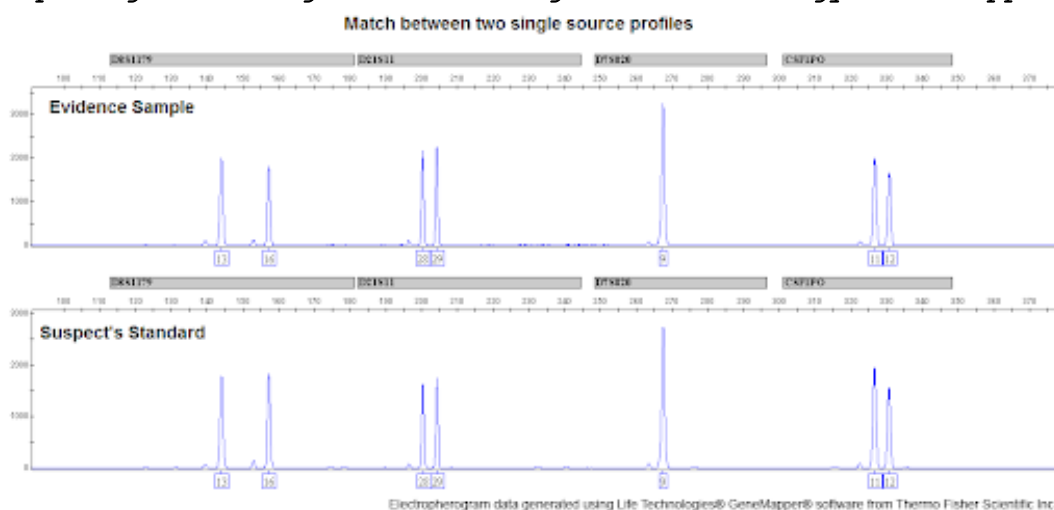
*(b) Photograph of a fingerprint from Jonathan Jack's jacket developed with DFO technique*



#### Summation of the ACE-V identification procedure

The print is a whorl loop type. This type makes up about 35% of pattern types. We identified in total sixteen minutiae, or ridge characteristics, which correspond to minutiae of Miranda Greenstab's fingerprint reference sample.

*(c) Electropherogram data generated using Life Technology® GeneMapper software*



For more precision, we also made a DNA analysis of the fingerprint. In fact, when an individual touches a surface, it leaves contact DNA on it.

We established an electropherogram (c) and with the CODIS software, we compared the evidence sample with the reference samples.

Because of its lower quantity of DNA, a contact DNA profile is more difficult to obtain than a classic one. That is why we can observe a quite relative variation between both DNA profiles for each parameter on the electropherogram.

Even if the DNA analysis is made on non-codant parts of the DNA to ensure anonymity, we can obtain information on the sex' owner. The evidence sample is a female one.

As a result, we can only suppose, that the evidence sample DNA profile and Miranda Greenstab DNA profile are the same with 6% error rate.

<b>Bloodstain pattern analysis report</b>	<b>Case #1426</b>
Bloodstain pattern R US Forensic Research Co. SALEM, MASSACHUSETTS 01970 PH: (617) 154-7165	Submitted by: Lee Fagan, Bloodstain pattern analysis expert from Keith Borrer

Both dead bodies of Jennifer Choak, 32 years and Jonathan Jack, 47 years, have been found by Miranda Greenstab at 8 Harmony Street on 03/17/2020. The two bodies were lying on the kitchen's floor, and display many deep cuts. Strangulation marks have been observed on Jennifer Choak's neck. A message written with blood on the wall of the kitchen said: "U slut had what u deserved". The experts identified various patterns of bloodstain on the crime scene. All the following samples were collected on 03/17/2020.

- Sample Q2.1

Bloodstain visible on the kitchen's wall.  
We identified for this sample, an arterial spray pattern.



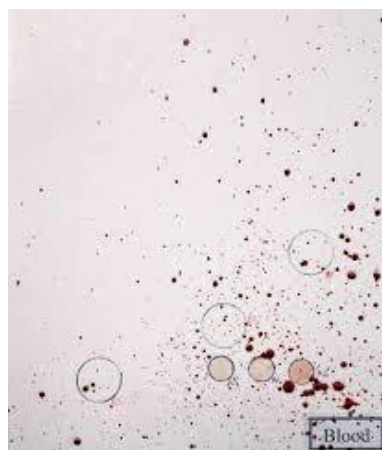
This type of bloodstain is caused by the spurt of pressurized blood which come from ruptured major artery. The blood is propelled out of the breached blood vessel by the pumping of the heart and usually forms an arcing pattern consisting of large, individual stains (see picture in margin). A new pattern is created for each time the heart pumps.

