

Summary of the Massei report

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1. Introduction

Meredith Kercher, a British student, was murdered in the apartment she shared with three other young women, in Perugia, Italy, on the night of November 1, 2007. Three people were charged with the murder: Amanda Marie Knox, an American student who was one of Meredith's flatmates; Raffaele Sollecito, an Italian student who was Knox's boyfriend; and Rudy Hermann Guede, an Ivorian resident of Perugia who was known to both Knox and Kercher.

Guede opted for a 'fast track trial' which, under Italian law, permits defendants to relinquish some rights, at trial, in exchange for a more lenient sentence, if found guilty. In October 2008, Guede was found guilty of murder and sexual assault. Knox and Sollecito opted for a full trial, and this took place, in Perugia, between January and December 2009. The presiding judge was Dr. Giancarlo Massei, assisted by a second professional judge, Dr Beatrice Cristiani, and six 'lay judges'. Knox and Sollecito were found guilty of murder, sexual assault and other charges related to the case.

In accordance with Italian law, the judges produced a report detailing their interpretation of the evidence and the thought processes that led to their verdict. This document is sometimes referred to in English as a "motivations report" and, more accurately, as a "sentencing report": often just by the name of the presiding judge - the "Massei Report". It runs to 427 pages.

A team of unpaid volunteers who are regular posters on the [Perugiamurderfile.org](http://www.perugiamurderfile.org) message board, devoted to discussing the murder of Meredith Kercher, undertook the translation of the entire document into English. Another team of volunteers from the same message board has undertaken the present document - a summary of the Massei report.

The act of summarising involves selection: deciding that some things are included in the summary and some are not. The editors and reviewers have tried to do this in such a way as to bring out the points to which the judges themselves attached the most weight. But, this was a process of editorial judgement and, however diligent the editors and reviewers have been, they did not know the minds of the judges, other than by the words of the report. Readers are very strongly recommended to read the report itself, or at least key passages, and not to rely on this summary alone. To assist with this, the editors have cited page references [in square brackets]: these refer to page numbers in the PMF translation which, in turn, includes page references to the Italian language original.

2. Background

Meredith Kercher

Born Meredith Susanna Cara Kercher in London on December 28, 1985, she had studied Italian and Latin in England, and came to the University for Foreigners in Perugia as part of the Erasmus Programme. She chose Perugia because it was small but could be easily reached by air. In England,

she had also taken classes in dance, played soccer and practised karate. Her mother and sister described her as strong, both physically and in temperament.[23]

She left England for Perugia on September 1, 2007, at first staying in a hotel. She found the rental house on Via della Pergola; she liked it because it was near the University for Foreigners and offered a beautiful view of the Umbrian landscape. She occupied the room farthest from the entrance; from its window she enjoyed a panoramic view of the valley below.[23]

Via della Pergola was almost hidden from Viale S. Antonio and the car park in front of it. The cottage had two floors, the basement being occupied by four young men, and the upper floor shared by four young women: Filomena Romanelli, Laura Mezzetti, Amanda Knox, and Meredith Kercher. [24] The 1,200 euro per month rent was divided evenly between the four. Each would give 300 euro to Romanelli, who would make the payment.[62]

Each had her own room. Romanelli and Mezzetti had the rooms on either side of the entrance and a living room/kitchen was located in between them. Knox occupied the bedroom between those of Meredith and Romanelli. A hallway led to Knox' and Meredith's room, and to a small bathroom that they shared. Romanelli and Mezzetti shared a larger bathroom directly across from Mezzetti's room.[24]

Meredith studied Italian language, politics, English, cinema, and more Italian.[23]

On September 28 she returned to England to get warmer clothes, returning on October 1. She was very attached to her family. She brought a mobile phone with her from England to keep in touch with her family, and in particular to be informed about the condition of her mother's health, which was not good.[23, 24, 29-30]

She was affectionate, conscientious, and very intelligent. She loved pizza and at times went dancing. Her mother and her sister knew about Amanda, and Meredith's relationship with Amanda. They knew that when Amanda started to work in a club, Meredith and her friends had gone there to support her. Meredith had also said that Amanda constantly sang.[23-24]

The last time Meredith talked with her mother was on November 1. She had said that she was coming back to England on November 9 and would be present for her mother's birthday on November 11. She had bought some presents, and chocolate for her sister.[24]

Amanda Knox

Amanda Knox decided to study in Italy, and chose Perugia because she wanted to learn about the Italian people and culture, and not live in a place that was "too touristy." She worked to save the money to come, and also received some money from her mother and father. She left the United States in mid-August 2007, staying in Germany until late August or the beginning of September, arriving in Perugia with her sister. She looked at the house on Via della Pergola, found it to her liking, and then returned to Germany, ultimately returning to Perugia and the house. [61]

One of her teachers in Perugia described her as "a really good student, diligent, actively participated." She found a job at the pub Le Chic managed by Patrick Lumumba, initially working every day from 9:30pm, then from 10pm, then only two days a week: Tuesdays and Thursdays.[61]

Raffaele Sollecito

Raffaele Sollecito came from Giovinazzo to Perugia in 2002 and obtained his graduation diploma that same year. He enrolled in the faculty of informatics and chose Perugia because ONAOSI college is located there. He boarded at the college from 2003 to 2005. He was "taciturn, introverted, shy,...and watched many films". Educators at the college were shocked to find a very hard-core film

containing scenes of sex with animals. In response to that they monitored him in an effort to understand him.[61]

In 2003 the Carabinieri found Sollecito in possession of 2.67 grams of hashish.[62]

According to his father, he had, from his teens, a habit of carrying a pen knife in his pocket to record things on the bark of trees and to carve wooden objects.[61]

He had a brief affair, lasting only a few days, with a girl from Brindisi a few months before October 2007.[61]

The meeting of Knox and Sollecito

Knox and Sollecito met on October 25, 2007, at a classical music concert to which Knox had gone with Meredith. Meredith had to go home, so after she left during the intermission, Sollecito sat down near Knox. Knox and Sollecito quickly established “a good understanding,” he treating and cuddling her “like a little girl.” They met frequently and were constantly together. Sollecito’s father called him daily, often several times a day, and every time he called, his son talked about Amanda. Knox told her parents in a November 13, 2007, conversation that they were going out together as if they were a couple and that he was kind and caring, that he cooked for her and always wanted to hug her and help her.[62]

Both were using drugs, which was corroborated by the statements of the flatmates, and by Knox in tapped intercepted conversations.[62]

Romanelli recalled seeing them together at the flat the day after the concert, and saw him there two or three more times. Mezzetti recalled seeing him there at other times, “about four times” in all.[62] Very often Knox slept at Sollecito's house.[63]

Mezzetti said Knox and Sollecito were constantly hugging each other, and that Sollecito was particularly tender, but seemed to her to be a bit possessive. She thought he was “very attached to Amanda.”[62]

Rudy Hermann Guede

Rudy Guede was a regular at the basketball court in front of the University for Foreigners in Piazza Grimana. He was acquainted with the young men who lived in the lower floor of the house, and knew Meredith and Knox from the upper floor. Although he had chatted with both of them, he was particularly interested in Knox and inquired as to whether she was seeing anyone. He was well-received at the house, having gone there one Sunday to watch a Formula One race, and on another occasion having returned from the clubs at 2 in the morning, then spent the night asleep on the toilet.[42]

Sometime between the evening of October 13 and October 14, someone had broken into the law offices of Paolo Brocchi and Matteo Palazzoli, in Perugia. A window was smashed with a large stone, and a computer, a cell phone, USB keys, and a printer were missing. On October 29 a colleague in his office called Brocchi to tell him that a man had come into their office to say that he had legitimately purchased some goods in Milan which Brocchi had reported as stolen in Perugia. Brocchi later identified Guede as that person.[46]

On the morning of October 27, 2007, the principal of a nursery school in Milan found a stranger coming out of her office. Police were called and the person was identified as Rudy Guede. There were no signs of a break-in; money was missing, but just small change. The police made him open his backpack. Inside the backpack was a computer, a 40 cm kitchen knife (which had come from the nursery school kitchen), a bunch of keys, a small gold woman’s watch, and a small hammer like

those found in buses to be used to break windows. Police told the principal that the computer had been stolen from a law office in Perugia.[45]

