

Testimony of Professor Carlo Torre, 6th July 2009

- MASSEI He is the consultant for the defense of Amanda Knox, as consultant he will give evaluations that his experience and professionalism will allow in that it must conform to verifications, contestations of fact that he should have verified within given limits to this he is invited to lend his declaration of duty and make... therefore give information of his biographical details.
- The consultant, informed of the nature of article 497 of the procedural penal code reads the formula of his biographical details: Carlo Torre, born in Torino September 13, 1946.*
- MASSEI Well, then maybe preliminarily I don't know there should be some photos shown...
- GHIRGA I wanted to say this Thank you, You had said if... I think that Professor Torre will propose a work that contains also some slides for example (of) Meredith, in which case attentions toward them they will be reactivated according to the ordinance.. I think..
- MASSEI Yes, yes. That's right.
- GHIRGA That is there will be some photos that need the safeguards already adopted by the court.
- MASSEI Thank you, first maybe then we should see these photos if okay with the professor. Before projecting them like that let's determine having heard the part of the prosecution of the hearing with respect to those needs already shown in particular by the defense of Civil Party of the family of Meredith Kercher. Please.
- GHIRGA I'll do just a presentation at the moment. Professor Torre what is your current occupation? What do you do in Torino?
- TORRE I teach forensic medicine at the University of Torino and I am in charge of the Criminal Sciences laboratory at the same University.
- GHIRGA Are you involved with any other, let's say, judicial cases?
- TORRE Yes. I mainly work for the Court of Appeals or the Judge, then I consult on cases that I consider particularly interesting.
- GHIRGA Would you break down one, two, or three cases which were, which relative to the cases were... homicidal episodes?
- TORRE Currently I have a pair of homicides at Caltanissetta an in Trapani appointed by the court, I have a case in the Appeals Court of Verona appointed by the court again, then starting the many years that I have been in the field from '72, '73 I have been working also on the second, the latest in the shooting on the train near Arezzo when Loice was captured, I worked on the murder of Calipari and the injury of Sgrena, the death of Ilaria Alpi, the death of Countess Agusta, the exhumation of Enrico Mattei made many years after his death was finalized to be certain if the airplane the director of ENI was on had a bomb on it for example.
- GHIRGA Yes Professor. In Perugia you work on the Spaccino case and the Narducci case for (incomprehensible) a title?
- TORRE In Perugia I find myself in the condition to work in part for the defense, I did work on the Spaccano and the Narducci cases.
- GHIRGA Thank you. Listen, what type of work do you want to present to the court today within the realm of the task received from us?
- TORRE Well I was charged with the task of working on this case together with other colleagues a short while after the fact, a little after the fact, I did not however attend the autopsy. It needs to be said I then participated in every phase of the evidentiary investigation therefore I examined pieces, I examined the histological specimens. I have to say that this is a case in which the documentation relative to the autopsy is of such an excellent quality and this I noted in numerous other jobs where I witnessed Dr. Lalli for which it is almost as if I had directly participated in the autopsy, above all other than some still digital photographs there is also a film of the autopsy that allows you to see what happened almost as if being present so it is possible in this case other than referring to the verbal description one can also express one's own autonomous judgment I repeat almost as if one were present.
- GHIRGA Therefore today what type of work together with your other...
- TORRE The type of work is a bit of a summary of what we did in these almost two years regarding the causes of death essentially, then the elements I'd say of major interest, the compatibility of the knife with the injuries, I will also make a nod to the problem of the positioning and of the mutual positioning of victim and aggressor to be able to at the end come to a conclusion...
- GHIRGA Therefore you prepared a CD if we may...
- TORRE I prepared a DVD

GHIRGA DVD

TORRE In which there are listed topics that I would like to be able to touch on. At the moment I do not have one written that I can present, however the slides that I present are numbered one after the other and therefore if it's necessary to refer I think on the basis of the transcription of what is said here today it will be possible to consider every single slide. The DVD is at the availability of the court.

GHIRGA We will ask to acquire it at the end of our day. Okay professor regarding the presentation and the method I have no other questions, if you want to begin autonomously, your preparation.

TORRE Well, here I must say that some images will appear for which it is probably necessary that one proceeds according...

MASSEI Well, therefore the parties show in relation to the need which has already been manifested in previous hearings we propose then that the prosecution of the hearing occur behind closed doors according to the methods established in precedent and for the needs previously shown one acknowledges that in court other than the defense other parties are present also the C.T. consultant Doctor Patumi...

GHIRGA Doctor Mattutina who collaborates... also maybe it will be necessary... it won't be but if there were but I saw that the court consents to technological help.

MASSEI And also Doctor Stefanoni and Doctor Bacci.

GHIRGA Doctor Sara Gino also, okay, go ahead.

TORRE So then let's start from that which is always the first question when dealing with the violent or even non violent death of a person which is what are the causes of death. Now this is an image that everyone will have repeatedly seen, we have wounds concentrated in the neck region. We have wounds that show concussive trauma that is some bruises and we have injuries from a special active weapon which is easily identifiable as a knife. These injuries already in our initial report made at the crime scene we noted those most relevant like wound A, wound B and wound C that is they were knife injuries that penetrate that is to say break the skin and go past the outer epidermis and the dermis and arrive at a depth or only on the surface of the skin or even deeper as we'll see then there is a duplicate type of concussive wounds that is of objects which we'll discuss what they could be and others from the special weapon. It is true that from wounds like this blood gushes out and in effect the cadaver in question was not very bloody, in this case other than the bloody wounds on the outside and on the inside there are these traces that suggest a constriction to the neck. While observing in the images of the inspection you can clearly see that the largest wound to the neck white foam comes out, this white foam that's called... to who is in the field "a mushroom of foam", it is a foam that forms in the lungs, in the bronchi when there is a suffocation in particular when this asphyxiation is produced by a liquid that gets in but also in other suffocations, in a strangulation it is there, let's say that typically there is a lot of this mucous fungus for example in drowning. Still other signs of asphyxiation are the conjunctival petechiae [<http://www.mayoclinic.org/symptoms/petechiae/basics/definition/sym-20050724> <http://www.ncbi.nlm.nih.gov/pubmed/3354519>] underneath, here one notes little but the fact that the hypostatic (post-mortem) marks are scarce and therefore clearly indicate that a notable quantity of blood was lost if... they are of a rather vibrant red color in some places while they are dark bluish where there are skin folds because one can... One sees this phenomenon because the blood that forms the hypostatic mark especially if the cadaver is conserved in a humid refrigerator, it has a way of reoxygenating, that is the dark blood, when it has little oxygen and in deaths by asphyxiation in which the death interferes with little oxygen in the blood the hypostatic marks are dark, but if I expose the body to an environment rich in oxygen and humidity it becomes bright red, it can't obviously reoxygenate there where there is a skin fold that prevents the surface of the skin from coming into contact with oxygen. Here you see it well on the gluteus in other photos you can see it better. This is just to say that there is little hemorrhaging blood there is however a dark color of the hypostasis of the petechiae that tells me... all these things tell me that contributing to, adding to the cause of death a hemorrhaging and an asphyxiating mechanism came into play, still the asphyxiating mechanism is considered to be in duplicate order, surely there was an abundant inhalation of blood not different from drowning that occurs in water because there is an invasion of liquid that penetrates into the airways and a constriction of the neck. This image I had put just... it's an image of mine of the lab just to again show that this is a man who died from asphyxiation. One can see the red hypostatic marks where they could have reoxygenated while instead they are dark purplish on the level of the position of the body where because of contact with the exam table, the hypostatic marks, the petechiae were not able to reoxygenate... so one talks in this case of survival, there's some who have spoken of minutes, 10 minutes, 5 minutes, I say that one can say very little, what I can say is that the fact that in there is in this cadaver the presence of petechiae tells us that she survived at least two minutes from the beginning of the asphyxiating event. Why two minutes? Because in asphyxiation there are different phases, there's a first phase I don't want (inc.) didactic but there's a first phase called inspiratory dyspnea that is when my airways close I try to breathe blood... water I'm sorry, air. I have the airways closed and I can't evidently. Usually already at the end of this first minute one loses consciousness easily because the blood is not oxygenated enough and the brain can't function well because it gets too little oxygen. At this point the increase in carbon dioxide in the blood makes it so the bulbar centers in the brain stem responsible for controlling breathing take over and that which happens physiologically in everybody, if I stay a long time without breathing and then I increase my... My carbon dioxide in the blood I inevitably inhale, it is impossible to kill oneself remaining without breathing because a reflex then intervenes, so this precise reflex is that of the second phase that's called expiratory dyspnea, after this I try to expel this air, I try to expel this air and it is in this case that there are large changes to the physiology of circulation and you have an increase in blood pressure and in this case is where these petechiae are formed, I say this to show that at least two minutes is survived because if not there wouldn't have been time to form those petechiae. Let's take into consideration now the inju... therefore as cause of death I would say that we are all more or less in agreement in the fact of assigning some a little more on one side and some on the other an action combined of a suffocating mechanism and an external hemorrhage. The knife wounds it is clear that a lot has been discussed about them precisely because as we all know a knife was sequestered that one says could be the knife responsible for the injuries. This is one of my knives

from the lab from another case, it's only because it's important to comprehend each other's words because then you say "the knife is wide, it's long and so on", so I would like to say that the knife has a handle and a blade this is only didactically, the blade has a point then has a back or spine that is wide and a cutting edge. So the distance between back and spine is the height of the knife, you call it the height while on the other hand when referring to the back one speaks usually of width, then there are other ways to denominate, this seems to me the best because when you speak of width of the back the width that comes to mind the height of the blade, maybe I confused the ideas more than I wanted to clarify, however this is the correct way I'd say to indicate how a blade is made. So if I consider a skin wound I have an wound that is one without a loss of a substance, there isn't physical destruction in the knife wound, I may have a clean section and a spreading out of the edges of those edges weren't spread out I would have a line, the elasticity of the skin makes it so the edges spread out into a sort of a buttonhole you can say. Here is a relevant concept, the length of this wound can correspond and often corresponds with the height of the blade and corresponds to the height of the blade at the level to which it was penetrated. Now seeing that blades normally are triangular it's clear that if I penetrate tissue the length of the skin wound will be largely superimposable to the height of the blade at that point, this is not always true. Excuse me if I take out a knife, so above all the wound of the entrance of the stab wound can be longer than the height of the blade, in this case for example if I stab perpendicularly and pull out perpendicularly I will have a stab wound that will be as long as the blade is tall; it's clear that if I, in extracting or also in inserting this blade I work a lot to cut rather than just of penetration I can have a much larger wound than that of the height of the knife blade. Still length of the path, normally... so I had a rubber tire, I don't have it I'm sorry in the lab report I had a rubber tire but it's simple to explain. It's clear if I stab a soft structure with this blade and normally I would have a length of path that is equal looking at the cadaver at the length of the blade that had penetrated. This is not always true, it can happen and happens essentially in the abdomen that the length of the pathway seems apparently longer than the blade that stabbed, let me explain, if I have a blade of this length that is to say of a few centimeters in length and I injure a person in the abdomen it can happen that the blade penetrates the whole anterior of the abdomen hits against the handle of the blade, the still blade, squeezing the abdominal wall and it can happen that even a blade of 5 centimeters is going to undermine my spinal column because the abdomen is compressible, when I do the autopsy on that body I will see the body with a belly that has returned back to its original position and I'll see a path that starts from the skin and ends in the spinal column and I'd say a pathway 24 centimeters long, is an error that one can make, be careful this happens when the blade penetrates everything and when the skin becomes compressed by something that cannot penetrate any more evidently that is because the blade has ended. So something that it is important at this point to point out... we have said injuries by a sharp and cutting instrument, they are in three those major ones, A, B, and C, it's important to reveal that the pathways of all these cuts are substantially homogenous in direction that is they all go into the body from left to right, from bottom to top and towards the back, It's homogenous this direction of pathways with some variation obviously, to what degree one cannot evaluate in situations of this kind. Now I brought here an anatomical model of a head that here I'll photograph and if necessary we will take it then in hand because an anatomical model of a head of a natural size can be useful, this is the region hit by the largest stab wound, we have here the upper thyroid artery, there above the hyoid bone there is a pathway that goes from left to right from top to bottom... from bottom to top, sorry, here we are on their left, here we had the minor wound that goes frankly towards the back and up, I am convinced that that wound the point of the knife that produced that wound bumped against the corner of the jawbone and for this has made a pathway of only 4 centimeters and not 8 centimeters which is in my opinion the length of the knife that caused those injuries. Let's take into consideration the morphological characteristics of these injuries, so let's look at 1, 2, and 3, or A, B, and C and let's carefully consider this wound A, it's clear that all the experts will have already spoken about it that there exists a clear place in which one should have found the back of the knife, let's take this that is less dangerous, therefore up there on top there was the back of the knife, over there there was the cutting edge, it's very clear, one clearly sees here you have the cutting edge, this is a particular and here there is the back, now I already in the report, the very first report I took the liberty to emphasize how at the level of the back of the imprint of the back (of the knife) there were these scratches that I personally have seen so rarely, almost never, maybe I never looked for them I'm not saying... they seemed strange to me for their regularity of wounds that (inc.) here you can see here still really well, there are these two small incisions and then these are like light abrasions that irradiate from the edge of the wound, I found only one job, I searched, I searched, I found only one old publication of Chispue Crimonologie or something like that from '89, where this Pollak describes the evidence of injuries of Uber lentsmetter (or similar) that would be survival knives, of Rambo for example. Now... and he describes rather specifically saying: "this wound with rounding on the outer extremity that is flanked by little abrasions from the action of the jagged back", this phrase... there is the work available however I translated myself from German because I am... I speak German more than English. I'm not saying they were identical the photo is that which is rather talking about an old case, we thought to show it in the best way possible but I must say it's the only data in the literature in which I see described that has analogies with what is happening, here there's the cutting edge. Look carefully this larger wound other than the very clean imprint of the edge of the blade that is this it's clear this imprint in this location gets gradually deeper, this because the knife entered perpendicularly so clearly the point of entry the edge of the blade first cut very superficially and then slowly it became deeper leaving this type of little tail. What's important in this wound that we know to be 8 centimeters long and from which follows a pathway 8 centimeters long are these small wounds, other than those up there we have two very evident accessory incisions that we see here and down here, here it is these two and basically this can't mean anything other than that the blade of that knife didn't penetrate and exit, that blade penetrated, exited, re-penetrated, re-exited, two or three times, in my opinion three times seems the most reasonable, it bends a little, re-enters and makes the first side cut re-enters and makes the second, then the number is clearly impossible to evaluate, I mean to say that this wound was determined by the insisting of a blade into that opening and this other than being manifestly and unequivocally demonstrated by the presence of side incisions is confined by the exam of the internal injuries in the area of the muscles, of the innards of that region of the neck in which there is a true and real mangling, it's not possible that one single stab creates this grouping of wounds, but rather it is caused by the rear positioning of the muscles here is someone who with that knife went back and forth in that wound for 8 centimeters. What meaning does wound B have, wound B is also one of easy interpretation, we know that this wound has a brief pathway that follows it, it has this long little tail to the left, on the right here for those who look, it has this hole a little bit crumpled on the right. Now I'd say that an wound of this type you produce I don't know if I can because it's a little small, this is just a little piece of clay, it produces if I have an action of dragging and of pricking, that is I have an action for which I have a dragging of... the point of the blade of the knife and then a small pricking, this can be a movement for example of the neck of the victim, it's clear that it is produced in this way, you see also in this point a certain...