We noted nine patterns in total.

Some spatters of this type were damaged, which means that a body was probably moved.

- Sample Q2.2

Bloodstain visible on the kitchen's floor and on Jennifer Choak's face and chest. We identified an expired spatter pattern.



Expirated spatters are caused by blood expelled through the nose, mouth or an injury to the airways of lungs. The blood from an internal injury, mixes with air from the lungs before being expelled. We found small air bubbles in the drops of blood, which is typical in this type of spatter. Expirated spatter forms a very fine mist due to the pressure exerted by the lungs moving air out of the body (see picture to the right).

This means that the injured stills alive when the blood was expelled.

- Sample Q2.3

Bloodstains visible on the floor of the kitchen, next to both dead bodies.

We identified these spatters as stabbing spatters. Indeed, the stains diameter is about 1 at 4 millimeters, which is the typical diameter of the stains produced by stabbing.

Stabbing, or sharp force injuries, are caused by an object with a relatively small surface area, such as a dagger, an ice pick, or a common knife. Results a small, linear pattern of stains. The appearance of the resulting stain depending on the angle of impact.



We identified more precisely "exclamation point" stain (see picture), which is a very specific type of stain, originate from very acute angles (below  $25^\circ$ ). We observe an elongation of the stain, it becomes more elliptical, and a single satellite breaks off to form a second stain.

Trigonometry permits to calculate the angle of the impact.

Different examiners calculate an angle of  $19,5^\circ$  for the stains around Jessica Choak, and an angle of  $21^\circ$  for the stains around Jonathan Jack.

The results of our calculations lead to conclude that both bodies received several knife injuries while they were lying on the floor of the kitchen.

Moreover, notice that we observed void bloodstains for this sample.

A void in a stain occurs when a person or an object blocks the path of blood. We found matching stabbing spatters on both bodies. That means that both bodies were already lying alongside on the floor when they received the cuts, maybe almost at the same time.

- Sample Q2.4

Bloody footprint in the kitchen.



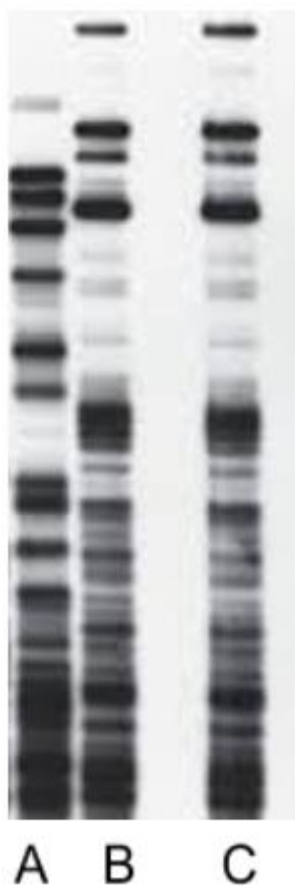
This photo reveals that the size value of the shoe is a 6 (woman UK). The elongate profile of the footprint supports the hypothesis that the wearer of the shoe is a woman. There was no information available on the brand of shoe.

<b>Blood analysis report</b>	<b>Case #1426</b>
Blood analysis R US Forensic Research Co. SALEM, MASSACHUSETTS 01970 PH: (617) 254-7148	Submitted by: Emma Youngson, DNA Profiling expert from Keith Borrer

Both dead bodies of Jennifer Choak, 32 years and Jonathan Jack, 47 years, have been found by Miranda Greenstab at 8 Harmony Street on 03/17/2020. The two bodies were lying on the kitchen's floor, and display many deep cuts. A message written with blood on the wall of the kitchen said: "U slut had what u deserved".

- Sample Q3.1

Blood collected on the wall, which was used to write the message.