Guede explained his presence by saying that he had asked someone at the central Milan train station where he could stay, and after paying 50 euro, he was directed to the Milan nursery school.[45]

A householder, Tramontano, testified that someone attempted to rob his home, [Date unspecified] and upon being discovered tried to leave. Finding the door locked, the intruder pulled out a jackknife and threatened him. Tramontano saw Guede's picture in the newspapers and said "I believe I recognize him." [46]

3. Evening and night of November 1

On November 1, Romanelli and Mezzetti both left the shared apartment with the intention of spending the night away; it is not clearly stated in the Massei Report when Knox first knew of their intention. They played no further part in the proceedings until the following day.[29]

From about 4pm or 4:30pm onwards, Meredith Kercher spent the evening with her English friends Robyn Butterworth, Amy Frost and Sophie Purton. They prepared and ate a pizza, looked at Halloween photos from the previous evening, watched part of a film and prepared and ate an apple crumble.[34-35] They drank only water.[35] Shortly before 9pm, Meredith and Sophie Purton left. They parted company at about 8:55pm near Purton's apartment (which Purton returned to in time to see a TV program starting at 9pm).[37] Meredith continued the short walk to her own house alone. Meredith did not say that she was meeting anyone: just that she was tired.[38]

After this point, Meredith was not seen alive, except by the murderers, and some of the main evidence is derived from the usage-records of her telephones. Up until 10:13pm, Meredith's phone was in the vicinity of her own apartment but, by 00:10am, it had been dumped in a garden, a few streets away from her home. Various calls were made in the intervening time: at 8:56pm, an unsuccessful call was made to the family number; at 9:58pm there was an attempted call to the mobile phone's answering service; at 10pm an unsuccessful call was made to Meredith's bank (the first number in her address list), and, at 10:13pm, a GPRS data connection was made.

Amanda Knox and Raffaele Sollecito went to his house on Corso Garibaldi in the late afternoon. [65] Jovana Popovic, an acquaintance of Sollecito's, testified that on the evening of November 1 she went to his house twice and that on both of these occasions, she met Knox. The first was around 5:45pm and the second was around 8:40pm.[63-64] Then, at 8:42pm Sollecito received a phone call from his father and mentioned that he was with Knox and that the next day they were planning a trip to Gubbio. Sollecito also mentioned that, while he was washing the dishes, he had noticed a leaking pipe that had spilled water onto the floor.[63] The last human activities on Sollecito's computer were the conclusion of watching a film, at 9:10pm.

Analysis of the hard drive by the Communications Police concluded that there was no further human interaction with the computer until 5:32am the following morning.[304] A defence expert noted a very brief (4 seconds) access to Apple iTunes at 00:58am: the court accepted that this could have been a human interaction with the computer, but that it was after the time when the murder was believed to have taken place.[310]

Knox was scheduled to work that night at the Le Chic, the pub managed by Diya 'Patrick' Lumumba. However, he sent her a text message, at 8.18pm, telling her that there was no need for her to go to work that evening.[64] Knox's phone was turned off at 8.35pm and Sollecito's shortly after. According to Knox this was so that they would not be disturbed.

At this point, the various accounts of the events diverge. Knox's account is that, until the following morning, she stayed with Sollecito. They smoked some marijuana,[66] then had dinner together, but

quite late, (she placed it as late as 11pm in one account[66] but spoke of the washing up being done at 9:30-10pm in another[69]). Knox stated that after dinner, she had noticed a bit of blood on Sollecito's hand and had the impression that it had to do with blood coming from the fish that they had cooked.[67] Sollecito washed the dishes, but a break in the pipes occurred under the sink and water flooded the floor. Since they didn't have a mop, they decided that they would do the cleaning the next day, with a mop that she could get from her house.[67]

The above account given by Knox differed from that given earlier by her to police, during the night of November 5-6, 2007. That earlier account was briefly alluded to at her trial, but was admissible as evidence only in the civil case brought by Patrick Lumumba, and not in the murder case. Knox accounted for her change of story, on the grounds that it was because of the persistence of the questioning which had made her imagine what could have happened.[68] In this earlier account, she had described returning home to Via della Pergola, in the company of Patrick Lumumba, on the evening of November 1, 2007, after 9pm. She had described many things which she now realized she had imagined, including Meredith having had sex and being killed, while Knox held her own ears closed so as not to hear Meredith's screams.[67-68]

Also in contradiction to Knox's account is the fact that her SMS exchange with Lumumba, was in a different phone "cell" from the one covering Sollecito's house, indicating that she was not, in fact, in the house at this time (just after 8pm),[77] although she had returned by Jovana's arrival at 8:40.

The court noted the discrepancies in Knox's various statements about the time they ate dinner: in one statement 9:30 to 10 pm and, in another, 11pm.[78] The court noted that both of these times are contradicted by the declarations of Sollecito's father that his son had indicated that they had eaten and washed up before 8:42.[78] The court also noted the contradiction by witness Antonio Curatolo, who testified that on the evening of November 1, 2007, after 9:30 pm, and before 11 to 11:30pm he saw Knox and Sollecito, several times, in the area of Piazza Grimana, the tiny square in front of the University for Foreigners. Curatolo is homeless and lives in the street in that area. Although unsure of actual dates, he was able to state that this sighting of Knox and Sollecito was the night immediately preceding the day on which police and carabinieri began to crowd around the house where the murder took place.[78-79]

Nara Capezzali, a resident living close to Via della Pergola, went to bed around nine or nine thirty that evening and got up to use the bathroom about two hours later. While doing so, she heard a woman's scream, "but a scream that was not a normal scream".[95] She testified that she then heard running on the steel staircase and, almost immediately, running (in a different direction) among the leaves and the gravel, both adjacent to the house in Via della Pergola.[96] Another resident, Maria Ilaria Dramis, confirmed that she had had the feeling of hearing running footsteps under the window of her bedroom, and that she did not remember hearing people running in the same way on other occasions like that night.[98]

4. Morning of November 2

Accounts of the events of the morning of 2 Nov do not agree. According to Knox's statement, she and Sollecito slept until around 10-10:30 am.[67] After a while, she decided to go back to her house to take a shower and change her clothes, and to fetch a mop to clear up some water from a leaking pipe in Sollecito's kitchen.[65] Her intention was that when she returned they would leave for a planned trip to the nearby town of Gubbio.[70]

When she arrived at her apartment, she was surprised to see that the front door was open. She entered the house, leaving the door open in case it had been deliberately left ajar by one of her flatmates, who might have gone out briefly, to get some cigarettes for example. She then went to her own room, undressed and went into the bathroom that she shared with Meredith. She took out her

earrings and cleaned her ears - a regular necessity because the piercing in one ear had become infected. She noticed drops of blood in the sink, and thought this strange but continued to take a shower. Getting out, and not having remembered her towel, she decided to use the bath mat to shuffle into her own room. At that moment, she noticed the blood stain on the mat but thought it might be from some menstrual problem that hadn't been cleaned up.[70]

Having returned the bathmat, she put her earrings back on, brushed her teeth, dressed in clean clothes and then went in the other bathroom (the one used by Romanelli and Mezzetti) and dried her hair with their hairdryer. She then noticed that there were feces in the toilet, which was strange as Romanelli and Mezzetti were very clean. She left her apartment, locking the front door, and went back to Sollecito's, where they made breakfast and she told him what she had seen.[70]

In contrast to this account, forensic examination of Sollecito's computer showed that it had been used for about half an hour from 5:32am to listen to music. After this, he turned on his mobile phone and, at 6:02 am, received an SMS message which had been sent to him by his father the previous evening when the phone was switched off. Phone records also confirmed a call made at 9:30am to Sollecito by his father. There was no mention of any of this activity in Amanda's statement.[82]

According to the testimony of Marco Quintavalle, the owner of a small supermarket, he opened his shop at 7:45am on the morning of November 2 and almost immediately a young woman, whom he identified as Amanda Knox, went into the store department that had groceries, detergents and toilet paper on sale. He saw her leave again but did not know if she bought anything. Quintavalle did not present this information to the police until some months after the crime and explained that, although he had previously been questioned about the morning after the murder, he had not been specifically asked about Knox. Another of the shop's employees stated that she had not seen Knox in the store. [83-84]