Voices in the background

MASSEI Sorry we can proceed please professor.

TORRE I hope that I've included what ... to have been able to explain what I wanted to say, I can also do it with very large one here and so there will be a line, a pricking and a lesion identical to that, therefore at this point I would take maybe this head... this is an anatomical model of natural size, I don't know if it's useful but I preferred to have it here with me because it demonstrates well how the neck is made and is clear therefore... now independently of the reciprocal position we have had an wound in this place that is between,... we can also take away the sternocleidomastoid muscle, between the inferior thyroid artery and the hyoid bone that penetrates for about 8 centimeters and we have an wound that as Dr. Lalli justifiably describes is going to get lost in the lateral parapharyngeal space (out of microphone)

MASSEI Stay on the mike.

TORRE So therefore we will now see it again with regards to compatibility of the knife, therefore an action in this way, a small prick, the other wound, this wound here is again an interesting and long wound, gets described as around a centimeter and a half, let's be careful, the penetrating part of this wound is only 1 centimeter long. Returning to our modeling clay if I penetrate like this it's clear that if I for retraction have a widening of edges I may have here a very superficial wound owing to the fact that this knife penetrated perpendicularly while instead the penetrating part is this that is about one centimeter long, then if it is a centimeter and two, a centimeter and one, it's not that it changes. What is important is that also this wound is directly toward the top and rear and to the right therefore homogeneity of direction of all three injuries on point and cut. Look carefully if we see the direction of this wound, wound C with the blue arrow we see that following the direction of its pathway after a brief period it comes into contact against a strong bone that is the jaw, let's return a moment to our head. Let's return a moment to our head, we have... now we are on the opposite side a wound that penetrates in this location, goes up a bit and hits right away against the jaw, against the corner of the jaw that, take note, is a bone of great strength, in fact if I have to be honest the only thing that's a little bit of a complaint in this case is not having requested the complete bone structure of the head, it's a thing that we usually do, we usually do it but Bacchi will find out on exhumed cadavers or on burned cadavers, on cadavers that have nothing left to show to those groups, in effect a young girl whose head was demolished and boiled. Making a complete skeletal map was a thing that was maybe not simple to propose. I believe that if it had been done, it might have been possible to see a pricking of a knife on that angle of the jaw. So here right away we see how stupid the reconstruction of facts was by the experts let's say of the U.A.C.V. of the Polizia Scientifica because in their reconstruction, these are images that I took from their DVD they propose directions of the pathways randomly ['a capocchia'] it doesn't make sense imagining this knife going towards... towards the right because the pathway goes... it goes to the left because the path goes toward the right, this is already a little bit more correct but holy cow it is straight precisely from the front toward the back, this just to say that the agent mustn't believe that making tridimensional reconstructions allows you to see better how things happened, it shows what he had in his head and what he had in his head was enormously incorrect. Let's come to our knife, this famous knife of which I have an identical one, by now Maglietti is getting rich with when taken to trial this is exactly the same as that one there. So we have this knife... We know that the blade is about 17.5 centimeters long now let's not niche ourselves if it's 17.6, 17.2 and so on, we have that length, we have a back that is about 1, 1.5 centimeters wide and we have a height, that is the widest point... (this is why I had before presented that general knife to say what the various widths of the knife are called) is 3 centimeters. Now if we consider our wound C we know that wound C is about 1 centimeter long apart from the little tail and we know that this blade, where it is one centimeter high, from that point, the distance between this point in height, is one centimeter and the point of the knife is 1.55 cm, wound C has a pathway 4 cm long. I say it's not that it's difficult it's impossible that a knife like this obtains a flesh wound of the order of about one centimeter or even a centimeter and 2 and a pathway of four centimeters, there isn't in that location any structure that can explain to me the reason that wound should be so short and instead a small knife like this because a small knife like this was utilized, that penetrates at 4 cm is about... excuse me where it is a centimeter tall it can easily make a pathway of four centimeters, but you ask yourself why didn't it penetrate all the way? It didn't penetrate all the way because it came up against the jawbone while rather this knife I'll continue to repeat from the other side where the largest wound is it went with a coming and going movement mangling the deep tissue and made the wound that could have made, that is, made a wound of 8 centimeters. If a knife like this had been used let's return again... return to our knife, our knife if inserted with the indirectness with which it was produced, it wouldn't have made a one centimeter wound and not even a centimeter and a half but of two centimeters and a half to be able to create a pathway of four centimeters. I'd say that this, I am not a friend of mathematics and of measurements but I'd say that it's unequivocal data, I repeat again this is a head of natural size but if I stab this head with this knife and there is determination, that wound is an insisted thing, knives cut, there there is nothing resisting, if not an Hyoid bone which is insignificant and so if I cross this knife why does it have to stop here, why? There's no reason above all in an insistent action it would have surely crossed that neck from part to part. Yet another thing here that is bad is why I hate it when suggestions are made to people who are not in the field, news that could be misleading, Doctor Stefanoni when she was asked about the abrasions, it was important... she says "I found DNA in that... I took a sample in the scratches" now if one sees scratches they photograph it, she says: "it was small" we told her: "you needed to look at it under a microscope" and she: "but how... under the microscope it would be necessary to color it, make..." ... now I would like that it be clear to whomever must evaluate that two types of microscopes exist, microscopes with transmitted light in which I put a small piece of glass, they are those pieces of glass that they use in histology to make diagnoses if one has a tumor or pneumonia or even if a cadaver appears to have red globules of aspirated blood in the lungs well then I have to take a very thin slice, I have to put it between two pieces of glass, then having appropriately colored it because if not I see nothing, why the color? Because nuclei are colored with a colorant called hematoxylin, the cytoplasm with one called eosin, the elastic fiber with another called orcein and now I have a complete picture. Now saying that one must manipulate in some way an object to look at it under a microscope astounds because the microscope rather has a light and this is the microscope's dimensionality. The other day I took a random knife, I put it underneath, I took a photo one can see other than scratches it is just the instrument without any manipulation, an operation absolutely repeatable permits me to take a photograph zooming in on any scratches and eventually also revealing on the inside of those scratches there is something organic, another voice is the basis of the identification of bullets [proiettili - perhaps a typo "proiettili"] is

bullets "proietti is meaningless], the micro-streaks are made in this way using the stereo microscope. Not to cause problems but just to clarify that Doctor Stefanoni could have easily looked at those micro scratches or macro scratches in order to document them and that it doesn't correspond with the truth the fact that to see it she would have had to manipulate the knife. Other wounds, we said there were other wounds other than that of the cutting and pricking instrument, that we saw all in the same direction and it is my view that they are very compatible with a small knife, with a blade of about eight centimeters to a height of a centimeter, a centimeter and a half, absolutely incompatible that which I indicated as wound C with the large Marietti knife (Raffaele's) in custody and incompatible for the method of action also with that indicated as wound A. What else is there, I in the... there is this deep abrasion, there is then some superficial cuts that seem not very helpful in the interpretation of the case, there is this deep wound here I... deep abrasion, I had suggested I can't say if it's true or not that it could be from a rather strong fingernail, fingernails can produce deep cuts of a half-moon shape of this kind and so I can easily imagine a man who from the front grabs the neck and leaves fingerprints and if by chance had a nail with... a rather long thumbnail it could have caused that lesion, I say as an envisioning of a hypothesis not as a hypothesis of certainty because even a blade that scrapes could make... a lesion of that kind I must say however that this curvature here gives exactly the idea of the free edge of a nail that causes a scratch. There are also some wounds and they are real scratches on the nose and on the mouth, they are bruises I'd say of compression, and here there is a hand and some fingers that were put on a mouth. I spoke of suffocation, hushing up, I'd say that the mechanisms are superimposable those of suffocation and hushing up, they are not particularly relevant these wounds, they could simply be a hand placed on a mouth with the goal of silencing. So we have a grabbing of the neck, we have one hand on the mouth, now let's get back to the topic after, it's not that the hands are stationary where one puts them. I can put a hand on the mouth of a person to make them shut up, and slide down to the base of the neck, now pay attention, we discussed the fact that these wounds are near the edge of the jaw, if I take my skin like this and I go down to strangle it's clear that I can, without getting into too much detail, cause a constriction when the skin returns to its original position I can have long bruises along the corner of the jaw because the skin's elasticity went back up also for a constriction that blocks my airways. We spoke about bruises in other places, we spoke about grabbing marks, you even heard about how there is such a variety of wounds on this body that couldn't have been made by one person, you request the intervention of more people. Now it's necessary to for the Doctor to join in... Professor Introna who corrected us because we had had messed up and we all messed up interpreting a bruise indicating it as on the right elbow while instead it was the left elbow, here on the left elbow on the back there is nothing, I think this was ascertained, they are wounds... they are reasonable hypostatic marks, these are real, these two bruises very close to each other and seem to have the look of recent bruises. Be careful, we are in this area here that is the location of the protrusion of the medial epicondyle for which we are in a very protruding place, any hit everyone will have experienced the elbow hitting something on the external side or on the internal side of the elbow, these are bruises that do not have characteristic markings, I'd say that normally when I find bruises in corresponding to a jutting out of bone it's likely that they are from hitting against something hard. grabbing bruises are found at the wrists, on the biceps, on an elbow... I can't exclude that one was grabbed by the elbow even if it would be very curious, to an elbow it's likely it was a hit. We also have person who was on the floor, that was on the floor and could easily press this supine elbow, and one could easily press this elbow against the floor. What else is there? The forearm and the arm, so now I want to say on this body, on which I do not know how it's possible, one discussed large grabs, with actions of more weapons, that show intervention of more people there is a bruise on the forearm there's a bruise on the elbow, there's a grab on the neck. There are then these wounds which are very difficult, also here I re-watched the whole film, you can barely perceive these two bruises on the hips and more precisely at the level of the iliac spine anterior and superior. It's also true that as Introna says in the film those bruises seem to be of a slightly different color, they could be not so recent. I'd like to recount a personal experience. I remember my daughter who at the time was 12 or 13 and good at gymnastics. I would often see on her these bruises on the iliac spine, I asked her now she's 35 and she said: "if I do gymnastics and I do a back bend and I don't have a sufficient padding underneath I get bruises on my hip bones because the point that touches..." Now I don't know if the victim did gymnastic or not, but I just want to say that two symmetrical bruises like that permitted me to discuss it even with my wife who is a physician and she told me: "many of my patients who do gymnastics come into my clinic and they have two bruises right there I don't know, what I can say is that those bruises can have nothing to do with a grabbing, they are again bruises that are from compression on a bony point coming into contact with a surface. This surface can also be the knee of an aggressor, I'm not saying, but the symmetry if it's true because they are very exhumable makes one think of hitting against a flat surface, hitting against a flat surface let's say. If I am flexed in a back bend because if not the torso is protruding with respect to the hipbones and with difficulty are they going to form there. Reconstructing it together with this we need never forget, we have this wound at... excuse me there was still this small bruise on this middle third of the right leg. And the evaluation of a thing like that, more than saying that it's certainly not a grab, you cannot say in my opinion that it is a hitting against an object. So, we have therefore these here on this elbow that can easily be explained by hitting against the floor it also could have been pressed, we have these two things that we barely see and a bruise on this leg. Let's say it's a cadaver with very few practically insignificant wounds other than those on the neck. Here I put a small dummy with figure 43 with the image that is in my first report that I corrected after reading Introna changing the placement of the wounds. There's the hands problem, now we have talked about the fact that there are wounds on the hands conjecturably referable to defense, I interpreted them at the time as defense wounds from coming in contact with an instrument like a knife. Now these wounds are rather modest, there's a kind of linear wound on the left index finger, this wound on the right thumb and one on the palm of the right hand, these are their locations. Now if we go and look closely at these wounds here it's difficult to think it was done with a blade with... that has... from a hand that grabbed a blade, it would be longer, it's rather of a pricking or of a striking, it's even better the next, either from striking or from the taking of a blade of a knife like this that I have in my hand here, just to make an example against these two indentures, now the figure that follows I'm not saying it was like this it was just to show that this wound has the look of a knife wound. If I drag with a knife I make a long wound with small tails at the edges that get thinner, in this case I have a wound that is like an indenture. Now the image is a natural size and I didn't report with milimetric precision but the idea of a serration of that knife with this wound I'd say that it rather seems to be. Yet someone said I think that these wounds are a bit too few for a knife murder, someone spoke also of the fact that maybe the girl was restrained and therefore could have hurt herself very little, now it's difficult to imagine someone restrained and who hurts themselves little. If you are restrained you are not injured but most of all I took all my old cases about... I did so many autopsies of stabbing victims and in fact often one finds some very important wounds from grabbing at a blade, they are however usually very long blades. It's intuitive, if I find myself confronted with a blade of these dimensions, this was a case of a large blade of roughly these dimensions, I am likely to grab it and I make that type of wound there. If I, like in this case, have large wounds, the knife was something like this and so even in this case in which the knife was 17