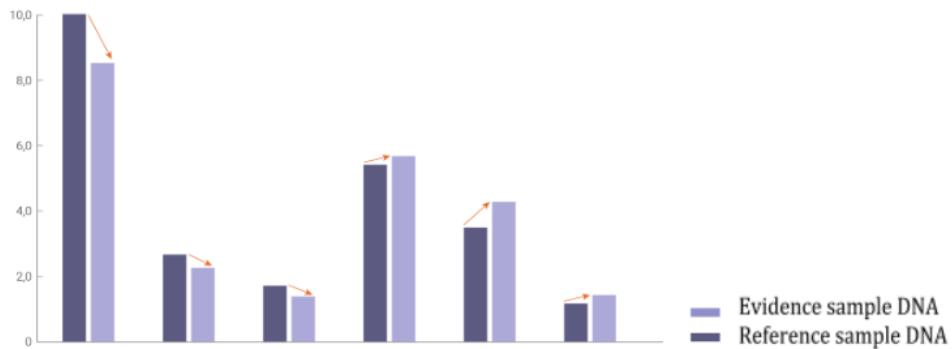
We obtained the DNA print of the blood owner. Next, we compared it with the reference samples. The DNA print of the blood collected on the crime matches with Jennifer Choak's DNA print. From a statistic point of view, the correspondence is reliable at 97%. It should be related with the facts established within the context of the investigation.

- A: *DNA print of Jonathan Jack (from reference sample)*
- B: *DNA print of Jennifer Choak (from reference sample)*
- C: *DNA print of the owner of the blood collected on the crime scene*

- Sample Q3.2

Blood collected on the cloths and the shoes of Miranda Greenstab.

*Comparison bar chart between two DNA profiles*



We established a bar chart to compare the evidence sample DNA profile with the reference sample DNA profile (from Jennifer Choak's blood). We obtained a potential correspondence between the samples but we are not able to confirm the correspondence with a sufficient level.

A fortuitous correspondence can be obtained from incomplete DNA profiles and/or from mixed profiles. In fact, we have found two different incomplete DNA profiles in the evidence sample.

Because of a lack of information, we cannot identify the owners of the DNA traces. We can only affirm with 83% of dependability, that one of the individuals is a woman, and the other is a man.

OFFICE OF THE ESSEX COUNTY MEDICAL EXAMINER  
88 Washington Street  
SALEM, MASSACHUSETTS 01970

REPORT OF INVESTIGATION BY COUNTY MEDICAL EXAMINER

DECEDENT Jennifer Choak RACE W SEX F AGE 32  
First Name Middle Name Last Name

HOME ADDRESS 8 Harmony Street M W S D OCCUPATION:

TYPE OF DEATH: Violent  Casualty  Suicide  Suddenly when in apparent health  Found Dead   
In Prison  Suspicious, unusual or unnatural  Cremation

Comment:  
If Motor Vehicle Accident Check One: Driver  Passenger  Pedestrian  Unknown

Notification by Finanda Greenstab Address 48 Barton Square  
Investigating Agency

Description of Body Clothed  Unclothed  Partly Clothed

Eyes brown Hair blond Mustache none Beard none

Weight 127 Length 5 6 Body Temp 89.8 Date and Time  
Pounds Feet Inches Fahrenheit

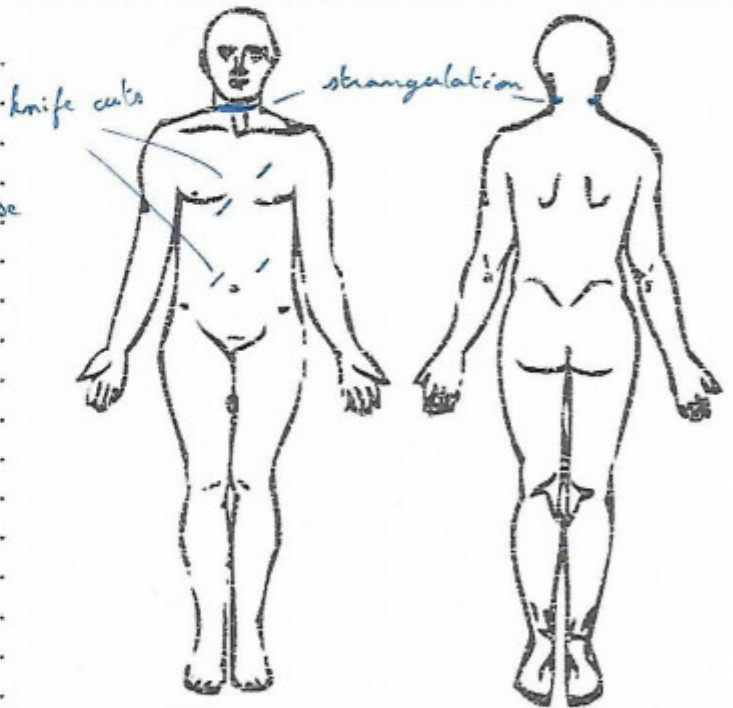
Rigor: Yes  No  Lysed  Liver Color Fixed  Non-Fixed

Marks and Wounds:

The cuts have the same direction and they are all thrust, no slice.  
It is uncommon because in most of the case the victim's defense make the strikes more chaotic.