The court highlighted the discrepancies between Knox's account and the evidence of the computer and phone records and the testimony of the shop owner. It also doubted the credibility of Knox going back home to change her clothes, take a shower and fetch the mop to dry the floor. Since Knox and Sollecito had planned a trip to Gubbio that morning, she could well have brought the clothes with her that would be needed. It was also noted that Knox had already showered and washed her hair at Sollecito's house, the previous evening: there was no obvious need for her to repeat those actions and, if there were such a need, there was no reason why she couldn't do so at Sollecito's. Fetching the mop to dry the floor was also deemed to be scarcely credible, considering that Sollecito employed a cleaner and, in any case, everything needed to clean up some water was already there.[85]

What is certain is that, around midday, Knox called Filomena Romanelli to say she had arrived at the apartment and had found the door open: she had taken a shower and it had seemed to her that there was some blood in the apartment. She said that she was going to Sollecito's place but did not know the whereabouts of Meredith. Romanelli rang Knox back and Knox (now at Sollecito's) told her that the window in Romanelli's room was broken, everything was in a mess, and that she should come back home.[30]

Knox and Sollecito went back together to the house in Via della Pergola. According to their accounts, they looked in Romanelli's room where there had apparently been a burglary, and checked the other rooms, but found nothing missing. They were worried that Meredith's door to her room was locked and, when she was called, there was no answer. Sollecito made an attempt to force open Meredith's door (described by the court as a 'timid' attempt, given that it was easily forced open later).[31] After that, they left the house, partly to look at the broken window from the outside.

Earlier that morning, two mobile phones had been discovered in the garden of a house located in

Via Sperandio, a short distance from 7 Via della Pergola (the shortest route would be distance of about 5-7 minutes on foot, according to one witness).[25] The owner of the house had contacted the Communications Police with regard to a telephoned bomb threat which she had received and then discovered the two phones. One of the phones was registered to Romanelli (although both were in fact Meredith's phones - one given to her by Romanelli for use in Italy).[26][30]

The Communications Police traced Romanelli's address and arrived at the girls' apartment some time between 12:30pm and 1pm. Outside the house, they found Amanda Knox and Raffaele Sollecito – who said that they were waiting for the carabinieri, whom they had called because they had been away for the night and had come back to find the entrance door open and then a window broken.[28]

Romanelli, her friend Paola Grande and their boyfriends, Marco Zaroli and Luca Altieri arrived around 1pm.[28] Romanelli made a quick check of her room, discovering that, although it was in a complete mess with the windowpane broken and clothes thrown around the floor, nothing was missing.[31] Nonetheless, she was concerned that the front door had been found open, bloodstains had been found in the small bathroom, and there was no news of Meredith. Furthermore, Meredith's bedroom door was locked.[31]

The significance of this fact subsequently became a point of disagreement, with Knox saying that even when she went to the bathroom for a shower Meredith always locked the door to her room (the fact that she said this being confirmed by Zaroli and Altieri). Romanelli, on the other hand, said she was aware of only one occasion when the door had been locked and this was when Meredith had returned to England for a few days.[31]

The Massei report notes Knox's apparent lack of concern at the locked door, both in the presence of the Communications Police and in her earlier telephone conversation with Romanelli. This was at odds with an email that Knox sent to her friends and family a few days after the murder (November 4, 2007) in which the locked door acquired a central importance and Knox described herself as “panicking” when she first discovered it. Massei concludes that panic at the locked door would be a logical reaction if Knox had been uninvolved in the murder, but according to Romanelli and the Communications Police, there was no such panic.

Knox and Sollecito, in fact remained in the living room, some distance away from Meredith's room, while Romanelli and her friends were so concerned that they decided to force the door open. One of Romanelli's friends broke down the door and the bloody body of Meredith Kercher was found.[32] The Communications Police sealed the area and called the Carabinieri, who arrived a short time later.[33]

5. Pathology: Injuries, time and cause of death and Conclusions

Massei observes that the injuries Meredith Kercher sustained were the subject of intense analysis and speculation in the courtroom, yet his summary and conclusions are clear and concise. Many of Meredith's injuries appear to have been caused by the actions of restraining, whereas some were obviously inflicted by a knife or knives and showed great diversity in both dimensions and overall harmfulness. Massei found that one point was particularly significant: the knife wounds from the attack to Meredith's neck came from both the right and the left sides.[371]

Massei believes Meredith's injuries lie at the heart of the debate over the single attacker versus the multiple attacker scenarios. The hypothesis of a single attacker requires that the single attacker continually modify their actions, first by exercising a strong restraining pressure on her, producing significant bruising, and then for some reason switching to life threatening actions with a knife,

thereby changing the very nature of the attack from that of subjugation to that of intimidation with a deadly weapon, and finally to extreme violence by striking first from the right penetrating to a depth of 4cm (1.5 inches) and then from the left to a depth of 8cm (3 inches) into the neck.[371]

Massei describes the first knife blow coming from the right by saying that it was apparently halted from going any deeper by hitting the jawbone. The Court considered that this blow was an effort to force Meredith to submit to an action against her will. The Court also considered that the penetrating knife wound from the left was preceded by the action of running the knife over the surface of the skin on the same part of Meredith's neck, just a few centimeters below the eventual strike zone where the serious, deeper second wound was inflicted.[371]

What surprised Massei about Meredith's wounds was that in spite of all the changes in approach during the attack she somehow remained in the same vulnerable position, leaving the same part of her neck fully exposed to an attacker. If this were a solo attacker then this person released a firm restraining grip on Meredith to somehow bring a knife into play, then striking her first from the right and then switching the knife-holding hand to somehow float a knife in an intimidating manner across her neck on the left, before finally stabbing her in that same location on the left with a final debilitating blow.[371-372]

Massei concludes that throughout the attack Meredith remained virtually motionless, and he cites the almost nonexistence of defensive wounds on other parts of her body in comparison to the number, distribution, and diversity of impressive bruises and wounds to her face and neck. Massei finds this disproportion to be a significant factor, particularly when considering Meredith's physical and personality characteristics.[370,371]

Meredith's physical build was described as being slim and strong; possessing a physique that would have permitted her to move with agility. In addition, Meredith was described as being athletic and one who practised football, karate, and boxing.[369] Therefore, the court found it unlikely that only one person performed the attack against her, and inevitable that several people had acted together against Meredith; a group who forcibly restrained Meredith in movement so that she could not defend herself in any way nor shield herself with her hands in order to avoid the repeated attacks to her neck.[371]

Meredith's defensive wounds were found to be minimal and consisted of a 0.6cm (quarter inch) long superficial slice on the palm of her right hand showing only a trace of blood and another 0.6cm (quarter inch) slice on the second finger of her left hand, along with several highly superficial cuts to the fingertip of the index finger. Massei finds this remarkable considering that the normal and instantaneous human reaction to that first violent knife stab to the neck would have been to protect the area of attack, along with a strong desire to escape even if it meant receiving a blow to another part of the body. However, Meredith remained in the same standing position while continuously offering her exposed neck to the actions of the person(s) striking her, with the peculiar distinction of striking first from the right and then from the left. Massei believes that a scenario as such seemed inexplicable, unless one accepts the presence of more than one attacker who, as a group, forcibly restrained the athletic Meredith's movements while intimidating and striking her from multiple angles.[369]

Massei also believes that evidence demonstrated Meredith was still dressed and awake when the attack began on her and that the violence against her could not have taken place as it did if Meredith were lying on her bed. Massei concludes that Meredith was sober and fully conscious since no traces indicating either the use of drugs or the abuse of alcohol were found; all of which, if present, might have contributed an inability to firmly resist an attack.[369]

Furthermore, Massei finds it impossible to imagine a scenario in which a single person could have removed the clothes that Meredith was wearing (shoes, pants and underwear) while inflicting the

sexual violence revealed by the vaginal swab. Massei finds it highly unlikely that one person could have caused all of the resulting bruises and wounds cited above in addition to removing her sweatshirt, pulling up her shirt, and bending her bra hooks by force before finally tearing and cutting the bra. The actions on the bra alone, during which a small piece of material with hooks was cut off and thrown to the floor, were necessarily conducted from behind Meredith and required the attention of both hands of an attacker, and thus Meredith would have had her own hands free to attempt actions of self-defense.[370]