centimeters long with a point, with a single cutting surface of 17 centimeters. This to say I don't have the data of the literature to present but from my experience I noted that large defense wounds are prevalently in injuries with a large knife. It's clear that if I have a small knife and it enters inside me I have little blade to grab, even the images that the Polizia Scientifica presented to demonstrate the importance of these defense wounds I don't know from what knives they came from in that case looking however at the dimensions of the wounds all this makes me think they came from large knives. Now by saying this I don't mean that the large defense wounds are surely there for large blades, I did not find one scientific work on the subject that would merit worrying about, I have to say though that also logically one realizes that if I have a long thing to grab I can grab it more easily, if I have a short thing I could even not see it, I could grab a wrist to try to defend myself while instead a blade of these dimensions is more easily grabbed and so it's clear with these such small injuries they are very compatible with the pricking of a small knife or with the jagged back of the blade of a small knife. Where was this victim in the act of wounding? Here I took again the images of the experts of the Polizia Scientifica, this is the room... now I don't want to sit here discussing the dimensions however roughly the room was this, the BPA... I am not personally particularly a friend of the excessive application of mathematical formulas at the examination of crime scenes, however I'd say that this evidence confirms more or less that which one can see with the eye and that is that the victim must have been struck more or less when she had her head at the height of a palm and a half from the floor and was near the door of the wardrobe. In my opinion she was face up, that is she was supine, we will see why, there I think a little too moved toward the wall [transcript here says "muto" (mute) could be a typo? "muro" (wall) makes more sense] but this is not our particular problem, it is certain victim was struck here and then dragged in this direction. That is, she first found herself roughly here, then she was dragged over here according to this arrow roughly she was dragged. Now here is where it becomes important on the inside of this door to the wardrobe there was what in my opinion is clearly slap of a bloody hand print. How could it be produced?... This hand is covered in the victim's blood and so while she was being dragged over there she could have raised her left hand, having voluntarily or involuntarily for automatic activity touched the door of that wardrobe and therefore have been dragged up to here up to this which is her final position, I'd say that this makes one really think of a slap. On the topic of the final position, I know that my colleague Introna favors a stabbing occurring from behind, it all could be, I am not convinced, I am more convinced of a stabbing from the front for a series of reasons. One of the clues upon inspection, basically we have on this subject some streaks of blood that all go gravitationally, that is they go down as from a subject in a position that had remained supine and from that position didn't move. We have a stain on the shirt, we have on the hand that advances toward the mouth and toward this foaming mushroom these great sprays of respiration, of coughs, let's call them how they want, that is she, when she died, had this relationship more or less between her left hand and her mouth that didn't change just as her reclining position didn't change. In particular we have this part of the body that is free of stains, those stains that are so small are from respiration, here there was already an invasion of the airways the part of the blood gushed out from the neck wound, there was, as always occurs, a cough reflex, a respiration with a sort of spray of small droplets of blood and these small drops of blood all went on her chest that I'd say unequivocally wasn't wearing the bra. It is the case that we find minute droplets of blood even on her nipples, in the central part of the chest, they are also not deformed. Now if I was struck from behind on my knees, I would have streaks on my chest, here there are no streaks on the chest there are only these tiny droplets and they are droplets that are not in any way deformed. Nothing passed over those droplets before they dried because if a hand, a cloth or anything had passed across those droplets it would have smeared them on the surface if they had still been wet. So I said that it seems logical to me that the action was from the front and so I repeat one more time we have the edge of the blade over here that is not toward the space in-between the thumb and index finger but towards the fingers, we have an interaction of hits in this location with a blade that could not have been longer than 8 centimeters because otherwise it would have come out the other side because of the evident violence of those strikes that caused the mangling of the inside. I have a victim that gets restrained in this way and the head obviously this doesn't bend, one can bend it back. I have that other pricking on the neck that is always in the same identical direction, the head turns a little, then in the end the last hit that is that not the last... I say last in my numeration, that is the one which hit against the jawbone after only four centimeters and... but the knife is made like this that large nasty knife could not have done this. Why do I say not from behind, from behind I think it's difficult because if I have this head and I have to grab it from behind basically... and above all I think that it had been proposed that the edge of the blade was oriented toward the fingers is in this way certainly because if not, there wouldn't be, so (inc.) from behind but I have to... I have to assume a position that is so ill-fitting and besides let's remember... now everything is possible we don't know what position these two were in, just of extension or of flexion of the head but in this behavior in addition I have to do it upwards for which it's clear I should be very high up, it looks to me like this is what happened. I don't know I say that it's possible it's one way rather than another, I think that a series of things tells me the attack was from the front - the direction of the knife pathways is more suitable to me, the stains tell me on the part of the chest where they are lacking if not for those little drops that came out when the body was already... was already supine as in my opinion she has always remained in a terminal atonal phase of bloody spray that comes from the airways, I wouldn't know to say otherwise. If then it's easy for me to forget something I am ready to respond to other questions, here let's not repeat ourselves further, here streaks down in front are missing, I've already explained before, here are images that I will not comment upon about this supposed crowd of people in a very narrow space in which one knows not what they were doing and here again is this grave error of representation. A couple words only on luminol traces, now we know that importance was given to a few traces, for example the one in Amanda Knox's room for which a blood test was not done, my colleague DNA expert Gino will talk about it after, and trace 7, these are the ones that concern us more directly from which a specific test for blood was not done and from which no genetic profile was extracted. Now the prints are these, in consultation with Rinaldi and Boemia one says "prints impressed by depositing blood" but how can you say that those prints were made in blood, you can say those prints are luminescent in reaction to luminol, we all know that the prints that we... there are various other materials that become luminescent with luminol, Sarah spoke to me about a really funny case maybe she wanted to speak about it, but there was a case in our area, of traces that glowed with luminol that created problems in the course of the investigation (inc.) of blood and not blood, then it was clarified to be... because they were small because if not maybe one wouldn't be able to understand that they were the traces of the child that had swam in the pool and got out with chlorine-covered feet, leaving this whole path, now I imagine if those traces weren't made by a child how many innumerable measurements the Polizia Scientifica would have done, and they probably would have written that they were deposits of blood. I add that, holy heaven no... in trace 1 DNA was taken, in trace 7 nothing, now with this luminescence it's difficult to think that DNA would not have been extracted, it's a strong luminescence, first it would be appropriate perhaps to give a specific diagnosis of blood but, my colleague will speak about these things. Now we have a plantar print assigned to Knox and luminol trace 1, I think the experts are Boemia and Rinaldi, they speak in this case about probable identity, now be careful because first of all the literature advises always to not

just take one print only but different positions. I don't know if in this case it might have been done because the print can change according to the behavior of the foot, from an external pressure, internal and so on but I am not very expert on prints and I say it right away, yet the measurements I know the fact that they were consistently incorrectly measured was discussed I want to let you know that there exists on the market these luminescent glowing strips that are made for the sole purpose of placing next to luminal traces to be photographed in order to have a precise metric point of reference, and then not work from photographs. It's longer, it's shorter, the photo is crooked, for which it is difficult to reach a measurement of any interest but above all I ask myself this – These people made a sea of calculations, I've read a bit of the literature on these things but here I hadn't... It's not a question of reading the literature, it's clear that this foot of Amanda's has the second toe let's call it index of the foot to make ourselves more understandable, longer than the big toe. In the print the second toe is frankly shorter, in the luminol, both Amanda's foot and its ink footprint have a long second toe, that print there with the Luminol has a short second toe I'd say there's no doubt about it. I'm not particularly an expert on prints but if there's one thing that jumps out when we know that the majority of people have a second toe longer than their big toe however a good number people have a shorter one I believe that it would not have been a bad idea to take the prints of the other young people that came to the house and that potentially walked on the floors with bare feet perhaps coming out of the shower that maybe had been washed with chlorine to clean it that could have left prints that were Luminol positive anywhere. I don't mean to say but unfortunately I have no precise image, the only other foot that I could see was that of the victim. Well, there's no image in which you can see it clearly but if I must say the foot of the victim, it would be good for whoever has images of the victim's foot available to study them, it seems that she has a shorter second toe. You can't tell because here it is slightly flexed, this to say that the same victim could easily the day before, two days before, have taken a shower and have walked across that floor and left a luminol positive print. Be careful, my colleague will speak about it but the fact that there is Amanda's DNA under there has absolutely no meaning in the sense that being able to place in relation to the luminescence of luminol the presence of DNA that in the house in which a person lives is very normal that it's there I'm not saying everywhere but almost. Probable identity, even here the same things are true even for the second print you see clearly that here there's no trace of the long second toe. So, speaking this probable identity that these people talk about, there exists... it's accepted by ENSI, it is described among other things in an Italian text as recent as 2009 and in which I think even Intimi who I think is the director of the Scientific Police participated. I know little of police work I don't know the degrees, I don't know how they are called, anyway identification, this makes reference to shoes be careful however... there does not exist an analogous criteria on the subject of footprints however the general concept I'd say is that there is identity when, upon comparison, the same general characteristics and particulars present themselves. Probable identification this is what our friends in the Scientific Police say but be careful to speak about probable identification there's a clear correspondence of design and form in the absence of significant differences more than a coincidence of the general characteristics or of any markers of wear, in addition at least one of the following criteria must be satisfied, are there observable markers, what is a marker? In forensics you study characteristics and markers, characteristics are blue eyes, brown hair, and they make up an anatomic inventory of each human they are the characteristics and therefore can have a certain value in identifying a person, I can say that that person with blond hair and blue eyes, the markers on the other hand are something anomalous, a tattoo, an amputation of a finger, a wound, a particular surgical intervention, so for these prints to reach a probable... to have an identity they must be the same, to have a probable identity they must at least have either some attributable markers in terms of their fabrication so I'm talking about shoes or casual markers for example I walked once on some nails and they poked holes in me ,or there's a clear agreement in the specific markers that are possibly not definable and so on, anyway that's all. Be careful again concerning... I almost finished, regarding the luminol the literature insists on the fact that luminol can easily diffuse and can alter the look of foot prints. The last thing which I would like to speak about, one spoke of this second shoe-print on the pillow, let's see where was this pillow, this pillow was under the hips of the victim, here we see when the victim gets turned and here is repositioned back to the original position more or less. Attention the print that we're interested in is there, that it is was found underneath the right hip of the victim, it's this, it's this. Now I want to say it's this so we are... you can see already right away in this picture that this is not the edge of a print this is a bloody fold of the pillow, it's a fold of the pillow that gathered some blood. This is that picture presented by Rinaldi and Boemia, they say that it's a heel, that is they say that this thing here is a heel and they draw it but it is a mere invention that you see something behind here. Now if we look carefully at it therefore this thing here would be a heel, such as from someone coming down off the pillow, here's where the narrow heel would be so of a woman's type shoe. Be careful this part of this print here you see this stain that is this, here there is this dirty part that is this, here there's this fold of the pillow that is this way because of a sort of folding-under action making it so that here there's a clean interruption. In fact I don't understand why there's always been a black and white image of this provided and a line that corresponds to a bloody fold in the pillow, here you see it even better, this is a fold, no evaluation can be given as to width of this print that it is attributed to a heel. Here rather I ask myself... I repeat I'm not in the field but because this thing here should be the print of the heel of a small shoe and cannot be for example the partial print of this part of the House Break 2 Nike shoes that I think were Mr. Guede's. If we compare this image with this one, keep in mind I repeat that this curvature here does not correspond to the edge of the shoe but corresponds to a fold of the pillow we see a series of prints parallel to each other and curved with the recess oriented towards the right and here it seems to nod to the increment that is the reduction of the angle of curvature and it would seem to be precisely a print of this part of the shoe, for which basically saying that that it's a heel is absolutely arbitrary let's say even logically. I say to myself if someone steps on a pillow and has to pull a person it's odd that at a certain point they would find themselves with the heel over here, it's rather much simpler that at that point he goes to place the front part of his foot while he's pulling somebody, but this is a reasoning of logical order that perhaps... One last word on the blood on the faucet, the fact of the blood on the faucet has been discussed. It's clear that that blood belongs to Amanda Knox. The genetic profile is there. I'll show you this image just because if one hasn't carefully studied the photographs one could think that there's a lot of blood here because there's a wide reflection of a reddish color along side of something that's there nearby, if you look at the photos of the investigation you can see that the droplet is small, I know that Amanda Knox days she had difficulty with her piercing, she took out her piercing in those days. Besides the fact that bleeding as a complication from piercing is described in literature you can find easily on the internet, Google 'piercing', 'blood', or 'blood piercing' and you see all these young people who say: "mine bled, mine bled so much". One of them shows a photo with blood in the sink, this to say that that blood of Amanda Knox on that sink has an entirely innocent aspect, most of all there is no reason for which Amanda Knox, we put forth that it is absurd that Amanda Knox was present in that scene and that she was losing blood, that's all. I'd say that I've concluded.