The strangulation may have occur before or after the stabs, depending on what killed the victim.

Further investigation is needed



PROBABLE CAUSE OF DEATH	MANNER OF DEATH	DISPOSITION OF CASE
<u>Bleeding or Suffocation</u>	(check one only)	1. Not a medical examiner case <input type="checkbox"/>
	Accident <input type="checkbox"/> Natural <input type="checkbox"/>	2. Autopsy requested Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
	Suicide <input type="checkbox"/> Unknown <input type="checkbox"/>	Autopsy ordered Yes <input type="checkbox"/> No <input type="checkbox"/>
	Homicide <input checked="" type="checkbox"/> Pending <input type="checkbox"/>	Pathologist .....

I hereby declare that after receiving notice of the death described herein I took charge of the body and made inquiries regarding the cause of death in accordance with Section 21-830-33-69(b) Massachusetts Code Annotated and that the information contained herein regarding such death is true and correct to the best of my knowledge and belief.

03/17/2020  
Date

8 Harmony Street  
Place of Investigation

Ryan Douglas  
Signature of County Medical Examiner



<b>Autopsy Report - #0060889</b>	<b>Case #1426</b>
Medico-legal institute SALEM, MASSACHUSETTS 01970 PH : (617) 719-4733	Noted by Sonia Lederberg

IDENTIFICATION : The body is identified by a blue Medical Examiner's tag. Tag #0060889

ASSISTANT : Forensic autopsy assistant : Richard Herdin

DESCRIPTION :

The body belonged to a white female, 5 feet 6 inches long for 127 pounds. She was 32 and presented a consistent development for her age. Symmetric body, so as her face. No traces of any disease or malformation. Normal scalp. All the teeth are present and in order. Light rigor on the upper articulations, cool temperature.

INJURIES :

The body presents several wounds. Contusions and light lesions on the neck, evidences of a strangulation attempt. Four cuts on the front side of the body. Two on the torso and two on the stomach. No other wounds apparent.

The autopsy confirm the absence of other wounds. The knife cuts of the stomach are deep. The tissues are heavily damaged. On the torso the ribs have stopped the blade of a first strike and present medium marks. The second strike went between the bones and pierced the left lung. The shape of the left lung reveals a pneumothorax.

CAUSE OF DEATH :

The hypothesis of death by strangulation is inconsistent. No lesions on the larynx. No scleral or conjunctival petechia. Intact carotid.

The several cuts occurred a bleeding which could have lead to a cardiac arrest, but no artery was struck so the probability is low.

Therefore the lung's wound could have been a lethal one, despite the others. Considering the damages of the brain, a death by cerebral hypoxia is a better explanation. The cause would be the association of a pneumothorax and bleeding.

OTHER DETAIL :

Some piece of skin have been found under the nails of the body. DNA analysis confirm, as suspected, those tissues belong to the body #0060890 with a probability of 96%.

**OFFICE OF THE ESSEX COUNTY MEDICAL EXAMINER**  
 88 Washington Street  
 SALEM, MASSACHUSETTS 01970

**REPORT OF INVESTIGATION BY COUNTY MEDICAL EXAMINER**

DECEDENT Johnathan Jack RACE W SEX M AGE 47  
First Name Middle Name Last Name

HOME ADDRESS 56 Granite Street (Peabody) M W S D OCCUPATION: \_\_\_\_\_

TYPE OF DEATH: Violent  Casualty  Suicide  Suddenly when in apparent health  Found Dead   
 In Prison  Suspicious, unusual or unnatural  Cremation

Comment: \_\_\_\_\_

If Motor Vehicle Accident Check One: Driver  Passenger  Pedestrian  Unknown

Notification by Miranda Greenstab Address 48 Barton Square

Investigating Agency \_\_\_\_\_

Description of Body  Clothed  Unclothed  Partly Clothed

Eyes brown Hair grey Mustache none Beard none  
 Weight 178 Length 5 8 Body Temp 87.6 Date and Time \_\_\_\_\_  
Pounds Feet inches Fahrenheit