Massei concludes there was very little evidence of any defensive maneuvers on the part of Meredith, which to him was a strong indication that several attackers were present, each with a distribution of tasks and roles: either holding Meredith and preventing her from any significant defensive reaction, or actually performing the violent actions. Massei concludes that the rest of the body of evidence came in full support of such a scenario, recalling that a biological trace of Rudy was found on one of the cuffs of Meredith's sweatshirt indicating a gripping in order to prevent any reaction. In drawing together all of the elements mentioned above, both circumstantial and forensic, Massei concludes that the diverse morphology of the injuries, their number, and their distribution mandated that the violence against Meredith was performed by multiple attackers.[370-371]

Summary of pathology findings

Massei describes the significant injuries discovered during the post-mortem examination and states that there were no noticeable injuries in the chest or abdomen areas, two areas of slight bruising on one elbow, small wounds on the hands indicative of a minimal defensive response, very slight bruising on the front of the left thigh, minor bruising on the front middle of the right leg, and a slight area of bruising just below the top of the head.[111-112]

Massei cites compelling evidence of recent sexual activity having the characteristics of non-cooperation on the part of the female participant. Non-spermatic biological material belonging to Rudy Guede was discovered during the course of a gynecological examination of the corpse. This, in conjunction with a distinct pattern of abrasions, was interpreted by the court as being strong evidence of sexual violence.[157-158]

The head and neck injuries were the most significant and included small spots inside the eyelids indicative of asphyxiation, a bruise to the cheek possibly caused by a knife point, bruising on the nostrils and trauma to the lips suggestive of silencing or suffocation efforts, biting injuries to the tongue, bruising and abrasions on the lower jaw indicative of a hard compression by hand, and neck swelling and hemorrhaging with pools of blood left inside the lungs as a result of two significant knife wounds.[111]

Dr. Lalli, the Perugia Coroner, who performed the autopsy on Meredith at the morgue of the Perugia Polyclinic, reported that the hyoid bone, located at the back of the tongue muscle had been “severed”. [145: Professor Torri quotes Dr. Lalli’s comment]

The most significant wounds Meredith sustained were inflicted by knife-stabs and thrusts occurring very quickly from the right and from the left, severing the right superior thyroid artery¹ and the hyoid bone.[139] The largest of these was inflicted by a knife high on the left side of the neck near the jawbone which penetrated to a depth of 8cm (3 inches).[111]

Another significant knife wound, 4cm (1.5 inches) deep, was noted on the right side of the neck, above which were found superficial parallel scratches. The wound from the right crossed the path, inside the neck, of the wound from the left. The Court concluded that these knife wounds were

1 This is the accepted English language name for the blood vessel referred to in the Massei report, although the English translation does not specifically name it the right “superior thyroid artery”.

made by single-bladed, pointed cutting tools and that Meredith's injuries might be consistent with a virtually infinite number of instruments, provided they had a blade with only one sharpened edge that was not serrated.[111-113]

The Court held that it is self evident that should one conclude during forensic pathology investigations that a knife is not compatible with any of the wounds inflicted on the victim, it would be pointless to give that knife further consideration, including DNA testing.[166]

The experts and consultants who were examined during the course of the trial, taking into examination the various wounds present on the neck, did exclude the compatibility of Raffaele's knife with the smaller stab wound inflicted on the right side of the neck, and the Court agreed. However, the Court did not agree with arguments that the knife confiscated from Raffaele's flat was incompatible with the deep wound on the left. The Court concurred with expert testimony proclaiming that the knife presented by the prosecution as the murder weapon, with the DNA of both Meredith and Amanda on it (ie the "double DNA knife"), is clearly compatible with the large fatal neck wound.[169-173]

Cause of death

The Court found that the death of Meredith Kercher was asphyxia caused by the neck-wound which severed both the hyoid bone and the right superior thyroid artery. The severing of the hyoid bone opened Meredith's airway directly through the skin to the atmosphere, and the severed right superior thyroid artery was the main source of the blood which asphyxiated her when she then inhaled blood directly through her severed airway down into her lungs.[162]

Time of death

In order to preserve the crime scene, a thorough examination of the corpse was not performed until approximately 11 hours after the body was discovered. Relying upon the criterion of body temperature and the influences of various other factors such as blood loss, the corpse being covered with a duvet, and other environmental conditions the time of death was initially placed approximately between 8:00 pm November 1, 2007 and 04:00 am November 2, 2007. An intermediate value for such a time range is considered of value, and the actual time of death was suggested by the coroner as being approximately 11.00 pm on November 1, 2007. The combined criteria of temperature, hypostatic stains, and rigor mortis all supported this range for the time of death, but for a variety of reasons were unable to accurately define a more narrow time of death range.[113-116]

Massei notes that the state of digestion of Meredith's stomach contents provided significant additional information towards establishing a more accurate estimate for the time of death. Meredith's stomach contents included apple, cheese, and floury fragments of the apple crumble she ate while visiting friends, which had not yet entered into her the small intestine. In addition, a piece of mushroom was also found in Meredith's esophagus. This could not have been consumed during the meal with friends, which did not include mushrooms, since it was in a different less digested state.[115, 178-179]

Testimony during the trial established that an emptying of the stomach into the small intestine under typical conditions starts between two and four hours after the start of a meal. A complicating factor is that Meredith apparently ate additional food at home after her earlier meal which, according to statements made by the British friends of Meredith, occurred sometime between 6 pm and 8 pm. Nevertheless, it becomes possible to propose a time of death as being 3 to 4 hours beyond the time frame of the initial eating event: therefore, this could reasonably range between 9pm (around the time she arrived home) and midnight of November 1, 2007. This timeframe remains consistent

with all other indicators. It is important to note that the beginning of the attack would have been a moment of tremendous stress for Meredith that may have arrested her digestive process. However, Massei notes that this, like many other variables concerning the behavior of the digestive tract, remains in the realm of speculation.[178-179]

The various consultants and experts heard in court regarding the time of death all emphasized the difficulty of establishing a precise time. Regarding time of death, there can be no doubt that Massei relied upon the evaluations of a variety of evidentiary sources, including the consideration that Meredith would not have been able to make any vocalizations following the final fatal stab wound to her neck, which lends importance to witness statements regarding when they may have heard a scream on the night of the murder. However, the Court concluded that testimony regarding the pathology alone made it possible to suggest that the time of death that was, in fact, within a range of tens-of-minutes either before or after 10:50 pm November 1, 2007.[131]

6. Forensic investigation

The forensic evidence included the analysis of DNA in various samples taken, of footprints revealed by Luminol, and of foot prints and shoe prints.

Meredith Kercher

The fatal wound was swabbed in order to obtain the profile of her DNA for comparison with other samples. [190] One of two swabs of her vagina produced genetic material, the DNA of the Y chromosome of Rudy Guede. [189] Samples taken from under her fingernails yielded only her own DNA. The court noted that her finger nails were very short and probably would not inflict significant scratches on an attacker. [190]

Rudy Guede's Y chromosome was also found mixed with Meredith's blood on Meredith's handbag and on the left cuff of her sweatshirt.[192]

The Small Bathroom

Blood was found in seven locations in the small bathroom that Knox shared with Meredith. [192]

- The Door Frame: blood was found on the right, inside door frame containing Meredith's DNA. [192]
- The Light Switch Plate: Meredith's blood was also found on the light switch. [192]
- The Sink: Blood was found in two places. There was dried blood near the faucet that had the DNA of Knox. [192] A streak from the left part of the sink toward the drain containing Meredith's blood mixed with DNA of Knox.[192]
- The Bidet: Meredith's blood was found mixed with the DNA of Knox.[192]
- The Toilet Lid: Meredith's blood.[192]
- Q-tip Box: Meredith's blood mixed with DNA of Knox.[192]
- The Bathmat: Three samples taken from the bathmat yielded Meredith's blood.[192] The bloodstains on the bathmat were studied and compared with footprints taken of the right foot from Knox, Sollecito, and Guede, and found to be that of Sollecito. [351-355]

The Large Bathroom

Toilet paper and faeces were found in the toilet. Testing the toilet paper found the DNA of Rudy Guede.[192]