MASSEI We want to suspend a few minutes before continuing with questions to complete the cross-examination, so let's break for ten minutes. (Break). Let's continue, I don't know if the Professor had finished his presentation or are any questions for the...

GHIRGA I will let my colleague Della Vedova ask other questions, still Attorney Ghirga, Professor Torre I would like to ask you about a few details, what is rather simple talking about the shoe-print you spoke about the idea of markers, analogous reasoning or equal reasoning one could make for a barefoot?

TORRE Of course I repeat it's clear that if I have an amputated finger, the lack of a ball of the foot, loss of a part of the heel, I have a marker that can help me sometimes in terms of a certain identification, if not at most I am able to give a general judgment of dimensional compatibility, then you are now trying to find elements, I'd say that however there is nothing codified, there are no guidelines in these terms.

GHIRGA I'll ask you a second one relative to the work of the U.A.C.V on those knives that we see in that photo, in the reconstruction of the U.A.C.V. we see two knives planted in the neck of poor Meredith, the question is the following: You have understood from everything why the contemporary presence of two knives is excluded is that so?

TORRE Excluded yes, it would be my feeling to exclude it, first of all I can say that I am glad that it was welcomed that the wound on the right could not have been made with the large knife and I'd say that generally the homogeneity of the direction of the pathways, all straight in a certain way, imagining two knives that follow the same pathway direction seems to me very difficult and in besides I reiterate that the large wound is completely incongruous with a knife like the one that made the wound on the right. while also rather incongruous with a large knife.

DALLA VEDOVA Good day Professor Torre, Just a few clarifications on what you already said and in addition perhaps some new questions. First of all, I wanted to better understand the question of the potentiality of the knife precisely in the area which was verified as wound A, if you could also show us this... We have all gathered that it's a particular area where it is rather soft therefore should I presume that the mangling you spoke of caused by the in and out movement of the knife happens more easily? This is what I wanted to ask.

TORRE No what I can say is that we're talking about an area made up of soft parts other than that Hyoid bone that I'd call insignificant in relation to its possibility to stop the blade of a knife, what I can say is it's incomprehensible how a knife so long had not made a pathway as deep, also because that list of stab-wounds suggest an intensity of violence, even Introna suggests and perhaps he's not mistaken that that abrasion that's underneath the large wound, excuse me, this you can see in our figure 14 in image B there's this abrasion between the two wounds could be the stopping of the blade and eventually the finger that pokes, that blade that left that scratch and that therefore went all the way in.

DALLA VEDOVA So, in relation to this topic you have a way to evaluate this Hyoid bone you just mentioned there's a small cut of the Hyoid bone, he can show...

TORRE The hyoid bone was...

DALLA VEDOVA (incomprehensible) by a knife?

TORRE The Hyoid bone was fractured though, I must say that I have had great perplexities at the beginning I had even written that the Hyoid bone had been fractured by a maneuver of strangling or of a knife, I have to say that then after hearing Dr Lalli's comment during the videotaping he describes the pathway, and in describing, you hear a voice say: "the pathway includes the Hyoid bone that is cut" for which at this point I think that easily... Cut, fractured, now a clean cut of the Hyoid bone is not easy.

DALLA VEDOVA And continuing with regards to the presentation you made, the hand of the victim was so close to the wound that it was stained in a particular way.

TORRE At least in the final phase it was near the wounds, near let's say... yes near the wound in the sense that it was near the source of the spurts of spray of blood right during the agonic phase of breathing of one who has their airways full of blood.

DALLA VEDOVA But if the victim's hand was nearby even when the knife was there before the stab wound there would have been some injuries perhaps from trying to defend oneself against a knife above all of that size?

TORRE With a knife of that size I'd say that it would be extremely unique not to find deep cutting wounds on the palm of the hand because a blade of that size if grabbed and it's also of an optimum steel the Marietti is very sharp it would have cut probably down to the tendons.

DALLA VEDOVA But therefore one can hypothesize that the victim put her hand near the wound or in proximity of it after the cut that stained it and then she left that print on the wardrobe?

TORRE Well, I'd say it's rather reasonable that I receive a stab wound, I place a hand, they drag me and, I repeat as I said before, either voluntarily or as an automatic behavior I grasp on that wall and I get dragged over there, then I remain in that final position. Because that hand has diffused stains, either I put it on the wound or somehow it gathers blood that is coming directly out of the wound, then when I am in the final position that I am in the agonic phase with expression of minute droplets of blood I stain myself on the chest no longer from the blood coming out of the wound so much as for the airways that with coughs and so on express this spray of droplets.

DALLA VEDOVA Professor speaking of the upper limbs we saw these bruises at the height of the elbows.

TORRE Left elbow.

DALLA VEDOVA But even Professor Introna analyzed the point but if one wants to block a person they block them by holding their wrists is that so, a little bit of experience...

TORRE It's likely you block them holding their wrists, basically if there are many of you and you grab their arms even from behind and those same bruises on the arms are very typical, I have here... well, they are bruises we call 'stretcher bruises' because they are those that when a person is not well they get grabbed by the arms (to put them on a stretcher) and so there are precisely these big bruises from finger-holds in that area of the ankles, what do I know but I'd say that a bruise that only involves the outer extender of an elbow to attribute it to a grab to me seems very difficult and as usual a bruise from hitting against a flat surface because underneath there's a bone protrusion and we all know bruises form easily when... Bruises form because blood vessels get broken, blood vessels get broken either for traction - so if I pull and the skin is more elastic than the vessels and so the vessels break and emit blood - or for compression. Those for compression form easily if underneath there is a bone such that I can press. In the previous report, excuse me in my presentation maybe I gave little weight to those bruises at the back of the neck among others.

DALLA VEDOVA In fact it's the other question.

TORRE There is that bruise at the back of neck that is also important because that bruise on the back of the neck is a bruise of hitting against a flat surface not from someone falling from a standing position because if I fall from a standing position and I hit my head behind I could easily give myself a open wound, however if I am already either seated or a little bit back and I hit the ground I'll have exactly that sort of bruise on the back of the neck and this is the other element that maybe I had forgotten to say which indicated to me an action (of killing) coming from the front.

DALLA VEDOVA So, I wanted to ask a precise question, the bruises apparent on the elbows and the bruises, the only one on the nape of the neck both, if I've understood, are light. In your view are these caused by a hit, is it possible then...

TORRE The one on the nape of the neck surely, the other basically I see them usually caused by a hit. Those wounds there certainly not from a grabbing that would be a type of pinch not a grab because I have two bruises really close together and besides keep in mind that the flexing surface of the elbow, everybody knows that skin is very thin, it's easy for traction to cause... it's more elastic, also causing bruising, and they're also more apparent because the skin is thinner.

DALLA VEDOVA So going back to the topic of the position, reclining position and frontal attack moreover also partly confirmed by Professor Bacci advisor to the Prosecution who speaks of an assessment objectively of a frontal grab, the perspective that she can give us within the limits of the facts that were in her possession about what had happened, she sees a crescendoing action starting with a precise plan and then ending with the murder or rather... I don't know if this is an assessment...

TORRE It's from the beginning of this trial that we hear a crescendo spoken of I don't quite understand what this crescendo means, one said even before there are wounds of concussive trauma, then the knife therefore is a crescendo, it's clear that if I have to stab someone I grab them by the neck and then I stab them it's not a question of crescendo, it's an action, it's a unique action geared toward maybe suffocating, silencing, strangling by someone who already has a knife in their pocket, a small knife like this that opens and then stabs. I don't see a crescendo I see an action.

DALLA VEDOVA One of the main indictments against Ms. Knox is the sexual violence and in relation to this, one of the assessments is in indeed that the intention of the homicide was in reality to take advantage of the victim and then for a series of connected circumstances perhaps to a holiday but there are effectively no facts to say so or to say that because the victim objected that this intention to take advantage physically of the victim. was then transformed into a homicidal action, on this topic what can you tell us?

TORRE I am not a criminologist so I don't really like to discuss psychological matters. I like technical matters more, I'd say that it has the look of a normal sex crime, I don't know how many times in sex crimes the decision to kill the victim comes at a later time, I don't know I'd say that it is a topic I am not sufficiently familiar with, it's a murder.

DALLA VEDOVA Listen Professor however as to the possibility of the victim to have screamed you... if it's possible first of all and if possible when would you place it, before or after the grabbing, before or after the stabbing?

TORRE This is also complicated, a scream before it's clear, if I see a person in my house I might easily scream. A hand placed on my mouth could surely keep me from screaming. Besides a wound like that on the neck mechanically yes but because of the abrupt and rapid invasion of the airways it might permit me to gurgle, to cough but a scream I don't see it happening after the neck wound. I don't know, beforehand it's clear that one can scream, the hand on the mouth I'd say could silence a victim especially if whoever puts their hand on her mouth is strong enough.

DALLA VEDOVA Listen, rather in relation to the prints we have seen the concept of probable identity and how it gets defined and there appears not to be a motivation in the documents about it... Rinaldi Boemia in relation to the definition of probable identity, the motivation is lacking, that is it's not understood...

TORRE It is missing because in regards to the bare footprint there doesn't seem to be a standardized classification that

speaks about probable identity in the same way that rather one can talk about shoes.