Rigor: Yes  No  Lysed  Liver Color \_\_\_\_\_ Fixed  Non-Fixed

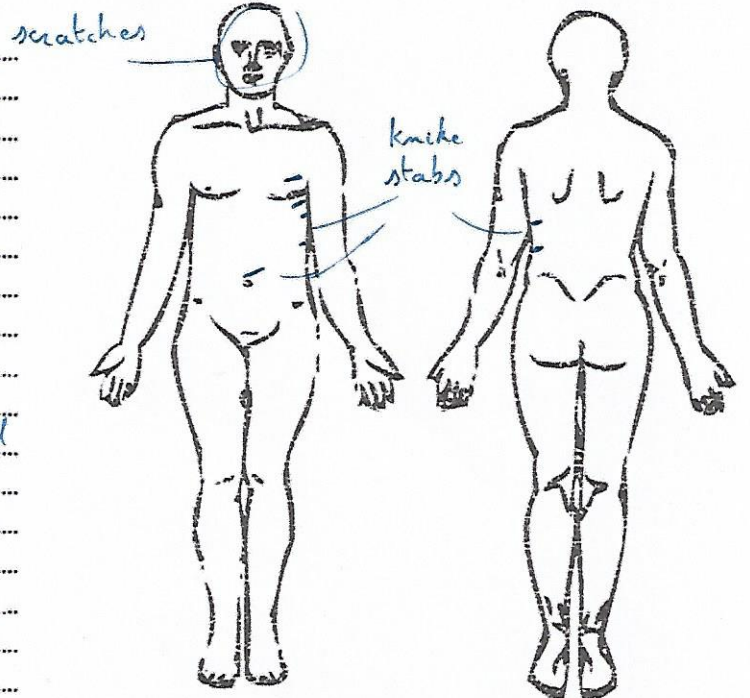
Marks and Wounds: \_\_\_\_\_

The face presents trace of resistance of an opponent.

They are 5 cuts on the body:  
3 on the left side  
2 on the front

Again there are only thrusts (stabs) and no slices.

Further investigation is needed



PROBABLE CAUSE OF DEATH	MANNER OF DEATH	DISPOSITION OF CASE
<u>Bleeding</u>	<i>(check one only)</i>	1. Not a medical examiner case <input type="checkbox"/>
	Accident <input type="checkbox"/> Natural <input type="checkbox"/>	2. Autopsy requested Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
	Suicide <input type="checkbox"/> Unknown <input type="checkbox"/>	Autopsy ordered Yes <input type="checkbox"/> No <input type="checkbox"/>
	Homicide <input checked="" type="checkbox"/> Pending <input type="checkbox"/>	Pathologist _____

I hereby declare that after receiving notice of the death described herein I took charge of the body and made inquiries regarding the cause of death in accordance with Section 21-830-33-69(b) Massachusetts Code Annotated and that the information contained herein regarding such death is true and correct to the best of my knowledge and belief.

03/17/2020 8 Harmony Street Ryan Douglas  
Date Place of Investigation Signature of County Medical Examiner

<b>Autopsy Report - #0060890</b>	<b>Case #1426</b>
Medico-legal institute SALEM, MASSACHUSETTS 01970 PH : (617) 719-4733	Noted by Sonia Lederberg

IDENTIFICATION : The body is identified by a blue Medical Examiner's tag. Tag #0060890

ASSISTANT : Forensic autopsy assistant : Richard Herdin

DESCRIPTION :

The body belonged to a white male, 5 feet 8 inches long for 178 pounds. He was 47, had osteoarthritis and a treatment for it. The body presents no scars or malformation. Partial baldness. A teeth is missing and two are fake. Light rigor on the upper articulations, cool temperature such in the previous case.

INJURIES :

The body has been stabbed five times. Three times on the left side almost from the back, two times from the frontside. Those strikes does not seems to have been dealt in the same time. In fact the wounds on the front are less bloody. The face is scratched, probably by nails.

After autopsy it is clear the strikes are different. The two on the front are powerful, one went through the ribs and pierced the liver, the other cut the stomach. For the first strike on the left, the blade has been deflected by the upper ribs, struck the armpit and went through the artery. The two other cuts are superficial.

CAUSE OF DEATH :

The cut of the artery was a the lethal one. The decedent lost most of his blood and died of a cardiac arrest.

OTHER DETAILS :

Some skin tissues have been caught by the nails. The DNA analysis confirm a match with the body #0060889