Traces Revealed by Luminol

Various surfaces were sprayed with Luminol, which fluoresces brightly when applied to blood. The fluorescence was then swabbed and tested for DNA. Nine traces were found; two were Meredith's, three were Knox, and two were mixed DNA of Meredith and Knox.[281-286]²

- Romanelli's Bedroom: One sample of Meredith, and one of Meredith's blood mixed with DNA of Knox.[282]
- Hallway: Three footprints matching, based on measurements, Knox' right foot were found, two facing the exit, and one oriented toward the doorway of Meredith's room.[247]
- Knox' Bedroom: Footprint of Amanda Knox' right foot, also identified by measurements. [247]

Shoeprints

Shoeprints made in Meredith's blood and visible to the naked eye led from Meredith's bedroom to the exit, becoming fainter toward the exit. [193] These were determined to be incompatible with Sollecito's shoe size 9, and to be compatible with a Nike Outbreak 2, size 11.[334-336]

Although the shoes were never found, a box for Nike Outbreak 2, size 11 was found in Guede's apartment.[334]

A left shoe print was found on Meredith's pillow, estimated to be between size 36 and 38.[342]

Knox wears a size 37.[343] A defense expert made a comparison of the sole pattern with Guede's right shoe, and argued that the print could have been made by him. The court noted the conflicting theories without expressing a specific opinion,[343-344] and noted that Knox seemed to have been moving about the scene in her bare feet.[344]

Other Evidence

- A small trail of drops of Meredith's blood from the small bathroom to the kitchen/living room.[193]
- A cigarette butt found in the kitchen had mixed DNA of Sollecito and Knox.[197]
- A jack knife belonging to Sollecito was found to have the DNA of Sollecito and Knox, but no blood.[195]

The Court's Analysis:

The defense did not contest the mixed DNA test results, but instead argued that they were irrelevant: that mixed DNA would be expected since Meredith and Knox lived in the same house and shared the small bathroom. [378] They suggested that Knox's DNA could be exfoliated skin cells. Dr. Stefanoni (for the prosecution) testified that exfoliated skin cells are keratinized and contain no DNA. [202]

² The PMF translation notes, on p.282 that p. 304 of the original Italian is corrupted and the translators were obliged to produce a summary put together from what is observable on the page.

The court concluded that Knox' DNA became mixed with Meredith's blood from vigorous scrubbing of the hands and feet, and that this is how the mixed DNA sampled came to be found in the sink and the bidet.[279]

DNA testing cannot, by itself, determine when biological material has been deposited, or in the case of mixed DNA, which was deposited first or whether it was simultaneous. [211] However, the court noted that Knox told the court in her answer to questioning that the bathroom was clean when she left the house on the afternoon of November 1.[278]

The court concluded that Meredith's killers had gotten blood on their hands and elsewhere on their bodies, and that they needed to clean off the blood. Accordingly, they tracked blood on their feet to the small bathroom, where Meredith's blood was transferred to the doorframe and light switch plate when they turned the light on in order to use the bathroom.[279] Sollecito tracked Meredith's blood into the bathroom, leaving a partial print of his right foot in blood.[379]

Knox was not wounded.[280] The trace of her blood on the tap was different in appearance from the mixed DNA samples, and was explained by her as having come from her own ear having been pierced. [280] The mixed trace in the sink and the bidet appeared to have been diluted with water, constituting a single trace placed there by Knox when she was cleaning Meredith's blood from her hands and feet.[378]

The defense experts did not specifically attack the accuracy of the findings on the trace evidence revealed by Luminol.[285] Dr. Gino noted that a generic test for blood was negative on the sample, and that the DNA test was low copy number. She also noted that substances other than blood can cause Luminol to fluoresce.[282]

The court observed that there was an abundant quantity of Meredith's blood on the floor of the bedroom to be tracked around the house.[279] The fact that DNA testing revealed the presence of genetic material in the samples indicates the presence of biological material that reacts with Luminol. The court said that attributing the fluorescence to fruit juice, rust, bleach, vegetables, etc. could not explain the presence of reactive trace in so many parts of the house, whereas the walking in blood and subsequent cleanup easily accounts for the findings.[283-285]

The defense's "low copy number remark" was rejected because Dr. Stefanoni had testified that the sample had been processed according to standards and procedures necessary for international quality certification, and noted that the certification was granted by the international certifying body in 2009; the quality certificate was an acknowledgement of what already existed, and had already been done.[285]³ Further, the court noted that the criticisms of Dr. Gino and Dr. Tagliabracci were hypothetical, and all concerned specific findings and a small portion of the specimens.[285]

The footprint on the bathmat was partial, missing the heel. [339] Based on the dimensions of the big toe, the plantar arch, and the shape and location of various "bumps", Inspectors Rinaldi and Boemia concluded that the print was made in Meredith's blood by Sollecito's right foot, that it was consistent with Sollecito's wider foot and inconsistent with Guede's longer, narrower foot, and well as being inconsistent with Knox.[339-342]

The measurements from the bathmat: big toe--33mm wide, 39mm long. Metatarsus--99mm wide, 55mm long. [339]

Footprints taken with printer's ink resulted: Big Toe-- Sollecito: 30mm wide, 37mm long. [339] Guede: 23mm wide, 43mm long. Knox: 22mm wide, 41.8mm long.[339] Metatarsus--Sollecito: 99mm wide[339]

Rinaldi and Boemia used the so-called L.M. Robbins grid, which is marked in centimeters, lining

³ Also note p.16 of this summary, last paragraph of **Exhibit 36: The double DNA Knife**, regarding the court's conclusions about the reliability of the forensic testing of the knife.

the vertical axis with right-hand outline of the foot, and the horizontal axis with the tip of the big toe. [340] By comparing the samples with the bathmat, they concluded that the shape of Guede's plantar arch and the alignment of his "bumps" could not be reconciled with the print on the bathmat, whereas Sollecito's bumps align consistently between his sample and the bathmat. [340-341] The primary distinctions between Guede's right foot and Sollecito's are: the width of the big toe, the shape of the metatarsus, differences in the plantar arch, and the shape of the left side of the foot. [341]

Professor Vinci, Sollecito's expert attempted to show that the foot print was actually that of Guede. He argued that the morphology of Sollecito's foot was such that his second toe made no contact with the paper, but that a portion of the mark on the right side of the big toe print on the bathmat is actually from the second toe. He thus measured the big toe print as being 24.8 mm wide.[352]

The court rejected this theory. It noted that the photograph appeared to show the opposite of what was claimed, i.e., it showed the blood had been deposited as a single unit on a decorative flourish of the mat. Moreover, the court noted that, by comparison, Guede's foot is generally longer and more tapered, and that the second toe print falls quite far from the big. [354] Finally, the court discounted the idea that Guede had ever been in his bare feet that evening. The visible shoe prints clearly showed that he walked directly from Meredith's room, down the hallway, and out the door.[379]

7. Double DNA knife and bra strap

Exhibit 36: The double DNA Knife

Exhibit 36 is a 31 cm long knife with a 17 cm blade and a dark handle. It was seized from the kitchen cutlery drawer at Raffaele Sollecito's home, located at 110 Corso Garibaldi in Perugia, on 6 November, 2007 when Chief Inspector Armando Finzi was ordered to perform a search of Sollecito's residence. This exhibit is important because "Sample 36b" taken from a scratch on the knife blade yielded Meredith Kercher's biological profile.

After putting on gloves and shoe coverings, Finzi and his team entered the home. They noted a strong smell of bleach. Opening the cutlery drawer, they saw a big, "extremely clean" knife. In Sollecito's bedroom they found a second knife. The knives were bagged and sealed.[106]

Exhibit 36 was carried back to the police station, where it was placed in a box for shipping to the Polizia Scientifica in Rome. Dr. Stefanoni was the recipient of the box containing the knife in Rome. All parties testified that standard procedures were followed to avoid the risk of contamination.