- DALLA VEDOVA And then the other topic that seems relevant to me is the fact that there were comparisons made but they were only comparisons made to Knox to Sollecito and to Guede not to the other occupants of the house, this would've made... In consideration of the fact that the house was occupied by more people it would have necessarily entailed comparisons... Even comparisons to these people.
- TORRE By doing it, I repeat that comparing footprints obtained with ink with luminescent images derived from luminol and comparing two different sizes, two different non-comparable sizes, one could at most add to the judgment of generic compatibility I repeat that maybe... because the more something is uncertain the more the assessment must be really rough. It may seem like an affirmation that's not right, but if I start to measure to the millimeter something uncertain I amplify the mistake. If I however find a footprint that has a long toe like this and another one that has a much shorter one then I can say: "they are probably different" that's it. But measuring something that you haven't even seen with the luminescent measuring stick and say: "it seems like this and it seems like that" I repeat it's a manifestation of the desire to mathematize things that are not mathematizable and so at least from my experience in criminal trials they lead to really heavy mistakes precisely because the mathematization suggests to the interlocutor the impression of an aesthetic scientific evaluation. It's not true, one was mistaken at the beginning amplifying the mistake and amplifying it even more in what it suggests to people if you've measured it up to 17.2 mm it might be a very precise thing, but it's not true, it's a stupid mistake.
- DALLA VEDOVA Precisely on this topic Professor I wanted to ask you about the footprint on the bathmat that... The footprint on the bathmat...
- TORRE The one in blood on the bathmat.
- DALLA VEDOVA The one in blood on the bathmat.
- TORRE I had very little to do with this one, yes tell me.
- DALLA VEDOVA I wanted to know the fact that there is too difficult to define origin from a mathematical perspective to measure it to the millimeter because indeed the print is on a soft surface like a bathmat moreover as we've seen in the photographs made up of different consistencies one lower, one higher in reality how can one make a comparison if the origin appears to be uncertain?
- TORRE I hope I understood everything, basically like I said, I didn't have much to do with that print there, but anyone can understand that a print left on a soft surface and made entirely of big threads cannot be compared. I personally would have had to conduct an investigation myself of this kind: I would've tried to take different feet, I would have made an ink footprint and a footprint on identical bathmats to those and see what came up with Galileo's scientific method. What came up at the time I don't know, I didn't do it however I'd say that reasonably it's different. It's clear that there's a print. There's a publication that talks about how a bare foot with ink will leave a design, but a bare footprint on soft snow will leave a completely different design.
- DALLA VEDOVA So with the goal of making a comparison I wanted to know just this, the methodology, having...
- TORRE It's something else, for example... ah no, no, there the whole heel is missing how can you take it into consideration and say that two things are alike if an entire heel is missing? Those few people who deal with footprints in this way say that it must be complete. It's clear that if however I have just the print of I don't know a metatarsal pad of a foot and another complete one above it was made leaving an "it's me" scar and the rest says "it's me" it's clear that at that point I can give a judgment of identification.
- DALLA VEDOVA Of course, but therefore the fact of having footprints of Knox, Sollecito and Guede, made in prison with a very precise technique on a paper that effectively picked up not only the size that is of the foot but also the structure of the feet, therefore I say a perfect print, from a methodology point of view. Is it correct to compare it rather with something whose origin can't be defined? Is it like saying I have potatoes and I compare them with tomatoes, how can one make a comparison...
- TORRE Roughly it's like that.
- DALLA VEDOVA Roughly it's like that, they're not potatoes and tomatoes certainly however leaving aside the bathmat print but those with luminol depend on the luminescence, depend on the time of exposure, depend on the contrast with which I print the photograph, on the brightness, the edges are blurry, but you see (in the photos) some mathematical measurements I know little about it but 17.2 is written there. You see that it ends at an arbitrary point, because it's blurry, so in that way I can create any results I want. Thank you Prof., I don't have other questions for now.
- MASSEI The Public Prosecutor for the cross-examination.
- MIGNINI Two questions and then I'll leave it to my colleague. Professor did you attend the reconstruction of the crime conducted by Professor Introna?
- TORRE No.
- MIGNINI Okay are you anyway familiar with the conclusions of Professor Introna?

TORRE Yes I didn't read all of it I...

MIGNINI Do you agree or not and if not why not?

TORRE Well, as to the reconstruction of the crime I don't remember I think... I saw only I think that he says that she was injured from behind.

MIGNINI Yes amongst other things.

TORRE The rest I didn't look at carefully... Because it arrived to me very recently...

MIGNINI On this point, on the fact that she was... that the victim was attacked from behind...

TORRE I don't know I think I have explained that to me it seems more logical from the front.

MIGNINI (Voices superimposed)

TORRE It seems more logical to me from the front.

MIGNINI How come you don't... I would like you to explain why you don't agree with the fact that she was attacked...

TORRE I'm sorry but when it comes to Introna's expert advice I worked on correcting material errors that I had made, that is I had confused the left elbow with the right, the reconstruction of Introna, forgive me but I don't know it.

MIGNINI Anyway you don't share the conclusion he maintains that she was attacked from behind.

TORRE I already said before that I don't... It's possible she might have been however all the elements that I have available – the bruises on the back of the neck, the presence of blood on her front and so on – make me favor my own, also because it's mine but...

MIGNINI Of course. One more thing and then I'll leave it to my colleague, in your reconstruction you had assumed only one author of the fact?

TORRE No I didn't assume that, I considered it the case and in the entire case there is nothing that can make me think that there was more than one person, nothing, from every point of view one confronts.

MIGNINI So, from a forensic science point of view do you believe that it must be excluded?

TORRE Well if there was a person there that was watching, there could even have been someone who watched but didn't leave any forensic signs, therefore from a technical forensic science point of view...

MIGNINI You can't exclude it.

TORRE I don't have any element that suggests to me even remotely the intervention of more than one person.

MIGNINI However you said... just now you said another person could have been present.

TORRE Yes, just to say there could have been...

MIGNINI In fact, no, the question I'm asking you is from a forensic point of view, if you can exclude the presence of other people.

TORRE I told you I see no traces of other people.

MIGNINI I understand, I have no other questions. I'll let...

COMODI So, you spoke about the incompatibility of the knife in custody. Incompatibility even regarding the large wound, is that correct?

TORRE Yes, while in the case of the minor wound there is an absolute physical incompatibility, regarding the large wound I can't exclude that that knife made it even if as Carrara said one should never say; "I can exclude" or "I can't exclude" in a courtroom, I can't exclude it, but I say that all of the elements make me think that that was not it.

COMODI But..

TORRE It's clear that I physically cannot insert this knife in wound 2 therefore it is a categorical exclusion that this knife made the wound on the right.

COMODI Yes but in fact our experts have already... Professor Bacci also excluded it.

TORRE I didn't bring up the subject...

COMODI Yes.

TORRE As far as this wound is concerned, I cannot exclude that it might have been made by this knife, however just like a myriad of other knives, even a very small scalpel for example could have made that wound there, so the story of non exclusion is a useless question why? Because what does "I can't exclude it" mean?

COMODI I don't know why don't you tell me.

TORRE What?

COMODI I don't know, why don't you tell me what "I can't exclude it" means? I, from a, I don't know, a literal point of view, I'd say that you consider it anyway hypothetically compatible.

TORRE Carrara is one of the... is the best book on forensic science and it says: "and it might be good according... where sufficient positive directive data is lacking to legitimize a claim even if it's just a claim of probability it's better to declare explicitly to the judge one's incapacity to pronounce it and it might be good from our experience that on his part the Judge avoids putting pressure on the consultant even if the good intention is to conquer the legitimate perplexity and to get out of him a more decisive judgment, to avoid for example formulating the question if at least he cannot exclude so that the expert naturally avoids using this formula that is supremely useless and dangerously..."

COMODI So, this is a warning not for who makes the questions but for who responds therefore I'll ask you a more direct question, is the sequestered knife, in your opinion, compatible with the largest wound?

TORRE With the morphology of the wound, yes, with the length of the pathway, no.

COMODI Ok, with the length of the pathway no for two... This is my interpretation of what you said so stop me if I'm mistaken because you... [transcript says 'lui' (he) but it is clear counselor is not referring to someone else] you start from two assumptions; first that there is only one agent who it's unlikely stabbed with two different knives, second that the blade went in completely, right? Ok but what are the elements... so for the first let's leave it because it's the topic of my closing arguments and not, let's say, a forensic topic. For this second assumption of having plunged the entire blade into the neck let's say you deduced from the violence of the action as you said, correct?

TORRE Yes, roughly. So...

COMODI What are...

TORRE I answer you and I tell you that it is physically possible...

COMODI Yes but I haven't asked you the question.

TORRE That that knife might have made that wound, I tell you however that a knife with that edge and with that length it is impossible that it went in so little because the parts that it would have met are all very soft and thin. If then you tell me there's an immobile person and one that does this to their neck, goes up and down three times accurately limiting themselves to not going further let's say that it's possible. They are situations that in reality are difficult to imagine.

COMODI Yes but I asked you something, the evident violence that you spoke about before from what do you deduce the evident violence?

TORRE Basically the coming and going of a knife in soft parts, so soft it's not easy to control oneself from going... from going all the way. And to me it seems strange that someone who insists with that constancy on the insertion of a knife, who not even once in three jabs goes further in, but rather all these pathways end at 8 centimeters. Then what happened? He took the blade at eight centimeters and he used the knife holding it eight centimeters from the tip.

COMODI But in lieu of the evident violence you presuppose also the rather determined homicidal will, no?

TORRE Usually someone who slit's someone else's throat intends to kill them.

COMODI Of course, in fact that's why we're here. But I was saying in the place of evident violence, that coming and going of the knife that never goes all the way, doesn't that depend on the movement of the victim and the agent?

TORRE Absolutely not.

COMODI Why?

TORRE Well because the violence of a jab infers that the victim turned the other way three times in the same way to avoid the knife penetrating further I don't know, well, but at this point yes yes we could say anything.

COMODI But you said that there's only one agent therefore...

TORRE I said that everything tells me there is only one...

COMODI (voices superimposed) made movement easier no?

TORRE What?

COMODI According to your reconstruction, if there is only one agent who bruises her, restrains her, puts his hand over her mouth, stabs her more than once in the neck, causes bruising, then we will see even further bruising. I'm saying the victim had sufficient liberty of movement there or not?

TORRE The victim? I didn't understand, sorry.

COMODI Does she have enough freedom of movement?

TORRE Well if I have a person on top of me it's not as though I have a lot and if this person keeps my face still with his left hand basically I can move but only to a certain point then it's not as though an hour passed, a very short time passed but above all it allows me...

COMODI Go ahead.

TORRE You are telling me about two knives, now it would be the first time in history that one sees a throat-slitting made by two knives and by two people.

COMODI No the throat-slitting was made by only one knife, the other knife made the other small wound that wasn't fatal, no?

TORRE Small up to a certain point it went in four centimeters and hit up against the jawbone.

COMODI Ok, speaking of this hitting against the jawbone are there objective elements on the basis of which you sustain that the blade of this...

TORRE As I said we do not have a skull replica that perhaps could have told us but anatomically it seems logical to me that it hit against the jawbone.

COMODI However, it's a hypothesis.

TORRE Yes, it's a hypothesis.

COMODI So let's move on to the bruises on the elbow. That it's not the right but the left I think changes little, you sustain that those two bruises, two bruises were made by a hitting against a rigid structure with no give, correct?

TORRE Yes.

COMODI And so how do you explain however that the bruises are not only one, but two and disconnected?

TORRE Well, it's not difficult to explain, one can hit even two times. Above all in asphyxiation, and here an asphyxiation occurred the second phase of the asphyxiation, the respiratory dyspnea, also called the convulsive phase and the convulsive phase means there are chronic small muscle contractions almost... not an epileptic seizure, however there are contractions for which I if I'm here I can easily have some... a repeated number of hits on the floor. I wouldn't say that...

COMODI So then the victim doing this against the pavement basically? That's it.

TORRE It does not seem to be something so... have you ever seen a...

COMODI Eh, well no why...

TORRE Excuse me Dottoressa, Have you ever seen an epileptic seizure?

COMODI The bruises...

TORRE From decerebration [rigidity caused by brain stem trauma - also called tonic labyrinthine reflex TLR]?

COMODI Yes but the bruises are there.

TORRE No they're not there, there here.

COMODI OK can we look at them again?

TORRE Here, Let's look at them right here.

COMODI Let's look at them again. Anyway just for logic. I am not exactly a forensic scientist...

TORRE No, no, no, let's look at them, we still need to.

COMODI But if I hit like this repeatedly on a surface...

TORRE But twice...

COMODI I'll get a hematoma this large but not two small disconnected bruises.

TORRE Excuse me...

COMODI Ok anyway in the meantime you can respond to me...

TORRE No, no, anyway I want to tell you now that you are miming the movement of someone who flutters about. I didn't say this.

COMODI Not someone who flutters, someone who is already on the ground in agony and who therefore hits her arm I mean hits it repeatedly let's say, you had said it like that repeatedly but on the same area. I mean according to my own falling experiences no, maybe hitting more than once on the same part I'm saying I'll get...

TORRE They are two parts very close together, if on one part I...

COMODI Yes but they are clearly disconnected.

TORRE They are clearly disconnected but if you touch the funny bone (olecranon) on one side and then the lateral epicondyle on the other they are two jutting-out points, do you want to try to touch your elbow?

COMODI Yes, yes I'm familiar with it.

TORRE So if you touch your elbow there and you hit yourself against a flat surface you have two (bones) jutting out that make two bruises just like those there...

GHIRGA (off microphone)

MASSEI Yes, yes, excuse me. Go ahead.

COMODI Ok well I'll continue then. Also on the topic of the haematomas or anyway of the bruises, you had also shown the figure of a gymnast doing a backbend.

TORRE Yes.

COMODI So, did it appear to you that Meredith did gymnastics...

TORRE I don't know.

COMODI Ah ok so it was... That too was a hypothesis?

TORRE It was an idea that came to me because I remembered this young daughter of mine who had those bruises when she did backbends, so I said to myself "It's one possible way" I did not go as far as to say it happened like that, I said: "I don't know if Meredith did gymnastics"

COMODI On the other hand would it be possible that Meredith got those kinds of wounds lying down by someone who pressed her against the floor?

TORRE It's possible, I would expect something more, perhaps, some scratches also.

COMODI Well you said however that the abdomen softens a little, no? Correct? That therefore rather it's really necessary to..

TORRE Yes but...

COMODI That she may make an arch.

TORRE If I have a 100kg (220 lb.) person on top the abdomen doesn't soften anymore.

COMODI None of our hypothetical protagonists weighed...

TORRE I don't understand.

COMODI None of our...

DALLA VEDOVA President she's asking questions

COMODI We have two accused.

DALLA VEDOVA No judgments, this is not a question.

COMODI It is a question.

DALLA VEDOVA It's an evaluation of the Public Prosecutor therefore I oppose these...

MASSEI Very well.

DALLA VEDOVA The evaluations on the weight of people...

COMODI All right, I'll ask the question...

DALLA VEDOVA Either ask him a direct question...

COMODI Enough don't interrupt me anymore.

MASSEI Excuse me, excuse me Please.

COMODI So does it seem to you that Rudy Guede weighs more than 100kg (220 lbs.)?

MASSEI Excuse me, excuse me.

DALLA VEDOVA I asked to make an objection it's not as though she can input a Prosecution cornerstone.

COMODI I understand, we've understood your objection.

DALLA VEDOVA If you'll let me finish me objection...

MASSEI Yes however following your objection maybe we'll hear... go ahead Counsel.

DALLA VEDOVA I notice that in reference to the weight of people made in this way it may be a personal judgment of the Public Prosecutor and if not accompanied by a direct question cannot be admitted, I wanted to make this objection and I did not want in any way to interrupt the Public Prosecutor.

MASSEI No, no. Understood, of course, maybe we could ask the question...

COMODI I didn't, I didn't truly understand the exception.

MASSEI Because the abdomen may not have softened under the weight of a person on top, the person on top how much would they have had to weigh?

TORRE No, this I couldn't say, I said...

MASSEI More than 60, more than 70. (132 & 154 lbs respectively)

TORRE If I have a heavy weight on top of me. How?

MASSEI You said before 100 kilos.

TORRE Perhaps I didn't say 100 kilos.

MASSEI 100 kilos or rather even...

TORRE No, no, no maybe even 40 are enough I don't know.

MASSEI So any weight?

TORRE Weight. Applied weight.

MASSEI Even 40 kilos (88 lbs)

TORRE One would need to try.

COMODI That is sufficient enough to cause the wounds we are talking about?

TORRE I don't know, I don't know.

COMODI You don't know.

TORRE To your question when you tell me, "there's the abdomen" I say: "if I have a weight on top we'd need to see maybe I'd touch" like those bruises, they also could have been produced by someone who dominates the victim, maybe giving her a knee to the iliac spine, I don't know, I thought I had to eliminate this question precisely because it seems agreeable with what Introna writes about the color of those bruises that don't seem very recent, fading a little into brownish [*"sfumano un pochino sul marroncino"*]..

COMODI Very well, Let's move forward, let's move to another question. The so called 'defense' wounds that all agreeably showed to be minimal, not very important, so I think I understand that you showed those figures, those photographs of other cases to sustain that the important defense figures ... important defense wounds correspond to an important weapon, a large weapon, therefore I did not understand if your conclusion is that those wounds, being small, correspond to a small weapon or whether they are not exactly defense wounds.

TORRE No in my opinion they are defense wounds, that is they are wounds of contact of the hand with a traumatizing object. What I'm saying is that they don't seem to me to be cutting wounds because they are irregular and therefore appear more like wounds either from a simple poking of coming in contact with a blade or from a serrated back of a blade. As far as the other reasoning I'm not saying that the deep defense wounds on the hands only form from long blades, I'm saying from my experience I have seen deep defense wounds for long blades, I have not seen them for short blades. Now... I searched in literature if there is a comparison between defense wounds and length of the blade but I didn't find anything, I combed through all the literature.

COMODI But a knife with a serrated back would be compatible with the other wounds?

TORRE Yes.

COMODI And from where do you deduce it?

TORRE I say that a knife now this is wider with a serrated back, usually the back is not serrated up to the tip could easily make that wound on the right and where it penetrates further...

COMODI All the way in.

TORRE It leaves the imprint of the serrated edge.

Eh but where is the print of the serrated edge in the big one?

COMODI I showed you that radiation of [*"radiaturra di"*]... I showed that that... the dull edge of that wound has a series of radial incisions, I had suggested originally that it was made by a blade with a serrated edge, I found this old German job that if the computer technician will come help us I can show you again that describes a very very similar image.

TORRE That I remember, the image yes. So that is an image... that of the repertoire that you brought it is an image... It's the image of an wound inferred by a blade serrated on the back and partially.

COMODI That has... ah yes the back.

TORRE The serration on the back

COMODI Which image, the one from the German job?

TORRE Yes.

COMODI Yes.

TORRE On the back. So what is that, a fishing knife? [*"coltello da sub"* <http://www.pescaloccasione.it/coltello-da-sub-norge.html>]

COMODI This is a small knife...it's my small fishing knife.

TORRE For fishing.

COMODI But I brought it because it has a serration because I spent already quite a sum buying knives for this case and this one I took from home.

TORRE Does that knife close?

COMODI No, close no.

TORRE It has a sheath, right?

COMODI It has a sheath.

TORRE Listen, but according to your experience, which you have obviously, the defense wounds those that even the Scientific Police copiously showed us were wounds that the victim... From grabbing of the blade that the victim caused before or after having been pierced by the same blade?

COMODI No I'm speaking of those important ones.

TORRE Those from the knife tip can be very important.

COMODI No.

TORRE Those from grabbing and during the course of wounding, it's clear that I grab the blade when the knife is outside of me however I can perhaps...

COMODI Yes exactly both.

TORRE Having already received two or three stabs and grabbing it after.

COMODI Ah of course if the knife gets completely extracted and if I have free hands?

TORRE Of course.

COMODI These are the two presumptions.

TORRE Yes.

COMODI Correct? Is there no hope of reactivating the computer?

TORRE I think that there is if not we'll get another one, it's only slow to download... no now it's downloading.

COMODI Ok I'll continue then, in any case we'll do like we did the other time because... Anyway the luminol professor, the luminol what does it highlight?

TORRE It highlights I believe certain metals, it works with peroxides I think, I am not particularly an expert on luminol from a Chemical point of view, I know that it highlights blood, it highlights metallic salts, it highlights vegetable juices, it highlights some cleansers when there is bleach for example.

COMODI According to your experience those prints that were highlighted at the scene of the crime are... Beyond the fact that they are not precise and they couldn't be, they are not precise like those... like the prints taken from the suspects, not the ink prints, the ink prints I say, according to your experience in crime scenes are they rather... that is do they demonstrate rather cleanly, are they clean or not those that were taken into consideration for the comparison?

TORRE One understands that they are footprints.

COMODI Yes they are foot prints that were covered in a substance that luminol can highlight or no? In your opinion. According to you, according to your experience.

TORRE I don't know there must have been a sufficient quantity to determine a luminescence of that kind. enough I believe, I don't know, surely you see it well.

COMODI I don't mean if on the floor for example there were drops or traces of fruit juice because it seems that even fruit juice is highlighted with luminol, Would they have produced such defined prints?

TORRE Drops of fruit juice I would say no, it seems to me easier a person who comes out of the shower the floors of which had been cleaned with some substance, with chlorine.

COMODI With chlorine, how long before?

TORRE How long before what?

COMODI The floor would have had to be cleaned with bleach.

TORRE Not the floor, the shower. I imagine someone that washes their feet in a shower a little like the child in the swimming pool basically and then making a few steps with bare feet leaves those prints.

COMODI That is even if the foot was washed with shower gel?

TORRE I don't know if shower gel can be (luminol) positive maybe the Dottoressa can tell you more easily...

COMODI But the bottom of the shower covered with chlorine let's say I wash the shower with chlorine, if I clean myself I at least personally I wash also my feet even the balls of my feet, so if I wash the balls of my feet with a sponge and a scented shower gel then exiting the shower the chlorine that... with which I had washed the shower prior remains or does my cleaning override, I don't know if I'm explaining myself?

TORRE The cleaning will override, I don't know however the soap that you used is luminol positive or not.

COMODI Even shower gels are luminol positive?

TORRE I don't know.

COMODI Ah, you don't know.

TORRE I don't know.

COMODI Ok, well everything can... ah yes this...

TORRE This was the image.

COMODI No but I didn't want to see the wound I wanted to see the two bruises.

TORRE It was this one.

COMODI That one there.

TORRE This is the German job, these were knives that have a serration here on top, see this? This here and he says: "Be careful that in these types of wounds there are scratches – he calls them – that come from the edge of the back".

COMODI Excuse me is the enlargement of the two wounds identical? That is are they on the same scale?

TORRE No I didn't take care to put them on the same scale because they are there anyway in all scales of that wound there, they are like this, like this, like this, anyway I think...

COMODI Eh exactly that is if...

TORRE Here is a centimeter I'd say that we are not far off.

COMODI Do we want to move on to the bruises?

TORRE What did you say?

MASSEI The bruises.

TORRE Ah. These bruises on the neck?

COMODI No.

TORRE Which ones?

MASSEI On the elbow.

TORRE Ah those of the elbow I am sorry.

COMODI Here they are. So this one I think that from the photo is rather... There's one of them here and one of them over here, no? The two bone protrusions that you showed me...

TORRE They're here.

COMODI Touching they don't have anything to do with...eh no it's like this the arm excuse me, as long as we don't have two...

TORRE It could be that I am deformed, I don't know.

COMODI It is like that isn't it? So one is here and one is here.

TORRE One is here and one is here.

MASSEI Anyway so the Public Prosecutor asks questions and then the expert...

TORRE Yes, yes, no of course.

MASSEI Respond with your evaluations.

COMODI I mean both of the bruises hit upon...According to you they hit upon a protruding bone?

TORRE It is possible that both of them hit on a protruding bone, in my opinion because here there's the...what do you call it the lateral epicondyle ["epicondolo"] and here is the funny bone (olecranon) ["oleocrano"]

COMODI What is there?

TORRE The olecranon this bone here that goes to this part.

COMODI But this is internal with respect to...

TORRE What?

COMODI This I mean if I'm like this it's internal, oh well anyway...

TORRE I don't know. Here there are two bones.

COMODI Basically you're saying that these two bruises were produced by repeated hits.

Voices (in the background)

MASSEI Ah excuse me...

TORRE In my opinion it could even be as little as only one now that I've touched my (elbow) because know touching it I realize that they are precisely in correspondence to the two bones.

COMODI And that solution of continuity how do you explain it?

TORRE Because the bones are separated one from the other so the bruises form... sorry if I hit with these two fingers I'll have a bruise here and a bruise here, they are separated from each other even if it's only one hit, then I don't know one or two...

COMODI Can you indicate with the mouse where you say the bone is because it seems to me the bone is right in the middle of the two bruises, in the middle where...where there's the halo, the clear halo.

TORRE (Incomprehensible) a protruding bone exists...

COMODI There, right?

TORRE Yes, here.

COMODI No a little bit more in-between according...

TORRE One moment. I'm sorry Doctor, the relationship between the skin and the bone changes according to the movement of prone supination of the arm for which now I'd like to see a static nature comparison of skin in a point in which among other things is extremely mobile on deep levels and the bone, I don't know if you could do it, I'd say you can't do it.

COMODI In effect you can't think that the victim stayed firm and immobile

TORRE Eh no.

GHIRGA This is not a question.

COMODI Eh no.

GHIRGA IS this a question?

COMODI Of course it is.

GHIRGA No.

COMODI Well, he already responded.

MASSEI Yes, yes.

GHIRGA Thinking that the victim is firm or...

COMODI Well...

MASSEI You asked a question and the Professor gave an answer.

COMODI He gave a response in fact.

MASSEI Go ahead.

COMODI So, the shoe print on the pillow, you spoke of a fold of the pillow that interrupts the print, I imagine to sustain that therefore in your opinion the print is larger.

TORRE Yes, not to sustain, I say that that print on the pillow is comprehensively incomplete, that one wants to see a heel but I don't know how they can and that the presence of that fold on the pillow explains to me the morphology of that shoe print.

COMODI How excuse me? I didn't understand.