On 4 November, 2007, Meredith's roommates Filomena Romanelli, Laura Mezzetti, and Amanda Knox had been taken by the police to look at the knives in their kitchen at the apartment in Via della Pergola. Personnel from the Questura reported Amanda's "severe and intense emotional crisis, unlike [the reaction of] the other two girls".[292] This behavior was contrasted to Amanda's behavior at Police headquarters two days earlier:

"This circumstance appears significant both in its own right and also when one considers that Amanda had never previously shown signs of any particular distress and emotional involvement (in the Police headquarters, on the afternoon of November 2, Meredith's English girlfriends, Robyn Carmel and Amy Frost in particular, according to their declarations, had been surprised by the behaviour of Amanda, who did not show emotions)."[292]

Investigators' attention was alerted to the Exhibit 36 knife because of Amanda's inconsistent behavior. Later, police overheard a jail conversation between Knox and her parents on 17 November, when Knox said, "I am very, I am very worried about this thing with the knife ...

because there is a knife of Raffaele's ...".[292]

Exhibit 36 thus became a central piece of trial evidence. The debate would subsequently be focused on two issues: The compatibility of the knife with the large stab wound in Meredith's neck; and the reliability of the DNA analysis.

Considering the first of these points, although the knife blade is 17 cm long, the depth of the larger wound is just 8 cm . This "discrepancy" was the basis of defense efforts to discredit the knife as a murder weapon. The compatibility of the Exhibit 36 knife and the larger of Kercher's wounds is addressed by Professor Bacci (see p. 121 of the Massei report). Professor Norelli maintains that "it is not said that a blade is always embedded (plunged into) the target right up to the handle; the blade may also go (in) only to a certain portion of its length, and not right up to its end".[126]

It is noted that the movements of the victim may have played a part in determining the depth of the cuts. "If I insert a centimeter of the blade into the victim and the victim suddenly moves towards me, how much of the blade will be driven inside the body surface area is absolutely unpredictable and depends on the action of both".[129] Alternatively, the blade of the knife might have met an obstacle. The cutting action is described on p. 146 and again starting on p. 152.

Defense witness Dr. Patumi disputed the compatibility of the wounds with said knife, arguing that a blade of 17 cm length could not have caused a cut 8 cm deep; see p. 156-157. However, the Court rejected "the thesis of the incompatibility of the most serious wound and the knife Exhibit 36", holding this thesis to be "unacceptable" .[172]

Regarding the second point – that of the DNA analysis – Dr. Stefanoni was the responsible expert at the crime lab in Rome. Although no biological traces were visible to the naked eye on the face of knife blade, Dr. Stefanoni perceived scratches - "anomalies in the metal" - on the blade when rotating the blade under strong lighting. The streaks were:

"... visible under good lighting by changing the angle at which the light hit the blade, since obviously the blade reflects light and thus creates shadows, making imperfections visible."[196]

Sample 36b was taken from one of these points on the blade. The genetic profile of Meredith Kercher was identified from this sample. Stefanoni presented charts to the court, showing the DNA profile: she noted "that the peaks were a bit low, but that without doubt were still within the range that is considered useful for testing a specimen (page 108). Although of a much lower quantity of DNA, the profiles were nonetheless very present and, by making a comparison with Meredith's profile, Dr. Torricelli reported that ,we find all the alleles, and we find them to be equal to those obtained from the swab taken, from the sample taken from the wound. Therefore in this case too, without doubt' -she continued- ,although we are confronted with a sample that contains very little DNA, it nonetheless contains the DNA of only one person and is therefore comparable to Meredith's; with regard to this knife, I would say I have no doubt in interpreting it: specimen A with Amanda's profile and specimen B with the profile, compatible with that of Meredith."[231-32] However, the amount of DNA was small and it was all used up in order to run a single test.

The defense objected that it was impossible to evaluate whether the actual nature of Sample 36b specimen:

".. when we have a small amount of DNA we talk about low copy number DNA, and that when this type of DNA is present, we are indeed able to carry out our amplification and obtain a profile, but we must remember that we may have lost one of the alleles, we may have an allelic imbalance ... it becomes very difficult to distinguish from a real allele, so that when working on ... small quantities of genetic material, it is necessary to be very cautious in interpreting the results."[237]

To this point, Dr. Stefanoni argued that it is preferable "to know to whom a biological specimen is

attributable, rather than ascertaining the nature of that specimen, without attributing it to anyone."[288]

Furthermore, it was argued by the defense that the quantity of DNA was too low to be able to perform the tests and consider the results reliable. Given a low amount of DNA, the risk of contamination is high - particularly given the very numerous number of samples being analyzed.

The court rejected the possibility of contamination because no anomalies were ever identified in the Polizia Scientifica's analytical process. The Prosecutor pointed out that all tests had been carried out in the presence of a lawyer/consultant for the defense - who had raised no objections during the testing. The possibility of contamination during the collection of evidence was rejected based on a detailed consideration of the collection process.

Thus, the DNA from Meredith which was found on that knife cannot be traced back to any contamination occurring in the house in which it was found, or to the method of acquisition of the knife on the part of Finzi, or even to the collection and dispatch methods used by Gubbiotti. In addition, as has been said, that such contamination could have been carried out by the laboratory is also ruled out.[266]

In addition, Dr. Stefanoni testified that she did have the biological profile of the defendants, but did not employ them while interpreting the electrophoresis diagrams. Nevertheless, the Massei report judges that:

"... the main criticisms advanced by the defense concerned precisely this very small DNA quantity, and it raised the question of the reliability of the result obtained."[288]

To this central point, Dr. Stefanoni:

"Regarding the too low quantity of DNA, Dr. Stefanoni declared, as has been seen, that even in the case of a particularly scanty amount of material, the analysis and evaluation should be performed, and she added that, if the data that emerges is absolutely readable and interpretable and the correct laboratory practice was followed, the result is reliable and there is no reason to repeat the test.

"It does not follow ... that the data is unusable and unreliable as a consequence of a lack of repetition due to a lack of further quantities of DNA. It is necessary, instead, to take account of the data that emerges from such a specimen and to check for the – possible – presence of other elements, both circumstantial and inherent to the data itself that, despite the lack of repetition of the analysis, could allow an evaluation of the reliability of the analysis and of its outcome."[289]

The court concluded that the biological profile that resulted from the 36B DNA analysis ...

"... gave a biological profile attributable to the person who was mortally wounded with that very knife: a result, therefore, that was entirely reasonable and consistent with the event; [it was] certainly not explainable as a mere coincidence, and it must be ruled out –according to what has already been observed in this regard - that it could have originated from contamination or from the use of a suspect-centric method."[290] and that

"... it should therefore be affirmed that the analysis of trace 36B, which detected the presence DNA attributable to Meredith, appears to be completely reliable."[293]

Exhibit 165 (Bra clasp)

Exhibit 165 is a small piece of material with hooks from Meredith Kercher's bra. The Polizia Scientifica discovered Raffaele Sollecito's DNA on this so-called "bra clasp".

Dr. Stefanoni and her team began evidence collection at via della Pergola 7 on November 2, 2007. Additional searches were conducted of Sollecito's Audi A3, Sollecito's flat at Corso Garibaldi 110 (November 13), Patrick Diya's pub "Le Chic" (November 14), and Rudy Guede's studio (November 20). There was a further search at via della Pergola 7 on December 18.

Meredith's bra (missing its clasp) was collected on November 2, 2007, in the first search, along with other items (towels, sheets, toilet paper, underwear, etc.). The bra was found at the foot of the victim in poor condition: torn off of Meredith's body with cuts at the back. The bra is Exhibit 59.

The missing bra clasp was one object of the December 18 search. The search process - including measures taken to ensure against contamination - is described in detail on pp. 204-06 of the Massei report. However, it is noted that the bra clasp was picked up about 1.5 meters away from its original position as seen in photographs taken on November 2-3.

Small blood drops were clearly visible on the bra clasp material. The bra clasp revealed a mixture of DNA belonging to the victim and to Sollecito. According to Dr. Stefanoni the quantity of DNA was not low.

On trace B, from the clasp, a mixed genetic profile was found: the victim plus Sollecito and that result was further confirmed by the Y profile of Raffaele Sollecito, also found on the hooks.[197]

The Polizia Scientifica's mixed trace DNA analysis is described in detail in Massei on pp. 206-11.

The defense raised the issue of the Polizia Scientifica using a "suspect-centric" methodology that might bias the DNA analysis and its interpretation. Dr. Stefanoni's remarks are summarized in Massei:

"With reference then to the DNA of Raffaele Sollecito and the fact that his profile was already present and available to her when she interpreted the collected samples, including the one relating to the hooks, she stated that the data was present as historical fact, but that she did not have it, have it available before her at the moment in which she was interpreting the technical data, nor was she otherwise consulting this biological profile."[226]

Given the delay in collecting the bra clasp and the fact that the bra clasp had been moved on the floor of Meredith's room, the essential question before the court is presented as follows:

"Was ... the DNA of Raffaele Sollecito, which, according to Dr. Stefanoni, was found on the bra clasp, a consequence of an act of Raffaele Sollecito carried out directly on the bra which Meredith was wearing on the night that she was killed, or on the contrary, could it have had a different origin, so that this DNA could have ended up on the bra clasp without Raffaele Sollecito having ever touched the bra directly, and its clasp in particular?"[266]

The court observes that Meredith's door was closed and locked on the morning of November 2; that's how Sollecito and Amanda testify to have found it and that's how the Postal Police saw it when they arrived. When the door was finally broken down and opened:

Raffaele Sollecito remained at a distance, far enough -- as has been said -- that he could not even have been able to look into the room; furthermore, it does not appear that he entered the room at any later time; in fact, as has been seen, the contrary has been shown: once the door was broken down, everyone was ordered to leave the house and Raffaele Sollecito did not enter into the cottage again, much less into Meredith's room.[268]

Therefore the court rejects this hypothesis for the "placing" of Sollecito's DNA in Meredith's room. Furthermore, there is no reasonable suggestion that Sollecito could have placed his DNA on Meredith's bra clasp in the prior week after meeting Amanda for the first time. Sollecito's DNA was only found in one other location in the house: on a cigarette stub, mixed with that of Amanda Knox.

8. The staged break-in

The Massei Report examined the evidence surrounding the broken window and disarray in Filomena Romanelli's bedroom in order to determine whether a real break-in had occurred or the appearance of one had been staged.

When she first returned to the apartment, Romanelli had made a quick check of her room and ascertained that, even though it was in a complete mess with the left-side [as seen from inside the room] windowpane broken and a big rock on the floor, nothing was in fact missing.[31] The court noted that when Romanelli had left the house, on November 1, she said she had pulled the external shutters towards the interior of her room, although she did not think that she had actually closed them completely. Because they were old and the wood had swelled a bit, they rubbed on the windowsill so, to pull them towards the room, it was necessary to use some force. But, once they had been pulled in, they remained well closed by the pressure of the swelled wood against the windowsill.[48]

Based on Romanelli's testimony, the court rejected the assumption made by a defense expert witness that the external shutters were left completely open. In fact they were not even completely open on the day following the murder, according to witnesses on November 2.[50]

The initial assumption was that the window had been broken with a rock thrown from the outside (and such a rock was indeed found in the room). However, to have broken the glass of the window without shattering the external shutters, it would have been first necessary for a burglar to open these shutters. The court considered whether some sort of instrument could have been used to open them from the outside, but noted the failure to find any suitable instrument and doubted what type of instrument could be used to this end. This led them to assume that the wall would have to be scaled a first time in order to open the external shutters, so that the burglar could then aim a rock at the window. [48-49]

He would then have had to return underneath the window for a second climb, and balance on his knees or feet on the outside part of the windowsill, while reaching through the broken glass to unlatch the window. The court noted that the window must necessarily have been latched since, otherwise, there would have been no need to throw a rock at all, but just to open the external shutters and climb inside. [49] The burglar would also need to rely on the fact that the external shutters themselves were not actually latched, and also that the internal wooden shutters had not been fastened (otherwise it would have been impossible to open them from the outside).[49]

The court decided that this scenario appears totally unlikely, given the effort involved: going twice underneath the window, going back to throw the stone and scaling the wall twice. Especially so, taking into account the uncertainty of success (having to count on the two favourable circumstances indicated above), with a repetition of movements and behaviours, all of which could easily be seen by anyone who happened to be passing by on the street or actually coming into the house.

Next, the court noted that the double climb necessary to reach the height of three and a half metres would surely have left some kind of trace or imprint on the wall, particularly at the points on the wall that the burglar would have used to support his feet, especially as the earth below the window, on that early November evening, was very wet.[50] In fact, investigators had examined both the wall and all of the vegetation underneath the window, and noted that there were no traces on the wall of earth, or grass, or any streaks at all, and none of the vegetation underneath the window appeared to have been trampled.[142] Furthermore, it was observed that a nail that was part-way up the wall, remained intact. The court deemed it very unlikely, given the position of that nail and its characteristics, that a climber would not cause it to fall or bend.[50]

The next fact to consider was that the pieces of glass from the broken pane were distributed in a

homogeneous manner on the inside and outside parts of the windowsill, without any displacement being noted or any piece of glass being found on the ground underneath the window. A prosecution expert witness stated that this tends to exclude the possibility that the rock was thrown from outside the house. Also, a climber, in leaning his hands and then his feet or knees on the windowsill, would have caused at least some piece of glass to fall, and he would have been obliged to shift some pieces of glass in order to avoid being wounded by them. Instead, no piece of glass was found under the window, and no sign of any wound was seen on the pieces of glass found in the room. It can moreover be observed that the presence of many pieces of glass on the outside part of the windowsill increases the probability of finding some small pieces of glass on the ground underneath, since there seems to be no reason that so many pieces of glass would all stop just at the edge of the windowsill without any of them flying beyond the edge and falling down to the garden below.[51,52]

These inconsistencies in the break-in theory can, however, be explained if one supposes that the rock was thrown from the inside of the room, with the two external shutters pulled inwards so that they blocked the pieces of glass from falling to the ground below. Once the glass had been broken from inside, the rock was set down at some place in the room, and the external shutters were pushed towards the outside, being thus opened from within the room.[51]

A further indication that the 'break-in' was staged was deduced from photos of the scene, taken by investigators. The appearance is that the goal was to create obvious disorder in Romanelli's room, but does not appear to be the result of true searching for the kind of valuable objects that might tempt a burglar. The drawers of the little dresser next to the bed were not even opened; the objects on the shelves appear not to have been touched at all; piles of clothes seem to have been thrown down from the closet but it does not seem that there was any serious search inside the closet, in which some clothes and some boxes remained in place without showing any signs of an actual search for valuable items that might have been there. It does not appear that the boxes on the table were opened in a search for valuable items. Indeed, no valuable item was taken, or even set aside to be taken, by the 'burglar'.

Based on all this evidence, the court concluded that the disorder in Romanelli's room and the breaking of the window pane constituted an artificial representation created in order to misdirect the investigations towards a person who, not having the key to the front door, was supposed to have entered through the previously broken window and then effected the violent acts on Meredith which caused her death.

9. Conclusions reached by the court

The court concluded that Amanda Knox and Raffaele Sollecito had colluded with the main protagonist, Rudy Guede, in murdering Meredith Kercher and that this was in the context of a sexual assault.[390-393]

The evidence that Guede was involved in the murder included his bloody handprint found on a pillow in Meredith's room, and his DNA found on a vaginal swab taken from Meredith, as well as on the cuff of Meredith's sweatshirt and on a strap of her bra and on her purse. Further biological traces of Guede were found on the toilet paper in the larger bathroom. His bloody footprints were found in the corridor leading out from Meredith's room to the front door of the apartment. All this evidence pointed to Guede having been in the apartment, crossing the living room to the larger bathroom (where he used but did not flush the toilet), passing back through the living room and the corridor to Meredith's room, where he committed the murder, then exiting directly along the corridor and through the front door.[43-44]

The court next considered whether Guede had entered the apartment through the broken window in

Romanelli's room.[45] The defense had argued that Guede had previously been found uninvited inside a Milan nursery school and had been in possession of items stolen from a Perugia law office which had been burgled by someone who broke a window with a rock. He had also been identified as the person who had broken into a house and threatened the occupant with a knife. The court noted this evidence but also highlighted some marked differences from the current case, and also the fact that there was no direct evidence that linked Guede to the law office burglary. In addition, the court made a detailed analysis of the evidence of the 'break-in' and concluded from many pieces of evidence (see section 8) that the 'break-in' had been staged and that no-one had entered the house through the broken window. In fact, the conclusion drawn by the court from this staging was that it had been done in order to throw suspicion onto a supposed intruder who did not have a key to the front door.[46-55]

The court next considered whether Guede might himself have staged the break-in, which might have happened if Meredith had let him in through the front door and he intended to throw suspicion onto a supposed burglar. The court rejected this hypothesis: if Guede was alone in the apartment, following the murder, it is improbable that he would have stayed longer than necessary, faking a break-in, when the other occupants, who would recognise him, might return at any moment. Further doubt is cast on this scenario by the fact that some aspects of the 'break-in' are superficially similar to other crimes associated with Guede, so might lead investigators directly to him. Finally, the court doubted that Meredith, alone in the apartment, would have let Guede, whom she barely knew, in through the front door, let alone waited in her own bedroom while he used the bathroom.