TORRE I say that whoever wants to see in that print a heel of all things...

COMODI That is let's say the posterior part of the tennis shoe let's say.

TORRE It's not there, It's not there what would be... Here would be the imaginary heel.

COMODI Exactly.

TORRE This, this line is a fold.

COMODI It's a fold, and so?

DALLA VEDOVA President, I object, let's let the expert respond...

MASSEI No, no.

DALLA VEDOVA Without having these continuous comments and implications, he heard the question gave the answer.

TORRE The fold of the pillow... The pillow is an inflated thing...

MASSEI Anyway the expert is at this point rich with experience that basically...

COMODI No but also...objectively absolutely calm in...

MASSEI It's not as though you'll be chopped to bits in his exposition.

DALLA VEDOVA However it's a question of correctness in the dynamics because if you make a continuation of clarifications when the witness is talking you are trying to influence him undoubtedly, therefore she should give him space to respond...

COMODI Professor do you feel influenced?

MASSEI Excuse me, here ... anyway...

COMODI Luckily the professor was the first one who smiled.

MASSEI Let's ask the question and then to give even more uniqueness to the answer and to allow above all a comprehension.

TORRE I want to say this, this is a fold of the pillow, a pillow is a widely stuffed thing, if I step on it and here I make a fold it's clear that my print will remain only up to here in won't go down here and it will leave me a straight line in this place and it will give me the famous narrow footprint like that of a woman.

COMODI Eh I in fact had understood, however I wanted to understand why in your view a larger print could not have continued beyond the fold.

TORRE I don't know what precise position this pillow was in.

COMODI Exactly, therefore even this is an assumption of yours I mean.

TORRE It's not an assumption of mine, what I know is that that is not the limit of a shoe, I know that is a line determined by the fold of a pillow that was placed in a way that the blood deposited along the fold and you can see it really well. What happened underneath I don't know, it's possible that that piece underneath was even more underneath, this pillow is all crumpled up.

COMODI So if instead it was laid down exactly as we're seeing it, well I imagine they are legitimate questions, no?

MASSEI Yes, yes. Go ahead.

COMODI If it had been laid down like this like we're seeing the heel, anyway the back part of a larger shoe would have made its print even towards the left that is after the fold? It would have... The print couldn't have continued beyond the fold?

TORRE Of course it didn't continue.

COMODI Exactly.

TORRE So I can only say this.

COMODI Yes but I want...

TORRE I say that it's something...

MASSEI Excuse me Public Prosecutor, go ahead.

TORRE I say that it's something that left behind a kind of stamp that is interrupted by a fold, I don't know if it is interrupted because the pressure was modest and so it made it only on the most adherent part of the pillow because the shoe was covered in blood only on that part for example, I don't know, I don't have the slightest idea, I say that in this image here seeing here a limit determined by the edge of a shoe is completely arbitrary just as seeing a heel back here is an invention.

COMODI Ok , there are some signs, I mean you amplified the wounds until... basically maybe even beyond the limits, if you amplify also this image you'll see that there are some signs that define the heel like this, like those of the scientific Police had let us clearly see, however naturally everyone amplifies what they want to amplify.

GHIRGA (off microphone)

MASSEI Excuse me, excuse me please.

GHIRGA (off the microphone)

COMODI Well ok I'll say it... I saw it very clearly.

MASSEI Pardon...

COMODI That darker border, so that fold...

DALLA VEDOVA I must insist in a new objection as long as the Public Prosecutor wants them from me but the question about his last opinion what was it?

MASSEI That is the Public Prosecutor is asking...

DALLA VEDOVA She made a personal judgment of interpretation referred then to other circumstances.

COMODI It is the professor who makes personal judgments.

DALLA VEDOVA Either ask the question... I oppose in this way.

MASSEI No, No, she was asking... To me I seem to have understood in this way that is the Public Prosecutor asks if it was possible to see on that part of the pillow any signs, any enlarged lines of those that were hypothesized to be a print and it seems to me that before the Professor had shown these lines when he had made the comparison it could be part not the posterior part but the anterior.

TORRE The largest one I have is this photo of the pillow, this one's a bit smaller.

COMODI Two more questions and then I'll have finished.

TORRE Do you see also here for example where there's this fold nothing goes in, there's a stain under there and above there's nothing what does it mean that there was something that ended there? No. It's simply that the print ended there because there's a fold, this is the same stain as this, here there's this, if you tell me where the heel is above there I'm happy.

COMODI I don't have the mouse handy otherwise I would show you.

MASSEI Excuse me, that white image that is lined what is that?

TORRE This is the image that was attached to the file that I believe had to do with this pillow evidently.

COMODI Of course.

TORRE However I don't understand why the print experts of the Scientific Police put it in black and white because probably, and this is not a criticism, for better emphasizing the outlines probably.

COMODI I believe so.

TORRE However basically here... this thing here that juts out from this part what might it be well I don't know, if the shoe ended there because there's this that juts out here and then I repeat here above I just don't see a heel.

COMODI Excuse me that line that you indicated how it folds, no?

TORRE Yes.

COMODI It could be more soiled with blood with respect to the other edge of the shoe because maybe the foot wasn't placed in a symmetrical way?

TORRE I don't know maybe it's because the shoe on that part there was more soiled with blood, I wouldn't know and above all in folds of fabric because of threads it collects more blood.

COMODI But the fold couldn't have been caused by the shoe...

TORRE But I would say that it's very possible, certainly.

COMODI Thank you, no other questions.

PERNA For the civil party, just a few clarifications if possible. If I understood correctly, and if I didn't obviously correct me, before you said that in your opinion this type of homicide can be considered a homicide in a sexual context ["a sfondo sessuale"] if I didn't misunderstand.

TORRE Let's say that the aspect of the recovery of consciousness of the cadaver suggests this while being aware that behaviors do not always correspond to... to reality, it seems to us basically.

PERNA It is an evaluation of yours. Returning therefore to the bruises on the iliac spine before you said that in your opinion they cannot be considered bruises or did I misunderstand?

TORRE No they are bruises, I do not know when they may be from.

PERNA Can they be considered anyway bruises from grabbing or do you exclude it totally?

TORRE From grabbing I exclude it.

PERNA Totally.

TORRE Totally.

PERNA And for what reason?

TORRE Because I have never seen bruises from grabbing so limited to one place that is again a bone protrusion and that normally presents bruises when it is simply compressed, if you for grabbing tell me that when this person was on the floor with her gluteus on the floor, it was compressed with the knees for example on these iliac spine if you call that grabbing ok. If you call grabbing a grabbing with the hands it is not possible that I grabbing some, even with the hands that it's going to fall right on that iliac spine that is the jutting out point that instead hits when I lose balance and I'm going to hit...

PERNA And from pressure with the fingers? With the fingers, with the hands obviously in the same position that you now demonstrated to me.

TORRE Pressure with the fingers.

PERNA With the gluteus placed obviously on the ground with... rather than with the knees to understand each other.

TORRE Yes Let's say again technically it's possible that a pressure even with an object that is relatively non-traumatic like a finger can give me a bruise, I must say that finding bruises in a symmetrical bilateral place in places that normally are prone to getting hit and that someone in order to hold a person he'd placed two small fingers precisely on

those two iliac spine that seems to me a little strange let's say.

PERNA However from a scientific point of view can they be provoked or not? That is from a medical point of view yes or no?

TORRE Yes a finger seems difficult to me, let's say in a completely theoretical way yes a fist would be better.

PERNA Then I don't know if you could have... that is maybe it had escaped me, I don't know if you showed the presence of a wound on the left cheek of the girl.

TORRE A small cut.

PERNA A small cut yes, that type of wound in your opinion what can it be ascribed to?

TORRE I concerned myself with it very little because it is a very superficial wound from a cutting instrument, I would say in the course of an injuring of a person with the neck as the target in a movement of the victim it's not surprising that the blade could have made a superficial cut on the neck, a little like that prick that's underneath basically.

PERNA So in your opinion it cannot be considered from a threat?

TORRE A threat?

PERNA Yes could it be a wound owing still to the weapon held in hand as a threat? According to you.

TORRE No I don't see it, I don't see that it has the characteristics of threat, I am not able to comprehend what significance it could have as a threat, it seems much more reasonable an accidental wound in the course of a moving target coming into contact.

MASSEI Excuse me Professor just to have clarity, to me it seemed before to have understood that you spoke of a wound and you didn't exclude a fingernail as the cause.

TORRE Yes.

MASSEI Is it the same wound that...

TORRE No, no, it's another one, I don't think I...

MASSEI This is another thing,

TORRE There's a tiny cutting wound across on the...

MASSEI So this is another wound.

TORRE Very superficial yes, yes.

MASSEI Yes, yes it's another wound.

TORRE Yes it's another one.

MASSEI Go ahead.

PERNA Then going instead to the wounds, to the smallest wounds or almost absent ones present on the hands of the victim if I didn't misunderstand from what you showed, comparatively are minimal because anyway the resistance was partial, if I didn't misunderstand, or anyway tied to the fact of the presence of a small knife, correct?

TORRE I say that they are particular wounds because they are not cutting wounds, they are wounds from the poking of a knife, they are in places however of defense wounds, they are not of cuts, they are like tiny lacerated injuries that I think were reasonably produced by hitting against some part of that blade, they are not a big deal, what I can say is that it can easily explain to me a scarcity of defense wounds for example for the fact of a short blade.

PERNA Ok but if I have not still misunderstood you before had said that in your opinion anyway they did not indicate a great resistance on the part of the victim.

TORRE Those Injuries?

PERNA Yes.

TORRE On the great resistance, if I have a blade completely planted in the neck, I have little blade to grab because the blade is completely...

PERNA If he had not yet planted it inside the neck obviously.

TORRE What?

PERNA If yet obviously he didn't have a blade planted in the neck.

TORRE It's not said. Maybe she grabbed the wrist of the... and didn't grab the blade, is it even obligatory that she grab the blade?

PERNA No of course not, but you before if I'm not mistaken said that you substantially imagined that the victim may not have perceived or may not have even seen the knife because it was not a large knife.

TORRE No this is a criteria of general order I wasn't speaking about it for the specific case, it's very frequent in stabbings that the person does not even realize they have been stabbed because they didn't see the knife especially for small knives like this.

PERNA In this case in your opinion did she see or did she not see this knife?

TORRE What? I don't understand.

PERNA In this case here...

TORRE How can I know? I do not know.

PERNA I'm asking an opinion.

TORRE If I was there with someone who held me by the throat and this person puts a hand in their pocket, opens a knife, pulls it out and plants it in my neck I could never have seen it.

PERNA And so when would these micro wounds on the hands have been procured?

TORRE What?

PERNA When would these micro wounds on the hands have therefore been procured?

TORRE I can put a...

PERNA If she was attacked immediately.

TORRE Putting a hand on the throat, they can be produced in any moment, I'm not saying she didn't see it I'm saying she could even have not seen it, I say that she came into contact with that blade, I say probably because for example if that man there had had a watch like mine maybe even an attempt to liberate oneself by grabbing a surface like that could still be compatible with a type of lesion of that kind.

PERNA Listen, as for the right forearm on the other hand, I if I did not see poorly there were some bruises shown by you.

TORRE Yes.

PERNA I wanted to know if also...

TORRE There's a small bruise on a forearm.

PERNA But that one... is that one also from falling or can that be from grabbing or did she just hurt herself falling?

TORRE It could...it's a-specific it could be of any type. A bruise of that kind can be a hit that I catch against a corner, even there however we don't have characteristics of a grabbing in which you'd see counter-positioned bruises, grabbing means to hold a person still and holding a person still means surrounding her in a limb with a squeezing object, violent. How can I have a round bruise like this on the ulnar surface of a forearm and say that it's a grab, I can't say that it can not be derived from a grab but it certainly doesn't have the characteristics of a grabbing wound.

PERNA As far as the wound on the neck on the other hand, the lesion that you indicated obviously with the letter A, the most important wound, before you spoke about accessory incisions ["incisure accessorie"] and if I didn't misunderstand these side incisions are most likely produced from the fact that this knife was inserted at least three times according to what you had said, so I say but...

TORRE Without necessity that it be extracted completely each time in my opinion it remained inside.

PERNA No, anyway there was a movement of the knife.

TORRE Yes.

PERNA My question is this, the movement of the victim's neck could have determined those same side incisions, could it

have...

TORRE It could, it could...

PERNA So you would have shown the same type of wound, that is one would have seen the same type of wound?

TORRE I don't know, we see this wound and I say that while a series of knife stabs that insists at the inside of a wound I like a lot with that series of accessory wounds, a movement of the victim I can even imagine that it happened but movements of the victim should coincide favorably with the circumstances such that they are three times of the same identical type which would seem strange in one that has a knife in their neck.

PERNA And a movement of the hand of the aggressor? Not only that... that is anyway he may have retracted his hand?

TORRE To go back and forth he must retract his hand no.

PERNA No not to go back and forth because the victim moved from one side and the aggressor anyway pulled back the other hand, I'm asking an opinion.

TORRE No, no, ask ask.

PERNA You can also say that it's impossible that I make the gesture. ["piglio atto"]

TORRE What?

PERNA You can also tell me that it's impossible that I make the gesture.

TORRE But I can't say that it's impossible such a senseless question permits me what do you mean... or is it me who has not understood it.

PERNA If the victim has moved their neck and the aggressor...

TORRE And simultaneously the aggressor has moved their hand.

PERNA And didn't reinsert the knife inside this was the question but he practically... that is he pulled his hand back, well, if it's possible or not.

TORRE Yes it's the same question as before I think that is that there may be movements of the victim and I already told you that it's possible but it seems strange that a victim moves three times in the same identical way with the same depth.

PERNA I have no other questions.

PACELLI Professor Torre, Hello, I am the attorney Pacelli of the Civil party Patrick...

GHIRGA What questions can Lumumba's civil party ask?

PACELLI Yes I'll refer Counselor Luciano Ghirga to the scream that his colleague Della Vedova brought up, I simply wanted a medically scientific clarification.

GHIRGA We oppose that type of question.

PACELLI If I may, Mr. President

GHIRGA There's an objection, to the scream which you refer, when she screamed.

PACELLI Yes I am referring expressly to the scream.

GHIRGA We object.

TORRE May I ask the question Mr. President and then we can hear the objection?

MASSEI Go ahead, go ahead, counsel.

PACELLI The question Professor Torre was simply this: From a forensic point of view, the scream immediately before the wound to the neck is possible?

TORRE Of course it's possible, if she doesn't have her mouth closed, certainly.

PACELLI Let's not make alternative hypotheses. I want to know if it's possible, yes or no.

TORRE Yes.

PACELLI While the attack was being launched, the wound was provoked. It is possible without alternative hypotheses.

TORRE I wouldn't know how to respond.

PACELLI Can you exclude it?

TORRE I already said that I do not respond to a question asking me if I can exclude.

PACELLI I understand, back to the question, is it possible? Is it possible that while an attack was being launched, the wound was provoked...

TORRE I already answered...

PACELLI That there may be a scream?

TORRE I already responded that I don't know because it depends on a series of factors.

PACELLI Thank you professor.

MARESCA May I President?

MASSEI Sure, sure.

MARESCA I apologize for the lateness, Hello Professor.

TORRE Hello.

DALLA VEDOVA President, the examination on the part of the Civil Kercher Party was finished.

MARESCA No I showed up when my colleague was concluding.

MASSEI Yes, still the civil party anyway...

MARESCA I asked, I left word...

DALLA VEDOVA It seemed to me that your college had finished and so had passed... he didn't say that then Counselor Maresca would be arriving, I object, making a procedural point, it seemed to me that the examination was finished.

MARESCA There are two civil parties I'll remind you that the civil parties are divided, Counselor Perna is not a substitute.

DALLA VEDOVA Up until now the presence of Counselor Maresca was in substitution of both and had made questions on behalf of all Kercher Civil parties as I understood, Then it was asked on the part of the Lumumba Civil party to cross-examine, now Lumumba's party has finished questioning so...

MARESCA And I inserted myself making my presence known to the President thus asking to speak after Pacelli.

MASSEI However Counselor Perna did even in substitution, in fact she did even when Counselor Maresca had not even come back, however if there are further and different questions we may hear them.

MARESCA Fine, Sorry again for the lateness. Professor a few clarifications I will retract the question if you have already responded, you indicated in other reports of yours given to the G.I.P. during the preliminary hearings... to the G.U.P in the courtroom during the preliminary hearings as principal cause choking, principal cause of death.

TORRE In the very beginning.

MARESCA Sorry?

TORRE In the very beginning.

MARESCA In the very beginning, yes. Did you change your mind or are you still of the same idea?

TORRE In part I changed it.

GHIRGA Not on the merit, my colleague had promised to give up the question if it had already been posed, it was asked in the first phases of the examination and he responded that he corrected even after Introna his conclusion on the relationship between asphyxiation and choking, if we didn't misunderstand...

TORRE No but...

GHIRGA He answered that question, this is all I'm saying.

MARESCA Perfect, then he has aligned himself to the reconstru...

MASSEI In part.

TORRE No but I would like to give a little explanation.

MASSEI Go ahead.

TORRE I simply want to say that at the beginning it seemed like the fracture of the Hyoid bone was from choking, only upon a second time and above all seeing the film and hearing Lalli say "it's been cut". At this point I'd say that the choking has lost significance in the sense that the asphyxiating component is... there was choking, but it is prevalently attributed to the invasion of blood in the airways.

MARESCA Fine.

TORRE It's clear that if I have a hyoid bone completely broken from choking, I would favor the choking.

MARESCA Another clarification also I don't know if you already talked about it, also on this topic, the orientation of the blade in the two wounds the main one and the smaller one on the left side.

MASSEI Yes, yes, he already answered about that.

MARESCA He already spoke about it, perfect.

MASSEI Yes, yes.

DALLA VEDOVA (Off microphone) our colleague asks questions like this, he arrives all of a sudden and asks questions then every time...

MARESCA No, no, but I am giving up immediately therefore occupying only a few seconds. I have no more President thank you.

MASSEI To complete the examination.

DALLA VEDOVA Briefly, President, a few clarifications.

MASSEI Go ahead.

DALLA VEDOVA Professor Torre going back to the bruises on the elbows which have already been fully analyzed do you concur with what was asserted by Professor Bacci, Prosecution expert, who even he, regarding the origin of these elbow bruises at the hearing on April 18 on page 23 he says "the immobilization of the victim occurred by placing force on the arm, the elbow is very uncomfortable to grab therefore they could be compatible with a fall".

TORRE With a fall or hitting against the ground, yes, not from direct grabbing by the hands basically.

DALLA VEDOVA Listen, speaking of the position it seems to me there are two schools of thought anterior and posterior, I'll ask you a question: Are there bruises on the knees, on the front part of the knees?

TORRE I don't think so.

DALLA VEDOVA This is not an objective element that goes against this second hypothesis of the attack from behind?

TORRE Yes it brings to mind this thing I ask myself, effectively if one goes down on their knees easily they'll have if not bruises then abrasions that is superficial abrasions but above all someone attacked in that way and remember here when Dr. Matteini had a chance to write about it she said "there are wounds on the face, from hitting the face on the ground". I would like to be clear that even these, there is no trace of wounds on the face from hitting against the ground therefore there is no sign of a hit on the front.

DALLA VEDOVA Then professor I wanted a clarification about the definition that to this Defense since the beginning has appeared very vague and that is of 'probable identity'. I wanted you to reclassify for me, you already stated this morning, even with images that exist of protocols in reality around the definition of what is a 'probable identity', reminding the Court that 'probable identity' is in reference to the bare footprints. However you had also said in a recent publication from 2009...

TORRE Yes.

DALLA VEDOVA That is edited by the same office as that of Doctor Intini who was here as a witness.

TORRE It's what this writing was about, it's precisely the office.. precisely for probable identification...

DALLA VEDOVA So the question...

TORRE For probable identity they are talking about this correspondence of designs and of character... of special wear marks and things like that which are lacking here, you cannot speak of probable identity anyway.

DALLA VEDOVA So protocols exists with a different definition.

TORRE Well, from what I've seen they exist in terms of shoe prints but not for bare foot prints, I could be mistaken because it's not really my area but I really believe they do not exist.

DALLA VEDOVA Connected to this topic President I wanted to ask you are you aware that a probatory incident on the compatibility of the knife was done and a group of experts arrived at a conclusion that again for us jurors appears very vague or anyway contradictory and I'm referring to the Cingolari Ronchi April forensics report deposited April 18, 2008 where in conclusion is said about the compatibility of the knife, reperto 36, that the only possible judgment is that of non incompatibility ["non incompatibilita"], now what does this definition mean, I... either the knife is compatible or it's not compatible, is this definition included in the protocols for example of this report that was done...

TORRE I would say definitely no, definitely not and it seems I don't know but I can say my opinion then be mistaken, it's of someone who doesn't know... it should say compatible but one doesn't feel quite like saying compatible and so then says not incompatible but I'd say there you have rather than a technically scientific judgment it's a judgment that could be of partial censorship of the use of the Italian language more than...

DALLA VEDOVA Thank you for this clarification. I wanted to also ask you in relation to the defense wounds from your experience, how many cadavers have you seen in your life professor if I may ask you?

TORRE I made a count one time, several thousand anyway surely.

DALLA VEDOVA A few thousand and of homicides, of violent deaths?

TORRE So many.

DALLA VEDOVA So many. There is a correlation between the defense wounds and the incurred hits in a homicide, by this I mean the more hits, the more battle there is, the more defense wounds there are, can one make a reasoning of this type, is this consideration correct?

TORRE I do not believe there are scientific publications on the subject for which I'd say my opinions, it depends a lot on... if there is a rapidly incapacitating wound I would have few of them..

DALLA VEDOVA In this case...

TORRE If I have many wounds that reach me on one side, one on one hip it's clear I may have more time to try to block the injury from the blade, in our case we have an injury which is not immediately incapacitating that at the neck but it is really rapidly we're talking about one minute, one minute is long and one can do many things however...

DALLA VEDOVA I understand, then just one clarification on the knife, you had concluded about reperto 36 that in fact would seem to be too large with a important harmful aspect which doesn't compare with the body and above all in relation to the pathway of 8 centimeters, do your objective evaluations consider in any way a scenario with more than one person? That is, a homicide committed by more than one person or rather do they exclude it?

TORRE But I don't quite understand the question however I want... I say that it is a... I don't understand, excuse me I don't understand what you mean.

DALLA VEDOVA I mean does your evaluation of the knife consider the evaluation surrounding the possible presence of more people? Of homicide by more...

TORRE No. No, it does not consider it.

DALLA VEDOVA Therefore it's only an evaluation based on the objective evidence of the knife and of the wound?

TORRE Of course.

DALLA VEDOVA Very well, Thank you I have no other questions.

MASSEI There are no other questions, sorry just a clarification.

TORRE Please, go ahead.

MASSEI The largest wound that... you said that it had three pathways if perhaps you could better explain these three pathways that is what it means...

TORRE Well the...

MASSEI Did the knife enter the wound three times or did it remain...

TORRE Not three partial pathways, I say that it is very mangled on the inside of this wound, if I had a pathway to the interior of those muscular systems I would have a cutting of muscle, here having gone back and forth a few times I say three pathways because I say one is the first hit, then I have an extraction and re-penetration and I make the incision, I say three because it's really mangled having three incisions from a cutting instrument, from the edge of the knife I can tell that there may be three pathways.

MASSEI These three pathways, where do you see them.. in the photos?

TORRE In the photo, I do not have three incisions I have three, (four) [the word "tre4" appears in original transcript. Perhaps Torre said "Tre, quattro" and the transcriber typed the digit?]... pathways maybe saying the number is a little hasty. So here on the inside it's clear we do not have a lesion from a single stab. There are muscle fibers everywhere, here is a lesion, here it looks like another in-between but most of all upon examination of the surface of the edge of the wound I have this... I have the main incision that is this one here, from where the knife penetrates the edge leaves this very clean incision. When I re-penetrate or I extract or I insert, I create these collateral wounds of the blade, meaning that the cutting edge entered and exited more than once on the inside because if not, it would be impossible for there to be these cuts that are very clean accessory cuts from the edge of the knife.

MASSEI I also wanted to ask you, concerning wound C rather, the second most serious.

TORRE This one.

MASSEI Yes, in this wound we have only one pathway?

TORRE I'd say that in this wound there is only one pathway, the incision is very clean, made by the cutting edge of the blade, there is no evidence which make me think...

MASSEI So could one say there was on behalf of the injurer a different energy?

TORRE There could have been a different energy, let's keep in mind that if what it's true what I think it is, that this hit against the jawbone and I repeat we have three wounds that are all in the same direction, from bottom to top, from top to bottom, there I hit, I injure on the other side there and I find it soft and I insist in that place.

MASSEI So during this activity of aggression the victim was in some way immobilized?

TORRE To say that...

MASSEI And if yes, how?

TORRE In my opinion, well, a person who looms over me and holds me by the face, has the ability to hit me in the neck, I can maybe make some rotation movements of my head.

MASSEI And this movement of the head could have created that mangling...

TORRE But a mangling so...

MASSEI Well excuse me mangling is ugly, let's say these three pathways that maybe brings us back to the category used.

TORRE We would have to imagine an injurer ["feritore"] who holds the knife immobile and I repeat a head that moves more than once in that direction, basically it seems more reasonable to me the action of one hand aiming to injure.

MASSEI Ok, if there are no other questions the expert is dismissed, thank you. We will break until two, two fifteen.