The conclusion of the court was that Guede was let into the apartment by somebody, other than Meredith, who had a key to the door and that the 'break in' was likewise staged by someone who had a door key. Laura Mezzetti was away from Perugia on the night of the murder and Filomena Romanelli was staying elsewhere, at a birthday party. This left Amanda Knox who had a key to the front door and lacked an alibi for the time of the murder. She, according to the court, was the only person who could have let Guede into the apartment and who also would have a motive for staging the 'break-in' to simulate the forced entry of an intruder.[56-58]

The court noted the 'intense' relationship between Knox and Sollecito, and the fact that they were both using drugs.[365] After Patrick Lumumba sent Knox a text, shortly after 8 pm on November 1, 2007, telling her that there was no need for her to go to work that evening, the pair of them were free of any commitment that evening. By 9:15pm they had eaten dinner and washed up (as witnessed by Sollecito's father's earlier phone call), turned off their mobile phones and made no further use of Sollecito's computer. The court's conclusion was that this point, they both left Sollecito's apartment and were seen by the witness Curatolo, several times, around the Piazza Grimana.[359]

Guede already knew Knox and was attracted to her. The court believed that around 11pm, on the night of the murder, Knox, accompanied by Sollecito, let Guede into her apartment, possibly having first met him in the nearby square.[361] The reason for Guede's visit to the apartment could not be known for certain: perhaps he was going to spend the night there as had happened on another occasion, although in the downstairs apartment; perhaps to hang out with Amanda and Raffaele for a while and to use the bathroom; maybe he had come to look for his friends in the downstairs apartment, and finding them absent, called on the upstairs apartment.[363] What is certain is that Guede used the toilet in the larger bathroom.[364]

Meredith had arrived home, alone, earlier in the evening and was most likely reading or studying in her own bedroom. The court found it probable that, having used the bathroom, Guede went into Meredith's room, intent on making sexual advances, which were rebuffed. It was probably at this point that Knox and Sollecito joined Guede.[365-366]

The court concluded from the presence of Guede's DNA in her body, that Meredith's attack involved

a sexual assault: the evidence that it was not consensual sex was deduced from other specific injuries as well as the obvious violence. Based on factors such as Meredith's strength and physical fitness, and the way she had been undressed, they believed that she was the victim of multiple attackers.[369-372]

Based on the forensic evidence, the court believed a sequence of events in which Meredith refused to accept an invitation of an erotic-sexual nature and was then grasped by the neck by her assailants, for the purpose of intimidating her. When this intimidation was unsuccessful, it led to an escalation of violence, which involved the small stab wound to the neck.[164]

It is likely that it was at this point that Meredith's trousers and underwear were removed by her assailants and that she was sexually assaulted. Her top was lifted up and rolled up towards her neck and there was an attempt to unfasten her bra which, despite her resistance, was eventually cut off. A pillow was placed under Meredith to allow further sexual activity: from Guede's bloody hand print on the pillow, it was deduced that Meredith was already bleeding at this point. Part of the bra, including the clasp which bore Sollecito's DNA, was found under the pillow, which indicates that this was cut off before the pillow was placed.[164-165]

It was, the court believed, around this time that Meredith screamed loudly, as confirmed by the evidence of Nara Capezzali and Antonella Monacchia, which placed the time around 23:30 pm. The response of the assailants was the compression of the upper airways, by pressing a hand over Meredith's mouth and nose, and then inflicting the deep knife wound to the right side of the neck. Their conclusion was that death occurred a few minutes later, and was caused by asphyxia resulting from the major neck wound from which there was bleeding into the airways, impeding respiratory activity. This was exacerbated by the severing of the hyoid bone – also attributed to the knife wounds.[165]

In the court's opinion, the initial attempt had not been to kill Meredith, but there was "a crescendo of violence" in which the assailants simply accepted the risk of death, constructively transforming their initial non-homicidal intent into a pro-homicidal intent characterised by reckless malice.[171]

Regarding the murder weapon, the court found it difficult to accept that the wounds of various sizes were all made by the same assailant and the same knife. Their conclusion was that the smaller wounds were made with a pocket knife that has never been identified, but the largest (and fatal) wound was made with the knife which was subsequently recovered from a drawer in Sollecito's house and which bore traces of Meredith's DNA on its blade and Knox's on the handle (the "double DNA knife" discussed in section 7.1).

The court believed that, following the murder, the murderers went into the smaller bathroom to wash off some of the blood as witnessed by the traces of blood found there. They rejected the possibility that these were older traces, left from some previous incident, as Knox had testified that that bathroom was clean when she left on the afternoon of November 1.[278] In the process of cleaning themselves, the murderers must have touched the door and the light switch, leaving a dribble of blood on the former and stains on the latter.[281] The bloody footprint on the bathmat (which matched the size of Sollecito's foot), indicates that whoever went into this bathroom was barefoot, and must also have been barefoot in Meredith's room.[279] While in the bathroom, it was deemed likely that the murderers scrubbed their hands, thus leaving mixed traces of Meredith's blood and their own DNA in the sink and the bidet.[279] The court noted that the traces found in the small bathroom not only tested positive for blood, but also included a mixture of Knox's and Meredith's DNA. They concluded it was Knox who, on the night of the murder, had washed off Meredith's blood in the sink and in the bidet.[280]

The court considered the traces shown up by Luminol tests in Romanelli's room, Knox's room and the corridor. Luminol tests positive for blood but can give false positive readings for other

substances, including fruit juice, rust and bleach. Other tests for blood were applied to the same traces and proved negative, but were noted to be less sensitive than Luminol. The court considered the alternative interpretations of the Luminol results: it found it improbable that the traces were caused by such things as fruit juice or rust - particularly as there was no explanation for why such substances would be in all three locations. The possibility of bleach having been spread through the three rooms was more feasible, but in that case, the court wondered why it would not appear elsewhere in the apartment. Also there was no evidence (smell for example) that bleach had been used. Furthermore, the traces contained biological material, although it could not be proved to be blood. Considering all the possibilities, and the fact that there were copious amounts of blood at the murder scene, the court believed that the Luminol traces were indeed blood. They noted that the traces tested positive for Knox's DNA and, in two cases, also included Meredith's DNA. Their conclusion was that Knox had washed her bare feet in the bathroom, but some residue of Meredith's blood had remained on the soles, and she had then walked into her own room, into Romanelli's room and passed through the corridor, leaving the traces which were discovered.[281-286]

The conclusion of the court was that Guede had left immediately, but Sollecito had then brought in a big stone from the surrounding area and he and Knox had broken the window in Romanelli's room with it and attempted to fake a break-in. They had gone back into Meredith's room, covered her body with a duvet, then locked her door.[381] The court believed that the murderers took Meredith's mobile phones, left the apartment and dumped the phones in a nearby garden. This must have happened before about half past midnight, as can be deduced by the phone records.[383] Knox and Sollecito returned to his apartment where he made a very brief (4 second) use of his computer at about 1am.

Contrary to the statements of Knox and Sollecito, his computer was in use for half an hour from about 5:30am the following morning, and he turned on his mobile phone at about 6am. The court believed that Knox and Sollecito returned to the murder scene that morning, with Knox perhaps having bought cleaning materials from Quintavalle's shop at about 07:45.[384] There was evidence that cleaning had taken place: for instance the bath mat marked with a bloody footprint could only have been reached by taking steps that should also have left other footprints. None were found, so the logical conclusion is that they had been cleaned up. Even the drip of blood left on the internal edge of the bathroom door was said to seem like the remainder of a much larger trace.[384]

In conclusion, the court stated that all of the elements put together, and considered singularly, create a comprehensive and complete framework without gaps or incongruities and lead to the inevitable and directly consequential attribution of the crimes to both the accused.[388]

End